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STATE OF NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION DAY6 October 22, 2014 - 9:05 a.m. Concord, New Hampshire MORNING SESSION ONLY RE: DE 11-250 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE: Investigation of Scrubber Costs and Cost Recovery Commissioner Martin P.Honigberg, Presiding PRESENT: Special Commissioner Michael J. Iacopino F. Anne Ross, Esq., General Counsel Sandy Deno - Clerk **APPEARANCES:** Reptg. Public Service Co. of N.H.: Robert A. Bersak, Esq. Barry Needleman, Esq. (McLane...) Wilbur A. Glahn, III, Esq. (McLane... Reptg. TransCanada Power Marketing, Ltd., and TransCanada Hydro Northeast, Inc.: Douglas L. Patch, Esq. (Orr & Reno) Rachel A. Goldwasser, Esq. (Orr & Reno) Reptg. Conservation Law Foundation: Ivy L. Frignoca, Esq. Thomas R. Irwin, Esq. Reptg. the Sierra Club: Zachary M. Fabish, Esq. COURT REPORTER: SUSAN J. ROBIDAS, N.H. LCR NO. 44

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1	APPEARANCES	(CONT'D):
2		Reptg. Residential Ratepayers:
3		Susan Chamberlin, Esq., Consumer Advocate James Brennan, Finance Director
4		Office of Consumer Advocate
5		Reptg. PUC Staff: Suzanne G. Amidon, Esq.
6		Michael J. Sheehan, Esq. Thomas C. Frantz, Dir. Electric Division
7		Leszek Stachow, Asst. Dir. Electric Div.
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PROCEEDINGS 1 All right. 2 CMSR. HONIGBERG: Is there any business we need to transact 3 this morning? Ms. Amidon. 4 Yes, just a few 5 MS. AMIDON: First of all, I wanted to remind the 6 things. 7 Commission of the order of witnesses. Obviously, we have Mr. Large and Mr. Vancho 8 on this morning. The next witnesses were the 9 witnesses from PSNH, from NERA, Harrison and 10 11 Kaufman. And we anticipate Mr. Reed to be called tomorrow. And, again, we still have 12 our "swing witnesses," as we've been calling 13 14 them, Dr. Shapiro and Eric Chung. And 15 finally, the unknown is, of course, whether 16 TransCanada or any other party will want to 17 recall a witness based on the recently distributed information provided by PSNH. 18 CMSR. HONIGBERG: 19 At this 20 point, does it look like the "swing witnesses" are going to be reached before the 21 22 end, or are they just going to "swing" right 23 to the end? I see Dr. Shapiro in the back wondering the same thing herself. 24

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1 MR. NEEDLEMAN: I think it's 2 really hard to predict. We may have a better sense after lunch today. 3 CMSR. HONIGBERG: All right. 4 5 MS. AMIDON: And one other thing --6 7 CMSR. HONIGBERG: And another thing. 8 Yes. Thank you. MS. AMIDON: 9 Ι have a list of exhibits to which parties have 10 11 reserved objections. Obviously, these are in addition to any documents that the Commission 12 may rule they don't want to include as full 13 evidence in this docket. So I'll read them 14 15 into the record, and then I have -- I want to 16 refer to CLF's attorney to make an argument 17 about some of the documents that were presented yesterday in cross-examination of 18 19 Mr. Hachey. 20 CMSR. HONIGBERG: Okay. 21 MS. AMIDON: So, 12-2 --22 CMSR. HONIGBERG: Just before 23 we go on, is there a particular party that has objected to --24

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1 MS. AMIDON: Okay. Well, yes. First, these are CLF objections, where they 2 reserved the right to object to the admission 3 of these documents as full exhibits. 4 5 CMSR. HONIGBERG: All right. MS. AMIDON: So, 12-2. 6 7 Smagula WHS Rebuttal 16 --CMSR. HONIGBERG: 8 Does that have a number attached to it? 9 MS. AMIDON: It's our 16. His 10 11 rebuttal testimony is ... SP. CMSR. IACOPINO: 12 Exhibit 12-16? 13 14 CMSR. HONIGBERG: Is that what 15 you meant, 12-16? 16 MS. AMIDON: I'm sorry. Yeah. 17 CMSR. HONIGBERG: Okay. MS. AMIDON: 12-17. 18 CMSR. HONIGBERG: Is this also 19 20 CLF? Correct, until I 21 MS. AMIDON: 22 tell you otherwise. 12-18, 12-19, 12-21, 23 12-22, 12-23 and 87. 24 MS. CHAMBERLIN: Where does {DE 11-250} [Day 6/MORNING Session ONLY] {10-22-14}

the 87 come in? 1 MS. AMIDON: 2 That is Exhibit 87. It's Exhibit 87, not 12-87. 3 OCA has objected or reserved 4 the right to object to 11-3, which is an 5 attachment to, I think, the 2012 testimony of 6 7 Smagula, and 18-8. 8 PSNH has reserved the right to object to Exhibit 70. 9 10 And CLF also made a 11 reservation with respect to the Synapse report that's now identified as 29, and for 12 the following the reasons -- and again, I 13 14 will refer to her to complete the argument if 15 I express it incorrectly. But originally, 16 Exhibit 29 was reserved for a CLF exhibit. 17 They were going to offer a Synapse report. We're not sure if the report that was 18 19 admitted by PSNH yesterday is indeed the same 20 report. So we need to get a copy of that and 21 take a look at it, see if it is 29 and see if 22 there's any other objection. 23 CMSR. HONIGBERG: Maybe we'll 24 just let Ms. Frignoca deal with it. Is the  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

objection that it's a different document? 1 2 MS. FRIGNOCA: Would you like me to clarify now? It's fairly simple. It's 3 that we had originally listed a Synapse 4 additional report to the Legislature that was 5 done in early 2009, and then we made it clear 6 7 we were not going to use that exhibit and did 8 not present it here. In cross-examination yesterday, Attorney Glahn said, "Well, we're 9 using Exhibit 29." So there is no 10 11 Exhibit 29. It's a place holder. And we don't know what he used yesterday, and I did 12 not receive a copy of it. 13 14 And so what I'm saying is that 15 I talked to Mr. Glahn's paralegal, Denise, 16 last night, and just asked that they produce 17 copies of it, show it to everyone, and then maybe we just substitute that in the place of 18 19 29, since everybody's been referring to it that way. It's more of an administrative 20 21 issue. 22 CMSR. HONIGBERG: Understood. 23 Fair enough. 24 And since CLF's MS. AMIDON:  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

attorney is talking now ... 1 Why don't you address your 2 concerns about the documents that I think 3 begin with Exhibit 93 that were used in the 4 5 cross-examination of Mr. Hachey. CMSR. HONIGBERG: All right. 6 7 I would ask that you move closer to the microphone because it's really hard to hear 8 9 you. 10 Off the record. 11 (Discussion off the record.) MS. FRIGNOCA: 12 So, my concern with a number of the exhibits yesterday, 13 which were TransCanada documents submitted 14 15 during the cross-examination of Mr. Hachey, 16 was that they were documents that seemed to 17 pertain to Canadian situations, particularly from Western Canada. There was no reference 18 19 whether they were in Canadian dollars or 20 American dollars. Many of the exhibits were 21 not complete. They were just pages taken out 22 of lengthy documents, so there's no context 23 within which to gauge the statements. And 24 they are also documents that appear to

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continue well after the 2008, 2009 time 1 frame, when all of the witnesses have 2 testified the decision-making about whether 3 to proceed with the Scrubber should have 4 5 occurred. So I object to the exhibits: 6 7 One, because they're not complete; and two, 8 because they appear to have limited, if no relevance. And if the intent is solely to 9 discredit Mr. Hachey, I think they also have 10 11 very limited relevance for that purpose and don't seem to me to be something that should 12 be considered by the Commission in any motion 13 to draw an adverse inference about his 14 15 testimony concerning events in early 2008. 16 CMSR. HONIGBERG: Mr. Glahn. 17 MR. GLAHN: First of all, they were used for cross-examination. 18 Secondly, the documents -- Ms. Frignoca is correct that 19 20 certain pages of the documents deal with 21 Canadian gas or western Canadian gas. But 22 the questions that I asked -- for the most

part, the questions I asked Mr. Hachey

23

24

related to shipments to the East and -- to

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the Eastern United States. To the extent 1 that certain pages of the documents were not 2 included, it's because I only wanted to ask 3 Mr. Hachey about information on one or two 4 I didn't want to 5 pages of the documents. clutter up the docket with extra pages if I 6 7 didn't need to. If for some reason the issue is incomplete pages, I'm more than happy to 8 go back and substitute the full exhibit. 9 But I don't think that's necessary because the 10 11 purpose was cross-examination to ask Mr. Hachey about a particular document. 12 Now, if the issue is no 13 14 documents come in to this proceeding, except documents in the time frame of 2009 -- or 15 16 2008 to 2009, that's a different issue. Ι 17 think there's a lot of those documents in the 18 record already. And the purpose of these 19 documents was largely to show for that time 20 frame, first of all, on the fracking issue. 21 That was designed to show that TransCanada, 22 even during the period of 2010, 2011, and as 23 late as 2012, was taking a very different position from the position that Mr. Hachey 24

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took in his testimony. And so they weren't 1 designed to show that somehow we think 2 projections at that period are necessarily 3 relevant, but, A, TransCanada had them; and 4 5 B, that on information related to fracking, even that late, TransCanada was taking a 6 7 different position. 8 So, I think they are relevant. I think they are certainly fair game for 9 cross-examination. And they were also 10 11 designed to show that TransCanada had public information within its possession that it did 12 not produce in this case. 13 14 CMSR. HONIGBERG: Does any 15 other counsel want to weigh in on this? Yes, 16 Ms. Goldwasser. 17 MS. GOLDWASSER: Just to echo what Attorney Frignoca said and to further 18 enunciate it. I think the testimony on the 19 20 stand was clear, that Mr. Hachey didn't know 21 what the documents were referring to, and 22 he -- we don't have any other witnesses that, 23 at least to date, have explained what the documents meant, if they were referring to 24

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the same kind of fracking that's at issue in the United States. We don't know if some of the documents are referring to fracking in Canada that's related or unrelated. We don't know if the prices are Canadian prices or American prices. We don't have contact for the information. Mr. Hachey was unable to explain it.

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So I think that the point here 9 is that Mr. Glahn used those documents for 10 11 cross-examination, but the documents can't be used for the fact of the matter asserted. 12 There's no foundation for what they mean or 13 14 for what they're intended to demonstrate. 15 So, I think that's really the source of the 16 objection. And he can use them for 17 cross-examination purposes, and the Commission can draw whatever conclusions it 18 wants to draw about that. But in terms of 19 20 the fact of the matter asserted in those 21 documents, we just don't know what those 22 facts are. 23 CMSR. HONIGBERG: Anyone else want to weight in on this? 24

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MR. GLAHN: If I may just say 1 one other thing? Actually, if no one else 2 3 does. CMSR. HONIGBERG: Does anyone 4 else want to speak for the first time? 5 Let's let Ms. Frignoca go next, in between --6 7 MR. GLAHN: Yeah, sure. 8 MS. FRIGNOCA: Just to clarify a point -- because I am not finished this 9 beverage in this container, and I may not be 10 11 as articulate as I'll be later in the day -but the point that I was making about the 12 2008-2009 time frame is that this Commission 13 has already ruled that it will consider 14 15 evidence up through the date that the Scrubber went into operation. 16 So I 17 understand that there's some evidence that will go in after that time frame. 18 But what Mr. Hachey was 19 20 testifying to is that he would have made a 21 decision in September of 2008 not to proceed 22 with the Scrubber. So, asking him about 23 documents that relate to entirely different matters, in an entirely different country in 24  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

2010 and 2011 should not have a lot of 1 bearing on whether to draw an adverse 2 inference against him, and should certainly 3 not be relevant to this Commission's 4 determination of what information was 5 available to PSNH in 2008 and 2009 before it 6 7 proceeded to install or begin major construction on the Scrubber. 8 CMSR. HONIGBERG: 9 Before you go, Mr. Glahn, the record will reflect that 10 11 the cup she held up, referring to the beverage, appears to be a coffee cup. 12 [Laughter] 13 14 MR. GLAHN: So, first of all, 15 all these objections could have been raised 16 during Mr. Hachey's testimony yesterday, at 17 which point it would have been easier to clarify some of the questions that they're 18 raising. However, Mr. Hachey never said, "Oh 19 I don't understand this document because it's 20 21 in Canadian dollars or other dollars." And in one instance in which he wanted to make 22 23 the point that the chart only referred to Western Canadian Sedentary Basin gas prices, 24

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he made the point. 1 There were two issues I was 2 driving at: One is, PSNH -- or TransCanada 3 was making projections of gas prices that 4 were inconsistent with Mr. Hachey's 5 testimony, and secondly, the issue of 6 7 fracking. Those two things were not, in these documents, in any way specific to 8 Canada or Canadian prices. And the documents 9 should be clear on their face as to whether 10 11 it's a Canadian price or U.S. price. But, again, there was no testimony on that at all. 12 If the only issue is gas price 13 projections in 2008 and 2009, that would seem 14 odd because, of course, TransCanada has been 15 16 asking and has made a big deal about EVA documents from 2010 and 2011. 17 I think I made the point 18 19 yesterday about the adverse inference. Ι 20 won't go through it again today, except to 21 say that these documents are highly relevant 22 to that question. They were used for 23 cross-examination, and the Commissioners can take their own view of that for how they were 24

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used. But I don't think there was any 1 contemporaneous objection to the nature of 2 the questions or the documents; and where 3 there were, we sort it out. So it's a little 4 bit late now to be doing that. 5 (Commissioners conferring.) 6 7 CMSR. HONIGBERG: We're going 8 to overrule the objections to the documents we've just been discussing, the exhibits that 9 were used with Mr. Hachey yesterday. 10 11 Do we want to take up discussion of the other documents right now, 12 or is it -- Ms. Frignoca. 13 MS. FRIGNOCA: 14 I have two 15 clarifications. One is, are we now able to, 16 despite the Commission's rules, enter just 17 pages from an exhibit on cross-examination, so that parties don't have a full and fair 18 19 opportunity to read the whole document and to 20 redirect. And the second question that I 21 have is, I thought I was instructed by the 22 Commission not to raise objections to 23 exhibits and that there would be a separate section like this. So I didn't belabor 24

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cross-exam yesterday, and I just would like 1 clarification going forward whether the 2 Commission would now like to have 3 contemporaneous objections or not. 4 Ms. Amidon. 5 CMSR. HONIGBERG: MS. AMIDON: All I wanted to 6 7 do is to confirm what was just said. We have 8 discussed among ourselves, and PSNH was well aware of that, that we were trying to sort 9 out the issue about objecting to exhibits. 10 11 And I specifically sent out an e-mail to the parties on Friday saying, "Please identify 12 those exhibits to which you would object." 13 14 Obviously, they didn't include the ones that 15 were brought up yesterday. So, our 16 understanding was that the exhibits would not 17 be objected to when they were proffered, but we would have an opportunity to argue about 18 them at a later point. 19 20 CMSR. HONIGBERG: That's So, that reason that Mr. Glahn 21 correct. 22 articulated, that you should have made these 23 arguments yesterday, that's not the reason. The contemplation was that we would have a 24

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separate discussion about the documents apart 1 from when they are offered, which is the 2 practice here before the Commission, rather 3 than get into discussions about the 4 admissibility of documents contemporaneously 5 and deal with them as a group at the end. 6 But the lawyers have made a good point here, 7 that if there is a problem identified, it 8 would be nice to be able to fix it earlier 9 than at the end of the proceeding, and that's 10 11 sort of what we're doing right now. But the more substantive 12 grounds are overruled. 13 14 To the extent you want a 15 complete version of the document, Mr. Glahn 16 has said they will provide full copies of the 17 exhibits -- rather, of the documents that they used. And if, after looking at that, 18 19 you conclude that something else needs to be 20 done with the document, we can go that way. 21 I mean, if the lawyers want to deal with 22 exhibits as we go, we can do that. I mean, 23 that's -- lawyers who practice in the courtrooms are used to doing that. 24 So we can  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

certainly do it here, but it's not been the 1 2 practice here. I didn't see lots of shaking 3 of heads, so it doesn't sound like we want to 4 do that. 5 Ms. Chamberlin. 6 7 MS. CHAMBERLIN: I was just 8 going to weigh in. We've been dealing with expert witnesses and scheduling and trying to 9 10 fit everybody in, and that's one of the 11 reasons why we just did it as marking it as exhibits. So I think we should continue that 12 13 way. CMSR. HONIGBERG: And I will 14 15 remind everybody of what you already know, 16 that the Rules of Evidence don't apply here, 17 as Ms. Goldwasser also pointed out and Mr. Glahn pointed out, and a couple others did. 18 We can take these documents and give whatever 19 20 weight we deem appropriate to them, with the 21 limitations that you all have identified on 22 their usefulness. 23 So, with respect to the 24 documents we've just been discussing, those {DE 11-250} [Day 6/MORNING Session ONLY] {10-22-14}

exhibits used with Mr. Hachey, those are 1 If you want full 2 going to come in as marked. copies, folks from PSNH will provide them to 3 anyone who wants them. 4 Yes, Ms. Amidon. 5 MS. AMIDON: This relates to 6 7 the exhibits, too. I believe Mr. Glahn was going to correct Exhibit No. 99, which was 8 that cover page of a notice from the Senate 9 Committee regarding the hearing, and then 10 11 attached to it were some random pages which appeared to be only a partial document and 12 which he didn't reference in his 13 cross-examination. So I was trying to 14 15 determine whether that was the single page is 16 Exhibit 99 or if it's the entirety of what he 17 provided yesterday? CMSR. HONIGBERG: 18 Ms. 19 Goldwasser. 20 MS. GOLDWASSER: Attorney 21 Glahn's paralegal, Denise, and I had a 22 conversation about that after the hearing 23 yesterday. And my understanding from her --24 and I believe she had spoken with Attorney

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1 Glahn -- was that the document would be replaced with the full document. And she and 2 I identified where to find that, and I 3 believe that will happen. 4 Is that correct? 5 MR. GLAHN: As you'll notice, 6 7 Denise isn't here this morning. She promised never to talk to me again. 8 9 [Laughter] MR. GLAHN: But our librarian 10 11 just e-mailed me that she has just left the State Archives and is going to drop off all 12 the pages of that exhibit at the front desk 13 14 of the PUC today. So we should have them 15 momentarily. 16 CMSR. HONIGBERG: All right. 17 Yes, Ms. Goldwasser. MS. GOLDWASSER: I have one 18 more question. The Chair indicated that we 19 20 can request full documentation from Attorney Glahn of partial documents that were provided 21 22 yesterday. If a party wishes to replace the 23 partial document with the complete document, 24 can we find a time to do that? In other

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words, at this point, I don't know what I'd 1 do with a full copy of the document because I 2 don't have a witness to bring it in with. 3 So, for example: Some of the partial 4 5 telephonic conferences. I'm going to need to review those and determine whether I would 6 7 like the Commission to be able to see the 8 more complete document. I guess I'm just querying the Commission how to deal with that 9 if it happens, or at least providing a place 10 11 holder for the issue should it arise. CMSR. HONIGBERG: You've 12 identified it as an issue. I think if it 13 14 becomes a problem, it's the kind of thing you discuss with all the other lawyers in the 15 16 case to see if you can work something out; 17 and if you can't, you ask the Commissioners to rule on something, a request that is fully 18 19 formulated and appropriate for the situation 20 that you find yourself in. But at this 21 point, we don't have a situation, so I don't 22 think I can give you any guidance beyond 23 that. Do we want to discuss other 24

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exhibits at this time or let Mr. Vancho and 1 2 Mr. Large continue? They are waiting patiently to my right. 3 (No verbal response) 4 5 CMSR. HONIGBERG: Sounds to me like Mr. Sheehan -- I'm sorry. Someone else? 6 7 Oh, I'm sorry. 8 MS. CHAMBERLIN: Well, I was going to recommend that we go ahead with the 9 witnesses. 10 11 CMSR. HONIGBERG: Excellent idea. Mr. Sheehan, I think you are up. 12 MR. SHEEHAN: 13 Thank you. 14 CROSS-EXAMINATION (CONT'D) BY MR. SHEEHAN: 15 Two points to pick up from yesterday and then 16 Q. 17 on to new stuff. There was testimony about the net result 18 of the incentives provided for in the 19 Scrubber Law. And I think the incentives 20 21 were largely related to the SO2 credits that 22 were hopefully going to flow from the 23 Scrubber; is that correct? (Mr.Large) Yes, Mr. Sheehan. And I 24 Α. {DE 11-250} [Day 6/MORNING Session ONLY] {10-22-14}

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1		apologize. I went a bit far afield talking
2		about SO2 bonus allowances. But in the
3		entire Clean Power Act, there were many
4		incentive mechanisms that were included. But
5		as relates particularly to the Scrubber Law,
6		it was really about conversion to SO2
7		allowances, yes.
8	Q.	And as you said, PSNH was able to take
9		advantage of those incentives. But the
10		result was a, I think your word was,
11		"miniscule" benefit?
12	A.	(Mr. Large) Yes. Very, very limited.
13		Correct.
14	Q.	The other thing I wanted to circle back to
15		was the 2008, the fall of 2008 report. We
16		were looking at the copy that's Attachment 9
17		to Mr. Long's deposition. And I had asked
18		you yesterday questions about the role that
19		natural gas prices played in some of the
20		analyses referenced in that document. Do you
21		recall that exchange?
22	A.	(Mr. Large) I do.
23	Q.	The page I pointed to you was Page 14. You
24		don't have it there?
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# [WITNESS PANEL: LARGE|VANCHO]

1	Α.	(Mr. Large) Just a moment, if I may. I have
2		a copy in front of me, yes.
3	Q.	We were looking at Page 14 in that
4		Attachment 9, Page 14 to Mr. Long's depo,
5		which is a September 2008 report. And I had
6		asked you what role natural gas prices had
7		played in the analysis reflected under Roman
8		III. And you basically said "none," because
9		that was evaluation of the cost to run the
10		plant with the Scrubber. Is that a fair
11		characterization?
12	Α.	(Mr. Large) That is correct.
13	Q.	However, if you turn to Page 15, the very
14		bottom under E, there is a reference to the
15		"assumed natural gas price that is carried
16		throughout these proceedings of \$11,
17		escalating at 2-1/2 percent." Do you see
18		that?
19	Α.	(Mr. Large) I do.
20	Q.	And that is a slightly different analysis
21		that you're doing in that report than is
22		reflected on Page 14; is that right?
23	Α.	(Mr. Large) Different than on 14. It
24		would well, different than Roman III. It
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1		would begin with Roman IV.
2	Q.	And a brief description of what the Roman IV
3		analysis was, that did include some reference
4		to natural gas prices.
5	Α.	(Mr. Large) Those pertain to analyses
6		associated with purchases from the market.
7		And we utilized natural gas price as a proxy
8		for developing a future market price for
9		energy. And secondly, consideration of the
10		construction of natural gas-fired,
11		combined-cycled power plant to produce
12		capacity and energy for the market, the \$11
13		per million Btu price was the basis for
14		fueling that.
15	Q.	Okay. A few questions there. Is it fair to
16		say that, because the role that natural gas
17		plays in the electric generation in New
18		England, it is a fair, as you say, "proxy"
19		just to look at the natural gas price and
20		say, in effect, that's what the energy price
21		will be, some correlation to the gas price?
22	Α.	(Mr. Large) Yes.
23	Q.	And it's a pretty direct correlation.
24	Α.	(Mr. Large) Typically, yes, most hours of the
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1		year.
2	Q.	And so the analysis you're doing on pages
3		under Roman IV is you're comparing the cost
4		of the Scrubber of the plant with the
5		Scrubber to other alternatives.
6	Α.	(Mr. Large) Correct.
7	Q.	One being buying power from the market, which
8		would be largely set by the natural gas
9		price.
10	Α.	(Mr. Large) Yes.
11	Q.	And another being building your own natural
12		gas plant and all the costs involved in that.
13	Α.	(Mr. Large) Well, building a regulated
14		natural gas plant, not utilizing regulated
15		criteria, in terms of cost of capital and
16		financing. So it wasn't necessarily PSNH
17		positing that it would build one.
18	Q.	Right.
19	A.	(Mr. Large) There was another alternative
20		that was considered, and that was the
21		construction of a coal-fired power plant.
22	Q.	And the net result of the analysis under
23		Roman IV, I believe, is your statement under
24		Paragraph I on Page 16, which says that the
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1		Merrimack Station with the Scrubber is in the
2		best economic interest of PSNH's customers;
3		is that correct?
4	A.	(Mr. Large) Yes. And that's based upon the
5		numbers shown in letter H.
6	Q.	Right. And those numbers shown in letter H,
7		you say that you compared things and you
8		conducted sensitivity analyses, and some of
9		those tests did involve or did some of
10		those tests involve varying the assumed price
11		of natural gas to see what effect natural gas
12		would have on the conclusions in H and I?
13	A.	(Mr. Large) Absolutely.
14	Q.	And so the report that you gave to the
15		Commission in this document in the fall of
16		'08, No. 1, assumed a natural gas price, but
17		did test variations of natural gas price to
18		see what would happen if those prices varied.
19	A.	(Mr. Large) It assumed sensitivities on
20		really four parameters: The cost of the
21		construction of the Scrubber, or other
22		capital additions; the cost of natural gas;
23		the cost of coal; and the cost attributable
24		to CO2 compliance. Those are the prime
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# [WITNESS PANEL: LARGE|VANCHO]

1		sensitivities.
2	Q.	And why was not natural gas one of those?
3	A.	(Mr. Large) It was.
4	Q.	I'm sorry. Went right by me.
5	A.	(Mr. Large) It was the second one.
6	Q.	I'm sorry.
7		Okay. Now stepping to a slightly
8		different topic. Back in the 2006 time frame
9		when the Scrubber Law was passed, the Company
10		did not do an economic analysis of the
11		customer benefits flowing from the Scrubber;
12		is that correct?
13	A.	(Mr. Large) There were cursory analyses that
14		were prepared to try and provide some
15		directional assessment of how this would
16		work. They were not detailed net present
17		value of revenue requirements analyses. They
18		were intended to be simplistic, directional,
19		economic views of fundamentally, it was
20		the costs associated with operating a
21		Scrubber that only took care of mercury, and
22		there was no benefit attributable to anything
23		else, recognizing that, in this case, with
24		the Scrubber that would remove SO2 and
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1		mercury, there was going to be additional
2		benefit.
3	Q.	Okay. And then you did the analysis in the
4		spring of 2008 that we've been talking about
5		here.
6	Α.	(Mr. Large) Summer of 2008, yes.
7	Q.	Okay. And why was the analysis done then?
8		What triggered it?
9	Α.	(Mr. Large) As we indicated previously, it
10		was required as part of our corporate
11		procedures to proceed before the RaCC and to
12		identify the risks inherent to the Company of
13		going forward with the Project, and our
14		overall discussion of what the Scrubber
15		Project meant to the Company.
16	Q.	But was there any magic to the summer of '08
17		rather than the summer of '07, or the fall of
18		'06?
19	Α.	(Mr. Large) Yes.
20	Q.	What was that?
21	Α.	(Mr. Large) The timing associated with the
22		analyses coincided with the receipt of final
23		bids and the opportunity for us to put
24		together a comprehensive assessment of what
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1the price was going to be. That really was2the triggering event that moved us into a3reporting to RaCC, reporting to the board,4and then subsequently coming to visit Staff5and OCA here.6Q. So, earlier in '08 you learned fairly7definitely the price was \$450 million, or8whatever it is, and that's the number you're9likely going to spend. So, now you need to10get your approvals, now you do analysis. Is11that a fair12A. (Mr. Large) Over the second quarter of 2008,13as information with respect to cost was14coming in, it was being assembled, being15analyzed, being evaluated, being added16together, and it culminated in Mr. Smagula17will probably be able to tell us better18specifically but late May or early June, a19definition that we were going to be utilizing			
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	17		will probably be able to tell us better
19 definition that we were going to be utilizing	18		specifically but late May or early June, a
	19		definition that we were going to be utilizing
20 \$457 million as the Project cost.	20		\$457 million as the Project cost.
21 Q. And in the economic analysis you did for	21	Q.	And in the economic analysis you did for
22 those June meetings, you said yesterday that	22		those June meetings, you said yesterday that
23 you did not go back and update it from that	23		you did not go back and update it from that
24 point forward; is that correct?	24		point forward; is that correct?

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# [WITNESS PANEL: LARGE|VANCHO]

1	A.	(Mr. Large) That is correct.
2	Q.	So you did not update it for the September
3		'08 report that we've been going over this
4		morning that was given to the PUC.
5	A.	(Mr. Large) The cost of the Scrubber, the \$11
6		per million Btus for gas, we did not change.
7		We kept those consistent.
8	Q.	And the same for spring of '09, when there's
9		consideration of legislation; there was no
10		update then to provide the PUC or
11		policymakers with any updated information as
12		of then; is that correct?
13	A.	(Mr. Large) There was. May I explain the
14		rationale?
15	Q.	Sure.
16	A.	(Mr. Large) At the time of these
17		presentation/discussion documents, reviews at
18		the RaCC or at the board, or even here with
19		the Commission Staff and OCA, we were very
20		much in an analysis and informing and
21		informational mode. With the Commission's
22		secretarial letter in late August, you know,
23		that really changed things. We knew then we
24		were very much into what I would call

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### [WITNESS PANEL: LARGE|VANCHO]

1		"compliance mode," where we were responding
2		to what it is that the Commission was seeking
3		from us, and we did so. So, you know, there
4		was a change, a shift in what the
5		communication and analysis requirements were
6		at that point in time.
7	Q.	But did you go back well, I'll move on.
8		The SO2 credit price that was used
9		during the '06 discussion, as you testified,
10		ranged from \$500 to \$1500 per ton estimates.
11	Α.	(Mr. Large) Yes.
12	Q.	And the SO2 price that you used it appears
13		that the SO2 price you used in your spring or
14		summer of '08 analysis was \$500 a ton.
15	Α.	(Mr. Large) That's correct.
16	Q.	And that's reflected, for example, in those
17		PowerPoint presentations, I think to the
18		Staff, that either you it's written "\$500
19		a ton," or I think Mr. Mullen wrote a note
20		that someone told him it's \$500 a ton. Do
21		you recall seeing that?
22	Α.	(Mr. Large) That would have been part of my
23		conversation during that presentation or
24		discussion.
	-	

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1	Q.	In this presentation in June of '08, you are
2		essentially saying that the Scrubber, as we
3		now understand it, will result operation
4		will result in customer benefits.
5	Α.	(Mr. Large) Yes.
6	Q.	And did those customer benefits include
7		whatever payments you expected to receive
8		based on \$500 a ton for SO2?
9	Α.	(Mr. Large) In terms of the bus bar cost
10		associated with the Scrubber, it would. But
11		recognize that we were making comparison
12		cases. So, the Scrubber operating and
13		essentially eliminating SO2 emissions, in
14		comparison to a market price, the market
15		price would have whatever consideration for
16		SO2 costs would be in that as well. So it
17		really is a comparison case. So, yes, it's
18		in there. But in terms of it providing
19		benefit, it's a bit diluted because of the
20		comparative nature.
21	Q.	And let me clarify that because I'm not sure
22		I quite followed.
23		So, the assumption in June of '08 was
24		\$500 ton. If we were to assume in June of
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1		'08 it was zero dollars a ton, would that
2		have changed your basic statement that the
3		Scrubber is will result in customer
4		benefits?
5	A.	(Mr. Large) No.
6	A.	(Mr. Vancho) No, I don't believe it would.
7		Again, the
8	A.	(Mr. Large) It would not have changed.
9	A.	(Mr. Vancho) It would not have changed the
10		base-case present value numbers that we
11		shared. And I guess I can explain a little
12		bit.
13		Following up on Mr. Large, again, we
14		were doing an analysis that compared the
15		"all-in costs" of the plant, what existed at
16		the time plus the new capital dollars
17		associated with the Scrubber, and we were
18		comparing that to market. When the in
19		your example, where the SO2 costs go from
20		\$500 to zero, in either case, the costs are
21		eliminated from the all-in cost, whether it's
22		because of the Scrubber or because the cost
23		went down. So, in either case, they're not
24		there. We're still comparing that all-in
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1	cost to market can still be lower. May not
2	be the exact number, but more or less. Not a
3	material change.
4	Q. And we know now well, we know now that, as
5	you said yesterday, the SO2 price did
6	collapse down to effectively zero for the
7	last few years; is that correct?
8	A. (Mr. Large) Yes, that is true.
9	MR. SHEEHAN: And to complete
10	the record, I put on everyone's desk and in
11	front of the Commissioners a graph showing
12	the SO2 prices, which I'd like to mark, I
13	believe, 117?
14	CMSR. HONIGBERG: Right.
15	(The document, as described, was herewith
16	marked as Exhibit 117 for identification.)
17	BY MR. SHEEHAN:
18	Q. And this was in an article I showed you
19	yesterday. And you kindly pulled out the
20	diagram and brought copies of the diagram for
21	me this morning.
22	And is that your understanding of the
23	SO2 spot price over the years shown in that
24	chart?
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1	Α.	(Mr. Large) I believe it to be true, based
2		upon the source information down at the
3		bottom. Zero is zero, that's for sure. But
4		let's recognize that these prices that are
5		shown are in 1995 dollars. So if we're
6		trying to pick data points off this chart,
7		there's a little arithmetic that would be
8		necessary.
9	Q.	Understood. So what you're saying is, we may
10		not be able to put an exact date with an
11		exact dollar amount, but this at least shows
12		the price spiked way above \$1,000 in '05-ish
13		and went down under \$200 in '08.
14	Α.	(Mr. Large) Yes. The spike shows in 1995
15		dollars just over \$1200. In nominal dollars,
16		it was in excess of \$1400, so
17	Q.	And the footnote for the source data has
18		Cantor Fitzgerald providing the data through
19		September 11, 2001 when disaster struck.
20		So what you're saying, then, is the
21		report of the summer of '08, your economic
22		analysis that assumed \$500 a ton, we know
23		about it was still falling, and perhaps a
24		month or two or three later it was way below
	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

1		\$500. That does not change your ultimate
2		conclusion of the net economic benefit; is
3		that fair?
4	Α.	(Mr. Large) Well, I agree that it does not
5		change materially, substantially the economic
6		benefit.
7		But I do want to step back and say that,
8		with the \$500 SO2 allowance assumption that
9		was made at that point in time, as you see on
10		this graph, many things were going on. In
11		the full report, there's a discussion about
12		what took place in the courts at that
13		juncture in time. And it would be fair to
14		say that there was still full expectation at
15		that point in time that SO2 allowance prices
16		were not going to tank but instead rise. The
17		expectation that there would continue to be
18		an SO2 cap and trade program of some sort or
19		another and that there were additional
20		limitations on SO2 emissions expected, that
21		was clearly our full expectation. I would
22		say it was our environmental regulators'
23		expectations. I think it would have been
24		everyone's expectations. But it was a result
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1		of actions and inactions that this market
2		essentially collapsed. I think that's my
3		takeaway from a review of the article.
4	Q.	To be clear, the article I shared with you
5		yesterday gives a historical view of why the
6		prices collapsed. And, as you say, it's many
7		different factors, including courts and other
8		things.
9		But the point here is, that I'm trying
10		to explore, is the assumption of a \$500 SO2
11		price turned out to be wrong. It went
12		basically to zero. And I'm trying to ask, if
13		you had assumed a zero SO2 price for your
14		summer '08 calculation, how that would have
15		affected your net customer benefit. It
16		sounds like you're saying it wouldn't.
17	A.	(Mr. Large) It would not have significantly,
18		no. Not in the least. I'm just I
19		apologize if I'm being sensitive to defending
20		our assumptions.
21	Q.	Another assumption in your summer of 2008
22		report was a continued high capacity factor
23		for Merrimack Station; is that correct?
24	A.	(Mr. Large) Yes. We fully anticipated that
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1		Merrimack Station would continue to dispatch
2		ahead of natural gas-fired units and that,
3		therefore, would maintain a capacity factor
4		consistent with its history.
5	Q.	And I know some of the numbers have been
6		tossed around. What's your what would
7		that approximate capacity factor be?
8	Α.	(Mr. Vancho) In the model, it's 86 percent.
9	Q.	Eighty?
10	A.	(Mr. Vancho) Eighty-six.
11	Q.	The last topic I want to turn to is the June
12		'08 meeting with Staff and the
13	Α.	(Mr. Large) Are we finished with this?
14	Q.	Yes.
15		MR. PATCH: Mr. Chairman, just
16		a minor clarification. I thought it was a
17		July 30th, '08 meeting with Staff. Unless
18		there's a different one in June. Mr. Sheehan
19		referred a couple times to a "June meeting
20		with Staff."
21		CMSR. HONIGBERG: Mr. Sheehan,
22		you are referring to the same meeting; are
23		you not?
24		MR. SHEEHAN: Yes. I'm sorry
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1	July 30. So my prior references to "June"
2	are inaccurate.
3	BY MR. SHEEHAN:
4	Q. Mr. Frantz asked me one more question
5	regarding the SO2. He has shown me Mr.
6	Nolan's letter of January 12th, 2006, which
7	is Attachment 1 to Mr. Mullen's testimony.
8	You don't need to pull it out unless you have
9	a particular question on what I'm going to
10	read you.
11	Mr. Nolan wrote: "The use of this
12	technology," meaning the Scrubber, "not only
13	reduces mercury very efficiently (greater
14	than 90 percent in most applications), but it
15	is highly effective in removing sulfur
16	dioxide and small particles." And here's the
17	part that I want you to pay attention to:
18	"This co-benefit of reducing three pollutants
19	simultaneously with the same equipment
20	reduces implementation costs by allowing PSNH
21	to significantly reduce purchasing SO2
22	emission allowances, saving greater than an
23	estimated \$25 million per year."
24	Again, this is part of my confusion. It
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1		seems like that's \$25 million a year that
2		will come off the bottom line that you don't
3		have anymore when the SO2 credits collapsed.
4		Why is that what am I missing? You see
5		when you read this letter, you understand
6		what it sounds like.
7	А.	(Mr. Large) So, the comparison case in that
8		example, then, is operating Merrimack Station
9		without a Scrubber, continuing to emit SO2
10		and mercury, and paying those costs. That's
11		not any of the examples considered here.
12	Q.	Okay.
13	A.	(Mr. Large) There was not an option to
14		continue to run Merrimack without the
15		Scrubber and continuing to emit SO2. In
16		order to comply with the law, we needed to
17		install the Scrubber and not emit mercury and
18		SO2 by 2013.
19	Q.	But wouldn't that if you don't have to pay
20		that \$25 million a year, that comes right off
21		your revenue requirement for the plant;
22		right?
23	A.	(Mr. Large) It would if we could have assumed
24		that we saved that money while operating
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1		Merrimack Station without the equipment,
2		without the addition of the Scrubber. So
3		maybe I'm not explaining it well.
4		The comparison case from which that
5		savings that Mr. Mullen refers to would be
6		continuing to run Merrimack as it was,
7		continuing to emit SO2 and mercury,
8		continuing to have to buy SO2 allowances. We
9		installed the Scrubber instead or the
10		analysis was about installing the Scrubber
11		instead. Therefore, those costs would not
12		occur as SO2 costs SO2 emissions cost.
13		But there was no case that we analyzed here
14		that was a base case of "run Merrimack as it
15		was before."
16	Q.	So, let's just I have a simplistic
17		example. Let's just take the \$25 million a
18		year for SO2, and let's just say all the rest
19		of the operating costs are \$30 million. So,
20		before you build a Scrubber under the
21		existing rubric, you're paying \$55 million a
22		year to run Merrimack Station.
23	A.	(Mr. Large) Yes.
24	Q.	Now you build a Scrubber. Now you don't have

1		to pay that \$25 million a year anymore; so it
2		should cost \$30 million to run Merrimack
3		Station.
4	Α.	(Mr. Large) If I didn't have to do anything
5		else, yes.
6	Q.	Right. And I understand that, the original
7		argument or one of the original arguments
8		of the Scrubber Law is we are now spending 30
9		instead of 55. We can use some of that
10		savings to, in effect, pay for the Scrubber.
11	A.	(Mr. Large) Correct.
12	Q.	So the net result is we have a Scrubber,
13		let's say that cost \$10 million. So, now
14		we're spending 40 million with the Scrubber
15		rather than spending 55 before. And why is
16		that not what's wrong with that? I
17		understand it's very simplistic.
18	Α.	(Mr. Large) I think your assessment is
19		accurate. But what's not analyzed in any of
20		the reports that we've prepared is the first
21		scenario that you presented, and that was
22		\$25 million of SO2 emissions costs and
23		\$30 million of operating costs.
24	Q.	Okay. I think we've
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1	SP. CMSR. IACOPINO: I'm
2	sorry. Can you say that again? I missed
3	your statement.
4	WITNESS LARGE: Certainly.
5	There is no analysis that we've done and
6	presented here that assumes that there's a
7	case where Merrimack Station ran as it
8	essentially did in 2006, that had, to Mr.
9	Sheehan's example, \$25 million of SO2
10	emissions costs and \$30 million of operating
11	costs. That's not a case that could be
12	analyzed because the law prohibited it.
13	SP. CMSR. IACOPINO: Thank
14	you. And I'm sorry that I missed the first
15	part of your statement.
16	WITNESS LARGE: And I
17	apologize if I've not been clear.
18	BY MR. SHEEHAN:
19	Q. But wasn't that \$25 million savings used as a
20	justification for the Scrubber Law? I mean,
21	at least earlier when the prices are high, I
22	recall, you know, "It will pay for itself,"
23	phrases to that effect.
24	A. (Mr. Large) And there's an exhibit, if you'd
	${DE 11-250}$ [Day 6/MORNING Session ONLY] ${10-22-14}$

1		like for me to find it, that we prepared
2		on demonstrated there was a cost
3		associated with installing the Scrubber,
4		assumed to be \$250 million, and that there
5		would be a net benefit of eliminating SO2
6		costs, yes. That was the comparison case at
7		that point in time of continuing to run as we
8		were versus what it would be in the
9		Scrubber with the Scrubber. When we moved
10		to these analyses, all right, that case of
11		running Merrimack as it was, not removing
12		SO2, that no longer exists.
13	Q.	Because now we have a law that says you have
14		to do it.
15	Α.	(Mr. Large) That's correct.
16	Q.	And if you had done the analysis in '08, and
17		one of your options was, "We don't have to
18		follow the law and reduce mercury," this
19		would have been another line item in your
20		comparison. I understand that's a
21		hypothetical.
22	А.	(Mr. Large) And not one that we would have
23		considered, in that it was outside the law.
24	Q.	Okay.
	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1 (Mr. Large) If I could, back to --Α. simplistically, back to that graph that I was 2 describing earlier in 2005 and 2006. The 3 line showed that there was an increase in 4 cost for what I called "mercury-only 5 removal." So if there had been no SO2 6 7 benefit, that would have been the cost. 8 What's transpired here is fundamentally that: The price of the Scrubber different than what 9 was assumed in that analysis, but 10 11 fundamentally, that's what we're faced with. 12 All right. Now turning to the July 2008 Q. meeting with Staff. There's a presentation 13 14 that I put in front of you. I think what I 15 put in front of you is a -- it's just the 16 attachment in Hachey's testimony, H130, but 17 it's also marked as Exhibit 39, and that is the PowerPoint that was presented to Staff on 18 July 30, 2008. 19 20 The first question is: Who requested 21 this meeting? 22 (Mr. Large) PSNH management. Α. 23 Q. Why? (Mr. Large) Would it benefit if I were to 24 Α. {DE 11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1		provide maybe some comprehensive context with
2		respect to this meeting?
3	Q.	Sure. Obviously, it's been the subject of
4		much discussion in this room in the last
5		week.
6	А.	(Mr. Large) All right. Following the board
7		of trustees presentation, which I think was
8		on the 15th of July, the next order of
9		business from senior management at PSNH
10		PSNH management's perspective was the need
11		to alert and advise and inform Staff at the
12		PUC, as well as the OCA, of what was a
13		significant change in the price of the
14		Project. The management team, including me,
15		sat and said: So, what is it that we should
16		present? This team of individuals also
17		included our legal staff, as you can imagine.
18		And with the RaCC and board presentations
19		that we had, that clearly was the
20		foundational information that would make up
21		an appropriate communication to Staff.
22		We, at that point in time, were
23		operating under the cloud of a notice of
24		intent to sue with respect to the Clean Air
	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1	Act requirements. And those kinds of actions
2	clearly sensitized the Company as to what it
3	is that they're going to share, or the means
4	in which they're going to share it.
5	Additionally, it was discussed that we
6	were moving out of an internal communications
7	phase within the Company to an external
8	communications phase, and that
9	discoverability and recognizing that this
10	will in the long term result in a prudence
11	review. I mean, that was known when the
12	Scrubber Law was passed, that there would be
13	prudence review. So that was not some new
14	revelation, and it didn't become some
15	surprise that occurred when the price or
16	the cost of the Project changed.
17	So, we set out with the two presentation
18	documents that we previously utilized, and we
19	worked to, I'll use the word "scale them
20	down" for presentation to an external
21	audience a knowledgeable, well-informed,
22	external audience, certainly not informed of
23	the \$457 million price.
24	In terms of the information presented on
	${DE 11-250}$ [Day 6/MORNING Session ONLY] ${10-22-14}$

the page, you will find that all of the 1 information there is the same as what would 2 have appeared on the others, but that there 3 was less information presented on the page. 4 We were prepared fully to discuss beyond what 5 the information presented on the page. 6 And I think that as we look at Mr. Mullen's 7 8 response to TransCanada data requests, there are notations of things other than. 9 You know, it was not our intent to enter the room 10 11 and simply slide the papers under the door. 12 It was about having a conversation, having a discussion. 13

14 You'll note at the bottom of the page that we've identified that these materials 15 16 were produced "privileged and confidential." 17 When we entered the room that day, probably the first five minutes of conversation in 18 19 that meeting was to advise our concerns, that 20 we felt it was critically important for us to 21 share this information with Staff and OCA at 22 that point in time, but that we were 23 preparing within a few days of this meeting to make an SEC filing, I believe it's a 24

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1	10Q I don't get my letters right often
2	with respect to those filings and that we
3	were sharing information that was not yet
4	public and that we were very aware of Freedom
5	of Information requirements, but that we felt
6	it critically important to share this
7	information at this point in time.
8	I need to step back to the day prior to
9	the presentation. I was responsible for the
10	production of the document. My team actually
11	produced this pile of papers that we brought
12	with us to the July 30 meeting. On the
13	afternoon prior to this discussion, I had a
14	conversation with Mr. McDonald, who was our
15	prime speaker in this discussion on the 30th.
16	And he asked that I, since I had been closer
17	to the information than he, that I be
18	responsible for presenting the financial
19	information and so that's Pages 15 and 16,
20	the Project benefits discussed in Pages 15
21	and 16 and I wasn't going to disagree with
22	him.
23	So we came to the meeting, as I said.
24	We expressed our concerns with respect to
	{DE $11-250$ } [Day 6/MORNING Session ONLY] { $10-22-14$ }

1		confidentiality, and we went through the
2		presentation from the beginning. And
3		clearly, the showstopper with respect to this
4		discussion appears on, I think, Page 13 I
5		apologize Page 12.
6		MR. NEEDLEMAN: Could I just
7		clarify for a moment? We're speaking about
8		Exhibit 39-1 39, I think?
9		MR. SHEEHAN: As I said at the
10		outset, it is 39. And that version of the
11		document is included in Mr. Mullen's data
12		response. And it also has Mr. Mullen's notes
13		on the documents, as well as a few pages of
14		his responses to related questions. I also
15		just noted it's attached to, I think it's Mr.
16		Hachey's testimony. That's the one I
17		grabbed. Anyway
18	Α.	(Mr. Large) So when we came to Pages 15 and
19		16, it is my recollection that I covered this
20		material here, that I shared the sensitivity
21		analyses that we had prepared; the range of
22		values that we had utilized with respect to
23		coal prices, gas prices; ups and downs with
24		respect to the capital costs associated with
	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1		the Project. There was discussion about how
2		we had come up with a CO2 number, okay, and,
3		as well, I discussed the \$5.29 coal/gas
5		
4		spread that's alluded to on the last bullet
5		on the page. We moved promptly to the next
6		page, and at that point in time we talked
7		about what the existing spread was at that
8		point in time and that it was PSNH's
9		confidence that coal would dispatch ahead of
10		natural gas. Mr. McDonald took the
11		presentation from Pages 17 and 18, and we
12		concluded. There was I will not say there
13		was "robust" conversation during my portion,
14		my brief portion of the discussion, but it is
15		my recollection that I provided that
16		information at that time.
17	Q.	So, this meeting was not part of an existing
18		docket, clearly.
19	Α.	(Mr. Large) It was in advance of any docket.
20	Q.	Right. And Staff was not officially
21		conducting any investigation yet.
22	A.	(Mr. Large) Correct.
23	Q.	This was a meeting to, in effect, give Staff
24		and the OCA heads-up of the changes in the
	{DE	$11-250$ [Day 6/MORNING Session ONLY] { $10-22-14$ }

1		Project and the information contained in this
2		PowerPoint.
3	A.	(Mr. Large) And more. But to the primary
4		purpose was to identify that the Project cost
5		had risen dramatically to \$457 million. And
6		then the expected follow-up question was: Is
7		it still economic? And we discussed that.
8	Q.	And is it your recollection that the \$5
9		spread was specifically discussed in that
10		meeting?
11	Α.	(Mr. Large) That is my recollection. I was
12		responsible to provide that.
13	Q.	Do you recall whether the document itself was
14		delivered to Staff and the OCA before, during
15		or after the meeting?
16	A.	(Mr. Large) It was at the meeting. It was
17		not previous.
18	Q.	So you came with them in hand?
19	A.	(Mr. Large) Yes, I did. And I think, in
20		large part, as a result of our concerns
21		voiced, many of the participants in the
22		meeting actually returned the documents to
23		us. I can speak specifically of my
24		recollection of OCA and Assistant OCA giving
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1		me back their documents. I'm confident that
2		a number of members of Staff provided their
3		documents back to us as well. It's clear
4		that Mr. Mullen did not.
5		[Laughter]
6	Q.	And you're saying that it was a result of the
7		confidentiality part of your discussion that
8		began the meeting, that they were at least
9		sensitive enough to that, that they'd rather
10		not keep a copy. Is that your
11	A.	(Mr. Large) Confidentiality concerns about
12		"Right To Know."
13	Q.	Those are all the questions I have,
14		gentlemen. Thank you.
15	A.	(Mr. Large) Thank you.
16		CMSR. HONIGBERG: Ms.
17		Chamberlin, are you going next?
18		MS. CHAMBERLIN: I am.
19		CROSS-EXAMINATION
20	BY M	S. CHAMBERLIN:
21	Q.	Good morning, gentlemen.
22	A.	(Mr. Large) Good morning.
23	A.	(Mr. Vancho) Good morning.
24	Q.	I am starting with your testimony on Page 4
ļ	{DE	$11-250$ [Day 6/MORNING Session ONLY] $\{10-22-14\}$

1		that lists the economic analyses that NU did
2		regarding the Scrubber Project. And that's
3		Bates 411.
4	A.	(Mr. Large) I have that.
5	Q.	All right. Now, each of those bullets refers
6		to an analysis that you or someone under your
7		direction undertook?
8	Α.	(Mr. Large) The first four bullets are
9		specific to economic analyses; the fifth
10		incorporates economic analyses.
11	Q.	And the last economic analyses of the
12		Scrubber Project was completed before
13		September 2nd, 2008; is that true?
14	A.	(Mr. Large) Yes, it is.
15	Q.	And your testimony is that no further studies
16		were required after March 19, 2009?
17	Α.	(Mr. Large) None were done.
18	Q.	So it follows that none were done between
19		September 2nd and March 19th, 2009; is that
20		correct?
21	Α.	(Mr. Large) Yes.
22	Q.	And there was an update done for the PUC on
23		October 15th, 2010. Do you recall that?
24	Α.	(Mr. Large) I do.
l	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1	Q.	And so, there were no economic studies
2		between September 2nd, 2008 and October 15th,
3		2010; is that correct?
4	A.	(Mr. Large) None that we cannot that we
5		conducted, nor that we're aware of that were
6		conducted by Northeast Utilities. Correct.
7	Q.	You are familiar with the NU Capital Project
8		Approval Policy and Procedures; correct?
9	Α.	(Mr. Large) Yes.
10		MS. CHAMBERLIN: I'm going to
11		introduce that as an exhibit.
12		CMSR. HONIGBERG: This will be
13		118.
14		(The document, as described, was herewith
15		marked as Exhibit 118 for identification.)
16	Q.	Now, part of your responsibilities includes
17		complying with the NU Capital Project
18		Approval Policy and Procedures; correct?
19	A.	(Mr. Large) Yes.
20	Q.	And looking at the effective date of
21		May 28th, 2008, this was the policy that was
22		in place when you gave the various
23		presentations in 2008; correct?
24	A.	(Mr. Large) There were presentations that
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1		predated this. But fundamentally, they're
2		the same, yes.
3	Q.	And to the best of your recollection, this
4		Revision 2 of the procedures is more
5		stringent or requires more information than
6		perhaps vision Revision 1? Is that a fair
7		summary?
8	A.	(Mr. Vancho) I would say that's probably
9		fair. I think what we were trying to do with
10		this version again, this policy doesn't
11		belong to my group. But I started getting
12		involved in these types of analyses working
13		with RaCC at this time. I think one of the
14		things we wanted to do is put some procedures
15		in place around the type of financial metrics
16		that we do. So a lot of it might a lot of
17		what was expended here might be related to
18		that.
19	Q.	So you had procedures in place before, and
20		this was a refinement or is that a fair
21	A.	(Mr. Large) I'd call it an "evolution," yes.
22	Q.	Evolution. All right.
23		Now, the purpose of the NU Capital
24		Project Review [sic] and Procedures is to
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		e e e e e e e e e e e e e e e e e e e
1		provide information to the NU Risk and
2		Capital Committee; correct?
3	А.	(Mr. Large) Yes.
4	Q.	And the rule of the NU Risk and Capital
5		Committee is to "evaluate, monitor and
6		approve"; correct?
7	A.	(Mr. Large) Yes.
8	Q.	And this information is provided for each
9		capital project over \$10 million.
10	A.	(Mr. Large) Correct.
11	Q.	And the information is provided over the life
12		cycle of the Project.
13	A.	(Mr. Large) The discussion of risks and
14		project progress, yes.
15	Q.	And one element of the Project information
16		that is required is the "Capital Expenditure"
17		category. And I direct your attention to
18		Page 8.
19	Α.	(Mr. Large) Is there somewhere in particular?
20	Q.	Yes. At the top of the page, about Line 5 or
21		6, it says
22	Α.	(Mr. Large) Yes. Thank you.
23	Q.	So that is one element that is required under
24		this proposal?

1	А.	(Mr. Large) Yes.
2	Q.	And that means whether the Project is
3		discretionary or non-discretionary; correct?
4	Α.	(Mr. Large) Yes.
5	Q.	The definition of "discretionary" and "non-
6		discretionary" is provided on Page 3 of the
7		policy and procedures; correct?
8		(Witness reviews document.)
9	Q.	Middle of the page, little letter C?
10	Α.	(Mr. Large) I apologize. I'm just reading
11		through it quickly.
12		(Witness reviews document.)
13	Α.	(Mr. Large) Yes.
14	Q.	And PSNH viewed the Scrubber Project as a
15		"non-discretionary project"; correct?
16	Α.	(Mr. Large) Yes. It was to comply with the
17		law, as defined in that definition.
18	Q.	Now, the Capital Project Approval Policy and
19		Procedures goes on to require additional
20		information. And I'm back on Page 8. It
21		requires total capital expenditures per year?
22	А.	(Mr. Large) Yes.
23	Q.	And a description of how the Project aligns
24		with the Company's strategic objectives and
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			6
1		goals?	
2	А.	(Mr. Large) Yes, that would tend to be more	
3		pertinent in a discretionary project, but	
4		would be useful in a non-discretionary	
5		project.	
6	Q.	The purpose of the Project is required?	
7	Α.	(Mr. Large) Yes.	
8	Q.	The need for the Project is required?	
9	Α.	(Mr. Large) Yes.	
10	Q.	The benefits of the Project is required?	
11	Α.	(Mr. Large) Yes.	
12	Q.	And any possible alternatives to the Project	
13		is required?	
14	Α.	(Mr. Large) As shown here, yes.	
15	Q.	I'm sorry?	
16	Α.	(Mr. Large) As presented in this document,	
17		yes.	
18	Q.	Yes. Now, under "Project Time Line," which	
19		is in the middle of the page	
20	Α.	(Mr. Large) Yes.	
21	Q.	the Approval Policy and Procedures	
22		requires PSNH to identify any flexibility in	
23		the timing of capital spending; correct?	
24		(Witness reviews document.)	
	عط	$11-250$ [Date 6/MODILING Section ONLY] $\int 10-22-14$	

1	Α.	(Mr. Large) Yes, that's what it says.
2	Q.	It also requires PSNH to identify contingent
3		liabilities that could arise?
4	Α.	(Mr. Large) Yes.
5	Q.	And a "contingent liability" is something
6		that takes place when the outcome of an
7		existing situation is uncertain. Is that a
8		fair description?
9	Α.	(Mr. Large) I'll accept that. Not a phrase
10		that I use frequently, so
11	Q.	And PSNH is required to present an explicit
12		exit strategy; correct?
13	Α.	(Mr. Large) If one is feasible, yes.
14	Q.	"Explicit" means detailed; correct?
15	A.	(Mr. Large) I'd agree with that.
16	Q.	And the elements of an explicit exit strategy
17		may include minimizing financial loss by
18		contract terms?
19	Α.	(Mr. Large) It could, sure.
20	Q.	Suspending the Project temporarily?
21	Α.	(Mr. Large) I don't know that that's an exit
22		strategy, no.
23	Q.	Well, if you were planning to exit a project,
24		is it a decision you would make in a single
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1		day? One day you're full steam ahead and the
2		next day you're done?
3	A.	(Mr. Large) Not likely, no.
4	Q.	So, suspending the Project is a possible
5		element of an exit strategy?
6	A.	(Mr. Large) But the decision-making,
7		thinking and I'm not speaking specific to
8		the Scrubber Project here but the
9		decision-making with respect to is it
10		appropriate to exit a project doesn't
11		necessarily have to cause the Project to be
12		suspended. Work activities can continue
13		while a decision-making path is being
14		undertaken. So, in terms of project
15		construction work, as an example, you could
16		be full steam ahead one day and stopped the
17		next. They aren't contingent upon or
18		dependent upon one another.
19	Q.	Would you say that suspending a project
20		should never be included as a possible
21		element of an exit strategy?
22	Α.	(Mr. Large) It would not be fair to say that
23		it should never be included as a possible
24		exit strategy.
	ي ال	11 2EQ [Dow 6/MODNING Goggion ONLY] [10 22 14]

1	Q.	Would selling the Project be an element of a
2		possible exit strategy?
3	A.	(Mr. Large) I'm sorry? I didn't hear.
4	Q.	Selling the Project.
5	A.	(Mr. Large) Selling the Project.
6	Q.	Whatever it may be.
7	Α.	(Mr. Large) In the nature of our business as
8		a regulated utility, selling the Project, I
9		think, would be particularly difficult. So I
10		don't know that that would be a likely
11		probable. Does it fall in the case of
12		"possible"? Yes, but that would be well down
13		on the list of
14	Q.	Selling the Project would transfer whatever
15		risk of the capital construction to another
16		entity, correct, if you sold the Project?
17	Α.	(Mr. Large) I think, in a simplistic sense, I
18		agree with that view. But these are fairly
19		highly integrated, not only technically,
20		physically, but operationally, assets.
21		So let's take a different kind of
22		example in the Company: An electric
23		substation that had environmental risks.
24		There was a leaking transformer, and
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1		therefore there was oil spilled that needed
2		to be cleaned up. So, technically, yes, we
3		could consider selling that asset. But
4		practically, I don't think it's reasonable or
5		feasible. The example associated with the
6		power plants is different, but I think it has
7		many similarities.
8	Q.	It would be an element to consider for an
9		exit strategy; whether it was appropriate in
10		every instance remains to be seen after
11		consideration.
12	Α.	(Mr. Large) It could be. It would be on the
13		list of possibilities, yes. But I value
14		it in this instance, I value it quite low.
15	Q.	Again, now I'm just talking about a generic
16		exit strategy.
17	Α.	(Mr. Large) Yes.
18	Q.	Requesting relief from a regulatory
19		requirement, that would be another possible
20		element of a exit strategy?
21	Α.	(Mr. Large) Well, regulatory requirement as
22		opposed to a law? I'm differentiating,
23		but
24	Q.	Let's start with regulatory requirement.
	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

1	Α.	(Mr. Large) It would be one could include
2		that on a list of exit strategy
3		opportunities, yes. It would depend upon
4		one's understanding of that regulatory
5		requirement.
6	Q.	And recognizing you've made a distinction,
7		including in an exit strategy a plan to make
8		changes in a piece of legislation or a legal
9		requirement as a possible element of an exit
10		strategy.
11	Α.	(Mr. Large) I would not think that would be a
12		potential element in an exit strategy for a
13		utility company.
14	Q.	All right. And that is because NU does not
15		attempt to effect change in laws that are
16		currently effective?
17	A.	(Mr. Large) No, it's because we don't we
18		aren't a legislature. We don't have the
19		authority to change law.
20	Q.	It's an element that would be out of your
21		direct control; correct?
22	Α.	(Mr. Large) I'd go well beyond direct
23		control.
24	Q.	However, it is something that a regulated
l	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1 utility can do in response to a law that it wishes to change. 3 A. (Mr. Large) Maybe said differently. The Company has engaged at the Legislature to attempt to effect legislation, yes. 6 Q. Now, in your presentation to the Risk and Capital Committee, you did not include an exit strategy for PSNH; is that correct? 9 A. (Mr. Large) I'll do a quick scan, but I'm confident we did not. 10 (Witness reviews document.) 12 Q. And turning back to the Capital Project 13 Approval Policy and Procedures, at the bottom of the page, still on Page 8. 15 A. (Mr. Large) May I add to my previous response? 17 Q. I think you've answered the question. So you're not at this time. 19 MR. NEEDLEMAN: Well, he was asking to look before he finished his answer. 21 CMSR. HONIGBERG: I think he 14 had asked to look at the document. He was 23 doing that while you were starting to ask your next question.			
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24 your next question.	23		doing that while you were starting to ask
	24		your next question.

1 So, Mr. Large, if you have something you want to add after having looked 2 at the document, you may do so. 3 WITNESS LARGE: Thank you. 4 (Mr. Large) I think examining the information 5 Α. on Page 4 and Page 5 describes why we did not 6 7 view it appropriate or necessary or right to 8 consider an exit strategy as these presentations were being discussed with Risk 9 10 and Capital Committee. I don't have that in front of me. Can you 11 Q. point to what you're looking at? 12 (Mr. Large) Sure. 13 Α. 14 MR. NEEDLEMAN: Can you 15 identify what you're looking at, Mr. Large? 16 WITNESS LARGE: I apologize. 17 So I am in Attachment 3 of the testimony that Mr. Vancho and I presented, which is 23-3. 18 19 CMSR. HONIGBERG: Mr. Large, 20 is there a page number in the lower 21 right-hand corner? 22 WITNESS LARGE: And I'm 23 referring to Pages 4 and 5. 24 CMSR. HONIGBERG: How about a  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

longer, like a six-digit number? 1 2 WITNESS LARGE: Yes. 000440 and 441. 3 CMSR. HONIGBERG: Thank you. 4 5 BY MS. CHAMBERLIN: And looking at those pages, you pulled out 6 ο. 7 portions of the New Hampshire Clean Power 8 Act; correct? 9 (Mr. Large) Specifically the mercury portion Α. of that, yes. 10 And the second page is the Mercury Reduction 11 0. 12 Act Specifics; correct? (Mr. Large) I'm sorry? 13 Α. I'm looking at Page 5, and it's labeled "New 14 Q. 15 Hampshire Mercury Reduction Act Specifics." 16 (Mr. Large) Thank you. I'm sorry. I didn't Α. 17 look at the heading. Yes. And the last bullet has the phrase from the 18 Q. 19 statute: "The mercury reduction requirements 20 set forth in this subdivision represent a 21 careful, thoughtful balancing of costs, 22 benefits and technical [sic] feasibility and, 23 therefore, the requirements shall be viewed as an integrated strategy of non-severable 24  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

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1		components; correct?	
2	A.	(Mr. Large) Yes.	
3	Q.	These two pages are not an exit strategy;	
4		correct?	
5	A.	(Mr. Large) They are not. They're my	
6		discussion as to why we did not believe that	
7		one was an appropriate element in this case.	
8	Q.	Returning to Page 8, at the bottom of the	
9		page it says "Monitoring Plan." And this	
10		element of the Capital Project Approval	
11		Policy and Procedures requires a detailed	
12		<pre>project-specific monitoring plan; correct?</pre>	
13	A.	(Mr. Large) Yes.	
14	Q.	And this monitoring plan is to occur	
15		throughout the development life cycle of each	
16		capital project; correct?	
17	A.	(Mr. Large) Yes.	
18	Q.	All right. Turning to Page 11, Appendix	
19		III	
20	A.	(Mr. Large) That pertains specifically to the	
21		Project work activities.	
22	Q.	I'm sorry?	
23	A.	(Mr. Large) That pertains to the Project work	
24		activities.	
	{DE	11-250 { [Day 6/MORNING Session ONLY] {10-22-14}	

No. 3 in the middle of the page is labeled 1 Q. "Project Analysis"? 2 (Mr. Large) Yes. 3 Α. 4 0. And this paragraph discusses projects that 5 were initially approved as having "adequate financing capability"; correct? 6 7 (Mr. Large) May I have a moment? Α. 8 0. Sure. (Mr. Large) Thank you. 9 Α. 10 (Witness reviews document.) 11 CMSR. HONIGBERG: While Mr. Large is reviewing that, we're going to 12 go another 10, 15 minutes or so and take a 13 14 break. 15 MS. CHAMBERLIN: I can 16 probably finish. 17 CMSR. HONIGBERG: Thank you. BY MS. CHAMBERLIN: 18 19 0. Let me know when you're ready. 20 (Mr. Large) Sorry. It's a long section. Α. 21 (Witness reviews document.) 22 In the middle of that paragraph that you just 0. 23 read to yourself -- oh, wait. Before I go on, do you agree with my characterization 24 {DE 11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1		that it discusses projects that were
2		initially approved as having "adequate
3		financing capability"?
4	Α.	(Mr. Large) Yes.
5	Q.	And in the middle of that paragraph it
6		states, "A current assessment will be made as
7		to whether any significant project,
8		company-specific or macroeconomic, issues
9		have arisen since the last approved forecast
10		or budget that could now constrain capital
11		spending."
12	A.	(Mr. Large) Yes.
13	Q.	I've read that correctly?
14	Α.	(Mr. Large) You have.
15	Q.	That essentially means that a project may be
16		reassessed. Is that a fair summary?
17	Α.	(Mr. Vancho) This was getting at sort of
18		looking at the Company's five-year forecast
19		and if we had a \$457 million number with the
20		forecast. And we determined at that time
21		this
22		(Court Reporter interrupts.)
23	A.	(Mr. Vancho) So this was looking at it from
24		sort of a forecast and budgeting perspective,
	{DE	$11-250$ [Day 6/MORNING Session ONLY] $\{10-22-14\}$

1		where we had capital dollars in there. And
2		when it went in, we made an assessment that
3		this is a project that could be financed.
4		And so we were looking at macro conditions,
5		changes in credit markets, or something that
6		would have affected our ability to finance a
7		project, and could we still have this project
8		included in our five-year plan. So that's
9		what we were looking at for that section.
10	Q.	Okay. And it includes examples of relevant
11		issues, such as "deteriorated financial
12		market conditions." Do you see that on the
13		second bullet?
14	A.	(Mr. Large) Yes.
15	Q.	So, for projects that were in your capital
16		budget, deteriorated financial market
17		conditions would trigger a reassessment?
18	A.	(Mr. Large) If that deterioration was
19		expected to have an impact on the Company's
20		ability to finance.
21	Q.	And down at the bottom of the page, if
22		deteriorated financial market conditions
23		occur, the forecast could be rerun with
24		updated assumptions; is that correct?
	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1	Α.	(Mr. Large) And that's essentially what
2		well, regardless of deteriorating financial
3		conditions, that rerun is fundamentally what
4		occurred in June of 2008.
5	Q.	And if deteriorated finance market conditions
6		occur, one of the questions the Company must
7		ask is: Can the Project be postponed?
8	Α.	(Mr. Large) Those are one of the
9		considerations, yes.
10	Q.	Now turning to Bates 437.
11	Α.	(Mr. Large) Am I correct that that's the
12		June 25 RaCC presentation?
13	Q.	Yes.
14	Α.	(Mr. Large) Thank you.
15	Q.	And this is in the form of a PowerPoint
16		presentation; correct?
17	Α.	(Mr. Large) I prefer to refer to them as
18		"discussion documents." Yes.
19	Q.	What's the difference? I hesitate to ask.
20	A.	(Mr. Large) The tool that produced it is
21		PowerPoint, yes. "PowerPoint presentations"
22		certainly have taken on different meanings
23		for different people. This was not a sit in
24		a room with a slide projector and have people
ļ	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

1		sit and watch as slides were put on the
2		screen. That's my typical characterization
3		of a "PowerPoint presentation." A
4		"discussion document" utilizes the same tool
5		but provides information so that people can
6		talk about the information that's contained
7		on the page.
8	Q.	And the goal is to summarize the most
9		important information about the Project for
10		the RaCC Committee; correct?
11	A.	(Mr. Large) Yes.
12	Q.	And it's a clear and easy way to bring out
13		discussion points. Is that
14	A.	(Mr. Large) Yes.
15	Q.	Now, on Bates 444, there's a chart labeled
16		"Financial Sensitivities."
17	Α.	(Mr. Large) Yes.
18	Q.	And you raised this in your discussion with
19		Mr. Sheehan. The first column is the
20		"Assumption Category"?
21	A.	(Mr. Large) Yes.
22	Q.	And there were four areas of sensitivity:
23		Capital cost, gas prices, coal prices and
24		carbon costs; right?
l	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1	Α.	(Mr. Large) Yes.
2	Q.	Now, in June of 2008, capital costs were not
3		the area of most sensitivity to customer
4		costs; correct?
5	Α.	(Mr. Large) In terms of operation of
6		Merrimack Station, that would be true. I'm
7		not certain I follow specifically your
8		question.
9	Q.	In June of 2008, you had a figure of
10		\$457 million, and there was confidence that
11		that was a good figure, or a fairly robust
12		analysis of the cost; correct?
13	A.	(Mr. Large) Yes.
14	Q.	So, in these assumptions, capital costs was
15		not the most sensitive area; correct?
16	A.	(Mr. Large) That is correct.
17	Q.	And the financial sensitivities are
18		identified in the second bullet as future
19		natural gas and coal prices; correct
20	A.	(Mr. Large) The second and third assumptions
21		discussed are gas prices and coal prices,
22		yes.
23	Q.	And net customer cost is most sensitive to
24		those two assumptions; correct?
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1	A.	(Mr. Large) That is correct.
2	Q.	Now, turning to Bates 470.
3	A.	(Mr. Large) And this is in the board of
4		trustees presentation.
5	Q.	Correct. This chart is labeled "Key
6		Financial Takeaways"; correct?
7	A.	(Mr. Large) Yes.
8	Q.	And this is a summary of the most important
9		financial information about the financial
10		aspects of the Scrubber Project?
11	Α.	(Mr. Large) I would say it puts in words the
12		numerical analyses and sensitivity analyses
13		in one place, yes.
14	Q.	And this is the page that's called "Key
15		Financial Takeaways." And you want the NU
16		Board of Trustees to take this information
17		away with them as significant. Is that a
18		fair characterization?
19	Α.	(Mr. Large) Well, we want them to take all of
20		the information away as significant. But
21		this is an attempt to highlight or provide a
22		summary.
23	Q.	Now, PSNH did not provide this page of Key
24		Financial Takeaways in the September 2nd,
ļ	{DE	$11-250$ [Day 6/MORNING Session ONLY] $\{10-22-14\}$

1		2008 comprehensive report; correct?
2	A.	(Mr. Large) We did not.
3	Q.	And this was not provided to the Electric
4		Utilities Restructuring Legislative Oversight
5		Committee in 2008; correct?
6	Α.	(Mr. Large) I don't believe so, though I
7		don't know that I participated directly in
8		that process. So I do not believe so, but I
9		can't testify to that.
10		MS. CHAMBERLIN: Well, I'd
11		like to offer an exhibit. I have well, I
12		don't need to offer it. It's Long Exhibit
13		No. 16, so it's already included as an
14		attachment to the Long deposition. But I can
15		provide it to the witness. It's a data
16		request that says, "Please provide copies of
17		all reports to the Legislative Oversight
18		Committee on Electric Restructuring." And
19		it's a Staff 012 and answered by Mr. Smagula.
20		(Ms. Chamberlin hands document to Mr.
21		Large.)
22	A.	(Mr. Large) Thank you.
23	Q.	Let me know when you're ready.
24		(Witness reviews document.)
	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

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1	А.	(Mr. Large) Thank you.	
2	Q.	And so your answer to the question: "PSNH	
3		did not provide this page of Key Financial	
4		Takeaways to the Electric Utility	
5		Restructuring Legislative Oversight	
6		Committee"?	
7	Α.	(Mr. Large) Well, I apologize for only having	
8		scanned the entire document. But I believe	
9		that to be true.	
10	Q.	All right. Looking at Bates 467	
11	A.	(Mr. Large) Ms. Chamberlin, would you like	
12		this back?	
13	Q.	You can keep that.	
14	Α.	(Mr. Large) The piles grow.	
15		CMSR. HONIGBERG: I'm sorry,	
16		Ms. Chamberlin. Which page are we looking	
17		at?	
18		MS. CHAMBERLIN: Bates 467.	
19	A.	(Mr. Large) I have that.	
20	Q.	And this is the chart labeled "Financial	
21		Sensitivities."	
22	Α.	(Mr. Large) Yes.	
23	Q.	And 467 is the one provided to the NU Board	
24		of Trustees; correct?	
	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}	

1	Α.	Yes.
2	Q.	And it's the same chart that was provided to
3		the Risk and Capital Committee; correct?
4	Α.	(Mr. Large) There are slight variations,
5		but
6	Q.	Well, I'll let people review that on their
7		own.
8		I'm interested in one column. And the
9		last column is labeled "Net Customer Impact
10		Break-Even Rates."
11	Α.	(Mr. Large) Yes.
12	Q.	And am I correct that this column shows the
13		number looks like they're dollars
14		required for each assumption for customers to
15		break even?
16	Α.	(Mr. Large) Yes.
17	Q.	So, looking at capital costs compared to the
18		base case, capital costs of the Scrubber
19		could go up about \$200 million more before
20		reaching the break-even point?
21	Α.	(Mr. Large) So, to be clear, that presumes
22		all of the other assumptions are held
23		constant; so it's changing only that one
24		assumption. But what you said is true, with
·	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}

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1		that understanding.	
2	Q.	Yes. And for natural gas prices, natural gas	
3		prices could drop 90 cents before hitting the	
4		break-even point?	
5	Α.	(Mr. Large) Again, all other assumptions	
6		being consistent, yes.	
7	Q.	And coal prices could go up 47 cents before	
8		hitting the break-even amount?	
9	Α.	(Mr. Large) I think it's more than that.	
10	Q.	You can do the math. It's probably you're	
11		probably better at it than I am. Just	
12		comparing the base case and the coal price.	
13	A.	(Mr. Large) The right-hand column is \$5.49,	
14		and the base case is \$4.82. So	
15	Q.	Well, I tried to do the math, and this is	
16		what I came up with	
17	Α.	(Mr. Large) Sixty-seven cents.	
18	Q.	Yeah, 67 cents. All right. So, coal prices	
19		could go up 67 cents before hitting the	
20		break-even amount; correct?	
21	Α.	(Mr. Large) Yes.	
22	Q.	All right. Thank you. That's all I have.	
23		CMSR. HONIGBERG: I think this	
24		is a good time for a break, so we will take	
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1 15 minutes and come back at five minutes to 2 eleven. (Whereupon a recess was taken at 10:39 3 a.m., and the hearing resumed at 10:56 4 5 a.m.) 6 CMSR. HONIGBERG: Who's up 7 next? Mr. Patch. 8 CROSS-EXAMINATION BY MR. PATCH: 9 Good morning, Mr. Large and Mr. Vancho. 10 0. I'm 11 Doug Patch. I am counsel for the TransCanada affiliates who are intervenors in the docket. 12 (Mr. Large) Good morning, Mr. Patch. 13 Α. 14 (Mr. Vancho) Good morning. Α. 15 During the time frames that are most at issue Q. 16 in this docket, '08 and '09, Mr. Large, you were the Director of Business Planning and 17 Customer Support Services for PSNH; is that 18 19 correct. 20 (Mr. Large) Yes. Α. 21 And included in those responsibilities was Q. 22 the preparation of the 2007 LCIRP; is that 23 correct? 24 (Mr. Large) Yes. Α.

		-
1	Q.	And that's what's been marked as Exhibit 73.
2	Α.	(Mr. Large) Mr. Vancho, you were the Manager
3		of Financial Planning and Analysis during
4		that time period; is that correct?
5	Α.	(Mr. Vancho) That's correct.
6	Q.	And am I correct that you, I believe, both
7		are the ones who prepared the assumptions
8		about the price of natural gas and the price
9		of coal that were used in the presentations
10		made to the RaCC and the board of trustees in
11		June and July of 2008? Is that correct?
12	A.	(Mr. Large) I had responsibility for that
13		more so than Mr. Vancho.
14	Q.	Okay. Well, I'd like to introduce and show
15		you a copy of a response to a TransCanada
16		data request. It's 6-197. And also 6-196,
17		while we're at it.
18		CMSR. HONIGBERG: Two separate
19		exhibits?
20		MR. PATCH: Yes.
21		CMSR. HONIGBERG: So, 119 and
22		120.
23		(The documents, as described, were
24		herewith marked as Exhibits 119, 120
ļ	{DE	$11-250$ [Day 6/MORNING Session ONLY] $\{10-22-14\}$

for identification.) 1 CMSR. HONIGBERG: So, 119 is 2 TC 6-197 and 120 is TC 6-196. 3 (Ms. Goldwasser distributes documents.) 4 5 MR. BERSAK: Thank you. 6 BY MR. PATCH: 7 And do you have those in front of you? 0. 8 Α. (Mr. Large) Yes, we do. And the question at 197, which has been 9 Q. 10 marked as Exhibit 119 is, were either of you 11 involved in preparing the presentations made to RaCC and the board of trustees, and were 12 either of you present for those 13 14 presentations. And there's a description 15 there of both of your involvement; correct? 16 (Mr. Large) Yes. Α. 17 Α. (Mr. Vancho) Yes. And then the next exhibit, Exhibit 120, was a 18 Q. response to 196, 6-196, asking: Did you 19 20 prepare the assumptions on natural gas 21 prices; and if you did not, who did? Please 22 describe your level of involvement. And as I 23 read that, Mr. Large, you prepared the 24 assumptions on natural gas prices that were  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

1		included in the report presented by PSNH to
2		the Commission in 08-103 and in connection
3		with Senate Bill 152; is that correct?
4	A.	(Mr. Large) Yes, that's what I was trying to
5		say in your initial questions. Yes.
6	Q.	And those assumptions are the same as the
7		ones that are in the documents contained in
8		the response to Staff 2-2, which are the RaCC
9		and the board of trustees presentations;
10		correct?
11	Α.	(Mr. Large) Yes. We strove to be consistent
12		throughout the process.
13	Q.	Did you have any conversations with Mr. Long
14		at all about those presentations?
15	Α.	(Mr. Large) Oh, absolutely. Mr. McDonald, as
16		well as Mr. Smagula, many others.
17	Q.	Do you know, then, why Mr. Long, during the
18		course of his deposition, would not have been
19		able to identify either of you as the person
20		who did this? And I'm looking at Page 78,
21		Line 20 [sic] of the deposition.
22		(Witness reviews document.)
23		SP. CMSR. IACOPINO: Page 78,
24		Mr. Patch?
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1		MR. PATCH: Page 78, Line 20.	
2		(Witness reviews document.)	
3	BY M	IR. PATCH:	
4	Q.	Do you see on that page where I asked him the	
5		question, "Do you know who did this	
6		forecast?" Do you see his response?	
7	Α.	(Mr. Large) I do.	
8	Q.	And the response was "No"; correct?	
9	Α.	(Mr. Large) Response there listed is "No,"	
10		yes.	
11	Q.	And you said you had a number of	
12		conversations with him?	
13	Α.	(Mr. Large) During this period of time, I was	
14		a direct report to Mr. Long. He and I would	
15		speak many times a week. During courses of	
16		time when we were working on these kinds of	
17		analyses, we might speak many times a day. I	
18		had extensive discussions and conversations,	
19		as I said, with Mr. Long, Mr. McDonald and	
20		others. So	
21	Q.	Did you talk with him about what information	
22		to put in the various presentations?	
23	Α.	(Mr. Large) He was a contributor to the	
24		development of the discussion documents, yes.	
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1	Q.	And in particular, I'm focusing on the
2		differences between the presentation to the
3		board and not to the Staff. Did you talk to
4		either of those gentlemen, Mr. McDonald or
5		Mr. Long, about that?
6	A.	(Mr. Large) Yes, I believe I referred to that
7		while discussing things with Mr. Sheehan
8		earlier.
9	Q.	And so you took your direction on what to put
10		in the Staff presentation from both of them;
11		is that correct?
12	A.	(Mr. Large) I think "direction" is an
13		overstatement. They certainly were engaged
14		in the process. They would have had final
15		authority to determine what we did or didn't
16		include. But it would be unfair to say that
17		they told me what to do and I did it.
18	Q.	And you both were present for the RaCC
19		Committee presentation, as I understand it;
20		correct?
21	Α.	(Mr. Vancho) Yes.
22	Q.	And you both worked on the presentation for
23		the board of trustees but were not present
24		for that; correct?
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1	А.	(Mr. Large) Correct.
2	Q.	And Mr. Large, you prepared the presentation
3		to Staff and the OCA that was used for the
4		July 8th meeting with them to discuss the
5		Scrubber. I'm going to ask you to look at
6		Response TC-199.
7		MR. PATCH: I'd ask that that
8		be marked as well.
9		CMSR. HONIGBERG: This is 121.
10		(The document, as described, was herewith
11		marked as Exhibit 121 for identification.)
12	A.	(Mr. Large) To be complete, I along with the
13		management team at PSNH.
14	Q.	And you said, Mr. Large, you were present for
15		that meeting with the Staff on July 30th;
16		correct?
17	Α.	(Mr. Large) Yes.
18	Q.	And you've identified I think already the
19		presentations that were made to the RaCC and
20		the board and the Staff that are in the
21		record; correct? We don't need to walk
22		through that again I don't think, do we?
23	Α.	(Mr. Large) I'm fully aware of them, if
24		that's what you're asking. I'm sorry.
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1	Q.	You don't have any reason to disagree that
2		what is in the record about those
3		presentations is any different than what was
4		presented to either to any of the three of
5		those bodies in the summer of '08.
6	Α.	(Mr. Large) I'm confident that the discussion
7		documents that are in the record associated
8		with those three meetings is accurate as to
9		what was delivered on those days, yes.
10	Q.	I want to walk you through a couple
11		differences in the presentation to the RaCC
12		and the board. And so I don't know if you
13		could get those two presentations in front of
14		you. I think they're attachments to your
15		testimony. That may be the easiest place to
16		look for it. And in the first instance, I'd
17		ask you to look at the chart on Page 8 of the
18		RaCC presentation.
19		MR. NEEDLEMAN: Is there a
20		Bates number for that?
21		CMSR. HONIGBERG: That's 444.
22		MR. NEEDLEMAN: Thank you.
23	BY M	R. PATCH:
24	Q.	And I would ask you to look at the
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1		presentation there with regard to the
2		downside and upside assumptions for gas
3		prices and coal prices. And on that chart
4		they are plus or minus 5 percent; correct?
5	Α.	(Mr. Large) Yes.
6	Q.	Could you compare that with the board
7		presentation, Page 7. And we can get the
8		Bates page number for that
9	A.	(Mr. Large) I can help you. It's 467.
10	Q.	Thank you. I mean, it looks like those
11		downside and upside assumptions changed to
12		plus or minus 10 percent; correct?
13	Α.	(Mr. Large) That is correct, yes.
14	Q.	Could you explain why?
15	A.	(Mr. Large) Certainly. As part of the RaCC
16		discussion, and recognizing the sensitivities
17		associated with those costs, it was
18		recommended to Mr. Long and Mr. Breed that we
19		consider a broad range of sensitivity
20		associated with coal and gas prices.
21	Q.	That was a discussion with who again?
22	Α.	(Mr. Large) Mr. Long and Mr. Breed.
23		Mr. Long, my boss; Mr. Breed, Mr. Vancho's
24		boss.

1	Q.	And that was a discussion during the course
2		of the RaCC Committee meeting or subsequent?
3	Α.	(Mr. Large) I would say subsequently.
4	Q.	And that change changed the total dollars on
5		the upside and downside; correct?
6	A.	(Mr. Large) They're just corollary numbers.
7	Q.	So, for example: In the RaCC, you know, next
8		to gas prices, if you follow that line
9		across, it's \$213 million on the downside.
10		Do I have that correct?
11	Α.	(Mr. Vancho) That's on the positive side.
12	Q.	I'm sorry. Yup, I have that. \$213 million
13		on the positive side and \$51 million on the
14		negative side, for the net present under
15		the column "2008 PV of Net Customer Cost."
16		Do I have that correct?
17	Α.	(Mr. Vancho) The impact was 81 million up or
18		down, but the resulting change to the NPV was
19		213 to the positive and 51 to the positive on
20		the other side.
21	Q.	Okay. And then compare that to the board of
22		trustees presentation, Bates 467. What's the
23		difference? What are those numbers that
24		correspond on that chart?
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1	А.	(Mr. Vancho) It's just reflecting a higher
2		sensitivity. So, the 81 million is becoming
3		163 million; so a higher sensitivity. So,
4		the ultimate impact to net present value is
5		obviously different. You have a greater
6		benefit on the board of trustees side on the
7		upside and lower benefit, or a net cost, I
8		guess, on the downside.
9	Α.	(Mr. Large) So, simply put: By doubling the
10		band width of the sensitivity from 5 percent
11		to 10 percent on a plus or minus basis, it
12		essentially doubles what the NPV value would
13		be over the life of the Project.
14	A.	(Mr. Vancho) Right.
15	Q.	Now, the board and the RaCC presentations
16		both have historic fuel spread charts; is
17		that correct?
18	Α.	(Mr. Large) They do.
19	Q.	And if you could just focus on those for a
20		minute. The board one includes the numbers
21		for the average spread for the last 15 years;
22		correct?
23	Α.	(Mr. Large) I'm working my way towards that
24		slide, if I may, Mr. Patch.
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			9
1	Q.	Okay.	
2		(Witness reviews document.)	
3	Α.	(Mr. Large) I apologize, but I'm not finding	
4		it in the RaCC presentation at the moment.	
5		Oh, I stopped too soon. I have it now.	
6	Q.	Bates Page 469?	
7	Α.	(Mr. Large) 459, I believe, and 469.	
8	Q.	Okay. Good. So, 459 is what was presented to	
9		the RaCC, and 469 was what was presented to	
10		the board; correct?	
11	Α.	(Mr. Large) Yes.	
12	Q.	And 469 has some numbers on there that	
13		weren't presented to the RaCC; am I correct?	
14	Α.	(Mr. Large) That don't appear on the RaCC	
15		document.	
16	Q.	So, by making that distinction, you're	
17		suggesting that maybe the numbers were	
18		actually given to the RaCC, but just not put	
19		on the document?	
20	Α.	(Mr. Large) That's correct.	
21	Q.	Is that your specific recollection?	
22	Α.	(Mr. Large) It is not my specific	
23		recollection, no.	
24	Q.	You're just saying that's a possibility.	
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1	A.	(Mr. Large) Yes.
2	Q.	But there are differences, are there not,
3		between the two presentations, at least that
4		we pointed out?
5	Α.	(Mr. Large) The circles and the discussion of
6		average spread are different between the two
7		presentations, yes.
8	Q.	Can you explain why?
9	Α.	(Mr. Large) Yes. Yes, I certainly can.
10		To add additional information to the
11		board of trustees, recognizing that Northeast
12		Utilities is a very large company, and within
13		this very large company, PSNH is the only
14		portion that is a regulated generation
15		entity, we felt it important to try and
16		provide additional context for the board of
17		trustees that deal with these issues less
18		regularly, in a less detailed way than the
19		Risk and Capital Committee.
20	Q.	Mr. Sheehan asked you a similar question
21		yesterday. I'm going to ask it a little bit
22		differently.
23		If we were to accept PSNH's argument
24		about the law being a mandate, then isn't it
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1		irrelevant whether the Project would be
2		economic for customers?
3	Α.	(Mr. Large) Not necessarily in the minds of
4		Company management and the board of trustees.
5		I think they would want to know the impact on
6		customers. They'd want to know the impact on
7		as many entities that we have effect on as is
8		reasonable.
9	Q.	But it's only a matter of informing them.
10		There was no was there no break-even point
11		there? Was there any point at which you
12		think the board of trustees, for example,
13		would have chosen not to proceed with the
14		Project or would not have approved the
15		Project?
16	A.	(Mr. Large) I couldn't speculate as to where
17		that would have occurred. If in fact we had
18		a different estimate of any of these elements
19		at the time of the analysis that we
20		conducted, the same process would have
21		transpired, would have taken place. We would
22		have come to the PUC to advise them. We
23		would have responded to all inquiries that
24		were presented to us. What would have
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transpired, I don't know. 1 But if you look at Page 467, Bates page --2 Q. and I think Ms. Chamberlin had asked you a 3 couple questions about this. But the number 4 at the top, the \$684 million in the "Capital 5 Cost" line under "Net Customer Impact 6 7 Break-Even Rates," assume for a minute that it had been \$700 million, or something in 8 excess of that. Do you believe the board 9 would have approved at that point in time? 10 11 Do you believe they had the option not to 12 approve I guess is really the appropriate question? Do you think they had the option 13 14 to say, No, we're not going to go ahead 15 because it exceeds that amount? I'm asking 16 you to assume hypothetically that it did. 17 Α. (Mr. Large) I understand your request for me to consider it hypothetically. I believe 18 that at those values, the board would have 19 20 approved, as they did, and that we would have 21 moved forward with the process in very much 22 the same manner that we did at 457. And if that had happened, what information 23 Q. would you have provided to the Commission or 24

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1		the Commission Staff that's any different
2		than what you did provide? Again, assuming
3		that hypothetical.
4	A.	(Mr. Large) Again, I believe that the
5		information presented would have been very
6		consistent with what we've provided.
7	Q.	So you wouldn't have told them about this
8		break-even; you wouldn't have told them about
9		this 684; you wouldn't have told them about
10		the \$5.49 spread.
11		MR. NEEDLEMAN: I'll object to
12		the question. Multiple questions. And part
13		of it is contradictory to evidence that's
14		already been presented.
15		CMSR. HONIGBERG: Why don't
16		you break it up into multiple questions.
17		MR. PATCH: It's a single
18		CMSR. HONIGBERG: Well, you
19		asked him a series of questions in there.
20	BY M	R. PATCH:
21	Q.	Okay. Let's take them one at a time. What
22		if assume, hypothetically, that the
23		number, the \$684 million, had been higher.
24		What information would you have presented to
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1		the Commission or Staff with regard to that
2		particular figure?
3	Α.	(Mr. Large) Simply taking the information,
4		the changed information, and inputting into
5		the discussion document that we talked about
6		on July 30th would have identified that the
7		net present value to customers would have
8		been zero as opposed to a positive number, a
9		positive benefit to customers. We would have
10		shared that information.
11	Q.	With Staff and with the Commission.
12	Α.	(Mr. Large) Yes.
13	Q.	And do you think that would have produced a
14		different result if you had presented that?
15		MR. NEEDLEMAN: Objection.
16	BY M	R. PATCH:
17	Q.	Again, hypothetically, assume for a minute.
18	Α.	(Mr. Large) And the answer is: I don't know,
19		in that the process to change the law and our
20		requirement to comply with it was not the
21		Staff's, not the Commission's, and not the
22		Company's.
23	Q.	On Page 3 of your testimony, Line 20, I
24		believe it is
	c	

1	Α.	(Mr. Large) Mr. Patch, are we finished with
2		these? I'd just like to reassemble
3	Q.	Probably not. We'll probably come back to
4		them at some point.
5	A.	(Mr. Large) Just trying to manage the chaos
6		here if I can.
7	Q.	I understand.
8	A.	(Mr. Large) Page 3 did you say?
9	Q.	Page 3 of your testimony. I'm looking at
10		Lines 19 through 24. And this is where you
11		said and tell me if I read it correctly
12		"For such a legislatively-mandated project,
13		economic analysis can be instructive in terms
14		of sanity-checking the investment
15		requirements for budgeting purposes, as well
16		as obtaining a directional understanding of
17		the major drivers of the Project development
18		and execution risk. However, it is not
19		appropriate to consider economic analysis as
20		a stand-alone product to confirm the
21		investment in a project that is required by
22		law, such as the Scrubber." Did I read that
23		correctly?
24	А.	(Mr. Large) Yes, you did.

1	Q.	So I wonder if you can explain to me
2		"directional understanding of the major
3		drivers of project development and execution
4		risk." What does that mean?
5	A.	(Mr. Large) Certainly. The economics portion
6		is the pages that we've just been speaking to
7		in the RaCC board presentation documents. If
8		something goes up, what does it do? If
9		something goes down, what does it do?
10		Execution risk is not part of that analysis.
11		Execution risk is, are we able to get
12		contractors to build it? Are there
13		engineering firms that can construct it?
14		What if there's a lengthy, snowy winter in
15		New Hampshire? How will that impact your
16		ability to complete the Project on time?
17		Those are my short list. Probably much, much
18		longer list of what execution risk would look
19		like.
20	Q.	So, even though the Project was mandated by
21		law as PSNH has argued in this docket, the
22		board needed to know about the uncertainty
23		and the economics, and they needed to know
24		about the upsides and downsides from the base
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1		case; correct?
2	Α.	(Mr. Large) It was appropriate for them to
3		know. And our corporate policy required
4		that, for a capital investment in excess of
5		\$50 million, we needed to present that
6		information to them. It would have been
7		appropriate at the \$250 million original
8		price. Our corporate requirements would have
9		required that.
10	Q.	So the analysis we're talking about that was
11		done I mean, there was one analysis done
12		in 2008; correct? That's the one referred to
13		in the RaCC and the board, although it
14		changed a little bit between the two; is that
15		fair to say?
16	Α.	(Mr. Large) I don't think the analysis
17		changed. I think the presentation of
18		information borne out of the analysis was
19		different as we pointed out, 5 percent
20		versus 10-percent band width. But there, in
21		fact, was a second analysis that was
22		undertaken after the August 22nd Commission
23		secretarial letter or additional analysis.
24		I don't want to call it a second.

		10
1	Q.	And how is it different than the one that was
2		presented to the RaCC and the board?
3	Α.	(Mr. Large) In the well, Mr. Vancho's
4		probably better able to give those
5		definitions.
6	A.	(Mr. Vancho) Those were the comparisons to
7		building a natural gas facility or a coal
8		facility instead of just the market
9		comparison that we did in the initial
10		analysis.
11	Q.	But the assumptions were basically the same,
12		weren't they? Were any "key assumptions," as
13		you refer to them, in the '08 report any
14		different?
15	Α.	(Mr. Large) No. We strove over that few
16		months' period of time to keep the
17		assumptions as consistent perfectly
18		consistent seemed as though I was going to
19		offer leeway. The assumptions were
20		completely consistent.
21	Q.	And that's the last time you ever did an
22		analysis like that in relation to this
23		Scrubber Project; correct?
24	Α.	(Mr. Large) That is true.
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1	Q.	And I want to focus for a minute on the
2		presentation made to Staff and the Consumer
3		Advocate. I think it's in the docket in a
4		few different places. I don't remember if
5		it's attached to your testimony, if that's
6		the easiest place to look for it.
7	Α.	(Mr. Large) It is not, but I do have a copy
8		of it with me.
9	Q.	Okay. It's Exhibit 39, I believe, in the
10		record, and then also Exhibit 20-11. And we
11		have marked as Exhibit 43 the response to
12		Data Request TC 6-201, where TransCanada had
13		asked you about differences in the facts that
14		were shared with the Staff as compared to
15		what was presented to the board and the RaCC.
16		And I believe your response was that it was
17		only the presentation format that was
18		different; is that correct?
19	Α.	(Mr. Large) No that's not.
20	Q.	Okay. Do you want to read the response?
21		Could you read the response into the record?
22	Α.	(Mr. Large) I'd be happy to. Do you have a
23		copy of it?
24		(Mr. Needleman hands document to witness.)
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1		WITNESS LARGE: Thank you, Mr.
2		Needleman.
3	A.	(Mr. Large) The response says, "The facts
4		shared with the PUC Staff and OCA were the
5		same as those shared with the RaCC. The
6		presentation formats were different since the
7		material was being presented to different
8		audiences."
9	Q.	And so I heard you testify in response to,
10		guess it was actually in response from
11		questions from Mr. Sheehan this morning, that
12		it's your recollection that the facts about
13		the \$5.29 per MMBtu and the fact about the
14		gas/coal spread averaging \$3.18 over the last
15		15 years were actually presented orally in
16		that meeting, but were not presented in
17		writing; is that correct?
18	A.	(Mr. Large) They were not presented in
19		writing. And I spoke when speaking with
20		Mr. Sheehan, I referred to the \$5.29 per
21		million Btu coal/gas spread.
22	Q.	So that's why you answered this data request
23		the way you did, because you believe that you
24		presented those facts verbally to the
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1		Commission Staff and to the OCA.	
2	А.	(Mr. Large) That is my testimony.	
3	Q.	Now, were you here when I asked Mr. Frantz a	
4		couple questions about this earlier in this	
5		docket?	
6	A.	(Mr. Large) I was.	
7	Q.	And I would just we do have a transcript	
8		of that particular testimony, and I would	
9		just like to refer to that. And I asked him	
10		a question and this is on Page 110 of the	
11		afternoon session of October 15th 14th	
12		sorry.	
13		And I said, "Okay. We'll start with the	
14		\$5.29."	
15		And his response was, "We did not	
16		receive the \$5.29."	
17		And then I asked him, "And did you	
18		receive the \$3.18, the actual spread over the	
19		historical period going back to 1993? Was	
20		that a fact you received?"	
21		And his answer was, "Not in the	
22		July 30th, 2008 submission."	
23		Do you recall him saying that?	
24	Α.	(Mr. Large) Not as clearly as you've been	
I	$\{ DE \}$	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$	•

able to read it back from the record. 1 2 MR. GLAHN: Mr. Patch, show us the transcript he's reading from. We don't 3 have it in front of us. 4 CMSR. HONIGBERG: Nor do we. 5 MR. PATCH: Well, I can make 6 7 copies during a break if it would be appropriate. But it's the record of this 8 9 proceeding. 10 MR. GLAHN: Just show it to 11 Barry. 12 CMSR. HONIGBERG: Well, why don't you just show it to Mr. Needleman, 13 since it's a document you're reading from. 14 15 You want everyone to assume it's been read accurately. 16 17 (Ms. Goldwasser hands document to Mr. 18 Needleman) 19 MR. NEEDLEMAN: Thank you. 20 BY MR. PATCH: 21 ο. And I'd ask you to look for a minute at 22 Exhibit 39, which is an exhibit that PSNH 23 introduced when they were doing 24 cross-examination of Mr. Frantz. And it {DE 11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1		contains Mr. Mullen's copy of the
2		presentation with his notes on the copy of
3		that presentation. I don't know if you've
4		seen that document.
5	Α.	(Mr. Large) I have seen it. I don't have one
6		with me today.
7		(Mr. Sheehan hands document to witness.)
8	BY M	R. PATCH:
9	Q.	I'd ask you to take a look through there and
10		see if you see any notes on there from Mr.
11		Mullen indicating that he or the members of
12		Staff that were present at that meeting were
13		told about the \$5.29 or the \$3.18.
14		(Witness reviews document.)
15	Q.	Do you see any note like that in there? If
16		you do, if you could identify it for the
17		record.
18	A.	(Mr. Large) I see a number of notes from Mr.
19		Mullen. I'll look through the whole thing,
20		if I can.
21		(Witness reviews document.)
22	Α.	(Mr. Large) I do not see a reference. I
23		don't see him having marked \$5.29 on the
24		page. But I do see that he underlined the
	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1		statement with respect to the third bullet on
2		the page, "most sensitive to the coal/natural
3		gas price spread and far less sensitive to
4		capital cost or RGGI cost increases."
5	Q.	Well, don't you think if you'd given him that
6		information it would have been written right
7		next to where that was underlined?
8	A.	(Mr. Large) No, not necessarily, and the
9		reason being is that we as I indicated in
10		previous discussion, we expressed our very
11		significant concerns about discoverability
12		when we were at this early stage in the
13		process.
14	Q.	I think have you reviewed Mr. Hachey's
15		testimony that was filed in December of last
16		year in this docket?
17	Α.	(Mr. Large) To a very limited extent.
18	Q.	Do you remember that he made an issue of the
19		differences in his testimony, the
20		differences between what was in the board
21		presentation and the RaCC and then what was
22		in the Staff presentation? Do you recall
23		that?
24	Α.	(Mr. Large) I do not.

1	Q.	And you filed rebuttal testimony in this
2		docket, what, about six months later?
3	Α.	(Mr. Large) I can tell you when we filed the
4		testimony. Its relationship to Mr. Hachey's
5		testimony I can do the math, but I don't
6		have that. I'm sorry.
7	Q.	Okay. Well, would you accept, subject to
8		check, that it was about six months later
9		that you filed rebuttal testimony, six months
10		after you would have had his testimony?
11	A.	(Mr. Large) I'm happy to accept that, subject
12		to check.
13	Q.	And you didn't put anything about this in
14		your rebuttal testimony, did you? And when I
15		say "this," what I mean is about the fact
16		that you orally disclosed to Staff the \$3.29
17		[sic] and the \$3.18 numbers.
18	Α.	(Mr. Large) I did not include it in my
19		rebuttal testimony, no.
20	Q.	Why not?
21	A.	(Mr. Large) I didn't know it was necessary to
22		rebut Mr. Hachey on that point.
23	Q.	Your counsel, in a question to Mr. Hachey,
24		suggested that Staff and the OCA are smart
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1	1	people, so they didn't need to have the \$5.29
2		spread between the price of natural gas and
3		coal that was required to make the Project
4		economic presented to them. Do you remember
5	1	him asking that question?
6		MR. NEEDLEMAN: Well,
7	1	before could we see the portion of the
8		transcript and allow the witness to read it?
9		MR. PATCH: I don't have that.
10	Α.	(Mr. Large) And I can identify that I was not
11	1	here during the cross-examination of Mr.
12	1	Hachey. So, no.
13	Q. 1	Would you accept, subject to check, or
14	]	hypothetically, however you want to accept
15		it, that that's in fact a question that your
16		counsel asked of Mr. Hachey?
17		MR. NEEDLEMAN: I'm sorry.
18		Could I hear the question again?
19		CMSR. HONIGBERG: Yeah, I need
20		to hear the question, too.
21	BY MR	. PATCH:
22	Q	Your counsel, in a question to Mr. Hachey,
23	1	suggested that Staff and the OCA are smart
24	:	people, so they didn't have to have the \$5.29
	{DE 1	$1-250$ [Day 6/MORNING Session ONLY] $\{10-22-14\}$

1	spread between the price of natural gas and
2	coal that was required to make the Project
3	economic presented to them.
4	CMSR. HONIGBERG: Mr. Patch,
5	are you purporting to quote a question there,
6	or is that your notes of a question that was
7	asked? Because I don't remember a question
8	coming out like that. It may have been the
9	implication of a question, but I just don't
10	remember the question being asked like that.
11	MR. PATCH: Okay. Well, I'm
12	quite sure it was, and we'll come back to
13	that. We'll find a cite.
14	CMSR. HONIGBERG: Okay.
15	(Commission conferring)
16	BY MR. PATCH:
17	Q. I'm going to ask you to look at the Risk and
18	Capital Committee presentation again,
19	Page 18.
20	A. (Mr. Large) I have that.
21	Q. There's a point in that presentation where
22	you indicate that the loss of Merrimack
23	Station "would call into question the
24	viability of operating the remaining
	{DE 11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

generating assets as a fleet." Do you recall 1 2 that? (Mr. Large) I do. 3 Α. Now, I guess I want to understand why you 4 0. would even raise that possibility of not 5 operating Merrimack Station if you believed 6 7 it was a mandate to proceed with the Scrubber 8 Project. (Witness reviews document.) 9 (Mr. Large) It was feasible that someone 10 Α. 11 could ask: What do you do if you don't have Merrimack? And we were being informative and 12 preemptive in making clear that we viewed the 13 14 importance of the operation of the fleet, 15 specifically including Merrimack, and that 16 with the requirements of the Scrubber Law, it 17 further integrated the operation of our power generation fleet. 18 19 Q. So, if for some reason you hadn't proceeded 20 with Merrimack Station, if Merrimack Station 21 had gone out of operation in the summer of 22 2013 because the Scrubber Project hadn't been 23 built and you couldn't comply with the law, are you saying that that would have put in 24 {DE 11-250} [Day 6/MORNING Session ONLY] {10-22-14}

jeopardy, as you say in that particular 1 2 bullet, the operation of the rest of the generation fleet? 3 (Mr. Large) Mr. Patch, would you direct me 4 Α. 5 specifically to that bullet? It would be helpful. 6 7 CMSR. HONIGBERG: Mr. Patch, 8 if you could give us a Bates number. I'm not 9 sure any of us are on the same page you're looking at. 10 11 MR. PATCH: I'm sorry. I'm flipping back and forth, and it's going to 12 take me a minute to find it. 13 (Mr. Large) I think I can help. It's 450. 14 Α. 15 BY MR. PATCH: 16 Thank you. And it's right at the bottom of Q. 17 that page; correct? (Mr. Large) It is. 18 Α. 19 0. So, do you recall my question? 20 (Mr. Large) I'm sorry, no. Α. 21 My question was: In the event that -- assume Q. 22 hypothetically, I guess I'll begin, that 23 Merrimack Station had not constructed the 24 Scrubber Project, for whatever reason, and  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

1		Merrimack Station no longer operated after
2		July of 2013. Would that have put in
3		jeopardy the rest of the generation assets as
4		a fleet?
5	Α.	(Mr. Large) The operation by PSNH of the
6		fleet of generation assets, yes, that's what
7		that phrase is referring to, that the case
8		for continuing to operate them or own them
9		would be diminished absent Merrimack.
10	Q.	Why?
11	Α.	(Mr. Large) Clearly, at that point in time,
12		as we were considering these facts, Merrimack
13		Station produced the greatest amount of
14		energy from our operation. It would be fair
15		to say that it included and received the
16		greatest amount of attention from not only
17		PSNH generation management, but from many of
18		the external entities, many of whom are here
19		today. So it was the centerpiece of our
20		operation at that juncture in time. And to
21		have that separated would have made,
22		administratively, things less beneficial for
23		customers, I think, on a
24		cost-per-kilowatt-hour basis. But as well,
l	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

1		the integrated nature, particularly as it	
2		relates to the New Hampshire Clean Power Act,	
3		would have made it administratively difficult	
4		also.	
5	Q.	I think you've already testified that you	
6		were involved in the preparation of the	
7		information that was submitted to the	
8		Commission on September 2nd of '08 in 08-103	
9		docket; correct?	
10	Α.	(Mr. Large) Yes.	
11	Q.	And that filing, which is at Exhibit 20-7, an	
12		attachment to the deposition, and I think it	
13		may be in one or two other places in the	
14		docket I'd ask you to get that particular	
15		filing in front of you, if you could.	
16	Α.	(Mr. Large) It's also Attachment 5 to our	
17		testimony.	
18	Q.	Okay. And that particular filing included a	
19		cover letter from Mr. Long of five pages;	
20		correct?	
21	A.	(Mr. Large) Yes.	
22	Q.	And then there's a report of 16 pages;	
23		correct?	
24	Α.	(Mr. Large) Well, I come up with 11 pages of	
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1		report followed by attachments.	
2	Q.	Okay. I think you're right. I miscounted	
3		because I was assuming the page numbers at	
4		the bottom referred to the beginning of the	
5		report. But they include the five-page	
6		letter; is that fair?	
7	Α.	(Mr. Large) Yes.	
8	Q.	So there are eight attachments, as I	
9		understand it. I'll just read them off	
10		quickly, and you tell me if I've left	
11		anything out.	
12		A Wall Street Journal article from May	
13		of '08; FERC's Office of Enforcement's Report	
14		from June 19th of '08; a confidential	
15		detailed project cost breakdown; a one-page	
16		spreadsheet regarding net present value of	
17		revenue requirements; an SNL article from	
18		July 1, 2008; an SNL article from June 26,	
19		2008; and then a 67-page memorandum of law	
20		arguing that the Commission's authority with	
21		regard to the Project was limited because the	
22		law was a mandate; and then, also included	
23		was a motion for protective order on contract	
24		and bid information.	

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1	A.	(Mr. Large) So, if it's okay that I not count	
2		the number of pages in the memorandum of law,	
3		I'm happy to agree with your statement.	
4	Q.	Okay. Thank you.	
5		What SO2 allowance price assumption did	
6		you use for the .03 estimate that was in this	
7		filing?	
8	Α.	(Mr. Large) Five hundred dollars per SO2	
9		allowance.	
10	Q.	And what overall kilowatt demand assumption	
11		did you use for that estimate?	
12	A.	(Mr. Vancho) It would have been about	
13		8.7 million megawatt hours. I can get the	
14		exact number.	
15	Q.	At Page 6, at the bottom, I want to direct	
16		your attention to	
17	Α.	(Mr. Large) Of the report, Mr. Patch? I'm	
18		sorry.	
19	Q.	Yes.	
20	A.	(Mr. Large) Thank you.	
21	Q.	I mean, it's the first page of the report,	
22		but it says Page 6 on the bottom on the	
23		right. Bates page, on the attachments to	
24		your testimony, 486. Let me know when you're	
	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$	

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1		there?	
2	A.	(Mr. Large) I have it, yes. Thank you.	
3	Q.	Could you read the last sentence on that page	
4		into the record.	
5	A.	(Mr. Large) The first portion before	
6		"Scrubber Status"?	
7	Q.	No, the last, the very last sentence on the	
8		page.	
9	Α.	(Mr. Large) I'm sorry. Okay. It says, "To	
10		date, PSNH has spent approximately	
11		\$10 million on the Clean Air Project."	
12	Q.	And this report makes numerous references to	
13		the need to avoid delays in order to save	
14		customers money, I think is the bottom line	
15		on it. Is that fair to say? And I can	
16		direct you to places in the report that it	
17		says that, if that would be helpful. Is that	
18		your recollection?	
19	A.	(Mr. Large) Absolutely. And having to do	
20		with the incentives that Mr. Sheehan and I	
21		spoke about earlier, that I think I finally	
22		got right, and as well the reduction in	
23		accumulated funds used during construction,	
24		which would become fairly significant on a	
	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}	r

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1		large project like this.	
2	Q.	And then on Page 12, it says that PSNH has	
3		been actively engaging in negotiating	
4		contracts, though none have been signed as of	
5		then. I mean, it doesn't say "though none	
6		have been signed." But I think it says, if	
7		you look at F1, the first sentence, "PSNH has	
8		been actively engaged in negotiating	
9		contracts for various aspects of the	
10		Project." Correct?	
11	Α.	(Mr. Large) That is the first sentence of	
12		Section F1, yes.	
13	Q.	You don't have any reason to disagree with	
14		that statement.	
15	Α.	(Mr. Large) No.	
16	Q.	And then at the top of Page 14, that	
17		Paragraph A, I have a couple questions about	
18		this. It begins, "PSNH has assured the cost	
19		of energy produced by Merrimack Station will	
20		remain lower cost for customers than	
21		reasonable potential alternatives, even when	
22		the costs of the Clean Air Project are	
23		included." Did I read that correctly?	
24	Α.	(Mr. Large) That's what printed there, yes.	
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1	Q.	And then, in that same paragraph, it goes on
2		to say that an analysis, the net present
3		value analysis, basically demonstrates the
4		continued economics of installing the
5		Scrubber, and that's what provides the
6		assurance. I didn't read all those words,
7		but isn't that essentially what it says?
8	Α.	(Mr. Large) The result of the analysis that
9		we conducted indicated that, with the
10		assumptions that we utilized, operation of
11		the Scrubber at Merrimack Station was in the
12		interest of customers. Yes.
13	Q.	And this is the same analysis that was on
14		Pages 7 and 8 of the July 15 presentation to
15		the board?
16	A.	(Mr. Large) It's clearly built off of that,
17		yes. And I'm quite confident that they're
18		perfectly consistent.
19	Q.	Okay. And so, on Pages 7 and 8, then, if we
20		can look back at that
21	Α.	(Mr. Large) To which, Mr. Patch?
22	Q.	The July presentation.
23	Α.	(Mr. Large) Okay. Thank you.
24	Q.	Page 7 and 8 includes the 2012 gas prices; is
	{DE	11-250} [Day 6/MORNING Session ONLY] {10-22-14}

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1		that correct?	
2	A.	(Mr. Large) Yes, it does.	
3	Q.	And Page 8 includes a reference to the	
4		assumed gas prices also; correct?	
5	Α.	(Mr. Large) All right. I apologize. So,	
6		Page 7 and 8 of the board presentation is in	
7		agreement with what's shown on Page 14 of the	
8		report? Is that what you're asking?	
9	Q.	Well, I'm just asking if it's the same	
10		analysis that we're talking about there.	
11		Isn't the same analysis that we're talking	
12		about on Page 14 of the September 2nd, '08	
13		filing the same analysis that's on Pages 7	
14		and 8 of the presentation to the board?	
15	Α.	(Mr. Large) I'm sorry. I thought I had said	
16		that. Yes.	
17	Q.	Okay. And then, on Page 14, under	
18		Paragraph D, it refers to the sensitivity	
19		analyses that were conducted. And again, are	
20		these the same ones that are referenced in	
21		the board presentation	
22	Α.	(Mr. Large) Yes, they are.	
23	Q.	that are on Page 7?	
24	Α.	(Mr. Large) Yeah, they are.	
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1	Q.	And again, that includes gas and coal prices
2		and an implied gas/coal price spread;
3		correct?
4	A.	(Mr. Large) Yes, it does.
5	Q.	So then, I have to admit I'm a little
6		confused by the response you gave to Mr.
7		Sheehan with a couple of questions he asked
8		yesterday about why you didn't list gas under
9		the primary assumptions and why you didn't
10		list gas under the key assumptions in
11		Paragraph B and D on Page 14 of the '08
12		report filed with the Commission.
13	A.	(Mr. Large) I apologize. I need to retract
14		my statement about gas prices being utilized
15		as part of the discussion in this subset Part
16		III.
17	Q.	So they should have been identified on this
18		page in the report to the Commission you're
19		saying?
20		(Witness reviews document.)
21	A.	(Mr. Large) The analysis in Roman III was a
22		Merrimack Station-only analysis; so it was
23		not a comparative case. So, in the entirety
24		of this report, there is a gas price
l	{DE	$11-250$ [Day 6/MORNING Session ONLY] { $10-22-14$ }

1		assumption that's utilized for other
2		analyses, not those, that are Part III.
3	Q.	So the references to "sensitivity analysis"
4		on Page 14, and the reference to "detailed
5		net present value of revenue requirements,"
6		those are different analyses than the ones
7		that were done for the board, or are they the
8		same? I don't understand.
9	A.	(Mr. Large) I'll strive to clarify. It's a
10		subset of what was provided to the board.
11		Roman III speaks only to the operation of
12		Merrimack Station with the Scrubber, not a
13		comparison to alternatives. So, the
14		"sensitivities" that are spoken to there
15		"future price of coal," Merrimack Station
16		burning coal, "far less sensitive to the
17		capital cost," i.e., the cost to construct
18		the Scrubber, or "CO2 allowances," that would
19		have pertained to Merrimack Station.
20		Sensitivities associated with the Merrimack
21		Station-only analysis were not contingent or
22		dependent on natural gas prices.
23	Q.	I'm going to ask you to look at Page 16.
24		It's marked as Paragraph H
	-	

1	Α.	(Mr. Large) Yes.
2	Q.	of this report. It refers to "comparison
3		and sensitivity analyses" being "conducted
4		using the Scrubber and market purchase plus
5		retirement scenarios."
6	Α.	(Mr. Large) Yes.
7	Q.	And it says there, "Under the base-case
8		assumptions" which are the ones included
9		in the board presentation; correct? Same
10		ones?
11	Α.	(Mr. Large) That is correct. We're now in
12		Roman Section IV of the report.
13	Q.	And it says "\$132 million benefit on a net
14		present value basis over the depreciable life
15		of the Scrubber"; correct?
16	Α.	(Mr. Large) Yes, it does.
17	Q.	"Additional net present value benefit of
18		\$34.2 million is attributable to customers
19		associated with the Scrubber" and goes on
20		from there. But I don't see any mention in
21		there of natural gas prices. Is there some
22		reason you didn't mention it there?
23	Α.	(Mr. Large) It's discussed specifically in
24		Item E.
	-	

		12
1	Q.	Do you see anything about the \$5.29 spread or
2		the \$3.18 average over 15 years?
3	A.	(Mr. Large) No, it does not.
4	Q.	Does it say anything about a sensitivity
5		analysis here?
6		(Witness reviews document.)
7	Α.	(Mr. Large) I think if you connect E and H of
8		Roman IV, you get a discussion of sensitivity
9		analyses and associate it with those cases.
10	Q.	So, the expectation was that the Commission
11		would connect E and H.
12	A.	(Mr. Large) They're all contained in Section
13		Roman IV. So, yes.
14	Q.	Now, I heard you say yesterday that PSNH,
15		quote, unquote, monitored the two Scrubber
16		bills in 2009; correct?
17	A.	(Mr. Large) Yes.
18	Q.	Do you think it's fair to say that PSNH did a
19		little more than "monitor" those bills?
20		MR. NEEDLEMAN: Mr. Chairman,
21		I'll object. I think the Commission has
22		previously ruled that any efforts PSNH made
23		with respect to influencing legislation in
24		any way is beyond the scope of the
	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

proceeding. 1 2 CMSR. HONIGBERG: I'm not sure how much more he might be able to answer, but 3 he can answer that question. 4 5 (Mr. Large) In that we have presentations Α. that are part of this record associated with 6 those bills, "more than monitored" would be 7 8 appropriate, yes. BY MR. PATCH: 9 And you were involved in the preparation of 10 0. 11 materials submitted to the Legislature in connection with Senate Bill 152. I think you 12 said that in the response to TransCanada at 13 6-196 that's in the record; correct? 14 15 (Mr. Large) I was part of the team that was Α. 16 engaged in that effort, yes. 17 Q. And I'm going to show you a copy of -- well, actually, it's already been marked as 18 Exhibit 32. But this is a copy of -- we 19 asked for all of the materials that PSNH 20 21 provided to legislators during the 2009 22 legislative session. It's Exhibit 32. It's 23 the response to TransCanada 1-9. I don't know if you have that in front of you or ... 24  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

(Mr. Large) I do not. I have a copy of it 1 Α. elsewhere, if you want to give me that time. 2 If it's quicker for you to provide it to me, 3 I'm happy to do it that way. 4 (Ms. Goldwasser hands document to 5 witness.) 6 7 CMSR. HONIGBERG: How much 8 more do you think you have, Mr. Patch? MR. PATCH: Oh, I'd say 9 probably an hour, hour and a half maybe. 10 11 CMSR. HONIGBERG: We're not 12 going to finish your questioning of these witnesses then. So we'll plan to go till 13 14 12:30. 15 MR. NEEDLEMAN: Sure. 16 BY MR. PATCH: 17 0. Do you have that in front of you? (Mr. Large) We've been able to locate it, 18 Α. 19 yes. So, just confirming, TransCanada Set 20 1... no. It's originally TransCanada 1, 21 Question 9. 22 Yes. Q. 23 (Mr. Large) Thank you. Α. In the upper right-hand corner of the 24 Q. {DE 11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1		attached pages, I'd ask you to look at Page 3
2		of 36.
3	A.	(Mr. Large) Page 3 of 36? Yes.
4	Q.	And in the left-hand column there are sort of
5		three paragraphs under the heading. The
6		third paragraph ask you if I have read
7		this correctly: "At Merrimack Station in
8		Bow, we're currently halfway through a
9		six-year project to install 'scrubber
10		technology.'" Did I read that correctly?
11	Α.	(Mr. Large) Yes.
12	Q.	So this is what was said to the Legislature
13		in March of '09; correct?
14	A.	(Mr. Large) That's correct.
15	Q.	Page 4 of 36.
16	Α.	(Mr. Large) I have it.
17	Q.	Near the top on the left there's "Facts About
18		Cost." And the first not the first arrow,
19		but the first bullet under there says, "The
20		difference between preliminary cost estimates
21		in 2005 and firm price contracts in 2008" is
22		the reference there. Did I read that
23		correctly?
24	Α.	(Mr. Large) Yes, you did.

1	Q.	And that's a little different than what PSNH
2		told the Legislature in 2006, isn't it, where
3		they and we have this in the record
4		where PSNH said specifically told
5		different people that it was a "not-to-exceed
6		number" of \$250 million. So, here we are in
7		2009, and they're referring PSNH is
8		referring to this as "preliminary cost
9		estimates in 2005." Did I read that
10		correctly?
11		CMSR. HONIGBERG: Wait.
12		There's an objection coming.
13		MR. NEEDLEMAN: I'm going to
14		object to the characterization of what PSNH
15		supposedly told the Legislature in 2006. If
16		there's a specific document he wants to put
17		in front of Mr. Large, I'd ask that he do so.
18		CMSR. HONIGBERG: Mr. Patch.
19		MR. PATCH: Well, I guess I
20		can do that. I think we all know the
21		documents by now. They're the two Nolan
22		letters and there's the fiscal note on the
23		bill in 2006. And I think Mr. Large knows
24		them pretty well, too. Maybe I'd start
l	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

there? 1 2 CMSR. HONIGBERG: Well, I think your question said, "PSNH said to the 3 Legislature... " And what you just referenced 4 are Nolan letters and the fiscal note. 5 As far as I know, neither of those are prepared 6 7 by PSNH. So the premise of the question I 8 think is where Mr. Needleman has a problem, and I agree with him. 9 10 MR. PATCH: Okay. I will 11 reask the question. BY MR. PATCH: 12 Mr. Large, do you recall from the 2006 13 0. 14 session that there were two letters from 15 Commissioner Nolan to the Legislature, and 16 both of them referenced the fact that, based 17 on information from PSNH, it was a "not-to-exceed number" of \$250 million? 18 Do 19 you recall that? 20 (Mr. Large) I would benefit from having the Α. 21 opportunity to see them, if I may. 22 Okay. We'll do that. What I'm going to put 0. 23 in front of you is Attachment 2 to Mr. Hachey's testimony, and it's a January 12, 24 {DE 11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1		2006 letter and an April 11, 2006 letter; one
2		to the House the Chairman of the House
3		Committee and one to The chairman of the
4		Senate Committee. And both letters, I think,
5		have very similar language in them. And on
6		Page 2 of the letter to the House, the
7		January letter I'm going to read this.
8		Maybe I'm sorry. I'll read this and just
9		ask you if I read it correctly.
10		"Based on data shared by PSNH, the total
11		capital cost for this" I can't read it too
12		well from here "redesign will not exceed
13		\$250 million in 2013 dollars or \$197 million
14		in 2005 dollars." Did I read that correctly?
15	Α.	(Mr. Large) Well, the sentence does go on,
16		but
17	Q.	Okay. If you want to read more, go ahead.
18	Α.	(Mr. Large) So there was a comma after the
19		"\$197 million 2005 dollars." And the rest of
20		the sentence says, "a cost that will be fully
21		mitigated by the savings in
22		(Court Reporter interrupts.)
23	A.	(Mr. Large) So, following the "\$197 million
24		in 2005 dollars," comma, "a cost that will be
	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

1	fully mitigated by the savings in SO2
2	emissions allowances." So that is what is
3	stated there, yes. Certainly there's implied
4	that there's some variability in that. It's
5	\$250 million, not to exceed, as written
6	there, in 2013 dollars, or \$197 million in
7	2005 dollars. So there's escalation and
8	things of that nature.
9	If the discussion is about the use of
10	the words "not to exceed," I'd be happy to
11	have that debate with you.
12	Q. Well, and then sorry. I'm going to ask
13	you to look at the letter that was provided
14	to the Senate, the Chair of the Senate
15	Committee, about four months later, in April,
16	maybe three months, whatever. And it has a
17	similar reference; does it not?
18	SP. CMSR. IACOPINO: Who is
19	this letter from?
20	MR. PATCH: Another one from
21	Commissioner Nolan. Both of these are from
22	Commissioner Nolan.
23	MR. NEEDLEMAN: Where is this
24	letter?
	{DE $11-250$ } [Day 6/MORNING Session ONLY] { $10-22-14$ }

MR. PATCH: It's Attachment 2, 1 2 I think it is, to Mr. Hachey's testimony. MR. NEEDLEMAN: 3 Thank you. MR. SHEEHAN: 0039. 4 BY MR. PATCH: 5 And we can read all of that wording in there. 6 ο. 7 But is it fair to say that it says something 8 very similar to what you just read? And if you want to read it, you can. 9 (Mr. Large) My quick scan is that it's 10 Α. identical. 11 And then I would ask you -- see if I can find 12 Q. I have in front of you the House Bill 13 this. 1673 from the 2006 legislative session. 14 15 There's a fiscal note. This is, I believe, 16 Attachment 1 to Mr. Hachey's testimony. It's 17 the third page of that attachment. And I'm going to read to you a sentence from there. 18 "PSNH estimates that the installation 19 20 will be at a cost not to exceed \$250 million 21 in 2013 dollars or \$197 million in 2005 22 dollars." 23 (Mr. Large) Yes, it does say that PSNH Α. estimates that the cost will not exceed in 24 {DE 11-250} [Day 6/MORNING Session ONLY] {10-22-14}

1 2013 dollars and 2005 dollars. I do also want to point out that in the 2 first paragraph defining the "fiscal impact," 3 it says that DES and the PUC state that the 4 bill will have "indeterminable impact." 5 So it raises some level of question as to how 6 7 this was going to impact customers. 8 0. Thank you. Were you here when the Jacobs witnesses 9 testified? 10 (Mr. Large) I was, yes. 11 Α. Do you recall an exhibit that I showed to 12 Q. them, which was a PSNH response to a data 13 request which said that PSNH considered the 14 15 \$250 million estimate to be all-inclusive? 16 (Mr. Large) I would benefit from having the Α. 17 opportunity to see that. I'm sorry. 18 MR. NEEDLEMAN: Is there an exhibit number? 19 20 MR. PATCH: There is, and 21 we're just having a -- taking a minute to 22 find it. Sorry. I'll move on from here. We 23 can come back to it. I think it's in the record and it says what it says. 24

But I guess what I would like 1 2 to then point you next to in this exhibit that we're talking about, this response to 3 TC 1-9 --4 5 (Mr. Large) Sorry. I put it back. Α. I'm back on Page 4 of 36 again. 6 ο. 7 (Mr. Large) Thank you. I appreciate it. Α. 8 Sorry about that. I mean, just to 9 MR. PATCH: note for the record, I don't think I need to 10 11 ask any questions. But that's Exhibit 58, the one I was referring to, where PSNH said 12 that the price is all-inclusive in the \$250 13 million. 14 BY MR. PATCH: 15 But Mr. Large, Page 4 of 36, in the left-hand 16 Q. 17 column, doesn't it say under the second bullet, "A massive increase in the price of 18 raw materials, steel, labor" --19 20 (Court Reporter interrupts.) 21 Q. In terms of the cost increase from \$250- to 22 \$457 million, there's a reference there to, 23 "a massive increase in the price of raw materials." Did I read that correctly? 24  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

<ul> <li>A. (Mr. Large) Yes.</li> <li>Q. And then, above the heading with the</li> <li>Scrubber, there's a bullet or an arrow there</li> <li>that says, "Customers are protected on price</li> <li>because every dollar spent will be</li> <li>scrutinized by New Hampshire Public Utilities</li> <li>Commission before it can be recovered through</li> <li>rates." Is that what it says?</li> <li>A. (Mr. Large) That's what it says, and that's</li> <li>my understanding of what we're doing here</li> <li>today.</li> <li>Q. And then, over on the right-hand column under</li> <li>"Senate Bill 152," the second bullet says, "A</li> <li>shutdown of Merrimack Station would mean:</li> <li>Higher energy rates for PSNH customers." Is</li> </ul>	
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16 that what it says?	
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17 A. (Mr. Large) That's what it says.	
18 Q. And then, if you go down under the second,	
19 sort of bolded area on that page, it says,	
20 "\$230 million (more than half the Project	
21 cost) has already been spent or contractually	
22 committed." Did I read that correctly?	
23 A. (Mr. Large) Yes.	
24 Q. And it goes on to say, "This cost would have	

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1		to be recovered from PSNH customers whether	
2		or not the Scrubber installation is	
3		completed"; correct?	
4	Α.	(Mr. Large) It says that, yes.	
5	Q.	Were you involved in the preparation of these	
6		materials, too?	
7	Α.	(Mr. Large) Not that specific one, no.	
8	Q.	And then, again on Page 7, there's a	
9		reference to the fact that	
10	A.	(Mr. Large) Page 7, Mr. Patch?	
11	Q.	Well, I said 7, but I think I got the page	
12		number wrong. It's actually 12 of 36. It	
13		says, once again, "PSNH is currently halfway	
14		through the six-year project. \$230 million	
15		(over half of the cost to engineer and build	
16		the Scrubber) has been spent or contractually	
17		committed." Isn't that what it says?	
18	Α.	(Mr. Large) Yes, it does. And just if I can	
19		clarify, "halfway through a six-year project"	
20		means that, with the passage of the Scrubber	
21		Law in 2006, permitting, detailed	
22		engineering, all of the preliminary work	
23		that's necessary before you really can put a	
24		shovel in the ground was what was	
		11 250] [Dev. (/WODWING description OWW] [10 22 14]	

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1		accomplished. So I'm hearing a sensitivity	
2		not to having spent half the money, but	
3		identifying that we're halfway through the	
4		Project. So I wanted to clarify.	
5	Q.	Okay. And then on Page 16 of 36, it says at	
6		the top, "Upon completion, the Clean Air	
7		Project will add an average of about	
8		three-tenths of one cent to PSNH's Energy	
9		Charge"; correct?	
10	A.	(Mr. Large) Yes.	
11	Q.	And that's the same estimate that was	
12		provided to the Commission back in September	
13		of 2008; correct?	
14	Α.	(Mr. Large) Yes.	
15	Q.	And here we are in March of 2009. Was that	
16		estimate updated at all?	
17	A.	(Mr. Large) It was not.	
18	Q.	Do you think there was any reason to update	
19		that estimate? Had things changed over that	
20		period of time?	
21	A.	(Mr. Large) A number of things had changed,	
22		and a number of things would continue to	
23		change.	
24	Q.	And then on Page 19 of sorry. It's Page	
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1		24 of 36, but it's 19 in the lower right-hand	
2		corner. It says, "At every step of the way,	
3		we have affirmed pricing to ensure it is in	
4		line with marketplace." Do you see that?	
5	A.	(Mr. Large)I do.	
6	Q.	And then it refers to "independent firms"	
7		being retained to provide market analysis and	
8		price benchmarking in five different years,	
9		2005 through 2009; correct?	
10	A.	(Mr. Large) Yes.	
11	Q.	And "confirmed project costs are consistent	
12		with market prices for projects of similar	
13		<pre>scope and size"; correct?</pre>	
14	A.	(Mr. Large) Yes.	
15	Q.	So, I mean, you were telling the Legislature	
16		at that point that you had contracted with a	
17		number of independent firms to do market	
18		analyses; correct?	
19	A.	(Mr. Large) Associated with construction	
20		materials, labor. This is associated with	
21		the building of the Scrubber.	
22	Q.	Nothing to forecast natural gas prices;	
23		correct?	
24	A.	(Mr. Large) We had not done further analysis	
I	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$	•

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1		with respect to natural gas prices.	
2	Q.	In fact, you never contracted with anyone to	
3		do a forecast of natural gas prices	
4		associated with the Scrubber Project, did	
5		you?	
6	Α.	(Mr. Large) We utilized as information to	
7		inform our selection and assumption	
8		contracted natural gas price information.	
9	Q.	And how much was spent on this project? \$422	
10		million, roughly?	
11	Α.	(Mr. Large) Yes.	
12	Q.	So you didn't spend a penny on hiring any	
13		natural gas anyone to forecast natural gas	
14		prices; is that right?	
15	Α.	(Mr. Large) We did not do an independent	
16		contract to obtain natural gas price	
17		forecasts, no. We utilized contracted	
18		natural gas price forecasts to educate,	
19		illuminate our discussion and our final	
20		choice of an assumption of natural gas	
21		prices. We used a contracted firm that we	
22		my words, I apologize if it's unclear	
23		"blanket order," someone that we work with on	
24		a regular basis.	

		1	.4
1	Q.	And you didn't hire any expert on economics	
2		at the Project. There was no outside person	
3		you hired to evaluate the economics of the	
4		Project. That was all done internally;	
5		correct?	
6	A.	(Mr. Large) Yes, it was. We have the	
7		capability to do that work.	
8	Q.	On Page 24	
9	A.	(Mr. Large) Lower right-hand corner, 24?	
10	Q.	Yes.	
11	A.	(Mr. Large) Thank you.	
12	Q.	Upper right-hand corner, 29 of 36. At the	
13		bottom it says, "PSNH customers could be on	
14		the hook for \$300 million in stranded costs,	
15		with nothing to show for it." Did I read	
16		that correctly?	
17	Α.	(Mr. Large) Yes, you did.	
18	Q.	Two hundred and thirty for Scrubber costs and	
19		63 million for undepreciated cost of	
20		Merrimack Station in 2013; correct?	
21	A.	(Mr. Large) That's what's shown there. So	
22		clearly, we rounded up.	
23	Q.	And then on Page 25, the next page, under	
24		"What A Study Will Not Do," the third bullet	
I	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$	

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1		is, it will not "provide accurate forecasts	
2		for the price of oil, gas, coal or financing	
3		rates." Did I read that correctly?	
4	Α.	(Mr. Large) Yes, you did.	
5	Q.	Do you think the assumptions that you did in	
6		the summer of '08 provided accurate	
7		forecasts?	
8	Α.	(Mr. Large) They were the best information	
9		available and knowable at the time.	
10	Q.	Why were those any more accurate than what	
11		would have been done if a further study had	
12		been done?	
13	Α.	(Mr. Large) They would have contained the	
14		same uncertainty and lack of precision that	
15		the assumptions utilized in any of these	
16		analyses have.	
17	Q.	And then, on Page 26, it says, "The only	
18		logical purpose for performing a study is to	
19		create momentum to derail the Scrubber	
20		installation"; correct?	
21	Α.	(Mr. Large) That's the fourth bullet. Yes.	
22	Q.	Where in the information presented to the	
23		Legislature is there any information about	
24		the importance of the spread between gas and	
	DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$	_

		14
1		coal?
2	Α.	(Mr. Large) I don't see it in this document.
3	Q.	These are all the documents presented to the
4		Legislature; correct? That was the question
5		we asked, and this is what we got.
6	Α.	(Mr. Large) May I have the question again,
7		please?
8	Q.	I said, where in the information that PSNH
9		presented to the Legislature is there
10		information about the importance of the
11		spread between gas and coal?
12	A.	(Mr. Large) I don't find it in the documents
13		that we've just reviewed.
14	Q.	Are you aware of any other documents other
15		than these?
16	A.	(Mr. Large) I am not aware of any other
17		documents.
18	Q.	And where in those documents is there any
19		information about the spread required to make
20		the Project economic for customers?
21	Α.	(Mr. Large) It's not contained in these
22		documents. And I believe these to be all
23		that we've presented to the Legislature.
24	Q.	In TransCanada 1-2, on June 4th of 2012, we
	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

1		had asked PSNH to provide all fuel forecasts
2		available to PSNH at the time of the initial
3		decision to construct the Scrubber. And the
4		response that was provided, after the
5		Commission granted a motion to compel on
6		January 11, 2013, was what has been marked as
7		Exhibit 20-16. This is an attachment to Mr.
8		Hachey's testimony. I guess I'd like to
9		direct your attention to that.
10	А.	(Mr. Large) So, I apologize again. I don't
11		have Mr. Hachey's testimony. I probably have
12		the document in my own materials.
13	Q.	Okay. Could we take a minute to try to
14		locate it?
15	Α.	(Mr. Large) Can you describe it?
16	Q.	It's the PSNH response to TransCanada 1-2.
17		SP. CMSR. IACOPINO: Do you
18		have a Bates Stamp page number, Mr. Patch?
19		MR. PATCH: No, but I can find
20		it for you.
21		(Pause in proceedings)
22		CMSR. HONIGBERG: You're going
23		to be looking at Mr. Hachey's testimony?
24		That's what I have in front of me, and that
	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

# [WITNESS PANEL: LARGE|VANCHO]

		1
1		has Bates numbers that would be helpful.
2		MR. PATCH: Yes, I'll try to
3		find that. It begins on Bates Page 159.
4	Α.	(Mr. Large) I have that now. Thank you.
5	Q.	I believe, in response to some questions from
6		Mr. Sheehan I believe in response to some
7		questions from Mr. Sheehan yesterday you had
8		indicated that the EVA forecasts were marked
9		as Bates Pages 591 through 601.
10	Α.	(Mr. Large) I'll agree to that, subject to
11		check. I'm sorry. I just don't remember the
12		specifics of the pages.
13	Q.	I guess that's actually a different exhibit
14		number he was using. But let's see if we can
15		use these Bates page numbers here in the
16		document I'm showing you. I think it would
17		be Bates Pages 162.
18	A.	(Mr. Large) I think you want to go all the
19		way to 172.
20	Q.	Yes.
21	Α.	(Mr. Large) That's what Mr. Sheehan and I
22		spoke about, the Boston City Gate prices.
23		And I'm confident that these are from the
24		early 2008 EVA forecasts that we received.
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# [WITNESS PANEL: LARGE|VANCHO]

		14
1	Q.	I think you said yesterday, from the February
2		'08 forecasts; correct?
3	А.	(Mr. Large) As I looked through my notes, I
4		was able to find that notation. Yes.
5	Q.	And you said these are EVA forecasts.
6	A.	(Mr. Large) That is correct.
7	Q.	Where on those pages does it say they were
8		done by EVA?
9	Α.	(Mr. Large) Unfortunately, it does not.
10	Q.	And where in the response to the data request
11		does it say they were done by EVA?
12		(Witness reviews document.)
13	Α.	(Mr. Large) It doesn't refer specifically to
14		"EVA." It does refer to "industry
15		consultants," who was EVA would be one of
16		our industry consultants.
17	Q.	There's another response to a data request,
18		TC 3-6, that I'm going to ask be marked as an
19		exhibit. It's my understanding that this is
20		actually an attachment to your testimony,
21		Bates Page 668.
22		CMSR. HONIGBERG: So we're not
23		going to need to mark anything? Correct?
24		MS. FRIGNOCA: Could you
	{DE	11-250} [Day 6/MORNING Session ONLY] $\{10-22-14\}$

## [WITNESS PANEL: LARGE|VANCHO]

please identify the exhibit number? 1 It's the rebuttal 2 MR. PATCH: testimony of Large and Vancho. And I just 3 don't have the exhibit list right in front of 4 5 me, so... but it's Bates Page 668 in that exhibit. 6 7 (Mr. Large) So it could be Exhibit 23-15, if Α. that makes it any easier. 8 Thank you. And from the footnote on the 9 Q. 10 response to this request on Page 668, it 11 looks like you used the EVA forecast from February of '08 for this purpose as well; 12 correct? 13 14 Α. (Mr. Large) Yes. 15 I'm going to show you a response to a Q. 16 Deposition Data Request No. 4 and ask that it 17 be marked. CMSR. HONIGBERG: This will be 18 19 122. 20 MR. PATCH: We're just having 21 a problem locating that. I'm sorry. I don't 22 know if this would be a good time to take a 23 break for lunch. Or do you want me to move on and come back to it? I'm sorry. There's 24  $\{DE 11-250\}$  [Day 6/MORNING Session ONLY]  $\{10-22-14\}$ 

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a lot of documents, and we're doing the best 1 2 we can. CMSR. HONIGBERG: We could 3 That's fine. break now. 4 5 MR. PATCH: Okay. Thank you. CMSR. HONIGBERG: So we'll 6 7 come back at quarter to two. SP. CMSR. IACOPINO: 8 Mr. Patch, are you looking for the TC 13, 9 Attachment 4? If it is, that's on Page 48, 10 11 the Bates Stamp page 48 of Mr. Hachey's testimony, in the book containing Mr. 12 Hachey's testimony. Just to help you out if 13 14 that's what you're looking for. I'm not 15 sure. 16 MR. PATCH: No. Attachment 4? 17 SP. CMSR. IACOPINO: Yes. MR. PATCH: No, it's actually 18 19 a response to a deposition data request. CMSR. HONIGBERG: 20 So we'll 21 break now and come back at 1:45. 22 Mr. Needleman. 23 MR. NEEDLEMAN: After we go off the record. 24

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		150
1	CMSR. HONIGBERG: All right.	
2	Go off the record.	
3	(Whereupon, a lunch recess was taken at	
4	12:24 p.m., with the afternoon session	
5	resuming under separate cover.)	
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### CERTIFICATE

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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.

12 I further certify that I am neither 13 attorney or counsel for, nor related to or 14 employed by any of the parties to the 15 action; and further, that I am not a 16 relative or employee of any attorney or 17 counsel employed in this case, nor am I 18 financially interested in this action. 19 20 Robidas, LCR/RPR Susan J. 21

Licensed Shorthand Court Reporter Registered Professional Reporter N.H. LCR No. 44 (RSA 310-A:173)

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