STATE OF NEW HAMPSHIRE 1 2 PUBLIC UTILITIES COMMISSION 3 DAY 4 4 February 1, 2011 - 9:28 a.m. Concord, New Hampshire 5 NHPUC FEB15'11 pm 3:35 DE 10-195 6 RE: PUBLIC SERVICE CO. OF NEW HAMPSHIRE: 7 Petition for Approval of Power Purchase Agreement between PSNH and Laidlaw Berlin BioPower, LLC. 8 9 10 PRESENT: Chairman Thomas B. Getz, Presiding Commissioner Clifton C. Below 11 Commissioner Amy L. Ignatius 12 13 Sandy Deno, Clerk 14 APPEARANCES: Reptg. Public Service Co. of New Hampshire: Robert A. Bersak, Esq. 15 Reptg. the City of Berlin: 16 Christopher Boldt, Esq. (Donahue, Tucker...) Keriann Roman, Esq. (Donahue, Tucker...) 17 Reptg. Clean Power Development: 18 Mel Liston 19 Reptg. Bridgewater Power, Pinetree Power, Pinetree Power-Tamworth, DG Whitefield Power, 20 Springfield Power & IndeckEnergy-Alexandria: David J. Shulock, Esq. (Brown, Olson & Gould) 21 David K. Wiesner, Esq. (Brown, Olson & Gould) 22 Reptg. Edrest Properties, LLC: Jonathan Edwards 23

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		3
1	INDEX	
2		PAGE NO.
3	WITNESS: GEORGE E. SANSOUCY	
4	Direct examination by Mr. Boldt	6
5	Cross-examination by Mr. Bersak	16
6	Cross-examination by Ms. Amidon	41
7	Cross-examination by Mr. McCluskey	45
8	Cross-examination by Mr. Edwards	90
9	Interrogatories by Cmsr. Below	112, 128
10	Interrogatories by Cmsr. Ignatius	114
11		
12	WITNESS: KENNETH E. TRAUM	
13	Direct examination by Ms. Hatfield	136
14	Cross-examination by Mr. Shulock	151
15	Cross-examination by Ms. Amidon	154, 159
16	Cross-examination by Mr. McCluskey	156
17	Cross-examination by Mr. Bersak	160
18	Interrogatories by Cmsr. Ignatius	182
19	Redirect examination by Ms. Hatfield	185
20		
21	WITNESS PANEL: THOMAS C. FRANTZ GEORGE R. McCLUSKEY	
22	Direct examination by Ms. Amidon	190
23		
24		

				4
1				
2		EXHIBITS		
3	EXHIBIT NO.	DESCRIPTION	PAGE NO.	
4	Staff 12C	Document entitled "Power Reference Case Electricity and Fuel Price	87	
5		Outlook Northeast Region Fall 2010"		
6		(CONFIDENTIAL & PROPRIETARY)		
7	Staff 13C	Ventyx Tables (CONFIDENTIAL & PROPRIETARY)	87	
8	PSNH 16	OCA response to PSNH Data	163	
9		Request 1-1		
10	PSNH 17	OCA response to PSNH Data Request 1-5	165	
11	PSNH 18	OCA response to PSNH Data Request 1-3	173	
13	STAFF 14	Chart prepared by Witness McCluskey entitled "Laidlaw	198	
14		Facility Sansoucy Exhibit 10 Calculation"		
15	STAFF 15	Chart titled "Laidlaw PPA	208	
16 17		Energy Prices Compare Unfavorably to Historic Wholesale Electricity Prices"		
18				
19				
20				
21				
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1	PROCEEDING
2	CHAIRMAN GETZ: Okay. Good morning,
3	everyone. We will reopen the hearing in Docket DE 10-195.
4	And, I guess following up on where we ended last week, we
5	completed the examination of the PSNH witnesses. And, the
6	next major order of business would be moving onto the
7	City's witness.
8	Is there anything we need to discuss
9	before?
10	MR. BOLDT: A very minor housekeeping
11	matter, Mr. Chairman. As I mentioned last Wednesday, we
12	had given some supplemental tables to the Ventyx
13	materials, and I have the correct versions that I failed
14	to give you Wednesday, and I apologize. Yes. These would
15	be the pages that go with that, without the cover sheet,
16	but I have Ms. Ignatius's original, but
17	MS. AMIDON: Mr. Chairman, I'm not sure
18	if we have that.
19	MR. BOLDT: Those are the exact same
20	things I gave you before lunch on Wednesday.
21	MS. AMIDON: Okay. Thank you.
22	MR. BOLDT: Minor housekeeping. And,
23	the City would call Mr. George Sansoucy as its witness.
24	CHAIRMAN GETZ: Okay.

{DE 10-195} [Day 4] {02-01-11}

[WITNESS: Sansoucy]

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1
                         (Whereupon George E. Sansoucy was duly
2
                         sworn and cautioned by the Court
 3
                         Reporter.)
 4
                         MR. BOLDT: And, Mr. Sansoucy, be sure
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      to lean into the microphone for the record for the benefit
6
      of everyone.
7
                      GEORGE E. SANSOUCY, SWORN
                          DIRECT EXAMINATION
8
    BY MR. BOLDT:
9
         Would you state your name for the record, sir.
10
    Q.
11
    Α.
         George Sansoucy.
         And, do you see in front of you the blue binder?
12
    Q.
         Yes, I do.
13
    Α.
         And, if you'd open that generally, are those the
14
    Q.
         exhibits that are proffered for the City of Berlin
15
         through your testimony?
16
17
    Α.
         Yes, they are.
         Generally, what is Exhibit 1?
18
    Q.
19
    Α.
         Exhibit 1 is the direct testimony, City of Berlin.
         As filed in this matter back in December?
20
    Q.
21
    Α.
         Yes.
22
         And, what is Exhibit 2?
    Q.
23
         Exhibit 2 is my resumé.
    Α.
         And, Exhibit 3?
24
    Q.
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{DE 10-195} [Day 4] {02-01-11}

- 1 A. Exhibit 3 is my rebuttal testimony.
- 2 Q. Okay. Now, if you turn to the final page of that, let
- me ask, are there any corrections that need to be made
- 4 at this time to your testimony?
- 5 A. Yes. In Exhibit 3, my rebuttal testimony, I would like
- to offer a Revised Exhibit 10.
- 7 Q. Okay. And, what is the purpose of that document?
- 8 A. The Revised Exhibit 10 simplifies the calculation of
- 9 what I was -- the point I was trying to make in the
- 10 original Exhibit 10.
- 11 Q. Okay.
- 12 A. And, it relates to the -- it more closely relates to
- Exhibit 9 in the rebuttal testimony.
- 14 Q. And, when was that document created?
- 15 A. This document was created immediately after we prepared
- the rebuttal testimony.
- 17 Q. In the -- was it prepared yesterday for the -- after
- 18 the tech session?
- 19 A. This was prepared and forwarded yesterday
- 20 electronically, after a tech session the day --
- 21 yesterday morning, I believe, right?
- 22 Q. It seems so long ago.
- 23 A. It does.
- 24 CHAIRMAN GETZ: Ms. Hatfield, did you

have something on this?

MS. HATFIELD: Yes, Mr. Chairman. We were just informed, at roughly 9:00 this morning, that the City was intending to revise Exhibit 10 to Mr. Sansoucy's testimony. We have -- I don't believe we've seen this document. I'm very confused, and I don't mean to take up the Commission's time, but if I could just explain where we think we are with respect to this document.

In response to the Commission's secretarial letter late in the day Friday, Staff scheduled a technical session for yesterday morning so that the parties could meet with Mr. Sansoucy to ask questions about the information that the Commission determined would be allowed into the record. And, at that technical session, we asked for some backup materials. And, we were told late yesterday that the backup materials did not exist and would need to be created. And, I believe that what is now Exhibit 10 might -- I think the question that Mr. Sansoucy just answered indicates that this was pulled together yesterday. And, I just wanted to note for the record that the OCA has not had time to review this. And, we object to the City attempting to supplement and revise its rebuttal testimony today. Thank you.

MR. BOLDT: And, I can clarify, if I

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1
      may, Mr. --
                        CHAIRMAN GETZ: Well, let me just make
2
      sure I understand. So, this is specifically with Exhibit
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      10 Revised?
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5
                        MR. BOLDT: Correct. Mr. Chairman, this
      was transmitted yesterday afternoon, about 3:30,
6
7
      electronically. There was a second page of a 2-page
      electronic spreadsheet that I mistakenly did not catch the
8
      error at the top that said "Exhibit 9". That's -- if you
9
      will note the page, I have handwritten in "Exhibit 10
10
11
      Revised". That was in response to request -- I took it
12
      like a records request made during the technical session
      yesterday morning. It was provided to me by Mr. Sansoucy
13
14
      and I transmitted it over as soon as possible. It is in
      hopes to give clarity to some of the questions that were
15
      raised during the tech session. And, it's at the Board's
16
17
      discretion whether that comes in.
                        CHAIRMAN GETZ: Well, I guess I'm having
18
      trouble following. I believe the witness said this
19
20
      Exhibit 10 Revised is to try and clarify some point he was
21
      trying to make earlier in Exhibit 10, is that accurate?
22
                        MR. BOLDT: I believe so. It might be
23
      helpful to have Mr. Sansoucy explain.
                        CHAIRMAN GETZ: Well, let's hold on for
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a second. I just want to look at these exhibits to find out if it's something new or if it's truly just a clarification.
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MR. BOLDT: To give a little bit of background, Exhibit 10 was the original exhibit attached to Mr. Sansoucy's data request responses. It was originally labeled "Exhibit 1", because that was the only exhibit. The subsequent version revised is in follow up to the questions that were raised that were somewhat confusing during the tech session yesterday. Mr. Sansoucy thought it would be beneficial to be clearer, and, therefore, created yesterday afternoon this Revised Exhibit 10.

MS. AMIDON: May I, Mr. Chairman?

MR. BOLDT: The building blocks of it he can explain much better than I, Mr. Chairman.

CHAIRMAN GETZ: Go ahead.

MS. AMIDON: May I? Thank you. As Attorney Hatfield indicated, we did schedule a technical session for yesterday to review certain materials that were coming in as ruled by the Commission on last Friday in the secretarial letter. And, at that technical session, we specifically requested an Excel, a working -- pardon me, a working Excel spreadsheet, so that we could

test some of the assumptions and inputs into what was then Exhibit 10 to Mr. Sansoucy's rebuttal testimony. We were told late in the day that the Excel spreadsheets were not available, and that the data had to be recreated.

Now, we've been presented with this

Revised Exhibit 10, which looks to me, to the untrained

eye, to be kind of a hybrid between Exhibit 9 and Exhibit

10, with some new information. But I just want to point

out to the Commission that we had asked for and were told

that we would be provided with a working Excel

spreadsheet, and we were not. So, this is new information

that we have not had a chance to examine. And, I would

concur with Attorney Hatfield's objection to introducing

this in the record at this point.

MR. BOLDT: And, we can clarify further, if I may, Mr. Chairman? What was electronically transmitted yesterday were two working spreadsheets. One of which was for the Exhibit 9 that is in your binder, and one of which is for this mislabeled "Exhibit 9", which should be "Revised Exhibit 10". That was transmitted at approximately 3:00 yesterday afternoon. What I informed them at the time, and is still true today, is that at that time we could not locate the spreadsheet for original Exhibit 10. That was, he tried to recreate over the

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      evening.
                        I provided paper copy of that in an
 2
      additional document that's not in the binders, but we
 3
      provided it to them. And, electronically, my associate, I
 4
      believe by now, will have sent over the electronic version
5
      of that document. So, it's not like we are playing
6
7
      hide-the-ball. It is, we provided what we had as we got
      it. And, I have referenced these materials I believe in
8
      an accurate fashion.
9
                        CHAIRMAN GETZ: And, it may not be
10
      hide-the-ball, but we may have a problem of find-the-ball.
11
                        MR. BOLDT: I readily admit that.
12
                        CHAIRMAN GETZ: And, I think we have
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14
      this issue of, there's a statement, there's discovery,
15
      more information comes out in discovery, and then more
      documents that want to be introduced in the record, and
16
17
      then there needs to be an opportunity to prepare cross on
18
      those documents.
                        So, --
19
                        MR. BOLDT: And, we did offer a tech
      session before we started this morning.
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CHAIRMAN GETZ: Mr. Shulock.

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MR. SHULOCK: I'd like to read -- I'd like to read a data request that I made of Mr. Sansoucy back on December 28th. It says: "Please provide all

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calculations and work papers that Mr. Sansoucy or anyone
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2
      at George E. Sansoucy, P.E., LLC, prepared to arrive at
      the figure of $300,000 in ratepayer savings referenced on
 3
      Page 9 of his testimony, and state when each calculation
 4
5
      and work paper was prepared."
                         These papers should have been provided
 6
7
      at that time, not the morning of the hearing.
8
                        CHAIRMAN GETZ:
                                         Okay.
9
                         (Chairman and Commissioners conferring.)
                         CHAIRMAN GETZ: Mr. Shulock, what was
10
      the answer to that data request?
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12
                        MR. SHULOCK: It says: "Please find
      enclosed Table 1, Sansoucy Exhibit A, which forecasts
13
      gross operating revenue of the Laidlaw plant." And, it
14
      goes onto describe what has become what we're discussing,
15
      Exhibit 9.
16
                        CHAIRMAN GETZ: Exhibit 9 or Exhibit 10?
17
                        MR. SHULOCK: I'm sorry, Exhibit 10.
18
19
                        CHAIRMAN GETZ:
                                         Okay.
20
                        MR. SHULOCK: And, if I may point out, I
21
      have a copy of the e-mail from yesterday, and it does not
22
      attach Exhibit 10, it only attaches Exhibit 9.
23
                         CHAIRMAN GETZ: Okay. Let's do this for
24
            Hold off any direct or any, excuse me, cross about
      now.
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- 1 this particular exhibit. And, we need to give it some
- 2 further thought, and we may have some discussion later in
- 3 the day about exactly how to handle this exhibit. And,
- 4 let's proceed with the direct and the cross on the other
- 5 issues.
- 6 MR. BOLDT: Thank you, Mr. Chairman.
- 7 BY MR. BOLDT:
- 8 Q. Mr. Sansoucy, Exhibit 3, save the last page, are there
- 9 any additional changes, corrections, or errata that
- 10 have not already been incorporated into that document
- as you see it today?
- 12 A. No.
- 13 Q. Okay. And, does that version of Exhibit 3 correctly
- strike through those sections and the first two
- exhibits in accordance with the Board's order of last
- 16 Friday?
- 17 A. Yes, I believe it does.
- 18 Q. Okay. And, frankly, on the top of Exhibits 1 and 2,
- does it have a header that says that those two were
- 20 stricken over the City's objections?
- 21 A. The top of --
- 22 Q. Exhibits 1 and 2 to the rebuttal testimony, the
- 23 original.
- 24 A. The rebuttal testimony.

- I just wanted to call the Board's attention to that. 1 Q.
- 2 Α. Yes, it does.
- Okay. And, can you summarize your testimony for the 3 Q. Board? 4
- 5 Yes, I can. Α.

Briefly, please. 6 CHAIRMAN GETZ:

7 WITNESS SANSOUCY: Yes.

> MR. BOLDT: Yes.

BY THE WITNESS:

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My testimony, my direct testimony articulates positive benefits of this plant and positive elements of this plant to -- in behalf of the City of Berlin and for the City of Berlin. My rebuttal testimony directly rebuts the capacity -- the lack of analysis regarding capacity and the value and cost of capacity of the plant. That was not performed by Staff and OCA. And, it also rebuts the use of short-term market analysis and suggests that long-term market trends are very different. It also rebuts the \$400 million comment or discussion that was out there from OCA, that this plant will cost more than 400 million for the ratepayers than In fact, there are a wide variety of otherwise. scenarios that could occur where, in fact, this plant would save 3 or 400 million of ratepayers' money over 24

1 time.

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So, my rebuttal testimony summarizes those, those beliefs and opinions, as another opinion towards OCA and Staff that there are some very positive benefits and there are many scenarios that could occur where this could be very beneficial financially to the ratepayers of Public Service.

MR. BOLDT: Nothing further at this time, Mr. Chairman.

CHAIRMAN GETZ: Thank you. In terms of order of cross, I was planning to turn to PSNH, then
Mr. Shulock, Ms. Hatfield, and Ms. Amidon. Is there any problem with that order of cross?

MS. AMIDON: Mr. Shulock, Attorney Hatfield, and I agreed that Staff would go first with respect to the cross after PSNH.

CHAIRMAN GETZ: Okay. Mr. Bersak.

18 MR. BERSAK: Thank you, Mr. Chairman.

Good morning, Mr. Sansoucy.

20 CROSS-EXAMINATION

- 21 BY MR. BERSAK:
- Q. Now, as I read your testimony, you testified on behalf
 of the City of Berlin regarding the economic benefits
 that would accrue to the City and to the northern

- region of the state if the PPA was approved that would allow the Laidlaw plant to be built, is that correct.
 - A. Yes.

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- Q. Were you in the room when Dr. Shapiro, one of PSNH's witnesses, discussed the announcement made a week ago, on January 21st, regarding a preliminary agreement to allow a green technology company to collocate a production facility on the site creating 65 additional jobs?
- 10 A. Yes.
- 11 Q. In addition to those 65 jobs, Dr. Shapiro noted, and
 12 that are discussed in PSNH Exhibit 10, which was an
 13 extract from the Berlin Daily Sun on that day, would
 14 that new development provide additional tax revenues to
 15 the City and/or the County?
 - A. Yes, it will. The site is vacant. The mill has been demolished, the Burgess Mill on the site. And, to collocate a new industrial facility, they need to build a new building on the site and new infrastructure for that building. That will bring in new tax revenue for the County and the City due to the value of that new building.
 - Q. When you say they're going to "build" new things, I assume that means that there would also be construction

- jobs created in the near term?
- 2 A. Yes, there will.

- Q. In your direct testimony, on Page 7, you testified that

 "The City of Berlin believes that Public Service

 Company of New Hampshire is correctly proposing and

 supporting, through its PPA, a centralized wood fired

 electric facility in the City of Berlin totaling

 65 megawatts rather than purchasing Class I RECs from

 more decentralized smaller new wood fired facilities

 which would have to be built." Can you explain why

 what you referred to as a "centralized facility" is

 preferable to "smaller decentralized wood facilities"?
- A. Yes. We have been involved in the valuation and assistance in siting a number of wood plants over a number of years. What we have learned and are continuing to learn is that the cost-effective size of these facilities, to effectively meet the proforma and the revenue need, the size has moved up to a minimum of 50 megawatts, and upwards of 100 megawatts. A large central facility, over 50 megawatts, is the trend that we see going forward that is cost-effective. The smaller units cannot support their overheads. There are fixed costs that are almost the same, when we look at the proformas or look at the actual operating

results of the plant that we value. Where fixed costs of the smaller plant are nearly similar to the fixed costs of the larger plants. It's nearly the same labor, same wood yard, scales, truck handling facilities, etcetera. We are also finding that, under New Source Performance Standards, the new permits are the most stringent permits in New England for new wood-fired power plants. More stringent than the smaller plants. It takes a much larger plant to afford the pollution control devices to meet the new performance standards.

This particular plant is a good example. It is approximately five times cleaner than the existing wood plants. It has the toughest permitting standards of any plant approved in New England to be built. It takes a much larger plant to overcome those parasitic loads without impacting efficiency. What we have seen in the retrofit of pollution devices on the smaller plants is an immediate reduction in efficiency, until they work through that. But there's always a significant reduction in final efficiency because of the parasitic loads for pollution control devices to meet any class of RECs.

So, what we are beginning to see is

centralized location, centralized in a wood basket, with a much larger facility to handle the pollution control devices and to handle the fixed overheads to create a new level of efficiency in the burning of biomass going forward. As directly opposed to much that we've heard about smaller plants located in subwood baskets throughout New England. Those smaller plants, in our view, based on what we see and the operating characteristics of the existing smaller plants, are not cost-effective in today's environment.

- Q. Thank you. Mr. Sansoucy, according to what's been marked as the "City's Exhibit 2", which is your resumé, you are a Professional Engineer, is that correct?
- 14 A. Yes.

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- Q. And, I see from your resumé that you also have experience developing generating plants, is that correct?
- 18 A. Yes.
- Q. And, have any of those plants been located within the State of New Hampshire?
- 21 A. Yes.
- Q. We're all aware that you also have experience
 appraising and assessing properies for many
 municipalities within the State of New Hampshire and

- 1 outside the state?
- 2 A. Yes.
- Q. In particular, as we all know also, that PSNH has had many dealings with you regarding your valuation of the Company's assets, including our distribution, transmission, and generation assets statewide?
- 7 A. Yes.
- Q. On Page 8 of your testimony, near the top, at Line 3,
 you testify that "The City of Berlin considers the
 cumulative reduction factor, the right of first refusal
 and the purchase option to be the unique features of
 the PPA and of substantial benefit to the City of
 Berlin and the North Country." You see that testimony?
- 14 A. Yes.

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- 15 Q. There's been testimony from the Staff Advocate, Mr.

 16 McCluskey, suggesting that the value to customers of

 17 the Cumulative Reduction Mechanism is illusory, because

 18 at the end of the 20 year term of the PPA the Laidlaw

 19 facility would have little, if any, value. Do you

 20 agree with Mr. McCluskey's assessment?
 - A. No, I do not. We have actually prepared the values for this plant at the end of the PPA. That is part of our job representing the City and negotiating a potential tax PILOT agreement with the Applicant, Laidlaw. And,

our models indicate approximately \$120 million value at the end of this PPA, using known facts that we know today. If the 67.5 megawatt portion is approved, the model will go up slightly, and the value, what we call the "terminal value" will go up slightly, probably another 10 percent, to 130 to 135 million of value at the end of this PPA.

We need to perform that function, because, in our world, we need to revert that value back as part of our valuation today, in order to consult to the City on the development of a tax PILOT agreement. So, we believe it has substantial value in the future. The plant will have substantial value. And, that that value will be, knowing today -- what we know today, in the range of 120 to \$135 million.

- Q. Based upon your valuation estimates for the future of a terminal value at the end of the PPA period of \$120 million to \$135 million, would that be the value that's potentially available, in the event that there were funds in the Cumulative Reduction Fund, so that, at the end of the PPA, when the Purchase Option Agreement was exercisable, there would be value that could accrue back to customers?
- 24 A. Yes.

- Q. At the end of the 20 year PPA term, based upon your knowledge of the industry, do you think there's likely to be parties other than PSNH that might be interested in purchasing the facility?
- A. Yes, there are. And, there is a very substantial
 growing body of funds, hedge funds, and groups looking
 to buy alternative energy plants, of any kind. And, we
 believe that Public Service will only be one of many
 prospective individuals, companies or buyers that would
 be interested in this plant, should Laidlaw choose to
 sell it.
- 12 Q. You're familiar with the existing wood-fired generating plants in this state?
- 14 A. Yes, I am.
- Q. Do you know whether any of those plants have, in fact, changed hands during the course of their lives, their generating lives in this state?
- Some of the plants have changed hands a number of 18 Α. 19 times, to a number of different parties. The most recent being Whitefield and Hemphill just sold to the 20 21 Korean National Electric Company, from the Japanese 22 firm of Marubeni, to now the Korean firm. And, those are just those two. GDF Suez purchased the two 23 24 Pinetree plants, for example. And, then, of course,

Whitefield was owned by Thermal Electron, AES, a gentleman, an individual person, then Marubeni, a Japanese firm, and now a Korean firm.

- Q. So, there appears to be a somewhat vibrant market for these renewable plants to change hands over the course of their lives?
- A. There's a vibrant market for renewable plants. The smaller wood plants are, depending on what state they're in, depends on the vibrancy of the market.
- Q. So, let's suppose it's the end of the PPA, 20 plus years from now, assuming that this Commission was to ultimately approve the PPA, and it's the time period when PSNH can exercise the Purchase Option Agreement. If there was a third party buyer out there that was interested in purchasing the plant, do you think that buyer might be willing to pay PSNH to acquire the purchase option and to acquire the rights that PSNH has under the Cumulative Reduction Fund to decrease the ultimate purchase price of the facility from the owner of the plant?
- A. First, yes. I think there are -- will be buyers out there that would be more than happy to buy that option and then buy the plant. Secondly, they would likely want to pay more for that plant, if my inflation --

- I've used 2.5 percent inflation. If the quantitative easing continues to occur in this country and the dollar continues to go down, with any level of inflation above 2.5 percent, the actual nominal cash value of this plant will be even greater. So, Public Service could technically make a profit on the option.
- Q. So, from what you just said, to the extent that we,
 Public Service, was able to sell the option and was
 able to obtain value from a third party for whatever is
 in the Cumulative Reduction Fund, if anything, at that
 time, there would be value that could accrue to
 customers without PSNH actually owning the plant in the
 future?
- 14 A. Absolutely.

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- 15 Q. In your rebuttal testimony at Page 19, you testify that

 "As the ramp-up occurs in the need for Class I RECs,

 the amount available will quickly hit the wall and the

 prices will substantially advance." Do you see that

 statement?
- 20 A. Yes, I do.
- 21 Q. What do you mean?
- A. What I mean by that statement is that, at this time we are in the infancy of a region-wide renewable program.

 And, RECs come in and out of the market, and in any

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given quarter, any given month, they fluctuate substantially in price. As the laws and the ramp-up occurs on the percentage of RECs that are required, i.e., the percent of renewable energy that's required to be purchased by the load-serving entities, that elastic is going to very quickly stretch to its end, where the low-hanging fruit of RECs that are out there and available gets consumed. And, then, as we sit here today, nothing is being built. Very, very little real REC qualifying Class I capacity is actually being constructed. And, this is one of the few plants that can actually be shovel-ready. There is a lot of discussion, a lot of queue activity, a lot of permitting, a lot of siting, and then a lot of projects being canceled. But very little is actually being built that is going to be able to be applied to the Class I RECs. And, very quickly, it's my belief that we're going to hit a point where we have no RECs and the price is going to go up to the alternative compliance payment. It will come hard and slow as we ramp up. One, two, three, four percent of any of the load-serving entity's load is a lot. We need approximately 30 million RECs by 2025, in New England, at ISO's projection of New England wide electric sales,

and the State's requirements. Thirty (30) million RECs is a lot of RECs. It's a lot of megawatts and a lot of RECs. I do even calculate that in my testimony that we're looking at something in the order of 15,000 megawatts of wood plants of -- not wood, but of wind, some 4,000 megawatts of wood, 7,500 wind turbines, it's going to be very difficult to permit this level in the period of time we're talking about. So, I think the Class I RECs, while currently available and cheap, are going to very quickly become desirable within the next five to eight years and hit the ceilings.

- Q. In your rebuttal testimony, you discuss the Renewable Portfolio Standard laws in other New England states, including Vermont, Massachusetts, Rhode Island, Connecticut, and Maine. There's been testimony, which you've probably heard and which you've read from the Staff and Consumer Advocate, raising concerns that New Hampshire's RPS law requirement might not continue past the year 2025. Are you familiar with that testimony?
- A. Yes, I am.

Q. Would you consider an RPS law that requires
23.8 percent of the state's energy to be from renewable
24 sources in one year, and zero the next year, to be a

1 stable, long-term policy?

- A. I don't believe that is the long-term policy. It's no stable, obviously. And, I don't think that was the intent. I think there was just an oversight, in that many of the other states, and they list the year, at the end of the program they put "thereafter", the number of RECs, the year, and then the laws will say "thereafter". And, I think that, as Mr. Long pointed out, there are many other parts of that law that he interprets as a layman to suggest that no one thought that this would just go away and we would all of a sudden shut down the wind plants and the wood plants and would not have an RPS standard.
- Q. Do you know whether those RPS laws in the other New England states have that "thereafter" term, so that they will continue indefinitely?
- A. My recollection is, each one of them that is currently written has the "thereafter" term in it, with the exception of New Hampshire, subject to check on each one. But my recollection is they do.
- Q. Supposing notwithstanding Mr. Long's view of the
 Renewable Portfolio Standard, and we reach the end of
 year 2025, and, for whatever reason, New Hampshire
 hangs up the "Mission accomplished" banner, and that's

- the end of RPS in New Hampshire. So, we no longer have any need to have RECs to serve load within the State of New Hampshire. Would there still be a market for RECs that PSNH must acquire under this PPA to service the needs of other New England states?
- A. The other New England states will have a market in the hypothetical that New England -- that New Hampshire drops off the cliff. Also, it may be that the price of electricity may very well be competitive with the price of Laidlaw. Laidlaw is fixing prices. If we have any level of inflation, these prices are going to be very competitive with or without a REC by 2025, if there's any level of inflation over 2.5 percent. So, there will be a market outside of New England -- outside of New Hampshire, but there also may be that Public Service may want to continue to purchase, with or without a REC, the electricity, because all of the components of that contract may be very cost-effective.
- Q. On Page 32 of your rebuttal, you provided testimony concerning the viability of meeting Class I REC requirements with wind generation. In Staff's and OCA's testimony, the Laidlaw PPA is compared unfavorably with a PPA that PSNH has with the Lempster Wind facility. Are you familiar with that testimony?

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Yes, I am.
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- Are you also -- are you familiar with the Lempster Wind 2 Q. facility itself? 3
- 4 In general, yes. Α.
- In your testimony, on Page 38, you actually have 5 Q. testimony regarding comparisons of the Laidlaw biomass 6 7 facility and the Lempster Wind facility, is that 8 correct?
- 9 Thirty-eight? Α.
- I believe so. Of course, it depends which revised 10 Q. version of your testimony, the document pages might 11 have changed. Let me just ask the question 12 differently. Did you discuss in your rebuttal 13 testimony comparisons of the Laidlaw and Lempster 14 facilities?
- Yes, I did. 16 Α.
- 17 Q. Okay.

- And, --18 Α.
- 19 Q. Are the risks that are borne by a developer of a biomass plant, the same as the risks that are borne by 20 21 the developer of a wind facility, such as Lempster?
- 22 The risk profile is completely different between Α. the two types of plants. And, the risk to the 23 24 ratepayers is completely different. What we know about

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wood is wood is a mature technology, it's a very high capacity factor, and it produces all of the ancillary requirements of electric generation. It produces capacity, it produces electricity, it produces kilovars, it can produce frequency control, and it can do so with very little variability.

What we know about wood -- I mean, wind, which creates the reason that you cannot compare wind to wood. Wood is more valuable than wind. Wind is intermittent. It's a true intermittent resource. get the wind -- we get the electricity when it blows, but there is a huge hidden cost in wind that no one is talking about. And, that is that wind has to be backed up with capacity. It only offers between 5 and 12 percent capacity, rated capacity of the rated wind facility, in terms of real capacity to the ISO and to the Company. So, wind has to keep or has -- the Company, the load-serving entity has to keep other capacity on line in order to support a wind contract. And, wind is impossible to predict, that wind can provide capacity and energy during peak periods of You'll get it when the wind blows. But, if it's a hot day or a cold day, generally, the wind doesn't And, you cannot rely upon it for the use -- for blow.

a capacity machine. It is also parasitic. Wind requires capacity on the grid. It requires kilovars. It requires frequency control.

Too much wind will destabilize the grid, as we saw in Texas. To put this many -- and, it's really the 800-pound gorilla in the room, the wind question. Because, in order to get this many RECs, you're either going to do it with wind turbines or you're going to do it with a wide variety of other things much slower. And, you need to have stable transmission, stable capacity, to back up this wind facility. So, wind is not as valuable as wood under any circumstance.

- Q. Based on that testimony of the differences between wind and biomass generation, which you just provided, do you believe that a comparison between a PPA for a wood-fired plant and a PPA for a wind facility is reasonable?
- A. It's not reasonable. The only comparison you can make is that, if wind costs X; wood is X plus something.

 Wood's more valuable than wind.
 - Q. In what you have attached to I believe it's your rebuttal testimony, unfortunately, we also use the term "Exhibit" there. There's an "Exhibit 9", not to be

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confused with what's been marked as exhibits for this proceeding. But there's an exhibit attached to your rebuttal testimony, which is marked as "Exhibit 3".

The caption on that -- it's a spreadsheet. And, the caption on the top says "Laidlaw Berlin Biopower PPA and Market Price Forecast". And, there's something there which I am not quite sure that I understand. You have columns there that say "with carbon", "without carbon". What does that mean?

What that means, I'm on Exhibit 9 in my rebuttal Α. testimony, towards the end, it's the actual "Exhibit 9", not the Revised 10 or anything. What I'm comparing there, and the point that I'm trying to make, on behalf of the City, is that this entire analysis, OCA's analysis and Staff's analysis, neglects or doesn't talk about the fact that there is still the 800-pound gorilla in the room called "carbon". Carbon legislation is off the table currently at the federal level, but it is by no means gone. If we eventually enact some form of carbon tax in the United States, then there is an immediate change in the price of electricity. So, what I've tried to do in Exhibit 9, in one of the items in Exhibit 9, is to show a forecast with and without carbon. Obviously, without carbon is

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what we're doing today for the moment. But the moment that we do have carbon, and we use a reasonable forecast for carbon, in this case, the forecast coming from Ventyx, it immediately indicates that the current PPA with Laidlaw becomes very cost-effective against a carbon-constrained environment and carbon-constrained This actually acts as an excellent hedge against a carbon-constrained electric environment. And, the price with carbon immediately levelizes within nearly the first one to three years of carbon legislation. The price of electricity and all its other components immediately goes up to about where the Laidlaw contract is without carbon today. So, it's an area that's not been discussed. It's put on the shelf for the time being. I don't think it's off the shelf in the long run. I completely agree with the Company that it's the direction we're going, into a green direction for electricity. I see it everywhere in the United States where I work, whether it's California, Michigan, Ohio, Maryland, that it's in everybody's -it's on everybody's radar screen. So, we seem to have lost sight of the fact that this contract, with its fixed costs, not only is a cost-effective contract, but an excellent hedge against the price of electricity in

- a carbon-constrained environment.
- Q. In that same Exhibit 9 that's attached to your rebuttal
- 3 testimony, if we just look at the first real number on
- 4 the top left of the chart, which is in Row 1, Column C,
- it says "Total Laidlaw Payment (dollars per
- megawatt-hour)". If we wanted to know, for the year
- 7 2014, not what it was per megawatt-hour, but what we
- 8 expect the cost to be of the Laidlaw PPA for the entire
- year, would you need to have an estimate of how many
- megawatt-hours the plant was going to produce?
- 11 A. Yes.
- 12 Q. To do that, would you need to know the total installed
- 13 capacity of the plant?
- 14 A. Yes.
- 15 Q. And, would you have to assume some capacity factor as
- what percentage of the time is it actually generating?
- 17 A. Yes.
- 18 Q. And, you'd probably have a good idea how many hours
- 19 there are in a year?
- 20 A. Yes.
- 21 Q. Based upon the numbers that you are familiar with for
- the Laidlaw plant, do you now have an idea ofo
- approximately how many megawatt-hours it's expected the
- 24 plant will generate in a typical year?

- A. Yes. I think, at the 67.5 megawatts, this plant's
 going to generate a half a million -- 500,000
 megawatt-hours, a half a million -- billion kilowatts,
 500 million kilowatts in the course of a year.
 - Q. So, if you wanted to take this figure that's on your chart, the \$144.08 figure, which is in dollars per megawatt-hour, and come up with dollars per year, you would multiply that times your 500,000 megawatt-hour expected generation and come up with some number?
- 10 A. Yes.

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- Q. Thank you. In your rebuttal testimony, you state

 "There is no secret that a PPA is necessary in today's
 environment to finance this project." Why?
- 14 A. Because.
- 15 Q. Oh, okay.
- (Laughter.)
- 17 BY MR. BERSAK:
- 18 Q. Can you elaborate on that?
- A. Certainly. At this time, the days of market-based
 financing and market-based plants are over. I think
 everybody knows that some enormous number, 80 percent
 of the existing fleet of power plants has been through
 some form of bankruptcy in New England from the days of
 deregulation to now. With the tightening up of the

banking system, it is nearly impossible to do any form of financing of any type of power generation facility in New England without a power purchase contract and a financeable power purchase contract. Either it is accomplished as a balance sheet from a larger company for market purposes or it is done with a PPA. There are no longer short-term market-derived financing being offered and being completed in the industry right now.

So, anything that's going to be built has to be -- somehow has to have an off-take agreement from a creditworthy load-serving entity or utility in order to gain financing. The banks have tightened up to the point where they don't even take risks on market fluctuation of any of the three components. There has to be no risk in the fluctuation, market price fluctuation of fuel and electricity, capacity or RECs. It's, in part, due to the current glut of capacity that we have, the current method of capacity pricing that we have.

The unusual reduction in the price of natural gas with this Marcellus shale bubble that is coming through the system as we speak. And, the RECs in this infancy, the early RECs, they are fluctuating. They're going from very low values, up, down, and

they're fluctuating. And, these type of fluctuations, in today's environment, bankers won't go near this stuff. They are being scrutinized by the Feds more so than ever, after the, you know, the last -- the crash of '08/'09. So, they're not taking chances. So, if we are going to construct REC -- brand new Class I REC facilities in New Hampshire or New England, they have to be married to a PPA with a load-serving entity.

- Q. The Staff Advocate has filed testimony indicating that the PPA in its present form should not be approved by the Commission. The Staff Advocate goes on to make certain recommendations for changes to the PPA that the Commission should require as conditions for approval.

 Are you familiar with those recommendations included at the end of Mr. McCluskey's testimony?
- A. In general, yes.

- 17 Q. Included in those recommendations are the

 18 recommendation that the Commission's approval should be

 19 conditioned on a change in the energy pricing so that

 20 energy prices are based on the ISO hourly spot market

 21 price with a floor price. Are you familiar with that

 22 recommendation?
- 23 A. Yes, I am.
 - Q. In your opinion, if such a recommendation was included

- as a condition to approving the PPA, would the project be financeable?
- A. If the market price of electricity is allowed to float
 with the ISO daily market prices, as a risk factor,
 that will kill this PPA. That will kill the
 financeability of this plant, that item.
- 7 Q. The Staff Advocate also recommends that the pricing for capacity should be set on the actual ISO Forward
 9 Capacity Market prices. Are you familiar with that recommendation?
- 11 A. Yes, I am.
- 12 Q. In your opinion, if the Commission imposed that

 13 recommendation as a condition to its approval of the

 14 PPA, would the PPA be financeable?
- A. If the -- if the price is allowed to float with

 capacity, then that also will kill the financing of the

 PPA or it will individually kill the financing of the

 PPA. Capacity needs to be fixed in a fashion that's

 visible to the bankers.
- 20 Q. Similarly, the Staff Advocate recommends that the PPA
 21 should be amended, such that PSNH is obligated to
 22 purchase no more RECs than it needs to meet the RPS
 23 law's obligations. Are you familiar with that
 24 recommendation?

A. Yes.

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- Q. In your opinion, if the Commission imposed that recommendation as a condition to its approval of the PPA, would the project be financeable?
- If the RECs are limited to a unknown amount of RECs 5 A. being purchased in any given year, then that will kill 6 7 the financing of the PPA, because of its uncertainty. And, I would like to draw the Commission's attention 8 for its own review of the Michigan system, under Act 9 295, the very successful, much larger RPS Program, 10 10 percent of the total electricity in Michigan. 11 That rollout, we had worked on that for the Michigan 12 Environmental as an expert witness. It has been a very 13 successful rollout of a massive RPS multi-billion 14 dollar program. They contract for the total REC, and 15 the REC has energy, capacity, and REC prices in it on a 16 17 fixed price. And, the Michigan Public Service Commission approves each fixed price contract, so 18 19 there's no uncertainty for the developers once the REC is fixed. 20

Internally, they will put some in the PSCR, put some in the transfer price, and put some in the REC pricing. Internally, under the Power Supply Cost Recovery, they will put the Locational Marginal

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Price each day, each hour, but they make it up internally in any given year on the REC. The REC is a fixed price. The balance of the activity, for example, is strictly where the money goes for ratemaking purposes.
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So, here is a much larger program than New England, with fixed REC prices in order to provide for financing. So, any one of the three that's not fixed in this environment will kill this contract, the PPA.

- Q. And, is it correct to say that, if financing is not available, that the project will not get built?
- A. There is no project without financing. This is not going to be built with 100 percent equity cash.

MR. BERSAK: Thank you, Mr. Sansoucy.

16 Thank you, Mr. Chairman. I have no further questions.

CHAIRMAN GETZ: Thank you. Ms. Amidon.

MS. AMIDON: Thank you. Good morning.

WITNESS SANSOUCY: Good morning.

20 BY MS. AMIDON:

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- Q. Is it fair to say that your resumé was not attached to either the direct or the rebuttal testimony?
- 23 A. I don't remember if it was or it wasn't.
- 24 Q. Would you accept that this is being offered as an

- exhibit today, and that it was not part of either your direct or your rebuttal testimony?
- 3 A. I'll accept that. I don't remember if it was or it wasn't.
- Q. And, when you look at your resumé, which is GES-2, at the lower left-hand corner it says "Rev. October 2008".

 What does that mean?
- 8 A. That's this particular revision date, rev. date.
- 9 Q. So that this resumé is revised as of October 2008?
- 10 A. Yes, it is.
- Q. Okay. And, if we go to Page 9 of your resumé, at Item
 12 100 it says "City of Nashua, New Hampshire", and the
 13 final sentence there is "Valuation of Pennichuck Water
 14 Company and consulting services for eminent domain
- 16 A. Yes.

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Q. Are you the same George Sansoucy who testified in Docket DE 04-048?

taking of the water company."

- 19 A. Yes, I am.
- Q. All right. Thank you. Mr. Bersak referred to PSNH
 Exhibit 10, which is an article from the Berlin Daily
 Sun. Did you read that article?
- 23 A. Exhibit 10? Do we have the --
- Q. That's the article that says -- entitled "Green company

{DE 10-195} [Day 4] {02-01-11}

- interested in locating on former mill site".
- 2 A. I don't know if I've read the Berlin Daily Sun article.
- I've been actually quite aware of the activities
- 4 related to the green company.
- 5 Q. And, do you agree that -- with the article that it says
- 6 "a preliminary agreement to allow a green technology
- 7 company to co-locate" at the Laidlaw facility?
- 8 A. I've been advised by Laidlaw that there is a
- 9 preliminary agreement.
- 10 Q. Right. So, would you agree that that's not a final
- 11 agreement?
- 12 A. I would agree it's not final, that's right.
- 13 Q. And, Mr. Sansoucy, do you know the name or nature of
- 14 the business of this entity that has a preliminary
- 15 agreement for collocation?
- 16 A. Yes, I do. But I don't know if it's still confidential
- or not.
- 18 Q. And, insofar as that goes, have you had an opportunity
- 19 to review the work papers developed by Dr. Shapiro
- 20 related to her assessment about the additional jobs
- 21 made available by this unidentified new green
- technology company?
- 23 A. I have not reviewed in detail the work papers related
- 24 to the new proposed company.

Q. Have you reviewed any work papers?

- 2 A. I've scanned them, but I have not reviewed them in detail.
- Q. Okay. In light of all the benefits the City has stated it will receive from this Project, what is the City contributing to the Project?
 - A. The first thing the City is contributing is a tax PILOT agreement. And, a tax PILOT agreement is a negotiation that allows for the stabilization of taxes separate from the tax rate for the Company, and for the City.

 Usually, it's a negotiation, and usually it represents some level of conservative estimate of prospective taxes going forward.

The second thing the City is offering in this deal is they are offering to work very closely with the Water Department and the Company to provide for cost-effective purchase of a significant amount of water. And, they are also looking at the cost-effective purchase of a significant amount of use of sewer, by potentially studying and redoing their sewer rates to reflect the amount of sewer water coming in.

The City is further providing access to the -- through its easements through the Goebel Street

- 1 Substation to get this power out of this facility.
- 2 And, the City supports the land and the -- and the site
- 3 with its road systems, etcetera.
- Q. Did the City consider purchasing any output from the facility at contract prices?
- 6 A. Has it or will it?
- Q. Well, has it considered it and will it purchase output from the facility at the contract prices in the PPA?
- 9 A. At this time, I don't believe that that is a key -10 that that's a major consideration of the City.
- Q. And, each of the elements that you described, I think you describe the willingness of the City, but there's nothing final, is that correct?
- 14 A. No. It doesn't get finaled until everything gets
 15 finaled.
- MS. AMIDON: Thank you. Mr. McCluskey
 has some questions for this witness now.
- MR. McCLUSKEY: Good morning,
- 19 Mr. Sansoucy.
- 20 WITNESS SANSOUCY: Good morning, Mr.
- 21 McCluskey.
- 22 BY MR. McCLUSKEY:
- Q. I guess I'd just like to go over some responses that you gave to Mr. Bersak this morning. I believe, in

- response to a question about the potential market value of the plant after the end of the PPA term, you indicated that you have prepared valuations of the plant in the period after the 20-year term has ended?
- 5 A. Yes.
- Q. And, I think you said valuations "ranging from 120 to 135 million", is that accurate?
- A. I said that the current valuation is 120 million. And, if we go to the 67.5 megawatt, because the valuations were prepared at the lower megawatt capacity, if we go to the 67.5 megawatts, there will be at least a 10 percent to 15 percent increase in that value, which will bring it up to the \$135 million range.
- Q. And, was that information highlighted in your direct testimony?
- A. No. That's part of the work that we have done for the tax agreement.
- Q. And, was that information highlighted in your rebuttal testimony?
- 20 A. No.
- Q. Even though the Staff testimony highlighted the
 uncertainty regarding the value of the plant, you did
 not care to share that information with the Commission
 in your rebuttal testimony?

- I did not. I stated what I stated, which is this plant 1 Α. 2 will have value, in my opinion, this plant will have value at the end of this PPA. And, that my job in 3 managing the tax values of all of the power plants in 4 the City of Berlin, every year we calculate a residual 5 value for every one of the power plants, as part of the 6 7 reversionary component of the value that we use for our 8 tax value. This is true in Berlin, Bow, Newington, and the other communities we work in. 9
- Q. Okay. Thank you. Moving onto a different issue. When you were discussing the energy pricing in the PPA with Mr. Bersak, did you say that those prices will rise at a 2.5 percent inflation rate?
- A. Yes. We've used 2.5 percent inflation from real to estimate our power prices.
- Q. My question is, with regard to the actual energy pricing in the PPA, is it your testimony that the prices will actually rise at a 2.5 percent rate?
- A. Not in the PPA. The PPA is fixed. The fuel escalation is estimated to rise, and I think everybody has used 2.5 percent. The RECs are estimated to rise with inflation, I think everybody used 2.5 for that price.

 But the comparative energy prices that we have used, with and without carbon, we use 2.5 percent. So, it

- all -- it all matches, so to speak, the exhibits and the documents that everyone has used.
- Q. Is it your position that the energy prices in the PPA are fixed?
- 5 A. The energy prices in the PPA are essentially fixed, 6 yes.
- 7 Q. "Essentially". What does "essentially" mean?
- 8 Α. Well, they allow for the wood fuel to move up and down. Once the fuel moves up and down, the fuel is paid for, 9 the residual portion of that energy price. That the 10 energy price pays for the fuel. And, once the fuel is 11 paid for, the residual is all that's left for 12 operations. If you run it out at 2.5 percent, if you 13 actually run that out for 20 years, which we have done 14 in our tax valuation, the amount remaining in the 15 energy price to run the plant is essentially fixed. 16
 - Q. Okay. My question is, will the energy price track the actual cost of fuel or is it a fixed energy price?
- A. No, it tracks the actual cost of fuel in the fuel adjustment clause.
- Q. So, if actual fuel prices vary over the 20-year term, the energy prices will vary as well, correct?
- 23 A. Only to the extent that the fuel varies.

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Q. Correct. So, you would agree then that the energy

prices are not fixed?

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- A. The energy prices are essentially fixed, because you've only got a fuel -- a fuel adjustment clause. You don't make any money on the fuel. And, it leaves you with a remaining amount of energy that's essentially fixed.

 So, this company has to run this plant and is offering to run this plant at essentially a fixed energy price to pay its bills.
 - So, you know, we can call it a lot of different things. It's essentially fixed, the way this contract is written. And, the fuel is passed through above the -- whether it's going to be \$30 or \$34 a ton.
- MS. HATFIELD: Could Mr. McCluskey use
 the microphone please. Thank you.
- 15 BY MR. McCLUSKEY:
- Q. Okay. Mr. Sansoucy, would you agree then that, if
 there is significant volatility in the fuel prices,
 then there will be volatility in energy prices in the
 PPA?
- 20 A. Yes.
- Q. Thank you. You responded to a question from Mr. Bersak regarding Lempster, correct?
- 23 A. Yes.
- 24 Q. Have you -- are you aware of the prices under the

- 1 Lempster contract?
- 2 A. I am not intimately aware of the prices under the
 3 Lempster contract. I'm aware in the general range, but
 4 I'm not intimately familiar with all the details of
- 5 that contract.
- 6 Q. Could you explain to me how you are generally aware of 7 the contract?
- A. There's been discussion about the Lempster contract
 throughout these proceedings. And, I've absorbed that,
 so to speak. I've read the docket. But I don't know
 all the details of that, the finite numbers.
- Q. Are you aware that the Lempster prices continue to be held confidential at the Commission?
- A. My understanding is they are confidential at this time.

 And, they won't become available until PSNH reports
- them in their FERC Form 1 for the year.
- 17 Q. So, --
- A. The first year they will report the next year, and then everyone will see the Lempster prices.
- Q. So, there should be no general discussion of the prices, you would agree, among the parties?
- A. No. I think there has been a significant amount of
 bantering back and forth as to what the price range of
 that is, and how it's tied to Lempster.

- Q. Okay. Could you tell me what the -- this general price range is for Lempster?
- A. My understanding is that it's in the range of 11 to 13 cents a kilowatt, in round numbers.
- 5 Q. Is that a levelized number?
- A. Yes, I think it was levelized. But I don't know for sure. I do not know the exact amount. I'm just answering your question on what the banter has been.
- 9 Q. So, the number was 11 to what?

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- 10 A. 11 to 13 cents. And, then, there's been discussion
 11 that it is tied to the LMP, a portion of the price is
 12 tied to the LMP. The question Mr. Bersak referred to
 13 is comparing it to wind and tying it to a fluctuating
 14 LMP. My understanding is Lempster is tied -- a portion
 15 of Lempster is tied to the LMP.
 - Q. So, your comments in your testimony regarding Lempster are made without any detailed understanding of the prices in the Lempster contract?
- A. My contract -- my comment is in direct rebuttal to your suggestion that this, this contract, the Laidlaw PPA, should or could be similar to Lempster, where it's tied to some other indicator, such as the LMP, and it's tied to market prices. I'm directly rebutting Staff and OCA's testimony that it be tied to market prices. If

Lempster is intimately tied to market prices, I would strongly urge that this Commission not consider that as a viable, financeable alternative. Number one.

And, number two, I don't think you should compare Lempster. I think Lempster should be off the table, wind should be off the table, because this is a very, very different fuel and capacity machine. This is better than any wind machine will every provide to the State of New Hampshire. So, it shouldn't be even considered by Staff or OCA.

- Q. Thank you for that advice. I'll take that under advisement. Thank you. Turning to your direct testimony, Page 9. The sentence that begins on Line 17, would you mind just reading that into the record please.
- A. "More specifically, under a carbon constrained, high capacity cost market in the future, this plant could save rate payers of New Hampshire up to \$300 million over 20 years, should this PPA be approved, and the plant built."
- Q. Okay. Now, did I hear you say earlier that the range is now "300 to 400 million"?
- 23 A. Yes.

Q. You did. And, what's the -- what's the basis for the

"400 million" number?

A. The Revised Exhibit 10, if you do a simple calculation, using the higher capacity and using the information provided on Exhibit 9 only, and the forecasted market price without capacity, the Laidlaw contract, 500,000 megawatt-hours, and the price with carbon. The existing contract and the price without carbon, this contract will generate approximately \$1.65 billion in gross revenue. And, with carbon constrained at the higher capacity, this contract will generate approximately 2.07 billion, or 420 million more, in a carbon-constrained environment, the costs would be, therefore, the savings to the ratepayer would be about 420 million at the proposed capacity.

MS. AMIDON: And, just for the record, I just want to remind everybody that the so-called "Revised Exhibit 10" to Mr. Sansoucy's testimony is not in the record at this point. Thank you.

MR. BOLDT: But, for the record, Mr. Chairman, I believe the Staff Advocate has opened the door, so that I would now ask that it be fully accepted as an exhibit.

MS. AMIDON: If I may, just one comment.

CHAIRMAN GETZ: One second please.

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1
                         (Chairman and Commissioners conferring.)
                        CHAIRMAN GETZ: Well, first of all, it's
 2
      not an issue yet of admitting it into evidence. It's been
 3
      marked for identification, and we've held off whether
 4
      there should be direct and cross about it for the time
5
      being. But, as I understand this document, doesn't seem
6
7
      to be so much a revision to Exhibit 10, as it takes
      several columns from Exhibit 9, and it seems to be what,
8
      in Exhibit 10 Revised, is Column C, D, and E, is
9
      Exhibit 9's Columns C, D, and E. And, those numbers seem
10
      to be consistent all the way down through year 20.
11
      then, Columns F, G, and H in the new document are
12
      multiplying each of Column C, D, and E by 500,000
13
      megawatt-hours. Which, in cross by -- developed by PSNH,
14
      appears to be Mr. Sansoucy's view of what the output of
15
      the plant is going to be. So, it's a fairly
16
17
      straightforward calculation.
                        So, at this point, you know, I just want
18
19
      to make this observation, based on your comments, Ms.
20
      Amidon, at this point I'm seeing -- I'm having a tough
21
      time seeing what's objectionable about this, even though
22
      it does raise an issue that, as an exhibit, --
                        MS. AMIDON: Well, may I? We haven't
23
24
      seen it until this morning. But what I was concerned
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about, in this particular examination, was Mr. McCluskey
was asking for the basis for his conclusions, and the
witness immediately referred to this revised exhibit,
which the Commission had issued a ruling on earlier. And,
I was concerned that he would continue to rely on this
exhibit, which has not been examined by Staff, in
propounding his answers. Thank you.
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CHAIRMAN GETZ: All right. We will continue with the cross-examination. We'll rule on the issue later.

MR. McCLUSKEY: Thank you.

12 BY MR. McCLUSKEY:

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- Q. Mr. Sansoucy, this estimate of 300 million under-market value, as opposed to above-market value, on Page 9 of your direct testimony, I believe it's been established that there was no schedules or exhibits attached to your direct testimony supporting this number, is that correct?
- A. Yes. That's correct. There was just one table, which was the "Exhibit 1" in the data responses. But there was nothing attached to the direct testimony, that's correct.
- 23 Q. Thank you. Nothing attached --
- 24 A. That's correct.

- 1 Q. -- to the direct testimony?
- 2 A. Yes.
- CHAIRMAN GETZ: Well, gentlemen, we're
- 4 going to have to have one speaking at a time. Let
- 5 Mr. McCluskey finish his question, or else Mr. Patnaude is
- 6 not going to be able to record all of this in the
- 7 transcript.
- 8 WITNESS SANSOUCY: Yes, your Honor.
- 9 BY MR. McCLUSKEY:
- 10 Q. Okay. And, in response to the filing of this direct
- testimony, you did receive a discovery request from the
- Wood IPPs asking you for the basis of this \$300 million
- calculation, is that correct?
- 14 A. Yes.
- 15 Q. And, you provided an attachment to that response, which
- is now "Exhibit 10" to your rebuttal testimony, is that
- 17 correct?
- 18 A. Yes. The old Exhibit 10.
- 19 Q. Okay. So, as Attorney Amidon said earlier, that I
- 20 believe the Commission issued a letter on Friday
- 21 scheduling a technical session for the parties on the
- 22 attachments to your rebuttal and various other
- documents that were provided relating to the Ventyx
- 24 numbers, is that correct?

- 1 A. Yes.
- 2 Q. And, we did, in fact, meet yesterday. And, would you
- 3 agree that the focus of that discussion was on
- 4 Exhibits 9 and 10 to your rebuttal testimony?
- 5 A. Yes.
- 6 Q. In fact, and probably we discussed nothing else but
- 7 those exhibits, is that correct?
- 8 A. Yes.
- 9 Q. And, the majority of the probing in that tech session
- was essentially to understand the numbers in Exhibit 9,
- where did they come from, what did they represent, and
- how the dollar figures in Exhibit 10 were calculated,
- is that correct?
- 14 A. Nine and ten, yes.
- 15 Q. Nine and ten, that's correct.
- 16 A. Yes.
- 17 Q. And, before we get into the details of Exhibit 10, you
- were asked to provide an electronic spreadsheet that
- supported the dollar figures shown in Exhibit 10, is
- 20 that correct?
- 21 A. Nine and ten.
- 22 Q. Okay, nine and ten. And, you said that you would get
- in touch with your office and send the spreadsheet to
- the parties, is that accurate?

- Right, for both exhibits. That's right. 1 Α.
- 2 Q. Okay. And, did you actually send that spreadsheet?
- We sent the spreadsheet for 9. We were not able to 3 Α. locate a separate spreadsheet for 10. And, upon
- additional research, 10 had multiple separate 5
- calculations going on and nothing was combined in a 6
- 7 single spreadsheet. There were other analyses of which
- 8 were brought in today and provided to you. But there
- was no one single spreadsheet that created 10. They 9
- were inputs. According to my office, they were actual 10
- -- they actually inputted the table manually. 11
- They inputted the table manually? 12 Q.

- The final Table 10 was an input table. And, there were 13 Α.
- subitems, subinformation that was provided to you that 14
- created some of the calculations. 15
- So, did you say that you actually had a spreadsheet 16 Q.
- 17 which is drawing from other spreadsheets?
- There was no one single spreadsheet that created 18 Α.
- 19 the original 10. Okay? They were different cases that
- we were working on. My office informed me that there 20
- 21 wasn't a single Excel spreadsheet like 9. Nine (9) is
- 22 a single spreadsheet. There were different other input
- tables that we discussed on yesterday at the tech 23
- 24 session. And, we brought those in today for you as

- 1 part of the support for the original Exhibit 10.
- 2 Q. Okay. Thank you.

4

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6

7

- A. There are pieces of 10 that I have not been able to -one column in 10 I have not been able to find the
 actual calculation sheet for. The crux of the original
 10 was to come up with the difference in total
 potential market price as a benefit of how much it
 could be -- how much the PPA could be under market, --
- 9 Q. If you could hold --
- 10 A. -- which was the 300 million.
- I'll get to that issue. I'll get to the details 11 Q. of the exhibit in a moment. But we're just trying to 12 determine why we didn't receive the spreadsheet. And, 13 I think you've explained that. So, now, let's turn to 14 Exhibit 10. You know, it's got several columns, which 15 we'll try to understand through this cross-examination. 16 17 But am I correct in saying that, in essence, what you are doing in this exhibit is you are, first of all, 18 19 Column B, what you call the "Base Case", is essentially a calculation of the power costs that PSNH will incur 20 under the PPA, is that correct, on an annual basis? 21
- 22 A. That is correct, to the extent that it's my base case.
- 23 Q. Okay. You're base case?
- 24 A. That's right.

- Okay. And, then, I believe what you're doing is, you 1 Q. 2 are saying, "if PSNH purchased this power, it will avoid purchasing the three products that are purchased 3 under the PPA, it will avoid purchasing those products 4 in the competitive market." And, you are attempting to 5 calculate what the value of those market purchases are. 6 7 And, then, you take the difference between the two, and determine whether the Laidlaw contract is above or 8 9 below market. Is that, in essence, what you're doing?
- 10 A. Essentially, that's correct, based on certain assumptions.
- Q. Okay. And, in terms of calculating or estimating the

 -- what I term there the "avoided cost", the cost of

 buying these products in the market, I believe you've

 got three columns, C, D, and E, which estimate those

 numbers under different scenarios or end prices, is

 that correct?
- 18 A. Are you in the old 10, new 10, or 9?
- 19 Q. I'm in the Exhibit 10. The other document is not yet open for discussion.
- 21 A. Okay. All right. So, your question is, in the
 22 existing 10, C, D, and E are the cost to buy those
 23 products under certain conditions?
- 24 Q. In the market.

- A. In the -- well, yes and no. The REC is carried into
 that. The REC is not in the market. It's the Laidlaw
 REC. It's market energy, market capacity, and Laidlaw
 REC. So, for all of these, there is the Laidlaw REC.
- Q. Okay. So, we'll just leave out the RECs for the
 moment. So, Column C, D, and E have different prices
 for energy and capacity, based on the Ventyx numbers,
 is that correct?
- 9 A. They have -- Column C is different capacities -- is
 10 different numbers based on energy. And, it's Laidlaw
 11 capacity and Laidlaw REC, in Column C.
- 12 Q. Okay. And, what's D?
- A. D, I cannot find my original calculation papers for D.

 So, I cannot answer what D is. But I did find a chart that -- a graph I was doing to determine -- I was looking at D, which is "Capacity @ Ventyx 2010" -- "Fall 2010". So, I have not been able to find my work paper on what D is.
 - Q. Okay.

20

21

22

23

24

CHAIRMAN GETZ: Can we hold on for a second? Let me make sure I'm understanding what you're saying about Column C. This is a value that -- this takes the RECs from the PPA, the capacity from the PPA, and inserts a different energy price, which is the Ventyx Fall

```
1
      2009 forecast, and that's how you calculated this number?
 2
                        WITNESS SANSOUCY:
                                            Yes.
                                                  And, the
      important element of that at the time this was done for
3
 4
      the data request is that the Ventyx Fall and the Ventyx
5
      Spring included carbon, the carbon --
                        CHAIRMAN GETZ: Okay. I don't want to
 6
7
      get into that at this point.
8
                        WITNESS SANSOUCY:
                                            Okay.
9
                        CHAIRMAN GETZ: I just want to make sure
      I find out what it is.
10
11
                        WITNESS SANSOUCY:
                                            That's correct, your
12
      Honor.
              That's right.
13
                        CHAIRMAN GETZ: And, you say, if I'm
      following some of this inquiry, you have the work papers
14
15
      for this calculation, these calculations in Column C, and
      you've provided them to the parties?
16
17
                        WITNESS SANSOUCY: In Column C, I have
      recreated the work paper that created Column C. Okay?
18
19
      That --
20
                        CHAIRMAN GETZ: So, you couldn't find
21
      the work papers, but you --
22
                        WITNESS SANSOUCY:
                                            It's not a
23
      spreadsheet.
24
                        CHAIRMAN GETZ: Okay. All right.
                                                            But
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{DE 10-195} [Day 4] {02-01-11}

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what you're saying on Column D is you can't -- you
1
      couldn't find the work paper, you can't recreate it?
2
                        WITNESS SANSOUCY: D, I couldn't find
 3
 4
      the work papers and recreate.
5
                        CHAIRMAN GETZ: Okay.
    BY MR. McCLUSKEY:
6
7
         Okay. Based on questions from the Chairman, your work
    0.
8
         papers that you say underlying Column C, have you
         provided that to the parties?
9
         The three pages, that, plus these two, that show --
10
    Α.
                        MR. BOLDT: Okay.
11
                                            I'm sorry.
    BY THE WITNESS:
12
         That, plus these two.
13
14
                        CHAIRMAN GETZ: What are you referring
      to when you say "that"?
15
16
                        WITNESS SANSOUCY: "That" is the graph
17
      where I was looking at what was occurring under different
      scenarios against the base case.
18
19
                        CHAIRMAN GETZ: But is that a document
20
      that nobody has or is it a document that you have?
21
                        WITNESS SANSOUCY:
                                            That was in my work
22
               As I was putting together the question from the
23
      data requests from the tech session yesterday. It was not
      in one single spreadsheet, because it was different -- we
24
```

```
were drawing from different places, looking at different
1
2
                        CHAIRMAN GETZ: Okay. I think I've got
3
      that but -- I've got the notion. Do any of the parties
4
5
      have the actual documents?
6
                        MS. AMIDON: No.
7
                        MR. BOLDT: My --
8
                        MS. AMIDON: The answer is "no".
9
                        MR. BOLDT: If I may clarify or attempt
      to clarify, Mr. Chairman. One page was provided over, I
10
11
      thought that was the correct document that Mr. Sansoucy
      was referring to as his underlying work paper.
12
      provided this morning, when I provided the paper copy to
13
14
      all parties on that side of the aisle.
                                              There are two
15
      other sheets that I have not provided, did not know I was
16
      -- that that was something that was appropriate to go with
17
      the graph that I provided this morning. I do have copies
      to provide. We may take a break, if you wish, and allow
18
      some time for them to take a look at it.
19
                                                It is a -- it is
20
      Ventyx -- labeled "Ventyx Market Clearing Prices Any East
21
      Region Nominal Dollars/Megawatt-Hour". And, the second
```

CHAIRMAN GETZ: Okay. Let's hold off on

one is "Ventyx Annual Capacity Price Forecast New England

Region Nominal Dollars/Kilowatt-Hour".

22

23

```
1
      that for a second. It is getting about time for a break.
 2
      But, Mr. McCluskey, how much more do you have on this item
      or how much more cross, so we can get an idea just for how
 3
      to play out the schedule?
 4
5
                        MR. McCLUSKEY: Could be half an hour,
      45 minutes, just on this Exhibit 10.
6
 7
                        CHAIRMAN GETZ: Okay.
8
                         (Chairman and Commissioners conferring.)
                                         I think it's a good time
9
                        CHAIRMAN GETZ:
      for a recess. During the recess, let's make sure at a
10
      minimum everybody has the documents. You know, there may
11
12
      or may not be issues about whether they're objectionable,
      per se, but there certainly may be issues about
13
      preparation, adequate time to prepare cross, and what is
14
15
      the nature of these work papers? It doesn't sound like
      they were preexisting or, if they did preexist, they can't
16
17
      be found and now they're being recreated. So, we've got
      some issues to deal with.
18
19
                        But, Ms. Hatfield?
20
                        MS. HATFIELD: Mr. Chairman, I strongly
21
      believe that they are objectionable, per se. There's no
```

information. We think we should proceed with the cross.

amount of time that you can give us today that would allow

us to be prepared to cross Mr. Sansoucy about this

22

23

```
1
      And, if this is the way the City wants to prepare their
      case, and the Commission wants to allow this in, then
 2
      we'll just have to take up hearing time. We don't even
 3
      know what we have at this point. And, we think it really
 4
5
      puts the parties in a catch 22, when we keep stopping the
      hearing to allow us to review more information, and then
 6
 7
      that allows the witness to supplement his testimony.
8
                         So, we have really tried to be
      cooperative and tried to get the information we need.
9
                                                              But
      I think we've reached the point where this is just
10
      completely unfair. Thank you.
11
                        CHAIRMAN GETZ: Okay.
12
                                                Thank you.
      Anyone else before we take a recess?
13
14
                         (No verbal response)
15
                         CHAIRMAN GETZ: All right. Let's break
      until 11:15.
16
17
                         (Whereupon a recess was taken at 10:57
                         a.m. and the hearing resumed at 11:24
18
19
                        p.m.)
20
                        MS. AMIDON: Mr. Chairman, may I clarify
21
      something regarding the so-called "work papers" that were
22
      provided by --
23
                         CHAIRMAN GETZ:
                                         Please.
24
                        MS. AMIDON: Okay.
                                             The work papers that
```

2

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Attorney Boldt provided us are not relevant to our
examination, and we think they should not be included in
the record. We understand that Attorney Boldt did not
provide the Commission or the Court Reporter or the Clerk
with copies, and we'd just as soon leave it that way.
However, it does point up one deficiency in what we were
provided concerning the so-called "Ventyx study". We
received, courtesy of Attorney Boldt, a full copy of the
report on the "Fall 2010 Northeast Region Power Reference
Case Electricity and Fuel Price Outlook." But, for 2009,
which is also information that he includes so-called
"carbon in" numbers, all we received are four tables
relative to that. So, we don't have the backup to that.
So, insofar as some columns of Exhibit 10 reference the
Ventyx tables for 2009, there's no background provided on
that. We only have the Fall 2010 background to, and
that's what we relied on in preparing our examination.
```

What this might mean is that at some point we may consider whether it's appropriate to strike information in, let's say, Column C of Exhibit 10, which relies on information that we were not -- where we didn't have the additional background. Just to let you know that there's just an additional issue with respect to what information we received on Ventyx. It was just Fall 2010,

```
1
      and not anything related to 2009.
                        CHAIRMAN GETZ: So, I take it, it could
 2
 3
      be motions to strike or arguments about what weight, if
      any, to give to some certain information?
 4
5
                        MS. AMIDON: Correct. Probably more to
      the weight. We're not quite there at a motion to strike,
6
7
      but we are concerned about --
8
                        CHAIRMAN GETZ: Well, or, ultimately, at
      the end of the proceeding, in terms of when we get to
9
      motions to what should be admitted into evidence.
10
                        MS. AMIDON: Right. I think that that
11
      would be fair to deal with at that point.
12
                        MR. BOLDT: May I clarify, Mr. Chairman?
13
14
                        CHAIRMAN GETZ: One moment.
15
                        CMSR. IGNATIUS: No, that's all right.
16
      Go ahead.
17
                        MR. BOLDT:
                                    If I can call your attention
      to the tables we provided, that we did a supplemental
18
19
      correction with you this morning, as I had made reference
20
      to last week. The first two pages are Fall 2009.
                                                          The
21
      last two pages are Spring 2010. Those are the
22
      supplemental pages, those were immediately provided to
23
      Staff and OCA and Mr. Shulock last Wednesday, the same
24
      documents. Those are the supplemental backup pages that
```

supports the opinions. And, it's the current version, the book, the full book that is confidential is the Fall 2010 book. The requests that were made were "are there backup tables for the columns in 9 and 10 that come from the Ventyx materials?" And, that's why we provided the backup tables that are in the supplement last week.

CMSR. IGNATIUS: Mr. Boldt, can I ask you a couple questions about that then. What you gave us the other day, and then this morning substituted, is not four pages, it's two pages. There are two pages of tables; one has "Spring 2010" at the bottom, the page "B-9", and then the second page has no date at the bottom, that says "B-10".

MR. BOLDT: Then, I don't know. I was of the impression that the correct pages had been given in my mind. I have what I thought were correct pages for the same things that I had given to Staff and OCA last week. Let me give, yet again, versions, the same thing that is with Staff, "Fall '09", that is two pages, "Spring 2010", two pages. You have copies 3, 4, and 5, I believe, or 4, 5, and 6, rather. So, these are copies that I've renumbered to be 1, 2, and 3. Two pages that are "Fall 2009", Page 1, Page 2. Two pages that are "Spring 2010", to supplement the book that is the "Fall 2010". Did I

```
state that correctly, Mr. Sansoucy?
1
 2
                        WITNESS SANSOUCY:
                                            Yes.
                        MR. BOLDT: Okay. I apologize for
 3
      creating confusion. Okay. Thanks. I'm happy to take
 4
5
      back the incorrect pages that I gave you this morning, if
6
      you wish.
 7
                        CHAIRMAN GETZ: Okay. Ms. Amidon, did
8
      you have something further on this?
                        MS. AMIDON: No, I just wanted to bring
9
      it to the Commission's attention. But, I believe, at this
10
      point, Mr. McCluskey should proceed with his
11
      cross-examination, if it pleases the Commission?
12
                        CHAIRMAN GETZ: Please. Thank you.
13
14
                        MS. AMIDON: Thank you.
15
                        MR. BOLDT: We agree.
                        MR. McCLUSKEY: Thank you.
16
17
    BY MR. McCLUSKEY:
         Mr. Sansoucy, before the break, we were in the process
18
19
         of working our way across the columns in Exhibit 10.
20
                        CHAIRMAN GETZ: I'm sorry, let me --
21
      there was one thing I just wanted to make sure I
22
      understood. We have Exhibit 10 that's been in -- it's the
23
      same Exhibit 10 that was in the rebuttal testimony when it
      was originally filed. We have "Exhibit 10 Revised" --
24
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```
MR. BOLDT: "Revised" is the way it's
1
2
      labeled currently.
                        CHAIRMAN GETZ: Is that supposed to be
 3
      -- is 10 Revised an additional exhibit or it's supposed to
 4
      substitute for 10?
5
                        MR. BOLDT: I will leave that
 6
7
      clarification to Mr. Sansoucy, so I do not misspeak.
8
                        WITNESS SANSOUCY: It is supposed to
      substitute for 10. Because it's updated -- it's, as you
9
      said, it matches the 9 that's in the exhibit, that's in
10
      the rebuttal testimony, the 10 that was in there was what
11
      was in the data requests and the direct testimony.
12
      Revised matches the 9. And, it is supposed to substitute
13
      for the 10.
14
15
                        CHAIRMAN GETZ: Let me just say, I don't
16
      understand the sense of that at all. Why 10 would -- 10
      Rev. would substitute for 10. But let's continue with the
17
      cross-examination, and maybe I'll understand the point.
18
19
      But it seems to be something additional, not something
20
      that would be a substitute, given how I read Exhibit 10 --
21
                        WITNESS SANSOUCY: Oh.
22
                        CHAIRMAN GETZ: -- as originally
23
      proposed.
24
                        WITNESS SANSOUCY:
                                            I apologize for the
```

```
1
      wording.
                It's intended and it takes the revised capacity,
      the 67.5 megawatts. It goes to 9, as a simplification and
2
      clarification, and does the multiplication. All I was
 3
      trying to point out in the direct testimony and the
 4
5
      rebuttal testimony is that there is the potential for 3 to
      $400 million of savings to the ratepayer for this PPA.
6
 7
      That's all I'm trying to point out, and it's just
      arithmetic. It started life --
8
                         CHAIRMAN GETZ: That I understand.
9
                        WITNESS SANSOUCY:
10
                                            Yes.
11
                        CHAIRMAN GETZ: But it wasn't clear to
      me whether you were seeking to withdraw Exhibit 10?
12
13
                        MR. BOLDT: No.
                                          I would, for
14
      simplicity, if it is allowed to come in, it may well be
15
      better to just simply refer to it as "Exhibit 11" or
16
      "Exhibit 4", because --
17
                        CHAIRMAN GETZ: Okay. Well, let's not
18
      go there.
19
                         (Laughter.)
20
                         CHAIRMAN GETZ: Let's just continue with
21
      the cross-examination.
22
                        MR. McCLUSKEY:
                                         Okay.
23
    BY MR. McCLUSKEY:
24
         As I said, we were working our way across the columns
    Q.
```

{DE 10-195} [Day 4] {02-01-11}

- of Exhibit 10, and I believe we were discussing the

 development of the dollar figures in Exhibit -- in

 Column D. And, I think you said that you couldn't find
- 4 the work papers for those numbers, and you don't know
- how they were developed, is that correct?
- A. Yes. I did not find my calc. sheets for D. So, I

 can't tell you explicitly what each of the components

 are for D.
- 9 Q. Okay. Thank you. So, and now move to Column E. So,
 10 could you tell me how those dollar numbers were
 11 developed, starting with energy?
- 12 A. Yes. The energy in "E" is the Fall 2009 Ventyx,
 13 inflated at two and a half percent.
- 14 Q. And, the capacity?
- 15 A. The what?
- 16 Q. The capacity component of --
- 17 A. The capacity component is the Fall Ventyx 2010,
- inflated at two and a half percent, converted to a
- 19 price per megawatt.
- 20 Q. And, I believe you said that all three columns have the
- 21 REC prices at the Laidlaw PPA level, rather than a
- 22 market level, is that correct?
- 23 A. Yes, that's correct.
- Q. Okay. So, and my intent is to -- I'll work my way

- through these columns again, but I'll just finish off
 this exhibit by focusing on Column F. Where, in this
 calculation, you are subtracting from the Base Case
 numbers in Column B the dollar figures in Column E, is
- 5 that correct?
- 6 A. Yes, it is. B minus E.
- Q. Okay. And, you say that in your heading for Column F, correct?
- 9 A. Yes.
- 10 Q. Okay. Thank you. Now, let's go back to the base case.
- Am I correct in saying that, when you were questioned
- on the development of these dollar numbers in the base
- case, you stated that they were calculated based on a
- capacity, plant capacity of 58 megawatts?
- 15 A. They're based on approximately 58 megawatts, and an
- 16 approximate capacity factor of 85 percent.
- 17 Q. Okay. If you could actually let me finish the
- 18 question, Mr. Sansoucy.
- 19 A. I thought you did. I'm sorry.
- 20 Q. So, they were based on a capacity of 58 megawatts,
- 21 correct?
- 22 A. Yes.
- Q. And, you said yesterday that it was based on a capacity
- factor of 80 percent, is that correct?

- A. That's what I thought it was, when I researched this,
 that is about 85 percent. That base case comes out of
 my valuation, my valuation that I did for the City of
 Berlin. And, it's about an 85 percent capacity factor.
 - Q. Thank you for that correction. But, if you go to Exhibit 9, Footnote (2), you actually state there that you're "assuming a capacity factor of 80 percent", is that correct?
- 9 A. Yes, it is.

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- Okay. So, in terms of these dollar numbers, in 10 Q. essence, the numbers in Column B are the product of the 11 12 three prices in the PPA for energy, capacity, and RECs, on a dollar per megawatt-hour basis, times --13 multiplied, I said the "product", at those prices, and 14 the megawatt-hours produced from a facility of 15 58 megawatts and a capacity factor of 80 percent. 16 17 That's what you said yesterday, correct?
- 18 A. Yes, I believe I did.
- Q. Okay. And, now, you're saying, when you actually checked the numbers, it's an 85 percent capacity factor?
- 22 A. Yes. Approximately.
- Q. Okay. Thank you. So, moving onto Column C, I believe you said, with regard to the energy component of this

- calculation, you were using 2000 -- Fall 2009 Ventyx 1 numbers, is that correct? 2
- Multiplied times the 2.5 percent inflation index. 3 Α.
- Because the Ventyx number is in constant dollars, so 4 Q. 5 you need to put them into nominal dollars to match the PPA numbers, correct?
- 7 Yes. Α.

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- 8 Q. Thank you. And, with regard to the capacity component, didn't you also say that these numbers were based on a 9 2009 Ventyx capacity number? 10
- No. Column C is based on the Laidlaw capacity. 11 Α.
- No, I'm asking the question, did you say at the tech 12 Q. session that it was based on the Ventyx 2009 capacity 13 number? 14
- 15 No, I don't remember that I said that. I said that I Α. would check. I didn't know what capacity it was. 16
- 17 Q. Okay. And, we've already said the REC number is the PPA number? 18
- 19 Α. Yes, that's correct.
- 20 So, it's your position then that two out of the three Q. products in this Column C are not market-based numbers, 21 22 but PPA numbers?
- 23 Α. Yes.
- 24 Thank you. Now, in the case -- in the case of Column Q.

{DE 10-195} [Day 4] {02-01-11}

- D, which you're saying you don't know how they were developed, didn't you say yesterday that the energy component is based on the Fall 2010 Ventyx number?
- A. I haven't been able to derive -- I haven't been able to assert exactly what I did in Column D.
- Q. That's not my question. My question is, did you say at the tech session that it was based on the 2010 -- Fall 2010 Ventyx number?
- 9 A. I believe so, yes.
- Q. Thank you. And, with regard to the capacity component, what did you say yesterday?
- 12 A. I don't recall what I said yesterday on this.
- Q. Maybe if I tell you what I heard yesterday. Did you not say that those numbers for capacity are the numbers represented in Column L of Exhibit 9?
- A. I think they are Column L in Exhibit 9. But I think that the -- yes, I think they're Column L in Exhibit 9.
- Q. Thank you. Okay. Now, moving onto Column E. I think
 you just said this morning the energy component in
 Column E is the 2009 Fall energy price, which is
 actually shown in Column H of Exhibit 9, is that
 accurate?
- A. Column E is the 2009 Ventyx, and that's going to be fall 2009.

- 1 Q. Is that Column H of Exhibit 9?
- 2 A. No. Column H in Exhibit 9 is Spring 2010, which is the last report with carbon.
- Q. So, you're saying what's in -- sorry, could you repeat what you said there?
- A. Column H, in Exhibit 9, is Spring of 2010, at

 2.5 percent, which is the last quarter or half year

 that they did carbon. And, you'll find that in the

 sheet we used to make it from real to nominal, on the

 center column, that Mr. Boldt handed out to you.
- 11 Q. Okay. Thank you.
- 12 A. That's the purpose of the sheet we handed out.
- Q. Okay. And, the capacity component, again, I think you said "Fall of 2010", is that accurate?
- 15 A. Yes, it is. Fall of 2010 is the capacity in Column E.
- 16 Q. So, in Column E, which is really the column that's used
 17 to develop Column F, you're saying that you have two of
 18 the components based on market, one based on the
 19 Laidlaw prices?
- 20 A. That's correct. The RECs are based on Laidlaw RECs.
- Q. And, you subtract those from the base case, and that's going to tell you whether the base case is above or below market, correct?
- 24 A. That's right. And, my testimony was very simple, at a

high carbon-constrained energy price and a going forward capacity price was not in the contract, you get a significant savings going forward using the REC price from Laidlaw.

- Q. And, I'm just trying to understand the concept of comparing the power costs in the PPA against this hybrid of market energy and capacity and contract RECs. If it had been market-based RECs, then I would have that concept clear. But now we've got this hybrid. Could you explain why we have the hybrid, as opposed to the standard comparison against market?
- that the market -- that the RECs in today's market are market-based RECs. We believe there are a very small amount of RECs that are being bought and sold based on a very small need today. We believe that the market price of RECs is going to go immediately up as demand increases, and that, in comparing what this PPA is capable of providing to the ratepayers and the customers, the REC price in this PPA is derived, it's half of whatever that market price is going to be, for all practical purposes. It shares the market half and half. The REC price we believe is going to go to the ACP. We don't take the position that the short-term

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REC prices have any relationship to a 20-year projection of market and long-term savings. We take those REC prices in the contract and we add market electricity with carbon and market capacity, to come up with the comparison of the potential savings for the ratepayer of this contract. But we don't believe that this current REC market, short-term REC market, has any relationship to the long-term market price of RECs.

- Okay. What about inserting in there, instead of the Q. Laidlaw REC prices, a long-term projection of REC prices? Would that be appropriate?
- Not for this PPA. This PPA has stipulated REC prices.
- I'm talking about the calculation. 13 Q. calculation that you're trying to do is to benchmark the PPA prices against some market comparison. If you had a long-term, not a short-term, but a long-term forecast of REC prices, would that not be appropriate to insert into this calculation?
 - Α. No, because it doesn't tell us anything. It creates a forecast at that point that doesn't tell us anything. This contract has a REC price. This contract has potential savings against an energy and a capacity There's been no testimony of any kind of substance on capacity by Staff and OCA. And, there's

been no testimony about the potential for a carbon-constrained environment. All I'm trying to show is those two market indicators with this contract, not a forecast of RECs. If we drift into a forecast of RECs, we can, but we're going to be discussing what we talked about earlier. Is that it's based on wind that will probably not happen. It's based on wood that won't happen. The amount of wood plants that people are forecasting won't be built. So, this REC price is It's known in the contract. And, I'm adding to known. that two market indicators that can at least give a position to the Commission or an opinion that there is a potential upside to this contract that's very large.

- Q. So, you're telling -- you're telling the parties that you have confidence in the energy price forecast from Ventyx, you have confidence in the capacity price forecast from Ventyx, but you don't have confidence in the long-term REC price forecast from Ventyx, is that what you're saying?
- 20 A. I have not studied Ventyx's long-term REC forecasts for 21 this contract.
- 22 Q. And, --

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A. Because this contract has pegged the REC prices. So, I haven't done a detailed study to compare that with a

- study that I might do on the RECs. It's debate that 1 doesn't lead us to anything, because the REC prices are 2 And, this really boils down to, is the capacity fixed. 3 and energy that's added to this REC price going to 4 5 provide the ratepayers with a potential upside? The REC price is fixed. And, we don't debate this in 6 7 Michigan, you know, I didn't do anything here, because 8 you fixed the REC price. Somebody had to fix it in 9 order to finance the project.
- Q. So, you would agree that the document which you provided to the parties, titled "Power Reference Case Electricity and Fuel Price Outlook Fall 2010" actually contains a long-term REC price for the Northeast Region? Would you agree with that?
- 15 A. Yes, I do. They do one, they do one, based on current dollars.
- 17 Q. And, you chose to omit that?
- 18 A. I did not use that.
- Q. Thank you. Going -- let's talk a little bit about the development of the Ventyx energy prices. First of all, this is a forecast, is it not?
- 22 A. Yes, it is.
- Q. And, Ventyx, it's my understanding, reading the documents that you provided, that Ventyx has quite a

- sophisticated model of how the ISO-New England power market operates, is that accurate?
- 3 A. Yes, it does.
- Q. And, I assume that, once that model is developed,

 Ventyx would insert various assumptions into the model,

 crank of the handle, and turn out a long-term energy

 price forecast. Is that accurate?
- 8 A. Ventyx provides a forecast twice a year.
- 9 Q. Okay.
- 10 A. So, they respond very quickly to things that --
- 11 (Court reporter interruption.)
- 12 BY THE WITNESS:
- 13 A. -- to occurrences that occur in the marketplace.
- 14 BY MR. McCLUSKEY:
- 15 Q. So, they are constantly updating the model to reflect changes in inputs?
- 17 A. Yes, they do.
- 18 Q. Okay. Now, the forecast that we're using, my
- understanding, it's not just based on the output of
- this model. I believe you provided us some information
- yesterday on how they created the long-term forecast,
- 22 particularly with regard to the early years. Is that
- 23 accurate?
- 24 A. I don't understand the question.

- Q. Did -- are the early years of the forecast based on the model output?
- A. No. The early years in the capacity forecast is based on the capacity forwards. Okay?
- 5 Q. And, what about the energy?
- A. The energy, they look at short-term forwards on the energy, and then go from there to a model.
- Q. So, they have actually merged forward electricityprices with the prices from the model, is that correct.
- 10 A. They have merged forward -- forward components of
 11 what's going to be the electricity pricing with their
 12 forward -- with their long-term model.
- 13 Q. Okay. So, --
- 14 A. But they do more than just those two.
- 15 Q. Oh, if you could just -- you've answered the question.
- 16 Thank you. Now, I assume this is a long-term forecast
- that's subject to some uncertainty, you would agree
- with that?
- 19 A. Say again?
- 20 Q. It's subject to some uncertainty?
- 21 A. Of course, yes.
- Q. But, presumably, you have some confidence in the prices that you're using for the -- to support your
- 24 calculations, is that correct?

- 1 A. We do have confidence. We use this regionwide, and we do have confidence in this as a good model.
- Q. Okay. Now, let's talk about the inputs to the energy price forecast. My understanding is the latest forecast for Fall of 2010, the base case for Ventyx does not include carbon, is that correct?
- 7 A. That is my understanding, yes.
- 8 Q. Whereas the same forecast for Fall of 2009 did include 9 carbon?
- 10 A. Yes.
- 11 Q. So, you chose to not use the most recent base case
 12 forecast from Ventyx in your calculations, is that
 13 accurate?
- A. No, I didn't -- no, that's not accurate. I was trying
 to make a distinction between a carbon-constrained and
 a non-carbon-constrained environment. And, I was
 trying to use an independent source. That the last
 carbon estimate was Spring of 2010 to compare the two,
 with currently carbon is off the table for several
 years.
- Q. So, Ventyx does not think carbon pricing is a reality in the near term, based on its base case assumptions, is that correct?
- 24 A. Well, Ventyx says what it thinks.

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                        MR. BOLDT: Mr. Chairman, if I may,
      because these are confidential materials, I'm not sure
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      where the line is in confidential questions or public
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                  I don't want to waive something inadvertently.
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      questions.
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                        CHAIRMAN GETZ: Well, and I guess, I
      mean, there is some lack of clarity at least in my mind,
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7
      well, a lot of the composite information, at any rate, is
      in the exhibits that haven't -- it doesn't appear that
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      confidentiality has been sought. And, there wasn't
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      always, to me, a clear line between what was sought to be
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      confidential in and of itself and what was an issue with
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      copyright reproduction. So, and you're going to have to
      speak up if there's anything that deserves
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      confidentiality, should be protected.
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                        MR. BOLDT: My question was only, if
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      we're getting into the text of the report of Ventyx, that
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      may be across the line. But it's for the public
      consumption, but not for the cross-examination by the
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              I believe we went into confidential session at
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20
      what point in time last week.
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                        CHAIRMAN GETZ: You're going to have to
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      alert me.
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                                     I guess I am right now on
                        MR. BOLDT:
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      this, if he's to read a text from the report, versus --
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                        CHAIRMAN GETZ: Well, why don't you
      consult with your witness, so we know which way to go.
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                        WITNESS SANSOUCY:
                                            It's okay.
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                        MR. BOLDT:
                                     Okay.
                        WITNESS SANSOUCY: No, it's --
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                        MR. BOLDT: You know the --
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                        WITNESS SANSOUCY:
                                            The questions so far
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      are fine. We can move forward to get this done.
                                     Thank you, Mr. Chair.
9
                        MR. BOLDT:
                        MS. AMIDON: For simplicity sake, Mr.
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11
      Chairman, if we could at this point mark for
      identification the Ventyx "Power Reference Case
12
      Electricity and Fuel Price Outlook Northeast Region Fall
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      2010", and you can use Staff, I think we're up to Exhibit
15
      Number 13. And, then, the compilation of two 2-page
      tables, the cover page of which has this docket number
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17
      that relate to 2009 markets, I mean, prices, in the first
      instance, and 2010 market prices in the second instance,
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      that would be Spring 2010 as "Exhibit 14", just for
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20
      purpose of referencing them in the cross-examination.
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                        CHAIRMAN GETZ:
                                         Okay. So marked.
22
                        MS. AMIDON:
                                     Thank you.
23
                         (The documents, as described, were
                        actually herewith marked as Exhibit 12C
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                         and Exhibit 13C, respectively, for
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                         identification due to numbering error.)
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                         (Chairman and Commissioners conferring.)
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                         CHAIRMAN GETZ: Mr. McCluskey.
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                         MR. McCLUSKEY: Thank you.
    BY MR. McCLUSKEY:
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         Mr. Sansoucy, I assume you would say that the modelers,
    0.
8
         the Ventyx modelers, are pretty smart people. Would
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         you agree with that?
10
    Α.
         Yes.
         And, so, when they come to develop what you refer to as
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    Q.
         "long-term energy prices without carbon", I think what
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         you're saying is "without carbon under a federal
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         program", is that accurate?
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15
               Because it all relates to greenhouse gas
    Α.
         Yes.
         legislation, and taking it off the table in Summer of
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17
         2010 by the Obama Administration.
         Okay. So, if they decided that legislation was not
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    Q.
19
         likely to pass on climate change in the near term, they
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         would then model ISO-New England how it currently
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         operates, correct?
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         Yes.
    Α.
         And, they would reflect in their energy prices the cost
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    Q.
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that the generators incur under RGGI, is that correct?

- 1 A. Yes.
- 2 Q. So, your definition of "without carbon" would actually
- include carbon in there, would you agree with that?
- 4 A. It includes RGGI.
- 5 Q. RGGI.
- 6 A. Yes. But it does not include carbon at the federal level.
- Q. Thank you. So, Exhibit 10 is effectively subtracting from Column B, Column E, to reduce the numbers in Column F, and you calculate that the PPA as a whole, over the 20-year term, is actually under market by 292 million approximately, is that correct?
- A. Utilizing those two assumptions that I reference in my direct testimony, and the lower capacity amount, the

 PPA has the opportunity to save the customers approximately 292 million.
- Q. And, I assume then you just rounded that to 300 million in your testimony, is that correct?
- 19 A. Yes, sir.
- 20 MR. McCLUSKEY: Yes. Thank you. I've 21 got no further questions on Exhibit 10. On Exhibit 10 or 22 any other exhibits.
- CHAIRMAN GETZ: Anything further, Ms.
- 24 Amidon?

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                         MS. AMIDON: No.
                                           Thank you.
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                         CHAIRMAN GETZ: One question I did want
      to raise. Earlier you indicated that there had been
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      agreement among you and the Consumer Advocate and the Wood
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5
      IPPs about cross-examination. Mr. Edwards is here now.
      And, Mr. Edwards, do you have questions for this witness
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7
      or did you --
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                         MR. EDWARDS: Yes, I do. Yes, I do,
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      your Honor.
                         CHAIRMAN GETZ: -- was there some
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      understanding about what order this would take place in?
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                        MS. AMIDON: We didn't talk about it.
12
      He was not here at the technical session yesterday when we
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      decided on this order. So, I guess, we proposed it to
14
15
      Mr. Shulock, and we did not propose it to Mr. Edwards.
      So, that's my fault.
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17
                         CHAIRMAN GETZ: Any objection to
      Mr. Edwards going now?
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19
                         (No verbal response)
20
                         CHAIRMAN GETZ: Mr. Edwards, do you have
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      some questions?
22
    BY MR. EDWARDS:
         Mr. Sansoucy, is it your testimony that 1.3 tons of
23
    Q.
24
         roundwood pulp is no longer being used by the local
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{DE 10-195} [Day 4] {02-01-11}

- 1 mills?
- 2 A. Say again, sir?
- 3 Q. Is it your testimony that 1.3 million tons of roundwood
- pulp is no longer being used by the local mills?
- 5 A. Yes, Mr. Edwards. It's in that range. When the Berlin
- 6 Mill closed, it was taking in approximately 38 (3,800)
- 7 to 3,900 ton per day, which is about -- I think it was
- 8 about 1.3 million ton.
- 9 Q. Okay. Is it your testimony that roundwood is biomass grade wood?
- 11 A. Whole tree chips can be, yes.
- 12 Q. Do you have any idea what the current price of
- 13 roundwood per ton is?
- 14 A. Yes. It's a minimum of \$36, and it's generally over 40
- delivered to Shelburne.
- 16 Q. Do you agree that the current price Schiller is paying
- 17 is \$27 a ton?
- 18 A. I think that's what was testified to by someone earlier
- in the case, that it was around 27 or 28 a ton. So,
- 20 yes, in round numbers.
- 21 Q. Do you think loggers would sell roundwood to biomass
- 22 plants, if they can sell for significantly more to
- paper mills?
- 24 A. I think what the loggers will do is a transportation

- differential. That, depending on the price of
 roundwood, versus the price of whole tree chips, they
 will choose the greater of the two, and deliver
 accordingly.
 - Q. What impact can the use of roundwood have on the remaining paper mills, if roundwood usage by the biomass plants increases the price of roundwood per ton?

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I think, Mr. Edwards, that we, from the North Α. Country, yourself included, know that there is a significant amount of the wood industry that's That doesn't exist since the basically not there. Berlin Mill closed. When the Berlin Mill was open, Verso -- International Paper, in Jay, and Boise in Rumford, were using roundwood for their pulp mills, along with Berlin. The combined block was over 3 million ton. Two million ton is going into -- still going into the Maine mills. But the industry in the North Country has essentially closed. So, part of what Laidlaw will do is reopen the wood industry in the North Country. And, the wood choppers will do everything they have always done, which is high grade, which is move roundwood to pulp, and move waste into the waste-to-energy plants, or, when the pulp mills get

slow, and we know they do, and they stop buying, the roundwood will go immediately into the burning -- the wood burning plant. It's keeping the industry alive. It's a great flattening tool to keep the industry 4 alive. So, I think we're going to see an industry come I think it's not going to come back overnight. The loan programs that Laidlaw is proposing with the City are going to be very helpful. But I think the industry will come back to its original. What we recognized prior to 2005, when the Burgess Mill was running, is about what this mill is going to take. And, it will take some roundwood when the other mills are not buying or when the prices are different for transportation.

- Would you agree that the use of roundwood for biomass 15 Q. plants is wasteful? 16
- 17 Α. No, I would not.

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- Would you agree that a number of loggers have retired 18 Q. 19 due to closure of the northern New England mills?
- Yes, a number have. 20 Α. Yes.
- 21 Q. Is it likely that retired loggers, who have stopped 22 logging due to the closure of mills, would go back into the logging business, knowing that roundwood production 23 24 would amount to \$27 a ton?

- I think some loggers will come back into the business. 1 Α. 2 But there are some that we know will not. I might add, Mr. Edwards, that we closed the Forestry and Logging 3 Program at our high school, White Mountain Regional 4 High School, because of the closure of the mill. 5 may reopen that to train young people, like we did for 6 7 decades, at White Mountain Regional High School.
- 8 Q. Are you familiar with the Noble/Brookfield Project?
- 9 A. Say again?
- 10 Q. Are you familiar with the Noble/Brookfield Project?
- 11 A. Yes, sir.

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- 12 Q. Hypothetically, Noble/Brookfield, if they were to fill
 13 the capacity of the Coos Loop, what would Laidlaw need
 14 to do?
 - A. Noble is ahead in the queue. There is a -- there is a upgrade that will like -- that's going to be required if there is a coincident peak between the two. And, I understand from Laidlaw that their interconnection study and that their budget, their current construction budget, is upgrading the loop to handle both Laidlaw and Noble. And, that they're going to be spending in the order of about 8 to \$9 million to do that upgrade. And, I might add that there's a secondary upgrade going on that is not in this record, from Brookfield Hydro,

the hydroelectric plants, that's part of the bigger picture to get everybody out of the Coos Loop,
Brookfield Hydro, Public Service's existing hydros.
Brookfield Hydros are the hydros from the mill when it was closed, the existing plants, Laidlaw and Noble.

But, beyond that, I think, Mr. Edwards, there's no further representations made to anybody wishing to get out of that loop after that group.

Q. Is that upgrade a condition in the PPA?

- A. I would have to check the PPA, but I know that all the upgrades are conditions in the interconnection study agreement, and the interconnection agreement I would assume is mentioned or it's attached to the PPA. I just don't know exactly where.
 - Q. So, getting back to the hypothetical, if there was no upgrade or if there was an upgrade, but Noble and Brookfield were filling the capacity of the Coos Loop, what would Laidlaw need to do?
 - A. There are two fundamental issues with the Coos Loop.

 One is the interconnection at the points where it's interconnected, the substation capacities that have to be upgraded. Laidlaw is doing all that it has to do to upgrade to transmission line voltages to get into the loop. If they fill it to capacity and Laidlaw couldn't

- get in, then there was going to have to likely be some additional capacity requirements in the actual wire sizes. That is not what's anticipated at this time. There may be the occurrence of light loading, where 4 somebody comes down slightly to allow for the flow of electricity, depending on the demand. But that's not what's in the interconnection studies at this time.
 - Is a plant the size of Laidlaw's able to come down Q. slightly or is a plant the size of Laidlaw efficient at coming down slightly?
 - The wood plants can come down. The wood plants can Α. ratchet down. And, they remain reasonably efficient ratcheting down, and they can ratchet right back up.
- How much do you anticipate that impacts a 22 percent 14 Q. efficient plant? 15
- Say again? 16 Α.

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- 17 Q. How much impact would that have on a 22 percent efficient plant? 18
- 19 Α. I don't know the exact impact that this will have on this modified boiler. But, in general, a ratchet down 20 to 50 percent on a solid fuel plant, will generally 21 impact the efficiency 10 to 15 percent, in general. 22
 - What is your opinion as to the potential of wind at the Q. Noble/Brookfield site?

A.	My opinion on that site or that potential? Well, the
	following: First and foremost, it is not going to be
	as easy as it may appear, because those are what we
	call "high elevation turbines". We do live in this
	Arctic-type environment above treeline. And, we do get
	significant ice structure in the winter. There has
	been some serious icing problems on the Kibby Mountain
	units, which are either very close to this elevation or
	a little higher, that forced the closure of Kibby last
	winter, until they addressed the ice situation. The
	wind is there. We know that from the wind meters and
	the wind monitoring. I think, from an operational
	point of view, in the cold, that the capacity factors
	may not be quite what people are anticipating. That's
	a possibility. I'm not saying they are. I haven't
	studied the wind rose in great detail. I have studied
	detailed wind roses for other wind plants in the
	region. And, on paper, we can get the amount.

The wind flows blows at times when the capacity is not necessarily always needed. It blows in the winter, but it blows the most in the spring, when we get the shift and the change, and then into June and July. But, on hot days, the wind doesn't blow. It just "pluff" [sic], it goes soft, so to speak.

So, what's going to likely happen with that plant is it will produce capacity -- it will produce energy, but it's not going to produce much reliable capacity. The production of energy is fine, because, from a policy point of view, that's a kilowatt of energy that has not got carbon in it. It's not generated by fossil fuel. But the Laidlaw plant will be producing the capacity in that region.

I think the plant, the Noble plant will be fine. I think it's going to have some operational constraints as they learn the ropes, how to deal with the North Country. And, I don't think it will likely produce what everybody hopes it will by some amount.

- Q. Just out of curiosity, on these windmills, and I know this is kind of a sidenote of this, but is there any type of de-icing that they can do for those windmills?
- A. No, there isn't, Mr. Edwards. They're carbon fiber blades, these composites, those big blades to hold them together. And, you cannot put electricity in them to heat them.
- 21 Q. Okay.

A. And, you can't spray them with de-icing, like you would an airplane wing. So, when they build up rime ice, they sling it. And, it can go a mile, and big chunks.

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And, it can kill somebody, if it hits him. So, they
1
         have to shut them down until the ice melts.
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         Are you aware that Noble/Brookfield is not being
 3
    Q.
         financed?
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5
         Oh, yes. I'm aware that that -- wait a minute,
    Α.
         Noble/Brookfield or Noble?
 6
7
         Well, I'm not --
    0.
8
    Α.
         I'm sorry. Brookfield --
         I'm not sure what to call it, to be honest, right at
9
    Q.
         the moment.
10
         Brookfield bought Noble.
11
    Α.
                         CHAIRMAN GETZ: But, Mr. Edwards, where
12
      are we going with this, in terms of relevance?
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                        MR. EDWARDS: Well, Noble/Brookfield is
15
      a pretty substantial project. Certainly, of the same
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      magnitude that the Laidlaw Project is. And, I'm just
17
      curious as to why Mr. Sansoucy feels that a project of
      this magnitude needs to be financed, and why that should
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      be taken into consideration?
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                         CHAIRMAN GETZ: A project of what?
                                                              Are
21
      you talking about Laidlaw or --
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                         MR. EDWARDS: Yes.
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                         CHAIRMAN GETZ: Why it needs to be
      financed?
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MR. EDWARDS: Why it needs to be taken into consideration to offset some of these things. I mean, we're pointing out that there's some negatives within the PPA, and those negatives are brought out as though it's very important to have those to obtain financing. I guess what I'm getting at is that there's another project of similar significance that is not relying on financing. And, I'm just bringing that up as a point.

MR. BERSAK: There's nothing in the record, Mr. Chairman, that even talks about that. There is no testimony.

CHAIRMAN GETZ: Well, yes. We're certainly talking about facts not in evidence. But, if you can ask the -- well, Mr. Sansoucy, do you have any familiarity with the financing of the Noble/Brookfield Project?

WITNESS SANSOUCY: The familiarity I
have, your Honor, is that Noble was not able to get solid
PPAs for more than one half of the capacity of the plant.
So, they were not able to go forward. And, they were
also, from the information we get, were not able to
finance this project in New Hampshire. So, they sold it
to Brookfield. Brookfield is a publicly traded company,

- and they do balance sheet financing. They just recently
- 2 floated \$500 million worth of bonds to be used for balance
- 3 sheet financing of alternate energy projects. And, they
- buy real estate, they buy office buildings. So,
- 5 Brookfield will step up to the plate, finance with public
- 6 bonds.
- 7 CHAIRMAN GETZ: Mr. Edwards.
- 8 BY MR. EDWARDS:
- 9 Q. Mr. Sansoucy, you've referred to the plant as a user of
- Berlin water and sewer. Have you heard from the Water
- and Sewer Departments specifically what impact the
- 12 Laidlaw usage will have on rates?
- 13 A. Water, sir?
- 14 Q. Water and sewer.
- 15 A. Water first?
- 16 Q. Sure.
- 17 A. Yes, I have. I've been working with the City and the
- 18 Water Department to sort out the appropriate rate
- 19 structure that this plant could and should have that
- 20 would be good for Berlin, as opposed to the Company
- rebuilding the water plant that it owns on site. Like
- we're currently looking at rate reductions of between
- 23 10 and 25 percent for the water at the -- for the City
- water for all other ratepayers. That's currently the

- ranges that we're looking at, Mr. Edwards.
- 2 Q. And, for the sewer?
- 3 A. The sewer, we're looking at an additional contribution
- of approximately 2 to \$350,000 I have not done the
- precise rate reduction, but I think it's no more than
- 6 10 percent. But I have not calculated it precisely,
- 7 I'm just estimating it.
- 8 Q. Are you aware of whether or not those reductions have
- 9 been made public before now?
- 10 A. They have not until this minute.
- 11 Q. Okay. What is your projected value of the Laidlaw
- 12 Project upon completion?
- 13 A. Prior to the uprate of capacity, we are working off a
- 14 projected -- current value, Mr. Edwards?
- 15 Q. No. Upon completion.
- 16 A. Upon completion? Prior to the announcement of the
- 17 67.5 megawatts, we were working on a value of
- 18 162 million.
- 19 Q. And, what portion of that is taxable?
- 20 A. We believe that at least approximately 120 million of
- that will be taxable, between 105 and 120 million.
- 22 Q. And, is that the figure that you used to reach a
- determination that the plant would save the Berlin
- 24 taxpayer roughly 17 percent?

- A. Yes. I used 104 million for that calculation, sir.
- Q. Okay. So, assuming an average assessed value in Berlin of a little bit under 70,000 on a residential home, that equates to about a buck a day for the average

5 ratepayer. What are the other real estate tax benefits

6 to the City and the State?

- A. The State, well, the City receives a tax, and they receive three of the four tax components. The City will bill for school, local school, local city, and county. Obviously, they will transfer the county money to the county. And, so, they receive the three. The State will then apply the State Utility Tax, at \$6.60. And, they will bill Laidlaw directly for the taxable portion of the plant.
- Q. Generally speaking, what negative impact can an industrial facility of this size have on real estate values surrounding it?
 - A. Generally speaking, immediate adjacent neighborhoods can be impacted marketwise, depending on where the market is, they can be impacted through view, traffic, noise, and those types of impacts created by any industrial facility on the adjacent neighborhoods.
 - Q. What kind of percentage do you figure on that generally?

- A. I have not done a market study on what that percentage would be. I don't know the answer to that.
 - Q. But you would agree that that's a negative impact?

- It depends on people's perception. It can be. Α. depends on people's concept of and market value in the You know, most of the housing built around mills were not negative impacts. They were housing where people could walk to work, and they liked that housing and they paid good money for it. It depends on where you are and what you're doing.
 - Q. Would you agree that the real estate value of residential property upon the closure of some of these facilities around New England has actually increased the residential value around the facilities?
 - A. Yes and no. The closure has decreased value in some places, so that any reopening of a job-oriented industrial facility, like Laidlaw, will have the positive effect of providing jobs and thereby increasing the value of real estate. Conversely, there are markets, and I don't know the exact percentages, where industrial closures have been good, and they have increased real estate values, because that, for whatever reason, the industry that's closed should have closed and is gone.

- 1 Q. In figuring your 17 percent on a decrease for the
 2 average taxpayer in Berlin, have you taken into
 3 consideration the potential decreased value of their
 4 assessed value on their property?
- A. I have not. And, I don't necessarily agree that there
 will be a decrease in value. I don't think anyone has
 done a market study that Laidlaw will decrease value.

 It could increase value based on the jobs that it
 brings to the region.
- Q. Are you aware that the assessing firm for the City of
 Berlin attributes a negative value to properties that
 are within close range of the existing plant as it
 sits?
- 14 A. I am not. No.
- Q. Are you familiar with the recent economic expansion in Littleton?
- 17 A. Some.
- Q. Aside from the close proximity to Interstate 93, what
 other economic factors do you feel may be driving
 business and industries to Littleton?
- 21 A. What other factors?
- 22 Q. Yes.
- A. Well, first and foremost, Littleton's maintained enough sewer and water capacity to bring industry into the

region, first and foremost. Secondly, Littleton has made the decision to rezone a significant amount of its bottom land to commercial land. Third, it has supported the reuse and conversion of its old mills to reuse for industrial. Fourth, what Littleton has done is it has tapped into a pent-up demand from the entire quadrant in Vermont in the Northeast Kingdom that migrate to Littleton. And, they have allowed, through planning, sufficient varied commercial uses, so as to provide for destination shopping and destination services to attract people and do their expansion.

So, from a planning point of view and from an infrastructure point of view, they have done very well. They have expanded their roads.

Littleton's paid for substantial new bridges to go across the rivers, just like -- just like Berlin has.

I mean, Berlin has new bridges that they built to bring wood into the original mill. So, Littleton has done many of the similar things.

- Q. You haven't mentioned anything about "Littleton Power & Light". Do you believe that Littleton Power & Light rates have anything to do with the recent expansion in Littleton?
- 24 A. No, I don't.

Q. Okay. What impact -- what impact can an above-market rate on power have on relocating business to a given area, business and industry?

A. When you say "above-market rate" in an area, electric rates and relocation are very complex subject matters. If an industry has greater than 10 percent energy usage in its cost of product, and you talk to these people, you will find that those industries tend to gravitate to low-cost states. Because, if they save or they spend another 5 percent of their total cost of product, that could be half their profit margin.

Conversely, companies that have a much lower energy component in their product or companies that need an area that might have a certain type of labor, a certain lifestyle, they will gravitate to areas that may have high electric costs. So, it's not a simple question to answer on the one hand. On the other hand, as a general rule, heavy electric -- heavy energy-based industries gravitate away from high electric costs. And, research, development, health care, these types of less energy-intensive industries will gravitate -- will not gravitate away.

Now, there's a growing industry, we have valued some of these places, that are gravitating to

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those public utilities that are advancing -substantially advancing the development of very high
reliable, clean electricity, for server farms and these
types of things. So, public distribution utilities
that are making a significant impact in their
reliability, tree-trimming, wires, their type of
electricity, the cleanliness of their electricity, are
in regions that are attracting more or less a 21st
Century type of industry that needs very clean power.

- Q. Are you familiar with the projected payroll of the federal prison and the Noble/Brookfield Project?
- My read on the Noble/Brookfield Project, there will be 12 very little new payroll once it's constructed. 13 will be a new maintenance team that will do the 14 day-to-day maintenance, but the primary maintenance 15 will be subcontracted back out to the turbine 16 17 manufacturers as specialty maintenance. So, Brookfield is not going to add a lot of new people at their office 18 19 in Berlin. I do not know the payroll numbers, but I do know they're projecting approximately 350 new jobs at 20 21 the federal prison. At, you know, at -- if it's 40 or \$50,000 a job, that's going to, of course, be a couple 22 hundred million dollars in payroll. 23
 - Q. So, hypothetically speaking, if these two projects were

- to go on line as projected for the spring and summer, what kind of impact can that 200 million payroll have on the concerns that our politicians have raised over Berlin's current economic crisis?
- A. That's a broad question that I don't necessarily understand totally. It's clear that the prison is being built, and they're going to be bringing in a significant amount of labor. The Feds have put an interesting condition on the labor, where they have to be -- I think it's either 34 or 35 years or younger. So, there's a very different in migration of a young crowd. And, it's clearly going to be helpful to the entire region.

The wood plant is going to more than likely reabsorb a number of the mill workers who were millwrights, who ran the original wood plants, the original boiler, this boiler was run by a boiler crew. I would expect and anticipate that a number of the original workers will come back, get retrained with Laidlaw. And, so, I think it's going to absorb some existing long-term layoff or people that have taken what do they call that, a lesser job or something. I don't think that the wind plant is going to do much in the way of labor.

- Q. Are you aware that the average worker age in that mill was between 50 and 55?
 - A. Yes, I am.

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- Q. And, you think that the odds of that pool of worker
 having reached that age, having reached a point where,
 more than likely, they certainly have secured payoff in
 many cases of their mortgages, etcetera, etcetera, you
 really think that that is something that's going to
 happen in Berlin between the ages of 50 and 55?
 - Well, you're asking me if the guys -- the older guys Α. are going to come back to work. Certainly, there's some -- of those older people will want to work, and may well come back to work, if they're not working. There wasn't everybody that was under -- that was over 50 either. There are some younger people. This plant needs between -- is going to need close to I think it's 40 people is the estimate. So, I think they will tap a certain percentage of people that used to work at that mill that are very familiar with that type of machinery. You've got the log yard, you've got the log yard people, the people who were let go when Currier went under. When the log operation, which was subcontracted out, went under, those guys are around. So, I think you're going to pick up some of those guys.

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I think you're also going to get some new people.
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         I also think you're going to get some people that might
         move, might shift from other lesser jobs in the entire
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         region. Whether it's Gorham, Lancaster, Groveton.
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         Don't forget we still have everyone that was laid off
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         at the Groveton Mill, that can commute very easily to
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                  They operated the boilers, they also operated
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         the combined -- the turbine plants at Groveton.
9
         have the Groveton crew also that may want to come down.
         So, I think the labor pool is going to be okay.
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- Q. Of those 40 jobs that you're talking about, how many of those jobs are specialized? That not necessarily a papermaker or somebody within the paper industry would be necessarily schooled as a 50 to 55 year old in that field?
- A. At least half of those jobs in a wood plant are very specialized. And, people are going to be either trained into those positions or bring some specialty skills with them.
- Q. So, we're talking about 20 direct jobs, perhaps in a pool of the 50 to 55 average age group?
- 22 A. Yes.

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MR. EDWARDS: Thank you. That's all I have.

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1 CHAIRMAN GETZ: Thank you. Ms.
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- 2 Hatfield?
- MS. HATFIELD: I have no questions.
- 4 Thank you.
- 5 CHAIRMAN GETZ: Mr. Shulock?
- 6 MR. SHULOCK: I have no questions.
- 7 CHAIRMAN GETZ: Commissioner Below.
- 8 CMSR. BELOW: Yes. Thank you.
- 9 BY CMSR. BELOW:
- 10 Q. Mr. Sansoucy, on your Exhibit 10, can you tell us what
- is either assumed or implicit for the annual output
- that you used in your calculations in megawatt-hours?
- 13 A. Yes, Commissioner. In the first exhibit, it was
- 431,000 approximate megawatt-hours. And, in the
- revised exhibit, it was 500,000.
- 16 Q. Okay. Thank you. I believe you made a statement to
- the effect that "wind is not in any circumstance as
- valuable as wood, in terms of its energy output." Is
- 19 that correct?
- 20 A. Yes, that's my belief.
- 21 Q. Is that all wind, all locations, or what -- what's the
- 22 context of that statement?
- 23 A. The context is wind in New England is vastly more
- intermittent and less predictable than wind in the

- 1 Midwest and the West.
- Q. Are you distinguishing between onshore and offshore wind?
- A. I am not distinguishing offshore. I have not studied the wind roses offshore. I'm only saying that in relationship to the onshore wind plants that we have looked at in New England.
- Q. Okay. So, you would add that qualification to your previous testimony?
- 10 A. Yes, I would, sir.
- 11 Q. I have another question, I'm just not thinking of it
 12 right now. Just a moment. On Page 11 of your direct
 13 testimony, at Line 15, 11 and 15, you've referred to a
 14 "natural gas major transmission line from Canada to
 15 Boston" that runs through the City of Berlin?
- 16 A. Yes, sir.
- Q. What are you referring to, in terms of "Canada to
 Boston"? Are you referring to pipelines that go to
 Portland, Maine?
- A. No. The pipeline I'm referring to that is in Berlin is
 Portland Natural Gas Transmission line, that emanates
 in Canada, comes through the State of New Hampshire,
 goes to Portland, and then ties up with Maritimes
 Northeast into the Boston markets. It's the Portland

- Natural Gas Transmission line, separate from Portland
 Pipeline.
 Right. But that natural gas transmission line
- Q. Right. But that natural gas transmission line
 essentially runs from Portland, Maine, to Canada, is
 that correct?
- A. Yes, it does. And, then, it -- it runs from Boston,
 basically, to Portland. It ties up at the line that
 comes from Sable Island that comes down from down
 central Maine.
- Q. So, what is your understanding of how gas flows through that line?
- A. Gas flows at this time from Canada to Boston in that
 line, runs to the Boston market. There is offtake at
 the Newington Station for the Newington power plants.

 And, yes, that's where the offtake is for it.

CMSR. BELOW: That's all.

CHAIRMAN GETZ: Commissioner Ignatius.

CMSR. IGNATIUS: Thank you. Good

19 afternoon, Mr. Sansoucy.

20 WITNESS SANSOUCY: Good afternoon.

21 BY CMSR. IGNATIUS:

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Q. You know from the filed testimony and from hearing the
PSNH witnesses at the start of this case that PSNH is
very reluctant to make forecasts of future prices,

1 correct?

- 2 A. Yes, they are.
- Q. What do you make of that reluctance, given what you do in forecasting prices?
- I think that it's very valid that Public Service 5 Α. operate in the existing world the way they do. 6 7 Unfortunately, what I have to do in my world is 8 forecast, because I have to produce values now, and I do it by forecasting. Public Service has long asked 9 us, along with other utilities, not just them, to 10 consider the income approach, market sales approach, to 11 valuation of their utility property. It requires me to 12 forecast. So, I have to put that out there. Forecasts 13 14 are just what they are, they're forecasts. instance, I compliment Public Service for structuring a 15 PPA that is essentially -- doesn't need forecasts to 16 17 potentially provide benefits. Especially in light of what occurred in, you know, the last round of the IPP, 18 19 you know, the 15 cent contracts were based on forecasts at the time. We were all in the room when that 20 21 happened. We were wrong by 30 years. Here we are today, I guess, but we were wrong when that happened, 22 so -- except the early ones. I remember the early 23 24 contracts were structured similar to these, what I

called then the "original 90-10s". Where 10 percent of the total cash flow was put into an account, an escrow account, to be used against under-market power payments, versus over-market power payments for the ratepayers. And, those got washed out through forecasts.

So, my world, I have to forecast. In this PPA, I think Public Service has done a good job of structuring a PPA without relying on forecasts. And, I understand why they have done it.

Q. Do you have confidence in your forecasts?

A. Yes, I do. I have confidence in them, because I have to -- I have to choose forecasts that, to the best of my ability to screen through their assumptions, are reasonable. Now, that doesn't mean I accept everything they say verbatim. That doesn't mean that me sitting in New Hampshire, in the center where I value property, agree with every component in the forecast. But, yes, I have confidence in them. I have used the original Platts. Ventyx is the outgrowth of the original Platts Forecasting Group, and we've used them now for about ten years. One of the good things about using them and staying with them, they're a good forecasting, is the consistency that it provides my towns and cities and

the utilities we value. Right or wrong, there is a consistency in the valuations that relate to consistent forecasts. And, that's a positive thing for both the communities and the taxpayers.

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- Q. When you first identified in your direct testimony that you thought that the Laidlaw plant and the PPA could lead to a \$300 million savings, why did you not quantify those savings and go through the analysis?
- Because I was working on running valuation models for Α. the City. I was coming up with very positive values, much greater than the testimony was saying. I was then going back and putting together the pieces of what are the components of that value, that over value? carbon? Is it electricity? Is it capacity? Is it the RECs? And, I got to -- I was able to get to the point of producing the estimate of 300 million in time for the direct testimony. But I was not able to put together a illustrative 20-page technical package on all the reasons why, because it was all in the computer, it was all in my notes. I had run all of the property values. And, the property values were coming in much higher than the testimony would allow you to believe. So, I knew that there was some positive benefit that was accruing under the surface. I needed

- to find it. I didn't get to the ability to put together a more detailed package for the direct testimony by the time it was due.
- 4 Q. How do you get to a total if you don't know your components?
- 6 A. I was developing my components. I did develop them.
- Q. But how do you start with a total of 300 and then later figure out what the components are that add to 300?
- 9 A. No. I didn't start with the total. What I started

 10 with is, on Exhibit 10, the Base Case. That Base Case

 11 came directly out of my valuation work, where I modeled

 12 the power plant and modeled the PPA.
- 15 A. Oh, I'm sorry.
- Q. -- in which you included \$300 million without any explanation on Page 9.
- A. Right. Right. My 300 million, I did prepare -- I did
 have the numbers that prepared the table for Exhibit 1
 in my PPA -- my data request. I had those numbers put
 together in different increments and pieces.
- Q. You stated that a number of renewable plants have been canceled, despite early interest in being in the queue and other early development discussions. What

- are some examples of actual plants that have been canceled?
- Well, the most recent cancellation is Madiera 3 Α. Energy/Pioneer Energy, the 50 megawatt wood plant that 4 5 is proposed for the Greenfield, Massachusetts area. Intalking with the developer last week, they're 6 7 essentially giving up on that plant. The Russell 8 biomass plant, in Russell, Massachusetts, is 9 essentially on ice. And, then, on the ISO website, there is a list, and it's actually printed with the ISO 10 queue, that lists all of the cancellations of projects. 11 They got the queue, and then they got the 12 cancellations. But the two big biomass plants in 13 Massachusetts, one is essentially canceled and one is 14 on hold. 15
 - Q. And, it's your view that that's because of financing constraints without a PPA?

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A. The two wood plants are financing. They're essentially permitted. There is a -- there was a wind plant in northern Vermont, where the owner is walking away from his -- that proposal, up in the Northeast Kingdom.

And, that is just not going to be financially feasable for him, it's too small. But no one's offering -
Everybody needs a PPA to get going, and nobody is

- offering a PPA to get going. They need a -- you know,
 we know that Russell Biomass cannot get a PPA for their
 wood plant, for example.
- Q. Let me ask you about your Exhibits 9 and 10. I've
 heard two different answers to a couple of questions,
 depending on when they were asked. And, so, I'm going
 to ask you again, and see if maybe it was my notes that
 were wrong. On Exhibit 9, did you assume the higher or
 the lower capacity?
- 10 A. Exhibit 9 doesn't require the assumption of a high or
 11 low capacity, except in the capacity price conversions.
 12 And, those conversions we're assuming the lower, on K
 13 and L.
- Q. And, I have a record that Mr. Bersak asked you that question, and you said it assumed the higher "67.5 capacity". So, it's the lower?
- A. I have to double-check. We're going back and forth. I

 can answer that very quickly. The Exhibit 9, it

 assumes the 67.5. It's the higher. I just cross

 calculated the capacity, it's the higher. And, it is

 the higher. So, I have converted it to the higher.
- Q. So, the answer a moment ago to Mr. Below is wrong, it's not the lower number, it's the higher?
- 24 A. It's the higher number, yes, it is.

- Q. And, on Exhibit 10, does it use the higher or the lower?
- 3 A. 10 uses the lower, because it was created earlier.
- Q. Okay. So, when you just told Commissioner Below it was the higher, that was a mistake?
- 6 A. Yes. It's reversed.

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- Q. If Exhibit 10 was created after Exhibit 9, why would you go from the larger in Exhibit 9 to the smaller in Exhibit 10?
- A. No. Exhibit 10 was not created after Exhibit 9. It
 was included in this document, but it was the first
 creation based on my original direct testimony for the
 300 million. And, then, it was prepared for the data
 request, and it was included in the rebuttal testimony.
 - Q. Similarly, I heard two different answers on Exhibit 10, in Column E, whether it was based on -- the capacity price was based on 2009 or 2010 figures. You said to Mr. McCluskey that "it was based on 2009" -- excuse me, "2010". But, I think, when an earlier discussion was that it was using the 2009 figures, and the only thing that had changed were the calculation -- the escalation, the 2.5 escalation?
 - A. Okay. Column E in 10 used the Fall 2009 energy price.

 It used the Company contract REC, and the Fall 2010

1 capacity price.

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- Q. And, why use a different year?
- Because the whole point of 10 was to back up my 3 Α. statement that, under a high energy, high capacity 4 5 scenario, there could be significant savings to the ratepayer. The forecast for energy, the high energy, 6 7 which includes carbon, was fall and spring, were the 8 last two forecasts for Ventyx with carbon. The high capacity forecast is the most recent. So, I married 9 the two forecasts to come up with the high scenario to 10 back up my statement, that the whole -- the statement 11 in the direct testimony is, under a high energy, high 12 capacity forecast, i.e., the Fall or Spring 2009 13 energy, the Fall capacity of 2010, to marry those two 14 together, that's why you've got two separate years. 15 There's no greenhouse gas forecast for Fall of 2010 for 16 17 energy. They did not forecast it, they took it off the table. 18

CHAIRMAN GETZ: I'm sorry, say that again.

WITNESS SANSOUCY: There's no Fall 2010 forecast for carbon. Ventyx did not include it in their forecast. They took it off the table until further clarity from the Legislature, from Congress.

1 BY CMSR. IGNATIUS:

- Q. Looking at your Exhibit 9, at the Column J, "Total

 Market Capacity", between Year 1 and Year 2, there is a significant increase.
- 5 A. Yes.
- Q. And, I guess I won't ask you to give the number, if that's protected. I don't know the source of the number, so I'm not sure.
- 9 A. It's not protected.
- 10 Q. All right. It does not come from the Ventyx numbers?
- One, the first one does not come from Ventyx. 11 Α. first year is 2014, which is the last year of the 12 capacity forwards, which is \$36 a year. 13 The second year comes from Ventyx at 2.5 percent inflation from 14 2010, and that is \$93 a year from Ventyx, adjusted for 15 inflation. No. The 93 is adjusted with 2.5 percent 16 17 inflation from 2010. It was 80 some odd dollars in the Ventyx forecast. So, that's -- the jump is coming off 18 19 of the forward capacity pricing market for 2014 to 20 2015.
- Q. And, the significant increase in Years 1 and 2 in Column L, can you explain that also please?
- A. Yes. That's exactly the same. One is the capacity

 price in kilowatt-months, and the other just converts

- that to capacity price in megawatt-hours. It's just
 the conversion of the capacity price converted to the
 megawatt-hours produced for the year. So, this exact
 same reason for the change. One is the forward
 capacity market, the other is the Ventyx projection for
 2015.
- Q. You said to Mr. McCluskey that, although Ventyx studies include projections of REC prices, you didn't use or study them, correct?
- 10 A. I studied them. We did not use them.
- Q. And, you said that it wasn't appropriate to use them, because the REC price is fixed in the PPA, correct?
- 13 A. That's correct.
- Q. But didn't you also say to Mr. McCluskey that the energy price is fixed in the PPA, but for the Wood Price Adjustment?
- 17 A. Yes.
- Q. Then, why is it appropriate to use the projections for the energy price from Ventyx, but not to use the REC price from Ventyx?
- A. Because I am comparing the effect of energy and
 capacity forecasts on whether or not this PPA has a
 possibility or probability of being a good deal for the
 ratepayers. It is in direct rebuttal to Staff and OCA

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not addressing those two issues, especially the capacity. I will point out that the Ventyx capacity pricing is approximately equal to the PPA in their projections. So, it runs up about \$25 to \$30, plus inflation. And, the bulk of the PPA, which would bring it up to 40 to 50, the bulk of the PPA, at 50 percent, is down around \$45. I did not use that projection, because I wasn't doing that analysis. My analysis is very simple. You avoided the issue of capacity, which is a major component of a wood plant. significant, it should be valued and taken into consideration. Staff didn't deal with capacity, period. And, then, I went to the issue of energy. testimony against this plant is based on the current short-term energy outlook. And, that energy outlook is tanked. We know that. I don't believe it's going to stay there. I believe it's going to reverse.

I did not do an independent projection of the value of the RECs. The RECs are fixed, in my view. And, I don't believe they would add anything to my analysis. Although, I will say that the Ventyx REC pricing is not that dissimilar from the discounted RECs in the PPA.

Q. Mr. Edwards asked you about what would happen if, as he

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put it, Noble filled the capacity on the transmission line, and what that would mean for what Laidlaw would have to do. Let me ask you a slightly different question, which may or may not be what he was getting at. If the Noble Wind Project were running at full capacity, and Laidlaw were constructed, would not Laidlaw be dispatched down to allow the wind plant to be fully dispatched during a period of high production?

My conservations with the people in the North Country Α. from Public Service on that grid is this: That there is the possibility of a coincident peak, with a significant outflow from the hydroelectric plants, and very little internal use by the people in the Berlin area that could result in a high water, so high hydro, high wind, and high woods, where, for some period of time, either short or less than short, Laidlaw would have to probably feather back, that's true. think, in all of the capacity factors that everyone has talked about, I don't think it would be that significant to Laidlaw, because if the wind is operating at a 25 percent capacity factor, and Laidlaw is at a 85 percent, there's 15 full percentage points for Laidlaw to feather back within its capacity factor. Whereas, that represents more than 60 percent of the

- time that the wind would be running 15 percentage

 points to 25. But, yes, I think -- I believe that

 everybody believes that there could be a set of

 circumstances where Laidlaw would have to throttle back

 until the system corrected itself.
- Q. Well, is it the system correcting itself or just simply that there's more capacity available?
 - A. The loads flow, that's correct. The loads re-adjust and the capacity becomes available and it goes back up. That being said, 100 megawatts of wind is a lot of wind on the Coos grid. The Laidlaw plant is going to stabilize the frequency of that wind. There's no question about that. Especially, if Comerford and Moore are offline for any reason, because they back feed in and they control the frequency of that grid. That is going to be essential to the frequency control. The dispatch people may feather the wind back a little bit, by feathering the blades, if they need to.

But I think the primary answer to your question is I think that, within the capacity factor of Laidlaw, there could be coincident peaks where they have to throttle back.

CMSR. IGNATIUS: No other questions.

24 Thank you.

BY CMSR. BELOW:

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- Q. I am confused about something you just said. You were talking about a high wind situation where the Coos Loop may reach transmission capacity. And, you referred to something like a 20 percent or something capacity factor. In a high wind situation, isn't the capacity factor wind close to its full capacity?
- 8 Α. Yes. At a high wind, it's close to its full 9 capacity, but that doesn't occur very often. And, at a 25 percent capacity factor, the days where that would 10 occur are far less than the days where Laidlaw is 11 running at full bore. So, you need to have coincident 12 peaks in order to create that bottleneck. And, 13 Laidlaw's -- the wind plant is not going to run at full 14 capacity every single day of its capacity factor. 15 There's going to be very few days where it actually 16 17 runs full bore, all turbines, across that full cross-section of mountains, because the wind varies so 18 19 much. But it could happen.
 - Q. And, your understanding is that it would have priority on the transmission line when that occurs in general, over the Laidlaw?
 - A. My understanding is, reliability of the Grid is top priority, no matter who's in the queue. That the

frequency and the reliability of the Grid has top priority. So, Laidlaw could have top priority for frequency control and VAR control, depending on what's happening in the Grid, and the wind boys would have to feather their turbines.

All else being equal, it's my understanding that first in the queue, that the wind people would have first priority, if there was a dispute on when they would run versus Laidlaw. But my understanding is, when these plants are built, they ultimately, under the interconnection agreements, have to defer to reliable operation for the Grid, as dispatched by New England ISO.

- Q. And, when you, in your direct testimony, suggest that there's a scenario which ratepayers could save up to 300 million over 20 years, under a carbon-constrained high capacity cost market in the future, what have you assumed about the Laidlaw power plant, in terms of carbon-constrained use -- use of those figures from the Ventyx earlier forecast?
- A. I've assumed that the wood-fired plant, Laidlaw, will not pay a carbon tax. That it will be deemed "carbon-neutral". And, it will not pay a carbon tax. It will be advantaged over a fossil fuel plant.

- Q. And, what do you think the likelihood of it qualifying for Class I RECs in Massachusetts is? At the time it comes on line in 2014? Do you think that's likely that it will qualify for Class I RECs in Massachusetts from what you know?
- A. From what I know, I think that the -- I think that

 Massachusetts will change, and that no wood plant will

 qualify for Class I RECs that's not located in the

 State of Massachusetts. My own personal opinion is

 that it is less likely that it will qualify than not

 for Mass. RECs.

- Q. And, the two that you referred to earlier that were canceled, you said the reason you understand they were cancelled was because they couldn't get PPAs or financing. Does Massachusetts' change in its policy with regard to its RPS potentially bear on why those were canceled?
- A. Yes. There's a confluence of not being able to get a

 PPA and a confluence of Massachusetts putting a freeze
 on any additional Class I RECs from wood plants, until
 they review their carbon policy on wood plants and wood
 sustainability in the State of Massachusetts and issue
 new regulations in that regard. So, even if they
 wanted today to get a contract, because this has been

ongoing for several years, even if they wanted a contract today, that contract would have to be outside of Massachusetts, and they would have to ship their electricity out of Massachusetts, if they wanted RECs today in Massachusetts.

- Q. And, is that because Massachusetts seems to be considering a policy where they might not deem certain biomass fuel power plants to be carbon neutral?
- A. No, that's not what it is. If you read the Manomet study that was commissioned by the State, the Manomet study --
- Q. Excuse me, I didn't ask about the Manomet study.
- A. Oh. Okay. But to get -- then, to get to your question, Massachusetts is looking at whether or not it should develop a policy of forest sustainability, as opposed to any form of wholesale liquidation. And, that forest sustainability, i.e., burning only what you grow, will severely reduce the number of wood plants that could possibly be built in Massachusetts to approximately one and a half 50 megawatt plants. And, it is considering that policy as the appropriate way to permit the use of its own forests. And, what it says is that the carbon deficit from the cutting, if they slow down the amount that's burned annually in the

- State of Massachusetts, that deficit fills in much quicker, so that it becomes carbon positive much faster or environmentally positive much faster, than it would otherwise have become.
- Q. If we look at your Exhibit 10, and using your -- in years 2014, 2015, and 2016, under your assumptions that you used for Column E, which include using Ventyx energy and capacity market value forecasts, compared to the Base Case. In Column F, you have a positive value for those first three years of operations, is that correct?
- 12 A. Yes.
- Q. And, those positive values would indicate over-market expenditures by PSNH for the purchase of that energy and capacity?
- 16 A. Yes.
- Q. And, it essentially assumes that the RECs are neither over-market, nor under-market, that they are, in effect, equal to market, is that --
- 20 A. It assumes that the RECs are what they are.
- 21 Q. And, that there's no over-market expense in those?
- 22 A. That's correct.
- Q. Okay. Do you have any concern about, in those early years, there being an over-market expense that would

raise Default Service rates and increase the migration of customers who choose competitive suppliers that are less expensive?

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That's a great question. It has two parts. One is, if Α. there's an over-market expense that raises rates. that has to be factored into the total rate structure of Public Service, in that an over-market REC expense is one expense on the plus side of the ledger, while there may be expenses on the negative side of the ledger that do not raise rates, so that there's a net that doesn't raise rates. Okay. A second part of that question is, that if rates go up one percent half a percent from what they are now, I don't believe you're going to see continued accelerated migration from Public Service that we have seen in the last, I think, two and a half years. If you look at the curve and the precent, that curve has flattened right off as to the acceleration. The acceleration has stopped, and the migration curve has flattened at around the 30 to 31 percent range. That is simply because the easy people who can migrate, the people who can benefit the most from migration, with this very low electric price, have migrated. The residential and the commercials are not significantly migrating. It's too much work and

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nobody is servicing them. When we talk to the power marketers, they're not even chasing the residentials, because the cost of servicing the accounts greater than the net benefit that they can get from the electricity. So, I think the migration is beginning to feather off and is not going to substantially grow. That's my -- that's my personal opinion.

Secondly, this sword has an enormous back edge to it. If electricity prices -- if natural gas prices begin to move at all, the advantage of the migrants is going to diminish. And, the companies are not going to be able to offer it. And, some portion of that capacity is coming back, which is going to have a tendency to reduce rates if it has to be served. Unless there is a real toggle problem, because Public Service is holding capacity, and the whole issue of toggling back and forth and how much capacity does Public Service have to hold. But I think the minute that gas starts to rise, you're going to see a stop in the migration and probably a reverse. And, I personally don't believe you're going to see a greater level of migration going forward. Public Service is essentially more than a third residential, a third commercial, and less than a third industrial. And, the

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bulk of the big commercials and industrials have moved.
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         The rest of them, it's just not worth the power
         marketers to try to serve those accounts for one cent
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         or a penny and a half a kilowatt on 6,000 kilowatts a
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         year, they can't do the paperwork. That's my opinion
         on that.
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                        CMSR. BELOW: That's all.
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                        CHAIRMAN GETZ: Any redirect, Mr. Boldt?
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                        MR. BOLDT: No, Mr. Chairman.
                        CHAIRMAN GETZ: Okay. Then, the witness
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      is excused.
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                   Thank you.
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                        WITNESS SANSOUCY:
                                            Thank you, your
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      Honor.
                        CHAIRMAN GETZ: I think what we'll do
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      now is take the lunch recess. And, after the recess, then
      I understand we'll go to Mr. Traum. And, so, let's resume
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      at 2:30. Thank you, everyone.
                         (Whereupon the lunch recess was taken at
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                        1:10 p.m. and the hearing resumed at
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                        2:40 p.m.)
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                        CHAIRMAN GETZ: Okay. Good afternoon.
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      We're back on the record in DE 10-195. And, turning to
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      the Office of Consumer Advocate. Ms. Hatfield.
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                        MS. HATFIELD: Thank you, Mr. Chairman.
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- 1 The OCA calls Ken Traum to the witness stand.
- 2 (Whereupon Kenneth E. Traum was duly
- 3 sworn and cautioned by the Court
- 4 Reporter.)
- 5 KENNETH E. TRAUM, SWORN
- 6 DIRECT EXAMINATION
- 7 BY MS. HATFIELD:
- 8 Q. Good afternoon, Mr. Traum. Would you please state your
- 9 full name for the record.
- 10 A. Kenneth E. Traum.
- 11 Q. And, by whom are you employed?
- 12 A. I'm employed by the Office of Consumer Advocate.
- 13 Q. And, how long have you been with the OCA?
- 14 A. For at least 21 years.
- 15 Q. And, have you testified previously before the
- 16 Commission?
- 17 A. On many occasions.
- 18 Q. Did you file testimony in this proceeding?
- 19 A. Yes, I did.
- MS. HATFIELD: And, Mr. Chairman, we
- 21 have premarked Mr. Traum's testimony as "OCA 1-P" for
- 22 public and "1-C" for confidential.
- 23 BY MS. HATFIELD:
- Q. Mr. Traum, do you have a copy of both of those versions

- 1 before you?
- 2 A. Yes, I do.
- Q. Do you have any changes or corrections to make to your testimony?
- A. Not a change as such, I'd just like to point out that
 my Attachment 7 had been completely confidential. And,
 based upon a correspondence from Public Service, part
 of it, the part that was relevant to my testimony, was
 made public. And, the OCA has previously submitted the
 revisions making that part of Attachment 7 public.
- 11 Q. And, you don't have any other changes or corrections?
- 12 A. No, I do not.
- Q. Would you please, as briefly as possible, summarize your testimony.
- 15 Certainly. My testimony in a nutshell is that the PPA, Α. as proposed, puts too great a risk on Energy Service 16 17 customers of Public Service. The risk is just too high that over the 20-year term of the PPA they will have to 18 19 pay rates in excess of the market. That conclusion is reached by comparing market price scenarios and PPA 20 21 price scenarios for energy and capacity and RECs over 22 the 20 years of the PPA. I understand that these are simply scenarios and not a prediction of the future, 23 but they do illustrate that the PPA could be 24

significantly over market.

Though PSNH claims that the Cumulative Reduction Fund, the CRF, mitigates the risk to ratepayers of paying higher rates, in my view, in the OCA's view, it does not. The CRF itself is too risky and has many flaws that I go into in my testimony. In the end, it's possible that the CRF will have no value. And, even if it does, it does not make ratepayers whole during the 20-year term.

RECs are a major concern under this PPA, for three main reasons. First, as we've heard, Public Service Energy Service customers do not need the RECs in the early years, so they're buying a product they do not need.

Second, the current RPS law may end in 2025. But, under the PPA, customers must purchase the RECs for the years 2026 through 2034. In terms of pricing of the RECs, the risk is too high that ratepayers could pay more than necessary and may purchase a product that is not required.

It is not my testimony that I know exactly how much of the PPA will be over market. My testimony was that the PPA is too risky as it is currently structured. In my testimony, I also explain

why the OCA has concerns about the Wood Price

Adjustment, and the fact that the Schiller plant is the
benchmark for the wood price.

With regards to the 20-year term, the OCA agrees with PSNH about the uncertainty and inherent inaccuracy of long-term forecasts. Once burned to the tune of \$2 billion over market, we don't want to go anywhere near that path again. We frankly hope that our projections in our testimony do prove to be wrong; however, the risk that we might be right is why this PPA, as currently structured, cannot be approved.

The OCA believes that any PPA proposed should be more closely tied to market prices, such as the Lempster PPA. And, in conclusion, the OCA again believes that the Commission should reject the PPA as proposed, as it imposes an unacceptable level of risk on Energy Service customers. At the same time, the OCA is certainly supportive of renewable energy development, especially in the North Country. We understand the need for a wood plant, and we appreciate what a wood plant would do for that part of the state.

Q. Thank you, Mr. Traum. I have a few questions I'd like to ask you about PSNH's rebuttal testimony. Do you have that with you?

- 1 A. Yes, I do.
- Q. If you turn to PSNH's rebuttal testimony, at Page 17
- 3 please.
- 4 A. I have that.
- 5 Q. Do you have that page?
- 6 A. Yes, I do.
- 7 Q. Beginning on Lines 24 and going through Line 27, the
- 8 PSNH witnesses discuss the migration docket. Do you
- 9 see that there?
- 10 A. Yes, I do.
- 11 Q. And, then, they discuss the fact that that is being
- considered or at least has been raised in the migration
- docket. And, then, they have a statement on Lines 26
- to 27 that says that your suggestion in that docket "is
- 15 nonsensical, since divestiture wouldn't produce any
- 16 value." Can you respond to that please?
- 17 A. Certainly. And, it's interesting that the Company did
- not take that position in the migration docket. As the
- 19 Commission knows, that docket was opened to investigate
- 20 solutions to the significant cost shifting that is
- occurring to -- by shifting costs to smaller customers.
- 22 And, it's impacted by the fact that PSNH's generation
- fleet, at least at this point in time, is over market.
- So, in that docket, the OCA had suggested that the

Commission perhaps open a proceeding to look into the 1 2 issue of divestiture. We weren't saying you should order divestiture, you should just investigate it. 3 And, certainly, a driver for why we were saying 4 investigate divestiture is that we were looking at 5 annual over-market costs from PSNH's generation in the 6 7 neighborhood of \$100 million. And, that was the real 8 driver for why we thought divestiture is something that has to be looked at. Now, I certainly do not think 9 that that's a nonsensical issue. 10

- Q. Turning to Page 18 of PSNH's rebuttal, on Line 7, the Company raises an issue that you raised in your testimony, and that has to do with the "matching" issue. Can you address their testimony there please?
- A. Certainly. Under traditional ratemaking, rates are set based upon the cost of service, not the cost of service plus a premium, which may or may not accrue to the benefit of some future customers in 20 years. So, I view this, in effect, as a version of allowing CWIP in rates.
- Q. If you would please turn to the very last page of PSNH's rebuttal, which is their Attachment 7 please.
- 23 A. I have it.

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24 Q. And, this provides a history of wood prices for the

- 1 Concord Steam plant, is that your understanding?
- 2 A. Yes, it is.
- Q. And, you raised an issue related to this in your testimony, is that correct?
- On Page 11 of my testimony, I raised a concern 5 Α. Yes. about having a Wood Price Adjustment that's tied to the 6 7 price of wood at Schiller Station. And, when one 8 compares the prices from Schiller, with those provided for Concord, you can see that historically the prices 9 at Schiller have been greatly in excess of those in 10 Concord. So, if we assume the Schiller costs are 11 12 prudent, the comparison buttresses my concern that Schiller prices are not a reasonable proxy for what 13 Laidlaw would pay for wood in an even more rural area 14 than Concord. 15
- Q. Mr. Traum, I'd like to ask you a few questions about what has been marked as "PSNH Exhibit 9 Revision 1".

 Do you have a copy of that with you?
- 19 A. Yes, I do.
- Q. And, you were here, I believe, when the Company witnesses testified about this document?
- 22 A. Yes, I was.
- Q. And, could you just give us any reaction that you have to what's in this document that is actually titled

"Changes to PPA offered by Laidlaw" please.

A. Yes. And, I'd start by conditioning by comments by first saying, I have not had an opportunity to conduct proper discovery or analysis of the potential revisions. And, as Mr. Long had even said, in response to a question from Attorney Bersak, it's a guess on whether or not these changes are better or worse for Energy Service customers.

Now, moving on to the specific items within Exhibit 9 Revised. On Item 1, the contract quantity, under the current PPA, even PSNH indicates there's an ambiguity in the project size for purposes of the PPA. Under Exhibit 9 Revised, the size will be higher than that used by PSNH in its Base Case scenario, as well as Exhibit 1 to the original PPA. Since the OCA views the over market risk of the PPA as originally proposed as being unacceptable, we view this provision as simply making things worse, by clarifying that the plant and the PPA can be expanded significantly above levels indicated in previously provided information.

On Item 2, "Interest on [the] Cumulative Reduction Account", although the OCA continues to disagree with the concept of a CRF, if the Commission

were to decide it is appropriate, then we believe interest should be included. At this point, though, we don't have a position on whether the proposed interest rate is the appropriate one.

With regards to Item 3, which greatly expands the purview of the CRF to include RECs, again, if the Commission were to decide it is appropriate to have a CRF, then we would believe it is appropriate to expand it to include RECs. But we disagree with the exclusion of Schiller RECs and are concerned that Energy Service customers aren't fully protected against the possibility that the CRF will exceed the market value of the plant at the end of the PRF -- PPA.

On Item 4, that by itself doesn't change anything from the original PPA.

Item 5 reduces the Wood Price Factor from 1.8 to 1.6 for any price variances from \$30 per ton. This change would work to the benefit of Laidlaw or Energy Service customers, depending on the price of wood at Schiller. Getting beyond my prior comments about the inappropriateness of using Schiller prices as a proxy for the WPA, 1.6 -- if 1.6 is good enough for variances in wood prices, we think it should be used throughout the PPA, just not -- not just for variances.

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                         CHAIRMAN GETZ: Just one thing.
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      Number 4, the "Base Price Energy", which you said it
      "doesn't change anything". It doesn't change anything
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      about your opinion about the riskiness of the contract?
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                        WITNESS TRAUM: Under the current PPA,
      the base price would still be lowered from 83 to 75.80, if
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      the cost of wood went from 34 to 30. What is changing is
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      that they're moving the base from 34 to 30 for purposes of
      the 1.6.
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                         CHAIRMAN GETZ:
                                         Okay.
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                        WITNESS TRAUM: Only for that.
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                         CHAIRMAN GETZ: Okay.
                                                Thank you.
    BY MS. HATFIELD:
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         Mr. Traum, you just a few moments ago made a reference
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    Q.
         to the fact that you don't agree that Schiller RECs
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         should be excluded from Item 3, do you recall that?
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    Α.
         Yes, I do.
         And, do you also recall Mr. Long's testimony last week
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    Q.
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22 A. I do recall Mr. Long's testimony.

Company to sell Schiller RECs?

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Q. And, as someone who participated in that docket, do you agree with that interpretation?

that it's the Company's position that the Schiller

agreement and the order in the '03 docket requires the

1 A. No, I do not.

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- 2 Q. Can you explain why please?
- Certainly. By way of background, one must remember 3 Α. that, at the time, New Hampshire didn't have an RPS 4 5 statute when we were negotiating the modification. That said, the 50/50 sharing between stockholders and 6 7 Energy Service customers was based on the difference 8 between an annual revenue target and actual annual incremental total revenue. And, now, I'll quote from 9 the revised wording in the joint motion that was 10 accepted by the Commission on this. And, it said, "The 11 actual annual incremental total revenue (incremental 12 total revenue) achieved by the Northern Wood Power 13 Project shall be the sum of all incremental revenues, 14 credits, and cost avoidances achieved by PSNH, from all 15 sources, that would be included in PSNH's annual 16 17 adjustment to energy power supply costs."
 - Q. And, Mr. Traum, that document you're referring to is from the Commission docket DE 03-166, is that correct?
- A. That is correct. And, the Joint Motion for
 Reconsideration, which was accepted in Order Number
 22 24,276.
 - And, what I would focus on is the words "cost avoidances". Clearly, replacing a REC that PSNH

might have to purchase under the Laidlaw PPA with one from Schiller would be an example of cost avoidance. The amount of the cost avoided would be subject to the sharing formula similarly to revenues from the sale of the Schiller RECs to a third party.

And, even in PSNH's testimony in the underlying docket filed on March 19th, 2004, in support of the modification petition, they stated on Page 8, Lines 8 through 11, "Regardless of the revenue, credit, or cost avoidance mechanism, megawatt-hours generated in a calendar year and the associated renewable attribute revenue and any avoided costs of a calendar year will be credited during the annual reconciliation that occurs in the following year. Again, cost avoidance is treated equally with incremental revenues and credits.

- Q. Mr. Traum, I'd like to ask you a question about
 Dr. Shapiro's rebuttal testimony. Do you have that
 with you?
- 20 A. Yes, I do.

Q. And, do you recall that she has testified about both the economic benefits of the Project, and she's also acknowledged that the Project could result in an increase in energy rates?

A. Yes.

- Q. And, did you have any response to that?
- A. Yes. And, I guess I just want to really address the issue of impact on energy rates. And, I think, at the same point, to respond to a question from Commissioner Ignatius about potential rate impacts here. What I want to point out is that the impact of the potential \$26 million over-market payments under the PPA on an annual basis, the \$26 million I believe is the number that Dr. Shapiro used in her testimony, that that 26 million would only impact a subset of PSNH's customers, the Energy Service customers. Which they represent less than 70 percent of PSNH's total load. And, as the Commission knows from the migration docket, they're primarily the smaller captive customers.

In terms of the potential impact of \$26 million on the Energy Service rate, if I simply were to look at current forecasts of Energy Service sales on an annual basis, we're in approximately the five and a half million megawatt-hour range. So, \$26 million, spread over five and a half million megawatt-hours, is about a half a cent impact on the Energy Service rate. If we say an Energy Service rate is hypothetically 10 cents, that's a 5 percent increase

- in the Energy Service rate. That's, to me, a
 significant impact, which would further induce
 migration, thus aggravating the situation for, again,
 the captive customers.
- Q. Mr. Traum, I'd like you, if you have it with you, to please turn to the Ventyx materials that have been provided by the City of Berlin.
- 8 A. Yes, I have that.
- 9 Q. And, do you also have Mr. Sansoucy's rebuttal testimony with you?
- 11 A. Yes, I do.
- 12 Q. And, I'd like to ask you a few questions and try not to
- get into the copyrighted material, if that's possible.
- 14 If you look at the very last page of Mr. Sansoucy's
- rebuttal, that's his "Exhibit 10", do you have that?
- 16 A. Yes, I do.
- Q. And, I think Mr. Sansoucy testified earlier that, in
 each of his columns in Exhibit 10, he used the PPA REC
- 19 price. Is that your understanding?
- 20 A. Yes.
- Q. So, even though it seems as though he was trying to do
 a comparison of the PPA versus market, when he was
 developing the market price, he used the PPA REC price,
 is that right?

- A. He apparently, as I understand his explanation on the stand today, which differed somewhat from the explanation at the technical session yesterday, that, for purposes of Exhibit 10, he used either a 2009 or 2010 energy or capacity prices from Ventyx, but he ignored the Ventyx REC assumptions forecasts.
 - Q. Can you just pull the microphone a little closer?

 Thank you. But Mr. Sansoucy did acknowledge that there is a REC forecast in the Ventyx materials, right?
- 10 A. Yes, he did.

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- 11 Q. And, we could find that on the second to last page of 12 the big Ventyx 2010 packet at Page E-2, is that right?
- 13 A. That's correct.
- Q. And, do you know, if you look at that table and use the pricing that's appropriate for our region, does that change the outcome of Mr. Sansoucy's Exhibit 10?
 - A. It absolutely does. After receiving the information from Mr. Sansoucy yesterday, and the spreadsheets, I saw there was an inconsistency in terms of the application of the Ventyx numbers. And, I tried to recreate what the PPA price versus market would be over the 20 years, if I were to use Ventyx for the Ventyx energy, capacity, and REC price forecasts. When I used all three of those, what I come out with is that the

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         Laidlaw PPA payments are 300 million over the Ventyx
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         market forecasts.
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                         CHAIRMAN GETZ: Are they all at the same
 4
      vintage?
                                               I used Fall 2010
5
                         WITNESS TRAUM: Yes.
      consistently, the most recent information that we were
6
7
      provided.
8
                         MS. HATFIELD:
                                        I have nothing further.
      The witness is available for cross-examination.
9
10
      you.
11
                         CHAIRMAN GETZ: Okay.
                                               Thank you.
                                                             Has
12
      there been some agreement on order of cross? Because, in
      the absence of such agreement, I guess I would go to
13
      Mr. Shulock, Ms. Amidon, Mr. Edwards, Mr. Boldt, and Mr.
14
15
      Bersak.
16
                         MR. SHULOCK: Okay.
17
                         CHAIRMAN GETZ: Mr. Shulock.
                          CROSS-EXAMINATION
18
19
    BY MR. SHULOCK:
20
         Mr. Traum, I'd like to direct your attention to IPP
    Q.
21
         Exhibit 26 and 27. Do you have those up there with
22
         you?
23
         I do not have those, I don't have the IPP ones.
    Α.
24
         Whether it's a particular data response, I may have it.
```

{DE 10-195} [Day 4] {02-01-11}

- 1 (Atty. Shulock handing document to the witness.)
- WITNESS TRAUM: Okay. Thank you. Yes,
- 4 I have them.
- 5 BY MR. SHULOCK:
- Q. On Page 6 of your testimony, when you were determining the risk that ratepayers would face as a result of the Laidlaw PPA, you estimated a cumulative over-market cost for RECs of \$276 million, is that correct?
- 10 A. Yes. And, that number appears on Line 21.
- 11 Q. Okay. Did your estimate account for there being no RPS
 12 requirement in 2026 and beyond?
- 13 A. For purposes of the 276 million, I assumed that the RECs would continue.
- Q. And, if the RECs did not continue, how would that change your analysis?
- A. Well, that's the basis of IPP 26, which would indicate that it would add approximately another \$100 million over market to my 276 million.
- Q. And, if I can direct your attention now to Page 10 of your testimony and KET-4, and IPP Exhibit 27.
- 22 A. I have it.
- Q. When you were determining the risk that ratepayers would face, you estimated the interest on the

{DE 10-195} [Day 4] {02-01-11}

- over-market costs under the Cumulative Reduction

 Account. And, you estimated those to be \$4.7 million,

 is that correct?
- 4 A. That is on Line 2 of Page 10 of my testimony.
- 5 Q. And, you estimated that at what percentage rate?
- A. I believe I used three and a half percent, which I
 believe was the prime rate at that point in time, which
 is consistent with the rate the Commission uses in
 other proceedings.
- 10 Q. But, in your direct testimony, you did not calculate
 11 interest on the over-market costs of capacity and RECs.
 12 And, we asked you to do that as part of a discovery
 13 request, and you did. And, can you tell us what your
 14 estimate is of the interest on the over-market cost of
- 16 A. Approximately \$1 million.

15

- Q. Okay. And, if you assumed that the RPS continued, what would be the interest on the over-market portion of the REC payment?
- 20 A. Again, using the same interest rate assumption, 21 approximately \$120 million.
- Q. And, if you assumed that the RPS ends in 2025, would that add an additional cost?
- 24 A. That would add an additional \$14 million.

capacity would be under the PPA?

- Q. And, this morning you testified about the importance of migration. Will you agree that one of the most important factors to project, when looking at PSNH's Default Service needs over time, would be the rate and level of migration?
 - A. That certainly is a very, very significant issue.

7 MR. SHULOCK: Thank you. I have no more

8 questions.

6

10

9 CHAIRMAN GETZ: Thank you. Ms. Amidon.

MS. AMIDON: Thank you. Good afternoon,

11 Mr. Traum.

- 12 WITNESS TRAUM: Good afternoon.
- 13 BY MS. AMIDON:
- Q. Regarding the over market analysis in your testimony,
 do you consider that to be a forecast or a prediction
 of future prices of the PPA products?
- A. I consider it to be merely illustrative. I wouldn't call it a "forecast" or "prediction".
- Q. Thank you. If PSNH's scenarios which you used in your testimony prove to be wrong, your testimony would be that the PPA is still too risky for Energy Service customers, is that correct?
- 23 A. Yes.
- 24 Q. Would you agree that the overall purpose of the

{DE 10-195} [Day 4] {02-01-11}

- Renewable Portfolio Standard is to have a market-based approach to providing a subsidy paid by ratepayers to construct renewable energy facilities?
- A. Yes. The RPS statute was established to create a subsidy and revenue stream for the purpose of incenting renewable generation. If that revenue stream is insufficient, perhaps that's an issue to be addressed by the Legislature.
- 9 Q. Thank you. Now, I think I heard you say that "the

 10 prices at Schiller" -- or "using the price at Schiller

 11 is not a good index." Does it necessarily reflect the

 12 market?
- 13 A. Where it may reflect the market where Schiller is
 14 located, I wouldn't agree that it reflects the market
 15 in Berlin.
- Q. Thank you. Now, you have said that you recommend that the Commission reject the PPA as filed, is that correct?
- 19 A. Yes.
- Q. Does that mean that you are not amenable to a PPA for renewable energy facilities generally?
- 22 A. Oh, absolutely not.
- Q. Okay. And, regarding the construction of the Laidlaw projects in Berlin, do you have any opposition to a

- 1 wood plant being located there?
- 2 A. No.
- 3 Q. And, do you oppose the ratepayers purchasing the output
- 4 from such a facility?
- 5 A. No, as long as it's cost-effective and consistent with
- 6 the statute.
- 7 Q. And, you mentioned the "Cumulative Reduction Fund". Do
- 8 you consider that to be a deferral?
- 9 A. Yes, I do.
- 10 Q. Thank you. Do you think that any of the changes that
- were suggested as "Changes to PPA offered by Laidlaw",
- in PSNH Exhibit 9 Revised, reduce the risk that the PPA
- could be over market?
- 14 A. No, I do not.
- 15 MS. AMIDON: Thank you. Mr. McCluskey
- has one question for Mr. Traum.
- 17 MR. McCLUSKEY: Actually, Commission,
- 18 I've got one area of questioning, so it might go on for a
- 19 little while.
- 20 CHAIRMAN GETZ: I'm used to that
- 21 equation of one question.
- MS. AMIDON: I apologize.
- 23 BY MR. McCLUSKEY:
- 24 Q. Mr. Traum, could you refer to Attachment KET-4 of your

 $\{DE\ 10-195\}\ [Day\ 4]\ \{02-01-11\}$

- direct testimony?
- 2 A. I have it.
- Q. I believe this attachment is setting out how you developed your estimate of the above-market costs for the PPA over the 20 years, is that correct?
- 6 A. That's correct.
- Q. And, it has essentially three components; an over or under market cost calculation for the three products of the PPA, is that correct?
- 10 A. That's correct.
- Q. With regard to the first component, the energy costs,

 am I correct that the market energy prices that you are

 using in that calculation are the -- come from the

 market energy price forecast developed by PSNH and

 presented to the Staff in their response to 1-11?
- 16 A. Yes. It was the PSNH Base Case forecast.
- Q. Okay. And, are you aware that the methodology that was used to develop that forecast was based on several components, one of which was the NYMEX forward electricity prices, and another was the NYMEX natural gas forward prices?
- 22 A. I'm not sure how much PSNH, you know, used those, but I
 23 believe they were involved, yes.
- Q. Okay. And, are you aware that the NYMEX prices used by

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1
         PSNH --
                         MR. BERSAK: Objection. The witness
 2
      just answered he doesn't know that they were used.
 3
      McCluskey is not testifying now, he's asking questions.
 4
      He's assuming facts not in evidence.
5
                         CHAIRMAN GETZ: Ms. Amidon?
 6
 7
                         MS. AMIDON: I don't have any issue with
8
      that objection. One moment please.
                         (Atty. Amidon conferring with Mr.
9
                         McCluskey.)
10
11
                         MR. McCLUSKEY:
                                         Okay.
12
                         MS. AMIDON: Thank you.
    BY MR. McCLUSKEY:
13
         Subject to check, Mr. Traum, would you agree that the
14
         NYMEX prices are based on an August 2009 date?
15
                         MR. BERSAK: Objection. We're getting
16
17
      back to where we were before, "the NYMEX prices".
                         MR. McCLUSKEY: Okay, Commission.
18
                                                             I
19
      guess we're dealing with a very inexperienced young
20
      attorney here. So, I'll hand it back over to my
      experienced attorney.
21
22
                         MS. AMIDON: One moment.
23
                         (Short pause.)
    BY MS. AMIDON:
24
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- Q. Do you agree that the Laidlaw plant is the only way whereby PSNH can acquire Class I RECs?
- 3 A. No. I'm sure there are other ways.
- 4 Q. And, would you agree that, for example, the Lempster --
- 5 the contract that PSNH has with Lempster is another
- 6 method whereby they were able to acquire Class I RECs?
- 7 A. Certainly.
- 8 Q. And, that is a wind farm, is it not?
- 9 A. That is correct.
- 10 Q. And, could PSNH also procure RECs by issuing request
- for proposals for the procurement of Class I RECs?
- 12 A. They can certainly go that route.
- 13 Q. In your opinion, would that result in the procurement
- of Class I RECs that are closer to market prices?
- 15 A. Certainly has the potential to do that.
- 16 MS. AMIDON: Okay. Thank you. That's
- 17 all I have.
- 18 CHAIRMAN GETZ: Thank you. Mr. Edwards?
- MR. EDWARDS: I have no questions.
- 20 CHAIRMAN GETZ: Mr. Boldt?
- 21 MR. BOLDT: I have no questions at this
- 22 time, Mr. Chairman.
- CHAIRMAN GETZ: Okay. Mr. Bersak.
- MR. BERSAK: Thank you, Mr. Chairman. I

- will be referring to a few of the data request responses
 from the OCA, and I'll ask my trusty cohort here, Mr.
- 3 Hall, to make sure that the parties have copies so they
- d can follow along. I have a copy for the Court Reporter,
- the Clerk, and for your reading convenience,
- 6 Commissioners.
- 7 (Atty. Bersak and Mr. Hall distributing
- 8 documents.)
- 9 MR. BERSAK: Good afternoon, Mr. Traum.
- 10 WITNESS TRAUM: Good afternoon.
- 11 BY MR. BERSAK:
- 12 Q. I think you stated on your direct and also as a
- response to one of the cross-examination questions that
- 14 you're not a particular fan of this PPA that we've
- submitted for approval, are you?
- 16 A. I don't think I used the word "fan".
- 17 Q. But you recommend that it should not be approved as we
- 18 have submitted?
- 19 A. I believe the risk, the above market risk to Energy
- 20 Service customers is just too high.
- 21 Q. In response to one of the questions that you were asked
- earlier this afternoon, you indicated that you've
- reviewed the pricing terms of the PPA to assess how
- they compare to market prices, is that correct?

- 1 A. That's correct.
- Q. When you performed your review, did you use your own forecasts of market prices?
- A. I did not use a forecast, per se. I had relied on

 PSNH's Base Case, had originally thought was a

 forecast, but you've since termed a "scenario". And, I

 assumed that you had an obligation, on behalf of your

 customers, to do the best job you could.
- 9 Q. Assuming that it is a "scenario", as testified to by
 10 Mr. Long, what would that make the calculations that
 11 you make in your testimony? Would they also be a
 12 hypothetical scenario?
- 13 A. They would be a scenario. And, thanks to the forecast
 14 that was just put into the record by the City of
 15 Berlin, we've got a forecast from an outside consulting
 16 firm that's a long-term forecast that could be viewed
 17 as a sanity check for the results that I developed and
 18 Mr. McCluskey and Staff developed.
- 19 Q. In your testimony, you've said, though, that, on Page
 20 5, that "It is important to note, however, that
 21 forecasts generally tend to be less certain over longer
 22 term time periods", is that correct?
- A. It certainly is. And, I think -- I'm not sure if
 that's where I quoted from Public Service's Least Cost

- 1 Plan or not, but, certainly, I agree with that.
- 2 Q. Why did you provide that qualification only after your testimony, where you testified that "assuming that 3 PSNH's forecast for capacity prices is correct [would] 4 result in the PPA capacity costs being \$11 million 5 under market"? My question is, why are forecasts less 6 7 certain over time when the prices are under market, but 8 you didn't have a similar qualification when your analysis showed an over market amount? 9
- 10 A. I would have the same concern, whether it was over or under market.
- Q. When you performed your analysis of the REC pricing in your testimony, on Page 5 you testified that you "considered several data points", is that right?
- 15 A. Yes.
- Q. If you go to the next page, you testify that using
 certain market information "that current market prices
 for Class I RECs in 2010 and 2011 are about 30 percent
 of the ACP." Do you see that testimony?
- 20 A. Yes, I do.
- Q. So, then, you go on to testify that "Therefore, for the purposes of my analysis of how the REC prices in the PPA compare to the market, I used amounts equal to 30 percent of the future ACPs over the life of the PPA

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as a proxy for future REC market prices."
1
2
         correct?
 3
         Yes, I see that language.
    Α.
         So, what I'm wondering about is essentially you used
 4
    Q.
         last year's price, 2010, and this year's price, 2011,
5
         and then said that those two prices were a fair proxy
 6
7
         for REC pricing five, ten, and almost fifteen years
8
         from now?
         I said they were "a proxy". I did not, at that point
9
    Α.
         in time, have anything else to use. Now, we do have
10
         the Ventyx forecast, which to an extent I could view as
11
         confirmatory.
12
         I'd like you to take a look at your response to our
13
    Q.
         Question Number 1, PSNH 1-1, which is one of the data
14
         request responses that I put out.
15
                        MR. BERSAK: And, I'm not sure what our
16
17
      next exhibit number is for that record request.
                        MS. DENO:
                                    Sixteen.
18
                                      Sixteen is next?
19
                         MR. BERSAK:
                                                        If we can
      mark the OCA response to 1-1 as "PSNH Exhibit 16"?
20
21
                         CHAIRMAN GETZ: So marked.
22
                         (The document, as described, was
23
                         herewith marked as PSNH Exhibit 16 for
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identification.)

1 BY MR. BERSAK:

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- Q. In this data request, we asked "Is it OCA's opinion and testimony that REC prices will be 30 percent of the ACP for the term of the proposed Laidlaw contract?" And, is it correct that your answer was "no."
- A. That's correct. And, then I went on from there.
- 7 Then it went on. It went on to say, "As stated on 0. 8 Page 6, Line 11, of my testimony, the OCA used 30 percent as a proxy for future REC markets", and then 9 you said "emphasis added" on "proxy". "I used a proxy 10 because I do not know what the actual ACP will be for 11 the term of the PPA. This approach is consistent with 12 the Joint Petitioners' use of forecasts in their 13 analysis." So, that was your response. So, it sounds 14 like your testimony, regarding future REC prices, was 15 based on a 30 percent value for RECs, 30 percent of the 16 17 ACP, which your data request response says is not your opinion of what the future will be? 18
 - A. That's correct, because we don't know if it's going to be 30 percent, 29 percent, 31 percent, or something different. We just know that it's going to be different over the long term.
 - Q. Would you agree that the cost of RECs ultimately will be the subject of the principle of supply and demand?

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A. And, yes, as well as driven by potential legislative changes, whether in New Hampshire, or, as Mr. Sansoucy speculated on, say, in Massachusetts, where there's a possibility that New Hampshire Class I RECs will not be eligible for Massachusetts.
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- Q. Sure. But, if we're talking about potential changes in legislation, isn't it also possible that the Legislature of this state or neighboring states could say "Gee, we think that we should have more renewables than the present law"?
- 11 A. Anything's possible.

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- Q. Sure. So -- but, unfortunately, you know, we have the law that's given to us today that we have to look at.

 If you take a look at what your response was to OCA -- no, PSNH's Question Number 5 to OCA.
- MR. BERSAK: And, we'll mark that one as the next exhibit, which is number "17".

18 CHAIRMAN GETZ: So marked.

(The document, as described, was

20 herewith marked as PSNH Exhibit 17 for

identification.)

MR. BERSAK: Thank you, sir.

23 WITNESS TRAUM: I have it.

24 BY MR. BERSAK:

- Q. Okay. Thanks. Now, your analysis of REC pricing did
 not include the fact that requirements for Class I RECs
 grow by 1,600 percent from 2010 to 2025, did it?
 - A. It did not include that analysis. We did not do an analysis of load growth, just as PSNH did not, as I understand it, with regards to Energy Service. And, part of that load growth for Energy Service requires migration forecasts.
- 9 Q. But you did include load growth in your exhibits where you did your calculations, is that correct?
- 11 A. Could you point me to what you're referring to please.
- Q. Take a look at KET-15, the RPS analysis sheet attached to your testimony. Do you have that exhibit, Mr.
- 14 Traum?

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- 15 A. I have that exhibit.
- Q. In that table that's attached -- let's see, where is
 it? It's an attachment here. KET-15, I guess it will
 be Page -- the third page of that attachment.
- 19 A. This would be Bates Page 48?
- Q. Let me see. They're all "15". But which Page 15,
 let's see here. One of these includes sales for each
 year of the PPA. And, I believe it might be -- is it
 on Page 45? When I looked at it, I didn't realize they
 were all Page 15. "Try 48", is what my friend is

- telling me here. Oh. There it is. Page 48. On the second line down, where it says "Energy Service

 Forecast". Do these not show differing amounts of Energy Service being provided each year, from 2009 up through 2025?
- A. The numbers vary slightly. What they assumed, in terms of any changes in migration, I do not know.
- 8 Q. But I assume that, since these numbers appear in your
 9 attachment, you must have used them somewhere in your
 10 analyses?
- 11 A. I do not believe that I did. I believe I just used
 12 this to show that, for at least the early years, you do
 13 not -- PSNH did not need the Laidlaw RECs to meet their
 14 Energy Service requirements.
 - Q. How could you determine what RECs were necessary by
 PSNH unless you had an estimate of what the Energy
 Service deliveries were going to be for a particular
 year?

16

17

- A. And, that's why I relied on the PSNH numbers, for that purpose.
- Q. But, if you look at that line, starting from, let's say now, "2011", there's approximately 7.9 million megawatt-hours of sales in your chart. And, then it goes up to 2025, that goes up to about 9.5 million

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1 megawatt-hours, is that correct?
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A. I see that.

Q. So, that would be load growth of about 1.2 times, more or less?

MS. HATFIELD: Mr. Chairman, I'm going
to object. And, if we look right at PSNH 17, we can all
see that the OCA objected to this question, and Mr.
Traum's answer was "The OCA has not performed these
calculations."

CHAIRMAN GETZ: Do you have a response,

11 Mr. Bersak?

MR. BERSAK: Yes. Number one, the testimony that he referred to was that "the cost of RECs were going to stay stable at 30 percent." We asked a data request to determine whether he had taken into consideration the fact that, not only would there be 1,600 percent increase in the number of RECs needed under the RPS law itself. But that would be compounded by load growth. And, we were testing to see whether his hypothesis that the -- a 30 percent number, based on 2010, and a 30 percent number based on 2011 was sense -- made any sense, in light of in excess of 1,600 percent increase in demand over time. He did not perform this calculation, but it was easily calculatable, certainly much more easily

- calculated than the response that we just heard about IPP
- 2 Exhibit Number 27, where the OCA was asked to calculate
- interest rates that were not in his testimony either.
- 4 This one is --
- 5 CHAIRMAN GETZ: I think it's fair to
- 6 inquire what the basis for these numbers are in the
- 7 testimony. So, I think I'll let the examination continue,
- 8 but we'll see how far this goes into this particular
- 9 exhibit.
- 10 BY MR. BERSAK:
- 11 Q. Basically, all we're getting to, Mr. Traum, is that,
- under the law, you'd agree that from between 2010 and
- 13 2025, the need for Class I RECs by a load-serving
- entity goes from 1 percent up to 16 percent, is that
- 15 correct?
- 16 A. Under the current New Hampshire statute.
- 17 Q. Under the current New Hampshire statute. So, under the
- 18 current New Hampshire statute, that would be a
- 1,600 percent increase over time?
- 20 A. All other things being equal.
- 21 Q. And, if you were to compound that with load growth,
- would the number be higher than that?
- 23 A. Again, holding migration constant, that would be
- 24 correct. I would want to point out that, with regards

- to Exhibit 15, which you were referring to, the purpose

 I used -- Attachment 15, excuse me. The purpose I used

 it for I believe was just to show that PSNH had done

 some comparisons of different offers from renewable

 generators. I wasn't using it for purposes of PSNH's

 generation.
 - Q. But do you disagree that it's more likely than not that, between now and 2025, that there will be growth in the number of RECs that are needed throughout New Hampshire?

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- A. There will be, assuming the legislation stands as is, I would agree there will be the need, potential need for additional RECs. I would not agree that they would necessarily be needed to provide Energy Service needs.
- Q. When you did your analysis of the REC prices, your review of Class I REC generation didn't include the fact that there would be a -- statewide a 16, 17, 18, 19, maybe 20 hundred percent increase in RECs, did you?
- A. As I stated, I just used the 30 percent as a proxy.
- Q. Isn't it true that the RPS law itself discusses the potential for "increasing the class requirements relative to Classes I and II beyond 2025"?
- 23 A. I think what would happen beyond 2025 is a question.
- Q. But that the existing statute does include that at RSA

- 1 362-F:5, is that correct?
- 2 A. I don't have the statute in front of me and I'm not an attorney.
- Q. Are you aware of any significant new Class I REC generating facilities that are actually under construction today in New Hampshire?
- 7 A. I'm not aware of anything that comes to mind.
 8 Certainly, Mr. Sansoucy just previously spoke about
 9 some potential wind generation up in the Coos Loop, and
 10 wind creates New Hampshire Class I RECs the same as
 11 wood, does.
- Q. Did you review the chart that was appended to PSNH's rebuttal testimony at Attachment PSNH Rebuttal 6?

 That's the chart that came from ISO-New England planning, the one that looks roughly like this one, Mr. Traum?
- A. Could I be provided a copy of that please?
- 18 Q. Yes.
- A. If you're asking me if I had discussed this in my testimony, no, I had not.
- Q. No, but you saw that attached to PSNH's rebuttal, is that correct?
- 23 A. Yes.
- Q. Do you have any reason to disagree with the information

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that ISO put together on this chart?
1
2
         I don't have reason to agree or disagree.
                        CMSR. IGNATIUS: Mr. Bersak, just one
 3
 4
      quick question.
5
                        MR. BERSAK: Yes, ma'am.
6
                        CMSR. IGNATIUS: On our copy of the
7
      exhibit, the photocopying makes the colors disappear, and
      we can't tell which -- the key, which thing it goes to.
8
      Could you just read off, from top to bottom, which blocks
9
      are which?
10
11
                        WITNESS TRAUM: Frankly, I can give the
12
      Commissioner my copy.
                        MR. BERSAK: The legend -- I'll give you
13
14
      this one. I know when I --
15
                        CMSR. IGNATIUS: Well, I think we may
      all have the same problem. So, if you could just describe
16
17
                        MR. BERSAK: Okay. I can describe it.
18
19
      There's a chart here, and there's a key to the right.
20
      And, on the key on the right, it says "60 percent", "40
21
      percent", "20 percent", and "RPS at target". Let's start
22
      with the -- let's go from the bottom up. "RPS at target"
23
      would be a line that's approximately a 45-degree line
24
      heading upwards, starting from year 2010, and eventually,
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at year 2020, it ends up just north of 12,000
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2
      gigawatt-hours.
                         CMSR. IGNATIUS: So, in the color copy,
 3
 4
      it's kind of a pale gray?
5
                        MR. BERSAK: That's correct.
                                                        Then, on
      that chart, there's three shaded blocks that are
6
7
      underneath that gray line that we just described.
                                                           The
      lowest block, on my copy, is green, and that's a
8
      indication of 20 percent. And, that is, if 20 percent of
9
      the renewable projects in the queue are completed, what
10
      renewable energy it would provide, as opposed to that
11
      first line, which is the demand for RECs under various --
12
      under the region's RPS statutes.
13
                         The second block would be the 40
14
      percent, if 40 percent of the projects in the queue are
15
      completed. And, the last one is 60 percent.
16
17
                         CMSR. IGNATIUS:
                                          Thank you
                         MR. BERSAK: Does that help you?
18
19
                         CMSR. IGNATIUS: Yes, it does.
20
                         (Atty. Bersak handing document back to
21
                         the witness.)
22
                         MR. BERSAK: You can have it.
23
                         (The document, to be described, was
                         herewith marked as PSNH Exhibit 18 for
24
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identification.)

BY MR. BERSAK:

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I'd like to refer you now to the response to OCA 1-3, a Q. question from PSNH. And, we will note that there was another objection to this question as being "argumentative and seeking additional testimony from the witness", notwithstanding that there was a The question in OCA 3 was, "As the demand for renewable energy increases (i.e. based on escalating the percentage obligations in the various state RPS programs) will new sources of renewable energy need to be constructed to meet the increase in demand?" And, then, following your objection, you said "Yes, assuming that the "demand for renewable energy increases (i.e. based on escalating percentage obligations in the various state RPS programs) as they exist today, new resources will be needed in the region."

Doesn't that ISO-New England chart that we were just discussing, the one that's PSNH Attachment Rebuttal 6, indicate that, even if 60 percent of all renewable projects in the ISO queue were developed, that sooner than 2016 there would not be sufficient renewable energy generation to supply the region's RPS

needs? 1

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- If the need as reflected in current legislation and load growth assumptions held true, I would say, yes. But, then, from state to state, we don't know how 4 things may change, if generation, in particular states, is ineligible for meeting the requirements in other states.
 - Q. And, if there was such a problem, where some generation would not be eligible to meet some or all of the state's programs, that would just move the year of need up even sooner, is that correct?
 - It would depend on what state it was. If New Hampshire generation is not eligible for Massachusetts, then it may push the need for higher prices in New Hampshire further back.
- And, according to the ISO-New England chart, if only 16 Q. 40 percent of the proposed projects in the queue are actually built, doesn't that chart reflect that the 18 supply of available renewable generation would become insufficient in 2013?
- 21 Α. Again, with the same caveats, yes.
- You had earlier agreed that the price of RECs will be 22 Q. subject to the law of supply and demand, again with 23 24 caveats that legislation doesn't change and, you know,

- all things else being equal. If the various RPS laws
- in the region create more legal need for RECs than
- there is an available supply, what, in your opinion,
- 4 would happen?
- A. Again, on a case-by-case basis, the law of supply and
- demand would come into play.
- 7 Q. And, based upon the law of supply and demand, if there
- is inadequate supply to meet the legal demand, what
- 9 would become the price that load-serving entities would
- 10 have to pay for their marginal RECs?
- 11 A. I would assume it would increase, all other things
- 12 being equal.
- 13 Q. I'm sorry, what was that?
- 14 A. I assume it would increase, all other things being
- equal.
- 16 Q. Would it increase beyond the alternative compliance
- 17 price?
- 18 A. I would certainly expect not.
- 19 Q. So, despite all the facts projected by ISO-New England,
- you still used 30 percent of the ACP as a proxy for
- 21 future REC market prices, is that correct?
- 22 A. Yes.
- 23 Q. If the price of RECs, instead of being 30 percent of
- the ACP, actually went to the ACP, wouldn't that

- significantly change the analysis and conclusions contained in your testimony?
- 3 A. It certainly would impact the results of my testimony, 4 just like the Ventyx numbers were confirmatory of it.
- Q. I think we both agree, it's very difficult to forecast the future?
- 7 A. I will agree with that.
- Q. And, you said that specifically with respect to the cost of RECs, on Page 6 of your testimony, do you recall that?
- 11 A. If you give me a second.
- 12 Q. 6, Line 21.
- 13 A. Do you have a line reference?
- Q. I believe it's on Line 21, Mr. Traum. I understand
 that it is very difficult to forecast the future cost
 of RECs?
- 17 A. That's correct.
- 18 Q. Is it any easier to forecast the future cost of energy?
- A. I don't know if it's easier, but, with regards to RECs,
 there were -- the REC pricing, it's sort of an animal
 created by legislation. So, it puts another unknown
 into play.
- Q. REC pricing has a cap, though, the Alternative
 Compliance Price, is that correct?

- 1 A. Currently, yes.
- Q. Do other energy prices have a CAP?
- A. Well, for energy, no. For capacity, currently, there is, in effect, a CAP.
- Q. But you would agree that the only certainty with forecasting is, in the end, the forecast is likely to be wrong?
- 8 A. Yes.
- 9 Q. So, when you testified on Page 14, at Line 18, that the
 10 pricing terms in the PPA are significantly above
 11 market, you don't really know for a fact that the PPA
 12 will prove to be above market, do you?
- A. We don't know that it will prove to be above market.

 We feel that the risk of it being significantly over

 market is not worth taking on behalf of Energy Service

 customers.
- 17 Q. So, are you changing your testimony to that respect?
- 18 A. I don't believe so.
- Q. Okay. On Page 10 of your testimony, at Line 22, you discuss the "cumulative reduction" mechanism. And, there you testified "in order for customers to get any of the hypothetical benefits from the cumulative reduction, the law must be changed." Do you see that?
- 24 A. Yes.

- 1 Q. What law must be changed and why?
- We do not know what any future regulatory regime will 2 Α. be like. We don't know if PSNH will be, in the future, 3 be able to acquire generation, if they'll have been 4 divested by then, we don't know if Energy Service will 5 stay the way it is or if you will even have customers 6 7 that you supply directly at that point in time. are just very many unknowns. We don't know if the 8 cumulative reduction, if there will be any value to the 9 plant at the time when a cumulative reduction comes 10 into play. 11
- Q. Does the value of the cumulative reduction mandate a change in law?
- A. No. But, if customers are being asked to pay in excess
 of market for 20 years without -- I view that, as I
 said in my summary, as akin to CWIP. And, in that
 sense, I suppose it could be looked at as you need a
 change in law to be able to allow CWIP.
- Q. When you were testifying to this -- to this change in law, weren't you, in fact, referring to a change that would expressly allow PSNH to own generation in the future?
- 23 A. That was certainly an issue.
- Q. You heard Mr. Sansoucy testify earlier today indicating

that 20 years from now, in his opinion, it's quite 1 2 likely that there will be many potential buyers for the facility, and that some or all those potential buyers 3 would be interested in having the right of first 4 refusal that's given under the Purchase Option 5 Agreement, as well as to compensate PSNH for the value 6 of the Cumulative Reduction Fund. If PSNH was to sell 7 8 the purchase option to some third party, and to sell the Cumulative Reduction to a third party, and take 9 those proceeds and credit customers. Would any change 10 in law be necessary? 11

A. You're assuming that there was any value to the Cumulative Reduction or more or less if there's any value to the plant after 20 years.

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- Q. Well, that's not the issue here. Because right now we're talking about your testimony, where you said that "the law must be changed." So, let's assume that there's value. I'm trying to figure out what law must be changed.
- 20 A. I said that "PSNH does not have the legal authority to purchase the plant."
- Q. So, in my hypothetical, where PSNH gets value from selling its rights for value, and never owns the plant, there wouldn't need to be a change in law, would there?

- 1 A. I believe you're correct.
- 2 Q. Thank you.
- 3 A. Recognizing that I'm not an attorney.
- 4 Q. No. No, that's fine. Finally, just one last thing.
- 5 Are you familiar with the consulting firm/energy firm
- 6 "Evolution Markets, LLC"?
- 7 A. I've certainly heard the name, yes. And, I have an
- 8 exhibit in my testimony with some information from
- 9 them.
- 10 Q. They have been quoted as saying "As renewable energy
- project developers know full well, financial
- institutions demand certainty. Financial resources for
- traditional power projects are conditioned on the
- existence of long-term power purchase agreements. But,
- due to the cost of doing business, renewable energy
- 16 project developers are asked to demonstrate long-term
- 17 commitments for the purchase of not only the
- electricity, but also the RECs." Do you agree or
- disagree with that statement?
- 20 A. Could you -- that statement is something I am not aware
- of at this point in time.
- 22 MR. BERSAK: Okay. That's fair. I have
- 23 no further questions, Mr. Chairman. Thank you very much,
- 24 Mr. Traum.

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1 CHAIRMAN GETZ: Thank you.
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2 CMSR. IGNATIUS: Thank you.

BY CMSR. IGNATIUS:

- Q. Let's continue to work on the questions that Mr. Bersak
 was just finishing up with, about what developers need
 to see in order to get to the point of a completed
 project, all right?
- 8 A. Okay.

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- 9 Q. Do you have any reason to disagree with the testimony
 10 from PSNH that developers need certainty in recovery of
 11 energy prices and RECs over time?
- 12 A. I guess I would look at the fact that there is a

 13 recently approved PPA with Lempster that also provides

 14 Class I RECs, and that was, in effect, tied to market.
 - Q. And, you heard the testimony that, in PSNH's view, that those are not really comparable, a PPA for a wind plant and a PPA for a bio plant really can't be compared. Do you disagree with that?
- 19 A. I guess I would say, well, obviously, they are
 20 different types of plants. But, in terms of the
 21 legislation, "Class I RECs" mean "wind" or "wood" or
 22 "biomass". So, I didn't differentiate in that sense,
 23 from a customer perspective.
 - Q. Do see a trajectory on how we will get to the level of

- renewable generation projects that will be required, if
 legislation remains as is and the level of REC needs
 will grow as we see it laid out at least in the current
 New Hampshire statute?
- 5 A. No, we haven't projected or focused on that.
- Q. You've talked about the balance of risk being just too great on the part of ratepayers, correct?
- 8 A. On behalf of Energy Service customers, yes.
- 9 Q. All right. Do you have any recommendations on how one could shift that risk, still within the context of a long-term PPA?
- 12 A. Well, the example of Lempster, where it's, you know,
 13 tied to a percentage of market --
 - MS. HATFIELD: Oh, excuse me. I'm sorry, I don't want us to go into confidential information right now, because we had to go into a confidential session previously. So, sorry for the outburst. I just want to make sure my witness doesn't disclose information that shouldn't be disclosed.
- 20 CMSR. IGNATIUS: Thank you. It's a good reminder.
- 22 BY CMSR. IGNATIUS:

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Q. Let's say, in general, you would advocate, and you've testified "tying things to market prices" would be

1 appropriate?

A. Yes.

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- Q. And, you've heard testimony from PSNH that, in its
 view, that would not be successful. I'm not asking you
 to agree or disagree with that. But can you think of
 any other mechanisms or contract structures that could
 shift some of that risk away from ratepayers? Besides
 a floating up and down with market prices?
- 9 A. Not at this point in time, no. Let me add, whether

 10 somehow the prior Schiller sharing mechanism could be

 11 adopted in some fashion, I don't know what that fashion

 12 would be, but whether there's any kind of a model

 13 there, it's something that could be considered in the

 14 future.
 - Q. And, in that, in Schiller, without the specific details of Schiller, there's a point at which certain costs coming in below projections were treated one way, certain costs coming in above projections were treated a different way in the allocation between ratepayers and shareholders?
 - A. Well, there was a sharing tied to the cost of the plant. But, on an ongoing basis, the sharing is tied to revenues and cost avoidances against the target on an annual basis.

- 1 CMSR. IGNATIUS: Thank you.
- CHAIRMAN GETZ: Ms. Hatfield, any
- 3 redirect?
- 4 MS. HATFIELD: Yes. Thank you, Mr.
- 5 Chairman.
- 6 REDIRECT EXAMINTION
- 7 BY MS. HATFIELD:
- 8 Q. Mr. Traum, will you look back please at PSNH Rebuttal
- 9 Attachment 6.
- 10 A. That's the ISO?
- 11 Q. Yes. And, would you -- there is some language below
- the chart that PSNH has provided. Do you see that?
- 13 A. Yes, I do.
- Q. And, can you please read the last sentence that starts
- 15 with "RPS"?
- 16 A. "RPSs also can be met [from] behind-the-meter projects,
- imports, new projects not in the queue, and Alternative
- 18 Compliance Payments."
- 19 Q. And, do you recall Mr. Bersak asked you a question
- about an opinion of Evolution Markets that "financial
- institutions demand certainty" and that "renewable
- 22 projects need long-term PPAs"?
- 23 A. I recall he just read something along that line to me.
- 24 Q. And, do you recall Mr. Long's testimony last week,

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where he acknowledged that the RPS statute does not
1
 2
         have a requirement that a particular project has to be
         financeable in order for the Commission to approve a
 3
         PPA?
 4
5
         I do recall something along that line.
    Α.
         And, do you agree that there's nothing in the RPS law,
6
    Q.
 7
         including in the PPA section, that requires that a
8
         project must be financeable?
9
         Again, recognizing I'm not an attorney, yes, I agree
    Α.
         with you.
10
11
                        MS. HATFIELD:
                                        Thank you.
                                                    Nothing
12
      further.
                                         Thank you. All right.
13
                        CHAIRMAN GETZ:
      Then, the witness is excused. Thank you, Mr. Traum.
14
15
                         (Chairman and Commissioners conferring.)
                        CHAIRMAN GETZ: Okay. Off the record.
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17
                         (Brief off-the-record discussion
18
                         ensued.)
19
                        CHAIRMAN GETZ: All right. Well, let's
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      go back on the record. Well, two things. First, I'd like
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      to try and get to start with the Staff direct. And,
22
      recognizing that we're not going to finish today, we have
23
      held next Tuesday, the 8th. But I did have one other
      piece of business. Mr. Boldt, I have a letter from Mayor
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Grenier to Ms. Howland and to the docket, saying "I'm sending this request to you in my official capacity as the Mayor of Berlin, asking that we consider changing the venue of the hearings if they go beyond today." Is this -- should I consider this a motion on behalf of the City
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of Berlin or how should I treat this?

MR. BOLDT: Frankly, I don't know, Mr. Chairman. I heard rumors of it. I have not seen the letter, I hate to admit. But it is one where I guess this Board can treat it as a request from the Mayor.

CHAIRMAN GETZ: Well, I guess, let me

try this. Does anybody else have this letter? It looks

like -- well, maybe it hasn't been given to the service

list. It was sent to Ms. Howland, Executive Director, and

I guess the only -- it's cc'd to Councilor Burton and the

Berlin Daily Sun, but apparently none of the parties -
MR. BOLDT: I apologize, your Honor. I

don't know.

MR. BERSAK: Mr. Chairman, there is a front-page Berlin Daily Sun story in today's edition regarding that letter. So, it has been publicized that way.

CHAIRMAN GETZ: And, looks like it's been filed as a public comment. I assume some of the

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people in our front office just saw the letter and has been treating it like other letters that have been coming in.
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Well, in any event, does anybody want to make any comments or take any positions about this request to convene hearings, not in here next week, but in Berlin?

MR. BERSAK: Wherever you are, we will be there, too, Mr. Chairman.

MR. BOLDT: I second that.

CHAIRMAN GETZ: All right. Well, let's start with the direct from Staff.

MS. AMIDON: I ask that Mr. Frantz and Mr. McCluskey be called to the stand.

MR. BERSAK: I do have one procedural question, I guess, for perhaps Ms. Amidon or perhaps for the Commission. The Commission designated Mr. McCluskey as "Staff Advocate", whereas Mr. Frantz is not designated as "Staff Advocate". They're sitting as a panel. Which is kind of like having two different parties sitting up at the same time. The Company doesn't have a problem with that. I'm just raising it as an issue.

CHAIRMAN GETZ: Well, I guess I'm trying to understand the premise.

MR. BERSAK: Under the statutes that

allow for designation of Staff, there's two definitions;

one is "Staff" and one is "Staff Advocate". And, Staff

Advocate is treated as a separate party. So, we've got --

CHAIRMAN GETZ: I'm not sure that I would have drawn that conclusion. I think the distinction is that of who can speak to us and when are the ex parte rules invoked. Do you have something more on this?

MR. BERSAK: No. Like I said, we're not objecting to it. We just don't want a procedural issue.

If everybody's fine with it, then we are fine with it, and we can carry on.

CHAIRMAN GETZ: Is there any -- does anybody else have anything to offer on that issue?

(No verbal response)

CHAIRMAN GETZ: Just to clarify then, at least my understanding of the statute and the import of designation, is that Mr. McCluskey will not be able to assist us in deliberations, and he cannot speak to us about the merits of the case

CHAIRMAN GETZ: Mr. Frantz has not been designated, there's been no request that he be so. So, he's not subject to those same rules.

That's fine, Mr. Chairman.

MR. BERSAK:

Okay. Ms. Hatfield.

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                         MS. HATFIELD: I agree. And, I guess I
      just wanted to point out that the only time that I would
2
      think that they -- we would think of them as two different
 3
      parties is if Mr. Frantz had been designated as
 4
      "advisory", because then those rules would apply between
5
      the two of them. But, as you pointed out, because he
6
 7
      hasn't been designated, they, in my view, they still both
      represent a Staff position, but then just one of them
8
      can't speak with you. Thank you.
9
                         CHAIRMAN GETZ: Okay.
10
                                                Thank you.
                                                             Ms.
      Amidon. Oh, if you'd swear the witnesses.
11
                         (Whereupon Thomas C. Frantz and
12
                         George R. McCluskey were duly sworn and
13
14
                         cautioned by the Court Reporter.)
15
                       THOMAS C. FRANTZ, SWORN
                      GEORGE R. McCLUSKEY, SWORN
16
17
                          DIRECT EXAMINATION
    BY MS. AMIDON:
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19
    Q.
         Mr. Frantz, I'll begin with you. Would you please
         state your name for the record.
20
21
    Α.
         (Frantz) Thomas C. Frantz, F-r-a-n-t-z.
22
         What is your position here at the Commission?
    Q.
23
         (Frantz) Director of the Electric Division.
    Α.
         And, without going into your resumé, could you just
24
    Q.
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{DE 10-195} [Day 4] {02-01-11}

- describe how long you've been working here at the Commission.
- A. (Frantz) Started here at the Commission in February of
 1989 as an Economist. I was promoted to Analyst, and
 then to Chief Economist. And, then, as the Commission
 reorganized, to Director of the Electric Division.
- 7 Q. Thank you. And, have you previously testified before 8 this Commission?
- 9 A. (Frantz) Yes.
- Q. Do you have your testimony in front of you? I have premarked that as "Staff Exhibit 2", and there will be a cover letter from me, the letter dated "December 17th, 2010".
- 14 A. (Frantz) I do.
- 15 Q. And, do you have any corrections to that testimony?
- 16 A. (Frantz) I do not.
- Q. And, if I asked you the same questions that are in that testimony and you responded to them today, would they still be the same answers?
- 20 A. (Frantz) Yes, they would.
- MS. AMIDON: Okay. Thank you. And, as
 I indicated, Mr. Chairman, I premarked that as "Staff
 Exhibit 2". And, I do have a housekeeping issue after I
 qualify Mr. McCluskey.

- 1 BY MS. AMIDON:
- 2 Q. Mr. McCluskey, --
- CMSR. BELOW: Hold on a second, I'm
- 4 confused. I thought I heard Mr. Frantz answer "yes", in
- terms of having corrections. Did I mishear you?
- WITNESS FRANTZ: You may have. I do not
- 7 have any corrections.
- 8 CMSR. BELOW: Okay. Thank you.
- 9 WITNESS FRANTZ: I would answer the same
- questions the same way, I believe is how she asked it.
- 11 CMSR. BELOW: Okay.
- 12 WITNESS FRANTZ: "Yes" to that.
- MS. AMIDON: That's all right. It's
- 14 late in the day. Thank you.
- 15 BY MS. AMIDON:
- 16 Q. Mr. McCluskey, would up please state your full name for
- the record.
- 18 A. (McCluskey) My name is George Robert McCluskey.
- 19 Q. And, for whom are you employed and what is your
- 20 position?
- 21 A. (McCluskey) I'm an Analyst in the Electric Division.
- 22 Q. And, would you just briefly describe the length of your
- experience in using -- in the electric industry?
- 24 A. (McCluskey) Yes. Kind of working backwards, this is my

1 --

- Q. You can be brief.
- A. (McCluskey) Yes. This is my second time around at the
 Commission. I've been here four or five years. Prior
 to that, I was in consulting for five years. Prior to
 that, I held various positions at the Commission for
 more than ten years, I believe. I forget the exact
 time period. And, before that, I worked for the
 nationalized electric utility industry in England.
- 10 Q. Have you previously testified before this Commission?
- 11 A. (McCluskey) Yes. Many times.
- Q. Do you have in front of you testimony in this docket?

 The date of that testimony would be "December 17th,

 2010"?
- 15 A. (McCluskey) I have that, yes.
- MS. AMIDON: And, Mr. Chairman, I marked
 that as "Staff Exhibit 1". And, I will note, I'll provide
 the Clerk a copy of a confidential exhibit, I did not
 duplicate the entire testimony and exhibits, but there was
 one exhibit, GRM-10, which was confidential. So, that
 will be identified as "Staff 1-C". Thank you.
- 22 BY MS. AMIDON:
- Q. And, Mr. McCluskey, do you have any corrections to your testimony today?

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(McCluskey) Yes. I've got four small changes to my
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    Α.
         testimony. The first one is on Page 14, Line 4.
 2
         the year "2005" on that line should read "2025".
 3
                                                            The
         second is at Page 20, Line 11. Hmm. Line 11 doesn't
 4
5
         seem to have much on it.
                        MR. BERSAK: Will be a short correction
 6
7
      then.
8
    BY THE WITNESS:
         (McCluskey) I have somewhere, I believe it's on this
9
    Α.
         page, a statement which reads "historic relationship
10
         between natural gas and wood prices", and I would like
11
         to change that to "historic" --
12
                        CHAIRMAN GETZ: Line 21.
13
14
                        WITNESS McCLUSKEY: Twenty-one?
15
                        MS. AMIDON: Thank you, Mr. Chairman.
    BY MS. AMIDON:
16
17
    Q.
         And, you said you would like to change that?
         (McCluskey) I see it. Twenty-one, you're correct.
18
    Α.
19
         And, I would like to change that to "historic
20
         relationship between the cost of electricity produced
21
         by natural gas facilities and the cost of electricity
```

Q. Do you have another change?

22

23

24

A. (McCluskey) The third is at Page 24, Line 14.

produced by wood-fired facilities."

 $\{DE\ 10-195\}\ [Day\ 4]\ \{02-01-11\}$

- 1 MR. BOLDT: Excuse me. Could you give
- 2 that page again, Mr. McCluskey?
- 3 WITNESS McCLUSKEY: Twenty-four, Line
- 4 14.
- 5 MR. BOLDT: Thank you.
- 6 BY THE WITNESS:
- 7 A. (McCluskey) And, if we could please replace "2009" with
- 8 "2008". The fourth is at Page 25, Line 7 -- Lines 7
- and 10. Please replace the word "four" with "three".
- 10 BY MS. AMIDON:
- 11 Q. Does that conclude the corrections to your testimony?
- 12 A. (McCluskey) It does.
- 13 Q. And, if you were asked the questions today, with the
- exception of these corrections, would your answers be
- 15 the same?
- 16 A. (McCluskey) They would.
- 17 Q. Thank you. At the outset, I'd like you to comment on
- the rebuttal testimony of Mr. Sansoucy that you heard
- 19 earlier today.
- 20 A. (McCluskey) Yes. As was indicated earlier, a technical
- 21 session was held to understand how the costs that
- appear in Exhibit 10 to Mr. Sansoucy's rebuttal
- testimony were developed. And, it was agreed, as Mr.
- 24 Sansoucy left that meeting, that he would provide the

spreadsheets that would allow us to check the various statements that Mr. Sansoucy made at the tech session.

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Since we didn't receive that spreadsheet before we left for the day, I spent yesterday evening preparing my own spreadsheet, to first check his numbers and make a number of changes.

The changes relate to, if you can recall in Exhibit 10, Column E, was -- had three price components to it. One of which was energy, which reflected a carbon scenario future. It had a capacity price from 2010. And, it had the Laidlaw REC prices from the contract. And, so, what I wanted to check was what would happen to the above- or below-market calculation, if I replaced the Ventyx market energy prices that were based on a 2009 report, replace them with the Ventyx 2010, which would not have a carbon future reflected in it, because that is Ventyx current base case assumption. And, I also changed the Laidlaw REC prices to reflect the Ventyx market price projection for the Northeast United States, and ran the model to determine whether it would produce the similar \$300 million under-market estimate that Mr. Sansoucy developed.

And, I've prepared a summary of the

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spreadsheet, if Ms. Amidon would like to hand that out.
1
         And, in connection with this analysis, you prepared a
2
    0.
         spreadsheet, which you just referred to, and it's
 3
         entitled "PSNH Financial Analysis Laidlaw Facility
 4
         Sansoucy Exhibit 10 Calculation", is that correct?
5
         (McCluskey) Yes. The "PSNH Financial Analysis", it was
6
    Α.
 7
         probably -- that was something from the title of
8
         another spreadsheet.
                               I think that should be stricken.
         So, it really should read "Laidlaw Facility Sansoucy
9
         Exhibit 10 Calculation" as the title. And, this is a
10
         two-page summary of the spreadsheet that I developed.
11
         And, it runs from 2014 through 2033, the 20 years of
12
         the PPA.
13
14
                        CHAIRMAN GETZ: Okay. Let's mark this
      for identification as "Staff --
15
16
                        MS. DENO: Fourteen.
17
                         CHAIRMAN GETZ: -- 14".
                        MR. BERSAK: If we could just note for
18
19
      the record, Mr. Chairman, PSNH has nothing to do with
20
      this, as Mr. McCluskey just testified.
21
                         CHAIRMAN GETZ: Well, let's hold on for
22
      a second. We're going to identify this as "Staff Exhibit
      15", and --
23
24
                        MS. AMIDON: Mr. Chairman, I have to say
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1
      I -- this is the housekeeping matter. I omitted -- well,
      there's one number of Staff exhibits for which there is no
2
      exhibit. So, "Staff 12" would be the Ventyx Fall 2010.
 3
      "Staff 13", and the Clerk will correct me if I'm wrong, is
 4
5
      the Ventyx four-page. So, this Staff will be "Staff 14",
      is that correct?
 6
 7
                        MS. DENO:
                                   Yes.
8
                        MS. AMIDON: So, I apologize for that.
9
                        (The document, as described, was
                        herewith marked as Staff Exhibit 14 for
10
                        identification.)
11
                        WITNESS McCLUSKEY:
12
                                             Okay?
                        MS. AMIDON: Yes.
13
                        CHAIRMAN GETZ: Well, let's -- now that
14
      we've got the numbering correct, Mr. Bersak?
15
16
                        MR. BERSAK: The title on this document,
      which has just been marked for identification as "Staff
17
      Exhibit 14", is "PSNH Financial Analysis". Mr. McCluskey
18
19
      did make a correction. I just want to make sure it's duly
20
      noted that this is not a PSNH financial analysis. We have
21
      never seen this document before this very moment. And,
22
      like others in this docket, we're kind of doing it on the
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      fly.
                        MS. AMIDON: Well, Mr. Chairman, I would
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      just say that we were waiting yesterday to get the working
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      Excel spreadsheet for Mr. Sansoucy's Exhibit Number 10,
      which we never got. And, while Mr. McCluskey may have
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      mislabeled it saying "PSNH Financial Analysis", he was
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      attempting to reconstruct Exhibit Number 10 and to perform
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      a calculation of the contract prices with the market
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      prices. So, -- and, it's no different than Exhibit 9 for
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      PSNH coming in or the late --
                         CHAIRMAN GETZ: I think all we're
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      arguing about is the title. So, --
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                        MS. AMIDON: Thank you.
                        MR. BERSAK: I have not objected.
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                                                            Ι
      just want to note that it's not ours. That's all.
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                        CHAIRMAN GETZ: Please proceed.
                        WITNESS McCLUSKEY:
                                             Thank you.
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    BY THE WITNESS:
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    Α.
         (McCluskey) So, there's two pages, and there's
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A. (McCluskey) So, there's two pages, and there's essentially three blocks of data. The first block contains the estimated power costs under the PPA for capacity, energy, and RECs. And, this particular set of numbers is referring to a plant with a capacity of 63 megawatts and a capacity factor of 87.5. And, I'll connect it with Mr. Sansoucy's 58 megawatts and 80 percent capacity factor in one moment. But this

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particular analysis is assuming it's the plant that was described by Laidlaw at the SEC. Okay? Sixty-three (63) megawatts, 87.5 capacity factor. And, it's showing that the total revenue over the 20 year period is approximately \$1.6 billion, if you turn to Page 2.

"Market Revenue 1". And, what this has is, based on the information that we received from Mr. Sansoucy yesterday at the tech session, I'm modeling here his version of Column E. So, we have the Ventyx market energy prices with carbon, we have the Ventyx market capacity prices, which come from a 2010 study, and we have the Laidlaw REC prices in there. And, so, I also have an additional line, which shows whether it's above market or under market. If the number is in parentheses -- parentheses, I have trouble saying that word, it's an under-market number. If it's just as is, it's an above-market number.

And, so, if you turn to Page 2, you will see that this calculation is showing that, over the 20 year term, it's significantly under market. It's actually quite by bit more under market than what Mr. Sansoucy was calculating. And, then, what I do is I changed the inputs in the third block, which I've

titled "Market Revenue 2". And, here we have only market prices for energy, capacity, and RECs. And, I believe they are all from the same vintage, the 2010, Fall 2010. So, when you insert those numbers, and you go onto Page 2, the calculation flips from being substantially under market to substantially over market.

And, there is another column, the above or below-market numbers, under this scenario where you have a 63 megawatt plant, are shown in the column headed "Difference Run 2". The numbers under the "Difference Run 1", those are the numbers if you run this calculation at 58 megawatts and 80 percent capacity factor. So, they're not substantially different. But, clearly, if you increase the size of the capacity, you're going to make -- you're going to make the under or over-market value greater, which is what you would expect.

(Court reporter interruption.)

BY THE WITNESS:

A. (McCluskey) Okay. So, if you do the calculation as I thought Mr. Sansoucy was doing, he was comparing the power costs under the PPA with some market benchmark, it actually produces a significant above-market result.

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And, it's very interesting, we have testified that, when you use other methods to determine the market price of energy and REC prices, we came out with an above-market quantity which was higher than this 333 million that we're showing. But it's not significantly higher.

And, so, here we have a different source of market price projections or forecasts, whatever you want to call them, which we were not aware of, I've never even heard of Ventyx before this, the hearings. And, so, when you input their numbers for this 20 year period, it effectively supports the number, it's a little lower, but you would expect it to be different because you have a different set of -- different forecasters are going to come up with their own opinions of where these markets are going to go in the long term. So, we were in the 400 or more range, and I forget the exact number, from the market price projections that we described in our testimony. And, this is showing that we're in the right ballpark. is indicating something lower, but I regard this as supportive. And, it's another forecast. Mr. Sansoucy said he has to use forecasts in his business. would think that PSNH would have to use forecasts in

its business to make rational decisions.

And, so, I think this, one, it -- I think the result undercuts the argument that Mr. Sansoucy had in his testimony about "\$300 million under-market value". And, I think it also supports the other approaches to determining cost-effectiveness that we describe in our testimony.

BY MS. AMIDON:

- Q. Mr. McCluskey, just to sort of break down this analysis to the bottom line, instead of getting a \$300 million under-market price, when you ran these numbers, which were provided in Ventyx by Mr. Sansoucy, you reached an over-market price of \$274 million, with -- using the design of the plant as determined as -- strike that -- using the design of the plant that Mr. Sansoucy used in his analysis, is that correct?
- 17 A. (McCluskey) That is correct.
- Q. Okay. And, then, Difference Run 2, you used the design of the plant as Laidlaw presented to the Site

 Evaluation Committee, is that correct?
- 21 A. (McCluskey) That's correct.
- Q. And, you came up with approximately \$334 million over market, when you used the Ventyx forecast as a comparison, is that correct?

A. (McCluskey) That's correct.

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Q. Thank you. In the rebuttal testimony from PSNH, they claim that you testified that the required minimum purchase standards for renewable generation in the present RPS law only run through the year 2025. Did

you make that assertion in your testimony?

- A. (McCluskey) No. What I actually said was, and I quote,

 "The wood-fired IPPs have argued that there is no
 requirement for the purchase of RECs after 2005", I

 think it should have read "2025", "in the RPS. If this
 is correct, all of the RECs scheduled to be purchased
 during the 2026 through 2033 period will be in excess
 of the need absent modification of the RPS by the
 Legislature."
- Q. And, when you said "quote", you were quoting from your testimony, is that correct?
- 17 A. (McCluskey) That's correct.
- 18 Q. Do you have anything else to add to the 2025 issue?
- 19 A. (McCluskey) Yes. If it was my position that the RPS
 20 law terminated in 2025, the market price and cash flow
 21 analyses that were described in my testimony would have
 22 ended before 2033. That is not the case. Those
 23 analyses run through 2033.
- Further, I do not consider the 2025

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issue to be the major issue in this case. The major issues, in my opinion, are the excessive REC prices and the requirement to purchase more RECs than is actually Even these two issues, while they might appear different, come down essentially to the same issue, If the RECs were priced at the market, Staff wouldn't have a problem with the Company purchasing more than it needs. Because we think that they could resell the RECs in the market and customers would be indifferent. So, we could imagine a PPA that did obligate PSNH to purchase all of the RECs output from the facility, but they wouldn't be harmed if they were priced correctly. It's the fact that they are priced well above, in our opinion, the market prices that expose customers to significant costs if they don't need those RECs. So, I think the two issues that I've identified as being the critical issues in this proceeding actually come down to one issue, which is the appropriate price for RECs, in my opinion.

- Q. Thank you. Moving on, do you recall Commissioner Below asking PSNH about Attachment 2 to the rebuttal testimony they filed?
- A. (McCluskey) Yes. If you just give me one moment, so I could find that. Yes. The Attachment 2 was a chart,

which is labeled "Laidlaw PPA energy price compares 1 2 favorably to [the] wholesale electricity prices." And, this chart has two lines. It has the wholesale market 3 energy prices varying over a seven year period from 4 March '03 to December 2010. And, there's some 5 significant variation in those prices. And, set into 6 7 this prices is what I assume to be the Laidlaw PPA 8 energy prices, which are actually shown in green. 9 sometimes they are below the market energy prices, sometimes they are above. This chart, this comparison, 10 I think is really troubling. It's a weird chart, to 11 have prices that relate to some future period, compared 12 with prices from a historic period. Typically, when 13 you're doing some analysis, you're comparing the prices 14 for this period with what you expect the market price 15 to be over that same period. To have a chart which 16 17 compares those future prices with historic prices is something that I've never seen before. But there's 18 19 something about this chart that's even -- two things about it that I think is a little troubling. One is 20 21 that the PPA has a 20 year term. And, so, they drop onto market energy prices over a seven year period. 22 And, how they did that I don't know. So, if they 23 24 picked out seven years from the PPA, we don't know what

seven years, but, if somehow they have comprised the
PPA prices into this seven year period, it's not clear
from the chart.

The other thing is it says this comparison is "Laidlaw PPA energy prices". And, as you may recall from Staff's Exhibit 3, if you care to look at that, --

- Q. Is it an exhibit to your testimony?
- 9 A. (McCluskey) No. This is Staff Exhibit 3. And, what it is, it's a copy of Mr. Labrecque's Attachment RCL-1.
- 11 Q. Thank you.

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- 12 WITNESS McCLUSKEY: Do you have that,
- 13 Commissioner?
- 14 BY THE WITNESS:
- (McCluskey) And, on this attachment, they show the PPA 15 Α. energy prices beginning at \$83, and rising over time, 16 17 based on some assumptions about how fuel costs are Then, if you look at the chart, it going to change. 18 19 actually starts in March '03 at below \$60. There's no \$60 figure in Mr. Labrecque's Attachment RCL-1, which, 20 as I said, is Staff Exhibit 3. So, it makes you 21 wonder, did they -- are these fuel prices, as opposed 22 to energy prices? Did they subtract out the O&M? 23 24 that what they did? Even that doesn't fit, because, if

208 you subtract out the O&M, you would start at just above 1 \$60. Clearly, this price is below \$60. 2 So, I find this chart very troubling. 3 So, what I did was I prepared an additional chart. 4 And, would you like to hand that out? 5 BY MS. AMIDON: 6 7 Let me just ask you, this chart is entitled "Laidlaw 0. 8 PPA Energy Prices Compare Unfavorably to Historic Wholesale Electricity Prices." And, it has a line on 9 the left-hand side that jogs up and down, and then a 10 line over at the right that rises continuously? 11 (McCluskey) That's correct. And, I will explain in a 12 bit more detail what's going on in this chart. 13 MS. AMIDON: Please mark that for 14 identification as "Staff 15". Thank you. 15 CHAIRMAN GETZ: So marked. 16 17 (The document, as described, was herewith marked as Staff Exhibit 15 for 18 identification.) 19 BY THE WITNESS: 20 21 Α. (McCluskey) So, in order to get away from imposing on 22 -- imposing future prices on a chart that shows historic prices, what I did, I reproduced the market 23 24 energy prices, what I'm showing here is those market

energy prices, the average annual price. So, there's less variability. A particular monthly price might be higher or lower than the line that I'm showing here. But, on average, the average annual prices over that seven year period look like what I'm showing here in And, then, I plot, after a four year gap, assuming the PPA is going to start in 2014. So, the first Laidlaw energy price is \$83, and then it rises at a uniform rate of 2.5 percent. That's why we're looking at essentially a straight line. But I think the important thing is -- so, just visually, you can see that the Laidlaw PPA energy prices are generally higher. And, depending on what year you look at, sometimes somewhat -- quite a bit higher than where average annual market energy prices have been over the last seven years.

So, I think this -- this gives a better visual, if you want to compare the future with history, which I think is not a very good idea, but this is -- this is the kind of thing that I would look at. So, I've just changed the title, changed one word from "favorably" to "unfavorably".

23 BY MS. AMIDON:

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Q. Mr. McCluskey, would you address PSNH's argument that

"absent approval of the PPA, PSNH cannot meet its
requirements under the RPS law."

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A. (McCluskey) Yes. Leaving aside the fact that the Company testified that it can meet its requirements with short-term -- in the short-term REC market, I believe it is simply wrong if it is referring to long-term contract purchases.

In late 2010, NSTAR requested approval from the Mass. DPU to enter into a contract for renewable power providing a total of 30 megawatts of renewable generation supply and associated Class I RECs at a fixed energy and REC price over a contract term of ten years. This was presented in the testimony of a chap called James Daly for NSTAR, dated July 2nd, 2010, in DPU Docket 10-71. The important thing is, this contract was the winning bid from an open competitive bid process that produced a total of 52 bids, representing 35 individual projects, and 1,180 megawatts of renewable capacity. I think these facts demonstrate that there is an abundance of renewable generation for Class I projects out there, if you simply have the appropriate competitive solicitation.

Now, this particular contract was from

what is referred to as the "original RFP" in 1 Massachusetts. That RFP limited bidders to 2 Massachusetts projects. And, the RFP, as a result of 3 litigation, the DPU or some other agency agreed to, in 4 settlement of the lawsuit, to change the requirements 5 for the RFP, and they made it available to projects 6 7 from outside of the state. And, the new RFP which went out is now called the "Amended RFP". And, I was 8 inquiring of Fitchburg Gas & Electric, which, as you 9 know, is an affiliate of one of our utilities, Unitil, 10 and they have told me that they, which is the smallest 11 utility in Massachusetts, have received more than 52 12 bids from their RFP. They are currently in the process 13 of reviewing those bids. And, that information is 14 confidential. But they say they have had more than 15 sufficient offers from the Amended RFP. 16 17 MR. BERSAK: I take it that Unitil will not be here to testify to that fact, Mr. Chairman? 18 19 CHAIRMAN GETZ: So far as I know. 20 MR. BERSAK: So, that's hearsay. 21 object. 22 MS. AMIDON: Well, Mr. Chairman, I mean, I do think that, with respect to the NSTAR contract, Mr. 23

McCluskey has provided a docket number, and the Commission

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can give the weight that that information should be
awarded. But I do think that Mr. McCluskey's testimony
shows that there are other ways to acquire RECs, other
than a PPA. I think that's the point he wished to make.
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CHAIRMAN GETZ: Okay. Well, let me just observe that the technical rules of evidence do not apply, and we'll give the statement the weight it's due.

MR. BERSAK: Thank you, Mr. Chairman.

9 BY MS. AMIDON:

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- Q. Going back to the NSTAR contract, was there any other interesting aspect to that that you wanted to discuss, regarding changes in laws and the effect on customers?
- A. (McCluskey) Yes. Mr. Daly's testimony to the DPU

 stated that "NSTAR's customers are not obligated to pay

 for RECs if, as a result of a change in law, the

 facility falls to qualify as a Class I resource."
- 17 Q. Thank you.
- A. (McCluskey) Which is very different from the PPA that's currently before us.
- Q. At Page 28 of PSNH's rebuttal, PSNH claims that neither of the two proposed biomass plants, Clean Power

 Development and Concord Steam, that made unsolicited offers were superior to the PPA negotiated by Laidlaw.

 That is I think at Line 29, at Page 28 of PSNH's

- 1 rebuttal. Do you see --
- 2 A. (McCluskey) Yes.
- 3 Q. Would you like to comment on that point?
- A. (McCluskey) Yes. Yes. I need to get a copy of PSNH's response to Staff 1-32 revised. So, if you give me a
- 6 moment, I'm trying to think where I've got that.
- 7 Q. I think it's IPP -- the IPPs did mark that for identification as "IPP-25".
- 9 A. (McCluskey) Do you have a copy?
- 10 Q. This is IPP-25.
- 11 A. (McCluskey) Thank you.
- 12 WITNESS McCLUSKEY: Do you have a copy,
- 13 Commissioner?
- 14 BY THE WITNESS:
- 15 A. (McCluskey) This response to 1-32, which was revised by
- 16 the Company, was in response to a request asking
- 17 whether the Company had received any unsolicited
- offers, and to provide -- I don't have the response in
- 19 front of -- the question in front of me, but
- 20 essentially it was to ask them whether they had had any
- such offers and to provide any analyses of the offers
- that they received. And, so, I would just like to draw
- your attention to a summary of the results, which is in
- this box that you see on the first page. And, there's

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a component of this box which says "Offer Comparison".
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         Do you see that? And, so, we have three columns,
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         "CPD", "Concord Steam", and "Laidlaw". And, they are
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         showing the levelized price for the Laidlaw project at
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         -- this is $156, $156.4 per megawatt-hour, levelized
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         price. You need to levelize -- whenever you get offers
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         which cover different time periods, in order to make
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         sense of the offers, you need to levelize the offer, in
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         order to put it on -- into an apples-to-apples
         comparison, which is what the Company was doing here.
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         And, with respect to the Concord Steam offer, they say
         the levelized price is $136.7 per megawatt-hour.
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         the CPD unsolicited offer was $143.1 per megawatt-hour.
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                        MR. BERSAK: Mr. McCluskey, are you
      referring to a confidential response?
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                        MS. AMIDON: I believe that the
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      Commission issued an order stating that that was no longer
      confidential. And, unfortunately, many of the data
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      requests that we have copies of still have the initial --
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                        MR. BERSAK: I'm trying to figure out
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      where this one fit into the stream of decisions that were
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      made by the Commission.
                         CHAIRMAN GETZ: We have Exhibit IPP-25.
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      Mr. Shulock, do you have --
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- 1 MR. SHULOCK: We were provided that
- 2 material without restriction.
- MR. BERSAK: Okay. That's fine. I'm
 being told there was a second revision to this where the
 confidential is removed. I'm sorry.
- 6 WITNESS McCLUSKEY: Okay.
- 7 BY THE WITNESS:
- A. (McCluskey) And, so, I calculate that the CPD offer is at a discount to Laidlaw of 8.5 percent. Whereas the Concord Steam offer is at a discount of 12.6 percent.

 And, so, I don't regard those as -- I don't regard Laidlaw as superior to those. I regard Laidlaw, its prices, to be inferior to those two offers.
- 14 BY MS. AMIDON:
- Q. Do you know what fuel price was assumed in these offers?
- 17 Α. (McCluskey) Yes. And, this also is interesting. order to have an apples-to-apples comparison, you have 18 19 to have the same fuel price under each offer. And, they assumed that it would be \$32.5 a ton. And, if you 20 21 recall, the prices in the Laidlaw PPA are at \$34 a ton. 22 And, I calculated and presented in my testimony that the levelized price for the Laidlaw PPA is around about 23 24 \$162 per megawatt-hour, assuming \$34 a ton. So, this

kind of fits. They're saying, under the \$156.4 per
megawatt-hour, at the 32.5 a ton fuel price, so I think
we're in the same ballpark here.

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- Q. Thank you. Please comment on the claim by PSNH that, because the short-term REC prices in the Synapse forecasts are above the current short-term market prices, the whole forecast can't be relied upon.
- Α. (McCluskey) Yes, I think this was in response to a question in cross to Mr. Labrecque. And, so, he's saying "Well, Synapse made this long-term price projection." Which actually, I believe, started in 2010 or '11. And, if you look at where the REC prices are today, they're lower than what Synapse was projecting for that period. And, so, he's concluded that, if the short-term prices are different from one year in the long-term, the whole REC price forecast has got to be thrown out. Well, in fact, if you actually read the Synapse report, they state clearly that there's two components to their long-term price The first couple of years are reflective of forecast. broker quotes for those first two years. And, the rest of the projection is based on a sophisticated supply/demand modeling exercise, where they attempt to estimate what the supply will be for renewable Class I

projects and what the demand will be, based on what the various statutes in the New England region require.

And, so, the prices after the first two years are developed through a different mechanism than what the first two years are. So, I would conclude that, if the prices in the first couple of years are not quite at what the market is, then you can't draw any conclusions with regard to the quality of the supply/demand analysis that underlies the rest of the long-term forecast.

- Q. And, to your knowledge, Mr. McCluskey, do the utilities in New Hampshire use the Synapse forecast for calculating other benefits, such as in the energy efficiency program?
- A. (McCluskey) Yes. Again, as I state in my testimony,
 Synapse was commissioned, hired by the electric
 utilities and gas utilities in the New England region
 to develop the avoided costs that were needed in order
 to determine cost-effectiveness of energy efficiency
 programs in the various states. And, PSNH was one of
 the electric utilities which selected Synapse to do
 this work. And, so, we have the CORE programs, which
 are using, the CORE programs in New Hampshire, using
 these avoided costs, these long-term energy and

capacity numbers for the important work of determining cost-effectiveness. And, then, we have PSNH, in this docket, saying "you can't use those numbers because they're not reliable." And, it seems to me that this 4 is just a major inconsistency between those two positions.

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- Thank you. PSNH, in its rebuttal testimony, at Page 0. 27, says that it "could have not have developed a PPA", like the one that it has proposed with Laidlaw, "through a competitive bidding process." Do you agree with that statement?
- (McCluskey) No. We've already heard that they have had Α. substantial success in encouraging bidders to participate in the RFPs in Massachusetts. There's also a significant RPS program in New York, which is also based on competitive bids. If PSNH wants to have a particular outcome in terms of its design of a PPA, then it could develop an RFP that requested bidders to include those features in their bids. And, so, I think competitive solicitations are very flexible. The buyer can be very creative in the kinds of things that they're looking for. There's clearly lots of developers that would like to make money and be the winning bidders in these various RFPs.

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So, I truly believe that they, with some
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         creative development of the requirements of the RFP,
         could get results that fit their particular needs.
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    Q. Are there any --
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                        CHAIRMAN GETZ: Ms. Amidon, how much
      more of -- are you continuing to go through the PSNH
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      rebuttal testimony and --
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                        MS. AMIDON: Yes, I am.
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                        CHAIRMAN GETZ: -- and inquiring of the
      witness?
                I mean, it certainly was one thing to deal with
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      some of these documents that were late to the party from
      the City of Berlin. But it seems to me we're getting into
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      unanticipated surrebuttal.
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                        MS. AMIDON: What I have -- I don't have
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      much left, actually just two areas of questions for Mr.
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      McCluskey. And, I haven't, obviously, been able to
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      conduct my direct of Mr. Frantz, which won't take as long.
      But I have an area -- one area I want to talk about is
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      risk, another area I want to talk about is the statement
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      on the Levitan study. And, finally, from both Mr. Frantz
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      and Mr. McCluskey, I would like their comment on Exhibit 9
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      that PSNH offered. So, that's what I have remaining.
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                        CHAIRMAN GETZ: Okay. Well, let's
24
      proceed.
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1 MS. AMIDON: Thank you.

2 BY MS. AMIDON:

- Q. The Company said that you did not mention certain risks that Laidlaw would have to be compensated for through a higher return on equity. Do you understand that the contract shifts any risks from Laidlaw to PSNH that would affect customers?
- A. (McCluskey) Yes. There is a significant number of areas where risk has been shifted. The requirement to purchase all of the output of the facility eliminates the risk that Laidlaw is unable to find a buyer for its product. This risk exposes Laidlaw to lower than expected profits. By shifting it to PSNH, they reduce that risk.

The proposed energy pricing in the PPA effectively eliminates Laidlaw's market price risk.

This risk also exposes Laidlaw to lower than expected profits.

The proposal to adjust the energy prices for a change in fuel costs reduces Laidlaw's fuel price risk.

The proposal to include in the energy price an O&M expense component that collects the estimated O&M costs over the 20-year period reduces, if

not eliminates, the O&M expense risk that it otherwise would incur.

The proposal to fix the capacity prices in the PPA hedges Laidlaw's FCM risk. The proposal to fix the REC prices in the PPA hedges Laidlaw's REC price risk.

The requirement to purchase RECs after 2025 eliminates the risk to Laidlaw that the RPS will not be extended or, if extended, the new REC purchase requirements are less than the old requirements, resulting in lower REC revenues.

And, basing the REC prices in the PPA on the existing statute, Laidlaw has eliminated the risk that the statute is repealed and amended in a way that substantially reduces the REC revenue.

These are all areas where PSNH -- where the PPA has essentially shifted the risks to PSNH and its customers.

- Q. And, PSNH has said they don't make any money on this contract, is that correct?
- 21 A. (McCluskey) That's correct.

- Q. And, they're seeking full cost recovery of the costs incurred under the contract?
 - A. (McCluskey) That's correct.

1 Q. Thank you.

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- 2 A. (McCluskey) By seeking full cost recovery, the risk 3 gets shifted from PSNH to PSNH's customers.
 - Q. And, other than Exhibit 9, I just have one area I wanted to ask you. Which is to comment on the claim that you didn't take a position on the PPA capacity prices because the Levitan forecast shows the prices to be under-market. Could you briefly address this issue.
- (McCluskey) Yes. The Staff issued six sets of 9 Α. discovery to PSNH. In the first set, we asked them for 10 any price projections on capacity and any associated 11 reports and analyses. They provided a price 12 projection, but didn't provide the analyses behind it, 13 who developed the projection, and any report associated 14 with it. We followed up with a second set of 15 discovery, and we still didn't get the information that 16 17 we were looking for. It wasn't until the sixth set did we find out that a report had been submitted by 18 19 Mr. Levitan describing how he developed the price projection. We received that information 17 days 20 21 before our testimony were due. In the meantime, I had several other cases going on where I had an obligation 22 to respond either to discovery or testimony or 23 whatever. Staff did not have time, before submitting 24

our testimony, to review that report.

MR. BERSAK: Mr. Chairman, I have to object to this. There was no motion to compel, there was no assertion that we did not follow the procedural schedule in this docket. This docket has been tight for everybody. That does not change the substance of Mr. McCluskey's filed testimony, where he did not take any positions on capacity. To now change that testimony, saying "I didn't have enough time", is unfair to every party here.

MS. AMIDON: Mr. McCluskey is just explaining why he doesn't have any analysis of Mr. Levitan's model.

CHAIRMAN GETZ: Are you going to go further on this or is that just the --

WITNESS McCLUSKEY: Well, I'll just finish it off.

18 BY THE WITNESS:

A. (McCluskey) Since we filed our testimony, I've had a chance to look at the report, which was actually submitted in PSNH's IRP, not in this docket. And, the report actually only covers the period up to 2020, six years of the PPA. And, so, Levitan was hired not to develop the projection for this case, but to do a

projection for the IRP. And, because they recognized it didn't cover the full period of the PPA, they had Mr. Levitan make various adjustments. At the end of the period, for example, he simply adjusts it using some -- something like an inflation factor. So, it's hardly a sophisticated analysis that resulted in the capacity prices for the back-end of this forecast period.

And, so, if we had that information early on, we certainly would have addressed it, like I addressed just about everything else in the PPA. We simply didn't have time to do the analysis, because we didn't get the information that we requested earlier in the proceeding.

MS. AMIDON: Mr. Chairman, at your pleasure, I have not many questions for Mr. Frantz. We could go through that, and then get both Mr. Frantz and Mr. McCluskey to comment on Exhibit 9, or we could begin Tuesday morning that way. It's your choice.

CHAIRMAN GETZ: But how long will the Exhibit 9 commentary take?

MS. AMIDON: I think it's pretty much point-by-point, I don't think it will take long. They're going to address each one of the five items.

CHAIRMAN GETZ: Because what I'm concerned about now is to make sure that the Petitioner has an opportunity to be prepared to cross-examine.

There's a lot of material today. I think I would put off Mr. Frantz's additional direct. But, if we can get through their comment on Exhibit 9, that might be useful.

MS. AMIDON: Okay.

BY MS. AMIDON:

- Q. And, then, this is to both Mr. Frantz and Mr.

 McCluskey, I would ask your comments on the proposal

 that was identified as "PSNH Exhibit 9 Revised", which

 are the -- I don't have the document right in front of

 me, but I believe that what Laidlaw is willing to agree

 to.
- A. (McCluskey) Okay. I'll just go through them very quickly. Beginning with Item 1. The proposal to expand the capacity of the facility, we object to that. Our position is that this PPA is substantially over priced. So, why would we agree to buy more of this over-priced product? So, we are not in favor of expanding the capacity of the facility.
- A. (Frantz) I'd just like to add that Mr. Long actually testified and said "well, one of the things that we've done in this is to learn from the errors of the 1980s

- of the QFs." And, yet, the filing was made at 64 and 61 megawatts, depending on the time of year, and now this comes in at 67 and a half, essentially higher than what was originally filed in the SEC docket. I mean, to me, that seems like we are, in fact, about to make the same mistake. I think a megawatt-hour cap perhaps could be useful in this, in this regard.
- 8 Q. But, Mr. Frantz, you wouldn't say 67.5 is the cap?
- 9 A. (Frantz) No. Correct.

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- 10 Q. Thank you. Okay. Item 2.
- (McCluskey) Interest on Cumulative Reduction Account: 11 Α. And, this is responsive to one of the arguments that I 12 make in my testimony. Our major concern is with the 13 cap on how much customers can receive back from this 14 account is capped at the market value of the facility. 15 So, if the facility has very little value at the end of 16 17 the 20-year term, adding more dollars to the account, the interest on the Cumulative Reduction increases the 18 19 risk that customers are not going to receive all of the dollars that they are essentially putting into the 20 21 account through their payments through the PPA.
 - A. (Frantz) On interest, you know, I'm an economist, I think you ought to recognize the time value of money.

 And, this PPA does not recognize the time value of

- 1 money. And, I think that's a mistake.
- 2 Q. Okay. Item 3.

A. (McCluskey) The excess RECs: The proposal is essentially to add additional dollars to the Cumulative Reduction Account related to over-market or under-market costs associated with the RECs. However, excluded from this definition is Schiller. So, the fact that Schiller is excluded from this calculation, I am opposed to the excess REC proposal that they have here. And, I would add the same point I made regarding Item 2. The more dollars you put into this account, and it's all capped by the market value of the plant at the end of 20 years, you are increasing the risk that customers are not going to receive payment back at the end of the 20-year period.

And, Item 4, the "Base Energy Price", when you -- essentially, when you combine that with Item 5, somebody described it as "optics", that's what it is. It's not a significant issue at all, Item 4.

Item 5, the conversion factor, dropping it from 1.8 to 1.6, we think that we -- we certainly recommended that that be done. The 1.8 does not meet the characteristics of the facility. And, I think Laidlaw has recognized that. By making this change,

and combining it with 4, customers are not harmed one way or the other, because customers are always going to be paying the fuel costs, when it goes up or goes down, they're going to be paying the actual fuel costs. So, it really didn't matter what the baseline is, \$30 or \$34 a ton, once you make the change to 1.6. If you had left it at 1.8, there could have been situations where Laidlaw would benefit, there could have been situations where customers would benefit. So, these two taken together I think is a significant improvement.

- Q. And, one follow-up for Mr. Frantz. You said that increasing the capacity was similar to or you likened it to the IPP situation. Could you just elaborate on and explain that concern more fully.
- A. (Frantz) Well, the Commission, in the 1980s, received filings for projects, and the Commission determined the prices for those projects. And, there were estimates of what the megawatt output of numerous qualifying facilities were for those plants. But, when they actually built them, they were often much larger than what was in the filings with the Commission. So, the customers ended up purchasing, at least for a certain period of time, the additional output at those avoided costs.

MS. AMIDON: Okay. Thank you.

CHAIRMAN GETZ: Okay. Thank you. Then,

I presume we'll take up on next Tuesday with Mr. Frantz's

4 direct.

But I do want to address the request from the Mayor of Berlin. But did you have something?

MS. HATFIELD: I do, Mr. Chairman. I apologize, but I wanted to let you know now that the OCA has a legislative hearing that we need to attend on Tuesday, at 2:00, that just so happens to be a bill amending the RPS statute. So, we would hope that we would be finished by then. But we just wanted to let you know that now, so that, to the extent it's possible, if we could try to schedule around that. And, if you can't, I understand, but I just did want to let you know.

CHAIRMAN GETZ: Okay. Well, then that is I guess more basis for what I'm about to say. I'd say that we would resume here next Tuesday, at 9:00 a.m. The goal, of course, is to get through all of this testimony. So, effectively, we are not going to grant the City of Berlin's request. It was late-filed, it wasn't provided to any of the parties. I think it's impractical under the circumstances. And, if anything, to accommodate a request of this nature would probably make this proceeding last

even longer.

So, we will resume here next Tuesday.

And, if we can schedule our day in a way that works around the legislative obligation, then we'll do that.

MS. HATFIELD: And, then, this may be premature, but I at least have been thinking about whether the Commission was going to either require briefing of certain issues or offer it. And, I don't know if you want to tell us anything about that now. But one idea that I have had was that it might be possible, if the Commission did want briefs or wanted to offer the option, that the parties could try to work together to identify any issues that people think need to be briefed, because it just might make the briefing schedule be able to be shorter, if we all agreed. And, I don't have anything to propose at this time, but I just wanted to offer that it might be useful, rather than you needing to do that, we could try to do it.

CHAIRMAN GETZ: Well, we haven't reached any conclusion on that. If you all want to talk between now and next Tuesday and come up with a recommendation, then we would certainly entertain it. Did you have something, Mr. Shulock?

MR. SHULOCK: Yes. It was just a simple

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      procedural question. Was this marked as an exhibit?
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                         MR. BOLDT: Staff 15 is my recollection.
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                         MS. AMIDON: Yes, Staff 15.
                         CHAIRMAN GETZ: Yes, that is
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      Exhibit Staff 15. Anything else today?
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                         (No verbal response)
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                         CHAIRMAN GETZ: Okay. Then, we're
      recessed. And, we'll see you next week. Thank you,
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      everyone.
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                         (Whereupon the hearing was adjourned at
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                         5:07 p.m. and the hearing to reconvene
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                         on February 8, 2011, commencing at 9:00
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                         a.m.)
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