

STATE OF VERMONT
PUBLIC SERVICE BOARD

DOCKET NUMBER 7970

PETITION OF VERMONT GAS SYSTEMS, INC. FOR A
CERTIFICATE OF PUBLIC GOOD, PURSUANT TO 30 V.S.A.
SECTION 248, AUTHORIZING THE CONSTRUCTION OF THE
"ADDISON NATURAL GAS PROJECT" CONSISTING OF
APPROXIMATELY 43 MILES OF NEW NATURAL GAS
TRANSMISSION PIPELINE IN CHITTENDEN AND ADDISON
COUNTIES, APPROXIMATELY 5 MILES OF NEW DISTRIBUTION
MAINLINES IN ADDISON COUNTY, TOGETHER WITH THREE NEW
GATE STATIONS IN WILLISTON, NEW HAVEN, AND
MIDDLEBURY, VERMONT, IN RE: SECOND REMAND

June 23, 2015
9:40 a.m.

112 State Street
Montpelier, Vermont

Technical Hearing held before the Vermont Public
Service Board, at the Third Floor Conference Room,
People's United Bank Building, 112 State Street,
Montpelier, Vermont, on June 23, 2015, beginning at 9:40
a.m.

P R E S E N T

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Margaret Cheney
Sarah Hofmann

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1 CHAIRMAN VOLZ: Good morning. We're
2 here this morning in Docket Number 7970 which is the
3 petition of Vermont Gas Systems Inc. requesting a
4 Certificate of Public Good pursuant to 30 V.S.A.
5 Section 248 authorizing the construction of the
6 Addison Natural Gas Project, consisting of
7 approximately 43 miles of new natural gas
8 transmission pipeline in Chittenden and Addison
9 Counties, approximately five miles of new
10 distribution main lines in Addison County, together
11 with three new gate stations in Williston, New Haven,
12 and Middlebury, Vermont.

13 I would like to start by taking notices
14 of appearance.

15 MS. PORTER: Louise Porter and Timothy
16 Duggan for the Department of Public Service, and with
17 us today are Dr. Asa Hopkins, who is the Director of
18 Planning and Energy Resources, and in back Mr. George
19 Nagle who is a Financial Utilities Analyst.

20 MR. SAUDEK: Richard Saudek, Vermont
21 Fuel Dealers Association. With me is Matt Cota who
22 is the Director.

23 MS. LEVINE: Sandra Levine with
24 Conservation Law Foundation. With me are two interns
25 who are working at Conservation Law Foundation this

1 summer, Rebecca Smith and Kristin Rogers.

2 MR. GRAYCK: David Grayck for Mr. and
3 Mrs. Palmer.

4 MR. DUMONT: James Dumont for AARP and
5 Kristin Lyons. With me are Philene Taormina from
6 AARP. Ms. Lyons is seated in the back. Also with us
7 are my law clerk Patrick Kenny and the witness Dr.
8 Dismukes.

9 MR. LOUGEE: Good morning. Adam Lougee,
10 Addison County Regional Planning Commission.

11 MS. HILL: Cindy Hill, Town of New
12 Haven.

13 MS. HAYDEN: Kimberly Hayden of Downs
14 Rachlin Martin on behalf of the Petitioner, and with
15 us as counsel are John Marshall, Josh Leckey, and
16 Peter Zamore, and from the company present is Eileen
17 Simollardes, James Sinclair, Elizabeth Parent, and
18 Mr. Rendall had a prior engagement. He will be here
19 later this morning.

20 CHAIRMAN VOLZ: Okay. I think that's
21 all the parties. Have I heard from everybody?

22 All right. A couple of preliminary
23 matters. The first one is, Ms. Levine, CLF, you want
24 to introduce a cost update exhibit I understand?

25 MS. LEVINE: Yes.

1 CHAIRMAN VOLZ: Why don't you do that.

2 MS. LEVINE: Okay. I've provided to the
3 Board and the parties what's been marked as CLF Cross
4 6. It is a copy of the Docket 7970, 2014 third
5 quarter estimate status report. It was referred to
6 during the examination of Mr. Sinclair and this is
7 just a document that was referred to.

8 CHAIRMAN VOLZ: Any objection to
9 admitting that?

10 MS. HAYDEN: No objection.

11 CHAIRMAN VOLZ: Okay. It's admitted.
12 (Exhibit CLF Cross 6 was admitted into
13 the record.)

14 CHAIRMAN VOLZ: Another matter I think
15 is that, Mr. Dumont, we were supposed to take care of
16 some of your exhibits this morning. Want to tell us
17 about that?

18 MR. DUMONT: Yes. I'm moving exhibit 3
19 -- I'm doing this in the order in which I mentioned
20 it.

21 CHAIRMAN VOLZ: Okay.

22 MR. DUMONT: Exhibit 3, 6, 4, 7, 8, 9,
23 10, 27, 20, 44, 21, 22, 24, 25, 26 and 29.

24 CHAIRMAN VOLZ: Any objection to
25 admitting those?

1 MS. HAYDEN: No objection.

2 CHAIRMAN VOLZ: Okay. They are
3 admitted.

4 (Exhibits marked AARP Cross
5 3,6,4,7,8,9,10,27,20,44,21,22,24,25,26,29 were
6 admitted into the record.)

7 MR. DUMONT: And I also spoke with
8 Attorney Hayden about reopening my examination of Ms.
9 Simollardes just for a brief moment.

10 CHAIRMAN VOLZ: Okay. We'll do that
11 after we finish all the preliminary matters which we
12 may have done actually. Are there any other
13 preliminary matters before we resume examining this
14 witness? Yes, Ms. Levine.

15 MS. LEVINE: I would just again note
16 there are a number of members of the public out in
17 the hall that have difficulty hearing. So if people
18 could speak up, speak into the microphones, it would
19 be really helpful, and I don't know if there's any
20 way that the Board could make a room available. The
21 Burlington Free Press is here live streaming. Is
22 there a place that folks who are in the hallway could
23 be somewhere other than in the hallway to watch this?

24 CHAIRMAN VOLZ: I don't think we have a
25 room with a TV in it unfortunately.

1 MS. PORTER: And the Department's is in
2 use.

3 CHAIRMAN VOLZ: Right.

4 REPORTER: If I could add on the Free
5 Press's behalf, microphones help a lot.

6 CHAIRMAN VOLZ: We're planning to use
7 the microphones. Mine is working, right? Just Mr.
8 Dumont didn't have his working.

9 MR. DUMONT: Sorry.

10 CHAIRMAN VOLZ: All right. So is there
11 any objection to Mr. Dumont doing additional
12 examination of this witness at this time?

13 MS. HAYDEN: No objection.

14 CHAIRMAN VOLZ: Okay. Why don't you go
15 ahead, Mr. Dumont.

16 EILEEN SIMOLLARDES,

17 Having been previously duly sworn,
18 testified as follows:

19 CONTINUED CROSS EXAMINATION

20 BY MR. DUMONT:

21 Q. Ms. Simollardes, do you have cross exhibit 48
22 in front of you? It's the letter -- letter is the wrong
23 word, but on PWC stationery dated February 18, 2014?

24 A. I do. I don't think mine's working.

25 Q. The Board each has a copy of this, and I'm

1 labeling this Cross Exhibit 48. It says confidential
2 draft in the right-hand corner. In fact, this was signed
3 by Price Waterhouse Coopers and by Vermont Gas Systems as
4 a contract, correct?

5 A. Correct.

6 CHAIRMAN VOLZ: How are you identifying
7 this exhibit?

8 MR. DUMONT: Cross Exhibit 48.

9 CHAIRMAN VOLZ: Thank you.

10 BY MR. DUMONT:

11 Q. I'm sorry, and your answer was? Go ahead.

12 A. Yes.

13 MR. DUMONT: I'm moving exhibit 48.

14 CHAIRMAN VOLZ: Any objection?

15 MS. HAYDEN: No objection.

16 CHAIRMAN VOLZ: Thank you. It's
17 admitted.

18 (Exhibit AARP Cross 48 was admitted into
19 the record.)

20 BY MR. DUMONT:

21 Q. And just a question about it. Under scope of
22 services the February 18, 2014 document states that VGS
23 has requested Price Waterhouse provide support to develop
24 a baseline schedule and budget for VGS's Addison County
25 expansion project. The approach will consist of

1 leveraging existing project knowledge and data and
2 conducting working sessions with project stakeholders to
3 establish an integrated schedule and budget baseline. Did
4 I read that correctly?

5 A. You read it correctly.

6 Q. And on the second page -- top of the second
7 page it says the intended completion date is on or about
8 March 21, 2014, correct?

9 A. Yes.

10 MR. DUMONT: Thank you. That's just
11 what I wanted to add.

12 CHAIRMAN VOLZ: Thank you. I think
13 we're up to Mr. Grayck cross examining this witness.

14 MR. GRAYCK: Thank you, Chair. I've
15 asked VGS counsel if they would stipulate to the
16 admission to certain requests to admit. I have no
17 other cross examination other than to have the
18 requests to admit.

19 CHAIRMAN VOLZ: Okay.

20 MR. GRAYCK: A copy has been provided to
21 Attorney Hayden. I have the marked exhibit to pass
22 forward to the reporter.

23 CHAIRMAN VOLZ: Okay. Do we have copies
24 of that up here?

25 MR. GRAYCK: No. You do not.

1 CHAIRMAN VOLZ: Okay.

2 MR. GRAYCK: I'm at -- if you would
3 direct me how you want -- do you need me to go
4 through each one individually or is it simply
5 sufficient with VGS's stipulation they can be entered
6 into the record?

7 CHAIRMAN VOLZ: One second.

8 MR. GRAYCK: It's 18 pages.

9 CHAIRMAN VOLZ: The document -- the
10 request to admit that Mr. Grayck is referring to has
11 been assembled into one document. It's been marked
12 as Palmer Cross Simollardes 1 or Palmer Cross 1.

13 MR. GRAYCK: Yes.

14 CHAIRMAN VOLZ: And I take it there's no
15 objection to admitting this document?

16 MS. HAYDEN: There is not. I've got a
17 copy with me. They are all discovery responses.
18 Generally they are just not separately identified. I
19 don't have a problem.

20 CHAIRMAN VOLZ: Well I mean we could
21 walk through the numbers for the record if that's
22 what you would like.

23 MS. HAYDEN: I don't think that's
24 necessary.

25 CHAIRMAN VOLZ: Okay. So we'll just

1 admit this then.

2 (Exhibit Palmer Cross 1 was admitted into
3 the record.)

4 MR. GRAYCK: Thank you. That's all I
5 have.

6 CHAIRMAN VOLZ: Thank you. We're going
7 to need additional copies.

8 MR. GRAYCK: Yes. We will have copies
9 made. They will be available.

10 CHAIRMAN VOLZ: All right. I think
11 we're up to Mr. Saudek. Do you have cross for this
12 witness?

13 MR. SAUDEK: I have a few questions, Ms.
14 Simollardes.

15 CROSS EXAMINATION

16 BY MR. SAUDEK:

17 Q. I have a few questions. Following up on Mr.
18 Dumont's question about the Price Waterhouse engagement
19 letter, as you noted it is to be complete on March 21,
20 2014. Was that your understanding?

21 A. Yes.

22 Q. And between February 19th and March 21st of
23 2014 what conversations or information exchanges did you
24 have with Price Waterhouse concerning the budget for this
25 project?

1 A. There was quite a bit of information
2 exchanged. As this document talks about, the approach
3 will consist of leveraging existing project knowledge and
4 data and conducting working sessions with project
5 stakeholders to establish an integrated schedule and
6 budget baseline.

7 So there were numerous interviews with Vermont
8 Gas folks. There was a review of the budget that had been
9 prepared for us by CHA. Quite a bit.

10 Q. It also requires them to create an actual and
11 planned project cost model, right?

12 A. That's correct.

13 Q. Yeah, and note adjustments that need to be
14 made. That's in that list?

15 A. Can you point me to where it says that please?

16 Q. In the list of bullets it's about five up from
17 the bottom, six up from the bottom.

18 A. What page are you on please? Oh I see you're
19 on page 2.

20 Q. Second page, the bullets.

21 A. I'm sorry. There's bullets on the first page
22 too. I wasn't sure which page you were on.

23 Q. These are the second page bullets.

24 A. I found them. Thank you.

25 Q. Good. Do you see where it says note

1 adjustments that need to be made?

2 A. Yes.

3 Q. And you see where it says two lines below that
4 -- two bullets below that analyze variances and impacts
5 from baseline schedule and budget?

6 A. Yes.

7 Q. Okay. How much did they report to you on that
8 before March 21st while they were in the process of doing
9 this report?

10 A. I saw a budget on or about March 21st. I
11 don't have the exact date on it, but I did not have
12 something before that.

13 Q. And did it show the additional -- that
14 additional amounts would be necessary above the 121
15 million?

16 A. The -- I am not remembering that, although I
17 know I have it from another proceeding. The ultimate
18 budget that PWC presented to us on March 21st was within a
19 couple hundred thousand dollars of the budget that CHA had
20 given us in January, but the categories had changed.

21 Q. I'm not that familiar with the way you went
22 about this and I don't want to waste the time of people
23 who are, but are you talking about 121 million? Are you
24 talking about 154 million?

25 A. Oh 121 million. We didn't know 154 million

1 until December. December of 2014.

2 Q. And given this letter why didn't you know
3 that?

4 A. Because we didn't undertake the ACE and QRA
5 methodology until it started sometime in October pursuant
6 to Mr. Gilbert's commitment that we were going to do that
7 which he made in September, and we undertook that in
8 October, and frankly there was no reason to undertake it
9 beforehand. We baselined the budget, this process here
10 that was outlined in the PWC memo. We finally got our
11 permits in June. We began construction in July, and
12 because we had the baseline memo, which linked the budget
13 to a work breakdown structure, that allowed us to monitor
14 what was going on, and Mr. Roam testified yesterday that
15 in September he observed actual construction costs being
16 higher than what he had planned for construction costs,
17 not the budget, not the overall project, but the
18 construction costs, and we committed to relooking at the
19 budget, and we did so and it produced the 153.6.

20 Q. Okay. So everything they did coming up to
21 March turned out to be wrong, right? I mean --

22 A. It turned out to be different. You can call
23 it -- you can choose the word wrong.

24 Q. Was it 30 million dollars difference?

25 A. It's 30 million dollars different.

1 Q. And that would be in a northerly direction,
2 right?

3 A. Correct.

4 Q. In your testimony you attribute the cost of
5 removal of tanks -- strike that.

6 In your testimony you give no value whatsoever
7 to the cost of removal of old oil tanks, right?

8 A. That's correct.

9 Q. And I take it that the reason that you give,
10 am I not correct, is that customers have a choice as to
11 whether they want to leave the tanks in or not, right?

12 A. Customers have a choice up until a point. If
13 the integrity of the tank is in question, then they have
14 to remove it. If the tank is -- still has integrity, they
15 can leave it in place.

16 Q. Okay. Doesn't really quite work like that,
17 does it?

18 A. Actually I believe it does.

19 Q. Okay. Let me read to you -- this will just
20 take a minute.

21 A. Yup.

22 Q. The rule that I told you before you went up I
23 was going to cite.

24 A. Yup.

25 Q. Any above ground storage tank system which is

1 out of service for more than one year shall either be
2 properly disposed of or can only be returned to service if
3 it is inspected and found to be in sound condition, and
4 then they basically say it's got to pass an ultrasonic
5 test. You're familiar with that rule, aren't you?

6 MS. HAYDEN: I would like to note an
7 objection. The rule has not been identified. There
8 hasn't been a foundation. If you could identify the
9 rule that you're referring to.

10 MR. SAUDEK: Okay. Sure. Yeah. It's
11 the same rule I identified for you before.

12 CHAIRMAN VOLZ: For the record.

13 MR. SAUDEK: Above ground --

14 BOARD MEMBER HOFMANN: Mr. Saudek, we
15 are not privy to that. Can you please identify the
16 rule?

17 BY MR. SAUDEK:

18 Q. Above ground storage tank rule issued on
19 February 10, 2014 by the Agency of Natural Resources, and
20 it is rule number 9-307(B), and that's the rule that
21 you're talking about when you talk about customer choice,
22 right?

23 A. That's correct, and I have -- I had a legal
24 memorandum prepared on that exact point and that's what I
25 based my report on, and just coincidentally driving in

1 here yesterday there was an ad on the radio advertising
2 oil tank removal that said have you converted to natural
3 gas. If you're not converting back, remove your tank, and
4 it was 299 dollars, but it was predicated on if you're not
5 thinking of converting back. So clearly at least somebody
6 out there also believes that customers can keep their tank
7 there if they may think about converting back.

8 Q. And given that the rule is though that they
9 must remove the tank unless -- as we've read, the rule is
10 that they must remove the tank unless they are going to
11 use it again after a year or within a year they must
12 remove the tank, and if they are going to use it again,
13 okay, it's got to pass an ultrasound test and so on,
14 right?

15 A. If they are going to use it again, it would
16 have to pass an ultrasound test. I don't agree that rule
17 says that you have to remove it after a year. It says if
18 you're not going to use it, it has to be removed after a
19 year. All I can --

20 Q. What do you tell your customers?

21 A. I don't tell my customers. The marketing
22 people do not advise the customers to my knowledge. They
23 tell the customers to talk to their fuel oil dealer.

24 Q. So is it -- are you suggesting the purpose of
25 this rule is just to give everybody a kind of a free hand

1 in whether they are going to leave their tank?

2 A. No. I think the purpose of that rule is to
3 make sure whatever tanks out there retain their integrity.

4 Q. And otherwise get removed?

5 A. Or otherwise get removed if they don't retain
6 their integrity or if the customer no longer wants the oil
7 tank in their home.

8 Q. Don't you think you should inform your
9 customers of that rule?

10 A. I can't speak to exactly what our marketing
11 people tell our customers. I'm not in the marketing
12 department. I have seen the memorandum on the removal of
13 oil tanks, a legal opinion.

14 Q. Conversions. Conversions of old boilers. You
15 testify that 75 percent of the customers in the last three
16 years used converters on their old boilers -- on their oil
17 boilers. Am I quoting you correctly? Do you want --

18 A. You're getting me almost correctly. I think I
19 testified that 75 percent of the people converting from
20 fuel oil to natural gas use conversion burners. I didn't
21 specify whether they were boilers or furnaces.

22 Q. And would you agree with Mr. Cota in his
23 prefiled testimony that it is somewhat less efficient to
24 convert that way with converters than to put in a whole
25 new boiler that is adapted to gas heat?

1 A. Yes with a caveat. When a customer installs a
2 conversion burner there is a slight degradation of
3 efficiency due to that conversion burner. However,
4 because natural gas burns cleaner, unless that customer
5 was maintaining their oil system regularly and getting
6 annual checkups, the dirt or whatever that's associated
7 with burning fuel oil also decreases the heat -- the
8 efficiency of the fuel oil system.

9 So if you start from an assumption that
10 customers absolutely kept their fuel oil systems up to
11 snuff, then yes there's a complete -- there could be a
12 degradation of efficiency from the burning -- using of a
13 conversion burner, but if customers are not keeping their
14 systems maintained, then it's only about a year later that
15 the efficiency is about the same.

16 Q. And I also notice that you say that only 4,090
17 of your 43,500 customers have converters?

18 A. Correct.

19 Q. Well my first question is how does that square
20 with the 75 percent of the new customers in the last three
21 years?

22 A. Because people use conversion burners as a
23 stop gap measure until such time as they are ready to
24 replace their heating system with something more
25 efficient, and because we have very attractive and

1 aggressive energy efficiency programs that provide low and
2 no cost financing for the purchase of high efficiency
3 systems and rebates, people will use those conversion
4 burners for a while and then replace their heating system
5 with something more efficient.

6 Q. And speaking of all these low cost financing
7 what you're talking about is zero loans, zero cost loans
8 or that sort of thing, the sort of energy efficiency
9 programs you like to talk about, right?

10 A. Correct.

11 Q. And nonetheless if they did a full conversion,
12 it would involve removing the oil equipment and replacing
13 it with gas equipment, right?

14 A. If they are replacing their heating system,
15 yes.

16 Q. You're not going to agree with me on removing
17 the oil tank?

18 A. No. I don't think I am.

19 Q. Let's assume they want to be --

20 A. Okay. Let's assume they want the space in
21 their basement.

22 Q. They read this rule and the way they read it
23 they got to get the tank out.

24 A. Let's assume they want the space in their
25 basement.

1 Q. And they think gas is so great that they are
2 never going to go back to oil, right?

3 A. Okay.

4 Q. Okay, and how about vent and fill, are they
5 going to do that?

6 A. I'm not sure what you mean with vent and fill.

7 Q. Remove -- they have to remove other equipment
8 that is associated with the oil --

9 A. If they are removing their oil tank, they need
10 to remove any -- anything associated with that, including
11 you need to cap the line to the outside.

12 Q. Now you have a quibble with this business of
13 lining the chimney. I take it you don't think they need
14 to line the chimney, do you?

15 A. No I think some customers do need to line
16 their chimney, and our experience has been 25 percent of
17 the people who convert to natural gas need to line their
18 chimney. So my quibble, if you will, was with a blanket
19 statement that everybody needs to line their chimney, and
20 I completely disagreed with the cost because we do have
21 real world dollars with chimney lining costs and they are
22 materially below the numbers in Mr. Cota's testimony.

23 Q. Okay. Aside from the cost. So this list
24 costs something, right, and you're going to quibble with
25 the cost, but it definitely costs more than the

1 converters, right?

2 A. Agreed. I did do, just last night in
3 anticipation of you asking this question, I did take a
4 quick sort of back of the envelope and say okay there's
5 3,000 customers. If 75 percent rent conversion burners
6 and they rent them for an average of nine years, and 25
7 percent need a chimney liner, I did not include the cost
8 of removal, on a net present value basis it was under 3
9 million dollars.

10 MR. SAUDEK: That's all I have. Thank
11 you.

12 CHAIRMAN VOLZ: Thank you. Ms. Levine,
13 did you have -- did you go already?

14 MS. LEVINE: I did.

15 CHAIRMAN VOLZ: Thanks. I think we're
16 up to us now.

17 MS. PORTER: Mr. Chairman, we had a
18 conversation --

19 CHAIRMAN VOLZ: Use the mike.

20 MS. PORTER: We had a conversation at
21 the status meeting this morning. We had a
22 conversation with Mr. Tousley about whether or not
23 the Department, despite the fact we had not reserved
24 any time, could ask a few questions of Ms.
25 Simollardes.

1 CHAIRMAN VOLZ: And that's fine. Sorry.

2 I just forgot to do that. Thank you. Go ahead.

3 MS. PORTER: I will try to be very
4 brief.

5 CHAIRMAN VOLZ: Okay.

6 CROSS EXAMINATION

7 BY MS. PORTER:

8 Q. Ms. Simollardes, just a couple of questions.
9 The first one is to follow up on something that happened
10 yesterday -- some questions. You were present all day
11 yesterday?

12 A. I was.

13 Q. Okay. Are you generally familiar with Vermont
14 Gas's energy efficiency programs?

15 A. I am.

16 Q. And did you participate in the underlying CPG
17 proceeding that we're talking about now?

18 A. I did.

19 Q. Okay. Do you recall that in the DPS
20 testimony, I believe through Mr. Poor, that the Department
21 recommended what we came to call enhanced energy
22 efficiency?

23 A. Yes.

24 Q. And were you involved with the decision to
25 accept and incorporate such a requirement in the CPG?

1 A. I was.

2 Q. And if you know, did the Board in fact
3 incorporate that into the CPG?

4 A. They did.

5 Q. Okay. The agreement was that any enhanced
6 energy efficiency would be accomplished through Docket
7 7676 which is about energy efficiency programs?

8 MR. DUMONT: Excuse me. I do hate to
9 interrupt, but this is not real cross examination.
10 I do object to this. This is not real cross
11 examination. This should have been part of direct if
12 either the Department or Vermont Gas wanted to put
13 this in as I understand where this is going.

14 MS. PORTER: It's more in the form of
15 follow up. There were two questions asked yesterday,
16 and I am aware because of some questions that were
17 posed to the Department that there was confusion
18 remaining, and that's the last question that I have
19 on the matter and I hope that she could straighten
20 out the record, but I totally agree this is not
21 normal cross examination.

22 MR. DUMONT: Well I continue to object.

23 CHAIRMAN VOLZ: Was that your last
24 question? Is that what you're saying?

25 MS. PORTER: I have one more question.

1 I was just sort of setting up the backdrop about the
2 questions that were asked yesterday that I believe
3 caused the confusion.

4 CHAIRMAN VOLZ: Okay. Wait one second
5 while we rule on the objection.

6 (Off-the-record discussion.)

7 CHAIRMAN VOLZ: We're going to allow you
8 to finish this as long as the focus is on clarifying
9 the record. We think it's useful to get the record
10 clarified, and then of course parties are free to
11 brief how we should treat this evidence when they
12 brief the case.

13 MS. PORTER: Thank you, Mr. Chairman. I
14 appreciate that latitude.

15 BY MS. PORTER:

16 Q. Ms. Simollardes, you were here yesterday when
17 I believe Mr. Rendall was asked a question about what, if
18 anything, the company has done to honor those commitments
19 to enhanced energy efficiency; is that correct?

20 A. Yes.

21 Q. And I can't recall his exact answer. I
22 suppose we could get it read back. That's really not the
23 point of my question. Were you also here when Board
24 Member Hofmann asked a question about when certain filings
25 might be made regarding enhanced energy efficiency?

1 A. Yes.

2 Q. Could you please explain to the Board and the
3 parties why there would appear to be the perception that
4 Vermont Gas is not living up to those commitments that
5 were recommended by the Department and agreed to by the
6 Board and then ordered -- agreed to by the company and
7 then ordered by the Board?

8 A. So the CPG in Docket 7970 has a requirement in
9 it that Vermont Gas, and I'm paraphrasing the order, but
10 essentially offer extensive energy efficiency services in
11 Addison to -- there was something like 200 million dollars
12 in energy savings at that time, and that we have programs
13 that would encourage customers to utilize a significant
14 portion of that for energy efficiency.

15 Vermont Gas and the Department were in
16 agreement that the development of those programs would be
17 part of 7676. Notwithstanding the fact that those hadn't
18 been fully developed, we had in fact begun offering energy
19 efficiency services in Addison County.

20 As part of 7676 when the Board order came out
21 with the order of appointment it changed the definition of
22 eligible customer to be a customer that is currently
23 paying an energy efficiency charge or a customer that will
24 be paying an energy efficiency charge shortly as evidenced
25 by a signed service application.

1 Since we are not actively marketing or signing
2 customers up yet really in Addison, we are not able at the
3 moment under that order that came out to aggressively
4 offer those programs in Addison County. Rather we're now
5 in the -- at the beginning stages of a proceeding called
6 EEU-2015-02 which will be developing our transition energy
7 efficiency plans for the next two years before we get into
8 the full DRP, or demand response proceeding I guess, to
9 develop what our energy efficiency goals and budgets will
10 be because now that we are an EEU our energy efficiency
11 goals and budgets are reviewed and approved by the Public
12 Service Board.

13 So those Addison plans for the next two years
14 will be developed as part of the transition process that's
15 ongoing right now with an expectation that we'll have new
16 goals and budgets in place for calendar '16.

17 Q. Do you have anything to add to that?

18 A. I do not.

19 MS. PORTER: That's all I have, Mr.
20 Chairman. I appreciate it.

21 CHAIRMAN VOLZ: Thank you. I guess
22 we're up to our questions.

23 BOARD MEMBER CHENEY: I'll start by
24 following up on a question I asked Mr. Rendall
25 yesterday. Is it your understanding, is it correct

1 to say, the commercial entities such as Agri-Mark are
2 presently receiving truck deliveries of compressed
3 natural gas?

4 MS. SIMOLLARDES: That is my
5 understanding, and actually Agri-Mark had an
6 editorial in the paper yesterday, I believe, that
7 said they went -- they were using compressed natural
8 gas in anticipation of the pipeline coming.

9 MR. DUMONT: I ask that the last part of
10 that answer be stricken. The answer was yes. I
11 don't have any problem with yes, but the rest should
12 be stricken as hearsay and gratuitous hearsay.

13 CHAIRMAN VOLZ: Hang on. We need a
14 response from the attorneys for the witness.

15 MS. HAYDEN: I'm not sure that it's been
16 established that this is hearsay. Ms. Simollardes
17 said she understands that Agri-Mark has said that
18 they have received natural gas in anticipation of the
19 pipeline coming.

20 CHAIRMAN VOLZ: She said she read it in
21 the paper.

22 MS. SIMOLLARDES: I said I understood it
23 was in the paper. I actually have a copy of the
24 letter they submitted to the paper. I have seen the
25 letter. I received it yesterday.

1 (Off-the-record discussion.)

2 CHAIRMAN VOLZ: I think Mr. Dumont is
3 correct and we're going to strike the second portion
4 of your answer.

5 BOARD MEMBER CHENEY: Has Agri-Mark
6 expressed to the company directly an intention or a
7 preference for delivery of natural gas by pipeline if
8 the pipeline is constructed as opposed to truck
9 compressed natural gas?

10 MS. SIMOLLARDES: Yes.

11 BOARD MEMBER CHENEY: Could you amplify
12 that please? By what form did that expression take?

13 MS. SIMOLLARDES: Three ways that I'm
14 aware of -- that I'm personally aware of. The first
15 is Agri-Mark's testimony in this case at the front
16 end. Mr. -- I'm not sure I'm going to pronounce his
17 name correctly -- Pcolar, testified about using
18 pipeline natural gas.

19 Second was a conversation that I had
20 directly with Agri-Mark asking about the use of
21 pipeline natural gas versus compressed natural gas;
22 and the third was the receipt yesterday of the letter
23 from Agri-Mark expressing that they went to CNG in
24 anticipation of the pipeline coming; and fourth would
25 be conversations that our key account rep has had

1 with Agri-Mark. That is only what he's relayed to
2 me. I have not heard that personally.

3 MR. DUMONT: I'm sorry to interrupt, but
4 I would ask her answers 2, 3, and 4 be stricken as
5 hearsay.

6 CHAIRMAN VOLZ: Ms. Hayden, did you want
7 to respond to that objection or do you want us to
8 just rule?

9 MS. HAYDEN: I would like the Board to
10 just rule.

11 CHAIRMAN VOLZ: Would you read that
12 answer back?

13 (The record was read as requested.
14 Off-the-record discussion.)

15 MS. HAYDEN: Mr. Chairman, if I may
16 comment, the Board -- while the Rules of Evidence
17 apply in Public Service Board proceedings, they don't
18 strictly apply. Under the Administrative Procedures
19 Act 3 V.S.A. Section 810 the Board can rely on
20 information if it would help the Board in
21 understanding -- if it's information that's commonly
22 relied upon by reasonably prudent men or women, and I
23 think in her capacity as senior executive at the
24 company, and she's been asked this question multiple
25 times by the parties in the proceeding, what were

1 Agri-Mark's intentions, what are they, what are they
2 doing today, I think that the information that she's
3 relayed to the Board falls squarely within this
4 provision of the Administrative Procedures Act.

5 CHAIRMAN VOLZ: Okay. Thanks. We're
6 going to overrule the objection. I mean we're
7 talking here about her general awareness of what the
8 demand is for the product. That's one of the issues
9 in the case, and so I think it's appropriate for us
10 to hear what the company's awareness is of that
11 demand.

12 BOARD MEMBER CHENEY: You said in part
13 of one of your answers that Agri-Mark expressed this
14 preference at the front end. What did you mean by
15 the front end?

16 MS. SIMOLLARDES: I'm sorry. In the
17 hearings in September of 2013.

18 BOARD MEMBER CHENEY: And moving more
19 generally beyond Agri-Mark to other customers who are
20 currently using compressed natural gas, since the
21 cost estimate was announced in December of 2014 have
22 any potential future customers in Addison County who
23 are known to have expressed a preference by natural
24 gas by pipeline in the past as opposed to trucked
25 natural gas reiterated that preference since the cost

1 increase was announced?

2 MS. SIMOLLARDES: Other than what I just
3 relayed about Agri-Mark, I have no personal knowledge
4 of anybody articulating an express preference one way
5 or the other just simply because I haven't asked. I
6 do note that what Mr. Rendall testified to yesterday
7 is that there's still a fairly significant cost
8 premium for CNG, in the order of about \$6 a MMBtu,
9 over piped gas.

10 BOARD MEMBER CHENEY: And is that
11 comparison based on the current per BTU price for
12 natural gas regardless of any potential rate
13 increase?

14 MS. SIMOLLARDES: That's correct.

15 BOARD MEMBER CHENEY: Thank you.

16 MS. TIERNEY: Ms. Simollardes, June
17 Tierney. I have a few questions for you. I would
18 like to start by asking your counsel to provide you
19 with a copy of Ms. Peyser's testimony dated May 28.
20 There's an exhibit attached to that testimony. It's
21 been identified for the record as NP-2R-Peyser-12.
22 It's a Memorandum of Understanding among NG
23 Advantage, the Department of Public Service, and
24 Vermont Gas Systems. So we'll take a moment to pull
25 the document.

1 MS. HAYDEN: This is in the direct?

2 MS. TIERNEY: The May 26th testimony
3 that's been filed by Ms. Peyser in this docket.

4 MR. MARSHALL: That's NP-Peyser-12.

5 MS. TIERNEY: Indeed. If I could ask
6 you to drop down to the fourth whereas on the first
7 page and just review that for a moment.

8 MS. SIMOLLARDES: I want to make sure
9 I'm on the right one. The whereas that moves on to
10 page 2?

11 MS. TIERNEY: Indeed.

12 MS. SIMOLLARDES: Yes.

13 MS. TIERNEY: So my questions at the
14 outset will follow up a little on Board Member
15 Cheney's questions, and for Mr. Dumont's benefit I
16 will be asking about the understanding that you have
17 as opposed to actual quotations that would be
18 hearsay.

19 Ms. Simollardes, the fourth whereas says
20 the company will offer only interruptible service and
21 will require customers to either maintain dual fuel
22 capability or acknowledge the need to shut down
23 during interruptions. The term customer as used in
24 this Memorandum of Understanding, MOU, means Vermont
25 customers. Does not include non-Vermont customers.

1 Could you please explain your
2 understanding as to why NG Advantage offers only
3 interruptible service?

4 MS. SIMOLLARDES: Again based on my
5 understanding, there are two reasons Energy (sic)
6 Advantage only offers interruptible service
7 particularly at the time this Memorandum of
8 Understanding was entered into, which I have to check
9 the date, two years ago -- oh, three years ago now,
10 2012.

11 MS. TIERNEY: Before you go any further
12 you said Energy Advantage. You meant NG Advantage?

13 MS. SIMOLLARDES: NG Advantage. Yes.

14 MS. TIERNEY: Thank you.

15 MS. SIMOLLARDES: At that time NG
16 Advantage's source of natural gas was on the Vermont
17 Gas system and their service from us. The service
18 that they elected to take from us was interruptible.
19 So since the source was interruptible the resale
20 should have been interruptible. So that's one
21 potential source of an interruption.

22 The other would be because CNG arrives
23 by truck rather than pipeline there is a degree of
24 reliability difference there because trucks are
25 subject -- could be subject to weather impacts, et

1 cetera. So this MOU was designed to make -- just to
2 make sure that any customer taking CNG service from
3 Energy (sic) Advantage was well aware that it needed
4 to be interruptible.

5 MS. TIERNEY: Okay. So was that whereas
6 in the document to your knowledge a reflection of
7 facts on the ground about the nature of interruptible
8 service and the consequences it intended or was that
9 designed to ensure that NG Advantage only offers
10 interruptible service?

11 MS. SIMOLLARDES: This was designed to
12 be the facts on the ground, and again I'm doing this
13 from memory, but my recollection is either in this
14 MOU or in the Board order it opens the door for a
15 different type of service from Energy (sic)
16 Advantage, but it says you would have to come back to
17 the Board for review to exercise their authority.

18 MS. TIERNEY: More generally now, and
19 this has nothing to do with the exhibit in front of
20 you, for the benefit of the record and the framework
21 within which we are reviewing this matter could you
22 speak a little to the difference between what it
23 means to offer firm service as opposed to
24 interruptible service; what it means to take firm
25 service as opposed to interruptible service?

1 MS. SIMOLLARDES: So firm customers are
2 entitled to service 365 days a year no matter how
3 cold it gets, and Vermont Gas, as the utility serving
4 those customers, is expected to maintain a
5 distribution system and adequate supply to ensure
6 that will occur.

7 Interruptible customers, on the other
8 hand, are -- receive service on essentially an
9 as-available basis, and Vermont Gas has the right on
10 two hours notice to call up one of those customers
11 and ask them to convert to their alternate fuel which
12 in turn frees up capacity on our system and frees up
13 supply on our system to maintain that firm level of
14 service with the other customers.

15 MS. TIERNEY: Similarly can you explain
16 a little bit why one might have a need for dual fuel
17 capability?

18 MS. SIMOLLARDES: Depending on the
19 customer, the interruptible customer, the dual fuel
20 capability ensures that when Vermont Gas makes that
21 call and they convert on two hours notice that they
22 can continue to meet their energy needs instead of
23 completely shutting down.

24 MS. TIERNEY: Being stranded and not
25 having energy you mean?

1 MS. SIMOLLARDES: Being stranded and not
2 having energy, and particularly because interruptible
3 customers are normally curtailed during the winter,
4 and while many of them are using natural gas for
5 process related matters, not heating related matters,
6 some of them are also using it for heat.

7 MS. TIERNEY: Can you speak to what
8 advantages, if any, there are to having dual fuel
9 capability as opposed to need? Is there an advantage
10 to it?

11 MS. SIMOLLARDES: Well I think the
12 advantage for a Vermont Gas customer is that the
13 interruptible rate is materially lower than the firm
14 rate. So they achieve an economic advantage, and
15 then there's the operational advantage of if you have
16 dual fuel at the time Vermont Gas interrupts or
17 curtails you, you don't need to have a business
18 interruption. You can continue with your business,
19 whether be it process or thermal, and while I may not
20 like the third advantage, I suppose a third advantage
21 is that at some point in time you deemed natural gas
22 no longer to be the fuel that you choose to use, you
23 are ready and able to convert back to your alternate
24 fuel right at that time.

25 MS. TIERNEY: That leads nicely into my

1 next question which was can dual fuel capability be
2 useful to households that heat with wood, for
3 instance, or with wood pellets or with electricity?

4 MS. SIMOLLARDES: Yes. I believe that
5 dual fuel capability is useful for many customers. I
6 mean choice is just a good thing. People can use the
7 fuel or the resource that they see fit at that time.

8 MS. TIERNEY: I would like to ask you
9 just a question about testimony that was filed by
10 Barbara Wilson in this proceeding at this stage.
11 Have you reviewed Ms. Wilson's testimony?

12 MS. SIMOLLARDES: I have.

13 MS. TIERNEY: I don't believe you will
14 need a copy of her testimony, but if you do, your
15 counsel will provide it to you.

16 I'm going to quote from Ms. Wilson's
17 testimony dated May 6 page 34 lines 18 through 19.
18 Ms. Wilson is speaking in the context of customers
19 who might convert to natural gas, become Vermont Gas
20 customers, and therefore be locked in. I believe her
21 phrase was held hostage to Vermont Gas.

22 She writes at least by using fuel oil or
23 propane a customer can prebuy the fuel during the
24 time of the year that prices are the lowest. What
25 answer would you give to that observation?

1 MS. SIMOLLARDES: I have a couple of
2 comments on that. I think I'll take them in reverse
3 order. The opportunity to quote prebuy when price is
4 at their lowest starts with an assumption that any
5 one of us can predict when prices are the lowest.
6 The prebuy gives you price certainty. It does not
7 necessarily give you the lowest price. Sometimes
8 customers win on a prebuy. Sometimes customers lose.

9 It also assumes that there is no such
10 prebuy on the gas side, and I actually think there is
11 something very similar. It's just done behind the
12 scenes and invisible to our customers in many ways,
13 and that is the utilization of underground storage.
14 So we too are buying significant quantities of gas in
15 the summertime, which I infer from Ms. Wilson that
16 she talking about the summertime. We too buy
17 significant quantities of natural gas in the summer.
18 We inject it into underground storage and we withdraw
19 it in the winter to -- for the benefit of our
20 customers.

21 The first part of that statement about
22 being captive, yes, an investment in a heating system
23 is a long term investment for a customer. Typical
24 heating system life is 20 years. So I agree that if
25 a customer purchases a heating system, they are

1 likely going to remain a Vermont Gas customer for 20
2 years. I don't view that as being captive. At the
3 time that heating system ends, they can replace it.
4 They could use supplemental fuel like we were just
5 talking about, whether it was wood or even a heat
6 pump, and for those customers that do not choose to
7 replace their heating system but rather rent a
8 conversion burner or the propane customers with the
9 change out is so minor it's a very easy conversion
10 back to their original fuel.

11 MS. TIERNEY: If I could ask you to
12 return to Ms. Peyser's May 28th testimony, I don't
13 think you will need to refer to her testimony, but
14 that's what we're going to be talking about.

15 MS. SIMOLLARDES: I have it here.

16 MS. TIERNEY: At page 12 of her May 28th
17 testimony Ms. Peyser writes at lines 7 through 11
18 where she discusses the fact that Vermont Gas has not
19 updated its natural gas uptake projections since
20 2012. Could you simply tell us why you have not done
21 that?

22 MS. SIMOLLARDES: We've not done an
23 update since 2012 because our 2012 forecast was -- or
24 projection rather was based on a count of the
25 structures that were in place in Vergennes and

1 Middlebury at that time. It wasn't based on any
2 projection of underlying economic growth. So there
3 was that degree of conservatism built into it because
4 I do think there will be growth in those areas over
5 time.

6 Secondly, the penetration rates that we
7 assumed in that market were conservative to start
8 with. We started at 40 percent and I believe it grew
9 to just over 70 percent over 20 years, and when I
10 look at what our penetration rates have been in new
11 markets even when our competitive position was not as
12 great as it was when we first prepared the 2012
13 numbers, those penetration rates are still
14 reasonable. They are probably not as conservative as
15 I thought they were when we proposed them in
16 December, but I think they are still reasonable based
17 on our past experience.

18 MS. TIERNEY: I want to make sure I
19 understood this point because what I understood Ms.
20 Peyser to be saying was the company is not cognizant
21 of current market demand. That it's done no studies
22 to ascertain as of say a month ago or three months
23 ago or five months ago what the market demand is for
24 its product as opposed to say in July of 2013 or the
25 like.

1 I understood your answer to be that your
2 original market projection had to do with looking at
3 physical structures and making conservative
4 assumptions based on your experience in building out
5 in other markets. I infer from that, that you
6 basically had a very physical approach to estimating
7 the market that has not changed since 2012. The
8 structures are still there, for instance. Is that
9 right?

10 MS. SIMOLLARDES: That's correct. Had
11 our 2012 data been based on market research studies,
12 for example, then we would have needed -- I could see
13 where you say you need to redo those, but we never
14 based our market demand on -- on research studies.
15 We based our market demand on a count of the
16 buildings that were in place and we applied
17 saturation rate to that count.

18 MS. TIERNEY: And just to be clear you
19 mean your projection of market demand?

20 MS. SIMOLLARDES: Our projection of
21 market demand.

22 MS. TIERNEY: Thank you. I would ask
23 you now to refer to the May 28th testimony at page 11
24 lines 18 through 22. If you could turn to that.

25 MS. SIMOLLARDES: I'm sorry. Whose

1 testimony?

2 MS. TIERNEY: Ms. Peyser's.

3 MS. SIMOLLARDES: Could you repeat the
4 page number please?

5 MS. TIERNEY: Page 11 lines 18 through
6 22.

7 MS. SIMOLLARDES: Yes.

8 MS. TIERNEY: In that passage Ms. Peyser
9 testifies quote, the rate reductions achieved by
10 Vermont Gas were more likely achieved through a
11 combination of the Canadian National Energy Board's
12 decisions curtailing TransCanada's high interim tolls
13 after 2012 and falling price of natural gas, both of
14 which have a heavy impact on the cost of service
15 through the gas charge, deferral of costs approved by
16 the PSB, and a shifting of costs from day-to-day
17 options through overhead and other measures.

18 Do you have an understanding as to which
19 rate reductions Ms. Peyser is referring to in this
20 paragraph?

21 MS. SIMOLLARDES: I don't know
22 specifically which rate reductions she's referring
23 to. I can infer that she's reacting to public
24 statements the company has made about having 15
25 percent rate reductions since January 2012 given that

1 she's talking about after 2012, and we have made
2 those statements publicly.

3 MS. TIERNEY: Above that passage Ms.
4 Peyser testifies, and there is actually no evidence
5 that VGS has exercised approved cost controls in its
6 day-to-day operations except affirmative statements
7 by VGS to this effect.

8 From the lines that follow I understand
9 Ms. Peyser's testimony to mean that to the extent
10 that you folks have had rate reductions then because
11 of factors that are outside your control. Do you
12 have an answer to this?

13 MS. SIMOLLARDES: The most immediate
14 answer I would have is we adjust our non-gas rates,
15 I'll refer to those as our base rates, our daily
16 access charge, and our distribution charge, once a
17 year, and it was adjusted last in October of 2013 and
18 that was a reduction.

19 MS. TIERNEY: If I could ask you to --
20 I'm going to ask you a couple questions now about Ms.
21 Peyser's May 6th testimony. I don't believe there
22 will be a need for the testimony, but if your counsel
23 can be ready to give it to you, that would be great.

24 Well to put this in context yesterday
25 when Mr. St. Hilaire was on the stand he was asked a

1 series of questions about TCPL tolls and I would like
2 to follow up a little bit with you. At page 12 of
3 her May 6th testimony at lines 6 through 9 Ms. Peyser
4 expresses concern about TCPL toll risk. I understood
5 the testimony to be saying that the project is likely
6 to result in customers who take service as a result
7 of the project constructed are facing additional rate
8 pressure upward because TCPL tolls could go up, and
9 my question to you is assuming that's the case that
10 such a rate reduction risk exists, is that risk new
11 to the company as a result of constructing this
12 project?

13 MS. SIMOLLARDES: It is not.

14 MS. TIERNEY: Is it a risk that exists
15 today?

16 MS. SIMOLLARDES: Yes.

17 BOARD MEMBER HOFMANN: And can you tell
18 us how Vermont Gas deals with that risk?

19 MS. SIMOLLARDES: Mr. St. Hilaire
20 manages our gas supply, but I had that responsibility
21 for a while so I will give my best shot, and if
22 anything I say afterwards is incorrect, we will
23 correct it, but one of the things that Vermont Gas
24 has done, as Mr. St. Hilaire testified to yesterday,
25 is we have migrated our supply portfolio away from

1 long haul tolls, which for background long haul is
2 referred to buying at Empress, Alberta and bringing
3 it to Phillipsburg, Vermont. That's the longest path
4 on the TransCanada system, and because TransCanada is
5 primarily a mileage based system that is a more
6 expensive path, and we have migrated to short haul
7 capacity and buying our gas and holding capacity from
8 the Don Parkway point to the Phillipsburg point. So
9 we have mitigated our TransCanada price risk by
10 migrating our supply.

11 MS. TIERNEY: In that same general topic
12 but on page 15 lines 12 through 13 of Ms. Peyser's
13 May 6th testimony, Ms. Peyser also expressed concern
14 about the potential conversion of the TCPL main line
15 from natural gas to tar sands, and I understood her
16 testimony to be that if such a conversion occurred,
17 that the company would be at risk of not having
18 adequate supplies because the pipeline used to get
19 product to Vermont Gas would be converted to a
20 different use. Could you speak to whether that risk
21 is new to the company as a result of constructing
22 this project?

23 MS. SIMOLLARDES: That is not a new risk
24 to the company as a result of this project, nor is it
25 a risk that we are concerned about. You heard Mr.

1 St. Hilaire testify that we have acquired additional
2 TransCanada capacity already. As a matter of fact, I
3 know there's a record request about converting the --
4 our MCF to GJs. That -- we will be following up on
5 that.

6 MS. TIERNEY: I want to make sure I
7 understood that though because you just said it's a
8 risk you're not concerned about and yet your answer
9 implied to me it is a risk that you have acknowledged
10 and that you have planned for.

11 MS. SIMOLLARDES: Which is why I'm not
12 concerned about it. We have already bid into the
13 TransCanada system for incremental capacity to serve
14 our market. So from our perspective we have secured
15 sufficient TransCanada capacity to meet our firm peak
16 day needs.

17 MS. TIERNEY: And these are actions that
18 you have taken to secure adequate supply for your
19 customers period, not uniquely for potential
20 customers of this pipeline should it be constructed;
21 is that correct?

22 MS. SIMOLLARDES: That's correct.

23 MS. TIERNEY: I have one last question
24 for you concerning your own testimony. Page 3 --
25 this is your January 15th testimony -- at lines 14

1 through 17 there's a box. Do you see that?

2 MS. SIMOLLARDES: I do.

3 MS. TIERNEY: And the first line of it
4 reads construction related benefits 48.4 million in
5 the 20-year NPV column. I read that and I said to
6 myself where was this in 2013? Where was this in
7 2014 in the fall when we were looking at the
8 estimated benefits of this project? To my knowledge
9 the company has not included this factor in its
10 assessment of benefits to date from the project. Is
11 my perception correct?

12 MS. SIMOLLARDES: It clearly was not
13 included in the first remand in this proceeding. We
14 did not have a construction related benefit line
15 item.

16 MS. TIERNEY: May I ask why you have it
17 now?

18 MS. SIMOLLARDES: Because with a 30
19 million dollar increase in the project cost I wanted
20 to be able to demonstrate that there was economic
21 benefit, and construction related impacts are a
22 benefit that should be considered.

23 MS. TIERNEY: So I would take that to
24 mean this is a benefit the company could have been
25 citing all along then, maybe not at this magnitude

1 but --

2 MS. SIMOLLARDES: Correct.

3 MS. TIERNEY: Thank you. I have no
4 further questions.

5 MR. MARREN: I just have two questions.
6 Good morning, Ms. Simollardes. Jake Marren. Could
7 you please explain the reason why VGS's estimate of
8 the economic value of GHG reductions attributed to
9 the project were revised downward from 27 million to
10 20.8 million in your rebuttal testimony?

11 MS. SIMOLLARDES: Yes. Mr. Bluestein
12 testified yesterday that he had revised his life
13 cycle cost analysis, and I used his revised figure in
14 rebuttal and I had used his original number in my
15 first testimony consistent with what I did in the
16 first remand.

17 MR. MARREN: And the only change to your
18 analysis was the use of Mr. Bluestein's number?

19 MS. SIMOLLARDES: Correct. I changed
20 nothing else.

21 MR. MARREN: Thank you.

22 MR. YOUNG: Good morning, Ms.
23 Simollardes.

24 MS. SIMOLLARDES: Good morning.

25 MR. YOUNG: I want to start with the

1 topic of your economic analysis, and there are a
2 number of different presentations in your -- in your
3 testimony. Is the -- is the company's current
4 analysis basically that reflected in your May
5 testimony at page 7 through 8? Is that where I
6 should be looking?

7 MS. SIMOLLARDES: The company's current
8 estimate of economic benefits is in my rebuttal
9 testimony demonstrating 71 million on a net present
10 value basis after 20 years, 191 million after 35
11 years, and 319 million after 55 years.

12 MR. YOUNG: Okay, and that's the table
13 at the bottom of page 7 top of page 8?

14 MS. SIMOLLARDES: Correct.

15 MR. YOUNG: I want -- so I should look
16 at this rather than the different figures you have on
17 energy savings and other things in your previous
18 testimony, correct?

19 MS. SIMOLLARDES: I agree. I think this
20 would be the company's position on economic benefit
21 as we sit here today.

22 MR. YOUNG: Okay, and the first item on
23 there is the one I want to talk about first which is
24 your Addison County energy savings. As you know it's
25 an issue that has been debated by a number of the

1 parties here as to your projected energy savings.
2 When you calculate this number what do you assume as
3 the spread in energy prices between natural gas and
4 other fuels?

5 MS. SIMOLLARDES: You've actually asked
6 the critical question which is the differential
7 between natural gas and other fuels as opposed to
8 absolute price of fuel oil, propane, or natural gas.
9 So I don't have the spreadsheet, but I can tell you
10 how -- what I used and then you can -- we can infer
11 it from there is I used the average of December
12 through April prices in Vermont for fuel oil and
13 propane as a starting point, and I used the Vermont
14 Gas prices for April, and then we escalated that at
15 the change in the EIA 2015 annual energy outlook
16 nominal prices for New England by rate sector.

17 So that showed a narrowing of the delta
18 between -- and for right now I just looked -- no
19 that's not true. I did look at fuel oil and propane.
20 It showed a narrowing of the delta between fuel oil
21 and propane as of the time this testimony was written
22 and the first remand, a fairly substantial narrowing,
23 and that narrowing continues for five to six years,
24 and then broadens thereafter, and that is consistent
25 with -- well I only used the EIA.

1 Yesterday there was a series of
2 conversations about fuel oil forecasts and any of
3 those that had a natural gas price in it also you
4 could see the exact same dynamic. The delta between
5 fuel oil and natural gas today versus whatever the
6 end point was in those forecasts that were discussed
7 broadens. So it's narrow now. Broadens over time.

8 CHAIRMAN VOLZ: The December to April
9 what years?

10 MS. SIMOLLARDES: I'm sorry. December
11 2014 to April 2015.

12 CHAIRMAN VOLZ: Thanks.

13 MR. YOUNG: When you're doing that
14 comparison am I correct that essentially you're
15 converting everything into BTUs and doing a BTU
16 equivalent?

17 MS. SIMOLLARDES: That's correct. I
18 start by rate class and the data that I know off the
19 top of my head is the residential class. We assume a
20 thousand -- we assume 1000 CCF or 100 MCF which is
21 equivalent to 724 gallons of fuel oil and 1092
22 gallons of propane. So I put everything on a MMBtu
23 basis.

24 MR. YOUNG: And you just testified the
25 spread had narrowed. Do you have any rough estimate

1 of the percentage differential at the present time?

2 MS. SIMOLLARDES: I believe the DPS Fuel
3 Price Reporter for right now shows something like a
4 23 to 25 percent competitive advantage over fuel oil
5 and 47, 48 over propane, and we were -- at the time
6 of the first remand it was 41 percent over fuel oil
7 and 53 over propane. So the starting point has
8 definitely compressed, but the forecast out shows it
9 widening again after five to six years.

10 MR. YOUNG: Now as I recall Dr. Hopkins'
11 testimony stated that he thought that spread was
12 about 25 percent after factoring in the potential
13 rate increase. The number you just gave was before a
14 potential rate increase.

15 MS. SIMOLLARDES: Because it's a spot in
16 time. It's a June number. If you look over an --
17 average it over a couple of months, I would agree
18 with Dr. Hopkins's observation.

19 MR. YOUNG: And your assumptions about
20 the likely behavior of potential customers if the
21 pipeline is constructed is based upon that fuel
22 spread?

23 MS. SIMOLLARDES: Not exactly. We have
24 spent a lot of time talking about customer economics
25 in this case. Vermont Gas didn't say if the percent

1 is x, then we're going to get y conversions. We did
2 -- we based it on historical information, but we need
3 to recognize that customers make decisions on things
4 other than price. Yes, it is easier to get
5 conversions when the spread is 50 percent than it is
6 when it's 25. I will agree with that, but we had
7 very conservative conversion ratios in there anyway,
8 and there are other things that customers will
9 consider like regulated service, like pipeline
10 delivered instead of truck delivery, the availability
11 of energy efficiency programs, environmental. There
12 were just other things that customers will consider.

13 MR. YOUNG: I think I probably asked the
14 question the wrong way, but what I was trying to get
15 at was when I look at your number of 159.8 basically
16 you used the current spread to calculate that number.

17 MS. SIMOLLARDES: I did, yes, to
18 calculate the energy savings. That's exactly what I
19 used.

20 MR. YOUNG: Your -- your assumption
21 about conversions you didn't adjust from the previous
22 estimates; is that correct?

23 MS. SIMOLLARDES: That's correct. I
24 made no change in the underlying load forecast for
25 the calculation of those energy savings.

1 MR. YOUNG: Do you think it is possible
2 that the narrowing of the spread would reduce the
3 number of conversions based upon your experience or
4 do you have no basis for answering that?

5 MS. SIMOLLARDES: On page 17 of my
6 rebuttal testimony I have a graph that I thought was
7 perfectly clear. I have since had people tell me
8 that it's not quite as intuitive as I thought it was,
9 but that graph, the blue line on that graph shows our
10 competitive position to oil. The red bars show what
11 our actual customer conversions were in any given
12 year, and you can see in the period of 2005 to 2009
13 where our competitive position relative to fuel oil
14 was anywhere from 10 to 30 percent, which we're at
15 the high end of that range now, we still added over a
16 thousand customers a year.

17 MR. YOUNG: Did -- I think in questions
18 from Ms. Tierney you stated that you had looked at
19 the testimony presented by Ms. Wilson; is that
20 correct?

21 MS. SIMOLLARDES: I have read Ms.
22 Wilson's testimony. Yes.

23 MR. YOUNG: She reaches a very different
24 conclusion on the likely savings and that spread. Do
25 you have any comments on that?

1 MS. SIMOLLARDES: Well I was not able to
2 follow Ms. Wilson's testimony point for point. I did
3 look at her savings estimates and I just
4 fundamentally come to a different conclusion using
5 the Vermont Gas data and the Department of Public
6 Service data.

7 There's one statement in Ms. Wilson's
8 testimony where it's a comment about, you know, if
9 Bill Gates was in the room and you said the average
10 income was x, and the implication being that that one
11 very rich person pulls it up. I want to be clear
12 when I talked about household savings I was not
13 including at any time the savings associated with the
14 large industrials. When we talked about those
15 average savings those were household savings not
16 including the weighting for the large industrials.
17 When I talk about overall savings we were just
18 referencing on my testimony, of course those include
19 savings associated with those large customers.

20 MR. YOUNG: Now one of the topics that
21 we were discussing yesterday was the fact that some
22 customers have already switched to compressed natural
23 gas; is that correct?

24 MS. SIMOLLARDES: Correct.

25 MR. YOUNG: And other parties have

1 suggested this means the savings have occurred
2 already, and I understand that in your view the
3 proper baseline assumes no CNG, but has VGS attempted
4 to make an analysis or adjust its economic analysis
5 on the assumption that use existing CNG sales as the
6 baseline instead?

7 MS. SIMOLLARDES: No. We did not do
8 that analysis.

9 MR. YOUNG: Do you have any rough
10 estimate as to how that might affect your
11 calculations here?

12 MS. SIMOLLARDES: It would -- let me
13 think about this. So it would do a couple of things.
14 It would -- if we -- so we've already established I
15 don't agree that's the baseline so I don't need to
16 repeat that, but if we were to do that, the energy
17 savings would decrease because we would be starting
18 from a lower price fuel. Yeah, some of the energy
19 savings would have already been realized by the
20 customers. The greenhouse gas savings would
21 decrease, but while Vermont Gas did not do the fuel
22 oil provider piece, I would say the fuel oil provider
23 impacts that some other parties in this case have put
24 forth those would also have to decrease because that
25 impact's already been realized, and I don't know how

1 you would net all those out.

2 MR. YOUNG: On page -- well I actually
3 don't need you to talk to the page. We'll just talk
4 about conceptually. Your estimate now includes costs
5 of the distribution network and service lines,
6 correct?

7 MS. SIMOLLARDES: Our estimates have
8 always included that. It's just when -- it depends
9 on where you are talking about it. So from the very
10 first time we talked about this project we always had
11 the distribution networks and service lines in our
12 economic analysis. They were not in the dollar value
13 that was before the Board for the 248, but that is
14 not a change in methodology or a change in
15 assumption.

16 MR. YOUNG: So were those figures
17 presented last September when we had the hearings?

18 MS. SIMOLLARDES: Yes they were.

19 MR. YOUNG: As part of the cost?

20 MS. SIMOLLARDES: Yes. Let me be clear.
21 The 121 did not include the distribution networks and
22 the 153 does not include the distribution networks,
23 but in each case any analysis we did included the
24 distribution networks.

25 MR. YOUNG: That's how you get from the

1 159 -- actually sorry. The project cost goes to 162
2 instead of the 153.

3 MS. SIMOLLARDES: That's correct. I
4 just don't want somebody to assume that's an increase
5 in cost. That was a cost that was always there. It
6 was just depending on where we were talking about it.

7 MR. YOUNG: When you're saying the
8 distribution network and service lines are those just
9 in the Middlebury and Vergennes areas?

10 MS. SIMOLLARDES: Because we have only
11 included customers for Vergennes and Middlebury we
12 only included the distribution networks for Vergennes
13 and Middlebury.

14 MR. YOUNG: So looking out over time you
15 would expect to incur -- have further costs
16 associated with the distribution networks in Monkton,
17 Bristol, and other towns?

18 MS. SIMOLLARDES: Correct, and we would
19 expect to have customers associated with those
20 distribution networks.

21 MR. YOUNG: You've reviewed Dr. Dismukes
22 testimony, correct?

23 MS. SIMOLLARDES: We disagree with Dr.
24 Dismukes's methodology. Correct.

25 MR. YOUNG: I understand you disagree

1 with his methodology. I was actually getting to a
2 more narrow part of his testimony and he presented --
3 do you have exhibit F to his testimony?

4 MS. SIMOLLARDES: Not in front of me,
5 but I'm sure I can get it. I'm sorry. To his
6 initial testimony?

7 MR. YOUNG: I believe it's initial. Let
8 me just get to the right page. Let me strike that.
9 I think I have mixed up my notes here and we'll come
10 back to this issue later. I'm informed we're going
11 to take a break shortly so that will solve the
12 problem.

13 One of the things your analysis over
14 time has shown is that the net present value benefits
15 have declined and that's a direct effect of both oil
16 price changes and increased costs, correct?

17 MS. SIMOLLARDES: Correct.

18 MR. YOUNG: And I don't know whether I'm
19 better off asking you this question or whether Mr.
20 Rendall is in a better position to answer it. Is
21 there a point at which that benefit declines such
22 that VGS would no longer advocate going forward with
23 this project?

24 MS. SIMOLLARDES: The problem with
25 answering yes to that question is the follow up of

1 well what is it, and that's the part I can't answer.
2 I apologize for the folks in the back. I didn't
3 realize my microphone was off. I must have hit it
4 with the binder.

5 With an infrastructure project like
6 this, which is significant and is going to be in
7 place for many, many years to come, we can only
8 evaluate it with the information that's before us
9 now, and I have said this before. I firmly believe
10 that there are significant other benefits that have
11 yet to be realized or quantified associated with this
12 project, mostly in the area of economic development,
13 and I point to Franklin and Chittenden County and the
14 economic activity in that area, which I can't say
15 Vermont Gas should pat itself on the back and say
16 it's because we have the pipeline, but I do think
17 that that's a significant contributing factor, and
18 while what's before this Board right now is phase
19 one, which is to Middlebury, the company has also
20 been very clear that we're interested in looking at
21 expanding further and bringing those benefits
22 further, and that is what the challenge is on saying
23 here's the value at which point we would say enough.
24 We have not monetized those potential future
25 benefits, and so sitting in my seat at my position I

1 can't answer that question more directly than I just
2 did.

3 MR. YOUNG: And I wasn't going to ask
4 you what that number was. I'll be straight forward.
5 What I did want to be clear the company is looking at
6 that overall benefit, and if from the company's
7 perspective you thought the number no longer provided
8 sufficient benefit you would change your position?

9 MS. SIMOLLARDES: I think that the
10 company's position, if we could no longer offer
11 affordable, competitive natural gas service to our
12 current and future customers, we would reconsider our
13 position.

14 CHAIRMAN VOLZ: We're going to take a
15 15-minute break.

16 (Recess.)

17 CHAIRMAN VOLZ: I think we were in the
18 process of questioning Ms. Simollardes and we have
19 some more questions.

20 MR. YOUNG: Okay. Now I can at least
21 get you to the right exhibit. You have read Mr.
22 Cota's testimony, correct?

23 MS. SIMOLLARDES: I have.

24 MR. YOUNG: Do you happen to have
25 exhibit F to his testimony?

1 MS. SIMOLLARDES: Not in front of me,
2 but I will momentarily.

3 MS. HAYDEN: This is May testimony?

4 MS. SIMOLLARDES: I don't believe he
5 filed rebuttal.

6 MR. YOUNG: May 6th I believe.

7 CHAIRMAN VOLZ: We have a copy.

8 MS. HAYDEN: I believe that's marked as
9 Attachment E.

10 MR. YOUNG: I was referring to F which
11 is the next page. I believe that's how it's referred
12 to in the testimony.

13 CHAIRMAN VOLZ: Yes. That page there.

14 MR. YOUNG: But it was referred to -- I
15 believe it was referred to in the testimony. I've
16 handed the witness the page. It's the one, Ms.
17 Hayden, you have in front of you.

18 MS. HAYDEN: Thank you.

19 MR. YOUNG: I was trying to explore the
20 issue of the price spread, and Mr. Cota presented
21 this table which basically shows a calculator from
22 your web site that produces no cost savings, and I'm
23 trying to understand with the price spread that
24 you're talking about how do you end up with that
25 result or is there -- you know this is something that

1 we -- that should not inform our judgment for some
2 reason?

3 MS. SIMOLLARDES: So the savings that a
4 customer will realize will be dependent on the amount
5 of fuel that they use. Vermont Gas has a three-part
6 rate structure including a daily access charge, a
7 natural gas charge, and a distribution charge. The
8 daily access charge is not dependent on the amount of
9 gas you use. So a customer that uses one CCF of gas
10 is going to incur that daily access -- or zero CCF of
11 gas will incur that daily access charge with very
12 limited savings. So the gallons of oil shown here of
13 234 is very, very low compared to what an average
14 household would use and accordingly shows no savings,
15 and that I'm confident is because of the calculation
16 -- the inclusion of the daily access charge in
17 Vermont Gas's savings calculations.

18 MR. YOUNG: So basically do I assume low
19 volume customers are unlikely to -- are customers
20 you're not assuming you're likely to switch to
21 Vermont Gas or less likely to switch?

22 MS. SIMOLLARDES: Less likely to switch
23 for straight price reasons.

24 MR. YOUNG: Thank you. Let's move to
25 the question of the rate analysis, and I want to move

1 you to, I believe it was in your initial testimony,
2 and it's exhibit supplemental EMS 2, and then your
3 rate analysis attached to that.

4 MS. SIMOLLARDES: Yes.

5 CHAIRMAN VOLZ: And just to preface all
6 of this I understand that your testimony states this
7 is not a rate proposal, and so you don't need to
8 remind me of that.

9 MS. SIMOLLARDES: Okay.

10 MR. YOUNG: But as I look at this the
11 schedule appears to show, and I believe this is the
12 fifth page, when I get to the fifth page, that you're
13 likely to see a -- if you were to flow through all of
14 your costs, you would see approximately a 15.1
15 percent rate increase; is that correct?

16 MS. SIMOLLARDES: An initial 15.1
17 percent rate increase followed by a rate decrease of
18 approximately 4 percent 10 years later.

19 MR. YOUNG: And at the same time you
20 would also be drawing a certain amount from the SERF
21 fund?

22 MS. SIMOLLARDES: The pages that you're
23 looking at on that exhibit do assume we're utilizing
24 the SERF to cover the difference in carrying costs
25 for that period.

1 MR. YOUNG: And for that you're drawing
2 down -- well your number here is 925,949; is that
3 correct?

4 MS. SIMOLLARDES: I'm sorry. Can you
5 point me to that number?

6 MR. YOUNG: It's on the page that I was
7 referring to. I believe it's the fifth page of your
8 exhibit right at the bottom under -- never mind.
9 Wrong column. So for -- actually let me withdraw
10 that question because I was looking at the wrong
11 column when I was writing that.

12 Now in your January testimony on page 7
13 you state that the difference from now -- of this
14 rate increase from previous -- your previous estimate
15 was 3.2 percent impact over 10 years. Do you recall
16 that testimony?

17 MS. SIMOLLARDES: I do.

18 MR. YOUNG: And given that the previous
19 assumption was 10.2 percent and we're now at 15.1 it
20 seems to me it's 4.9 percent higher or are you doing
21 a different type of math?

22 MS. SIMOLLARDES: I am doing a different
23 type of math. The first year rate impact, you are
24 correct, goes from 10.2 to 15.1, but because the fund
25 is in play here it's important to make sure that for

1 any analysis to have apples to apples that you end up
2 with comparable fund balances, otherwise, you've got
3 more or less investment funded by rate changes.

4 So the first remand proceeding had a
5 10.2 percent rate increase followed by a 2.3 percent
6 rate decrease in year 10. To put this analysis on an
7 apples-to-apples comparison I had a 15.3 percent rate
8 increase in year one followed by a 4.1 percent
9 decrease. Accordingly over a 10-year period the
10 delta from the first remand to this is the 3.2.

11 MR. YOUNG: Okay. Now this analysis
12 assumes that all of the costs of the project are
13 essentially flowed through into rates; is that
14 correct?

15 MS. SIMOLLARDES: That's correct.

16 MR. YOUNG: And as of this time VGS
17 hasn't made any proposals concerning rate recovery
18 yet?

19 MS. SIMOLLARDES: We have not.

20 MR. YOUNG: And as of this time the
21 Board has not made any determinations concerning what
22 rates are appropriate for recovery; is that correct?

23 MS. SIMOLLARDES: That is also correct.
24 In fact, the remand order in particular made that
25 point very clear.

1 MR. YOUNG: Now earlier your testimony
2 and Mr. Rendall's testimony both state that there are
3 potential rate design options that you're
4 considering. At this time are you in a position to
5 tell us what some of the rate design options that
6 might mitigate rate impacts are or is that -- is it
7 too early?

8 MS. SIMOLLARDES: We heard Mr. Rendall
9 testify that nothing is off the table and there is a
10 laundry list of things that could be considered to
11 mitigate rate impact to customers. First and
12 foremost is constructing the project in the most cost
13 effective manner possible. The other is saturation
14 rates into the new market faster than we have assumed
15 here.

16 Then we'll get into what you could do in
17 terms of rate design. One is using the fund in a
18 strategic manner. The other would be looking at some
19 sort of a rate smoothing path in addition to the
20 fund. The third is, as Mr. Rendall said, this rate
21 impact here assumes our current capital structure and
22 a different capital structure would also have rate
23 mitigation impacts. I'm sorry. I forgot the other
24 is you could look at zoned rates in the Addison
25 market as opposed to spreading things evenly across

1 all customers.

2 MR. YOUNG: On that subject I believe I
3 asked either you or Mr. Gilbert about the possibility
4 of zoned rates in the last hearing, and if I'm not --
5 I could be mistaken, but I thought there was an
6 answer to the effect of basically with the smaller
7 customer volumes it may not make sense because it
8 would also reduce your differential in those areas.

9 MS. SIMOLLARDES: I'm trying -- I
10 remember the conversation. I just don't actually
11 remember whether it was with me or Mr. Gilbert, but
12 that is true. I wouldn't want to leave the
13 impression that zoned rates would eliminate the need
14 to do something else. Zoned rates would be a tool in
15 the toolbox to take a look at. The market is smaller
16 down there and you don't want -- you want to make
17 sure that customers still have an incentive to
18 convert, and we testified previously that there are
19 benefits to existing customers from this project. So
20 it's appropriate that existing customers would help
21 support it in some fashion.

22 MR. YOUNG: Moving on to -- actually
23 moving back to the broader topic of the overall
24 economics, Mr. Cota's testimony suggests that you
25 used an unrealistic figure for your average

1 displacement of fuel oil. I believe, according to
2 his testimony, you used 724 gallons, whereas, the
3 state average is 586. Do you recall that testimony?

4 MS. SIMOLLARDES: I do, but his -- the
5 state average that he was citing was -- included fuel
6 oil and kerosene and other factors. In my rebuttal
7 testimony I found a different citation that was
8 closer to the number that Vermont Gas used, and I
9 note that I think both Dr. Hopkins and Mr. Neme used
10 numbers that are closer to my level of assumed
11 consumption in their various analyses.

12 MR. YOUNG: You were here yesterday when
13 Mr. Heaps was testifying; is that correct?

14 MS. SIMOLLARDES: Correct.

15 MR. YOUNG: And one of the subjects that
16 came up at that time was the question of whether
17 there should be an adjustment for potential lost jobs
18 among people who are now selling fuel oil and
19 propane. Do you recall that?

20 MS. SIMOLLARDES: I do.

21 MR. YOUNG: And we heard Mr. Heaps'
22 testimony. My question is did VGS attempt to make
23 any adjustment to reflect that in the analysis that
24 you presented in your rebuttal testimony that we
25 started off talking about?

1 MS. SIMOLLARDES: No. Vermont Gas did
2 not include providing impacts in its testimony.

3 MR. YOUNG: Would you think in any
4 analysis that we should be taking that into
5 consideration? I understand that you may disagree on
6 the magnitude and that's a different question. Just
7 conceptually.

8 MS. SIMOLLARDES: Conceptually I think
9 that there's a -- there's room to consider some
10 degree of impact, provider impact from the conversion
11 to natural gas, but I think the reason this question
12 is so challenging is because there's many levels.
13 You know we also didn't include the positive provider
14 impact associated with the conversions that customers
15 will undertake to natural gas. We did include
16 obviously the construction related benefits for the
17 project, but we didn't include any analysis of a
18 potential bump in provider impact for the people that
19 will be doing actually the conversion work in
20 customers' homes. So yes I think there's -- I can
21 make an argument that it should be included.

22 MR. YOUNG: Let me switch to one other
23 topic and that's the -- Mr. Gross's compressed
24 natural gas island proposal. Did you review that?

25 MS. SIMOLLARDES: I did.

1 MR. YOUNG: And I noticed in your
2 testimony you didn't respond to his proposal at all;
3 is that correct?

4 MS. SIMOLLARDES: Correct.

5 MR. YOUNG: Do you agree with his -- do
6 you agree or disagree with his conclusion that that
7 presents a viable option that at least from his
8 testimony would be least cost?

9 MS. SIMOLLARDES: I do not agree that
10 compressed natural gas is a viable alternative to the
11 project. It doesn't allow service to residential and
12 small commercial customers. It doesn't advance some
13 of the goals in the state's energy plan for the
14 further expansion of natural gas because we would
15 then be limited -- we wouldn't be able to go to other
16 communities like Bristol, Monkton, New Haven off of
17 this line, and we would be leaving economic benefits
18 on the table for the customers that are using CNG
19 because CNG service is more expensive than pipeline
20 service and has a slightly greater environmental
21 footprint.

22 MR. YOUNG: Thank you very much.

23 CHAIRMAN VOLZ: We've finished asking
24 our questions for now. Does anybody have any
25 follow-up questions based on our questions?

1 MR. DUMONT: I do.

2 CHAIRMAN VOLZ: Mr. Dumont.

3 MR. DUMONT: Louise, do you want to go
4 first?

5 CROSS EXAMINATION

6 BY MR. DUMONT:

7 Q. Ms. Simollardes, when Mr. Young asked you is
8 there any point at which Vermont Gas would say we
9 shouldn't go forward, I believe your answer was well if we
10 found that we could no longer provide service at
11 affordable competitive rates then we would pull the plug?

12 A. No. That's not what I said.

13 Q. Okay. What did you say?

14 A. I said it would cause us to reconsider. The
15 operative word was consider. I didn't say we would pull
16 the plug.

17 Q. Okay. So if you found you could not provide
18 affordable and competitive rates, then you would
19 reconsider?

20 A. We would -- we would look at the project.

21 Q. If you could look at your exhibit 2 attached
22 to your January 15th testimony, page 3 of exhibit 2, in
23 September of 2013 you informed the Board that with the
24 assistance of the SERF fund you could avoid a substantial
25 rate increase, correct? This shortfall is intended to be

1 covered by the system expansion and reliability fund,
2 correct? That was 2013.

3 A. Which page are you on?

4 Q. Your exhibit 2.

5 A. Which page?

6 Q. Page 3 answer to question 2 from the Board.

7 A. Question 2. Yes.

8 Q. Okay. That's the before scenario, and the
9 after scenario where we are today is the last page of
10 exhibit 2 Updated Response for Budget Update of 12/19/14.
11 You're now saying assuming the SERF fund is used we still
12 project a 15 percent rate increase. So we've gone from if
13 we use the SERF fund we can avoid a 15 percent rate
14 increase to today where if we use the SERF fund we still
15 project the 15 percent rate increase.

16 Are you not at the point right now where you
17 need to reconsider whether you can provide affordable and
18 competitive rates?

19 A. We are not at that point right now. I have
20 testified that this rate impact was prepared in response
21 to very specific Board questions about an analysis. Both
22 Mr. Rendall and I have testified that Vermont Gas has no
23 intention of asking for a 15.2 percent rate increase
24 associated with this project, and in fact you have Mr.
25 Rendall's commitment that this company will maintain

1 competitive and affordable rates.

2 Q. The calculations that are -- you discussed
3 with Mr. Young your exhibit 3. Mr. Young showed he was
4 human like the rest of us. He actually read one of your
5 columns wrong which made me feel a little bit better.

6 Based on this calculation, this exhibit, that
7 you predict there would be a 15 percent rate increase
8 using the SERF money, correct?

9 A. I will repeat --

10 Q. With the same caveat.

11 A. Yes. That's what this model shows.

12 Q. You can perform the same kind of analysis to
13 show us what the potential rate impacts would be if there
14 is no use of the SERF fund, correct, and you have not --
15 you have chosen not to provide the Board --

16 A. No. Actually I disagree with that I've chosen
17 not to provide the Board with that. I, in fact, did
18 provide the Board with that and you have it in front of
19 you.

20 Q. Where do we find what the rate impacts will be
21 without any use of the SERF fund based on present data?

22 A. It is contained in Attachment Supplemental
23 1/15/15 Public Service Board VGS 1-1 and it is the number
24 that your witness referenced in his testimony.

25 Q. That's the 19 percent rate increase?

1 A. Yes, it is.

2 Q. Okay. Can we agree, therefore, that if the
3 SERF fund is not to be used that your calculations result
4 in a 19 percent rate impact?

5 A. With no adjustment for mitigation of any sort.

6 Q. And let's talk about -- so we have a complete
7 answer to Mr. Young's questions, all the answers you gave
8 Mr. Young assumed continuing withdrawals at the rate of
9 4.4 million dollars every year from the SERF fund,
10 correct?

11 A. They all assumed continuing withdrawals from
12 the SERF fund. They did not all assume at a rate of 4.4
13 million dollars per year.

14 Q. So we'll do this a step at a time. Your
15 answers to Mr. Young assumed continuing withdrawals from
16 the SERF fund up through year 35? Let me rephrase that.
17 Your answers to Mr. Young assumed continual payments into
18 the SERF fund by ratepayers up to year 35, correct?

19 A. Correct.

20 Q. And you've just said it may not be at the same
21 rate of 4.4 million dollars a year. It may change?

22 A. You've asked me two different things. One is
23 withdrawals from the fund and one is payments into the
24 fund. Payments into the fund are dependent on the volumes
25 of sales we sell. Withdrawals out of the fund are

1 dependent on the revenue shortfall that we're trying to
2 cover.

3 Q. Thank you for that important clarification.
4 As the SERF fund has been established, at current sales
5 rate you will receive from ratepayers 4.4 million dollars
6 every year for the next 35 years or as long as the SERF
7 fund exists, correct?

8 A. Correct.

9 Q. And so you're clarifying my question correctly
10 by saying how much of that we withdraw depends on other
11 factors?

12 A. Correct.

13 Q. So the answers you gave Mr. Young all assumed
14 continued withdrawals of at least 4.4 million dollars a
15 year from ratepayers -- payment by ratepayers of 4.4
16 million dollars?

17 A. Again those are two different points.
18 Payments into the fund at that level I agree with.
19 Withdrawals out of the fund at that level I do not.

20 Q. Right. Back to this basic question at what
21 point does the company at least consider pulling the plug,
22 based on your present analysis the new ratepayers to be
23 served by this pipeline won't produce enough cash to cover
24 their own costs until year 35, correct?

25 A. Somewhere between year 34 and 35. Correct.

1 Q. So they are not going to start paying back the
2 other ratepayers until year 36, correct?

3 A. They are not going to be completely paying
4 back other ratepayers until that year. Each year that
5 goes by the contribution gets better.

6 Q. And is it possible to calculate when the
7 subsidy from existing ratepayers to the new ratepayers has
8 been paid back? Is it 50 years from now? 60 years from
9 now? 70 years from now?

10 A. We have calculated a break even point on this
11 project between 34 and 35 years which is about three years
12 longer than in the first remand. The break even point for
13 other customers starts with an assumption that other
14 customers should not bear any portion of this project, and
15 I don't agree with that assumption because there are
16 benefits of this project to other customers.

17 Q. But for at least analytic purposes at least
18 it's useful to have the number. You can say it needs to
19 be modified or considered in context, but it's helpful to
20 have the number. So how many years would -- in the future
21 would it be, with your caveats, that the existing
22 ratepayers would be paid?

23 A. I don't know.

24 Q. Would it be within my lifetime. I'm 62. It
25 wouldn't be, would it?

1 A. I don't know.

2 MR. DUMONT: Thank you.

3 CHAIRMAN VOLZ: Are you done, Mr.
4 Dumont?

5 MR. DUMONT: Yes.

6 CHAIRMAN VOLZ: Okay. Is the Department
7 ready now?

8 MS. PORTER: Yes.

9 CHAIRMAN VOLZ: Great. Thanks.

10 CROSS EXAMINATION

11 BY MS. PORTER:

12 Q. Ms. Simollardes, I want to follow up on some
13 questions that Ms. Tierney asked you, and they have to do
14 with the Memorandum of Understanding that is attached to
15 Ms. Peyser's rebuttal testimony I believe as exhibit 12.
16 I don't think you need to look at it.

17 A. Okay.

18 Q. I think the two of you looked at the third
19 recital where it talked about the restriction that the
20 company, being NG Advantage, would only sell to industrial
21 and commercial customers via truck?

22 A. Correct.

23 Q. And you may have established this with Ms.
24 Tierney. Vermont Gas was an intervenor and you were
25 involved in the negotiations of this Memorandum of

1 Understanding?

2 A. Correct.

3 Q. Have you read the testimony of Ms. Peyser and
4 Mr. Gross regarding their thoughts on this Memorandum of
5 Understanding?

6 A. I have.

7 Q. And I believe that Ms. Tierney used the word
8 stranded, and she was asking if the concern was -- the
9 reason this restriction existed was to take care of the
10 issue of stranded customers?

11 A. I believe that is the term. Yes. I think
12 that's what she asked.

13 Q. And so the allegations that were made by Ms.
14 Peyser and Mr. Gross regarding collusion between the
15 Department and Vermont Gas and agreements not to compete,
16 there is no evidence to that effect, no proof, and in
17 point of fact there is another very valid reason that the
18 parties imposed that condition?

19 MS. LEVINE: Objection. That's
20 argumentative. It's not a question.

21 CHAIRMAN VOLZ: This isn't your witness,
22 is it?

23 MS. LEVINE: This is also not cross
24 examination.

25 MS. PORTER: You can't argue in cross

1 examination. I thought you could lead the witness in
2 cross.

3 MS. LEVINE: Friendly cross is generally
4 not allowed. This is the, first, friendly cross.
5 Secondly, even if you allow it as friendly cross,
6 it's argumentative and leading the witness. It is
7 inappropriate for cross examination of this witness.

8 CHAIRMAN VOLZ: Do you have a response?

9 MS. PORTER: I'll be happy to restate
10 the question. Go ahead, Ms. Hayden.

11 MS. HAYDEN: I would go back to Title 3
12 Section 810. I think that this is a very important
13 point for the -- to clarify for the record and to
14 clarify there was an allegation of collusion. I
15 think it's important for Ms. Simollardes to respond
16 to this question. I think it would be informative to
17 the Board given the type of allegation that's been
18 made. There's no other witness that can answer this
19 question.

20 CHAIRMAN VOLZ: Ms. Porter, you said
21 you're going to rephrase the question. Why don't you
22 try that.

23 BY MS. PORTER:

24 Q. Ms. Simollardes, I believe that you and Ms.
25 Tierney discussed the danger of stranded principally of

1 residential customers?

2 A. Correct.

3 Q. And is that your understanding of the
4 reasoning behind the condition in the MOU?

5 A. That is my understanding. There was also -- I
6 think it's important to point out that that was a
7 three-way MOU. Those were provisions that NG Advantage
8 agreed to in exchange for lightened regulation. They are
9 regulated at a level that is different from Vermont Gas.
10 So it was intended -- that was not a provision, by the
11 way, that Vermont Gas requested. That was intended to
12 ensure that residential customers had adequate protection.

13 Q. Since you put it that way, you said it was not
14 something that Vermont Gas requested, who did request that
15 condition if you remember?

16 A. The Department of Public Service requested
17 that condition.

18 MS. PORTER: Thank you. That's all I
19 have.

20 CHAIRMAN VOLZ: Do you have redirect for
21 this witness?

22 REDIRECT EXAMINATION

23 BY MS. HAYDEN:

24 Q. Only one question. Ms. Simollardes, you were
25 asked yesterday a question I believe by Mr. Young

1 concerning the O&M, or operation and maintenance, figures
2 that are reflected in your Attachment A, and he asked a
3 question specifically about the escalation that was used
4 there. Can you -- do you have an answer to his question?

5 A. I do. I stated yesterday that that number
6 escalated at inflation, and it's evident when you look at
7 that that it is escalating at faster than inflation, and
8 that is because I had -- it is escalating at inflation,
9 but it also escalates with increased number of customers.
10 There's a per customer addition that goes along with that
11 and it escalates at inflation.

12 CHAIRMAN VOLZ: Thank you. I think we
13 have completed this witness so you're excused, and
14 we're ready for I think it's Mr. Hopkins next. This
15 can be off the record.

16 (A discussion was held off the record.)

17 ASA HOPKINS,

18 Having been duly affirmed, testified
19 as follows:

20 DIRECT EXAMINATION

21 BY MS. PORTER:

22 Q. Good morning.

23 A. Good morning.

24 Q. Please state your name and job title.

25 A. My name is Asa Hopkins. I'm the Director of

1 the Planning and Energy Resources Division at the
2 Department of Public Service.

3 Q. And do you have before you a copy of a
4 document marked Second Remand Testimony with exhibits A,
5 B, C, and D, and a document marked Second Remand Rebuttal
6 Testimony with exhibits rebuttal A, B, C, D, E, and F?

7 A. Yes.

8 Q. And were these documents prepared by you or
9 under your direction?

10 A. Yes.

11 Q. After prefiling these documents did you make
12 any revisions or corrections to your testimony or
13 exhibits?

14 A. Yes. I have two with respect to my direct
15 testimony. There are no corrections in my rebuttal
16 testimony.

17 Q. Okay. Would you please set out the first
18 correction?

19 A. The first correction in table 3 on page 12 of
20 my direct testimony. After the testimony was submitted we
21 discovered that incorrect numbers had been copied over
22 from workpapers into the table. That error is corrected
23 on a replacement page 12 which was revised and provided to
24 the Board and parties on May 15th.

25 Q. And you mentioned a second correction. Could

1 you describe that as well?

2 A. The second correction is, as subsequently
3 noticed, the same transcription error was in attachment
4 exhibit Table 2 on page 21 of exhibit C needed the same
5 correction, and that error was corrected on the
6 replacement page 21 of exhibit C and was provided to the
7 Board and parties on May 19th.

8 Q. And with those corrections is your testimony
9 now true and accurate to the best of your knowledge?

10 A. Yes.

11 MS. PORTER: That is what the Department
12 proposes to offer to admit into the record would be
13 the correct testimony with the replacement pages in
14 it. This morning I provided Board staff copies for
15 all the Board a complete set as it should be
16 admitted, and I had copies for those of the parties
17 who were available at the time, and with that we
18 would move the admission of the testimony of Dr. Asa
19 Hopkins.

20 CHAIRMAN VOLZ: Any objections? Okay.
21 They are admitted.

22 (The Prefiled Testimony of Asa Hopkins
23 was admitted into the record.)
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(Exhibits marked DPS-Hopkins A-D and
DPS-Hopkins-Reb A-F were admitted into the
record.)

1 MS. PORTER: Dr. Hopkins is available
2 for questions.

3 CHAIRMAN VOLZ: Mr. Dumont, I think
4 you're up first.

5 MR. DUMONT: All right.

6 CROSS EXAMINATION

7 BY MR. DUMONT:

8 Q. It's still good morning so I'll say good
9 morning, Dr. Hopkins.

10 A. Good morning.

11 Q. Let's start with your background. You have a
12 Ph.D. in physics, correct?

13 A. Correct.

14 Q. In getting your Ph.D. in physics did you take
15 any courses in economics?

16 A. Not in the course of my Ph.D. studies, no.

17 Q. Did you write a dissertation?

18 A. My thesis title was Reduced Order Models For
19 Open Quantum Systems.

20 Q. I'm not going to ask you what that means.

21 A. I don't think it's germane to this proceeding.

22 Q. After you obtained your Ph.D. did you take any
23 formal course work on economic theory?

24 A. No.

25 Q. Are you familiar with Coase Theorem?

1 A. No.

2 Q. Do you have any idea what it is?

3 A. No. Not by that name.

4 Q. Do you know who Professor Bonbright is?

5 A. Yes.

6 Q. Who is he?

7 A. He is sort of a regulatory theorist, the
8 author of texts on utility economics, ratemaking, et
9 cetera.

10 Q. Have you read his texts?

11 A. No.

12 Q. Have you taken any course work in economic
13 modeling?

14 A. Course work, no.

15 Q. Have you taken any course work in utility law?

16 A. I attended a portion of a training that Mr.
17 Scott Hempling performed at the Department last year or
18 the year before. I think that covered issues of utility
19 law in that context.

20 Q. Do you consider yourself to be an expert in
21 economics generally?

22 A. I know that there are a lot of different
23 aspects of economics, sub fields of economics. In terms
24 of the entire field of economics, no, I'm not an expert in
25 all of economics. I do, however, believe that I possess

1 the necessary economic expertise to support and be a
2 credible source of information on the topics, the kind of
3 analysis that are presented in my testimonies.

4 Q. Let's try and get into the details of that.
5 Are you -- do you consider yourself an expert in net
6 economic benefit analysis?

7 A. Yes.

8 Q. Do you consider yourself an expert on how to
9 calculate net economic benefit?

10 A. Yes.

11 Q. Do you agree that in January of 2013 you
12 testified under oath that you are not an expert in net
13 economic benefit analysis?

14 A. I don't recall the exact words at that point.
15 I'm sure you have a quote there. I need to be refreshed.
16 If that's what I said, that's what I said.

17 Q. If you turn to cross exhibit 43 please, your
18 deposition.

19 A. Can I have a copy of my cross exhibits from
20 somebody?

21 MS. PORTER: Mr. Chairman, I didn't
22 object, but I hope that Mr. Dumont is going to very
23 quickly point out the relevance of -- very quickly
24 point out the relevance of what Mr. Hopkins may have
25 said about this two plus years ago.

1 MR. DUMONT: We'll get there.

2 CHAIRMAN VOLZ: I think any witness's
3 qualifications to testify to what they are testifying
4 about here is fair inquiry as far as I'm concerned.

5 BY MR. DUMONT:

6 Q. I took your deposition on May 13th of this
7 year, correct?

8 A. Correct.

9 Q. And that's reproduced. You read the
10 transcript and you corrected any errors you saw. You
11 didn't find any major errors, correct?

12 A. Correct.

13 Q. So on pages 5 and 6 I asked you about the
14 deposition you had given to Mr. Hemley in the Entergy
15 Nuclear Vermont Yankee case on January 29, 2013. If you
16 refer to page 6 of the transcript, I asked you did you
17 tell Mr. Hemley on page 109 line 23 of that sworn
18 deposition you don't purport to be an expert in economics.
19 You answered correct.

20 A. Correct.

21 Q. And then turning to page 8 of your deposition
22 I asked you in fact in January of 2013 were you an expert
23 on net -- on how to calculate net economic benefit to the
24 state, and remember we went through that?

25 A. What I see here is that -- let me reread this

1 for a second.

2 Q. You might want to start on page 7.

3 A. I got lost. The pages are top to bottom not
4 side to side. Okay. I'm caught up with where you are.
5 If you could ask the question again?

6 Q. Let me start over. So in the Entergy Nuclear
7 Vermont Yankee case the Department was presenting the
8 testimony of Mr. Kavet -- Dr. Kavet. Excuse me. Correct?

9 A. I believe that's true.

10 Q. And Dr. Rockler, correct?

11 A. Correct.

12 Q. They are both Ph.D. economists?

13 A. Probably so. I don't remember their exact
14 CVs.

15 Q. And you told Mr. Hemley that I am just
16 describing their testimony. I'm referring to their
17 testimony. I do not purport to be an expert in net
18 economic benefit analysis or how to calculate it. That's
19 what you told Mr. Hemley in January 2013, and when I took
20 your deposition in May of 2015 you agreed that you were
21 not an expert in what Dr. Rockler and what Dr. Kavet did?

22 A. Right. As of that date.

23 Q. As of January of 2013?

24 A. Right.

25 Q. So you agree that your sworn testimony was in

1 January of 2013 you were not an expert in how to calculate
2 net economic benefit?

3 A. Correct.

4 Q. And your position is since then you have
5 become one?

6 A. Correct.

7 Q. And as I recall what you told me you said you
8 have become an expert by working with other people in the
9 Department who know how to do it?

10 A. By -- by undertaking the various studies,
11 reports, analyses that my staff and I have conducted over
12 the course of the intervening two and a half years for
13 internal departmental analyses, for analyses for dockets,
14 for analyses for legislative reports, and for other --
15 other analyses that we need to conduct in the course of
16 doing our job.

17 Q. You personally have never conducted the
18 computer modeling such as REMI or INPLAN. Am I correct?

19 A. I haven't been the one pushing the mouse, no.
20 My staff has conducted such analyses under my direction.

21 Q. So you were able to direct them based on what
22 you learned from them, is that what you're telling us,
23 because you weren't an expert before you worked with them.
24 So you were directing them and then you learned from what
25 they told you while you were directing them. Is that your

1 testimony?

2 A. The question of expert or not is a legal
3 matter that I'm not expert in. I'm not a lawyer, and so I
4 think to say that I knew nothing on January 29, 2013 and
5 everything I might have learned since then have been
6 sufficient to make me an expert I think that would be
7 incorrect. I had some level of knowledge then. That
8 knowledge has increased to the point that I now consider
9 myself to be an expert. That knowledge has been gained
10 through the experience that I described, which includes
11 learning from my staff who have their expertise, it
12 involves from learning from experience from encountering
13 questions that need answers, and doing the necessary work
14 in order to increase my state of knowledge.

15 Q. All right. So I agree with you it's the
16 Board's role, not yours or mine, to decide if you're an
17 expert. Would you agree that Mr. Carr who testified for
18 Vermont Gas in 2013 was an expert in how to conduct a net
19 economic benefit analysis?

20 A. I believe so. I believe the Board treated him
21 as such. I trust him on that.

22 Q. Preparing your written prefiled testimony in
23 this case did you read his testimony in 2013?

24 A. I did. I couldn't quote it back to you, but I
25 remember that I read it.

1 Q. In 2013 the Department had other staff people
2 who have more expertise than you in economic benefit
3 modeling who reviewed Mr. Carr's work, correct?

4 A. Yes. I believe so.

5 Q. Mr. Nagle who was here is one of them,
6 correct?

7 A. Yes.

8 Q. Who is here. And Mr. Poor also reviewed it?

9 A. Yes. I believe so.

10 Q. And Mr. Kumar K-U-M-A-R?

11 A. Most likely.

12 Q. Did they find anything incorrect -- I'm sorry.
13 You understand that Mr. Carr did not take a GDP approach.
14 He used output model, correct?

15 A. I think I remember that but -- yeah, I don't
16 remember that in detail.

17 Q. And none of the experts within the Department
18 or you found any cause to criticize Mr. Carr when he used
19 outputs instead of the GDP approach, correct?

20 A. I don't recall anybody discussing the issue.

21 Q. But you now fault Dr. Dismukes, who has a
22 Ph.D. in economics, for using the same approach that Mr.
23 Carr used, correct?

24 A. I believe that GDP is a better indicator.
25 Whether -- whether other indicators also have value is a

1 matter for discussion I suppose.

2 Q. Do you fault Dr. Dismukes for using the
3 outputs model rather than the GDP model?

4 A. I think his testimony would be stronger if
5 based on GDP or value added. I do think that his -- that
6 using outputs does provide some valuable information.

7 Q. When Mr. Carr provided his net economic
8 benefit analysis he took into account the effect on jobs
9 and on the Vermont economy, of the loss of fuel dealer
10 jobs and fuel dealer payments, correct?

11 A. I don't recall.

12 Q. When is the last time you looked at Mr. Carr's
13 testimony or his report?

14 A. Back several months ago when I learned that I
15 was going to be taking over the role of preparing
16 testimony in this proceeding.

17 Q. Did Mr. Carr take into consideration the lost
18 disposable income caused to ratepayers by paying higher
19 rates?

20 A. I believe so. I don't recall in precise
21 detail at the moment.

22 Q. So when you filed your first testimony on May
23 6th of this year you had all of the work submitted to you,
24 all the expert testimony submitted to the Board, and all
25 the discovery submitted to you from Vermont Gas, correct?

1 A. Right.

2 Q. And tell us what criticism -- criticisms did
3 you have on behalf of the people of Vermont of Mr. Heaps'
4 testimony, his expert testimony?

5 A. Mr. Heaps's direct testimony addressed the
6 construction cost impact, if I recall correctly, and we
7 were in the process of separately developing the analysis
8 that we presented in our -- in my testimony, and we did a
9 sort of a consistency test recognizing that people using
10 different tools are going to get different numbers to see
11 whether Mr. Heaps' analysis seemed to be capturing the
12 right kinds of inputs, that its outputs were credible, et
13 cetera.

14 Q. Did you submit any prefiled testimony on May
15 6th that criticized the expert testimony submitted on
16 behalf of the company to the Board by Mr. Heaps?

17 A. No.

18 Q. So you were satisfied with the work Mr. Heaps
19 had submitted, correct?

20 A. Correct.

21 Q. At some point you conducted your own economic
22 benefit modeling, am I correct?

23 A. Correct.

24 Q. And then you reported on the results of that
25 modeling to the Board in your May 6th testimony, correct?

1 A. Correct.

2 Q. And you omitted from what you submitted to the
3 Board any consideration of loss of jobs and loss of cash
4 to the fuel dealers, correct?

5 A. In my direct testimony I did not address that
6 point.

7 Q. You submitted analysis with NPV figures,
8 correct?

9 A. Correct.

10 Q. And you didn't tell the Board that you had
11 failed to take into account the lost jobs and cash to fuel
12 dealers, correct?

13 A. My direct testimony didn't -- did not raise
14 the issue.

15 Q. In fact, in preparing the testimony you had
16 attempted to address that issue, correct?

17 A. Correct. The story of that -- attempt at that
18 analysis and our attempt to come up with analysis that we
19 believe was credible is described in my rebuttal
20 testimony.

21 Q. So you felt it was important enough to look
22 at, but then based on your own expertise you didn't feel
23 you had a good handle on it so you just omitted it from
24 the analysis you submitted to the Board on May 6th,
25 correct?

1 A. I didn't feel that we could submit credible
2 analysis on that point to the Public Service Board in my
3 direct testimony.

4 Q. And as you and I have talked about the company
5 has a license with the REMI company, correct? You have
6 permission to use their model?

7 A. Yes. We have permission to use their model.

8 Q. They are based in Amherst, Massachusetts?

9 A. Correct.

10 Q. And you could have picked up the phone and
11 said I'm a beginner using REMI, how do you model the job
12 losses. Correct?

13 A. We could call REMI, and in fact subsequent to
14 our previous conversation, Mr. Dumont, we have spoken to
15 folks at REMI.

16 Q. After I took your deposition and in the
17 deposition you disclosed you had not addressed the job
18 losses in your report to the Board. Then you called REMI
19 after the deposition. Correct?

20 A. I -- I disagree with the implied causality in
21 your question, but you have the order of events correct.

22 Q. Go ahead.

23 A. Continue.

24 Q. Before this case have you ever personally
25 tried to use the REMI model to -- in a manner that

1 includes taking into account job losses?

2 A. The total energy study work that my division
3 performed under my leadership over the course of nearly
4 two years leading up to its publication at the end of last
5 year included an extensive attempt to model economic
6 impact employment for a range of scenarios for a clean
7 energy transition, and so yes that included modeling
8 economic and employment impact.

9 Q. Displaced workers as well as added workers?

10 A. Correct.

11 Q. When was that study completed?

12 A. It was completed in late 2014. The work on
13 REMI predominantly took the latter half of calendar 2014.

14 Q. Who did the actual work on REMI? Was it you?

15 A. As I said the person holding the mouse so to
16 speak was my staff member John Woodward, but the direction
17 for conducting that analysis came from me as well as the
18 combined expertise of all the members of our study team.

19 Q. So including that experience your testimony
20 today addresses the second time in your career as an
21 economist that you attempted to use the REMI model in a
22 manner that includes displaced workers?

23 A. I don't think that's true.

24 Q. Okay. Correct me.

25 A. The REMI analysis that we have undertaken for

1 other dockets before the Public Service Board, and here
2 I'm not going to necessarily remember dates, has commonly
3 included both positively -- positive and negative impacts
4 in a variety of industries, including employment impacts.

5 Q. And you were directly involved in that REMI
6 modeling?

7 A. I supervised that REMI modeling.

8 Q. When was that?

9 A. I'm thinking in particular of the modeling
10 conducted around the North Springfield biomass plant
11 proposal before the Public Service Board, although we may
12 have also conducted REMI analyses for other proceedings
13 here. I'm just blanking on the order and the time.

14 Q. Those experiences were before you testified
15 under oath to Mr. Hemley that you were not an expert on
16 net economic benefit model, correct?

17 A. Again I don't remember the timeline, and again
18 I think that developing expertise over time is a natural
19 human condition.

20 Q. Do you have any idea how many times Dr.
21 Dismukes has been involved in computer modeling of
22 economic benefit?

23 A. I don't. I know that I have flipped through
24 many pages of his CV as attachment to his -- to his
25 testimony and it's quite likely many of those items

1 involved economic modeling.

2 Q. Would you defer to his judgment as to the
3 appropriate manner in which to conduct economic benefit
4 model?

5 MS. PORTER: Excuse me. I didn't
6 understand the question. Did you say defer?

7 MR. DUMONT: Yes.

8 A. Not necessarily. I think that any economic
9 impact result needs to be run through a credibility and
10 common sense check, and to the extent that any of those
11 results failed any such reasonableness that they would be
12 subject to question.

13 Q. Are you an expert on energy commodity markets?

14 A. On the details of those markets, no.

15 Q. Are you competent to give expert opinions on
16 the future price of oil?

17 MS. PORTER: Mr. Chairman, is he asking
18 the witness if he is an expert in the legal sense?
19 If that's the case, then I'm going to object. He's
20 calling for a legal conclusion.

21 MR. DUMONT: I can ask a better
22 question.

23 CHAIRMAN VOLZ: Okay.

24 MS. PORTER: Thank you.

25 BY MR. DUMONT:

1 Q. Do you believe you have specialized education,
2 training, or experience that enables you to give opinion
3 that is useful to the Board on the question of the future
4 price of oil?

5 A. Yes to the extent that I am aware of resources
6 where detailed -- where folks would have that much greater
7 expertise have developed detailed forecasts like those
8 developed, for example, by the Energy Information
9 Administration, and I would say that I am an expert and
10 comfortable user of the analyses that have been developed
11 by those experts.

12 Q. So when I asked you -- turn to page 20 of your
13 deposition. Exhibit 43. I asked you are you competent to
14 give expert opinions on the future price of oil and the
15 answer was no. I would refer to sources like the Energy
16 Information Administration. Correct?

17 A. Right. Which is what I just said.

18 Q. I asked are you competent to give expert
19 opinions on the future price of natural gas and you said
20 same answer, correct?

21 A. Correct.

22 Q. So basically what you're saying is you would
23 turn to the EIA and just whatever they say you would just
24 defer to them?

25 A. I think refer and defer are different, but I

1 do believe EIA is a credible and respected source of such
2 information.

3 Q. So by that standard any member of the Board is
4 an expert on the same extent you are because they can turn
5 to the EIA and read the same pages that you read. Right?

6 A. They could, you know, depending on their level
7 of comfort and expertise in interpreting and analyzing the
8 results of EIA's work.

9 MS. PORTER: Mr. Chairman.

10 CHAIRMAN VOLZ: Yes.

11 MS. PORTER: A moment ago Mr. Dumont
12 said that he would restate one specific question. I
13 would just like to lodge sort of a continuing
14 complaint regarding this line of questions. If he's
15 asking the witness does he consider himself an
16 expert, that's one thing. If he's asking him are you
17 an expert in some legal sense that he's calling for
18 -- he's asking for him to make a legal conclusion and
19 he is not a lawyer.

20 CHAIRMAN VOLZ: Mr. Dumont.

21 MR. DUMONT: I can ask the witness.

22 BY MR. DUMONT:

23 Q. When you said -- when you answered my question
24 when I took your deposition and you said you were not an
25 expert what did you have in mind?

1 A. I think, for example, the questions you just
2 quoted back had to do with expert opinions not whether I
3 was an expert; yes, no. So I think it depends a little on
4 the context. The -- there's a -- you know, my lack of
5 knowledge of the details of the legal questions around
6 whether one is an expert or not is significant.

7 So that the question of, for example, in the
8 deposition with Mr. Hemley my understanding at that point
9 was in the context of that docket, and my understanding
10 that the purpose of my testimony in that docket was to
11 present the Department's experience rather than to present
12 expert opinion in some legal sense on matters of
13 economics, and so I answered in that context.

14 So I guess I would say given my lack of
15 knowledge and understanding of the question of expert or
16 not in a legal sense I'm not even -- all I can do is try
17 to answer the questions as completely as I understand them
18 in the context in which they are asked and provide
19 expertise and information that I believe is useful.

20 Q. I don't want to trouble the Board with going
21 back to what we testified about, what we talked about
22 before. I would just refer the Board -- I will move the
23 deposition exhibit and refer the Board to the sworn
24 testimony given on pages 7 and 8 of the deposition rather
25 than go back through with the witness. What the witness

1 just said is actually contradicted by the deposition and
2 you can judge that for yourself.

3 CHAIRMAN VOLZ: Okay. Any objection to
4 admitting the deposition as an exhibit?

5 MS. PORTER: I would like for Mr. Dumont
6 to specifically identify the inconsistent statements.

7 MR. DUMONT: If you want. Okay. Page
8 7.

9 MS. PORTER: Which page 7?

10 MR. DUMONT: Of the deposition.

11 MS. PORTER: Of the current deposition?

12 MR. DUMONT: Yes. Actually to be
13 complete -- answer in complete context let's start on
14 page 6.

15 CHAIRMAN VOLZ: We're almost up to the
16 lunch hour. Would it be possible during lunch the
17 two of you could do this identification and then see
18 if there's anything that we need to deal with?

19 MR. DUMONT: I would just say it's
20 starting on line 15 of page 6 and running through the
21 end of page 9.

22 CHAIRMAN VOLZ: Okay. Any objection to
23 admitting the transcript?

24 MS. PORTER: The deposition?

25 CHAIRMAN VOLZ: I think that's what Mr.

1 Dumont asked to do, admit the deposition transcript.

2 MS. PORTER: And I had asked him to
3 identify --

4 CHAIRMAN VOLZ: And you want to have
5 that identification before you decide whether to
6 object?

7 MS. PORTER: I would like to look at it
8 and compare it to whatever answer Mr. Dumont is
9 citing today as being inconsistent.

10 CHAIRMAN VOLZ: All right. So you want
11 to discuss that -- explore that over lunch. Then
12 we'll take it back up after lunch.

13 MS. PORTER: That will be fine. Thank
14 you.

15 CHAIRMAN VOLZ: Thanks. Yes.

16 MS. HAYDEN: I would just note that the
17 Rules of Civil Procedure Rule 302(a)(3) really
18 address the admissibility of depositions when a
19 witness is available to testify, and I think that Mr.
20 Dumont needs to lay a foundation to meet that
21 requirement.

22 CHAIRMAN VOLZ: Okay.

23 MS. HAYDEN: It's not -- I don't believe
24 it's admissible.

25 CHAIRMAN VOLZ: This isn't your witness

1 so --

2 MS. PORTER: I was just trying to get
3 past the initial objection before I got to any
4 others.

5 CHAIRMAN VOLZ: Right. So we'll take
6 them up. You can bring objections and responses to
7 them to us after lunch.

8 MR. DUMONT: I was just trying to save
9 time. Obviously I haven't saved time so I shouldn't
10 have gone down this path. I apologize.

11 CHAIRMAN VOLZ: So we're going to break
12 for lunch. We'll come back at 1:30. Thank you.

13 (Luncheon recess.)

14 CHAIRMAN VOLZ: We're back from lunch.
15 We would like to get started again. Before we broke
16 for lunch, Mr. Dumont, there was some discussion you
17 were going to have with Ms. Porter about admission of
18 exhibits. Have you resolved that?

19 MR. DUMONT: I have very reasonable
20 clients and they invited me to drop the issue and
21 just move on.

22 MS. PORTER: We very graciously
23 accepted.

24 MR. DUMONT: My clients and I discussed
25 it and we agreed to just drop the issue and move on.

1 CHAIRMAN VOLZ: Okay.

2 MS. PORTER: The Department appreciates
3 that.

4 CHAIRMAN VOLZ: Okay. Continue.

5 MR. DUMONT: Thanks.

6 BY MR. DUMONT:

7 Q. Good afternoon, Dr. Hopkins.

8 A. Good afternoon.

9 Q. Now I want to ask you briefly about an area in
10 which you clearly have expertise and that is the
11 efficiency of cold climate heat pumps. Something a
12 physicist would know a great deal about, I believe.

13 A. I have been learning more as the technology
14 advances into the market here in Vermont that I feel I
15 have a solid basis for stating analysis and opinions based
16 on such.

17 Q. And do you agree with me that based on what
18 you now know that cold climate heat pumps are competitive
19 -- cost competitive with natural gas per BTU?

20 A. On a pure operational basis to deliver heat
21 into the space in which heat pumps deliver the heat, heat
22 pumps are -- can be, depending on how they are operated by
23 the homeowner, can be cost effective at least in some
24 weather conditions, et cetera. It's -- the dynamics of
25 actually operating a heat pump for optimal economic

1 performance are complicated.

2 Q. If you could refer to your prefiled testimony,
3 first version, pages 3 and 4 answer 7.

4 A. I'm there.

5 Q. On the top of page 4 you conclude natural gas
6 remains less expensive on a per BTU basis than typical air
7 source cold climate heat pumps. So what you're saying now
8 is a little bit different from that, is it not?

9 A. This statement in my direct is brief and does
10 not cover the complexity that I just -- that I just
11 mentioned.

12 Q. Would it be more accurate to say depending on
13 the circumstances natural gas is cost competitive on a per
14 BTU basis with typical air source cold climate heat pumps?

15 A. I might change some of the words in the middle
16 of that to can be or may be rather than is. It depends a
17 lot on the system and how it's configured and operated, et
18 cetera, like I just described, and again that's on an
19 operational per BTU basis, not on a lifetime basis
20 accounting for the cost of hardware, et cetera.

21 Q. Would you agree with me that in comparing the
22 exhibits you prepared and your prefiled testimony from May
23 6th you did not take into account distribution losses that
24 arise from gas furnaces but do not arise from cold climate
25 ductless heat pumps?

1 A. Correct.

2 Q. As you sit here today as an expert in this
3 area do you have any opinion as to the amount of the
4 distribution losses?

5 A. It's my understanding that distribution losses
6 are -- in typical forced air or water systems are on the
7 scale of a few percent, but that it can vary, again, based
8 on the particular building characteristics.

9 Q. I assume you read Mr. Neme's prefiled rebuttal
10 testimony dated May 27th?

11 A. Correct.

12 Q. He addressed distribution losses. Do you
13 disagree with his testimony?

14 A. No.

15 Q. Going back to page 3 of your May 6th prefiled
16 lines 10, 11 state there is approximately a 25 percent
17 advantage when comparing natural gas to oil, correct?

18 A. That's not correct. That calculation was
19 based on a weighted average of oil and propane.

20 Q. Okay.

21 A. And includes, as it says in that sentence,
22 rate impact as if the company were going to recover the
23 full costs immediately as per its current capital
24 structure, et cetera.

25 Q. So I wonder if you would agree with me that

1 it's a fair summary of the issue -- one issue before the
2 Board at this point given what we now know about project
3 cost and fuel prices, whether this case should be reopened
4 to consider whether or not the statutory criteria would
5 still be satisfied by spending 154 million dollars in
6 order to address the 25 percent price advantage for
7 approximately 3,000 customers? Would you agree that's an
8 issue before the Board right now?

9 A. It's my understanding that the question about
10 whether to reopen the proceeding is before the Board, and
11 whether there is evidence given the cost change and given
12 other changes like the changes in oil prices, et cetera,
13 are so material and controlling as to likely change the
14 outcome of the previous consideration of the CPG.

15 Q. And you put that in your prefiled a couple
16 times what you thought the legal standard was. So I did
17 want to ask you about that and then I think I'm done.
18 Have you read the motions that were filed under Rule 60(B)
19 by the various parties that filed the motions?

20 A. No.

21 Q. So let me represent to you that the motions
22 fall in two areas. One is would the Board more likely
23 than not have reached a different outcome, and in that
24 area there are two separate questions. Would the Board --
25 is the Board likely to reach a different outcome on

1 October 10th and is the Board likely to reach a different
2 outcome on December 23rd. Both issues are in front of the
3 Board under the motions that are pending. Did you intend
4 to address -- is your testimony just addressing December
5 23rd or is it also addressing October 10th?

6 A. As I believe I state in here at some point,
7 it's my intention to address any changes in circumstance
8 that's happened between the original issuance of the CPG,
9 which if I remember the dates correctly is the December
10 date you refer to, and to analyze what we can know about
11 the various impacted criteria even given current
12 information.

13 Q. Let me quote you from the October 10th order.
14 It says we find there is a reasonable basis to conclude
15 that the revised cost projections are reliable. First,
16 many of the cost elements in the revised budget are no
17 longer projections but reflect actual costs. For
18 instance, VGS has put the project out to bid and entered
19 into contracts. VGS has now purchased pipe for the
20 project, per the revised projections including
21 contingency. Though VGS has indicated that the updated
22 cost projections in July were prepared by the previous
23 firm CHA, whose performance in managing cost projections
24 proved unsatisfactory to the company over time, VGS's
25 president testified under oath at the September 26th

1 hearing that the project is now under new management that
2 is capable and is producing reasonable cost projections.

3 If the Board -- is it your testimony that if
4 the Board knew then what it knows now it would have
5 reached the same conclusions?

6 MS. PORTER: I'm going to object on
7 relevance. What is the relevance of this witness's
8 opinion of what the Board knew in another proceeding?

9 MR. DUMONT: This witness's prefiled
10 testimony addresses the legal standard, and if you
11 want to withdraw that part of his testimony, I'll
12 stipulate to that, but otherwise I'm cross examining
13 him on the subject matter of his testimony.

14 MS. PORTER: Well I think he was talking
15 about the legal standard in this proceeding not that
16 proceeding.

17 MR. DUMONT: This proceeding is both to
18 decide whether or not to hold hearings to reopen the
19 October 10th ruling and whether or not to hold
20 hearings to reopen the December 23rd hearing.

21 MS. PORTER: Well I mean I think I also
22 object to you characterizing what we are about as
23 opposed to allowing the Board to tell us what we're
24 about in the scope and then asking the witness to
25 comment on your characterization.

1 MR. DUMONT: You objected. I responded
2 to it. The Board can rule.

3 (Off-the-record discussion.)

4 CHAIRMAN VOLZ: We're going to overrule
5 the objection. Continue asking the questions.

6 MR. DUMONT: Thank you.

7 DR. HOPKINS: Could you either restate
8 the question or have it read back since I got lost in
9 there?

10 MR. DUMONT: Me too. Could you read it
11 back?

12 (The record was read as requested.)

13 A. (Dr. Hopkins) I'm trying to parse the
14 question carefully. I don't think that my testimony
15 addresses that question.

16 Q. As the sole witness for the Department do you
17 have an opinion on that or does the Department have an
18 opinion on that?

19 A. I don't know that the Department has an
20 opinion. I might let briefing or something handle that.
21 I'm not aware of a -- personally aware of a Departmental
22 position on that question.

23 Q. Okay. Thank you. Similar question about the
24 December 23rd, 2013 order. Would you agree with me that
25 there have been some major changes since then? Oil prices

1 dropped to about half of what it was then, correct?

2 A. I don't know if it's exactly half, but they
3 have dropped significantly.

4 Q. The project price has gone from 86 million to
5 154 million?

6 A. The estimated price.

7 Q. However we choose to characterize it. There's
8 now CNG already available to the industrial customers and
9 commercial customers in Middlebury and Vergennes, correct?

10 A. There are customers taking CNG service.

11 Q. So is it your position that the Board should
12 not even hold a hearing to decide whether or not to reopen
13 the December 23rd order under Rule 60(B)?

14 A. It is my opinion that the criteria impacted by
15 those changes, although I disagree I think with the
16 characterization -- would disagree on the CNG piece, the
17 -- particularly the first two, that with respect to the
18 criteria that are impacted most directly by those changes,
19 that given the best analysis we have in front of us that
20 the Board's conclusions on those points would not most
21 likely change, and therefore that there is not call for a
22 -- reopen the proceeding.

23 MR. DUMONT: Thank you.

24 CHAIRMAN VOLZ: Mr. Grayck, do you have
25 questions for this witness?

CROSS EXAMINATION

1
2 BY MR. GRAYCK:

3 Q. Dr. Hopkins, do you have an opinion on whether
4 parties were denied a full and fair opportunity to
5 litigate the issues before this Board due to the incorrect
6 information provided by VGS relative to the cost of the
7 project?

8 A. No. I don't have an opinion on that point.

9 MR. GRAYCK: Nothing further.

10 CHAIRMAN VOLZ: Mr. Saudek, do you have
11 questions for this witness?

12 MR. SAUDEK: I have a few. Thank you.

CROSS EXAMINATION

13
14 BY MR. SAUDEK:

15 Q. I take it you relied entirely on Vermont Gas
16 for matters relating to conversion and conversion cost; is
17 that right?

18 A. In my direct testimony I relied on Vermont
19 Gas's numbers. In my rebuttal testimony I did a set of
20 sensitivity analyses to illuminate whether the results of
21 my analysis would differ in a substantial way if
22 conversion costs were in fact different from those
23 projected by VGS.

24 Q. And you concluded that converting from oil to
25 gas makes financial sense if the conversion costs are only

1 \$8,000. Is that your conclusion?

2 A. The two different analyses that I conducted in
3 my rebuttal both indicated a result in that range.

4 Q. And you assume a number 100 MMBtu of heating
5 fuel per home, right?

6 A. Right.

7 Q. And do you know how many gallons of oil that
8 would be if you converted it at typical conversion rates?

9 A. I usually just work in BTU units, but based on
10 comments from Ms. Simollardes earlier it sounded like the
11 number was something 724 thereabouts.

12 Q. Isn't it more like close to 900 -- 896? No.
13 Okay. You're the one who went to Cal Tech. I'm in over
14 my head on this one.

15 With regard to -- I take it though that in
16 your initial calculations at least you didn't try to put
17 numbers on things like removing oil tanks, we've already
18 talked about this with Ms. Simollardes, but removing oil
19 tanks and piping and all that, changing the burners and so
20 on?

21 A. Right. My direct testimony did not attempt to
22 account for any of those costs in particular. Just took
23 the aggregate number from VGS. The sensitivity analysis
24 is intended to allow some insights as to how those other
25 costs, should they exist, might impact customer economics.

1 Q. Did you consider in your analysis that one
2 reason for investing in electric heat pump might be also
3 air conditioning, the availability of air conditioning?

4 A. I did not directly address that. No.

5 Q. Do you know how many homes in Addison County
6 have already added electric heat pumps?

7 A. I don't know.

8 Q. Let me ask you something since you're much
9 better at math than I am obviously. In -- Ms. Simollardes
10 said there -- she had an average, I believe, of something
11 like 784, I believe it was, as the average gallonage used
12 by an average oil user, and I believe Mr. Cota had a
13 considerably lower number. Taking her number, is it 784
14 -- 724, take her number, and oil is now running somewhat
15 less than \$3 a gallon, right?

16 A. That's my understanding.

17 Q. \$2.70?

18 A. I would check the most recent fuel price
19 report for that.

20 Q. \$2.70. Now I was going to have you multiply
21 it by 3, but let's have you multiply it by \$2.70. If you
22 multiply -- no calculators please -- multiply that out,
23 where do you come out?

24 A. One of the bits of advise I got from veteran
25 witnesses at the Department was never try to do math on

1 the stand. I can flip one of these pieces of paper
2 over --

3 Q. This is part of your learning as an economist.

4 A. -- or pull out a calculator, but if you need
5 to know an exact number --

6 Q. It's about 1900 or so, right?

7 A. I would have to actually do the math.

8 Q. Call it a couple thousand.

9 A. It's probably in the ball park of a couple
10 thousand.

11 Q. Now if Vermont Gas is going around telling
12 people that each customer will save a couple thousand
13 dollars a year, and if oil is running for an average
14 customer less than a couple thousand a year, is it not the
15 case that they would have to give it away in order to
16 effect a break even, even?

17 A. I guess I don't -- I'm not sure about that
18 break even characterization. I was able to find where in
19 one of my exhibits I had actually already done that
20 calculation for you. It's 2089 at the -- using that
21 winter average oil price for this last winter.

22 Q. They would have to sell a winter supply for
23 \$89 to break even. In order to gain an advantage they
24 would have to --

25 A. In order for a customer to save \$2,000 in

1 operating cost at current oil prices, then yes that's
2 true. That's not a statement about overall break even of
3 hardware changes and all -- any of the rest of it. Just
4 out of your operating cost basis in order to -- not to
5 break even, but in order to save \$2,000 a year.

6 Q. So that one of the tools in Mr. Rendall's
7 toolbox is to give it away, right, then he can break even?

8 A. Well, again, I don't think break even is
9 saving \$2,000. I think saving \$2,000 is saving \$2,000,
10 but I think the analysis that I conducted, the sort of
11 simple pay back type analysis, is the most relevant and
12 illustrative for that point, and, you know, VGS is a
13 company that is both a rate regulated company and operates
14 in a competitive marketplace, and that truly shapes how
15 they think about rates.

16 MR. SAUDEK: Thank you. Nothing
17 further.

18 CHAIRMAN VOLZ: Okay.

19 MR. MARREN: Good afternoon, Mr.
20 Hopkins.

21 DR. HOPKINS: Good afternoon.

22 MR. MARREN: One point of contention
23 between your testimony and Mr. Dismukes' analysis and
24 also some of the Palmer witnesses was concerning the
25 value that the Board should ascribe to a ton of

1 avoided CO2 emissions, whether it should be 100
2 dollars or 40 dollars, and it's been cited to the
3 Board that the Board has used \$100 a ton in other
4 proceedings like energy efficiency proceedings, and
5 so my question to you as the state planner is, is it
6 necessary for the Board to apply a consistent measure
7 of the value of a ton of CO2 across different types
8 of regulatory proceedings?

9 DR. HOPKINS: I do think that would have
10 real value. I think just as in the energy efficiency
11 context we compare energy efficiency acquisition with
12 the cost of supply, I think of energy efficiency as a
13 supply resource and try to have parallelism on that
14 front, that the same should apply that a ton of CO2
15 in the atmosphere avoided doesn't particularly care
16 whether it was avoided by energy efficiency or
17 avoided by a fuel choice that somebody made.

18 MR. MARREN: And so just to elaborate on
19 that a little bit more, if the Board was to adopt the
20 value of \$40 a ton as the value -- as the appropriate
21 value, how would that impact the way that the state
22 chooses energy efficiency projects?

23 DR. HOPKINS: If the Board chose to use
24 a value of \$40 a ton in efficiency proceedings, the
25 particular effect would be that in the cost

1 effectiveness screening tool process and overall
2 measure and program portfolio level screening for
3 whether something is cost effective or not from a
4 societal standpoint, that the emission reduction
5 resulting from efficiency would be valued somewhat
6 less, which could result in individual projects or
7 programs that an efficiency provider runs not
8 screening and therefore not being offered to their
9 customers. That's the most practical direct impact
10 of changing that number.

11 MR. MARREN: Okay.

12 MR. YOUNG: Good afternoon, Dr. Hopkins.

13 DR. HOPKINS: Good afternoon.

14 MR. YOUNG: I'm going to ask you to try
15 to help me with something that I will honestly -- I'm
16 having trouble trying to decipher because I have a
17 whole bunch of different witnesses here presenting
18 different approaches, different models, that at some
19 point we have to ultimately try to reconcile in some
20 way, and so I'm hoping that you, and I'll be asking
21 Dr. Dismukes and others the same types of questions,
22 can help a little bit on this.

23 Let me just start off with your
24 disagreement with Dr. Dismukes that you express in
25 your rebuttal testimony, and you and Mr. Dumont were

1 talking about this earlier today and it's the use of
2 GDP as opposed to economic output. Do you recall
3 that discussion?

4 DR. HOPKINS: Yes.

5 MR. YOUNG: And in the end, please
6 correct me if I'm wrong here, but my understanding of
7 your testimony after your discussion with Mr. Dumont
8 was it's just a different approach. It's not wrong
9 per se.

10 Now your written testimony seemed to say
11 that because it's -- it basically double counts
12 certain components of the cost it's not as accurate.
13 Can you summarize how I should take what you wrote
14 versus what you said today?

15 DR. HOPKINS: So just because something
16 is not as accurate doesn't mean it doesn't have
17 value. So that's the prime distinction that I would
18 make there. That a calculation of economic output
19 has some value and a calculation of GDP is a somewhat
20 better reflection of the (B) (4) criteria itself and
21 is therefore a somewhat better metric to use for
22 decision making on that criterion.

23 If one only had output numbers and not
24 GDP numbers, you would have something and you could
25 work with that, but if you have GDP numbers as well,

1 then I would give somewhat greater weight to the GDP
2 type analysis.

3 MR. YOUNG: Well let me just ask in
4 terms of comparing the two analyses let's assume you
5 put similar inputs. I understand there's some
6 disagreements on inputs and we'll get to that, but
7 let's assume that on some of the bigger items, the
8 discount rate and the job loss issue that Dr.
9 Dismukes raised, you had entered the same numbers in
10 both the GDP model and the output number. Would you
11 expect to basically spit out essentially the same
12 result maybe an order -- maybe some difference in
13 quantity? I mean -- well answer that one first.

14 DR. HOPKINS: So the challenge comes
15 because different portions of the economic cost
16 benefit macro economic piece, whether you have done
17 an INPLAN, REMI, or REDYNE, different portions of
18 that analysis are more or less they are in state than
19 other portions, and so when some portions are
20 positive and others are negative, if the ones that
21 are negative tend to be more out of state and
22 therefore the correlation if they are a little bit
23 more sort of import related they will tend to have
24 more output impact and less GDP impact, and if it's
25 more about in-state spending it will tend to be a

1 little bit more on par between GDP and output, and so
2 when things that are on one side of the ledger have
3 sort of a different ratio between output and GDP than
4 things that are on the other side of the ledger, then
5 switching between the two it may not change the sign
6 of the answer, but it could, and since --
7 fundamentally is the sign of an answer. It's worth
8 being careful on that point.

9 MR. YOUNG: Should we be concerned about
10 VGS's analysis because they are not measuring GDP per
11 se or is that simply a different approach?

12 DR. HOPKINS: I think that all of the
13 analyses that various parties have presented all have
14 some value and it's up to you to decide the weighting
15 to give to those different pieces, but I would -- for
16 example, I identified some concerns I had with Ms.
17 Simollardes' testimony in terms of adding up
18 different kinds of value on that plus or minus scale
19 and it was a little bit of apples and oranges adding.
20 That doesn't mean each individual component of that
21 doesn't have value, but I would not give as much
22 value to their sum as I might to a more sort of
23 coherent one piece type analysis where you're really
24 adding apples to apples to apples.

25 MR. YOUNG: Let me get into the question

1 of job losses which is one of the disagreements. Is
2 that one of the larger reasons that your results are
3 different from Dr. Dismukes?

4 DR. HOPKINS: Particularly on the
5 question of job losses in the fuel provider industry?

6 MR. YOUNG: Right.

7 DR. HOPKINS: Okay. Yes. That's
8 definitely one of the major areas of difference
9 between Dr. Dismukes' analysis and my analysis.

10 The -- yeah. If you want to ask
11 particular questions about that piece.

12 MR. YOUNG: I'm going to hit a few
13 particular questions. So let's start off with your
14 rebuttal testimony basically makes the points that
15 his analysis -- correct me if I'm wrong, his analysis
16 assumes job losses would not be replaced. Was that
17 your observation?

18 DR. HOPKINS: His analysis assumes some
19 continuing job loss through time as does ours, and I
20 think that it is actually appropriate to recognize
21 that ongoing effect. The main difference that as I
22 see it between on the fuel provider impact side
23 between Dr. Dismukes and his analysis and my analysis
24 is in the question of overall scale and whether the
25 results are -- meet with a common sense test in terms

1 of the size of the impact and which of the impacts --
2 which of the inputs does the outputs scale with
3 appropriately.

4 MR. YOUNG: Okay. Well I'll ask you to
5 explain exactly. I mean I don't want to put words in
6 your mouth, but what -- implicit in what you said
7 seemed to be you think his numbers are too big for
8 job losses. Is that a simplified way of saying what
9 you just said?

10 DR. HOPKINS: That's one of the
11 conclusions that I would draw, yes.

12 MR. YOUNG: What's your basis for that?

13 DR. HOPKINS: So the first basis is a
14 sort of -- is this sort of common sense check. So I
15 don't have his numbers in front of me so I apologize
16 if I get them a little bit wrong, but he actually
17 very helpfully broke out the job loss pieces into
18 direct, indirect, and induced.

19 Direct jobs are jobs that are directly
20 in the industry. Not in the suppliers to that
21 industry and not in the economy at large because of
22 the wage those people take home, but directly in the
23 industry. So in 2034, if I remember the numbers
24 right because I was just looking through, I think the
25 number is 88 jobs lost in 2034 in the direct piece.

1 So just to think through that what that means, that
2 means that of those roughly 2400, 2500 customers that
3 VGS expects to be serving at that point, that the
4 loss of those 24 or 2500 customers costs 88 people
5 their jobs, and that -- to me that implies something
6 a little under 30 customers per employee of a fuel
7 dealer.

8 Given that folks generally have their
9 tank filled, you know, a few times a winter, the idea
10 that a single employee at a fuel dealing company
11 might essentially serve one customer a day roughly,
12 these are all sort of rough back of the envelope kind
13 of calculations, but the idea that there's an one
14 customer per day means one employee doesn't match
15 with my common sense understanding of how that
16 industry works. Filling that one tank is unlikely to
17 make enough money for the firm to pay that person's
18 wages for the day and the costs of the -- of those
19 gallons of fuel, et cetera. So thus those numbers
20 seem just weirdly high.

21 Our analysis reached similar
22 conclusions. The numbers were a little bit different
23 when we just trusted REMI and put numbers in and we
24 looked at that and said you know that seems odd. The
25 other aspect of Dr. Dismukes' is the fact that the

1 numbers just keep rising and rising and rising
2 throughout period driven, I think, based on our
3 experience looking at REMI, but the fact there is
4 basically inflation in the oil price maybe is
5 different from the rate of inflation that's otherwise
6 fundamentally in the economic model resulting in the
7 -- anything that sort of scales with pure dollar
8 sales getting out of whack and sort of rising up in a
9 way that really the difference between serving 2300
10 customers, losing 2300 customers in one year and
11 losing 2330 customers in the next shouldn't be so
12 great as to result in that much additional job loss
13 year after year.

14 So it's those kind of sort of
15 credibility checks against the numbers that give me
16 pause, and that I think our revised analysis working
17 -- either looking on a margin basis looking at the
18 trucking model or even breaking it down even further
19 in terms of a simple model of what the economics of a
20 fuel dealing firm might look like gives what I think
21 are much more credible numbers in terms of scale.
22 They don't go out of whack in odd ways, and I think
23 they are therefore more credible analysis for the
24 Board to reply upon.

25 MR. YOUNG: Did you interpret Dr.

1 Dismukes' direct job losses as being incremental job
2 losses each year or cumulative job losses?

3 DR. HOPKINS: Cumulative in the sense
4 that relative to some baseline case that there would
5 be say 88 fewer jobs in that sector in 2034 than
6 there would have been otherwise. Direct employment
7 in that fuel sector in Vermont might employ -- I'm
8 just going to make up a number because I don't
9 actually know -- 2,000 people, that Dr. Dismukes'
10 analysis would imply that if the pipeline were built
11 that that would be 2,000 minus 88, then it would be
12 1912 in that year.

13 MR. YOUNG: That would be the direct net
14 employment effect in that particular year and that
15 would also ripple through the economy as a result.

16 DR. HOPKINS: And the rippling through
17 the economy is captured in the indirect and induced
18 numbers that are associated with that.

19 MR. YOUNG: Okay. And you agree with
20 Dr. Dismukes that this is a factor that should be
21 considered, but you think the way you have captured
22 it is better?

23 DR. HOPKINS: Correct.

24 MR. YOUNG: Let me move to another
25 topic. I just had a curiosity question. Do you know

1 what the employment numbers in Addison County --
2 people working basically for fuel dealers and the
3 people whose jobs would be displaced?

4 DR. HOPKINS: I don't know. It's
5 possible that Mr. Cota might.

6 MR. YOUNG: And it's possible Mr. Cota
7 will be asked that question.

8 Okay. Let me go back to -- I'm going to
9 start with your direct testimony please. On page 5
10 you state that the revised cost estimate for the
11 project would be expected to change the quantifiable
12 sources of value more so than the non-quantified
13 sources. Can you explain why you reached that
14 conclusion?

15 DR. HOPKINS: The non-quantified sources
16 of value such as the ones identified there about the
17 value of firm supply and fuel price volatility or
18 later list others like the opportunity for further
19 expansion, those are -- those are sort of stand alone
20 pieces of value that are like it doesn't -- if I'm a
21 customer having firm supply versus not having firm
22 supply, that difference alone to me is not
23 particularly impacted by what the pipeline cost.
24 Same with those other kinds of characteristics.

25 MR. YOUNG: And as a result the

1 magnitude is not likely to change as much simply due
2 to the change in cost?

3 DR. HOPKINS: Correct.

4 MR. YOUNG: Page 8 of your testimony you
5 state that you have not included property tax
6 payments in your model. Do you recall that? Line 8.

7 DR. HOPKINS: The property tax payments
8 are not included in the sort of spreadsheet direct
9 cost of benefits pieces. We did include them, and
10 that's the context for this piece, they are included
11 explicitly in the REMI macro economic model.

12 MR. YOUNG: Okay. So you do think they
13 should be included. You just haven't included them
14 in this particular comparison that you're doing here?

15 DR. HOPKINS: In the analysis that I'm
16 presenting in question -- answer 13 that is a more
17 like direct ratepayer cost kind of calculation with
18 some other factors included as well, but because it's
19 intended to sort of track the direct dollars flowing
20 back and forth amongst Vermonters and just calculate
21 up only that aspect, not the subsequent rippling
22 through the economy, et cetera, and so in that
23 particular context property taxes that I pay, if --
24 if a project pays more property taxes somebody else
25 may pay less, but the average across the state is

1 zero. So thus a transfer within Vermont and thus not
2 captured in this particular portion of the analysis.

3 MR. YOUNG: When we are looking at the
4 VGS's analysis that Ms. Simollardes had presented it
5 included property taxes as an item. Are you -- for
6 the same reason should we be excluding that or is
7 that a different approach and is it appropriate to
8 include property taxes?

9 DR. HOPKINS: I forget exactly how Ms.
10 Simollardes includes it. If, for example, property
11 taxes were not included in some of the other cost and
12 benefits of her calculation, it might make sense to
13 include them in order to cancel out their having not
14 been in one of the other lines, and I don't know
15 exactly how that -- you know, they might need to be
16 on the list in order -- in order to cancel
17 appropriately, but I'm not sure exactly how they are
18 included or not. Again, generally concerned about
19 that sort of stack of values and cost and benefits
20 that Ms. Simollardes provided doesn't -- they are not
21 all the same kind of a thing, and so I'm not sure
22 about exactly how they fit together.

23 MR. YOUNG: On pages 9 and 10 you
24 identified the potential effect on the value of the
25 project from adjusting the ROE and the capital

1 structure. Do you see that?

2 DR. HOPKINS: Yes.

3 MR. YOUNG: After looking at this are
4 there things that should be done along the lines
5 you're recommending that would help ensure value to
6 customers from the project or at this time or is this
7 just more hypothetical?

8 DR. HOPKINS: I think this is
9 hypothetical. It's indicative of the kind of impact
10 that subsequent rate cases might be able to have on
11 the overall net benefit of the project recognizing
12 that's not the purpose of this proceeding as I
13 understand it, but just indicative generally that
14 capital structure, rate of return, can have material
15 impact on the net economic benefit that the project
16 might provide.

17 MR. YOUNG: And at this time you're not
18 prepared with specific recommendations I take it?

19 DR. HOPKINS: Correct. No.

20 MR. YOUNG: Next page, page 11, you
21 state that certain benefits are not included in your
22 calculation. Have you attempted at all to value
23 these?

24 DR. HOPKINS: You're looking at answer
25 17; is that right?

1 MR. YOUNG: Yes.

2 DR. HOPKINS: Some of the things in that
3 list, this answer is a transition between the
4 spreadsheet model before it and the REMI model after,
5 and so some of the things that I identified there
6 like the economic multipliers, energy cost savings,
7 and the economic benefit from construction are then
8 captured in the analysis to follow.

9 The non-quantifiable benefits are not
10 captured in any other way subsequently. I have not
11 made an attempt to quantify the benefits of VGS's
12 expanded efficiency programs recognizing that that's
13 to be -- exact sort of shape and scope of that is
14 subject to the 7676 process underway now.

15 MR. YOUNG: Okay, but basically the REMI
16 model does capture a lot of these secondary -- these
17 other effects because of the nature of it is a model?

18 DR. HOPKINS: Correct. It's capable of
19 doing more than a spreadsheet count.

20 MR. YOUNG: Page 13. You state you've
21 not based your analysis on the present state in which
22 some industrial customers take CNG service; is that
23 correct?

24 DR. HOPKINS: Correct.

25 MR. YOUNG: Should we be looking at this

1 project from the perspective of since some customers
2 now are taking that service isn't the real change
3 when you're looking at it from CNG to natural gas as
4 opposed to from fuel oil to natural gas?

5 DR. HOPKINS: As I state here I don't
6 think that in the context of this remand type
7 proceeding that the -- that the -- changing the
8 baseline in that way is appropriate.

9 As we did in the -- as the Department's
10 witnesses did in the original proceeding, it would be
11 possible to look at alternate cases. At this point
12 with a project sort of partly built there's no way to
13 define a good sort of alternate case of the state of
14 the world on the ground as it would be if some random
15 string of things or maybe a carefully designed string
16 of things happened or didn't happen. That's an odd
17 place to try to set a new baseline while you're in
18 the middle of an action.

19 So from a pure analytic standpoint I
20 think changing the baseline would be difficult. It
21 is possible to get a rough sense of what this REMI
22 simulation, for example, might have produced for the
23 hypothetical which doesn't exist of the project
24 having never been proposed and some number of
25 customers having switched over to CNG, but we can't

1 get to that world from here. So it's possible to do
2 that analysis and one might learn something from it,
3 but it's not as immediately directly relevant I think
4 to the question here.

5 MR. YOUNG: I guess I'm curious as to
6 why this component shouldn't be adjusted. I mean
7 we're sitting here adjusting fuel prices, oil prices.
8 We're sitting here adjusting the cost, the
9 availability of cold climate heat pumps, and a number
10 of other factors. Why not this one? That's what I'm
11 missing.

12 DR. HOPKINS: So I think there is a
13 distinction between changing assumptions and inputs
14 on the sense of prices and costs of things versus
15 changing the entire frame of reference for the
16 analysis, and I think it's more appropriate at this
17 point to be considering the changes like changes in
18 prices and costs, but not to change the entire frame
19 of analysis in a way of a complete change in baseline
20 that would be -- that would accompany this adoption
21 of CNG baseline instead.

22 CHAIRMAN VOLZ: You still haven't said
23 why though.

24 DR. HOPKINS: I guess --

25 CHAIRMAN VOLZ: I mean if you're a

1 business and you're trying to make a decision, and I
2 mean I'm sort of analogizing the situation to sunk
3 costs, if you're a business and you're trying to make
4 a decision, once you have done something it's done
5 and you look forward, and that's sort of like what I
6 feel like is the situation we're in now.

7 DR. HOPKINS: Right. I understand that.
8 I think my understanding of sort of the scope and
9 framing for this proceeding is in the question of
10 this particular court of remand context which I think
11 may be slightly different from the frame that you
12 were talking.

13 In that other frame it would be possible
14 to essentially analyze that other -- that other case
15 of -- pretend there had never been a pipeline
16 customer switch to CNG and what would the economic
17 impact of that be, and you could then -- I think I
18 still say I disagree using that as a baseline, but
19 one could at least compare that as a different
20 scenario to the pipeline scenario. That's what Mr.
21 Nagle and Mr. Poor did in the direct case where they
22 compared the project case to an industrial LNG case
23 and an industrial CNG case.

24 If you want to look at Table 3, I could
25 sort of show you how that would -- what that would

1 look like, and I believe it would show that the net
2 economic benefit to the state of the project built at
3 its current cost, current built prices, et cetera,
4 remains as it was in the direct case greater than the
5 direct -- the economic benefit of simply industrial
6 customers adopting CNG and stopping there.

7 MR. YOUNG: Since you made that
8 comparison have you read Mr. Gross's testimony?

9 DR. HOPKINS: I have read it. Yes.

10 MR. YOUNG: Did you have any reaction to
11 the feasibility of his CNG island approach and as to
12 whether that might be a least cost solution compared
13 to the pipeline?

14 DR. HOPKINS: I think I can sort of see
15 where that analysis comes from. I was confused by
16 parts of it about how the business model would work
17 and who was paying for what, but I think that
18 alternate scenario is something potentially to
19 consider in the context of recognizing the context of
20 the proceeding that we're in and where we are in the
21 real world, but recognize also that that scenario
22 foregoes various other benefits that if you were
23 really looking from a societal least cost type
24 perspective, you might really want to figure out
25 whether that was worthwhile from an overall cost

1 standpoint.

2 MR. YOUNG: I take it you have not
3 attempted to quantify whether that type of solution
4 would in fact be least cost?

5 DR. HOPKINS: I have not. The -- I
6 think defining exactly what least cost means in that
7 case is a challenge, and if -- I'm more prepared to
8 think about what the -- say the (B) (4) criteria net
9 economic benefit type picture would look like under a
10 CNG delivery-only scenario rather than sort of
11 consideration of what might be if someone proposed
12 some other thing. That would require some whole
13 other set of analysis. That general constructs would
14 seem to operate generally -- we can generally have
15 least cost planning, but we also have, you know,
16 firms making business decisions and proposing to do
17 particular things, and we have to recognize that it's
18 those things that we're weighing in on in proceedings
19 like this one.

20 MR. YOUNG: On page 15 of your direct
21 testimony you discuss the rate impacts on existing
22 customers. Is it -- is it the Department's view that
23 the cross subsidy can be adequately addressed through
24 rate recovery and therefore should not be a concern
25 to the Board?

1 DR. HOPKINS: I don't think that not
2 being concerned is the right framing for that, but I
3 think the not being so dispositive a concern as to
4 say you should say that the project is no longer in
5 the general good of the state, yes, but you should
6 definitely be aware of and consider any cross subsidy
7 as I described it here.

8 MR. YOUNG: Okay. Let me rephrase the
9 question then. The existence of the -- the size of
10 the cross subsidy and the existence of the cross
11 subsidy in your mind does not mean this project does
12 not promote the general good of the state?

13 DR. HOPKINS: Correct. Not to say we
14 couldn't make it better through rates, but that's a
15 different proceeding.

16 MR. YOUNG: Thank you.

17 CHAIRMAN VOLZ: I'm a little bit
18 concerned about getting Mr. Neme on and off by 3:30.
19 Do you want to interrupt Mr. Hopkins -- Dr. Hopkins'
20 testimony so we can bring Mr. Neme in?

21 MR. DUMONT: Thank you.

22 CHAIRMAN VOLZ: Why don't we do that,
23 and if you would hang around, Mr. Hopkins, we'll do
24 that and we hope to get you done by 5 as well.

25 DR. HOPKINS: Appreciate it.

1 BOARD MEMBER CHENEY: I'll start with I
2 would like to remind you that you remain under oath
3 from your previous appearance in this docket.

4 MR. NEME: Okay.

5 CHRIS NEME,

6 Having been previously sworn, testified
7 as follows:

8 MR. DUMONT: I'm going to hand the court
9 stenographer the May 6th prefiled testimony and the
10 May 27th prefiled testimony, each of which have
11 attachments A and B, and after you mark them I'm
12 going to give them to the witness because he's
13 missing one of his sets. I don't think there's any
14 objection to his prefiled.

15 CHAIRMAN VOLZ: We have already
16 stipulated to it.

17 MR. DUMONT: Yes.

18 CHAIRMAN VOLZ: I understand the
19 testimony and exhibits have been stipulated to, to be
20 entered into evidence and so they are admitted.

21 (The Prefiled Testimony of Chris Neme
22 was admitted into the record.)

23 (Exhibits marked AARP-Neme A & B and
24 AARP-Neme-Reb A & B were admitted into the
25 record.)

1 CHAIRMAN VOLZ: And I think cross
2 examination starts with Vermont Gas.

3 MS. HAYDEN: Thank you.

4 CROSS EXAMINATION

5 BY MS. HAYDEN:

6 Q. Hello, Mr. Neme.

7 A. Hello.

8 Q. I have only a couple of questions. I believe
9 you have in front of you what's been marked as exhibit
10 Petitioner Cross Lyons 1, a 2013 -- I'm sorry. November
11 13, 2014 study.

12 A. I do not have it in front of me, but I'm
13 familiar with it.

14 Q. Okay. I provided that to your counsel.

15 MR. DUMONT: Sorry. I thought he had
16 it.

17 MS. HAYDEN: That's okay. Is it okay if
18 I hand him a copy?

19 MR. DUMONT: Yes. We don't object to
20 admitting it.

21 BY MS. HAYDEN:

22 Q. And here's my question. Page 4 of your
23 testimony you refer to an -- I'm going to say the NEEP --
24 Northeast Energy Efficiency Partnership; is that right?

25 A. You're referring to my testimony?

1 Q. I'm sorry. Page 4 of your report.

2 A. Of the May 6th report. Okay.

3 Q. That's right. Page 4. There is a reference
4 to a Northeast Energy Efficiency Partnership meta study in
5 footnote 7. Do you see that -- or footnote 6?

6 A. I do.

7 Q. Is this the study that you were --

8 A. Yes, it is.

9 Q. So that's what you used for your coefficient
10 of performance?

11 A. That's correct.

12 Q. Thank you. The only other question I have is
13 on page 7 of your report you provide carbon emission rate
14 assumptions for different fuels. Do you see that?

15 A. I do.

16 Q. And for the electricity, which in this case I
17 believe you're using for the cold climate heat pump
18 option, what is the fuel type that forms the basis for the
19 emissions rate?

20 A. Give me a second here to remind myself. There
21 isn't any necessarily fuel type. As the report notes in
22 the paragraph right above Table 5, it says for electricity
23 I use the Vermont specific marginal emissions rates at the
24 generator that were estimated in the regional 2013 Avoided
25 Cost Study and then increase them by the marginal winter

1 line loss rates.

2 Q. Am I accurate in understanding that the --
3 that the marginal emissions -- or, I'm sorry, the
4 generators that were used for the Vermont specific
5 marginal emission rates included natural gas?

6 A. I am -- I'm sure the analysis considered
7 consideration of natural gas and I suspect natural gas was
8 on the margin at least some portion of the time and still
9 is some portion of the time in New England. It's probably
10 not -- well I don't know whether that is the case in every
11 single hour in the analysis that was used to generate
12 those emission rates.

13 Q. The emission rate is higher -- prior to your
14 adjustment for the COP is higher than the tons per MMBtu
15 for the other fuel types, correct?

16 A. That's correct.

17 MS. HAYDEN: Okay. I have no further
18 questions.

19 MR. DUMONT: Did you want to admit those
20 exhibits?

21 MS. HAYDEN: Thank you. And if --

22 MR. DUMONT: I don't object.

23 MS. HAYDEN: Okay. We move to admit
24 exhibit Petitioner Cross Lyons 1 and exhibit
25 Petitioner Cross Lyons 2, and I should say they are

1 also -- the identification is 6/22/15 Lyons 1 and
2 6/22/15 Lyons 2 because in the first remand
3 proceeding there were several exhibits that were
4 entered with a similar exhibit reference.

5 CHAIRMAN VOLZ: Understand. Mr. Dumont
6 doesn't object. Does anybody else object? Okay.
7 They are admitted.

8 (Exhibits marked Petitioner Cross 6/22/15
9 Lyons 1 & 2 were admitted into the record.)

10 CHAIRMAN VOLZ: Mr. Grayck, do you have
11 cross for this witness?

12 MR. GRAYCK: No, I do not.

13 MR. TOUSLEY: Good afternoon, Mr. Neme.
14 How are you today?

15 MR. NEME: Fine. Thank you.

16 MR. TOUSLEY: A few questions. Elements
17 of your report have been challenged by both Ms.
18 Simollardes and by Dr. Hopkins. Are you familiar
19 with their criticism?

20 MR. NEME: Can you be specific about
21 which criticisms?

22 MR. TOUSLEY: Let's take Dr. Hopkins.
23 He talks about the market demand relative to heat
24 pumps and other things.

25 MR. NEME: Yes. I'm not sure I would

1 necessarily characterize -- are you referring to what
2 he said in his rebuttal testimony?

3 MR. TOUSLEY: Yes.

4 MR. NEME: Where he did the simple pay
5 back analysis?

6 MR. TOUSLEY: Yes.

7 MR. NEME: I don't read that as a
8 criticism or rebutting of my testimony. My
9 understanding of what he said in that discussion or
10 what he's actually even trying to do is to take a
11 particular viewpoint to inform whether customers --
12 residential customers would potentially be interested
13 in fuel switching either to natural gas or fuel pump.

14 I have several concerns with the way he
15 approached it, but he didn't rebut my presumption
16 that the COP -- average COP was 2.7, and in fact in
17 his Appendix C to his own testimony that's the very
18 assumption he used in his modeling, for example. So
19 I think he's addressing a different question than I
20 addressed in my testimony.

21 MR. TOUSLEY: Okay. I understand.
22 Thank you. When you testified in September 2014 in
23 the first remand hearing you speculated as to the
24 likely availability of multi-head cold climate heat
25 pumps in Vermont. It is now June and we have since

1 had another cold winter. To what extent, if at all,
2 has the marketplace responded by making multi-head
3 cold climate heat pumps available as you predicted?

4 MR. NEME: As I predicted they became
5 available. I believe they were first available for
6 sale in Vermont in -- on the order of January give or
7 take a month. I just got a price quote myself for
8 one at my own house and I think have a contractor
9 coming to install a three-head system next week.

10 MR. TOUSLEY: How does the three-head
11 system differ from what was available a year ago?

12 MR. NEME: What was available a year ago
13 were what we called single head systems. That is
14 they had a single outdoor unit connected to a single
15 indoor unit. The three-head system I'll be having
16 installed in my house has an outdoor compressor
17 that's connected to three different air handlers in
18 the house. So it enables with one outdoor kind of
19 compact system to heat and/or cool a larger portion
20 of the building.

21 MR. TOUSLEY: So rather than having a
22 forced air ducting system to heat a larger home you
23 could use the multi-head system to heat the home?

24 MR. NEME: You could.

25 MR. TOUSLEY: There's been some

1 testimony that the residents of Addison County have a
2 greater reliance on wood and wood pellets for their
3 home, for heating their homes, than residents of
4 Chittenden County. Are you familiar with that
5 testimony?

6 MR. NEME: I am not.

7 MR. TOUSLEY: Have you done any analysis
8 comparing -- in your work you've compared a shift to
9 cold climate heat pumps and oil and cold climate heat
10 pumps and natural gas. Have you looked at another
11 comparison to cold climate heat pumps and wood or
12 wood pellets given the number of usages that are --

13 MR. NEME: I have not done that
14 analysis. I don't know that you would necessarily --
15 well one could look at the economic -- the economics
16 of use of a cold climate heat pump compared to use of
17 some form of fuel wood if that's what you're using to
18 heat your house. You could also conceivably look at
19 marrying them together.

20 MR. TOUSLEY: That is what I was
21 referring to. I think in some of your testimony you
22 referred to having cold climate heat pump as a
23 compliment to gas or oil or propane. Have you done a
24 study to assess cold climate heat pump as a
25 compliment to wood or wood pellets?

1 MR. NEME: I have not.

2 MR. TOUSLEY: Okay. In your report you
3 conclude that the Board needs to focus on societal
4 elements -- societal economics rather than customer
5 economics when analyzing the relative cost
6 effectiveness of residential fuel switching from oil
7 to gas versus switching to ductless heat pumps.
8 That's correct, isn't it?

9 MR. NEME: Yes. That's correct.

10 MR. TOUSLEY: You further conclude under
11 societal economics the cost effectiveness of
12 residential fuel switching to natural gas is
13 questionable because the societal cost includes the
14 infrastructure investment.

15 MR. NEME: That's correct.

16 MR. TOUSLEY: Okay. Doesn't the
17 customer pay for that investment as part of the
18 monthly bill? Isn't that a personal cost as well?

19 MR. NEME: Well, as I understand it, the
20 -- and the mechanism through rates by -- the precise
21 mechanism through rates by which Vermont Gas would
22 recover the full cost of the infrastructure is yet to
23 be determined, but as I understand it the presumption
24 is that it's going to be recovered through rates that
25 are paid by all Vermont Gas customers. So to the

1 extent the new customers are part of all Vermont Gas
2 customers in the future they would be bearing some
3 portion of that cost. However, it would be a
4 relatively small portion percentage wise because they
5 are a relatively small portion of the total
6 population of Vermont Gas customers. So the vast
7 majority of the cost would be borne, as I understand
8 it, by customers -- at least initially by customers
9 other than those who are being converted to natural
10 gas.

11 I'll also observe that in the customer
12 economics analysis that I did, as stated in the
13 testimony, I did not account for the rate impacts on
14 that, the spreading of the cost of the pipeline
15 across all customers would have on gas prices. So
16 that's not included.

17 MR. TOUSLEY: That would be included in
18 societal economics analysis?

19 MR. NEME: Yes. In theory the portion
20 of the cost they are paying should have been included
21 in the -- you know, should ideally be included in the
22 customer economics as well, but in the societal
23 economics one would want to include the entire cost
24 of the project and compare it to the entire range of
25 benefits, or in this case since I only looked at the

1 residential sector what I did was to take the entire
2 cost of the project, come up with a proxy basis for
3 reasonably assuming what portion of it would be borne
4 by the residential sector, and then compare that
5 portion of the project cost to the portion -- to the
6 residential project benefits.

7 MR. TOUSLEY: Thank you.

8 BOARD MEMBER CHENEY: So following up on
9 what Mr. Tousley was asking you, I think it's
10 referring to page 4 of your testimony, and I'm
11 looking at the sentence lines 9 through 11 in which
12 you say that from a societal perspective --

13 MR. NEME: I'm sorry. Are we on page 4
14 of my testimony?

15 BOARD MEMBER CHENEY: Testimony from a
16 societal perspective you say on line 9 -- are you
17 there?

18 MR. NEME: Yes.

19 BOARD MEMBER CHENEY: Which includes
20 consideration of such gas infrastructure costs. I'm
21 going to pause there because I believe that's what we
22 were just discussing.

23 MR. NEME: Correct.

24 BOARD MEMBER CHENEY: And then you say
25 as well as impacts on the environment. The gas fuel

1 switch at best is a break even proposition and could
2 increase societal costs. Which impacts were you
3 alluding to and did you quantify them, which
4 environmental impacts?

5 MR. NEME: The environmental impacts
6 that I'm referring to in particular there are carbon
7 impacts which were quantified through the use of the
8 cost effectiveness screening tool that I use.

9 BOARD MEMBER CHENEY: So you did not
10 account for methane impacts?

11 MR. NEME: I did not.

12 BOARD MEMBER CHENEY: Thank you.

13 CHAIRMAN VOLZ: Any follow-up questions
14 to our questioning? Any redirect?

15 MR. DUMONT: No.

16 CHAIRMAN VOLZ: We're done then with
17 this witness.

18 MR. DUMONT: I know he has a minor child
19 to pick up at summer camp.

20 MR. NEME: Summer camp and then off to a
21 baseball game.

22 CHAIRMAN VOLZ: Thank you. You're
23 excused.

24 MR. NEME: Thank you.

25 CHAIRMAN VOLZ: I think we'll return to

1 Mr. Hopkins. I believe we've concluded our
2 questioning of Dr. Hopkins. Are there any follow-up
3 questions based on our questioning?

4 MR. DUMONT: I did have some.

5 CHAIRMAN VOLZ: Sure. Go ahead.

6 CROSS EXAMINATION

7 BY MR. DUMONT:

8 Q. Dr. Hopkins, you had questions I think from
9 the Chairman and from Mr. Young about approaching the
10 existing investment in phase one as a sunk cost. Do you
11 recall that?

12 A. Yes.

13 Q. Are you aware that there are precedents at
14 this Board such as the Seabrook precedent that
15 specifically address the situation we're in right now?

16 A. I'm not familiar with those precedents.

17 CHAIRMAN VOLZ: I just want to be clear
18 about something. I was referring to the industrial
19 customers who put in CNG, not to the cost that
20 Vermont Gas has spent on this project.

21 MR. DUMONT: I mischaracterized that.
22 Thank you. It's my fault.

23 CHAIRMAN VOLZ: I was not referring to
24 Vermont Gas.

25 BY MR. DUMONT:

1 Q. Whether we're talking about sunk costs in the
2 CNG facilities or the sunk costs in the pipeline you're
3 not aware of how the Board precedents address that?

4 A. Correct.

5 MR. DUMONT: We will address that in the
6 briefing. I'll represent the Seabrook case does seem
7 to provide guidance.

8 CHAIRMAN VOLZ: My question was about in
9 trying -- I want to make sure people didn't
10 misunderstand it. In trying to figure out how much
11 benefit there is to this project Mr. Hopkins -- Dr.
12 Hopkins was suggesting that we not look at money that
13 was already spent by the CNG customers who have
14 already converted over, and I was suggesting and
15 others are -- in fact the company is suggesting we
16 shouldn't do that. We should go -- we should make
17 believe they didn't convert, and I was suggesting
18 that perhaps since they have already spent the money
19 we shouldn't ignore that.

20 MR. DUMONT: I jumped from that. I
21 missed the link in between. Sorry.

22 CHAIRMAN VOLZ: All right.

23 BY MR. DUMONT:

24 Q. Just -- this question just refers to the sunk
25 costs in phase one. You're not aware of any Board

1 precedent that addresses that? You're not aware there's a
2 Board policy in the precedents that encourages utilities
3 to rethink or continually reconsider their investments as
4 they go along, and because of that smart management it has
5 -- the Board precedent has a presumption that they truly
6 will recover 50 percent of the sunk costs? You're not
7 aware of that?

8 A. I'm not aware of that.

9 Q. You answered Mr. Young's questions about
10 addressing CNG by saying it didn't seem appropriate to
11 change the frame of reference from 2013, correct? You
12 used the term frame of reference?

13 A. Yes. I think I probably used that term.

14 Q. What did you mean by frame of reference?

15 A. What I meant was a fundamental change in
16 baseline of which -- what you're comparing against what.

17 Q. What we in the vernacular call apples to
18 apples. Is that what you meant?

19 A. If in the past you compared apples to apples,
20 that you should continue to compare apples to apples.

21 Q. And you agree the Board's decision in 2013 the
22 metric they used was 20-year NPV, correct?

23 A. I understand from -- particularly from having
24 had you -- when you were walking through a range of
25 examples yesterday refreshed my memory that the facts of

1 the analysis that were presented to the Board in that
2 docket or in this docket but in the earlier proceeding, a
3 portion of it, were 20-year NPV numbers. The Board has to
4 rely, as far as I understand it, on the information that's
5 presented to it. If someone had presented 35-year data or
6 70-year data or other durations, the Board could have
7 chosen to rely on that. My sense from the testimony and
8 the facts in that -- in the earlier version of this
9 proceeding are that generally analysis were represented on
10 a 20-year basis.

11 Q. And so if we were to base a decision now on
12 35-year or, as Mr. Heaps said, 55-year NPV, that would be
13 changing the frame of reference?

14 A. I don't know -- I don't think I agree with
15 that.

16 MR. DUMONT: Thank you.

17 CHAIRMAN VOLZ: Yes. Ms. Levine.

18 CROSS EXAMINATION

19 BY MS. LEVINE:

20 Q. Following up on the Chair's questions
21 regarding the evaluation and consideration of industrial
22 customers using compressed natural gas, do you agree that
23 in general an evaluation of benefits of fuel switching
24 would include what the current fuel is as an input?

25 A. As a general matter, yes.

1 Q. And you also agree that in this situation the
2 current fuel for a number of customers, larger industrial
3 customers, is different than it was in September of 2013?

4 A. That's my understanding.

5 MS. LEVINE: Thank you.

6 BOARD MEMBER HOFMANN: Dr. Hopkins, if I
7 could, you were indicating in an answer to Mr. Dumont
8 that you did not believe it was the same frame of
9 reference, or it was back to that set of questions,
10 and you said you didn't -- you couldn't agree with
11 that characterization. I wonder if you could explain
12 why.

13 DR. HOPKINS: Try to go back a minute in
14 my mind. There's a difference between changing the
15 fundamental baseline for the analysis and changing
16 which, you know, when you do a cost benefit analysis
17 of the sort that we're presenting here you could look
18 at it for 20 years or 21 or 22 or 5 or 72. Those are
19 all just different metrics or pieces of data about
20 one piece of analysis, and that piece of analysis
21 fundamentally has a baseline and a case to which you
22 are comparing to that baseline.

23 So saying that the presented facts at
24 one point were based on 20 years of comparing
25 basically with pipeline and without, and then in the

1 current set of numbers before the Board you have 20
2 year numbers as well as 35 year numbers and some
3 longer numbers, the baseline of no pipeline remains
4 -- should remain the same baseline to which you're
5 comparing your scenarios; just that the metrics that
6 you might use in that comparison, there are many
7 metrics you might use. You could use output or GDP.
8 We had that presentation here. You could take
9 present values over different times or different
10 discount rate. Those are all different ways of
11 characterizing that single comparison between a case
12 and a baseline.

13 So changing the frame of reference would
14 be actually changing that fundamental comparison
15 rather than changing which metrics you were using to
16 evaluate that analysis and the outcomes of that
17 analysis.

18 BOARD MEMBER HOFMANN: Thank you.

19 CHAIRMAN VOLZ: Any other follow up?
20 Okay. I think we're ready for Mr. Dismukes. I'm
21 sorry. Is there redirect?

22 MS. PORTER: No, sir. Thank you.

23 CHAIRMAN VOLZ: Maybe we'll take our 3
24 o'clock break now actually. So 15 minutes.

25 (Recess.)

1 CHAIRMAN VOLZ: We're back from our
2 break and would like to get started. I think we're
3 up to Mr. Dismukes.

4 DAVID E. DISMUKES,

5 Having been duly sworn, testified
6 as follows:

7 MR. DUMONT: Mr. Chairman, I have marked
8 his prefiled testimony and exhibits A and exhibits
9 DED 1 through 5. His rebuttal testimony with
10 exhibits DED 1 through 6 the number 4 has a 4A and 4B
11 with it.

12 CHAIRMAN VOLZ: Okay and they are
13 admitted.

14 (The Prefiled Testimony of David E.
15 Dismukes was admitted into the record.)

16 (Exhibits marked AARP-DED A, 1-5, R1, 2,
17 3, 4A, 4B, 5, 6 were admitted into the
18 record.)

19

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1 CHAIRMAN VOLZ: Is the witness available
2 for cross examination?

3 MR. DUMONT: He's right there.

4 CHAIRMAN VOLZ: Okay.

5 CROSS EXAMINATION

6 BY MS. HAYDEN:

7 Q. Good afternoon, Dr. Dismukes.

8 A. Good afternoon.

9 Q. So I've taken your deposition and so we have
10 had some conversations about your testimony. You have not
11 previously provided testimony regarding the net economic
12 benefits of a natural gas expansion project, correct?

13 A. Correct.

14 Q. And it's true that the closest thing or most
15 comparable analysis that you've undertaken was testimony
16 that you submitted in New Jersey before the New Jersey
17 Board of Public Utilities concerning a natural gas
18 pipeline replacement program, correct?

19 A. I think that would be correct. Yes, ma'am.

20 Q. Okay. And that's what you testified to during
21 your deposition, correct?

22 A. Yes, ma'am. I believe that's correct.

23 Q. And, in fact, you characterized the analysis
24 that you performed there as the exact same template that
25 you see here. Do you recall that?

1 A. Yes, ma'am.

2 Q. And the testimony in New Jersey that you were
3 referring to you did provide us with copies following the
4 deposition of the testimony that you were referring to.
5 Do you have in front of you exhibit Petitioner Rebuttal
6 RWH 5, the supplemental testimony in the New Jersey
7 matter? If you don't have it, I've got a copy for you.

8 A. I do not have a copy of that.

9 Q. Mr. Dumont, this was a rebuttal exhibit of Mr.
10 Heaps. It's the New Jersey testimony and the document.

11 MR. DUMONT: Why don't you give it to
12 him. Sure.

13 MS. HAYDEN: Thank you.

14 BY MS. HAYDEN:

15 Q. Just take a minute to review that, and if you
16 can tell me that's the same gas pipeline replacement
17 program you were talking about in your deposition?

18 A. Yes, ma'am. Appears to be.

19 Q. Okay. Now with your testimony in this
20 proceeding do you have -- you have provided Attachment A,
21 your resume, consisting of approximately 53 pages; is that
22 correct?

23 A. Yes, ma'am.

24 Q. This New Jersey testimony is not listed in
25 your resume, correct?

1 A. It may have been omitted. I don't recall. I
2 haven't gone through and checked.

3 Q. Dr. Dismukes, you were aware, when I took your
4 deposition, that this was not listed on your resume,
5 correct?

6 A. I didn't memorize the deposition transcript.

7 Q. Would you accept subject to check that this
8 exhibit -- or this exhibit, which is testimony you filed
9 in New Jersey, is not listed on your 53-page resume?

10 A. Yes, ma'am. I can agree subject to check.

11 Q. Thank you. Could you turn to page 16 of
12 what's been marked as RWH 5, your supplemental testimony
13 before the New Jersey Board of Public Utilities?

14 A. Yes, ma'am.

15 Q. And here it's accurate to say that you were
16 critiquing a report provided by the utility in that case
17 for what they called their Energy Strong Program for
18 pipeline replacement, correct?

19 A. Yes, ma'am, with the clarification that the
20 work was done by consultants for the utility.

21 Q. Thank you. And in that case, beginning at
22 line 18 on page 16, one of the criticisms you made was
23 that the company calculated benefits for 10 years and you
24 recommended a full 40-year analysis to be consistent with
25 the life of the asset, isn't that accurate?

1 A. That's not my recommendation. I think what
2 I'm saying here is that the company when they did their
3 analysis, or the consultants had done the analysis for
4 them, they had only used a 10-year period as opposed to
5 40-year period that was used by the company, that not only
6 goes across the ED investments, but also were the base
7 line and time period of which the rate impacts were done
8 too.

9 So in order to keep the rate impacts; i.e. the
10 cost, associated with the program consistent with the
11 benefits you needed to keep them consistent with how the
12 company calculated them, which in this instance was over
13 the life of those assets.

14 Q. Okay, and so let -- you stated the company
15 only calculates benefits for a 10-year period, not the
16 full 40-year asset life associated with the company's
17 proposed ED investments. That's your statement on line 19
18 and 20, correct?

19 A. Yes, ma'am. That's what it says.

20 Q. Okay. And do you recall in your deposition
21 that I asked you why your analysis -- which of the
22 project's net economic benefits, which has been marked as
23 exhibit schedule DED 3, why you -- whether you stopped at
24 35 years because you felt that the project benefits ended
25 at 35 years. Do you recall that?

1 A. Do you have a page and line number of the
2 deposition? I can go over it. I remember the discussion.
3 I don't remember the specifics.

4 Q. If you can turn to page 15, beginning on line
5 10 I ask you, and here's my question; why did you stop at
6 year 35? Is it because you don't expect there to be any
7 energy savings after year 35? Do you see that?

8 A. Yes, I see that.

9 Q. And your answer was; No. No. Not at all?

10 A. Right.

11 Q. Okay. So -- so you didn't stop -- so -- and
12 then your answer goes on to say there were two
13 representations in my analysis there for 20 and then for
14 35 years. Do you see that?

15 A. Yes, ma'am.

16 Q. Okay. And you testified that the rate impact
17 numbers, and I'm referring to page 16, you say that the
18 rate impact numbers start to flip to the more positive
19 side beginning in year 34. Do you recall that? And if
20 you refer yourself to page 16 lines --

21 A. Yes.

22 Q. Correct. And you reference that as a -- and
23 I'm reading from lines 8 to 10. You say that there will
24 be a bias towards the positive side of the ledger in those
25 years post year 34, correct?

1 A. Yes.

2 Q. Okay. And it's also true that your -- for
3 your rate impact analysis in your exhibit DED 3, you
4 simply took the results from Ms. Simollardes' spreadsheets
5 with no adjustments, correct?

6 A. That is correct.

7 Q. And going back to the New Jersey testimony
8 that you provided in that proceeding, beginning at page 22
9 you referred the Commission in that case to the discount
10 rate guidance provided by the White House Office of
11 Management and Budget, correct?

12 A. Yes.

13 Q. Your testimony in this proceeding does not
14 reference the guidance provided by the Office of
15 Management and Budget at all, does it?

16 A. No. It does not. I think this was an issue
17 that was raised and was done in particular to this
18 particular proceeding. I think it was originally raised
19 by the authors of the Brattle Report, and we went back and
20 looked at the details associated with the OMB circulars
21 related to how these discount rates should be applied and
22 kind of fleshed out the details associated with them.

23 Q. Actually when I look at your testimony on page
24 22 beginning at line 9 it looked to me that you were
25 countering the fact that the Brattle Report in that case

1 used a 1 percent and 4 percent discount rate, and you
2 brought to the Commission's attention guidance by the OMB
3 in rebuttal. Isn't that accurate?

4 A. Yeah, but I believe that the Brattle Report
5 raised this issue initially. I think it was cited in
6 their particular report as I recall.

7 Q. Okay. I'll come back to that in a minute. In
8 the New Jersey -- in your testimony in the New Jersey
9 proceeding concerning the Energy Strong Program you found
10 that the proposed project in that case as proposed by the
11 company, the investment, would produce a net economic
12 loss, correct?

13 A. Yes, ma'am. That's correct.

14 Q. And then during your deposition I asked you to
15 identify other -- other types of energy projects where you
16 had performed a net economic benefit analysis. Do you
17 recall that?

18 A. Yes, ma'am. I do.

19 Q. And you referred me to page 38 of your resume
20 which is Attachment A?

21 A. Yes, ma'am.

22 Q. Do you have that with you?

23 A. Yes, ma'am.

24 Q. And you referred me to several different
25 testimonies that you have previously provided where you

1 performed a net economic benefit analysis. One was -- was
2 item 14 on page 37 actually which involved a solar
3 generation program, investments for an extension of a
4 solar generation program, and that was a proceeding before
5 the New Jersey Board of Public Utilities?

6 A. Yes, ma'am.

7 Q. And in that case your net economic benefit
8 analysis concluded that that investment would produce
9 negative benefits, correct?

10 A. Yes, ma'am.

11 Q. Okay. And then number 15 on page 38 involved,
12 again before the New Jersey Board of Public Utilities, a
13 proposal for approval of a solar loan program by the
14 utility, and again in that proceeding you recommended
15 based on your analysis -- or you concluded that that
16 program would result in a net economic loss, correct?

17 A. Yes, ma'am.

18 Q. And number 16 that you referred me to is
19 testimony before the New Jersey Board of Public Utilities
20 concerning a petition of Fisherman's Atlantic City Wind
21 Farm for approval of an offshore wind project, correct?

22 A. Yes, ma'am.

23 Q. And again in that proceeding you found that
24 the proposed project would result in a net economic loss,
25 correct?

1 A. Yes, ma'am.

2 Q. Do you have in front of you what's been marked
3 as exhibit Petitioner Cross 6/22/15, June 22, 15, AARP-5?

4 A. Yes.

5 Q. And I asked you about this during your
6 deposition as well. This is a draft report that you
7 prepared for the State of Louisiana Public Service
8 Commission concerning that state's solar net metering
9 program, correct?

10 A. Yes, ma'am.

11 Q. And in this draft report you also -- your
12 analysis showed that the net metering program resulted in
13 a net economic loss, correct?

14 A. Yes, ma'am.

15 Q. And so with this Louisiana net metering
16 analysis that you performed, and then the only net benefit
17 analysis that you referred me to in your resume, in all
18 instances you found a negative net benefit for the
19 projects that you have evaluated, correct?

20 A. For most of those. I think there's an
21 important caveat that I think I also mentioned in my
22 deposition when we were discussing these issues is that
23 those results were all contingent upon the proposals that
24 were offered by the utility in those particular
25 proceedings, and most all of those proceedings that you

1 discuss; the solar proceedings, the offshore wind
2 proceeding, et cetera, we ultimately, on behalf of my
3 client, were able to enter into settlements that
4 significantly reduced the scope of that and bring those
5 costs and benefits into alignment for ratepayers during
6 that process.

7 So I think it would be a mischaracterization
8 to come in and suggest that somehow or other I like to
9 come in and, you know, rain on everybody's parade so to
10 speak when it comes to doing net economic benefit
11 analyses. They are all contingent on the size and scope
12 of those programs and the terms and conditions of those
13 programs, and in each of those instances that we talked
14 about before we were able to scope those programs down to
15 areas and levels where they were in ratepayer benefits.

16 Q. Okay. Thank you. Let's look at your exhibit
17 DED 3. For the mechanics of the categories of economic
18 impacts that you have evaluated in this case there are
19 four essential categories that you included in your net
20 benefit analysis, correct?

21 A. Yes, ma'am.

22 Q. Construction impacts with your total appearing
23 on column D, energy savings, rate impacts, and then what
24 you call FOLPG provider impact, which is fuel oil liquid
25 propane gas provider impact; is that right?

1 A. Petroleum, yes.

2 Q. Oh petroleum gas, thank you, and it's true,
3 isn't it, that the first two categories, the construction
4 impacts and the energy savings, you reach net economic
5 benefits or positive numbers, correct?

6 A. Yes, ma'am.

7 Q. And for provider impacts, for example, for
8 year 35 you're showing 142.5 million in net loss, right?

9 A. Yes, ma'am.

10 Q. Of the net benefit analysis where you
11 previously provided testimony, the cases we were just
12 talking about, you had not previously included a provider
13 impact component to that analysis, correct?

14 A. Yeah because the provider in those instances,
15 the utility, wasn't losing any jobs.

16 Q. You did not -- but those were the only --
17 those were the only instances in your resume where you've
18 provided testimony that you referred me to for having
19 completed a net economic benefit analysis for an energy
20 project, correct?

21 A. Yes, ma'am, and in each of those instances the
22 utilities weren't anticipating losing revenues or losing
23 jobs or impairing or incurring any negative economic
24 impacts. In fact, in most instances they were actually
25 making proposals.

1 In the solar proposals, for instance, the
2 utility would have had a big component of that and part of
3 the economic impacts would have been incurred within the
4 utility sector proper, in particular with regard to the
5 one we talked about on the pipeline replacement programs
6 in particular, but also with the solar loan programs
7 because the utilities were the ones facilitating the loan
8 program and doing a lot of the administrative work
9 associated with that, and also with the solar for all
10 program which had some competitive bidding components to
11 it, and in fact I think a quarter of the program
12 investment was associated with not grid scale projects,
13 but projects that were being installed by the utility in
14 the sense PG&E, a utility you may be familiar with, the
15 solar for all program that they have over there they were
16 putting PV panels on utility poles around the service
17 territory. So those were direct installs and benefits
18 they would actually have.

19 BOARD MEMBER HOFMANN: Dr. Dismukes, can
20 you speak into the microphone? We have some people
21 in the back who are indicating they cannot hear.

22 DR. DISMUKES: Sorry.

23 BY MS. HAYDEN:

24 Q. Okay. And again I asked you a very direct
25 question that you had not -- you had not included a

1 provider impact component in that analysis. You kind of
2 went on way beyond the question that I asked.

3 A. Okay. Let me try to answer it. No because it
4 was not relevant.

5 Q. Okay. And notwithstanding that it was not
6 relevant you still produced a net economic loss?

7 A. Yes, ma'am.

8 Q. Okay. The net energy savings that you have
9 calculated in exhibit DED 3 for the 35-year NPV you
10 reflect a number of 188.56 million, correct, a net benefit
11 number?

12 A. Where are you now?

13 Q. I'm on exhibit DED 3 column H, the total for
14 energy savings, and there's a 35-year NPV.

15 A. Okay. Yes. 188.56.

16 Q. And I believe in your testimony you indicated
17 that you used the most recent April 2015 oil prices
18 published by the DPS as the starting point for that
19 analysis, correct?

20 A. I think I misspoke. I think it was the '14,
21 2014 annual energy outlook.

22 Q. Let me understand this, Dr. Dismukes. You did
23 -- there were two things that you did with your energy
24 savings calculation. You had a starting price and then
25 you had a price that you trended it with, correct?

1 A. Correct.

2 Q. Is your testimony that you used the April 2014
3 starting price?

4 A. No. I used the most recent April numbers that
5 were provided by the state's fuel reporter and grew those
6 by the percentages that were included in the AEO, the
7 Annual Energy Outlook.

8 Q. And the prices -- and the AEO -- the Annual
9 Energy Outlook that you used was the 2014 -- was the 2014
10 data not the most current 2015 data, right?

11 A. Correct.

12 Q. You didn't feel that it was important to use
13 the most current information, the most current EIA data
14 for trending the prices out?

15 A. At the time that we did the study I think the
16 release was coming out about that week or within that
17 two-week period that I was preparing the testimony, and I
18 just overlooked the update when we did this.

19 In going back and looking at Dr. Hopkins'
20 testimony, looking at my understanding of the fuel prices,
21 looking at the updated annual energy outlook for the next
22 year that had been published, I went back and forth about
23 making those changes and ultimately decided not because of
24 the -- the underlying nature of what I was trying to do at
25 least in the first step of this analysis was to show

1 primarily that the nature of energy markets have changed
2 pretty considerably, and that I didn't feel there was a
3 need to go back and essentially keep beating a dead horse
4 and making additional revisions to this and creating more
5 and more confusion in the record about essentially the
6 changes that have gone on in the energy industry since the
7 last time the Board had issued their decision.

8 Q. Well you would agree, wouldn't you, that had
9 you made a correction to your analysis you would have
10 shown greater energy savings in your analysis? If you had
11 used the more current EIA 2015 data, you would have shown
12 -- you would have shown greater energy savings as Dr.
13 Hopkins pointed out in his testimony?

14 A. Well there's two components to that. There's
15 -- as you mentioned before, there's the level, the
16 starting point, and then there's the percent change. Yes
17 you are correct the percent changes would have resulted in
18 higher energy savings, but the percent change was not, I
19 think, the most compelling or driving thing in the energy
20 savings calculation.

21 Q. Okay. I'll stop. Continuing with your energy
22 savings estimate I'm looking at your exhibit DED 4 page 2.

23 A. Yes.

24 Q. And am I correct there are -- you have several
25 different results on the left-hand column, and I want to

1 just refer you to what I understand to be the energy
2 savings results that you calculated. The last two -- the
3 last two categories are titled Updated Energy Prices and
4 then the second one is Revised Discount Rate, and that's
5 your description of the energy savings using a revised
6 discount rate; is that right?

7 A. Yes, ma'am.

8 Q. And in the updated energy prices category you
9 used a 3 percent real or 4.99 percent nominal discount
10 rate, correct?

11 A. Correct.

12 Q. And then in the latter category with the
13 revised discount rate you corrected -- won't -- I don't
14 want to say corrected, but you modified your analysis to
15 include the company's weighted cost of capital, correct?

16 A. Correct.

17 Q. And that's approximately 7.983 percent?

18 A. Yes, ma'am.

19 Q. And you used the 7.983 percent -- I'm sorry.
20 I may be misstating that. I believe it's 7.938 percent
21 but --

22 A. 7.9.

23 Q. 7.9. That's better. You used 7.9 percent as
24 the discount rate throughout your analysis of net economic
25 benefits on your exhibit DED 3, correct?

1 A. Yes, ma'am.

2 Q. Did you use the higher discount rate for
3 greenhouse gases as well?

4 A. Yes, ma'am.

5 Q. If you could turn to your rebuttal testimony
6 at page 17, footnote 23 cites an EPA guidance.

7 A. Yes.

8 Q. And what's been marked as exhibit AARP Cross
9 2, it's exhibit Petitioner Cross 6/22/15 AARP-2, do you
10 have that with you?

11 A. Yes.

12 Q. Is that the guidance that you're referencing
13 in footnote 23?

14 A. Yes.

15 Q. And this guidance that you cited in your
16 rebuttal testimony chapter 6 discusses discounting future
17 benefits and costs, correct?

18 A. It does. Yes, ma'am.

19 Q. And there specifically it states on page 6-1
20 that societal discounting, the type of discounting
21 discussed in this chapter, is discounting from the broad
22 society as a whole point of view that is embodied in
23 benefit cost analysis, correct? That's on page 6-1 second
24 paragraph.

25 A. Yes. Yes, it is.

1 Q. And the guidance continues in that second
2 paragraph to distinguish societal discounting from private
3 discounting?

4 A. Correct.

5 Q. With it states private discounting, on the
6 other hand, is discounting from the specific limited
7 perspective of private individuals or firms, correct?

8 A. Correct.

9 Q. And it goes on to caution that implementing
10 this distinction can be complex, but it is an important
11 distinction to maintain because using a given private
12 discount rate instead of a social discount rate can bias
13 results as part of a BCA. Correct?

14 A. That's what it says. Yes, ma'am.

15 Q. Okay. I understand you didn't cite it for
16 that purpose, but that is the document that you cited at
17 footnote 23, correct?

18 A. I cited it at footnote 23 for the purpose of
19 matching cost and benefits for discounted purposes.

20 Q. Right. That's my understanding. And then
21 your footnote 22 cites to another document which was not
22 included with your testimony, but it's been marked, I
23 believe, as exhibit Petitioner Cross 6/22/15 AARP-1. Do
24 you have that?

25 A. Yes, ma'am.

1 Q. Is this document -- can you identify this as
2 the document that you're citing in your footnote 22?

3 A. Yes, ma'am. It looks like it.

4 Q. And it's titled How Should Benefits and Costs
5 be Discounted in an Intergenerational Context?

6 A. Yes, ma'am.

7 Q. This is a December 2012 document prepared by
8 what's described as a group of experts, correct?

9 A. Yes, ma'am.

10 Q. I want to go on to a different topic. Page 34
11 of your testimony, your May 6th testimony,

12 CHAIRMAN VOLZ: I'm sorry. Which page?

13 MS. HAYDEN: It's page 34.

14 BY MS. HAYDEN:

15 Q. There you're discussing the results of your
16 provider impact analysis on your exhibit DED 3, correct?

17 A. Yes, ma'am.

18 Q. And you state, beginning at line 4, that the
19 transmission project will result in a loss of 1894 in
20 total Vermont employment opportunities or an average of
21 about 95 employment opportunities per year, correct?

22 A. Yes, ma'am.

23 Q. And I asked you in your deposition how you
24 arrived at the 95, and my recollection is that you
25 referred me to exhibit DED 3 column P, and you simply

1 divided the 1894 total losses by 20 years. Is that right?

2 A. That's what it should be.

3 Q. Okay. And then you also clarified that the
4 outputs that you're showing for the lost -- or the
5 provider impacts in column P that they were derived from
6 lost sales from the energy savings analysis. Correct?

7 A. Yes, ma'am.

8 Q. And in your deposition you agreed with me that
9 I -- I said, you know, what this looks like to me is that
10 you are showing that these are jobs that are permanently
11 displaced, and I'm referring to your deposition page 26
12 line 12, and your answer is right.

13 A. Right. Those are just losses. Correct. I
14 don't think I said anything about them being permanent.

15 Q. Well my question was I mean, in other words,
16 they are permanently displaced, and your answer was right?

17 A. Right. They are lost jobs relative to the
18 fuel sector. Whether they get a job somewhere in another
19 sector I'm not opining on. Their loss to this particular
20 sector.

21 Q. I asked you down on lines 18, 19 why would we
22 assume that the truck drivers, for example, employed by
23 the fuel oil providers would not go out and get another
24 job, and your answer was well I think it's a
25 generalization of input/output models that you tend to

1 look at things in those -- you tend to look at things --
2 those kind of impacts in that way?

3 A. Right. Because in basic economic analysis
4 there's a primary condition that you look at they usually
5 teach in the principles class called ceteris paribus which
6 is Latin for holding other things constant. So most of
7 these -- well at least the input model that I use
8 facilitates a partial equilibrium analysis that you would
9 see in a basic textbook for microeconomic theory because
10 it's holding other things constant.

11 Q. And then I think you went on to say that it's
12 -- you know, that the project creates employment
13 opportunities. There's both negative and positive, but
14 what your model showed are the generalized assumptions
15 that you typically see in an input/output model. Do you
16 recall that?

17 A. Yes, ma'am.

18 Q. And in fact you said it's very hard to model
19 that or to know with -- that with any certainty?

20 A. That's correct. Usually when you do those
21 kind of things you include -- you can include those in
22 dynamic models. I don't tend to like to use those dynamic
23 models because they incorporate a lot of additional noise
24 in the analysis and they detract away from that kind of
25 basic premise that I just mentioned in terms of holding

1 other factors constant. If you start building in a trend,
2 you start building in things like inflation and escalation
3 rates and other things. It's very difficult to kind of
4 figure out what the impact of the policy is having on the
5 overall economy or individual sectors. Not everything is
6 being held constant.

7 Q. Well thank you. That's helpful.

8 A. One of the advantages of this is it provides
9 that kind of framework.

10 Q. Well and that prior explanation was very
11 helpful. In your deposition you said you've never seen
12 any empirical evidence that would suggest appropriate
13 factors for adjustment for the model, is that correct? If
14 you look at page 27 lines 8 to 9.

15 A. Right.

16 Q. Okay.

17 A. Not within the context of this particular
18 model that I'm using here. If you're going to use a
19 dynamic model which is different, then it may be, but not
20 within the context of what I have done.

21 Q. But you didn't do that here?

22 A. I did not because I didn't think it was
23 appropriate.

24 Q. Okay. What's been marked as exhibit 8 --
25 exhibit Petitioner Cross 6/22/15 AARP 8, do you have that

1 with you?

2 A. Is this the New Jersey testimony?

3 Q. Yes. It's New Jersey testimony that you
4 referred me to in your deposition. It's listed on page 38
5 of your Attachment A. DPU Docket EO12080721.

6 A. I'm sorry. I've got it down here, this other
7 stack. Okay. Go ahead.

8 Q. And I misspoke. I said you referred -- this
9 is in your attachment, your resume, at page 38. It's page
10 37. This is number 14 on page 37 of your Attachment A
11 that we discussed earlier.

12 A. Okay.

13 Q. Do you recognize this supplemental testimony?

14 A. Yes, I do.

15 Q. This was your supplemental -- I'm sorry. Your
16 surrebuttal testimony in that proceeding concerning the
17 approval of an extension of a solar generation program?

18 A. Yes, ma'am.

19 Q. Can you turn to page 22?

20 A. Okay.

21 Q. There -- because we're running late on time --
22 you talk about at page 22 the fact that it's crucial in
23 performing input/output modeling that you account for
24 leakages of goods and services that are imported into an
25 economy and therefore are produced within the study area

1 of interest. Correct?

2 A. Yes, ma'am.

3 Q. Did you account for any leakages when you
4 conducted your provider impact in this docket?

5 A. Yes, ma'am.

6 Q. Are you aware that testimony has been provided
7 in this proceeding previously by Agri-Mark that they
8 purchased in 2012 all of their oil from Canada?

9 A. I'm aware of that. Yes.

10 Q. And you did not consider that to be a leakage?

11 A. I just told you earlier I did consider
12 leakages. They were accounted for in the model.

13 Q. Can you explain to me how you accounted for
14 them in the provider impact modeling that you performed?

15 A. So there is a sector for non-store retail that
16 is included in INPLAN that has a built in leakage factor
17 associated with the dollars that move into that particular
18 category.

19 So what is non-store. What is non-store
20 retail? What does that mean? These are entities like
21 fuel providers that take a good part of their product they
22 are bringing in from other places of the country usually;
23 mail order catalogs, these kiosks you see in the mall,
24 increasingly with E-commerce, and other things. They are
25 not making the things here. They are bringing them in,

1 turning around and reselling it and delivering them. They
2 are kind of a delivery function. That category explicitly
3 accounts for that kind of economic activity for leakages
4 for the sector.

5 Q. So would it be correct for me to assume, and
6 I'm looking at the June 14, 2013 testimony of Agri-Mark,
7 the Senior Vice President of Agri-Mark, Edward Pcolar,
8 testified at page 3 that the company in 2012, and I'm
9 talking about Agri-Mark, received nearly 1.8 million
10 gallons of boiler fuel from Tracy Quebec. You accounted
11 for that in the modeling that you performed here?

12 MR. DUMONT: Are you saying was that in
13 the exhibits you distributed this morning?

14 MS. HAYDEN: This is prior testimony
15 from this proceeding. The witness just said that he
16 accounted for it. So I'm assuming he --

17 A. No. No. That's not what I said. I think
18 what I said -- we can read it back -- I accounted for
19 leakages. I didn't say I accounted for that leakage in
20 particular. You said does your model include leakages and
21 I said yes.

22 MR. DUMONT: As a matter of courtesy to
23 me at least can I have a copy of it? It wasn't
24 distributed. It wasn't on the list.

25 MS. HAYDEN: This is prior testimony

1 from this proceeding. It's admitted. I just asked
2 the witness specifically if he had taken into account
3 the fact that Agri-Mark purchases -- that it
4 testified in this proceeding that it purchased 100
5 percent of its oil from Quebec.

6 A. (Dr. Dismukis) I think you asked me are you
7 aware of it and I said yes I'm aware of it. The prior
8 question I think you asked me did you take into account
9 leakages and I said yes I did and I explained, and I went
10 through the explanation on how that was categorized and
11 taken account of in those sectors.

12 MR. DUMONT: I would still like to see a
13 copy of it.

14 MS. HAYDEN: Mr. Dumont, you can have a
15 copy of the testimony. I'm not mischaracterizing it.
16 My question is this. Did you -- when -- the specific
17 leakages that you accounted for was it -- did you
18 look at the number of gallons that Agri-Mark was
19 purchasing from out of state?

20 A. (Dr. Dismukis) I didn't look at any one
21 particular customer nor did anybody else in this
22 proceeding or any individual firm within any individual
23 industrial sector within these models. They are models.
24 They make generalizations. They are based on averages.
25 This is a sector that has very large leakages, right. We

1 talked about that. It's mail order catalogs. It's, you
2 know, Yahoo; ordering from Amazon; those sorts of
3 E-commerce activities, kiosks in the mall. By that
4 definition that economic sector has huge leakages built
5 in. They didn't go in and call Agri-Mark and say let me
6 know the specific number. They are based on
7 generalizations for the economy overall in that sector for
8 Vermont.

9 BY MS. HAYDEN:

10 Q. Okay. Let's move on. In your rebuttal
11 testimony at page 11 you refer to a New Hampshire 10-year
12 State Energy Strategy.

13 MS. PORTER: I'm sorry, Ms. Hayden.

14 What page?

15 MS. HAYDEN: Page 11. Line 8.

16 CHAIRMAN VOLZ: Is this the May 27th
17 testimony?

18 MS. HAYDEN: I'm sorry. Yes. This is
19 the rebuttal testimony which is May 27th page 11.

20 CHAIRMAN VOLZ: Okay.

21 MS. HAYDEN: Line 11. I said line 8.

22 CHAIRMAN VOLZ: That's where I was lost.

23 Thank you.

24 MS. HAYDEN: Sorry about that.

25 BY MS. HAYDEN:

1 Q. Do you have that, Dr. Dismukes?

2 A. Yes, ma'am.

3 Q. Is the document that's been marked as exhibit
4 Petitioner Cross 6/22/15 AARP 3, the New Hampshire 10-year
5 State Energy Strategy Study that you are referring to on
6 page 11 of your rebuttal testimony?

7 A. Yes, ma'am.

8 Q. And in your footnote 12 of your testimony you
9 cite to page 47 of that document, correct?

10 A. Yes, ma'am.

11 Q. And I believe, as I look at page 47, you're
12 citing it to reference the 20-year -- what's called a
13 20-year pay back on residential and 10-year pay back on
14 commercial line extensions, right?

15 A. Yes, ma'am.

16 Q. Can you turn to page 15 of that exhibit? Do
17 you see the recommendation 13 in the New Hampshire State
18 Energy Study?

19 A. Yes, ma'am.

20 Q. Recommendation 13 is to increase consumer fuel
21 choice and reduce near term cost, correct?

22 A. Yes, ma'am.

23 Q. And then some sub recommendations. 13A is to
24 convert customers with existing access to natural gas,
25 correct?

1 A. Yes, ma'am.

2 Q. Could you read the first two sentences that
3 follow sub recommendation 13A?

4 A. Natural gas currently offers considerable cost
5 savings as compared to other fuels and also burns more
6 cleanly than fuel oil providing local and global air
7 quality benefits. Focusing on distribution side efforts
8 the state should work to fully utilize the capacity of
9 existing gas pipelines.

10 Q. And then it goes on to say this can reduce
11 heating costs for customers and keep more dollars in state
12 in the short term, dollars that can be invested in
13 efficiency and renewable energy for long term
14 sustainability, correct?

15 A. Yes, ma'am.

16 MS. HAYDEN: I have nothing further for
17 this witness. I would move for the admission of
18 exhibit Petitioner Cross and they are all 6/22/15
19 AARP 1, AARP 2, AARP 3, AARP 5, AARP 8.

20 CHAIRMAN VOLZ: Any objection?

21 MR. DUMONT: No.

22 CHAIRMAN VOLZ: Okay. They are
23 admitted.

24 (Exhibits marked Petitioner Cross 6/22/15

25 AARP 1, 2, 3, 5, 8 were admitted into the

1 record.)

2 CHAIRMAN VOLZ: Ms. Porter, are you
3 ready to question this witness?

4 MS. PORTER: Yes, sir.

5 CHAIRMAN VOLZ: Thanks.

6 CROSS EXAMINATION

7 BY MS. PORTER:

8 Q. Good afternoon again, Dr. Dismukes.

9 A. Good afternoon.

10 Q. You have offered several criticisms of both
11 the Vermont Gas analysis and the Department's analysis,
12 and the first thing I wanted to talk about was a criticism
13 on page 5 of your rebuttal.

14 A. Yes.

15 Q. Go down -- this is about the losses in the
16 fuel delivery sector.

17 A. Yes.

18 Q. If you go down to line 10, starting with the
19 word interestingly would you read that one sentence?

20 A. Interestingly, the Department in the course of
21 its review estimated these potential costs which are quite
22 sizable but excluded the results from this analysis --
23 excuse me, but excluded the results of this analysis from
24 its final net economic benefits analysis.

25 Q. Have you reviewed Dr. Hopkins' deposition

1 taken by Mr. Dumont?

2 A. Yes, ma'am.

3 Q. And were you here today when I believe Mr.
4 Young was talking to Dr. Hopkins about his failure to take
5 into account these losses in his direct testimony?

6 A. Yes, ma'am.

7 Q. Did you hear his explanation and rationale for
8 not including those in his direct testimony?

9 A. Yes, ma'am.

10 Q. And were those -- was that explanation
11 credible to you?

12 A. I would say I would -- I would have issues
13 with the explanation. If you look at the original impacts
14 that were done in this initial period, and I know that Dr.
15 Hopkins had raised some issues in terms of what he
16 referred to as sanity checks on the impacts, the impacts
17 that we reviewed that we got in terms of follow-up
18 workpapers for those impacts were in fact significantly
19 greater than the impacts that I estimated were included in
20 my direct testimony for those fuel oil provider impacts,
21 and I think part of the reason why there was -- or
22 potentially why there was a larger impact was the way that
23 perhaps Dr. Hopkins entered those impacts into his REMI
24 model.

25 I think it appears that in the first phase,

1 the first cut of his analysis in that matter he dropped
2 those impacts into the model to generate the outputs and
3 to use the defaults that are included within the program
4 to tell him what those impacts were, and they were very,
5 very substantial. In fact, far greater than the ones that
6 I included in my testimony. However, in his rebuttal
7 testimony there was an entirely new analysis that goes
8 outside of the REMI model, that goes what I would refer to
9 generally as an out-of-model calculation, that goes in and
10 tries to essentially back into a set of numbers that he
11 feels more comfortable with, and then uses those as the
12 overall impact, and I would have some issues with just
13 randomly basing your entire economic impact analysis on
14 your models and the defaults and the assumptions with
15 them, and then going in and cherry-picking one particular
16 aspect of it, and then going in and running this
17 particular impact.

18 I certainly understand and appreciate the
19 explanations that he gave earlier and the concerns he had.
20 I don't know that I would agree with him though.

21 Q. Okay, but wasn't part of his explanation for
22 excluding them in the first go-round the sheer magnitude
23 which you said was reflected in the workpapers and his
24 being uncomfortable with the method of putting in the
25 inputs?

1 A. I don't know if it was the magnitude. I think
2 he said -- I think at one point it was my understanding he
3 said that the impacts at some point were actually the
4 reverse of what he would expect and actually showed job
5 gains not job losses, but I don't have the transcript in
6 front of me.

7 Q. But you would agree with me that in his
8 rebuttal testimony he did make adjustments, he explained
9 those adjustments, and he did present an analysis and an
10 impact that he found to be credible on behalf of the
11 Department?

12 A. Yes, ma'am. I believe that was his testimony.

13 Q. Can we turn to, let's see, DED-R-1? That
14 would be an exhibit to your rebuttal testimony.

15 MR. DUMONT: Dr. Dismukes, do you need
16 some water?

17 A. No. I'm good. That's the problem. I drank
18 it too fast. Okay. I'm there.

19 Q. Were you here earlier when I believe again Dr.
20 Hopkins was speaking with Mr. Young and they were
21 discussing some of Dr. Hopkins' criticisms of your study,
22 and I think he said to Mr. Young I'll just give you an
23 analysis -- I'll give you an example and he turned to
24 this, and he looked at column M, job losses.

25 A. What page are you on?

1 Q. The direct.

2 A. What page are you on?

3 Q. I'm on page DED-R-1.

4 A. There's five pages.

5 Q. I'm sorry. DED-R-1 page 3. I apologize.

6 A. That's okay.

7 Q. Okay. I'm sorry. Are we all at the same
8 place now that I have confused everyone?

9 A. Yes, ma'am. I'm there.

10 Q. Under M direct -- are you there?

11 A. Yes, ma'am.

12 Q. And the 2034 you heard Dr. Hopkins cite this
13 very example?

14 A. Yes.

15 Q. Okay, and did he understand your chart
16 correctly what direct means, what indirect means? He
17 explained what he thought it meant. Did he explain it
18 correctly from your point of view?

19 A. Yes and no. I think he explained the gist of
20 what a direct and indirect job is, but with regards to the
21 direct I think there's an additional aspect that needs to
22 be thought about in looking at these numbers, and that is,
23 you know, they are provided in job years, and those did
24 include partial impacts to part-time employees. We sum
25 those up in job year estimates. So while it may be a full

1 time equivalent job year loss of say 88 jobs, those could
2 also be scalable to say 160 jobs over a two-year period or
3 full year equivalent. It could be somewhere around 240
4 people working at a 25 percent discount, et cetera.

5 So I think you need to -- I think often
6 employment numbers are difficult to look at in these kinds
7 of models because when you see them you think there's 88
8 jobs gone. Well it could be a reduction in effort across
9 the broad job base as well that cumulatively adds up to 88
10 jobs. I think that's something to keep in mind and one of
11 the nuances I think of economic impact modeling and one of
12 the things you need to keep in mind when you're looking at
13 these results.

14 Q. So when he went through the rest of his
15 example and he went to that year 2034 he talked about
16 approximately 2500 new customers and said that using this
17 88 number that to him, if the math was correct, you were
18 basically allocating one person in the fuel delivery
19 sector for every 30 customers, that that was too broad a
20 conclusion in your opinion?

21 A. I don't know that I would exactly agree with
22 that, and I would also argue that these are based on
23 Vermont specific tables. I didn't go in and cherry-pick
24 or custom pull out these numbers in the results. So they
25 are what they are. As I mentioned before, they could be

1 part-time equivalents. They don't necessarily have to be
2 a one-for-one. They could be a reduction of effort.

3 Q. Thank you.

4 BOARD MEMBER HOFMANN: Are you done with
5 this exhibit because I wanted to ask a question about
6 it?

7 MS. PORTER: Yes, ma'am.

8 BOARD MEMBER HOFMANN: Dr. Dismukes, can
9 you help me out? When I look at this column M and
10 all these numbers from 2015 up through 2049 are they
11 cumulative? There's been different testimony as to
12 what this actually represents. Can you please
13 explain what it means?

14 DR. DISMUKES: Yeah. These are your
15 incremental kind of impacts as time moves on as you
16 continue to lose customers and sales, the lost
17 revenues in jobs and sales in that year that would
18 have gone to the fuel oil sector, but are now
19 transferred to the natural gas industry.

20 BOARD MEMBER HOFMANN: So in 70 years
21 there would be the equivalent of 13,779 permanent job
22 losses?

23 DR. DISMUKES: That's right.

24 BOARD MEMBER HOFMANN: I hope that's all
25 of Vermont.

1 DR. DISMUKES: Everybody would be out of
2 a job. You're right. It is for the whole state, and
3 if you want to get an average annual number, divide
4 that by 70 and that gives you something a little bit
5 more to look at.

6 BOARD MEMBER HOFMANN: Per year?

7 DR. DISMUKES: Yes, ma'am.

8 CHAIRMAN VOLZ: Continue.

9 MS. PORTER: All right.

10 BY MS. PORTER:

11 Q. Let's see. Could you please turn to page 41
12 of your rebuttal testimony?

13 A. Yes, ma'am.

14 Q. Line 11. In this question and answer you are
15 talking about changes you made in your rebuttal testimony
16 from your direct testimony; is that correct?

17 A. Yes, ma'am.

18 Q. Okay. After the word yes the word starting
19 with I included, would you please read that bullet out
20 loud?

21 A. I included updated natural gas rates in my
22 analysis pursuant to the company's fourth quarter PGA
23 filing that was inadvertently omitted in our earlier
24 analysis.

25 Q. Okay. Thanks. Now would you look back at

1 DED-R-1 from your direct? Wait a minute. You're in your
2 direct now. Let's just stay there. That will be easier.
3 Okay. So if you're in your direct, go to the -- go to DED
4 3 page 1.

5 A. Okay.

6 Q. Now let's go to basically the corresponding
7 exhibit in your rebuttal which I understand would be
8 DED-R-1 page 2.

9 A. Okay.

10 Q. Have I got those right? Are those
11 corresponding pages?

12 A. I think so. Yes. I think so.

13 Q. Okay. All right. So now let's look at column
14 H.

15 A. Yes.

16 Q. And go down at the bottom and let's just pick
17 one of those numbers. Let's go with the 20-year net
18 present value in column H and the total is 140.84 million,
19 right?

20 A. Yes.

21 Q. So you made that calculation in your direct
22 and then you did -- you did your rebuttal calculations,
23 and one of the things that you did was to update for the
24 more recent PGA?

25 A. Yes, ma'am.

1 Q. So let's go to the corresponding column on
2 DED-R-1 page 2.

3 A. Yes, ma'am.

4 Q. And the 20-year NPV there is the 140.84
5 million.

6 A. Yes, ma'am.

7 Q. And I think if you will track the numbers back
8 up, they are almost identical. Do you agree?

9 A. They look that way.

10 Q. Okay. So is it your contention that adjusting
11 for the PGA reduction that the effect was so small?

12 A. Yeah that could be a -- very well be it. It
13 was not a very large impact. I just updated the numbers.
14 I don't think it was a very large change in price. It was
15 probably missing a rounding.

16 Q. Okay. So, in other words, if we ran the
17 numbers out a couple more decimal points, perhaps you
18 would see the effect?

19 A. Yes. Yes, ma'am.

20 Q. Okay. Your rebuttal page 11. Are you there?

21 A. Go ahead. Yes, ma'am.

22 Q. I think Ms. Hayden has already talked to you a
23 little bit about this and in fact I think she had some of
24 the reference studies, but would you agree with me that
25 both the New Hampshire numbers and the Connecticut

1 numbers, the number of years, we are talking about pay
2 back on distribution lines, line extensions, distribution
3 lines?

4 A. Yes, ma'am.

5 Q. And we're talking about what's the appropriate
6 number of years --

7 A. Correct.

8 Q. -- for the pay back? You would agree with me
9 that in this case we are looking at a significant
10 transmission investment?

11 A. Yes, ma'am.

12 Q. Okay. Page 24, please, of your rebuttal.

13 A. Yes, ma'am. I'm there. I'm sorry.

14 Q. That's okay. The question that begins on 5
15 and the subject matter here are deficiencies associated
16 with the societal discount rate, and I guess more
17 specifically you are answering what your understanding of
18 this Board's problems -- deficiencies that they have
19 recognized with the societal discount rate?

20 A. Yes, ma'am.

21 Q. Are you familiar with this docket?

22 A. Just generally.

23 Q. Okay. Is this a 248 proceeding that -- where
24 the general good of the state is at issue?

25 A. I don't believe it is.

1 Q. Okay. I think you already answered you don't
2 know anything about --

3 A. Right.

4 Q. Okay. And you do understand that this is an
5 248 docket where the general good of the state is of
6 importance?

7 A. Yes, ma'am.

8 Q. Okay. So let's just suppose that the societal
9 discount rate was not appropriate. For sake of argument
10 it was not appropriate in this case. Is it your position
11 that a discount rate should be applied across the board in
12 every situation?

13 MR. DUMONT: Object to the form of that.
14 Could you rephrase that?

15 BY MS. PORTER:

16 Q. Is it your opinion that there is one discount
17 rate that is appropriate to apply across the board in
18 every situation?

19 MR. DUMONT: I don't know what --
20 situation within one case or in all kinds of cases in
21 front of Board?

22 MS. PORTER: I apologize.

23 BY MS. PORTER:

24 Q. With respect to proceedings before the Public
25 Service Board would it be appropriate for there to be only

1 one discount rate that you would apply in every proceeding
2 in all instances?

3 A. Well it's difficult to say in each and every
4 instance to the end of time that it would be one
5 particular discount rate, but I think it is usually the
6 case in regulatory proceedings where we're looking at --
7 for investor-owned utilities where we're looking at the
8 deployment of private capital and having ratepayers
9 essentially fund that capital through the rate
10 contributions and revenue contributions they are making
11 that the tendency to use the weighted average cost of the
12 capital for the utility in making that decision is
13 commonly what's used.

14 It's been my experience in 27 years of
15 regulation, utility planning, that that is commonly the
16 case. Is it always the case every time? No, not
17 necessarily, but it's usually that way because it reflects
18 the opportunity across the utility's capital, and it is
19 the rate of return upon which rates are going to be set in
20 some point in time. So if you are going to keep this
21 matching principle that I talked about before between
22 rates and benefits, that is -- I would agree to that, that
23 is critical. We went through that a number of the
24 scholarly papers with Ms. Hayden earlier when you would
25 want to use the weighted average cost of capital.

1 Q. But would you agree with me that assessing the
2 general good of the state, which has a societal element,
3 that that might be a circumstance in which the application
4 of a different discount rate, the consideration of that
5 might be appropriate?

6 A. No. Not here. This is a decision about
7 allowing a utility to invest its capital in a transmission
8 project that is supposed to be revenue generating. It's
9 an asset like a power plant, like any other asset. The
10 discount rate, if you're doing a business development
11 decision and you're doing this as a merchant facility,
12 you're going to be using your opportunity cost of capital.
13 It doesn't matter how good it is going to be for society.
14 It's the opportunity cost of taking that money for
15 ratepayers and using it in an alternative application.

16 Q. I think you have been here long enough today
17 to hear various conversations about what is the
18 appropriate baseline to consider the project against and
19 how you should appropriately account for CNG usage,
20 current CNG usage in Addison County, and you probably
21 heard criticisms certainly of the Department and perhaps
22 also of Vermont Gas for not having appropriately accounted
23 for that use?

24 A. Yes, ma'am.

25 Q. Your model is INPLAN; is that correct?

1 A. Yes, ma'am.

2 Q. Did you do a baseline analysis that included
3 the use of CNG in Addison County?

4 A. No, ma'am.

5 Q. So your -- the numbers that you would use,
6 your baseline is the same as those that have been
7 criticized that -- used by Vermont Gas and the Department
8 at least in that respect?

9 A. On the volumetric side, yes. They are the
10 same as the company's. I think what really changed is
11 primarily on the price side of the equation in valuing the
12 savings, not necessarily the penetration rates of the
13 potential customers or how those industrial customers may
14 or may not transition their natural gas usage from a
15 temporary solution into a more permanent one when the
16 pipeline goes into place.

17 Q. Thank you very much, Dr. Dismukes.

18 A. You're welcome.

19 CHAIRMAN VOLZ: Mr. Grayck, do you have
20 questions for this witness?

21 MR. GRAYCK: No I do not. Thank you.

22 CHAIRMAN VOLZ: Nobody else had signed
23 up for cross that I'm aware of. I think we're ready
24 for our questions.

25 MR. MARREN: Good afternoon, Doctor.

1 DR. DISMUKES: Good afternoon.

2 MR. MARREN: So I would like to talk
3 about your position that the value of a ton of
4 avoided CO2 should be \$40. You state in your
5 testimony, or in your rebuttal testimony, that this
6 is an -- I used this value because it represents the
7 cost of compliance with potential future national GHG
8 policies.

9 DR. DISMUKES: Correct.

10 MR. MARREN: Could you tell me briefly
11 what national GHG policy you assumed? Was it a
12 carbon tax?

13 DR. DISMUKES: I didn't assume anything.
14 So those numbers -- I don't know if you're familiar
15 with the avoided energy supply cost plan that's done
16 for New England that's done by Synapse Energy that's
17 used by a lot of New England states for energy
18 efficiency evaluation purposes to set avoided cost,
19 but within that study that's done by Synapse they
20 have an outlook that is associated with future
21 environmental cost, and they have a scenario that, as
22 I mentioned in my testimony, that includes an
23 anticipated compliance cost, and I believe -- I don't
24 recall exactly what that was. I don't think it was
25 something that was limited exclusively to the power

1 sector alone. I think it may have included some
2 upstream regulations too. So capturing methane
3 releases at the wellhead and other types of things
4 are going to work their way into setting allowance
5 prices. There's a cost of compliance number that I
6 mentioned in my testimony which is a little under 40
7 bucks, and then there's kind of an externality number
8 that has all these other societal impacts that goes
9 up to a hundred dollars.

10 So those are the difference between the
11 two. I don't know exactly off the top of my head
12 what was -- it's been a while since I read the report
13 what was in there. I want to say it was some kind of
14 national cap and trade program with some other
15 applications. It was not -- I don't believe there
16 was carbon tax in it.

17 MR. MARREN: And why did you feel that
18 it was not appropriate to include the -- and I'm
19 making an assumption -- making a statement so please
20 correct me if I'm wrong. Why did you assume it was
21 not appropriate to include the environmental
22 externalities?

23 DR. DISMUKES: Well think about it just
24 a little bit. I would only go so far as to say there
25 isn't an externality embedded in this. As the world

1 stands today, the market value for carbon is five
2 dollars a ton, right? You look on REGI right now the
3 cost is five or six bucks, right? So we value that
4 40. So there is an external cost built in there
5 based on the rules and the laws of the land today
6 that have a market mechanism that is five bucks and
7 that's what the market price is.

8 So there's a 35 dollar margin embedded
9 in there that you can characterize as an externality.
10 It is based on an anticipated cost of compliance and
11 not other types of societal issues, but I would still
12 argue it is an externality because it is above and
13 beyond what the market values for private
14 transactions that are out there right now. That's
15 the definition of externality.

16 Right now if we go out and trade
17 property rights for carbon emissions, the market in
18 New England says it's five bucks, right? So we've
19 got an externality that is built into this. It's not
20 the full one hundred dollars that's included in that
21 AESC report, but it is one that is embedded and
22 included in there.

23 MR. MARREN: All right, and --

24 DR. DISMUKES: If I can just help
25 clarify one more thing, it's one that I would argue

1 is a reasonable one because it is based on an
2 approach that looks at what it would cost to
3 internalize the cost, the known cost associated with
4 avoiding those emissions, and when we're working in
5 utility regulation and we do rate cases one of the
6 things that we try to focus on is known and
7 measurable cost, right? We don't go in and speculate
8 on things that we don't know about and include those
9 in rates.

10 It's not that I'm saying you shouldn't
11 take these things into consideration, but they ought
12 to be based on things that are somewhat known and
13 measurable and things that you can calculate, and
14 AESC tries to come up with a compliance cost. It's
15 to kind of document that number as opposed to the
16 other number which is out there, and I don't know if
17 you're familiar, I'm sure you're probably familiar
18 with the various range of externality costs that are
19 out there on carbon emissions and the margin of error
20 is well over a hundred percent, right? So that is
21 why I would choose that number.

22 MR. MARREN: And so does this explain
23 why you think that the cost of compliance -- it seems
24 like you're very focused on the cost associated with
25 either obtaining the right to emit a ton of carbon or

1 capturing it or dealing with the externalities, but
2 what about the value of avoiding emitting it in the
3 first place to the extent there are health benefits
4 or, you know, societal benefits that accrue to the
5 planet earth because that ton of carbon never went
6 into the sky?

7 DR. DISMUKES: Again I would just argue
8 that it's based on my recommendation that measures of
9 this nature need to stay within the parameters of
10 what we do in utility regulation, which is utilizing
11 what are reasonably known and measurable costs. If
12 we know what it costs to internalize the avoidance of
13 that emission, that's the thing that we need to be
14 focusing on, and it's still a big margin relative to
15 what's in the market right now.

16 MR. YOUNG: Good afternoon, Dr.
17 Dismukes.

18 DR. DISMUKES: Good afternoon.

19 MR. YOUNG: I want to start -- going to
20 go along the same line of questions that I had for
21 Dr. Hopkins because I'm really trying to understand
22 why you produced such disparate results from other --
23 some of the other parties in the case, in particular
24 VGS and the Department, and as I understand it there
25 are four primary areas of dispute; discount rates,

1 employment related effects on the fuel and propane
2 dealers.

3 DR. DISMUKES: Uh-huh.

4 MR. YOUNG: The starting point for your
5 fuel price assumptions.

6 DR. DISMUKES: Uh-huh.

7 MS. TIERNEY: Dr. Dismukes, could you
8 say yes instead?

9 DR. DISMUKES: Yes, ma'am.

10 MR. YOUNG: I'm having my Rick Perry
11 moment here.

12 DR. DISMUKES: Discount rate, fuel
13 employment, starting fuel price and --

14 MR. YOUNG: I guess the fourth was
15 greenhouse gases, but I'm going to focus on the first
16 three of those.

17 DR. DISMUKES: Okay. All right.

18 MR. YOUNG: Is that correct from your
19 standpoint?

20 DR. DISMUKES: Sure. I would agree with
21 that. Yes.

22 MR. YOUNG: And otherwise -- well
23 actually now I remember the fourth is the output
24 model versus -- the economic output model versus GDP.

25 DR. DISMUKES: Right.

1 MR. YOUNG: Let me start with the last
2 one.

3 DR. DISMUKES: Okay.

4 MR. YOUNG: Dr. Hopkins seemed to
5 indicate that the economic output model is going to
6 include some extra territorial effects, outside
7 Vermont impacts; is that correct?

8 DR. DISMUKES: Yes.

9 MR. YOUNG: Do you know what the
10 magnitude of those impacts are and how that affects
11 the model in any way?

12 DR. DISMUKES: I don't think they are
13 relatively large. I thought I had something that
14 compared that relative to -- I don't recall, but in
15 your discussion you had earlier with Dr. Hopkins I
16 would agree with what you were characterizing in the
17 sense that it is likely not going to change the sign
18 of the impact. What is going to wind up being
19 affected is essentially the order of the magnitude in
20 all of that.

21 However, if you look at that, you're
22 also going to need to look at, you know, those can
23 affect costs and benefits, and what you really need
24 to look at is the cost benefit ratio. So you look at
25 the cost benefit ratio using an output measure or you

1 use a cost benefit ratio using a value added or GNP
2 measure. They are going to come out with the same
3 number. Costs are greater than benefits and that's
4 it, and the ratio is relatively the same. It's a
5 relative issue, and I think he was trying to say
6 that, but I wasn't quite sure about that. So I would
7 -- if that was the case I would agree with that, and
8 I think if you look at that, you come up with an
9 answer.

10 The other thing to keep in mind is
11 that's not the only economic measure in this
12 proceeding. There's employment and there's wages,
13 and there's no argument I think on jobs and wages, or
14 at least wages there ought to be, and if you look at
15 the wages created by one set of impacts versus the
16 wages created by the cost, the wages lost are going
17 to wind up being greater than the wages gained, and
18 so if you look at the other alternative measures that
19 are included in this, you've got something else to
20 look at.

21 So just disregard the outlook GNP thing.
22 Go look at employment, go look at wages, and you get
23 to the same place.

24 MR. YOUNG: Okay. So general agreement
25 that it is unlikely that the choice of models changes

1 the sign as to whether it's positive or negative?

2 DR. DISMUKES: Right. Let me clarify
3 something. It's not really a choice of models. It's
4 really a measure you're looking at. GNP versus GDP,
5 right?

6 MR. YOUNG: It's a fair
7 characterization. Okay. Let's move to the next
8 issue which is employment, and you were directed
9 earlier to your exhibit DED-R-1 page 3, correct?

10 DR. DISMUKES: Yes, sir.

11 MR. YOUNG: Ms. Hopkins (sic) asked you
12 this, and I will say the more I hear the answer the
13 more uncertain I am as we go through this, and so I'm
14 hoping you can help my lack of understanding. What
15 you're assuming is that in year one 19 jobs will be
16 lost; is that correct?

17 DR. DISMUKES: Correct.

18 MR. YOUNG: And 19 full time equivalents
19 I think is the way you were expressing it before; is
20 that correct?

21 DR. DISMUKES: Yes, sir.

22 MR. YOUNG: In year three is that 39 new
23 full time equivalents that would be lost?

24 DR. DISMUKES: Right. We've moved up.
25 We have new losses in the second year increased to

1 39.

2 MR. YOUNG: And so the first 19 might
3 have gotten employed, might be still unemployed, but
4 the net effect in year two is 39.

5 DR. DISMUKES: It's still 39, right.
6 There's no kind of netting in this. It's more of a
7 -- so each year you lose revenues and let's say you
8 -- for instance, if you lost two years worth of
9 revenues, you would lose employment in year one, you
10 would lose employment in year two, and say your
11 revenues went back to normal in year three. Those
12 numbers would zero out.

13 So let's say in year one you lose 10
14 dollars. In year two you lose 20 dollars. Your
15 employment for 10 dollars for the first year is a set
16 say five jobs. The next year you lose 20 dollars in
17 revenues, and that's not only the 10, but now you
18 have lost say another 10 jobs. 20 jobs. So as your
19 revenue losses continue and they grow your employment
20 losses will continue to grow into the future.

21 MR. YOUNG: But if those 19 jobs lost in
22 the first year got jobs -- those 19 employees lost
23 got jobs back in the market because they went and
24 took a job at Vermont Gas, for example, that's no
25 longer -- you know, it was a short term loss, but it

1 should no longer have an impact. Does that have an
2 impact the way you have modeled this?

3 DR. DISMUKES: One of the things, and
4 hopefully -- I think I did do this in my testimony in
5 some places, but in one of the things I tried to do
6 often in looking at these issues and communicating
7 them to policy makers is I like to characterize them
8 more as employment opportunities as opposed to jobs.
9 It is a job that you could have created had those
10 revenues been there and you don't any more.

11 You know I talked earlier about these
12 ceteris paribus conditions, other things being equal.
13 If you get a job at Sonic or somewhere else, that's
14 not being equal. What I'm looking at is just looking
15 at the losses in the employment opportunities. If my
16 business goes down for five years in a row, that's
17 five years of jobs that I can't hire people with each
18 and every year. Now if the people who used to work
19 for me leave and go work for Wal-Mart, well I'm glad
20 for them, but that doesn't change the relative
21 economics of me losing this.

22 So I think thinking of this in terms of
23 lost employment opportunities I think is a little bit
24 better than kind of obsessing on the job alone.

25 MR. YOUNG: So when the other parties

1 comment -- a couple of the other witnesses commented
2 that your model assumes effectively those jobs are
3 never replaced, that's exactly what you just said
4 because you looked at it as employment opportunities
5 lost which means you're counting your jobs lost in
6 year one never being replaced; is that correct?

7 DR. DISMUKES: Right.

8 MR. YOUNG: Is that typical in economic
9 modeling? It just doesn't -- doesn't one normally
10 assume that at some point displaced workers are going
11 to have jobs at which point it is -- I understand
12 what you're saying is that there was a job loss, but
13 in terms of the economic impact on the state, if that
14 person is back working again, you are back in
15 employment. Can you help me out?

16 DR. DISMUKES: Well you have lost an
17 employment opportunity where -- let's just say -- so
18 for argument sake let's say you lose three jobs in an
19 industry and let's say that because of the growth of
20 the economy in Vermont five new jobs opportunities
21 are there. These three people go and it's a net loss
22 of two, right? But for the loss to the fuel oil you
23 would have had eight jobs, but you're still positive.
24 You have lost employment opportunities even though
25 you may have a net gain in all of this, and so when

1 you look at it from that perspective, this is what I
2 was talking about earlier with Ms. Hayden and these
3 dynamic models, you incorporate so much of this noise
4 you really don't get to isolate and focus on what the
5 policy decision is having in that market alone.
6 Could it be that growth in the Vermont economy
7 compensates for all those? Maybe, but is that really
8 what we want to look at in all of this. You could
9 have had more jobs if you had both the growth and the
10 fuel oil, but to say that people could have just left
11 those jobs and gone somewhere else I don't think is a
12 fair characterization. It doesn't hold those other
13 things constant.

14 CHAIRMAN VOLZ: Yeah, but if the reason
15 that there were -- if the reason that you lose three
16 jobs is because of an activity -- an economic
17 activity by one firm that creates new jobs, it
18 doesn't seem quite right to add those together and
19 call them eight jobs.

20 DR. DISMUKES: Well if there's new jobs
21 that are created by the new activity, those are
22 included in this kind of analysis because you got
23 construction benefits, you got things associated with
24 all the other things in this particular sector, and
25 you're washing those out, and that's essentially what

1 you're looking at, and that's what's really left when
2 I'm looking at these impacts of the gains in the
3 natural gas industry versus the loss say in the fuel
4 oil business.

5 MR. YOUNG: You're converting job loss
6 into basically an opportunity cost?

7 DR. DISMUKES: Yes.

8 BOARD MEMBER HOFMANN: Dr. Dismukes, you
9 were very kind in explaining the 13,779 earlier in an
10 answer to me, but then when I'm looking at this
11 column, it's listed in the direct, I made a joke gee
12 all the people in Addison County would be out of
13 work. Turns out it would be about half of them, but
14 for a direct -- when you look at your headings at the
15 top; direct, indirect, and induced, does -- what's
16 your understanding -- tell me what direct means?

17 DR. DISMUKES: Direct are those people
18 that are employed directly in the industry that is
19 incurring the impact. So it is the fuel oil
20 industry.

21 BOARD MEMBER HOFMANN: The fuel oil
22 industry statewide not necessarily in Addison County?

23 DR. DISMUKES: Yes, ma'am, and so let me
24 go through it so you know these. The direct is those
25 people that are employed in that particular sector.

1 So it would be the fuel oil for the state. All these
2 numbers are for the state overall.

3 The indirect are those people who help
4 service those direct activities. So the accountants,
5 maybe custodial services, copying services,
6 attorneys, other types of contract services that you
7 may as a business employ, and you create additional
8 opportunities to create what you do for a living and
9 you need in order to provide fuel oil services. It
10 may be the fuel that you purchase. It may be some
11 contract delivery people that you may use. It may be
12 warehousing that you buy, all those things that you
13 buy and the jobs that are created by what you need to
14 create with your primary, and then the induced is
15 essentially all the economic activity that is created
16 by all the people employed in the direct and
17 indirect. They all make new incomes and they all go
18 to Wal-Mart and they all go to the movies, they all
19 buy groceries. Those are usually heavily oriented
20 towards personal consumer expenditures, and that's
21 kind of that last round of economic impacts that are
22 created through that.

23 MR. YOUNG: Does the way you have
24 presented this also start with the assumption that
25 but for the project there would be continued growth

1 in the number of jobs in this industry?

2 DR. DISMUKES: No it does not.

3 MR. YOUNG: So it assumes the starting
4 number of jobs -- let's say if there are a thousand
5 people in Addison County providing service --

6 DR. DISMUKES: In the state.

7 MR. YOUNG: In the state providing fuel
8 services it assumes a thousand and just subtracts out
9 of that?

10 DR. DISMUKES: Right. It's not a
11 dynamic model. Yes, sir. That's correct.

12 MR. YOUNG: Does the model that you have
13 done also assume incremental employment? Not
14 construction related, but other incremental
15 employment for Vermont Gas reflecting increase in
16 number of customers?

17 DR. DISMUKES: There are some jobs that
18 are created by the transmission line itself as well
19 as making the extensions associated with the new
20 distribution service and the service lines, hooking
21 those customers up.

22 MR. YOUNG: But those are largely
23 construction related jobs. What I'm saying is --

24 DR. DISMUKES: No. I did not. Those
25 are usually not very large. This is a capital

1 intensive industry. The bang for the buck is in
2 building things and laying pipe and constructing
3 things, but there could be some.

4 MR. YOUNG: Right. It's just --

5 DR. DISMUKES: I think the incremental
6 -- when I look at the incremental O&M and the revenue
7 requirements that Ms. Simollardes had, I don't think
8 the number was really relatively large that would be
9 creating a lot of jobs when I looked at it. The real
10 bang for the buck each and every year was as they
11 started expanding service out and building service
12 and other types of extensions, those would create
13 obviously meaningful jobs and those were included.

14 MR. YOUNG: Right. I guess what I was
15 getting at if you scale up by 3,000 customers, not
16 that they are necessarily going to hit that number,
17 or 2400 I think was the number you used earlier,
18 presumably you may need additional customer service
19 representatives, you may need additional inspectors,
20 installers.

21 DR. DISMUKES: I didn't see that in
22 there. I don't know that I saw those in their rate
23 impacts. I saw some O&M expenditures with that, but
24 I don't recall seeing any additional A&G expenses or
25 other things like that.

1 MR. YOUNG: I was just asking how you
2 modeled it given the way you've modeled the loss of
3 jobs and, you know, just to see how that was
4 comparing. Okay. Enough on that subject.

5 Let me switch to I guess the other major
6 area we're talking about is the discount rate. You
7 have read the testimony about the witnesses that
8 commented and recommended a lower discount rate,
9 correct?

10 DR. DISMUKES: Correct.

11 MR. YOUNG: And I believe at least one
12 of those witnesses identified that rate as the rate
13 that was used for say energy efficiency programs; is
14 that correct?

15 DR. DISMUKES: Yes, sir.

16 MR. YOUNG: I guess I understand your
17 point on the parallelism that you sort of raised in
18 terms of using the company's weighted average cost of
19 capital, but then you get to a different type of
20 parallelism which is in screening a program to decide
21 whether to save energy we're going to use one
22 discount rate, and in deciding whether to invest in a
23 pipeline that will actually result in net savings to
24 customers we're going to use another discount rate.
25 Does that bother you?

1 DR. DISMUKES: Yes, but unfortunately
2 regulation has a lot of those kinds of things in it
3 right now, and it's -- and to not be too funny about
4 all this, but it's not uncommon, you know, I think
5 where you see energy efficiency valued differently,
6 but this in my opinion is an asset investment.
7 You're asking the utility to go in and deploy its
8 capital to provide services. It is going to be
9 primarily the beneficiary of these investments. Yeah
10 there are going to be other types of benefits, but
11 they are the ones that are going to generate the
12 additional revenues, the opportunities for sales
13 growth, the return on investment. Their shareholders
14 are going to want to get that money and ratepayers
15 are the ones that are going to pay for it based on
16 that weighted average cost of capital. So the
17 reference point needs to be on that opportunity cost.

18 MR. YOUNG: I can understand why you're
19 saying the reference point needs to be that with
20 respect to any aspect of VGS's cost. The question is
21 would you also -- why would you use that higher
22 discount rate when applied to the savings that
23 customers might -- that might occur due to the lower
24 energy prices available to them?

25 DR. DISMUKES: Because but for that

1 capital investment they would have never have gotten
2 their savings.

3 MR. YOUNG: By the way do you agree that
4 at the present time -- forget that. I'll come back
5 to that because I want to stay on one topic at a
6 time.

7 On page 16 of your rebuttal testimony
8 you're discussing discount -- discount rates, and you
9 point out that non-uniform discounting of costs and
10 benefits typically implies that a program can appear
11 more cost effective by simply postponing the project
12 in the future. Is that what you're saying is
13 actually happening by using the lower discount rate
14 we're hiding the effects of the project?

15 DR. DISMUKES: Well I don't know that I
16 am saying it's hiding, but it treats all costs and
17 benefits as they evolve over time on an equal basis,
18 and many of the benefits that have been presented in
19 this proceeding occur in far outlying years and place
20 a lot of risk on the ratepayers on whether or not
21 they materialize. What happens if the customers
22 don't come? What happens if it turns out to be 1000
23 customers and not 2000 after this project has been
24 approved, the investment's been put into rate base?

25 Customers don't want to get stuck paying

1 that. They are the ones that have to bear that risk
2 in the outlying years or not, and essentially the
3 horse is out of the barn by that point, and I think
4 it's more appropriate to use that higher discounting
5 to not only reflect the fact that you've got that
6 opportunity cost of capital that includes risk in it
7 of the utility, but also risk for ratepayers.

8 There's some arguments that would say you should be
9 using a household opportunity cost of capital not the
10 utility's, and that number would be even higher based
11 on some marginal rate associated with a credit card
12 rate or some pay day loan or something else. There
13 are articles and literature out there that would
14 suggest even a higher number than that.

15 MR. YOUNG: And on pages 14 and 15 of
16 your rebuttal testimony you present a number of
17 reasons for your discount rate choice. As I read
18 them, at least a couple of them, it basically seemed
19 to be there's a lot of risk and there's a lot of
20 unknown about the future, therefore, you need -- you
21 should be using a higher discount rate. I mean is
22 that the basic point you're trying to make?

23 DR. DISMUKES: That is a component part
24 of that. I think it argues against using a societal
25 rate. I still think the underlying primary reason

1 for using a weighted average cost of capital is
2 because it reflects the opportunity cost of capital
3 be employed to make the project go, but arguments
4 that could be made about not moving it lower take
5 into account all these other things that you just
6 discussed.

7 MR. YOUNG: Okay, and then the other
8 topic that I had raised earlier was the --
9 essentially the starting point for your analysis, but
10 -- and the fuel price assumptions. Under your
11 analysis is there an -- at the present time a spread
12 in cost between oil and natural gas?

13 DR. DISMUKES: Yes.

14 MR. YOUNG: Do you have an estimate as
15 to what that spread is?

16 DR. DISMUKES: The spread between oil
17 and natural gas is around \$6 a barrel equivalent. I
18 forget the BTU in barrels and volume. So I think
19 right now the differential, as I was looking at it,
20 between fuel oil and natural gas, I've forgotten what
21 the absolute level was, but it was not growing by a
22 whole lot. It's growing a little bit, but probably
23 less on the outlying contracts. Right now I think
24 the number is somewhere around 10 or 11 dollar basis
25 on a MMBtu basis, and I think it's about 60 cents

1 over the next 6, 7 years. So about 10 cents a year
2 that's growing. So it's relatively flat, and if you
3 look at the numbers historically, that 18 plus, it's
4 -- even though that number is growing, and I would
5 agree with Ms. Simollardes that the differential is
6 important, that differential isn't moving a whole
7 lot. It's not moving a whole lot in the absolute
8 order of magnitude and that differential is a lot
9 more compressed and it's likely to stay that way for
10 a pretty good while.

11 MR. YOUNG: Okay. Ms. Simollardes
12 testified earlier of the differential and I believe
13 she said around 23 percent. Dr. Hopkins has used
14 around 25 percent. Would you agree with those
15 characterizations?

16 DR. DISMUKES: Yes.

17 MR. YOUNG: So you don't disagree on
18 that particular aspect?

19 DR. DISMUKES: No I don't, but I don't
20 think anybody has looked at what the customer
21 penetration rates and take rates are going to be
22 relative to the rates you need in those differentials
23 to make customers switch and a lot of times they can
24 be pretty high. You heard Ms. Simollardes talk
25 earlier they looked at structures. They did what I

1 would characterize as more of the technical
2 opportunity for market scope for potentially making
3 natural gas installation or new customers, but it
4 wasn't based on any economic analysis associated with
5 well is that differential enough right now to meet
6 the hurdle rates that most households have in
7 Vermont, and how does that change over time and how
8 can we expect customers to grow as that differential
9 changes relative to our fuel forecast, and I think
10 that's an important omission in looking at this
11 because again if that falls short, that risk of not
12 meeting those customers falls on ratepayers. It
13 could go longer. It could be more, but it could also
14 be a lot less. The key in all of this is who bears
15 the risk and it's going to be ratepayers.

16 MR. YOUNG: One second here. Thank you
17 very much for your time.

18 DR. DISMUKES: Thank you.

19 CHAIRMAN VOLZ: Any follow-up questions
20 to our questioning?

21 MR. DUMONT: I will have redirect.

22 CHAIRMAN VOLZ: Sure.

23 MR. DUMONT: Could I take a few minutes
24 with the witness?

25 CHAIRMAN VOLZ: First we're going to

1 have follow-up questioning by Kim Hayden.

2 CROSS EXAMINATION

3 BY MS. HAYDEN:

4 Q. Good afternoon. You just -- there was a back
5 and forth concerning what I think was related to page 28
6 of your testimony about the differential between oil and
7 gas prices. Do you recall that?

8 A. Yes, ma'am.

9 Q. And I asked you about that, this is in your
10 deposition, and you clarified that, and I asked you
11 specifically are we talking a 10-year period when you say
12 that it's this differential or the price collapse is not
13 likely to rematerialize any time in the near future. I
14 mean -- let me rephrase that.

15 I said that the differential, when you say
16 it's not likely to rematerialize any time in the near
17 future, at page 28 of your testimony I asked you what you
18 meant by near future and you clarified that to say
19 probably 3 to 4 years, correct?

20 A. Yes.

21 Q. Okay, and then there was just a discussion
22 about uncertainty that you had with I believe it was Mr.
23 Young, and discount rates and how uncertainty and long
24 time horizons relate to the discount rate that you would
25 be using, and I would like to refer you to page 6-16 of

1 what's been marked as exhibit Cross 6/22/15 AARP 2.

2 A. Which one is that?

3 Q. This is the EPA document, right, the December
4 2010 EPA guideline for preparing economic analysis.

5 A. What page?

6 Q. And I'm referring you to page 6-16, and you
7 see there's a section that deals -- Section 6.3.2.2 with a
8 title uncertainty?

9 A. Uh-huh.

10 Q. And the first paragraph starts with a longer
11 time horizon in an intergenerational policy context also
12 implies greater uncertainty about the investment,
13 environment, and economic growth over time. Do you see
14 that first paragraph?

15 A. Uh-huh.

16 Q. And then it goes on in the second paragraph to
17 state that this additional uncertainty has been shown to
18 imply effective discount rates lower than those based on
19 the observed average market interest rates regardless of
20 whether or not the estimated investment effects are
21 predominantly measured as private capital or consumption
22 terms, correct?

23 A. Right.

24 MS. HAYDEN: Okay. That's all I have.

25 CHAIRMAN VOLZ: Can we go off the record

1 for a minute to talk about scheduling?

2 (Recess.)

3 CHAIRMAN VOLZ: We're back from the
4 break. We would like to get started. Redirect.

5 MR. DUMONT: Two questions for redirect.

6 CHAIRMAN VOLZ: If people can be quiet
7 please.

8 REDIRECT EXAMINATION

9 BY MR. DUMONT:

10 Q. First, Dr. Dismukes, you were asked a question
11 based on a transcript from June 14 -- prefiled testimony
12 dated June 14, 2013 somebody named P-C-O-L-A-R, and you
13 were asked are you aware that all of the fuel oil is
14 purchased from Quebec. Do you remember that question?

15 A. Yes, sir.

16 Q. And I objected and asked to see the exhibit
17 she was reading from.

18 A. Yes, sir.

19 Q. I'm going to read you the next sentence she
20 didn't read.

21 A. Okay.

22 Q. The plant also received 80 tanker trucks,
23 750,000 gallons of dryer fuel, propane, shipped from
24 Selkirk, New York and Berlin, Vermont at a cost of one
25 million dollars.

1 So combining the first sentence which Attorney
2 Hayden read you, and the second sentence which I'm reading
3 you, how does that compare to the leakage rate in the
4 INPLAN model?

5 A. I don't know the specific number, but when you
6 put the two together it would connote a much smaller
7 leakage than what was implied earlier which is -- sounded
8 like something on the order of a hundred percent which is
9 not necessarily the case.

10 Q. My second redirect question is you have been
11 asked a lot of questions today about why don't you use a
12 hundred dollars a ton for a carbon. If you could refer to
13 page 42 of your rebuttal testimony May 27?

14 A. Yes, sir.

15 Q. Would your revised results shift to positive
16 economic benefit if you utilized an one hundred dollar per
17 ton environmental cost adder, and your answer was no the
18 results would continue to be negative even if I used a
19 hundred dollars per ton environmental externality value.
20 The use of a hundred dollars per ton value still results
21 in a negative net economic benefit (in economic output
22 terms) of negative 109.3 million dollars NPV over a
23 20-year period, of negative 104.5 million NPV over a
24 35-year period, and negative 90.4 million NPV over a
25 70-year period. Did I get that right?

1 A. Yes, sir.

2 Q. Is there anything you want to add to that?

3 A. No, sir.

4 Q. Thank you.

5 CHAIRMAN VOLZ: Thank you. You're
6 excused. We're ready for Mr. Cota.

7 MATTHEW COTA,

8 Having been duly sworn, testified
9 as follows:

10 MR. SAUDEK: I just I have a few things.
11 I believe there are no problems with the --

12 CHAIRMAN VOLZ: Can you use the
13 microphone?

14 MR. SAUDEK: I believe there are no
15 problems with the admission of the testimony from any
16 of the parties.

17 CHAIRMAN VOLZ: Make sure the green
18 light is on.

19 MR. SAUDEK: Looked like the light was
20 on. Okay. Sorry. Okay. On page 11 at line 10
21 refer you to footnote 19 and refer you to Attachment
22 F as you do refer to the other attachments.
23 Unfortunately it's not labeled Attachment F, it's the
24 last page, and we would ask that the Board consider
25 that Attachment F. The other ones are labeled.

1 Everything else is labeled. It's just an error that
2 we didn't put Attachment F on it.

3 CHAIRMAN VOLZ: Okay. Great. I think
4 that's how we'll treat it as Attachment F, and if
5 there's no objection, then the testimony and exhibits
6 are admitted.

7 (The Prefiled Testimony of Matthew Cota
8 was admitted into the record.)

9 (Exhibits marked MC A-F were admitted
10 into the record.)

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1 CHAIRMAN VOLZ: So now we're ready for
2 cross examination. Ms. Hayden.

3 MS. HAYDEN: Thank you.

4 CROSS EXAMINATION BY MS. HAYDEN:

5 Q. Mr. Cota, do you have the one cross exhibit
6 that the Petitioner provided to you and your counsel this
7 morning?

8 A. I don't have it in my possession, but I am
9 familiar with the document.

10 Q. Can I hand this to the witness just to verify,
11 Mr. Saudek?

12 MR. SAUDEK: Sure.

13 BY MS. HAYDEN:

14 Q. On page 5 -- page 5 of your testimony line 5
15 and footnote 5 you refer to an article by a Stanford
16 economist, correct?

17 A. That's correct.

18 Q. And is that the exhibit that I've just handed
19 you?

20 A. That is correct.

21 Q. And that is marked as -- can you just read the
22 exhibit reference? I don't have it in front of me now.

23 A. Exhibit Petitioner Cross 6/22/15 VFDA 1 Docket
24 7970.

25 MS. HAYDEN: Thank you. I move the

1 admission of the exhibit and I have no further
2 questions.

3 MR. SAUDEK: No objection.

4 CHAIRMAN VOLZ: Okay. It's admitted.

5 (Exhibit Petitioner Cross 6/22/15 VFDA-1
6 was admitted into the record.)

7 CHAIRMAN VOLZ: Mr. Grayck, do you have
8 questions for this witness?

9 MR. GRAYCK: No I do not. Thank you.

10 CHAIRMAN VOLZ: Okay. And I don't
11 believe anybody else signed up for cross for this
12 witness; is that correct?

13 MR. TOUSLEY: Good afternoon, Mr. Cota.

14 MR. COTA: Good afternoon.

15 MR. TOUSLEY: There was a question that
16 you were promised you were going to be asked earlier
17 so I'm going to go ahead and ask it now and just
18 expand it a little bit. Do you know how many people
19 are employed in the State of Vermont in the home
20 heating oil and propane delivery industry?

21 MR. COTA: That's a great question and
22 one that we considered spending resources on to
23 determine through an economic expert. I'm personally
24 not an economic expert. The only REMI I know is
25 Jerry Remy and the -- but we considered that.

1 However, when we were allowed to gain party status in
2 this case in the spring of 2013 one of the -- we were
3 only admitted limited scope, and that limited scope
4 is we couldn't talk about job losses as they relate
5 to the heating fuel industry.

6 I have a good grasp of my membership
7 base and the structure of those businesses, the size
8 of those businesses and the number of employees and
9 the wages they pay, but I've not done a comprehensive
10 survey. We have not paid an economist to do a
11 comprehensive survey of all the jobs by those in the
12 heating oil and propane industry.

13 MR. TOUSLEY: Okay. Well it sounds like
14 you have a ball park figure you can give us.

15 MR. COTA: We have 232 members that pay
16 dues to my small non-profit trade association which
17 represents heating fuel, heating service companies,
18 and based on our survey, unscientific survey
19 methodology, we know, and based on other surveys
20 we've seen of other New England markets, the average
21 company has 20 employees. We're mostly second,
22 third, fourth generation family-owned companies that
23 -- and we're labor intensive compared to other
24 heating fuels such as natural gas or electricity.
25 You know it takes 20 employees; not just the driver,

1 but the heating technician and the customer service
2 staff and the regulatory compliance people and the
3 people who pay the taxes and pay the bills. It takes
4 20 employees to service 2,000 customers which is the
5 average heating fuel dealer's customer base.

6 MR. TOUSLEY: Okay. So what's your ball
7 park figure?

8 MR. COTA: So if you were just talking
9 about heating fuel --

10 MR. TOUSLEY: Direct employees.

11 MR. COTA: Direct employees we're
12 talking about 150 approximately different heating oil
13 and propane companies that are domiciled in Vermont.
14 Heating service, which services the oil heat
15 companies, is ancillary companies that provide trucks
16 and accounting and insurance and rubber gloves. So
17 we've got 150 different companies domiciled in
18 Vermont with the average of 20 employees. That's how
19 many people directly sell fuel. That's a ball park.

20 MR. TOUSLEY: Thank you.

21 MR. COTA: Not done by an economic
22 survey.

23 BOARD MEMBER CHENEY: I have a
24 clarifying question. You mentioned the number 232
25 members and how does that relate to the 150

1 companies?

2 MR. COTA: Well many -- you know we're a
3 non-profit trade association. So you don't have to
4 sell heating fuel to be a member of the Vermont Fuel
5 Dealers Association certainly. We also provide
6 technical training for the thousand heating
7 technicians every year. So heating service
8 companies, which tend to be smaller than heating fuel
9 companies, join in order to get our propane and oil
10 heat training.

11 We also have companies that sell trucks.
12 You know there are five different companies in
13 Vermont that sell trucks directly to the heating fuel
14 dealers or they sell insurance or they sell gloves or
15 they sell hoses or they sell boilers, furnaces, ad
16 nauseam.

17 MR. TOUSLEY: Thank you. I have one
18 more question. On page 12 -- actually two more
19 questions.

20 Page 6 of your prefiled testimony at
21 lines 4 and 5 you state that the average quote for an
22 oil heat to gas conversion is about \$12,000. How did
23 you derive that figure?

24 MR. COTA: Well that's -- that's a low
25 number. You know one of the things that we do -- our

1 member companies do all the time 70 percent of the
2 oil heat companies sell propane gas in Vermont.
3 Those companies do oil gas conversions everyday. So
4 they are very familiar with the requirements under
5 the law to remove not only the oil tank, but the vent
6 and fill pipe and all associated piping to line the
7 chimney when you switch to one -- one fuel source to
8 the other as required by FPA, National Fire
9 Prevention Code Book 31, and then the cost of the
10 actual equipment, not putting on a conversion burner
11 but putting in -- removing the old boiler or furnace
12 and putting in a new boiler furnace, \$12,000 is a
13 bargain. It can run as high as \$18,000 depending on
14 the complication.

15 MR. TOUSLEY: This is when you're
16 actually replacing the entire system?

17 MR. COTA: Exactly.

18 MR. TOUSLEY: Thank you. On pages 12
19 and 13 of your prefiled testimony you discuss a
20 federal energy policy known as the Renewable Fuel
21 Standard, RFS, which requires a blending of up to 20
22 percent biodiesel into conventional -- could you
23 describe what impact, if any, the RFS has on heating
24 fuels sold in Vermont?

25 MR. COTA: The RFS has changed our

1 industry tremendously as has a law that was
2 originally passed in 2011, part of the Vermont Energy
3 Act of 2011 which required us to sell a low sulfur
4 fuel. Combining a low sulfur fuel with biodiesel
5 blended heating oil has allowed us to remain
6 competitive in markets where people want a cleaner
7 and greener fuel. We needed a state regulation in
8 order to change the sulfur content to reduce our
9 sulfur from what had been 2,000 parts per million to
10 eventually it will be 15 parts per million. The same
11 sulfur content that you have in clean diesel being
12 sold in the on-road market.

13 MR. TOUSLEY: Is there a projected date
14 when heating fuel sold in Vermont will achieve the 20
15 percent biodiesel objective?

16 MR. COTA: Well they can sell it today.

17 MR. TOUSLEY: So there is biodiesel at a
18 rate consistent for all biodiesel or all fuel --
19 there's enough biodiesel being sold in Vermont now to
20 achieve that statewide?

21 MR. COTA: No. So what is the case is
22 that biodiesel can be blended up to 20 percent in a
23 80 percent petro oil/20 percent biodiesel and can be
24 still labeled as oil heat.

25 RFS -- effective RFS the major oil

1 companies have to meet the renewable energy goals.
2 They found a good market to dump one hundred percent
3 biodiesel, and because if you look at the New York
4 Harbor over the past three years, that their average
5 of the last three years is that biodiesel, B100, has
6 been 22 cents less per gallon than heating oil. The
7 major producers who are under strict regulations from
8 the EPA to blend renewable fuel into their downstream
9 supply have found a great market for that. We're the
10 beneficiary of that allowing us to sell biodiesel in
11 the market.

12 MR. TOUSLEY: Do you have any data to
13 support the degree to which that phenomenon has
14 impacted Vermont fuel oil buyers?

15 MR. COTA: That is a fundamental
16 problem. One we have addressed at the Legislature
17 but not successfully. Our upstream market
18 wholesalers is -- they are not selling it to us as a
19 green product. They are selling -- it's pure
20 arbitrage. If you can buy a product that's 22 cents
21 less per gallon than another product that's blended
22 in, you're going to blend to the max.

23 MR. TOUSLEY: You don't know --

24 MR. COTA: You would have to test every
25 batch and we have had high level discussions with our

1 wholesalers and with lawmakers and with Department of
2 Public Service about whether -- how we could achieve
3 that so we could claim the GHG savings and the green
4 mantle from doing that. We're not at that point yet,
5 but here's what we do know. 20 percent biodiesel
6 blended into the heating oil supply there's no
7 difference in options. The consumer wouldn't know
8 the difference when they turn on the thermostat.

9 MR. TOUSLEY: Thank you.

10 CHAIRMAN VOLZ: Any redirect?

11 MR. SAUDEK: No.

12 CHAIRMAN VOLZ: Any follow-up questions
13 I mean. Sorry. Okay. And then any redirect?

14 MR. SAUDEK: No.

15 CHAIRMAN VOLZ: Thank you. Mr. Grayck,
16 I think we're up to your witnesses now.

17 MR. GRAYCK: Yes. Barbara Wilson
18 please.

19 BARBARA WILSON,

20 Having been duly sworn, testified

21 as follows:

22 DIRECT EXAMINATION

23 BY MR. GRAYCK:

24 Q. Please state your name please?

25 A. Yes. My name is Barbara Wilson.

1 Q. And you already submitted prefiled testimony
2 in this proceeding?

3 A. Absolutely.

4 Q. Okay. It's been identified as NP 2R Wilson
5 exhibits 1 through 17, and I believe that the Board has
6 been provided with copies. The court reporter was
7 provided a complete set.

8 A. Those are my exhibits.

9 Q. Those are your exhibits?

10 A. Yes, and there's a prefiled testimony.

11 Q. And prefiled testimony has also been provided.
12 So I would move the admission of Miss Wilson's prefiled
13 testimony and exhibits.

14 CHAIRMAN VOLZ: Any objection? Okay.
15 They are admitted.

16 (The Prefiled Testimony of Barbara
17 Wilson was admitted into the record.)

18 (Exhibits marked NP-2R Wilson 1-17 were
19 admitted into the record.)
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1 MR. GRAYCK: The witness is now
2 available for cross examination.

3 CHAIRMAN VOLZ: Okay. My understanding
4 is no one has questions for this witness. We do so
5 we'll start.

6 MS. TIERNEY: Ms. Wilson, just a minute.
7 We have some confusion with exhibits. Ms. Wilson,
8 you have 17 exhibits attached to your testimony, is
9 that not right?

10 MS. WILSON: Yes I do.

11 MS. TIERNEY: Thank you. That's what
12 we're clarifying up here. So good afternoon
13 formally.

14 Ms. Wilson, my name is June Tierney and
15 I'll be asking you a few questions about your
16 testimony.

17 MS. WILSON: Okay.

18 MS. TIERNEY: Welcome to the Public
19 Service Board. I don't believe I've seen you here
20 before as a witness.

21 MS. WILSON: No.

22 MS. TIERNEY: That takes me to my first
23 point. Having examined your testimony I have the
24 impression that you do not have in your professional
25 background any experience in utility ratemaking; is

1 that correct?

2 MS. WILSON: No, I don't.

3 MS. TIERNEY: Okay. And also not in
4 utility rate design; is that correct?

5 MS. WILSON: Correct.

6 MS. TIERNEY: Do you have an
7 understanding of what both of those disciplines are?

8 MS. WILSON: I have an understanding.

9 MS. TIERNEY: Can you tell me briefly
10 what that is?

11 MS. WILSON: As far as obviously when
12 there's public infrastructure capital going to be
13 spent, right, obviously we have to look at it from
14 the benefit of, you know, the public -- the Vermont
15 as we've been talking about, but what the costs are
16 associated with that, and what the impact is and
17 whether the economic benefits, and that's the purpose
18 of, you know, what's been going on here.

19 I would like to add though I'm not --
20 I've never said in here I'm an expert. All I've done
21 is gone through and looked at the financials
22 associated with spreadsheets that Vermont Gas
23 provided, you know. So I'm not doing anything about,
24 you know, making any statements about regulatory
25 whatever. I'm just looking at, you know, formulas.

1 I'm a math major. As a math major, product manager,
2 I've managed 20 million dollar annual products and so
3 I've lived in spreadsheets.

4 MS. TIERNEY: I definitely have that
5 impression from looking at your testimony and
6 analysis. Have no fear, and I have no question that
7 you're much more competent with math than I am. I
8 can assure you, but I just want to get a sense of
9 what your understanding is of utility ratemaking and
10 rate design because you do testify about those
11 subjects and I'm going to ask you a few questions
12 about that.

13 MS. WILSON: Okay.

14 MS. TIERNEY: Do you have your testimony
15 with you?

16 MS. WILSON: I sure do.

17 MS. TIERNEY: Great. Can we go to page
18 13 of your testimony line 15? In that area you
19 testify it is clear from this graph that the only
20 real winners are the G3 and G4 rate schedule
21 customers. Do you see that?

22 MS. WILSON: I sure do.

23 MS. TIERNEY: And could you just clarify
24 for me the G3 and G4 rate schedules that you looked
25 at I assume to make that statement? Are they the

1 ones that are presently in place for Vermont Gas?

2 MS. WILSON: What I did in my analysis
3 is looked at solely the data that was included in the
4 spreadsheets, the financial spreadsheets, that the
5 Vermont Gas provided and those were the individuals
6 that were projected to take gas rates.

7 MS. TIERNEY: So you didn't go to the
8 web site and look at schedules for rates for class G3
9 and G4?

10 MS. WILSON: I looked at pricing
11 schedules for -- definitely they are available on the
12 Vermont Gas web site.

13 MS. TIERNEY: Okay. So that's what I'm
14 asking you. You did go there then?

15 MS. WILSON: Absolutely. I've been
16 doing that since April or May last year.

17 MS. TIERNEY: Your analysis is not
18 strictly derived from what was in Vermont Gas
19 spreadsheets. You also went to their web site and
20 looked at their rate sheets?

21 MS. WILSON: Absolutely, as well as DPS
22 web site fuel prices.

23 MS. TIERNEY: Great. So then with that
24 understanding the conclusion that you articulate in
25 your testimony about the real winners, that's based

1 on the -- on your perusal of the existing G3 and G4
2 rate schedules; is that correct?

3 MS. WILSON: It's that, but more
4 importantly what it is, is looking at, you know, the
5 cost associated with this project for those
6 particular individuals and the savings that they will
7 get, and the way that I did that was I looked at the
8 sheet that Vermont Gas provided. I mean they
9 provided a lot of data. Took me a whole lot of time
10 to sort through it, believe me, and then also you
11 have the market analysis information. So you had
12 your -- you had the ability to be able to isolate the
13 revenue between market class. So that's what I did.
14 So I basically created additional lines and
15 spreadsheets to be able to separate that out, make
16 sure it added up to the total, and I did that.

17 MS. TIERNEY: Great. That's fine.
18 That's very helpful for me to understand. Question
19 for you. If these rate schedules were to change in
20 the future, would you agree that it's also possible
21 that your -- the category of customers you're
22 characterizing as winners can also change?

23 MS. WILSON: That could happen, but if
24 you look at the actual rates that, you know,
25 residential versus G1 versus G2, 3, 4, there's

1 considerable difference between what they pay for
2 gas.

3 MS. TIERNEY: Now let me ask you about
4 that because that difference, I'll submit to you, we
5 characterize as rate design.

6 MS. WILSON: Yeah.

7 MS. TIERNEY: So if the rate design were
8 to change in the future, would you agree that it's
9 possible that your category of winners would also
10 change?

11 MS. WILSON: It could. Absolutely.
12 It's based on historical data that was available. So
13 I looked at rates that were in effect as of May,
14 June, July, August, you know, through current.

15 MS. TIERNEY: Great.

16 MS. WILSON: On both sides.

17 MS. TIERNEY: If I could ask you to turn
18 to page 18 of your testimony, actually it's the
19 passage page 18 through 19 and 21 and 20, I'll be
20 asking you a couple questions about that.

21 On page 19 of your testimony you feature
22 a pie chart and then an what I'm going to call a
23 chart below that. Do you see that?

24 MS. WILSON: Yes I do.

25 MS. TIERNEY: And to the right-hand side

1 you have an item called SERF fund, and I understood
2 that to be a reference to a fund that was created in
3 Docket 7712. Am I understanding you correctly?

4 MS. WILSON: Yes, but it's really what
5 was reported once again on that fund use sheet.

6 MS. TIERNEY: That's fine. So the
7 question I have for you is this. Your analysis here
8 I think assumes that there will be withdrawals from
9 that fund in the course of recovering costs for the
10 project; is that correct?

11 MS. WILSON: It assumes what was assumed
12 on the fund use sheet, and the fund use sheet
13 basically brought in the revenue that's coming in
14 from new Addison customers. At the top it then had
15 the operational cost. It then did simple math and it
16 came up with the COS which was negative, and then
17 they basically applied the fund to that, and then
18 also had the area up at the top where they identified
19 the 15.3 and the minus 4 percent rate.

20 MS. TIERNEY: Fair enough. Now this
21 graph and the pie chart appear in a passage of your
22 testimony that is labeled fund use analysis of who
23 pays what, and my question to you is simply this.
24 Are you aware or were you aware when you gave us that
25 testimony that no withdrawals from that fund have

1 been authorized by this Board to date?

2 MS. WILSON: Yeah and that's fine.

3 That's fine. Again I was really reporting on what
4 the fund use -- that chart was telling me.

5 MS. TIERNEY: I appreciate that. Thank
6 you. If I can ask you to turn to page 35 of your
7 testimony, you will have to forgive me for a moment.
8 I seem to have the reference wrong. I have to find
9 my place. No it is page 35 indeed.

10 If I can ask you to go to lines 17
11 through 19 for a moment, you testify there at most it
12 provides a major economic benefit to less than 2.5
13 percent of the addressable market in Middlebury and
14 Vergennes at the expense of all other existing
15 ratepayers in the state, and by it I gather the
16 reference is to the pipeline as the sentence before
17 makes clear.

18 Question for you there. In making that
19 statement in your testimony did you consider the
20 possibility that later ratemaking or rate design
21 proceedings could affect how the costs of the project
22 are allocated and paid for?

23 MS. WILSON: What I was really focused
24 on is what had been provided as data, but I wasn't
25 doing it as an economic analysis. I'm no economist.

1 I know that I'm a product manager.

2 MS. TIERNEY: And you're not a rate
3 maker either. You have made that very clear.

4 MS. WILSON: But I'm good at math so
5 what I -- what this 2.5 represents is really, you
6 know, if you looked at the total number of folks that
7 are included -- projected to be included in R
8 residential, G1, 2, 3 and 4, and you look at G3 and
9 G4 and it's obvious they get massive savings right
10 from day one. So that was the 2.5 percent I was
11 talking of, of the -- of all the projected customers,
12 target market, or, you know, the take rate that would
13 happen.

14 MS. TIERNEY: Thank you. I have no
15 further questions. Mr. Young, did you have a
16 question?

17 MR. YOUNG: Just a couple. Good
18 afternoon, Ms. Wilson.

19 MS. WILSON: Hi.

20 MR. YOUNG: Let me start by asking
21 something not on your testimony but in your resume.

22 MS. WILSON: Okay.

23 MR. YOUNG: It indicates here Telcordia.

24 MS. WILSON: I was Telcordia. Now they
25 were sold to Ericsson. Yeah, 2011 we got sold.

1 MR. YOUNG: So you -- so you're now in
2 Ericsson?

3 MS. WILSON: I'm a contractor now. I
4 retired just before it happened. After having gone
5 through divestiture, several changes in the
6 corporation, I decided I don't think I want to be an
7 employee with this round. I'm kind of glad since
8 they are offshoring most of my team right now so --

9 MR. YOUNG: I just wanted to make sure
10 since they are now in charge of porting telephone
11 numbers I wanted to make sure there wasn't going to
12 be a secondary effect if you didn't like what we did
13 here.

14 MS. WILSON: All right. I wish. I'm
15 not in that part. I do trending.

16 MR. YOUNG: And let me move you to your
17 exhibit 7-2 please.

18 MS. WILSON: Okay.

19 MR. YOUNG: And I'm just going to look
20 at the residential part which is the top segment of
21 this table. I'll give you a couple seconds to get
22 there.

23 MS. WILSON: Thank you.

24 MR. YOUNG: And as you look at this and
25 the customer what you're presenting here is a

1 customer that uses 700 gallons of oil who switches to
2 natural gas. The average -- are these average annual
3 fuel costs you're showing here?

4 MS. WILSON: Over ten years.

5 MR. YOUNG: It's over ten years, but
6 these are the average annual, correct?

7 MS. WILSON: Uh-huh.

8 MR. YOUNG: At that level you're showing
9 almost no savings for a customer.

10 MS. WILSON: Correct.

11 MR. YOUNG: Now you -- I assume you have
12 read the other testimony in this proceeding.

13 MS. WILSON: Uh-huh.

14 MR. YOUNG: And Mr. Rendall indicated
15 that the average customer was saving, I believe his
16 testimony was, around 1700 dollars. Is there any way
17 you can help me reconcile his 1700 versus a low
18 volume customer which some people are using a number
19 around this as the average of 200 dollars.

20 MS. WILSON: Actually that's what got me
21 started in doing this way back, way back in phase
22 two, and so I was seeing ads and I was like I don't
23 understand this. So what I did was put together what
24 I call these fuel calculators, right, and basically I
25 have one for every rate class, right, and what I do

1 in these particular calculators I tie it into the
2 same spreadsheets that VGS provided, right, with the
3 sheet 2 which has the price forecast based on EIA
4 data that's come in, and I updated my EIA data for
5 2015, and then actually I noticed something very
6 interesting as soon as I updated it with the 2015
7 based on the 2014, that all of a sudden the price of
8 oil went like high in the 2015 and -- because I was
9 just using, as everyone else in the docket seemed to
10 be back early on, you know, is like well what's, you
11 know, the price of the oil in the February report or
12 the November report and all that kind of stuff,
13 right, and when I looked at that I said oh the EIA
14 data for 2015 it actually goes down a minus 27
15 because of what's -- it's basically trending with
16 what we've seen in oil prices, right.

17 So if in fact you go in and you're using
18 like January's number there, right, against that EIA
19 data, and if it's higher it's going to then take 11
20 percent for 2016 based on the EIA data that's
21 projected, and it's going to cause that to go up. So
22 that the price was like \$3.20 or even more which
23 didn't seem reasonable.

24 So from a common sense perspective I
25 started to think about well these are -- I was a math

1 major, right. I said oh but these trends are based
2 on annual averages, right. So wouldn't it make
3 better sense to go back and look at 2014, which is
4 the year we just completed and had a full year of oil
5 price for, do an average of that, right, and at first
6 I was afraid to do that because I was like oh my God
7 the average is \$3.65. Whatever. I'm doing from
8 memory. It was \$3.60 something. It's going to be
9 horrible, right. Well no. It adjusted that minus 27
10 percent to that number. It brought it to 266.3 which
11 is not too far off of what we are today, and then in
12 2016, and I can't quite remember the number, I think
13 it's like \$2.90 some odd cents, and I'm like oh
14 that's modeling precisely what's happening right now.

15 So what we should -- to use this EIA
16 data I believe is more accurate to use average prices
17 for 2014, trust the EIA data to do the trending
18 projections because that's what it's for, right, and
19 then do the same thing for gas.

20 Unfortunately I only started tracking
21 the gas prices since May of last year. So my average
22 was only an eight-month average for the gas because I
23 strongly believed you got to do apples to apples, you
24 know. So if you're doing one thing you're looking at
25 it over a calendar year, you should be looking at the

1 other thing over a calendar year. So by doing that
2 that's exactly what's being used for these numbers.

3 The other thing that I have done in
4 these numbers is SERF -- you know I'm taking the
5 rates as they are published on that web site, and
6 they include the SERF fund embedded in those
7 distribution I believe it is. I don't know that for
8 certain, but I think that's where it is. So my
9 numbers include SERF. They also include -- because
10 the customer is paying the subsidy for low income,
11 right, so I put -- not that it's that much. It's 9
12 dollars a year. It's not that big of a deal, and my
13 numbers also included here what -- that projected
14 rate increase because I'm looking at this from the
15 standpoint of the rate increase. But even if -- and
16 I just did it because I have a calculator now. So
17 all I got to do is change the parameters. So just
18 while I was sitting there I took out the rate and
19 it's still like a difference of about \$550 which
20 isn't a whole lot of money with zero rate increase,
21 right. That then your conversion costs have to go
22 against that.

23 So when you look at that chart on the
24 left-hand side that isn't adjusted for conversion
25 costs at all. The only time I do any kind of

1 adjustments is scenario 4 where I actually subtract
2 out of that average the 264 dollar lease fee, you
3 know, because that's something that there are all
4 those paying every month associated with the fuel.
5 So I believe that explains part of it.

6 I also then looked at Dr. Hopkins'
7 testimony, and actually had I had a chance, you know,
8 basically do any kind of -- you know this morning I
9 handed out that composite that we never used and got
10 to, and in that what this particular composite shows,
11 if you look at his data and you flip to that very
12 last page, the other thing that's kind of weird was
13 he put his 1401 in the column 2016 instead of putting
14 it in 2015, right, and then it didn't apply the 2016
15 2.7 increase to it which I thought was kind of odd,
16 and the other difference between, you know, my
17 numbers and his is the fact he did this five-month
18 average which was December, January, February, March
19 and April, right, and I did the calendar year 2004
20 (sic) average. So his average, you know, he in 2015
21 isn't using that minus 27, right. So my average for
22 -- my number for 2016 -- 2015 is less than what his
23 is, and I let the EIA data do the adjustments and I'm
24 not explaining that very well. I'm sorry.

25 BOARD MEMBER CHENEY: Can I ask a

1 clarification? When you said you used an average for
2 2004 I believe you meant '14.

3 MS. WILSON: '14. Absolutely '14. I'm
4 sorry. I get tongue tied with numbers. So that
5 makes a difference as well, and it definitely makes a
6 difference and that was the thing I saw right in the
7 beginning why it caused me to go to the average
8 because I didn't think it was right to apply the 11
9 percent to this higher number for the beginning of
10 the year because fuel prices are often times -- if
11 you look at the DPS web site, they are often times a
12 little higher January, February, March anyway, right,
13 and it should be a representative yearly average
14 value that you're applying that projection to.

15 MR. YOUNG: Thank you. That's all the
16 questions I have right now. Thanks.

17 CHAIRMAN VOLZ: Any follow up to ours
18 before we get to redirect? I'm asking the other
19 parties if they have any follow up to our questions.
20 Okay. Then any redirect?

21 MR. GRAYCK: No.

22 CHAIRMAN VOLZ: Great. Thank you.
23 Thank you, Ms. Wilson. You're excused.

24 MS. WILSON: Thank you.

25 MR. GRAYCK: Melanie Peyser.

1 CHAIRMAN VOLZ: Okay.

2 MELANIE PEYSER,

3 Having been previously sworn, testified
4 as follows:

5 BOARD MEMBER CHENEY: I would like to
6 remind you, you remain under oath from your previous
7 appearance in this docket.

8 MS. PEYSER: Thank you.

9 DIRECT EXAMINATION

10 BY MR. GRAYCK:

11 Q. Ms. Peyser, you provided prefiled testimony
12 and exhibits, am I correct?

13 A. Yes, you are.

14 Q. Now with respect to your exhibits I have them
15 as exhibit 1 through 10. There is no exhibit 11?

16 A. Right.

17 Q. And then you have exhibit 12 through 15. Am I
18 correct?

19 A. Yes.

20 Q. Okay, and those have been provided to the
21 parties and the Board?

22 A. Yes.

23 MR. GRAYCK: I move the introduction of
24 Ms. Peyser's prefiled testimony as well as her
25 exhibits. And, I'm sorry, did you do prefiled

1 rebuttal testimony?

2 A. Yes, I did.

3 Q. And were there any exhibits?

4 A. The exhibits were -- so from 12 through 15
5 were attached to the rebuttal testimony. The remainder
6 were attached to the prefiled testimony.

7 MR. GRAYCK: Thank you. So we move the
8 admission of the testimony and exhibits.

9 CHAIRMAN VOLZ: Any objection?

10 MR. MARSHALL: None.

11 CHAIRMAN VOLZ: Okay. They are
12 admitted.

13 (The Prefiled Testimony of Melanie
14 Peyser was admitted into the record.)

15 (Exhibits marked NP-2R Peyser 1-10 and
16 12-15 were admitted into the record.)

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1 MR. GRAYCK: The witness is available
2 for questioning.

3 CHAIRMAN VOLZ: And my understanding is
4 none of the parties had cross for this witness so
5 we're going -- but we have questions.

6 MS. TIERNEY: Good afternoon, Ms.
7 Peyser.

8 MS. PEYSER: Hi.

9 MS. TIERNEY: We had the pleasure before
10 this proceeding.

11 MS. PEYSER: Please tell me you're not
12 going to start with the typos.

13 MS. TIERNEY: I won't if you don't start
14 with my bad math. May I ask you to turn to page 21
15 of your May 6th testimony and when you're there let
16 me know.

17 MS. PEYSER: And I am looking at the
18 corrected version.

19 MS. TIERNEY: Are you there?

20 MS. PEYSER: Uh-huh.

21 MS. TIERNEY: As I reviewed this passage
22 it seemed to me you were describing your involvement
23 with a group called Just Power, and it was an
24 outreach activity at the Sustainability Expo; is that
25 right?

1 MS. PEYSER: Yes, although it also
2 continued to some other places.

3 MS. TIERNEY: What continued?

4 MS. PEYSER: So our outreach activities
5 in terms of the survey that I was discussing here.

6 MS. TIERNEY: Excellent. Could you, for
7 the benefit of record, tell us a little bit about
8 what Just Power is?

9 MS. PEYSER: Sure. Just Power is a
10 coalition of individuals. Some of them represent
11 organizations, for the most part it is individuals,
12 who are concerned about prosperity in Vermont and a
13 just energy future. They come from all walks of
14 life. Genuinely different professions. They all
15 have a similar concern, although I would say a very
16 varied set of views about what the right way to go
17 forward is.

18 There's a lot of debate and discussion
19 about policy. So I would say it's a group that was
20 not set up to be a purely advocacy group. It was
21 just simply a group of people. It was originally
22 called the Friday night group that started long
23 before I came home to Vermont who used to meet every
24 other Friday night in order to talk about what was
25 happening with energy policy in Vermont.

1 MS. TIERNEY: In that same vein could I
2 ask you to explain a little bit what the
3 Sustainability Expo is?

4 MS. PEYSER: Sure and I will tell you as
5 I understand it.

6 MS. TIERNEY: Yes.

7 MS. PEYSER: So it is a sustainability
8 fair that is run in Middlebury, as I understand it,
9 on an annual basis. They have workshops all day and
10 then they have sort of tabling opportunities for
11 vendors, non-profits, and others to provide
12 materials, do outreach, talk to people who are
13 attending the Expo.

14 MS. TIERNEY: So Just Power was
15 conducting outreach activities at the Sustainability
16 Expo. Can you describe a little bit who Just Power
17 spoke with in those outreach activities? Were these
18 potential residential customers for VGS or who --

19 MS. PEYSER: We set up a table in the
20 main hall. We had a couple of signs, our own Just
21 Power sign, as well as one that said confused about
22 natural gas question mark. We had some questions
23 like is natural gas less expensive, more expensive,
24 et cetera, and we spoke with whomever came up to our
25 table.

1 So we did not -- we weren't looking for
2 specific individuals. We had individuals who came up
3 and said that they were interested in natural gas.
4 We tried to have them fill out the survey first
5 before we spoke with them and influenced them because
6 we felt that it was important that we try to just get
7 a sense of people's thinking about natural gas and
8 the types of savings that they would want to achieve.
9 I don't think I included a copy of the survey here,
10 although one of the residents from Monkton -- we also
11 sent it out online to people -- filled it out and
12 sent it in to the Department of Public Service. So I
13 think that they -- their Public Advocate's Office may
14 have seen it.

15 MS. TIERNEY: So --

16 MS. PEYSER: What I was going to say we
17 actually didn't put in any markers. So the questions
18 were are you interested in natural gas service and
19 then there was a response. You had three choices
20 with sub responses. So the first was yes without
21 regard to cost. The second was yes as long as, and
22 then we left open spaces for people to say my savings
23 over my current fuel would be more than, and we had a
24 percentage.

25 MS. TIERNEY: Thank you.

1 MS. PEYSER: Or I would reduce GHG by
2 more than. So we were trying not to influence what
3 that answer might be.

4 MS. TIERNEY: I appreciate that. Thank
5 you. That's a helpful description to have. Did you
6 have a sense from -- as you dealt with these
7 individuals who came to your booth did you have any
8 understanding as to whether they were coming to you
9 as potential users of energy in a residential setting
10 as opposed to a commercial or a business setting?

11 MS. PEYSER: Definitely I would say the
12 majority of the individuals who came to speak with us
13 were talking with us about residential settings. I
14 would say there were a couple of small business
15 owners, and of course since it was a sustainability
16 expo we had many individuals who are doing retrofits
17 and other things who stopped by.

18 I'll also say we had a lot of people who
19 thought we were selling natural gas and advertising
20 for Vermont Gas because of our question confused them
21 about natural gas written in blue with a black
22 question mark on a white banner. There were a lot of
23 people who said oh no we don't want to talk to you
24 because you're from the pipeline, and then we had
25 people who say hi, yeah, I do want to find out about

1 a gas burner.

2 MS. TIERNEY: Thank you. Could I ask
3 you to turn to page 23 of your testimony? Now this
4 is not chasing typos, but it is a question about
5 clarification in your testimony.

6 MS. PEYSER: Okay. Absolutely.

7 MS. TIERNEY: Will you please read to
8 yourself lines 14 through 17, the sentence there, and
9 when you're done with that let me know.

10 MS. PEYSER: Okay.

11 MS. TIERNEY: Now on line 15 you use the
12 phrase was previously incorrect, and I read the
13 sentence to myself several times and I wondered
14 whether you meant to say was previously correct.

15 MS. PEYSER: I think I actually did not,
16 and so my point was that -- unfortunately it would
17 have been nice if I had split this into three
18 sentences, but my point was actually that if you
19 trusted them before and they created essentially a
20 condition precedent, that if the following things
21 happened there would not be sufficient demand for
22 natural gas. That if you believed them before,
23 there's no reason not to believe them that now when
24 that condition precedent has actually come to pass
25 you should still believe them. They were right then.

1 There probably isn't enough demand for natural gas
2 now.

3 MS. TIERNEY: Okay. Thank you. Could I
4 ask you to turn to -- we'll get to that later. Could
5 I ask you to turn to page 27 of your May 6th
6 testimony? At lines 7 and 9 if you would look at
7 that quickly.

8 MS. PEYSER: Okay.

9 MS. TIERNEY: So you follow that
10 sentence about what the Board found with the
11 statement this is no longer the case, and the context
12 is that a VGS witness testified earlier in the case
13 that Addison County has no natural gas infrastructure
14 and therefore there would be a need to install a
15 network?

16 MS. PEYSER: Right.

17 MS. TIERNEY: Okay, and you're saying
18 this is no longer the case. Are you saying in this
19 passage of your testimony that trucked natural gas
20 service and piped natural gas service are comparable
21 and thus interchangeable?

22 MS. PEYSER: No. Well actually let me
23 think about that. Now that the Palmers have a lawyer
24 I have been advised to think before I speak.

25 MR. GRAYCK: I got to do something.

1 MS. PEYSER: No. I think I was taking
2 the first sentence in a literal fashion. There was
3 no natural gas infrastructure. So I was not actually
4 distinguishing. I was taking that in the absolute
5 literal sense that there was none and there is some
6 now.

7 MS. TIERNEY: So it's the infrastructure
8 that you're focusing on and what exactly --

9 MS. PEYSER: And natural gas
10 infrastructure specifically.

11 MS. TIERNEY: So what I had understood
12 Mr. Teixeira's testimony to be there's no pipe
13 infrastructure right now.

14 MS. PEYSER: Right, and I would say that
15 there is now in the sense that there is now
16 distribution -- some distribution lines running from
17 a gas island to customers.

18 MS. TIERNEY: Okay. So then let me ask
19 you again is it your view with the availability of
20 CNG in Addison County now, at least in that
21 particular location in Middlebury, that trucked
22 natural gas service and piped natural gas service are
23 comparable and therefore interchangeable?

24 MS. PEYSER: No. I would not say that
25 they are fully interchangeable, but similarly to the

1 extent to which natural gas would be fully
2 interchangeable with oil and propane they are another
3 choice and an option that would be available, except
4 that there are some restrictions because of MOUs that
5 have been previously signed.

6 MS. TIERNEY: Could I ask you to turn to
7 page 30 of your testimony please? At lines 14 and 15
8 of that page you testify, I should mention here that
9 International Paper began receiving bids for the
10 provision of trucked LNG or CNG back last summer, and
11 then you conclude this paragraph with, moreover VGS
12 should have already been aware of the fact that
13 trucked CNG was the lowest cost alternative to meet
14 demand for natural gas in Addison County for VGS and
15 for current ratepayers. Could you tell me --

16 MS. PEYSER: I'm sorry. Could you tell
17 me which line I'm looking at again?

18 MS. TIERNEY: Yes. Not at all. I'm
19 looking at -- in the beginning I was looking at line
20 14/15 on page 30 and then the final piece I read was
21 line 19 through 21.

22 MS. PEYSER: Okay.

23 MS. TIERNEY: I just wanted to clarify a
24 few things about that passage for my own benefit. In
25 that last sentence on line 21 when you refer to

1 current ratepayers who do you mean by current
2 ratepayers? Did you mean Vermont Gas ratepayers who
3 are served by Vermont Gas's existing system?

4 MS. PEYSER: Yes.

5 MS. TIERNEY: And when you refer to the
6 lowest cost alternative should I understand that to
7 mean the least expensive alternative for ratepayers
8 who bear the cost of providing service?

9 MS. PEYSER: Yes. So as the individuals
10 who would eventually be contributing to the pipeline
11 as customers over time that another -- the absence of
12 a pipe in delivering by CNG to customers in Addison
13 County would create a lower cost alternative to
14 ratepayers because the asset would not be necessary.

15 MS. TIERNEY: And by your reference to
16 ratepayer there you mean this would be the lowest
17 cost alternative for folks who want to take natural
18 gas, but at the lowest cost in the sense of cost to
19 be borne by people who are presently ratepayers of
20 Vermont Gas; is that correct?

21 MS. PEYSER: Right. So I mean it would
22 be less expensive as a whole for society to have
23 natural gas delivered by truck to customers in
24 Addison County because if you did not build the asset
25 of the pipeline, there would be no reason to add the

1 cost of that asset into rates. So you wouldn't have
2 the investment in the pipeline. While individuals
3 might pay a slightly higher rate in Addison County
4 for natural gas than they would pay if they were to
5 receive it through pipe, they would not be paying for
6 the asset at all, and you would not have the people
7 who are not cost causers, individuals in Chittenden
8 and Franklin Counties, cross subsidizing an asset
9 that has now become, I would consider, outrageously
10 expensive.

11 MS. TIERNEY: Well this is what I wanted
12 to understand better about your testimony. What you
13 said just now this is lowest cost for society, but
14 your testimony here says lowest cost alternative for
15 VGS and current ratepayers. So should I understand
16 that to mean what you meant to say in your testimony
17 was lowest cost from a societal perspective?

18 MS. PEYSER: No. I think I am
19 complimenting my testimony to explain the evolution
20 of my thinking about that. Maybe I can just provide
21 a little bit more information that I think would be
22 helpful to clarify it. Is that okay?

23 MS. TIERNEY: I found your answer very
24 helpful and I think I understand your testimony.

25 MS. PEYSER: I don't want you to come to

1 a conclusion that I was -- did not actually mean. So
2 if I could clarify, that would be great.

3 MS. TIERNEY: That's fine by me. Please
4 go ahead.

5 MS. PEYSER: So I believe that it would,
6 of course, be less expensive as a cost input to
7 Vermont Gas to not build a pipeline assuming Vermont
8 Gas would still be selling its gas to an intermediary
9 or a dealer, someone like NG Advantage, which would
10 be like selling the gas.

11 So Vermont Gas would actually still be
12 getting the revenue, whether that comes through
13 transportation or the sale of natural gas to NG
14 Advantage or to Enertech, which would then sell the
15 gas on because Vermont Gas's business is a throughput
16 business, and the more you can spread whatever
17 infrastructure you have across ratepayers the less
18 ratepayers are going to pay for it. They would still
19 have the revenue from either transportation or from
20 selling natural gas to an intermediary provider.
21 That would continue to lower the rates. So you would
22 actually likely have downward pressure on rates for
23 customers in Franklin and Chittenden Counties as well
24 as for new customers in Addison County. You would
25 not have the cost to them of paying for

1 infrastructure that isn't necessary. Vermont Gas
2 would still be able to get its revenue, and perhaps
3 that would mean changing the model in some way, but
4 the fact is it wouldn't be a return on equity. It
5 would be a return on their actual sales and
6 potentially a return on equity depending upon whether
7 or not they built additional infrastructure to serve,
8 for example, CNG customers themselves, which I know
9 is under consideration that they were piloting that
10 as one option they could consider.

11 MS. TIERNEY: Thank you. Could I ask
12 you to turn to page 17 of your May 6th testimony?
13 That's the same testimony we're looking at now. At
14 lines 12 through 15 you testify, quote, if the
15 majority of VGS customers understood what was going
16 on, they would be opposed to contributing to the
17 SERF, and then you go on to say, and would be shocked
18 at the reality that they will pay much higher prices
19 so that residents and businesses in Addison County
20 can get piped natural gas with a little savings.

21 I would like to focus on your statement
22 about what the majority of Vermont Gas Systems
23 customers know. What is your basis for that
24 statement?

25 MS. PEYSER: That they don't know?

1 MS. TIERNEY: For your making a
2 statement about what the majority of Vermont Gas
3 Systems' customers understood. Your phrase is if the
4 majority of VGS customers understood what was going
5 on, they would be opposed to contributing to the
6 SERF. I would like to understand what your basis is
7 for that statement.

8 MS. PEYSER: Having done quite a bit of
9 outreach myself in Franklin County and Chittenden
10 Counties to ratepayers, as well as Just Power doing
11 that type of outreach, as well as other coalition
12 members doing that outreach, we've been talking to
13 ratepayers for quite some time, and I would say that
14 just looking around the room if I'm lying please
15 somebody raise your hands so I can correct myself, I
16 think that nearly all of the ratepayers with whom we
17 speak are surprised to learn that they are currently
18 paying a gas distribution charge or a portion thereof
19 and that that charge is actually going -- is being
20 used to build the transmission line.

21 Let me correct that just to be clear.
22 That they are not -- it is not being used yet, but
23 that if the Public Service Board does approve the use
24 of that fund in a separate proceeding after Vermont
25 Gas has built the pipeline and is ready for gas to

1 flow, that if the Public Service Board approves the
2 charging of costs to that fund, that that -- those
3 monies will not be returned to them or all of those
4 monies will not be returned to them, meaning a
5 portion could be if there was some left over. It's
6 not looking that way right now at 154.3 million or
7 even at the amount of money that has already been
8 spent on development charges which are -- in
9 principle have been considered allowable. They
10 haven't been authorized yet, but if all of those
11 things come to pass, if the project is successful,
12 the infrastructure is built, or if all of the
13 development expenses for which reimbursement is
14 requested or reimbursed given the amount that has
15 already been spent to date, that that is where that
16 money will go, and that it is actually ratepayer
17 money that was originally meant to have come back a
18 portion in a refund and not to be charged as a rate
19 decrease over time.

20 MS. TIERNEY: Ms. Peyser, I'm trying to
21 focus on your basis for asserting -- I'm trying to
22 get to the basis of your statement as to what the
23 majority of Vermont Gas Systems customers would think
24 -- your statement that they would be opposed to
25 contributing to the SERF if they knew or understood

1 what was going on.

2 You described so far outreach
3 activities. You have talked to several, many Vermont
4 Gas Systems customers, but you would agree with me
5 that you don't know for sure, that you have talked to
6 the majority of those; is that right?

7 MS. PEYSER: I am absolutely certain I
8 have not spoken with the majority.

9 MS. TIERNEY: So what we're talking
10 about is your perception of what you think the
11 majority would think or do.

12 MS. PEYSER: I said if the majority, and
13 I would just like to mention one other reason why I
14 have concerns they might not, and that is that
15 Vermont Gas is also doing outreach, and I can even
16 tell you on the basis of a letter that was sent to me
17 through several hands responding to a letter sent by
18 Just Power to the Chittenden County Regional Planning
19 Commission inviting them to attend these technical
20 hearings, and essentially saying we think people
21 should come and hear for themselves. We think it's
22 important that policy makers, that elected officials,
23 as well as nominated officials who have constituents
24 in the three counties and elsewhere in Vermont should
25 come here and hear the evidence because it's very

1 difficult to actually get enough information in order
2 to make a reasonable decision for oneself about his
3 or her position.

4 So Vermont Gas followed that up and
5 actually wrote a letter that said that Vermont Gas
6 had no intention of raising rates 15 percent in order
7 to cover the cost of pipeline, and that Vermont Gas,
8 as has been said here over and over, is committed to
9 affordable and competitive rates, and several other
10 things that I think while read to black letter are
11 true. Reading between the lines they did not
12 actually address the issues that the company was
13 saying that they were addressing at each paragraph,
14 and so they actually made the waters quite murky in
15 terms of what the potential impact on ratepayers will
16 be.

17 I have also done quite a bit of research
18 and asking and we have done a lot of collection of
19 newsletters and other things, and we have not found
20 any information in newsletters that explains to
21 anyone what the impact of the cost increase might be
22 or explains specifically how the SERF is being used
23 since it is being used for a specific project versus
24 for infrastructure in general.

25 MS. TIERNEY: Ms. Peyser, could I ask

1 you to turn to page 6 your May 28th testimony? On
2 lines 15 - 17 you are recounting a statement from Mr.
3 Rendall. Quote, we are a customer-focused energy
4 services company, providing services in a competitive
5 market.

6 At line 19 in that passage you testify
7 that this statement is in part is misleading. I
8 would like to understand are you saying Mr. Rendall
9 is misleading the Board in that statement or are you
10 saying his statement is incomplete or inaccurate?

11 MS. PEYSER: I am saying it is
12 incomplete.

13 MS. TIERNEY: I've noticed that you have
14 attached to your testimony of May 28th an exhibit
15 that is NP-2 R-Peyser-12 which is the Memorandum of
16 Understanding among NG Advantage LLC, the Vermont
17 Department of Public Service, and Vermont Gas Systems
18 Inc. Could I ask you to turn to that document?

19 Having that document in mind and the
20 testimony that I just read, do you have any evidence
21 that these companies NG Advantage and Enertech --
22 well first off I think only NG Advantage, do you have
23 any evidence that NG Advantage did not voluntarily
24 enter into this MOU?

25 MS. PEYSER: No. I believe they did

1 because of market entry reasons. I believe that they
2 had a disproportionate amount of power in the market.

3 MS. TIERNEY: Ms. Peyser, my question
4 was do you have any evidence that NG Advantage did
5 not voluntarily enter into this MOU?

6 MS. PEYSER: I don't think I can answer
7 that question as it's phrased and be accurate.

8 MS. TIERNEY: How would you answer the
9 question then?

10 MS. PEYSER: I would say I believe they
11 did it voluntarily in the legal sense of did they --
12 were they competent to make the decision that they
13 were going to do it. I think they did it because
14 they feared that they would have a much more
15 difficult time in a regulatory sense if they did not
16 agree to do it. That their -- both parties, DPS and
17 VGS, would have opposed their request for a
18 declaratory judgment for the Board not to exercise
19 its jurisdiction over them, and so I believe that in
20 order to resolve that problem they were willing to
21 sign the Memorandum of Understanding.

22 BOARD MEMBER HOFMANN: Without going
23 into what you might have heard did you talk to
24 someone at NG Advantage?

25 MS. PEYSER: I did not. I read all the

1 transcripts and all the files. So I did a public
2 records question.

3 MS. TIERNEY: The transcripts of what?

4 MS. PEYSER: The transcript of the
5 prehearing conference. There were -- as far as I
6 know from the documents that I received from the
7 Public Service Board there was not a full hearing on
8 the issue because the MOU was signed.

9 MS. TIERNEY: And you have no comparable
10 basis with respect to Enertech; is that correct?

11 MS. PEYSER: I do not. My colleague
12 George Gross actually worked on that part.

13 MS. TIERNEY: But you yourself don't?

14 MS. PEYSER: I read the Enertech MOU and
15 I have read quite a bit about them, but I did not --
16 we did not have access to the full record for that.

17 MS. TIERNEY: At page 19 of your May
18 28th testimony you testified, I cannot find any
19 evidence in Mr. Roam's prefiled testimony, his
20 resume, or any of VGS's answers to discovery
21 questions about the PWC team's qualifications to
22 suggest that any member of the team has significant
23 experience in carrying out cost estimation for
24 natural gas transmission pipelines or for natural gas
25 pipeline projects in general.

1 MS. PEYSER: I'm sorry. Could you just
2 tell me the page again?

3 MS. TIERNEY: Page 19 lines 1 through 3.
4 I'm assuming, Mr. Grayck, your witness does not have
5 Petitioner RR-1, which is Mr. Roam's resume, up there
6 with her.

7 MR. GRAYCK: I think that's correct.

8 MS. TIERNEY: What I'm going to do is
9 read two paragraphs from it, and if you would like to
10 look at the document, you can ask your counsel about
11 that.

12 In paragraph 1 of exhibit Petitioner
13 RR-1 it reads, quote, he has worked with industry
14 leaders to develop organizational and delivery
15 structures on capital projects ranging from electric
16 and gas transmission, renewable generation and
17 integration, Smart Grid technologies, and
18 programmatic system improvements.

19 In paragraph 2 of that same document,
20 quote, Ralph has worked with gas transmission clients
21 in managing increased pipeline construction by
22 helping develop structures that can support the
23 increased pace of expansion while managing risks
24 associated with planning, permitting, and
25 constructing pipeline projects. Assuming that you

1 accept my verbatim quote from the exhibit, in light
2 of that information is there still a reason why the
3 Board should conclude that no member of the PWC team
4 has significant experience in carrying out cost
5 estimation for natural gas transmission pipelines or
6 for natural gas pipeline projects in general?

7 MS. PEYSER: Could you please go back
8 and read me the first sentence of the first
9 paragraph?

10 MS. TIERNEY: He has worked with
11 industrial leaders to develop organizational and
12 delivery structures on capital projects ranging from
13 electric and gas transmission, renewable generation,
14 and integration, Smart Grid technology, and
15 programmatic system improvements.

16 MS. PEYSER: I would say that I still --
17 the sentence as written that I wrote that I do not
18 find any evidence that he worked on cost estimation
19 in gas transmission, I continue to not find that
20 evidence in those two paragraphs. One might infer,
21 however, the specific disciplines mentioned do not
22 necessarily include cost estimation. They may
23 include management of a budget. They may include
24 looking at larger policy issues related to the
25 economics of projects and many other things, but

1 specifically cost estimation I do not find evidence
2 of that.

3 MS. TIERNEY: So should I take that to
4 mean a risk associated with planning, permitting, and
5 constructing pipeline projects in your estimation is
6 not cost estimation? Cost estimation is not one of
7 those?

8 MS. PEYSER: I would say it's one of
9 those questions that all kangaroos are marsupials,
10 but not all marsupials are kangaroos. So unless I
11 know more about the marsupial statement I don't know
12 if they are kangaroos or not.

13 MS. TIERNEY: On page 20 of your
14 testimony lines 9 through 10 you testify that VGS and
15 VELCO are affiliated companies. Do you see that in
16 your testimony? What is your basis for that
17 statement?

18 MS. PEYSER: My basis for that statement
19 is prior Board decisions.

20 MS. TIERNEY: They are affiliated, are
21 you using that in a legal sense or just a general
22 sense?

23 MS. PEYSER: I'm using that in the sense
24 of FERC's definition, or the SEC's definition, of
25 affiliated utilities and restrictions placed on them

1 in terms of their arms length operations. Can I say
2 one more thing? At this very moment I cannot
3 recollect, although I would be happy for our counsel
4 to provide it later, that I actually -- there is
5 actually a statement by VELCO or VGS specifically
6 saying that in one of their own documents. So I have
7 a visual recollection of the actual statement, but I
8 don't have a visual recollection of what that
9 document was, but I would be happy to dig it up and
10 provide it.

11 MS. TIERNEY: Thank you. Can I ask you
12 to turn to page 10 of your May 28th testimony? Could
13 I ask you to review lines 7 through 10? It's the
14 sentence that begins the idea that.

15 MS. PEYSER: Okay.

16 MS. TIERNEY: As I read the sentence I
17 kept waiting for something more. Could you complete
18 your thought?

19 MS. PEYSER: I can see that. I can see
20 that. I think that the point that I was trying to
21 make was that with an increase in the cost of
22 construction for the project it was hard to believe
23 that VGS would not have to raise its rates.

24 MS. TIERNEY: Thank you. Farther down
25 on that same page of your testimony, page 10 at lines

1 11 through 18, you testify moreover any attempt by
2 VGS and DPS to suggest that decisions and other
3 documents could influence the benefits of the project
4 goes against the spirit and letter of Section 248.
5 There would be no need for Section 248 review if a
6 utility and DPS could simply say that the Board could
7 control through future dockets the rate impact and
8 thereby the net benefit of the project, and/or the
9 competitive advantage of the rates as they influence
10 demand uptake of natural gas and necessity for the
11 project. Such approach would undermine the stringent
12 standards the Vermont Legislature set for the Board,
13 and essentially suggests that the Board make policy
14 by circumventing the Section 248 criteria. Do you
15 see that statement?

16 MS. PEYSER: Uh-huh and I would say that
17 instead of documents on line 12 it should say docket.

18 MS. TIERNEY: Beg your pardon.

19 MS. PEYSER: On line 12 the first word
20 should be dockets not documents.

21 MS. TIERNEY: Okay. So dockets. Ms.
22 Peyser, do you mean to say that a Section 248 review
23 requires the Board to conclusively assess the rate
24 impacts of the proposed project based on project cost
25 estimates?

1 MS. PEYSER: No.

2 MS. TIERNEY: Why should the Board not
3 infer that from this statement?

4 MS. PEYSER: Perhaps it was written --
5 it was not written in a clear manner. I was trying
6 to reference actually the criteria further down. My
7 concern being that there has been a suggestion that
8 the Board ought to wait until later rate cases, and
9 the Board, and I'm trying to remember whether it was
10 DPS or VGS, but I think it was echoed in things
11 written and that have been said by both, which is
12 that the Board can have a great deal of influence on
13 the impact of this project by either not approving --
14 actually there are three things: Not approving VGS's
15 proposed rates in its next rate case, by altering the
16 approved capital structure for VGS, so essentially
17 allowing VGS to take on more debt than it currently
18 has been approved to do, or, let me try to remember
19 what the third thing is. I'm getting tired.
20 Altering its approved rate of return or return on
21 equity, and my concern is that if the idea is that
22 the Board will fix the problems of this project, in
23 other words, the Board will take steps that would
24 actually change the outcome of your decision making
25 and your analysis of whether or not the project would

1 actually -- there would be sufficient demand for the
2 project, for example, given the rates as they would
3 be likely to have to be, what would that do to the
4 competitive advantage of the project given the other
5 alternatives, such if it were to occur that there
6 were not enough demand and you were to determine that
7 today, but the response to that would be well that's
8 okay because we will -- we'll fix that later by
9 allowing them to take on more debt now or allowing
10 them -- or saying to ourselves we're just not going
11 to let them -- we're not going to approve that rate
12 or we're not going to approve their rate on return
13 later or we're going to ask them to lower their rate
14 of return later. I don't think that that is actually
15 the way that the 248 statute was envisioned from the
16 legislative history. That the idea was actually that
17 a project must meet the criteria today and it must
18 stand on its own. Not that you -- if something
19 doesn't end up working out the way you think it
20 would, that you will change it later in order to make
21 the project comply or that we can say we're not going
22 to worry about those criteria now because we have a
23 lot of influence and we can fix it later.

24 I don't think that that was what the
25 Legislature intended when it wrote the 248 statute.

1 I think it intended to say a project must stand on
2 its own today and meet the criteria. Certainly
3 you're doing projections to think out about whether
4 it will meet those criteria going forward, but if the
5 idea is that an intervention by you will solve any
6 problems that might come about that would have --
7 looking backwards if you had said we wouldn't have
8 done this, this project no longer meets the criteria,
9 somewhere in the middle of this process you would say
10 oh well we're in a separate docket. We're going to
11 say this project is okay today and this docket
12 because in nine months we will change the rate of
13 return. I don't think that was what was intended by
14 the Section 248 statute.

15 MS. TIERNEY: I have no further
16 questions.

17 CHAIRMAN VOLZ: Any follow up based on
18 our questions?

19 MR. GRAYCK: No.

20 CHAIRMAN VOLZ: Any redirect?

21 MR. GRAYCK: No.

22 CHAIRMAN VOLZ: Ready for your next
23 witness?

24 MR. GRAYCK: George Gross please.

25 GEORGE GROSS,

1 Having been duly sworn, testified
2 as follows:

3 DIRECT EXAMINATION

4 BY MR. GRAYCK:

5 Q. Would you state your name please?

6 A. George M. Gross.

7 Q. Mr. Gross, my understanding is that you
8 provided prefiled testimony and exhibits, a corrected
9 testimony and corrected exhibits, rebuttal testimony and
10 attachments, and rebuttal corrected exhibits. Did I get
11 that correct?

12 A. Yes.

13 Q. Okay, and one issue that I want to clarify on
14 your exhibits was there -- are they -- they are labeled
15 consecutively with letters. Am I right?

16 A. Yes. The one exception my rebuttal testimony
17 there were two exhibits that didn't have a label attached
18 properly to them. They were blank and those should
19 probably be assigned a label number label J and K
20 respectively.

21 Q. Okay. And except for that it's -- your direct
22 exhibits were properly identified by letter. There
23 weren't two exhibit As?

24 A. No. Must have inadvertently used a version
25 that was old that we corrected.

1 MR. GRAYCK: Thank you. I believe Mr.
2 Gross's exhibit with corrections have been provided to
3 the parties, the Board, as well as the court reporter,
4 and I would move their admission.

5 CHAIRMAN VOLZ: Any objection?

6 MR. MARSHALL: None.

7 CHAIRMAN VOLZ: Okay. They are
8 admitted.

9 (The Prefiled Testimony of George M.
10 Gross was admitted into the record.)

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1 (Exhibits marked NP-2R-GMGROSS A-K were
2 admitted into the record.)

3 MR. GRAYCK: Mr. Gross is available for
4 questions.

5 CHAIRMAN VOLZ: Okay. I believe no one
6 else has questions except for the Board; is that
7 right?

8 MR. TOUSLEY: Good evening, Mr. Gross.

9 MR. GROSS: Hi.

10 MR. TOUSLEY: I have a few questions for
11 you. In your prefiled testimony of May 6th at page 9
12 you talk about -- at line 12 you talk about a
13 compressed natural gas tanker company's strategic
14 group. What is that group and who belongs to it?

15 MR. GROSS: So that refers to a cluster
16 of companies that are relatively similar in the way
17 they develop their product and deliver it to the
18 marketplace. In this case two examples in Vermont
19 are NG Advantage and Enertech North Country, LLC.
20 There may be others that I'm not aware of.

21 MR. TOUSLEY: Do they have a strategic
22 group?

23 MR. GROSS: Well they occupy a niche in
24 the industry services -- provider services.

25 MR. TOUSLEY: So this clustering is

1 something you have done?

2 MR. GROSS: Yes. It was part of my
3 judgment how to organize who are the players in the
4 marketplace.

5 MR. TOUSLEY: So would that be the same
6 thing as with the community solar and heat pump
7 strategic group?

8 MR. GROSS: Yes. In other words, they
9 have common technology. Sometimes they have common
10 trade associations. Their products have a lot of
11 similarity to one another other than their features
12 might differ in the detail.

13 MR. TOUSLEY: And with the beer
14 strategic group?

15 MR. GROSS: Yup.

16 MR. TOUSLEY: The building energy
17 efficiency retrofit?

18 MR. GROSS: Yup.

19 MR. TOUSLEY: Okay. So you made these
20 up?

21 MR. GROSS: Part of doing an industry
22 analysis is basically dissect the groups.

23 MR. TOUSLEY: Okay. Thank you. On page
24 15 of your May 6th testimony at lines 5 to 6 you
25 state that compressed natural gas offers a lower cost

1 for delivered MMBtu than the incumbents, and at lines
2 7 to 8 that CNG delivery of gas product has already
3 proven to be an economically viable substitute for
4 the VGS ANGP gas pipeline.

5 I'm trying to appreciate how you came to
6 these conclusions. Could you walk me through how you
7 developed and used -- you refer to exhibit -- to
8 exhibit --

9 MR. GROSS: Exhibit A.

10 MR. TOUSLEY: Exhibit A, how you derived
11 that.

12 MR. GROSS: Okay. So exhibit A is a --
13 let's see if I can look at it, see if I'm talking
14 about the right one.

15 Exhibit A is a business modeling
16 basically trying to sketch out what it looks like to
17 deliver compressed natural gas into the Addison
18 County market; the Middlebury gas island or the cost
19 of delivering that product, what's the price they
20 would see given certain assumptions, and then
21 comparing that to what we know as the price of the
22 gas product from Vermont Gas and assuming that the
23 pipeline incurred a rate increase.

24 MR. TOUSLEY: Again where did you get
25 the data to support the statement that compressed

1 natural gas offers a lower cost per delivered MMBtu
2 than the incumbents?

3 MR. GROSS: Okay. Well in exhibit A I
4 developed basically a dissection of what the
5 different suppliers offer, how they go about doing
6 that, what is the likely cost, what's the likely
7 profit margin, and at the end of this you end up with
8 an estimate of the cost, the price per million BTUs
9 delivered to the doorstep at the gas island.
10 Basically a distance from, in this case, the NG
11 Advantage station up in northern Vermont delivered to
12 the Middlebury Agri-Mark unloading facility.

13 MR. TOUSLEY: I'm trying to remember.
14 Today I think we heard testimony that there's like a
15 \$6 price difference in MMBtu between compressed
16 natural gas and pipeline gas, with compressed natural
17 gas being a higher number. How does that comport
18 with your conclusion here?

19 MR. GROSS: So certainly exhibit A has a
20 different set of assumptions than today's current
21 scenario.

22 MR. TOUSLEY: Okay. So this doesn't
23 reflect a reality. This reflects a projection?

24 MR. GROSS: Yes it does. It assumes --
25 I think I made that very explicit. As you will see

1 there's an assumptions worksheet and there's -- in
2 the exhibit A spreadsheet there's an assumptions
3 worksheet and there's modeling parameters, one of
4 which is the rate increase applied for in this case
5 whatever Vermont Gas rate class you're talking about.

6 MR. TOUSLEY: That's my problem
7 basically. Most of my questions have to do with
8 attempting to understand and appreciate the fact that
9 this is a projection based on assumptions rather than
10 a reflection or projection based on data that is
11 current.

12 Your direct prefiled testimony May 6th
13 and your prefiled testimony of May 28th differ, I
14 believe, inasmuch as the latter refers to the
15 delivery of CNG to residences and business parks
16 sharing a distribution network as being economically
17 viable where I believe in your earlier testimony you
18 said that you didn't -- you didn't think that could
19 happen.

20 MR. GROSS: So that reflects, as in any
21 competitive analysis situation, you're always
22 gathering new information, new intelligence about
23 what's available. Enertech was a new entrant that I
24 wasn't as fully aware of and couldn't integrate into
25 my earlier filing. Once I had enough information

1 about Enertech to actually place the filing together
2 like I did on the 28th, I assembled as much as I
3 could based on what I could do in the limited amount
4 of time I had to do it.

5 Specifically Enertech had signaled
6 through a press interview they did in the Vermont
7 Reporter back in May of last year their intention to
8 serve the residence/small business market, and a view
9 of their web site described this patented absorbed
10 natural gas technology that they used to deliver
11 canisters to the customers' doorstep, and the
12 interview with the Reporter indicated a 10 to 15
13 percent price advantage relative to the other options
14 out there in the market.

15 MR. TOUSLEY: Do you know if any
16 infrastructure has been developed by Enertech or any
17 other companies to make that happen?

18 MR. GROSS: The last press release I saw
19 from them earlier this year showed they had acquired
20 a property in Swanton to develop the terminal. I
21 don't know the status of their Act 250 proceeding or
22 anything else.

23 MR. TOUSLEY: There is some discussion
24 in your testimony as well that Enertech is prohibited
25 from selling small scale CNG deliveries services.

1 Let me try again. Is there language in
2 the Enertech MOU that prohibits Enertech from selling
3 small scale CNG delivered services without access to
4 piped natural gas?

5 MR. GROSS: So I think I spoke to this
6 directly in my rebuttal testimony. There was a
7 section that actually addressed this. Paraphrasing
8 without going back to the exact language, it's true
9 they could go back to the Public Service Board for a
10 change in the current conditions that are imposed on
11 them by the MOU, but the fact is the de facto entry
12 because there's no certainty they will go through the
13 regulatory process in terms they can actually make a
14 business work for them.

15 MR. TOUSLEY: But it's one they entered
16 into voluntarily.

17 MR. GROSS: Well this gets to the
18 question of what has happened in the MOU negotiations
19 that we don't know. The whole process is proposed.
20 There's no way for me, for example, to do a public
21 records request that I'm aware of to discover --

22 MR. TOUSLEY: So your assumption is
23 because of that, that there was some collusion and
24 force as opposed to the free -- the operation of the
25 free market?

1 MR. GROSS: Well there clearly is no --
2 there's no evidence available. Obviously you can't
3 look inside the dark bottle and see what's inside it.
4 We don't know what happened. So that's only one
5 possible explanation. Other explanations, yes, they
6 did in fact do that, but the fact that they have
7 announced it in their press release they were going
8 to serve the residential market and they came away
9 with the MOU that did not suggest to me that that was
10 a very significant change in their business plan, and
11 they have a barrier to entry they cannot -- you know,
12 it's major change in their business plan.

13 MR. TOUSLEY: Thank you.

14 MR. MARREN: Good afternoon, Mr. Gross.
15 Mr. Gross and I have interacted in the net metering
16 world. In your May 6th testimony on page 3 you state
17 that the company's assessment of GHG impacts for the
18 phase 2 project, which was the subject of Docket 8180
19 work, are biased. I wanted to clarify whether you
20 thought the analysis presented by the company in this
21 docket was subject to similar issues?

22 MR. GROSS: Yes, it is.

23 MR. MARREN: And also could you please
24 elaborate on your statement that biomethane cannot be
25 scaled up to meet Vermont Gas's demand without

1 adverse land use impacts?

2 MR. GROSS: Okay. Both of these
3 questions address -- are addressed more fully in my
4 filings in the other Docket 8180 and obviously in the
5 public record.

6 In the short, in both of these filings I
7 looked at different aspects of the phase 2 pipeline
8 and greenhouse gas major focus of my filings and in
9 fact learned a lot, did a significant amount of
10 research about what part of the greenhouse gas
11 metrics are used by scientists and also by
12 politicians and policy makers.

13 What I discovered was -- is that the
14 greenhouse gas so-called global warming potential,
15 GWP, commonly used by Vermont and many other
16 jurisdictions, has unfortunately some significant
17 defects that subject -- make it subjective, and when
18 placed in front of an administrative judiciary like
19 this Board could in fact allow different parties to
20 contend they had the right estimate or statement of
21 what the value of the greenhouse gas emissions was or
22 reduction in emissions.

23 This is a very complicated topic, but I
24 will try in short to address it, but the essence is
25 that what's not commonly understood is that this --

1 the global warming potential actually is one of two
2 metrics. The absolute global warming potential is an
3 actual measurement of the radial forcing of the
4 particular gas, whether it be methane or carbon
5 dioxide or any of the others nitrous oxides and
6 greenhouse gas.

7 Every gas has its own, if you will,
8 characteristic signature as far as how long it lasts
9 in the atmosphere and how it decays. What global
10 warming potential is, is a ratio between that
11 absolute value and carbon dioxides absolute global
12 warming potential, and unfortunately without getting
13 into the weeds it's very hard to describe to this
14 community, this group.

15 What happens is basically if you look at
16 methane on a short time scale, as you know, 20 years,
17 potential for global warming is upwards of 86 times
18 more potent than carbon dioxide. In contrast if you
19 average it over a hundred years, that same unit or
20 pulse of methane that you release is only got --
21 basically the methane decays and its contribution to
22 global warming decays over time to the point where
23 it's no longer in the atmosphere around year 50, and
24 at a hundred years the overall effect is only the
25 potential 34 times more than one unit of carbon

1 dioxide, and so depending on which time frame you
2 look at you can skew the results and the impact of
3 those methane emissions.

4 In this case with natural gas methane
5 being the dominant force of greenhouse gas and the
6 potential, in this example Docket 8180, I compared it
7 to heavy fuel oil, and discovered that in fact by
8 doing a substitution of natural gas for the fuel oil
9 there was essentially no benefit between the two for
10 the first 50 years which was the life of the project.

11 MR. MARREN: So is it your criticism
12 that if there are greenhouse gas benefits that they
13 just don't accrue to the -- to Vermont and the rest
14 of the planet fast enough?

15 MR. GROSS: Well I would characterize it
16 as the -- there are several things I recommend that
17 would be possible ways to sort of -- for the Board to
18 address this issue, which some of which would be a
19 change in the way the state perceives or measures --
20 uses metrics. In other words, the IPC assessment
21 Report 5 that was published this past year in 2014, I
22 guess it was 2014, has refined the science around
23 metrics, and this has got very important implications
24 for energy policy and how we measure methane
25 emissions in particular.

1 They specifically say there is no merit
2 to using a hundred year life span as the measure for
3 methane emissions. They specifically say it's
4 dependent on the regulatory context or how you're
5 applying the metric. So that leads me to conclude
6 that in this case when we look at this project and
7 our legislative goal of moving to 90 percent
8 renewables by 2050 there's a major disconnect.
9 There's nothing in the infrastructure that we're
10 already talking about having a service life of
11 upwards of at least 50 years, maybe even 70, and yet
12 in fact 35 years from now we would want to get at
13 least 90 percent of methane replaced with some
14 renewable substitute.

15 Now to your question about renewable
16 natural gas, my other filing in this realm looked at
17 what would be the potential impacts of using, for
18 example, dairy, landfill, gas emissions, composting,
19 all these different possible ways of gathering
20 methane and assembling them to create a biomethane
21 replacement, and my first take back-of-the-envelope
22 assessment was that this would require a significant
23 amount of land use impacts on Vermont to either have
24 a lot of cows or a lot of other approaches to doing
25 this generation of biomethane by using forest and

1 cutting it into chips and then going through a
2 thermal process to convert it into methane.

3 These are all possible technologies that
4 exist today, but they all have land use impacts and
5 there's been no attempt to quantify them and develop
6 a land use policy that would support it and make it
7 sustainable.

8 MR. MARREN: I just -- one follow up.
9 Are -- a lot of those activities you described
10 sounded agricultural in nature, at least arguably so.
11 Do you -- this state has at times advocated policies
12 that favor agriculture. Do you think that those land
13 use impacts still need to be looked at even if they
14 are agricultural in nature?

15 MR. GROSS: Yes. Actually I saw
16 legislation recently done by the Legislature kind of
17 split the regulatory jurisdiction of a farm between
18 the part the Department of Agriculture does and the
19 Board has jurisdiction. That has unfortunate
20 consequences, side effect, which is that no one is
21 looking at the farm in a global sense, and so
22 one-half could be saying it's fine and another side
23 might say not.

24 MR. MARREN: Thank you.

25 MR. YOUNG: Good afternoon, Mr. Gross.

1 I want to talk about your CNG gas island proposal for
2 a little bit, and I understand your testimony you
3 state that it's proven to be an economically --
4 economically viable substitute for the pipeline. Is
5 that correct?

6 MR. GROSS: Well qualified with the
7 assumptions that we spoke about earlier in the
8 exhibit A.

9 MR. YOUNG: If one accepts some of the
10 assumptions you've used --

11 MR. GROSS: Well there are several key
12 assumptions I would like to bring to the Board that
13 are embedded in this and may not be immediately
14 obvious. So to help turn the discussion into that
15 direction I would like to turn our focus on the gas
16 island, the picture of the diagram that's in
17 illustration one.

18 MR. YOUNG: Actually let me just stop
19 you because I want to get into the diagram more than
20 I want the rate issue, and we'll circle back to the
21 rate issue because right now I would actually like to
22 understand the diagram, and at least in my testimony
23 -- in my version, I'm looking at the May 8th version
24 and it's on page 19. Is that what you're looking at?

25 MR. GROSS: Yes.

1 MR. YOUNG: Okay. I'm trying to
2 understand exactly how the different pieces work. So
3 your basic idea is you're going to have this gas
4 island and that's in the cloud on the right-hand side
5 of the diagram?

6 MR. GROSS: Yes.

7 MR. YOUNG: And there's a distribution
8 network and who owns that and who installs it?

9 MR. GROSS: The assumption I was making
10 Vermont Gas that owns and operates it because they
11 are by statute the only entity allowed to do pipe
12 distribution for gas.

13 MR. YOUNG: Do you know whether it would
14 be possible to authorize somebody else to do that
15 type of distribution?

16 MR. GROSS: I think there's some legal
17 opinion. I would need to consult with somebody.
18 There are statutes that are in this area and I'm not
19 -- I've read them once, but I can't speak to their
20 application here.

21 MR. YOUNG: That's fine. And would this
22 gas island distribution network go to only industrial
23 and large commercial customers? Would it go to
24 retail residential customers? I mean you're talking
25 about a distribution network. Where is it going?

1 MR. GROSS: As far as I can tell there's
2 no physical or technical reason they could not serve
3 firm customers. The question has been raised in
4 multiple occasions to suggest that CNG cannot do
5 firm. To that I would say that's a service
6 availability issue which I happen to get familiar
7 with again through the Docket 8180 which was a study
8 to see what service availability change, if there was
9 storage on site, and it turns out that statistically
10 if you look at what are the peak heating hours and
11 days served by Vermont Gas's network, it's a very
12 narrow slice out of all the week. So it's possible,
13 sometimes desirable from a service availability
14 perspective, to store gas.

15 In this case you would store it at the
16 headend of the gas island so that you could bridge
17 those spikes and carry the load for those days that
18 really zooms up.

19 MR. YOUNG: And if one does that
20 somebody has to install the facilities to store it
21 there and also incur the cost of storing it because
22 it's gas that's not being used?

23 MR. GROSS: True. That's part of that,
24 though I did not model that.

25 MR. YOUNG: Okay.

1 MR. GROSS: I would also point out the
2 alternative is the model that was advocated by
3 Enertech where they delivered small canisters along
4 the site. In that case it's like an unregulated fuel
5 dealer who looks at the customer usage profile and
6 proactively places storage on site in anticipation of
7 heat loads.

8 MR. YOUNG: I'm trying to just focus on
9 your proposal because it's the one that you suggest
10 is more cost effective -- can be more cost effective,
11 is the reason the pipeline may not be least cost, and
12 so I would like to just understand what you're
13 proposing here.

14 MR. GROSS: Of course.

15 MR. YOUNG: Who pays for that
16 distribution network? Is it rolled into Vermont
17 Gas's overall rates or is it just the customers on
18 that gas island distribution network?

19 MR. GROSS: Well that's clearly getting
20 into the business model issues. Earlier we talked
21 about this and it's a legal opinion about whether in
22 fact any entity other than Vermont Gas is authorized.
23 Do they have an exclusive franchise in the State of
24 Vermont? I don't know.

25 CHAIRMAN VOLZ: Put aside that issue.

1 What would you propose assuming there were
2 restrictions?

3 MR. GROSS: Okay. In that case then it
4 basically would be open for bid. It would be
5 something like any other public facility that's
6 operated by a privatized company. It would be
7 available to the lowest cost provider that used that
8 criteria that specified for safety and affordability.

9 MR. YOUNG: So you're suggesting that
10 the Board would basically say hey we want gas island
11 distribution and open it up to bid for any company
12 who wants to. Is that the idea?

13 MR. GROSS: In the long term, yeah. I
14 think I speak to this in the testimony. There are
15 two models in parallel here. One is the obvious one.
16 You simply put out for bid the delivery from CNG
17 terminal down to the headend of the gas island, and
18 the business is basically just a delivery charge
19 moving gas down to the headend.

20 Where you could see it going and where
21 there could be a lot of room for innovation is where
22 you accept bids from other parties for not only the
23 delivery of the gas to the headend but also to the
24 people who want to choose a gas product. If, for
25 example, biomethane was available but at a premium

1 price, some people may decide they like that option
2 over fracked gas solution. So you would allow -- you
3 would unbundle the supply of gas from the
4 distribution and buy that independent of it.

5 Now if you want to unbundle the
6 distribution and also pick a provider for a
7 distribution service, that's also possible.

8 MR. YOUNG: When you had in mind that
9 this -- that this suggested that the pipeline was not
10 least cost, you I presume had one model that you
11 examined and for purposes of that. What I'm trying
12 to understand is I mean you just laid out you can do
13 it this way or that way or whatever. Which is the
14 one you costed out to reach the conclusion that the
15 pipeline was not least cost?

16 MR. GROSS: That's the model spreadsheet
17 A, which in this case is assumed that the Board
18 allows CNG vendors a waiver on the cost of purchasing
19 gas. The current model what's going on today perhaps
20 one of the reasons why CNG today costs \$6 more per
21 MMBtu than delivered by the pipeline is there's
22 actually a double dip here. The CNG vendor, in this
23 case NG Advantage, buys gas from Vermont Gas,
24 delivers it to the Middlebury gas island, and then
25 Vermont Gas turned around and buys their gas back and

1 delivers it down through their distribution network.
2 That overhead clearly is part of their current price.

3 In the case where a vendor is delivering
4 that gas to the headend of a gas island that charge
5 could be waived by the Board and the only charge for
6 distribution would be occurring on the gas island.
7 So that part that so-called CNG tariff, which is in
8 this diagram here, if that was not included in the
9 price of cost delivered to the customers would reduce
10 the price at least a dollar or two per MCF, somewhere
11 in that range.

12 MR. YOUNG: I'm trying to do this in
13 small pieces just so I understand, and each time I
14 ask a small piece you answer three different things
15 because I'm missing who is selling the gas.

16 Let's assume this is Middlebury.
17 Vermont Gas builds a distribution system there. Who
18 is selling -- and well actually let me back up. Who
19 is building the CNG unloading facility and who is
20 paying for that?

21 MR. GROSS: Well it's already bought.
22 So if you are to build other ones, here you're
23 getting into the question of how do you actually --

24 CHAIRMAN VOLZ: When you said it was
25 already built you mean it's already there?

1 MR. GROSS: It's already bought.

2 MR. YOUNG: Okay. So the one that's
3 there, and who owns it right now?

4 MR. GROSS: That's not obvious to me. I
5 think it's a shared asset between Agri-Mark Cabot and
6 Vermont Gas, but I don't know the terms of their
7 deal. I do know there's a CNG adder that has a
8 surcharge to customers that requires them to repay
9 the facility cost, development cost back to
10 Agri-Mark.

11 MR. YOUNG: Who is selling the gas --
12 let's say Agri-Mark is the customer who is hooked up
13 to this distribution -- gas island distribution
14 network. Who is selling them the gas under the
15 proposal that you have put forward?

16 MR. GROSS: My version two models. One
17 obviously is Vermont Gas is doing that, and the other
18 one you unbundle gas supplier from distribution and
19 you have a different cost because of that.

20 MR. YOUNG: Have you attempted to cost
21 out at all the cost of building the distribution
22 network that you're envisioning and how that would --
23 how that affects the overall cost effectiveness of
24 this?

25 MR. GROSS: Well the distribution

1 network is already kind of in the cards as far as
2 Middlebury's expectations. So they are customers who
3 expect to get gas service and they may not care
4 whether it's CNG or pipeline as long as it saves them
5 money. If they think it saves them money, but that's
6 a separate topic of course which is what is the
7 overhead of the CNG trucking versus a pipeline, and
8 that was why I spent a lot of time trying to evaluate
9 what we call the CNG adder, which is the MCF of
10 delivering to the gas island.

11 MR. YOUNG: Thank you. I have no
12 further questions.

13 CHAIRMAN VOLZ: Any follow up to our
14 questioning? Any redirect?

15 MR. GRAYCK: No.

16 CHAIRMAN VOLZ: And we're ready for the
17 next witness.

18 MR. GRAYCK: Mr. Palmer please.

19 CHAIRMAN VOLZ: Off the record though.
20 (Off-the-record discussion.)

21 BOARD MEMBER CHENEY: Hello, Mr. Palmer.
22 Just like to remind you, you remain under oath from
23 your appearance in this docket.

24 MR. PALMER: Yes I am.

25 NATHAN PALMER,

1 Having been previously duly sworn,
2 testified as follows:

3 DIRECT EXAMINATION

4 BY MR. GRAYCK:

5 Q. Can you state your name please?

6 A. Nathan Palmer.

7 Q. And, Mr. Palmer, you have prefiled testimony
8 and prefiled testimony without exhibits; is that correct?

9 A. I believe that's the way it worked.

10 Q. And your exhibits are exhibit 1 through 7.

11 Yes?

12 A. Yes.

13 Q. And a copy of those exhibits have been
14 provided to the parties, the Board, and the court reporter
15 and I would move their introduction.

16 CHAIRMAN VOLZ: Any objection?

17 MR. MARSHALL: No objection.

18 CHAIRMAN VOLZ: Okay. They are
19 admitted.

20 (The Prefiled Testimony of Nathan Palmer
21 was admitted into the record.)

22 (Exhibits marked NP-2R-Palmer 1-7 were
23 admitted into the record.)

24

25

1 MR. GRAYCK: The witness is available
2 for questioning.

3 CHAIRMAN VOLZ: Thank you. It's my
4 understanding the parties have no questions for this
5 witness; is that correct? And I think we have some
6 questions.

7 MR. TOUSLEY: Good evening, Mr. Palmer.

8 MR. PALMER: Good evening.

9 MR. TOUSLEY: I have a handful of
10 questions for you. At page 5 of your prefiled
11 rebuttal testimony of May 28th.

12 MR. PALMER: My prefiled rebuttal?

13 MR. TOUSLEY: May 28th testimony.

14 MR. PALMER: I'm starting right off not
15 finding it. Testimony of May 5th.

16 CHAIRMAN VOLZ: Does he have to see it
17 or can you just ask him the question?

18 MR. PALMER: Wing it.

19 CHAIRMAN VOLZ: If you need to refer to
20 it --

21 MR. PALMER: May 28th I just found.

22 MR. TOUSLEY: Page 5 at line 20 you
23 state if VGS had told the truth. Do you have any
24 evidence that VGS knowingly engaged in a falsehood?
25 That is that they lied on purpose.

1 MR. PALMER: That would be hard for me
2 to tell for sure. You know it just seems pretty
3 funny the way everything has been playing out here.

4 MR. TOUSLEY: Thank you. Different
5 subject. Your testimony discusses the risks
6 associated with pipelines in cold climates. On page
7 9 you present the table, and I think this is in your
8 original testimony if I remember exactly. I talked
9 about it with Mr. St. Hilaire when he was here. Off
10 the charts chart.

11 MR. PALMER: Yup.

12 MR. TOUSLEY: Do you know how many
13 incidents occurred in Vermont to yield that result?

14 MR. PALMER: I believe it was three.

15 MR. TOUSLEY: Three. Okay. Mr. St.
16 Hilaire said there were only two. Do you have
17 information suggesting that there were three?

18 MR. PALMER: I believe there was a
19 report in pipeline -- I would have to spend some time
20 to find it here, but two to three. It was based on
21 the amount of mileage that's in the state.

22 MR. TOUSLEY: Okay. In the article that
23 you drew the chart from, on the last page the article
24 talks about several areas of vulnerability that
25 pipelines have to frost heave. It cites as

1 mitigation a replacement of cast iron pipe and
2 threaded steel pipe with plastic or welded steel
3 pipe.

4 As I understand it this is how VGS plans
5 to construct the project. Does this address your
6 concern?

7 MR. PALMER: My concern is the depth of
8 the pipe. We seem to have a lot more occurrences of
9 frost going deeper. This year we have had instances
10 of frost being down 7 feet and it's always been a
11 concern of mine when they were talking about putting
12 the pipe down two or three feet down, four feet under
13 agricultural land that this is not going to be deep
14 enough to keep us from having frost problems.

15 MR. TOUSLEY: And the article itself
16 doesn't address that depth?

17 MR. PALMER: It doesn't tell you what
18 the proper depth is. It tells you, you should be
19 below the frost line.

20 MR. TOUSLEY: Different question.
21 Attached to your testimony are several cost estimates
22 from VGS. Some of them did not have dates attached
23 to them. Do you know what the dates are?

24 MR. PALMER: If they are not on there, I
25 wouldn't be able to pull it up from recollection.

1 MR. TOUSLEY: Okay. Thank you.

2 CHAIRMAN VOLZ: Any follow up to our
3 questions?

4 MR. GRAYCK: Yes briefly.

5 CHAIRMAN VOLZ: Follow up then we'll do
6 redirect. Any follow up then redirect.

7 REDIRECT EXAMINATION

8 BY MR. GRAYCK:

9 Q. Mr. Palmer, just tell us what investigation,
10 if any, was done by VGS this past winter of the frost line
11 that you have just described?

12 A. None that I'm aware of.

13 MR. GRAYCK: Nothing further.

14 CHAIRMAN VOLZ: Thank you. You're
15 excused. I think we've covered all the witnesses at
16 this point, is that right, and I think the schedule
17 right now calls for briefs due July 6th. I'm just
18 reminding everyone of that, and I want to thank
19 everything, especially the court reporter, for
20 allowing us to get done today. Have a good evening.

21 (Whereupon, the proceeding was
22 adjourned at 7:15 P.M.)

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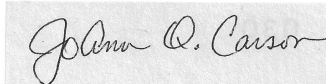
C E R T I F I C A T E

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4 I, JoAnn Q. Carson, do hereby certify that
5 I recorded by stenographic means the technical hearing re:
6 Docket Number 7970 at the Hearing Room of the Public
7 Service Board, 112 State Street, Montpelier, Vermont, on
8 June 23, 2015, beginning at 9:40 a.m.

9 I further certify that the foregoing
10 testimony was taken by me stenographically and thereafter
11 reduced to typewriting, and the foregoing 321 pages are a
12 transcript of the stenograph notes taken by me of the
13 evidence and the proceedings, to the best of my ability.

14 I further certify that I am not related to
15 any of the parties thereto or their Counsel, and I am in
16 no way interested in the outcome of said cause.

17 Dated at Burlington, Vermont, this 26th day
18 of June, 2015.

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21 

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23 _____
JoAnn Q. Carson

24 Registered Merit Reporter

25 Certified Real Time Reporter

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