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STATE OF NEW HAMPSHIRE

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PUBLIC UTILITIES COMMISSION

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4

March 2, 2010 - 10:25 a.m.
Concord, New Hampshire

DAY 1

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RE: DE 09-137

7

UNITIL ENERGY SYSTEMS, INC.:

8

Petition for Approval of Distributed

Energy Resources Investment Proposal

and Proposed Tariff. (Hearing

9

regarding Crutchfield Place, Stratham,

and Exeter projects)

10

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PRESENT: Commissioner Clifton C. Below, Presiding
Commissioner Amy L. Ignatius

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Sandy Deno, Clerk

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APPEARANCES: Reptg. Unitil Energy Systems, Inc.:
Gary M. Epler, Esq.

16

Reptg. Revolution Energy and

N.H. Seacoast Energy Partnership:

17

Clayton Mitchell

18

Reptg. U.S. Energy Saver, LLC:

Russell Aney

19

20

Reptg. N.H. Office of Energy & Planning:

Eric Steltzer

21

22

23

Court Reporter: Steven E. Patnaude, LCR No. 52

24

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2 APPEARANCES: (C o n t i n u e d)

3

Reptg. Residential Ratepayers:
Meredith Hatfield, Esq., Consumer Advocate
Kenneth E. Traum, Asst. Consumer Advocate
Stephen Eckberg
Office of Consumer Advocate

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Reptg. PUC Staff:
Suzanne G. Amidon, Esq.
George R. McCluskey, Electric Division

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STATEMENTS REGARDING LATE INTERVENTION
U.S. REQUEST BY U.S. ENERGY SAVER BY:

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Mr. Aney

9, 12

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Ms. Amidon

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Mr. Epler

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PUBLIC STATEMENT BY DAVID CANADA

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12

PUBLIC STATEMENT BY CAROLINE ROBINSON

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WITNESSES:

GEORGE R. GANTZ

16

THOMAS PALMA

HOWARD J. AXELROD

17

Direct examination by Mr. Epler

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Cross-examination by Mr. Aney

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E X H I B I T S

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EXHIBIT NO.

D E S C R I P T I O N

PAGE NO.

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Filing made by Unitil including
the Testimony of George R. Gantz,
Howard J. Axelrod, Cindy L. Carroll,
and Justin C. Eisfeller and revised
tariff pages (08-05-09)

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Rebuttal Testimonies of George R.
Gantz and Thomas Palma, including
attachments (01-28-10)

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Spreadsheets entitled
"UPDATED Schedule GRG-1" and
"UPDATED Schedule GRG-2"

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Filing by Unitil containing an
update entitled "UES DER Screening
Modeling Update and Revised
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Schedule CLC-4, and Revised
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Submittal by Atty. Amidon
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1 P R O C E E D I N G

2 CMSR. BELOW: Good morning. I'll open
3 this hearing in DE 09-137, Unitil Energy Systems' petition
4 for approval of investment in distributed energy
5 resources. On August 5th, Unitil Energy Systems filed a
6 petition pursuant to RSA Chapter 374-G requesting several
7 approvals in connection with Distributed Energy Resource
8 Projects. The Commission held a prehearing conference,
9 and a technical session followed that. Following the
10 technical session, Staff submitted two proposed procedural
11 schedules, which the Commission subsequently approved.
12 One was for UES's proposed Time-of-Use Pilot Program,
13 which was -- the hearing of which was conducted on
14 January 6th. And, a order was issued in that matter last
15 week, on February 6th, Order 25,079, approving the
16 Settlement Agreement on the Time-of-Use Pilot Program.

17 In this matter, the hearing was
18 scheduled for today, for the Crutchfield Place, Stratham,
19 and Exeter projects. At the prehearing conference,
20 Revolution Energy sought to intervene in the case and was
21 granted that intervention status. Subsequently, on
22 September 23rd, the Office of Energy & Planning filed a
23 late Motion to Intervene. There were no objections to
24 that, and OEP's Motion to Intervene was granted by

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1 secretarial letter on October 13th.

2 On November 24th, 2009, PSNH filed a
3 motion for late intervention, seeking to intervene for
4 informational purposes, to monitor the proceeding and to
5 receive copies of the pleadings, responses to discovery,
6 testimony and exhibits filed by the parties, in order to

7 learn how Unital's approach will work, and whether it is
8 acceptable to the Commission and Staff and the Office of
9 Consumer Advocate. In our order last week, Order 25,079,
10 the Commission denied that motion for late intervention,
11 finding that PSNH had not stated facts demonstrating that
12 its rights, duty, privileges, immunities, or other
13 substantial interest might be affected -- that might be
14 affected by the proceeding, and noting that PSNH can
15 monitor the proceeding and receive copies of relevant
16 documents without being made a party to the proceeding.

17 We have also received, on February 24th,
18 a letter from Caroline Robinson. It's described as an
19 "Introduction and Purpose of Testimony". We would accept
20 that letter as a public statement in the matter. As well
21 as today we received a letter from Matthew O'Keefe,
22 described as a "Letter of Testimony". But, again, we
23 would accept that as a public statement comment in this
24 proceeding. We have also received today a Petition for

1 Late Intervention by U.S. Energy Saver, LLC, and we'll
2 address that after taking appearances.

3 And, I have a note that David Canada,
4 Chair of the Board of Selectmen in the Town of Stratham,
5 would like to make a public comment. Well, just to
6 explain the situation a little bit, intervenors in a case
7 have -- there are certain standards for granting
8 intervention, and have the opportunity to cross-examine
9 witnesses and such. We will accept public statement or
10 public comments from anybody who's not sought or been
11 granted intervenor status as a party, full party to the
12 proceeding, either at the beginning of the proceeding,
13 after we take appearances, but before we go to witnesses,
14 or we could also accept a public statement or comment
15 towards the end of the proceeding, after we've heard from
16 the witnesses, but before we get final statements from the
17 parties.

18 I should also mention the Office of
19 Consumer Advocate was -- is a statutory party to the
20 proceeding, at their request.

21 So, at this point, I'd like to take
22 appearances, starting with people who are already parties
23 to the proceeding, then I'll proceed to anybody who's
24 seeking a late intervention, and then to anybody else who

1 would like to make a public comment. Mr. Epler.

2 MR. EPLER: Yes. Thank you. Good
3 morning, Commissioners. Gary Epler, on behalf of Unitil
4 Energy Systems, Inc. Thank you.

5 CMSR. BELOW: Good morning.

6 MR. MITCHELL: Good morning. My name is
7 Clay Mitchell, on behalf of New Hampshire Seacoast Energy
8 Partnership and Revolution Energy.

9 CMSR. BELOW: Good morning.

10 MS. HATFIELD: Good morning,
11 Commissioners. Meredith Hatfield, for the Office of
12 Consumer Advocate, on behalf of residential ratepayers.
13 And, with me for the Office are Ken Traum and Steve
14 Eckberg.

15 CMSR. BELOW: Good morning.

16 MS. AMIDON: Thank you. Suzanne Amidon,
17 for Commission Staff. With me today is George McCluskey,
18 who is an analyst in the Electric Division.

19 CMSR. BELOW: Good morning. And, anyone
20 who is seeking late intervention status?

21 MR. ANEY: Good morning. My name is
22 Russ Aney, and I'm representing U.S. Energy Saver, LLC.
23 And, I am seeking very late status as an intervenor.
24 Thank you.

1 CMSR. BELOW: Okay. And, is there
2 anybody else who would like to enter an appearance that
3 might want to make a public statement, either shortly or
4 at the end of the proceeding?

5 MS. ROBINSON: My name is Caroline
6 Robinson. I'm representing the Stratham solar project.

7 CMSR. BELOW: Good morning.

8 MR. CANADA: David Canada, Selectman
9 from Stratham.

10 CMSR. BELOW: Good morning. Okay.
11 Let's proceed to the issue of the request for late
12 intervention from U.S. Energy Saver, LLC. And, would you
13 like to briefly state your -- you did provide a petition,
14 which I think the parties have. If you'd like to very
15 briefly state what you believe the basis for your
16 intervention is.

17 MR. ANEY: Thank you. I do believe I
18 have interests in the outcome of these proceedings. In
19 fact, I believe they represent an important precedent
20 potentially for the future development of not only
21 renewable generation projects that are the subject of this
22 docket, but also other forms of distributed energy
23 resources, such as energy efficiency projects, other types
24 of demand-side load management projects. And, I

1 participate in the development of such projects in the
2 private marketplace as a for-profit business. I also
3 noticed that there are no other representatives from that
4 market, of folks out there providing these services,
5 intervening in this docket, except perhaps for Clay
6 Mitchell and the entities that he's representing. But, at
7 the same time, he has a vested interest in the outcome of
8 some of these. So, I thought it would be helpful for me
9 to intervene as a neutral party, if you will, to the
10 outcome of these specific project cases, but on behalf of
11 those professionals in the marketplace seeking to develop
12 similar projects. Thank you.

13 CMSR. BELOW: Okay. Would anybody else
14 like to respond? Ms. Amidon.

15 MS. AMIDON: Normally, we would leave it
16 to the Company to address this. But, given that today's
17 the hearing, and that we received no prior notice of an
18 interest to intervene, Staff felt we had to object to the
19 Motion for Late Intervention. First of all, U.S. Energy
20 Saver is listed in the Secretary of State's Office as a
21 software development company. And, although Mr. Aney has
22 been active in other dockets before the Commission, we
23 don't believe that he's stated a right, privilege,
24 immunity, or other interest that is affected by the

1 outcome of this proceeding.

2 Moreover, and more importantly, I don't
3 think there's a valid reason for the late filing in this
4 instance. The docket opened up in August. Other parties
5 who wanted to intervene successfully filed their motions,
6 with the exception of OEP, who was granted late
7 intervention and missed the filing deadline by a very
8 short period of time. So, I don't think there's a valid
9 excuse for the late intervention.

10 And, finally, it will impede the orderly
11 and prompt conduct of this proceeding. I'm not clear, on
12 Staff's behalf, what Mr. Aney's interest is. We have
13 worked closely with the Staff -- with the Company and with
14 the OCA in technical sessions, and can anticipate the
15 areas of interest that they will be addressing in their
16 cross-examination of Mr. McCluskey. We have no such
17 information available from Mr. Aney. Thank you.

18 Therefore, we recommend that the
19 Commission deny this late Motion for Intervention.

20 CMSR. BELOW: Mr. Epler.

21 MR. EPLER: Yes, Commissioners. The
22 Company would also object to the late motion. As pointed
23 out by Staff counsel, the filing was made beginning of
24 August by the Company. It was duly noticed. There have

1 been prehearing conferences and numerous technical
2 sessions. And, there's no showing by the Petitioner why
3 they were not able to meet the deadlines as set forth by
4 the Commission in this docket.

5 Moreover, in his brief presentation on
6 his petition, indicated that he was a "neutral party" who
7 was seeking to represent interests on behalf of other
8 similarly situated companies. Given that, as he pointed
9 out, that there has been only one similarly situated
10 company who has intervened, it doesn't seem like that
11 there is, at this point, a great interest or a need in
12 that market. And, we would specifically object to his
13 representation that he is here on behalf of other entities
14 other than himself.

15 And, we would certainly not object to
16 him making a statement, a public statement. He can
17 certainly represent what his concerns or interests are and
18 volunteer information through a public statement, and
19 there would be no need for him to participate as an
20 intervenor. Thank you.

21 CMSR. BELOW: Mr. Aney, would you like
22 to briefly respond?

23 MR. ANEY: Yes, if I may. One thing
24 that I did not indicate in my prior statement was that I

1 have invested a considerable amount of time recently in
2 the review of the material that is publicly available
3 through the PUC's website, including all of the testimony
4 and other filings that have been submitted, including how
5 the financial calculations were performed. So, I believe
6 that, as a result, I am fairly well prepared to
7 participate in this docket, even though I did become aware
8 of this docket and case very late, which is the reason why
9 I -- I did not petition earlier. I didn't recognize that
10 this docket was going to be so, from my perspective,
11 important to the market that I'm trying to serve until
12 just recently. And, after reviewing the details of the
13 docket, and considering its implications, I did choose to
14 try to intervene.

15 I should also point out that I have
16 spoken with most of the parties here in regard to this
17 docket already. And, in fact, I've actually spoken with
18 folks at the PUC in regards to their testimony and their
19 framework of understanding and analyzing the issues in
20 this docket. Similarly, I've spoken with the OCA, and, in
21 fact, others who have interest in this docket beyond the
22 folks that are present here today.

23 So, I also I guess would like to point
24 out that the points that I want to -- the reason why I did

1 intervene at the last moment was so that I could go beyond
2 what a public statement might allow me to do, in terms of
3 participation in this docket. There are certain questions
4 that are not being asked by any party, based on the
5 testimony or the anticipated participation of even the
6 OCA, in the cross-examination of the witnesses today.
7 And, it was based on my perceived need to address those,
8 and I'll take, on behalf of U.S. Energy Saver alone, I
9 will not try to represent anybody else, on behalf of U.S.
10 Energy Saver, some questions that I think would be very
11 helpful to have asked for the Commission, and I don't
12 think anybody else is going to ask them.

13 So, in terms of whether it is going to
14 be something that would disrupt or impede the process in
15 any way, I would suggest I only have a small amount of
16 cross-examination testimony to offer, and I don't think it
17 will take much time at all. But I think it could be very
18 valuable in your decision-making. Thank you.

19 CMSR. BELOW: Well, to be clear, you
20 said "a small amount of cross-examination testimony" --

21 MR. ANEY: Or, cross-examination, I'm
22 sorry. I didn't mean that.

23 CMSR. BELOW: Okay.

24 MR. ANEY: Cross-examination of the

1 witnesses, in regards to some of their testimony.

2 CMSR. BELOW: Sure.

3 CMSR. IGNATIUS: That's a good
4 clarification. I appreciate that. And, it's -- so, your
5 expectation is you would seek to cross-examine witnesses,
6 but not testify yourself?

7 MR. ANEY: Correct.

8 CMSR. IGNATIUS: And, further, that the
9 cross-examination would relate to the three projects and
10 methodologies being used in this particular phase of the
11 docket, and not --

12 MR. ANEY: Only.

13 CMSR. IGNATIUS: Okay.

14 (Cmsr. Below and Cmsr. Ignatius
15 conferring.)

16 CMSR. BELOW: Well, we will grant the
17 late intervention, in part because of the unusual nature
18 of this docket. It's a case of first impression, in terms
19 of the application of RSA 374-G. And, one of our tasks is
20 determining -- determination -- states in 374-G:5, II,
21 that "determination of the public interest", which we have
22 to do in order to authorize the proposal, "shall include
23 but not be limited to consideration and balancing of the
24 following factors:", and there's a series of factors (a)

1 through (i). And, I would just observe that (i) states
2 "The effect on competition within the region's electricity
3 markets and the state's energy services market."

4 So, in light of that, I think Mr. Aney,
5 on behalf of U.S. Energy Saver, LLC, is a participant in
6 the state's energy services market. We would condition
7 the grant of late intervention that it be accepting the
8 schedule as it is, and limited to cross-examination of
9 witnesses today and a final closing statement.

10 So, with that, we'll proceed. And,
11 would -- I do want to note that we have a little problem
12 at lunch time. So, we're going to take a somewhat early
13 lunch and try to break around 11:30 or 11:35, and resume
14 at 12:45 today, if that's not a problem for anyone.

15 And, at this point, I'd like to open the
16 floor to any public statements that Mr. Canada or
17 Ms. Robinson would like to make at this point. Although,
18 in the alternative, you could also wait until the end of
19 the proceeding and make a statement at the end. But,
20 either way is fine.

21 MR. CANADA: Thank you, Mr. Chairman.
22 Should I sit or --

23 CMSR. BELOW: I should mention, there is
24 one of the -- I believe, Unitil's witnesses is on the

1 phone, because he was injured and unable to come in today.
2 So, it would be helpful if you came to the podium here,
3 and hopefully you'll be picked up on the telephone so he
4 can hear what you have to say.

5 MR. CANADA: Good morning. As I said,
6 I'm David Canada, and I serve as the Chair of the Stratham
7 Board of Selectmen. And, I'm here representing the
8 citizens of Stratham and to speak in support of the
9 proposed solar project for the Stratham Fire Station.

10 The advantages to solar generated
11 electricity are obvious. The price of the raw materials
12 will never go up or run short. Delivery is never a cost.
13 And, perhaps most importantly, the supply of solar energy
14 will never be subject to unstable political systems
15 located thousands of miles away from the State of New
16 Hampshire.

17 I was in the gasoline business in
18 January of 1974. During the prior few months, the price
19 of oil had risen dramatically due to an embargo on oil
20 from some Middle Eastern states. On January 15th of that
21 year, I received a phone call from Texaco announcing an
22 allocation system for gasoline that was effective
23 immediately. I was informed at that time that I had
24 already exceeded my allowance for the month. So, those

1 were pretty grim times.

2 I don't believe, however, that anyone at
3 that time doubted that we in America would persevere, and
4 that we would soon be in a position to tell the OPEC
5 states that they could keep their oil; that we had our own
6 sources of energy.

7 In 1979, it became apparent that we were
8 not yet in a position of energy self-sufficiency. The new
9 regime in Iran, angered by our humanitarian treatment of
10 their deposed Shah, again shut off the flow of oil.
11 Americans again waited in line for a meager ration of
12 gasoline. We again vowed energy self-sufficiency.

13 And, today, almost 30 years after our
14 first hard lesson, we are still far away from being able
15 to declare energy independence. We continue to rely on
16 fossil fuels that are being depleted and they are adding
17 an incredible burden to our environment. We continue to
18 depend on supplies from countries that hate us. New
19 Hampshire can't achieve our goals -- energy goals alone,
20 but we must not expect solutions to be handed to us by
21 others. We need to participate in finding solutions to a
22 national problem.

23 The proposed solar project at Stratham
24 is an opportunity for us to step forward and advance

1 locally built and owned and sustainable infrastructure.
2 This will, in turn, start the process of achieving
3 critical mass for what will become part of the
4 competitively priced, renewable, clean energy mix of the
5 future. This project may seem expensive now, but it's
6 part of the start-up costs we delayed 30 years ago.

7 So, I urge you to support this project.
8 Certainly, there are enough variables here that we can't
9 say with certainty that there will be no cost to
10 ratepayers. But we can say that we can't afford to wait
11 another 30 years or wait for the next energy crisis to
12 begin the transition to alternative energy sources. I
13 suspect that 30 years from now the Stratham project will
14 look like a shrewed investment. Thank you for hearing me.

15 CMSR. BELOW: Thank you.

16 MR. CANADA: Mr. Chairman, should I
17 distribute copies for reference?

18 CMSR. BELOW: If you have copies, that
19 will be great. But the court stenographer, in particular,
20 would benefit from it.

21 MS. AMIDON: And, pardon me,
22 Commissioner Below, but the Clerk as well probably should
23 have that.

24 CMSR. BELOW: Yes.

1 MS. AMIDON: Thank you.

2 (Mr. Canada distributing documents.)

3 CMSR. BELOW: Ms. Robinson.

4 MS. ROBINSON: Good morning. My name is
5 Caroline Robinson. In your packet, please find my
6 testimony in favor of the Stratham municipal solar
7 project.

8 For over three years, we have worked
9 with Unitil to develop this pilot project. We know that
10 much can be learned from the first major investment in the
11 state for solar PV on a municipal building. We would like
12 to emphasize the word "pilot". Unitil -- I'm sorry, until
13 our state explores DER on a pilot community basis, we will
14 not be able to demonstrate the success or failure of the
15 effort on any of the energy parameters important to our
16 state: Cost/benefit analyses, reduction of carbon
17 emissions, generation of local employment, and municipal
18 energy generation, to name a few.

19 This project has the potential to be a
20 major building block for the future of solar energy and
21 distributed generation in New Hampshire. We urge you to
22 join more than 14 other states that have already installed
23 PV on their municipal buildings by demonstrating our
24 state's commitment to developing community energy

1 resources.

2 Thank you for your attention to our
3 testimonies.

4 CMSR. BELOW: Thank you. Okay. We can
5 proceed, if there's no other procedural matters, we can
6 proceed to the testimony of witnesses. Mr. Epler.

7 MR. EPLER: Okay. Thank you.

8 CMSR. BELOW: Would you like to call
9 your witnesses.

10 MR. EPLER: Yes, Commissioners. First,
11 I would like to acknowledge your cooperation with the
12 Company with our witness who is unable to attend in
13 person, and acknowledge the work of the Staff and the
14 stenographer in setting up the connection to the witness.
15 And, hopefully, things will go smoothly.

16 We do have three witnesses we'd like to
17 present as a panel. So, the witness on the phone will be
18 part of this panel. The Company witnesses are Mr. George
19 Gantz, Mr. Thomas Palma, and Mr. Howard Axelrod, who is on
20 the phone. Could the witnesses be sworn.

21 (Whereupon George R. Gantz,
22 Thomas Palma, and Howard J. Axelrod were
23 duly sworn and cautioned by the Court
24 Reporter.)

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 GEORGE R. GANTZ, SWORN

2 THOMAS PALMA, SWORN

3 HOWARD J. AXELROD, SWORN

4 DIRECT EXAMINATION

5 BY MR. EPLER:

6 Q. Okay. Turning first to Mr. Gantz, could you briefly
7 summarize your position and background with Unitil.

8 A. (Gantz) Yes. I've been with Unitil for, I think,
9 almost 28 years, in various positions. In July of
10 2009, my position became Senior Vice President of
11 Distributed Energy Resources. And, I have been tasked
12 with the effort of helping to lead the Company's
13 efforts in energy efficiency, development of
14 distributed energy resources, and the like.

15 MR. EPLER: And, I would just, at this
16 point, just remind all the witnesses, we're working
17 without microphones to allow the connection with the
18 phone. So, please speak slowly and clearly, so the
19 stenographer can record the session.

20 BY MR. EPLER:

21 Q. Mr. Palma, can you briefly explain your background and
22 your position with Unitil?

23 A. (Palma) My position is I'm the Manager of Distributed
24 Energy Resources, which includes Smart Grid,

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 distributed energy, and energy efficiency. I've been
2 with Unitil since the end of November 2009. Prior to
3 that I worked at the New Hampshire Electric Co-op for
4 several years and designed their renewable energy
5 programs. Their renewable energy programs there were
6 used by the PUC as a model in creating its renewable
7 energy programs.

8 Q. And, do you have any professional degrees?

9 A. (Palma) I have a Bachelor's degree in Mechanical
10 Engineering and a Juris Doctorate degree and I'm a
11 member of the Massachusetts Bar.

12 Q. Thank you. Mr. Axelrod, can you briefly describe your
13 background?

14 A. (Axelrod) Yes. I am currently president and owner of
15 Energy Strategies, Incorporated. It's a management
16 consulting firm that serves the energy markets. My
17 background includes 14 years in state government in New
18 York, where I was a senior staff member at the New York
19 Public Service Commission, and then the Director of the
20 New York State Consumer Protection Board. During the
21 last roughly 30 years, I've been in private practice as
22 a consultant.

23 MR. EPLER: Okay. Thank you.

24 Commissioners, I believe we're at Exhibit Number 3 in this

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 proceeding. What I'd like to have marked as "Unitil
2 Exhibit Number 3" is the packet of testimonies that was
3 filed by the Company on August 5th, 2009. That would be
4 the testimonies of George Gantz, Howard J. Axelrod, and
5 Cindy L. Carroll. And, I will introduce these with the
6 witnesses.

7 I would then also like to have marked as
8 "Unitil Exhibit 4" the packet that contains the rebuttal
9 testimonies of George Gantz, Thomas Palma, and -- or, just
10 those two witnesses.

11 CMSR. BELOW: Okay. They will be so
12 marked.

13 (The documents, as described, were
14 herewith marked as Exhibit 3 and
15 Exhibit 4, respectively, for
16 identification.)

17 MR. EPLER: Okay. Thank you.

18 BY MR. EPLER:

19 Q. Mr. Gantz, turning to what's been marked as "Unitil
20 Exhibit Number 3, and Bates stamp Number 001 through
21 Bates stamp 022, was this material prepared by you or
22 under your direction?

23 A. (Gantz) Yes.

24 Q. And, do you have any changes or corrections to this

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 testimony?

2 A. (Gantz) No, I do not. Other than simply to point out
3 that we've had significant discussions with Staff and
4 other parties in technical sessions through the course
5 of this proceeding. And, I think, in that context,
6 some of our positions represented in that original
7 testimony have evolved and been improved. And, I think
8 that's reflected in the rebuttal testimony and
9 supplemental materials to be discussed today.

10 Q. Okay. And, can you turn to what's been premarked as
11 "Unitil Exhibit Number 4" --

12 A. (Gantz) Yes.

13 Q. -- and the Rebuttal Testimony of George Gantz? And,
14 was this prepared by you or under your direction?

15 A. (Gantz) Yes.

16 Q. Okay. And, do you have any changes or corrections to
17 that testimony?

18 A. (Gantz) No.

19 MR. EPLER: There's an additional
20 exhibit I'd like premarked, Commissioners, and that -- it
21 is, I believe I put a copy in front of you, it's a
22 one-page two-sided document. If this can be premarked as
23 "Unitil Exhibit Number 5"?

24 CMSR. BELOW: So marked.

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1 (The document, as described, was
2 herewith marked as Exhibit 5 for
3 identification.)

4 BY MR. EPLER:

5 Q. And, Mr. Gantz, can you please just identify this
6 document now, we will discuss it shortly?

7 MR. EPLER: And, I have provided that to
8 the parties in the hearing room. And, it was previously
9 provided to the Staff and the Consumer Advocate's Office.

10 BY THE WITNESS:

11 A. (Gantz) Yes. This document provides the, if you will,
12 the latest and greatest of the economic analysis and
13 benefit/cost assessment for the Stratham project. So,
14 it incorporates a number of methodological
15 improvements, in addition to some calculational
16 updates, reflecting our best expectations of costs and
17 benefits that we see for the Stratham project as it is
18 now being proposed.

19 CMSR. BELOW: And, could I get a
20 clarification. Does this supersede the "GRG-R-2" that was
21 filed on February 10th?

22 MR. EPLER: Yes, it does.

23 CMSR. BELOW: Okay. Thank you.

24 BY MR. EPLER:

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[WITNESS PANEL: Gantz|Palma|Axelrod]

- 1 Q. And, Mr. Axelrod, can you please turn to your prefiled
2 direct, which is Bates stamp 023 through 043? And, is
3 this your prefiled direct testimony and exhibits?
- 4 A. (Axelrod) Yes, it is.
- 5 Q. And, was this prepared by you or under your direction?
- 6 A. (Axelrod) Yes, it was.
- 7 Q. And, do you have any changes or corrections at this
8 time?
- 9 A. (Axelrod) No, I do not.
- 10 Q. And, do you adopt this as your testimony in this
11 proceeding?
- 12 A. (Axelrod) Yes, I am.
- 13 Q. Mr. Palma, could you please turn to Unitil Exhibit
14 Number 3, and Bates stamp 044 through 070. This has
15 been marked as the "Direct Testimony of Cindy L.
16 Carroll". Have you reviewed this testimony?
- 17 A. (Palma) Yes, I have.
- 18 Q. And, are you able to adopt this testimony as your own
19 testimony in this proceeding?
- 20 A. (Palma) Yes, I am.
- 21 Q. Do you have any changes or corrections to this
22 testimony?
- 23 A. (Palma) No, I do not.
- 24 Q. And, can you turn to what's been premarked as "Unitil

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 Exhibit Number 4", the rebuttal testimony. And, was

2 this prepared by you or under your direction?

3 A. (Palma) Yes. Yes, it was.

4 Q. And, do you have any changes or corrections?

5 A. (Palma) No, I do not.

6 Q. And, do you adopt this rebuttal testimony as your

7 testimony?

8 A. (Palma) Yes, I do.

9 Q. Mr. Gantz, could you please summarize Unitil's proposal
10 for a two-step regulatory process for compliance with
11 RSA 374-G?

12 A. (Gantz) Yes. Our original proposal in August, in
13 looking at the statute and the framework that would
14 work well, in terms of implementing that statute, we
15 recommended a two-step regulatory process for
16 implementation. The first step is what might be called
17 "project proposals filing". And, the purpose of that
18 filing with the Commission would be to provide a review
19 process for a set of proposals, probably on an annual
20 basis. And, the purpose of that proceeding would be to
21 determine whether those projects would meet the "public
22 interest" test of the statute. So, that portion of the
23 process, that first filing, would include, for example,
24 project descriptions, testimony supporting the project,

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 detailed cost support for the projects, detailed
2 analysis of the benefits of that project, including an
3 assessment of the participant and non-participant
4 impact. And, an inventory and analysis of the benefits
5 falling into the different guidelines under the
6 statute.

7 In addition, that filing would need to
8 have either customer participation agreements or
9 equivalent detailed documentation on the project
10 structure and the way the -- the way the projects would
11 work.

12 The second filing in the two-stage
13 process would then occur later in the year, again,
14 probably on an annual basis, and that would be the rate
15 filing for the DER projects that had been proposed.
16 The purpose of this regulatory proceeding would be to
17 verify the prudence of the spending that had been done
18 on the projects that had been previously approved, and
19 that filing would need to contain detailed cost
20 support, showing that the project, as implemented, you
21 know, fell within a reasonable range of the
22 expectations as approved, and then also provide the
23 detailed rate calculation.

24 So, that's essentially the two-step

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 process that we would anticipate.

2 Q. And, could you summarize Unitil's proposed ratemaking
3 treatment for DER investments? And, I'm using the
4 acronym "DER", that stands for "Distributed Energy
5 Resources".

6 A. (Gantz) Yes. What we had proposed was a fully
7 reconciling rate mechanism, in the form of a tariff
8 with the acronym "DERIC", which is "Distributed Energy
9 Resources Investment Charge". The DERIC would --
10 through the DERIC, there would be a calculation of a
11 rate factor. And, that factor would be included in the
12 distribution base rates charged to customers. You
13 know, we felt that that proposal had some significant
14 advantages. It provided an opportunity for the
15 Company, through a fully reconciling rate mechanism, to
16 synchronize its inclusion in rates with completions of
17 projects. It would, as all reconciling rate mechanisms
18 do, ensure that the Company would recover the costs it
19 had incurred, but would also recover no more and no
20 less than those costs. So, it provides a matching of
21 the costs incurred and the revenues recovered by the
22 Company.

23 We felt that that kind of a process was
24 administratively familiar and feasible, similar to

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1 other mechanisms that are in place, in particular,
2 similar to the process we go through for review and
3 recovery of energy efficiency costs. And, then,
4 finally, we also felt that this process would provide
5 for a tracking of DER investments over time. And,
6 there were some advantages we felt to that -- to that
7 aspect of the process.

8 Q. Is the Company opposed to implementing DER cost
9 recovery through a step adjustment process?

10 A. (Gantz) No. The step adjustment is a reasonable
11 alternative, we think, to what we had originally
12 proposed. But there are some considerations that we
13 feel are important to be reflected, if a step
14 adjustment process is put in place. First of all, one
15 of the advantages of a reconciling cost recovery, as we
16 had proposed, is that there would be no lag between the
17 point in time where an investment was put into service
18 and the Company was then able to account for and
19 include those costs in the reconciliation mechanism.
20 Under a step adjustment, to get an equivalent
21 treatment, there would need to be a factor allowing for
22 carrying charges on the time lag between the
23 investment, when the investment was completed and when
24 the investment was put into rates.

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1 I'd point out that, during construction,
2 subject to certain criteria, but, during construction,
3 a project is allowed to accumulate carrying charges in
4 the form of AFUDC, "Allowance For Funds Used During
5 Construction". And, we think it's important that a
6 similar provision, allowing for carrying charges on a
7 project, would then be in place from the point in time
8 when the project was completed and in service, to the
9 point in time when those costs are being reflected in
10 rates.

11 We also think a step adjustment would
12 need to reflect the different kinds of O&M expenses
13 that the Company will be incurring for its DER
14 initiatives. These expenses will be fluctuating over
15 time. So, a mechanism would need to be in place to
16 appropriately incorporate those types of expenses in a
17 step adjustment process. The kinds of expenses
18 involved are for program planning and management, the
19 technical and technology assessment activities, the
20 process of working with and then contracting with
21 customers, vendor RFPs, vendor selection and
22 contracting, project costs and revenue requirements
23 analysis, the analysis of benefits and modeling,
24 evaluation and reporting of projects through time, the

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1 regulatory filing and reports, and, in general, legal
2 and administrative types of costs associated with these
3 activities. So, this is somewhat different than a
4 typical step adjustment process. And, we think it's
5 important that this -- that those expenses have an
6 appropriate place in the step adjustment process.

7 And, then, finally, one of the benefits
8 of a reconciling mechanism is that you are updating
9 that mechanism for changes in certain cost factors
10 through time. And, if a step adjustment were to be put
11 in place, I think it would be important that that step
12 adjustment have updates to key data that would be
13 important to those calculations; the updated interest
14 charges, updated capital structure data, updated debt
15 costs, as they might change through time. Clearly, it
16 would be appropriate to have the Company's return on
17 equity based upon the last found cost of equity in the
18 context of a base rate case. But the other debt
19 components -- debt components and capital structure we
20 think should be updated. And, in addition, that
21 calculation of the rate factor should be updated for
22 the sales data from the last prior period when you do
23 that step adjustment. It's a little bit different from
24 a traditional step adjustment, which goes back to the

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1 last base rate case and sets certain parameters and
2 then they remain fixed.

3 With those kind of changes to the step
4 adjustment process that the Staff has proposed, we
5 think it would provide a reasonable alternative to the
6 fully reconciling rate mechanism that we had proposed.

7 Q. And, what's the Company's position on recovery of Lost
8 Base Revenues, or the acronym "LBR"?

9 A. (Gantz) Yes. We think the recovery of Lost Base
10 Revenues is a critical, very important policy issue, to
11 make sure that the financial incentives and
12 disincentives are not structured in such a way as to
13 provide a significant disincentive for utilities to
14 undertake DER projects. And, as an example, I'd simply
15 point to the fact that, if the utility makes a
16 traditional distribution investment, it will not see a
17 diminution of its sales, it will not see a reduction in
18 its distribution revenues. Now, if it moves over and
19 makes an alternative investment in DER projects, which
20 can reduce the sales factor for the Company, for
21 example, by the installation of renewable generation on
22 a customer premises, it would see a reduction in its
23 distribution revenues. And, that would cause a direct
24 disincentive for company investments in DER, as

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1 compared to traditional investments, unless a provision
2 for recovery of Lost Base Revenues was included in the
3 process. So, we think that's a very important
4 principle that should be reflected in any determination
5 in this proceeding.

6 Q. Now, can you please briefly summarize the Company's
7 proposal relative to the Commission's evaluation of the
8 proposed DER projects, pursuant to the guidelines in
9 the statute?

10 A. (Gantz) Yes. When we began the process, we recognized
11 that some of the evaluation, types of evaluation that
12 have been used traditionally for energy efficiency
13 programs were appropriate. So, we developed a modeling
14 process, with the help of Dr. Axelrod, that took the
15 energy efficiency model and tweaked it to allow us to
16 use it as an evaluation tool for DER projects. Some of
17 the enhancements that we needed to make we felt for
18 that process was to include specific analysis of the
19 participant and non-participant impacts. And, we felt
20 it important to try and capture some level of
21 quantification for as many of the guidelines under the
22 statute as possible. The statute calls for a balancing
23 of those factors. So, we felt the modeling and
24 evaluation tool should address as many of those as

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1 possible. Again, with the help of Dr. Axelrod, we
2 prepared some adjustments and additions to that model
3 that are referenced in the testimony. We think what
4 we've provided provides a good and very helpful tool,
5 in terms of assessing how a particular project should
6 be viewed under the statute.

7 Q. And, have you provided an additional update showing how
8 that analysis could be done?

9 A. (Gantz) Yes. The two-page document that was entered
10 today as "Exhibit 5" reflects an update of the schedule
11 that had been provided in the rebuttal testimony. It
12 factors in a number of comments that have come up in
13 technical sessions and attempts to refine the data.
14 And, I think it would be helpful if I just walked
15 through this briefly. Schedule -- Updated Schedule
16 GRG-1 is a life-cycle revenue requirements analysis for
17 the project. It begins with the estimated direct cost
18 of the project. For purposes of this evaluation, we
19 simply used the installed cost of the solar PV array
20 that Mr. Palma testifies to a range of costs that we
21 think will come in with the project as restructured.
22 We then add an amount for AFUDC and carrying charges,
23 plus general overheads for the Company. And, then,
24 there are a number of other factors noted up at the top

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1 and the sources from where those factors are
2 determined.

3 Based upon those various inputs, we then
4 calculate the return on investment in the first part of
5 the schedule, then we add in certain expenses. There's
6 a process for amortization of Investment Tax Credit to
7 determine an estimated annual revenue requirement. We
8 then take the net present value of that revenue
9 requirement to come up with a, you know, essentially, a
10 2010 number that corresponds to the life-cycle costs of
11 the investment. So, this is a way of capturing as
12 accurately as we can the full range of costs that the
13 Company would incur for a project over its life-cycle.
14 That's the cost -- most of the costs.

15 If you move to Updated Schedule GRG-2,
16 this then is the presentation of the calculations of
17 the various benefits that have been calculated. And,
18 we begin with, in the "Inventory of Benefits", with the
19 capacity benefits associated with capacity
20 displacements. There's generation, transmission,
21 distribution, a DRIPE factor, "DRIPE" refers to "Demand
22 Reduction Induced Price Effects" in the market. It's a
23 value that's been quantified in the Avoided Energy
24 Supply Cost Study provided by Synapse. That study is

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1 the basis, that's in use for energy efficiency program
2 planning purposes in the State of New Hampshire.
3 "Localized Distribution" is a factor testified by
4 Dr. Axelrod. For this presentation, we've dropped that
5 out of the upper part of the table and put it down
6 below.

7 Then, there are the energy benefits
8 associated with the displacements of energy from the
9 projects; winter, summer, on-peak, off-peak, total.

10 Then, there's an "Other" category that
11 begins with the energy component of DRIPE. Then, there
12 is a placeholder for CO2 values. And, again, we
13 dropped that down below for this table. And, then,
14 there are two items referring to renewable values. One
15 we've referred to as an "REC Value", "Renewable Energy
16 Credit Value". This corresponds to the estimate of the
17 value of the certificates that this project will earn
18 over time and be able to redeem in the market. And,
19 then, the second factor is referred -- we refer to it
20 now as an "RPS Compliance Factor". If a project
21 reduces the Company's Default Service requirements, it
22 will then also reduce the Company's RPS compliance
23 requirements, and therefore have a positive benefit.
24 In this case, there's no value listed, because, with

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1 the restructuring of the Stratham project, it would be
2 a company-owned project. The energy would go to offset
3 losses. It, therefore, would not reduce our RPS
4 compliance obligation. And, then, finally, the
5 "Economic Development" factor, again, which -- which
6 we've dropped down below.

7 So, there's a calculation of the direct
8 benefits above, the "Total Estimated Lifetime Costs"
9 from the prior table, and the "Benefit/Cost Ratio",
10 which here is indicated as "0.79".

11 And, then, in the remainder of this
12 updated schedule, we show the inclusion of the
13 non-direct benefits that come from Dr. Axelrod's
14 testimony, economic development, additional CO2
15 reduction, local system capacity. And, then, we
16 compare the sum of all those benefits to the estimated
17 lifetime costs under three different calculations: One
18 where the non-direct benefits are included at 100
19 percent as we originally proposed. That shows the
20 benefit/cost ratio calculated at 1.68. And, then, we
21 also show what would happen if you were to discount
22 those non-direct benefits by 50 percent and by
23 25 percent. At the 25 percent level, we end up with a
24 calculation of a benefit/cost ratio of 1.02.

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1 Q. And, how does this updated analysis, both for the
2 revenue requirement and the benefits, compare with the
3 analysis -- the updated analysis provided by Staff?

4 A. (Gantz) Yes. That will be, I know, introduced by Staff
5 as an exhibit. We did receive a copy of that. And, I
6 had a chance to take a look at it. I think that the
7 benefit of our numerous technical sessions over time is
8 that we've gotten better at identifying what the
9 differences are and where those differences arise.

10 On the revenue requirement side, I think
11 our number ends up being about 7 percent higher than
12 the Staff number. There are a couple of differences in
13 the assumptions I think that explain those. Although,
14 I think we're trying now to use essentially the same
15 methodology of revenue requirement analysis, and
16 factoring in the Investment Tax Credit.

17 I should mention the Investment Tax
18 Credit is a rather complex feature in this revenue
19 requirement analysis. And, we did get some assistance
20 in the technical sessions from Public Service Company
21 of New Hampshire. It was very helpful in helping us
22 sort through that computation.

23 There are some minor differences, in
24 terms of inflation rate and the real discount rate that

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1 are used between the Staff analysis and the Company
2 analysis. There's a slight difference in the
3 calculation of lease payments, because we're using an
4 inflation factor for lease payments that's pegged to
5 the expected increase in Default Service rates that
6 comes out of the Synapse study. It's a little bit
7 higher inflation rate than the Staff has used in their
8 calculation. We're using a lower O&M rate on an annual
9 basis than Staff is in their calculation.

10 And, on monitoring and verification,
11 we've looked at that. We think that that factor, to
12 incorporate kind of ongoing costs associated with the
13 Company's DER activities, we've inflated that factor
14 through time. And, the Staff analysis I think pegs it
15 to either net plant or rate base. So, it has a
16 declining feature. As a matter of fact, I think the
17 M&E difference is probably the bulk of the difference
18 resulting in the 7 percent difference between Staff and
19 the Company. But, in essence, those numbers are not
20 very far apart. I think we've done a pretty good job
21 of narrowing the differences and understanding what
22 those differences are.

23 If we turn to the benefit side of it, on
24 the capacity benefits, I think Staff and the Company

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1 are very close, maybe just a rounding factor in the
2 capacity factor. On the energy side, the Staff has
3 reduced the energy value over time by 10 percent, as
4 they have testified in their testimony. That's a key
5 difference. We don't support that, that reduction.
6 And, then, in the "Other" category, we're showing a
7 significant difference in the REC or renewable value.
8 We value the -- we value the value of the credits going
9 forward in time over the 20-year period at 75 percent
10 of the projected ACP, Alternative Compliance Payment,
11 for the Class II solar RECs. And, Staff has a
12 different methodology in terms of determining their
13 number. We do think the estimate we're using is
14 appropriate. One could argue that you could use
15 100 percent of the ACP, because that's a value that has
16 been placed on those credits, in terms of an ACP. But
17 we think, over time, as the market responds, as the
18 Commission changes those values over time, for both
19 compliance level and ACP level, the market will
20 respond. We felt it was reasonable to use a 75 percent
21 of ACP estimate over time. So, we still support our
22 number. We know that's a difference, a point of
23 difference with Staff.

24 And, then, the third area of difference

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1 is on what we've classified as the "non-direct
2 benefits" that are the subject of Dr. Axelrod's
3 testimony.

4 Q. Why does Unitil object to the reduction of energy
5 prices or differ in the reduction of the energy prices
6 as proposed by Staff?

7 A. (Gantz) Yes. As I mentioned, we based -- we started
8 our analysis with the analysis that's used for energy
9 efficiency planning in the State of New Hampshire. We
10 think maintaining consistency with that approach is
11 important. Those numbers are used consistently from
12 the Synapse study, which was updated in 2009. And, we
13 think departing from what is in place and being used
14 for the efficiency programs simply raises some
15 questions about comparability of the way you look at
16 DER versus the way you look at energy efficiency.

17 In addition, we're concerned about
18 trying to minimize the regulatory process for future
19 DER evaluations. If we have a firm base for key
20 parameters, such as energy costs, that are in a fully
21 documented embedded study that is being used for energy
22 efficiency purposes, we think there's some advantages
23 to using that, as opposed to having to re-document or
24 reassess all of the benefit calculations each year when

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1 we do a DER proceeding. I think we run the risk of
2 having multiple regulatory processes trying to look at
3 some of the same factors. And, there's some real
4 administrative efficiency in having a consistent base
5 to use.

6 Q. Now, with respect to the indirect benefits or the
7 non-direct benefits that are discussed by Mr. Axelrod,
8 how is it, in your view, how important is it to have
9 those benefits factored into the Commission's
10 assessment?

11 A. (Gantz) Well, we think it's very important. And, if
12 you look at the statute, we think it's clear that the
13 statute, by including a wide range of evaluative
14 factors, and requiring the Commission to balance those
15 factors, makes clear that a considerable emphasis
16 should be given to the other factors in that
17 consideration. We do know that it's, you know, not
18 easy to quantify some of those other factors. But we
19 think we've made a very good effort to do that. We
20 think Dr. Axelrod's method is sound and can be relied
21 on by the Commission in helping to weight some of those
22 non-direct benefits into its evaluation of what is in
23 the public interest.

24 Q. Okay. Thank you. Turning to Dr. Axelrod, can you hear

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1 me? Dr. Axelrod, are you still there?

2 A. (Axelrod) Yes, I am. I was getting it off speaker
3 phone.

4 Q. Okay. Dr. Axelrod, what criteria did you consider in
5 your evaluation of the DER projects?

6 A. (Axelrod) I'm sorry, could you repeat that one more
7 time.

8 Q. Certainly. What criteria did you consider in your
9 evaluation of the Company's DER projects?

10 A. (Axelrod) Oh, thank you. I would -- I used -- there
11 were nine criteria listed in the section of the
12 legislation, I referred to the 374-G:5, Paragraph II.
13 And, so, I considered all nine criteria that was listed
14 as recommended for the Commission to consider public
15 interest.

16 CMSR. BELOW: Excuse me. You could move
17 the podium in behind, Steve, too.

18 MS. HATFIELD: Could you turn up the
19 phone a little?

20 WITNESS AXELROD: Do you need me to talk
21 louder?

22 CMSR. BELOW: Yes, if you can.

23 WITNESS AXELROD: Okay, I'll do the best
24 I can.

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 BY THE WITNESS:

2 A. (Axelrod) And, as I said, I used all nine criteria.
3 Some were more easily quantifiable, as the, for
4 example, the benefit/cost ratio, as well as
5 environmental and economic development benefits. Some
6 were more quantify -- or, qualitative, for example,
7 what the effects on competition were.

8 BY MR. EPLER:

9 Q. And, when you considered all of these measures for
10 costs and benefits, was the benefit/cost ratio above
11 one for both the Stratham and the SAU 16 projects?

12 A. (Axelrod) Yes, they were. Yes, it was. Both were
13 significantly greater than one.

14 Q. And, from your perspective, what criteria do you
15 believe that the Staff witness, Mr. McCluskey, focused
16 on?

17 A. (Axelrod) Well, it was clear, I think, in his focus was
18 on the first criteria listed in the legislation, which
19 is the balancing of costs -- direct costs and benefits,
20 and as opposed to there are eight other categories that
21 the legislation anticipated that the Commission
22 balance.

23 Q. And, have you performed similar economic development
24 studies in the past?

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1 A. (Axelrod) Oh, yes. I've done a large number of --
2 well, relative to straight economic development
3 impacts, I've done several, several studies, both for
4 companies, as well as commissions. I can give you a
5 couple of brief examples, if you'd like?

6 Q. Sure.

7 A. (Axelrod) In -- We used a very similar methodology as
8 applied here, I used in Georgia, before the Georgia
9 Public Service Commission. I was working with both the
10 staff -- it was a consortium of the staff of the Public
11 Service Commission, as well as the Staff of Georgia
12 Power, in designing a phase-in plan for their Vogtle
13 Nuclear Plant. And, we used economic impacts as a
14 means to help allocate costs over a period of years to
15 minimize economic impact. That was done several years
16 ago.

17 More recently, I completed a study in
18 Westchester, New York, and it was fairly well
19 publicized, in which several business groups asked me
20 to look at the economic impact if Indian Point 2 and 3
21 were closed. Like Vermont Yankee, those two nuclear
22 plants are facing the end of their original license,
23 and the Company that owns it was applying for life
24 extensions. And, my analysis, using the same approach,

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1 evaluated what the impact on higher electric prices
2 would be on the Westchester business environment.

3 Q. Now, how did the Company determine -- I'm sorry. How
4 did you determine the value of the economic impact for
5 each DER project?

6 A. (Axelrod) Well, there are a number of ways to look at
7 economic development impacts. And, I chose and
8 recommended for -- given the size of the projects and
9 the scope, "size" meaning in terms of dollar amounts,
10 and we're talking hundreds of thousands of dollars, I
11 had recommended that we rely upon the Bureau of -- the
12 federal Bureau of Economic Analysis, BEA, RIMS II
13 Program, in which they provide economic development
14 multipliers for economic output, wages and salaries, as
15 well as employment. And, you can get them at the state
16 level, county level, and we chose to ask BEA, and I'm a
17 subscriber to their services, to produce multipliers
18 for the two counties in New Hampshire that these
19 projects might fall in. And, so, we have composite
20 multipliers specific for those two counties.

21 And, that's the approach we chose. It's
22 economical. It doesn't cost a lot of money to do the
23 analysis. And, it is one of the most utilized
24 approaches by both government and business that I know

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1 of, and I've been doing this for 20 years.

2 Q. And, these multipliers are county-specific, did you
3 say?

4 A. (Axelrod) Yes, they are. We -- let's see, it was
5 Merrimack, and then I'm having a mental block on your
6 other county there, Rockingham. And, so, these
7 multipliers are specific, and they measure the flow of
8 dollars in and out of the counties, based on and which
9 we're using as an economic input or, as in this case,
10 an investment. They're used -- And, the documentation
11 by the federal Bureau of Economic Analysis has a lot of
12 examples. They're used for everything from, if a
13 county wanted to invest in a convention center, you
14 know, spend \$5 million to build a convention center,
15 what impact does that \$5 million have on stimulating
16 jobs, as well as the secondary impacts, we call that
17 "multiplier effect". So, if I hire a construction
18 worker, and pay him \$25,000 in salaries, that worker
19 turns around and spends it on groceries and new cars
20 and so forth, and that amount is spent on something
21 else. Some of it stays within the counties and some of
22 it flows out. And, these multipliers help measure how
23 much stays within the county.

24 Q. Well, isn't there a question whether a DER investment

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1 would actually affect the local economy? I mean, for
2 example, a solar panel may not be made in New
3 Hampshire, so how does the local economy benefit from
4 that?

5 A. (Axelrod) The whole concept of these input/output
6 models is that it's measuring the flow of how dollars
7 are spent and consumed. For -- The BEA multipliers
8 are, as I said, were designed and drawn specifically
9 from historical experience in these two counties. And,
10 so, the multipliers reflect that some dollars stay in
11 and some dollars stay out, and it's dependent on --
12 there's over 80 different industry categories that we
13 can track those dollars. For example, in this project,
14 I had selected four categories that we thought a
15 typical DER project would fall into. And, those are
16 things like construction, electric equipment,
17 manufacturing, and wholesale trade. Those -- One could
18 argue it could be something else, one could argue the
19 weighting. But, bottom line, what we tried to do was
20 simulate how the dollars might flow, and each one of
21 those have different multipliers associated with it.
22 And, so, we're hopeful that the selection of
23 multipliers accurately represents what is that type of
24 an investment.

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1 Now, you said something like a solar
2 panel. We may have a project, a given project, where
3 there is more dollars flow out of the county than the
4 BEA multipliers. But, on average, these multipliers
5 should represent a fair representation. And, I'd like
6 to make one interested point of interest for you.
7 Using the BEA multipliers, which I would say is used
8 across the country, as I said before, by both
9 governmental agencies and businesses. It costs, for
10 example, I think for the two county estimates, \$250.
11 There are other models out there. MIT has a much more
12 comprehensive model. Wharton has one down at the
13 University of Pennsylvania. I use the model developed
14 by the University of Georgia. They have a very
15 well-respected model.

16 To give you an example, one case study
17 costs between 5 and \$10,000 to run the model. And, if
18 you were going to do a sensitivity analysis, we could
19 easily come up with 50 to \$100,000 in expenses if I was
20 just flowing through those costs. They're much more
21 comprehensive. But, when tested against the BEA RIMS
22 model, the aggregate results are extremely close. One
23 might, instead of having 80 industry groups, might have
24 three or four hundred industry groups. The detailed

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1 models may do year-to-year forecasts for the next 30
2 years, as opposed to the BEA, which is more of an
3 annual. But the bottom line is, for \$250, you're
4 getting an outstanding forecast, relative to what it
5 might have cost to do something that gives you a lot
6 more detail, but, bottom line, gives you about the same
7 results.

8 CMSR. BELOW: Okay. I think we need to
9 break for lunch now. And, we'll try to resume in 65
10 minutes, at 12:45. Thank you. We're in recess.

11 WITNESS AXELROD: Thank you very much.

12 (Whereupon the lunch recess was taken at
13 11:39 a.m. and the hearing resumed at
14 12:58 p.m.)

15 CMSR. BELOW: Okay. We'll come out of
16 recess in DE 09-137 and resume the testimony.

17 MR. EPLER: Yes, Commissioners. I've
18 completed my direct of the Witness Axelrod. I'll move
19 onto the last witness and be brief.

20 BY MR. EPLER:

21 Q. Mr. Palma, could you please outline the SAU 16 Exeter
22 project.

23 A. (Palma) The outline of the project is that the SAU 16
24 is developed by a company, New Hampshire Seacoast

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1 Energy Partnership. And, they will maintain and own
2 the system and sell power to the school district under
3 a power purchase agreement. So, the school district
4 actually has no -- no outlay of funding on this
5 project. The school district will pay for natural gas
6 as part of -- that's basically, which they pay for now
7 anyway in their usual fuel expenses. The project, you
8 know, as the owner of a project, the developer will
9 receive all the Investment Tax Credits, as well as any
10 depreciation tax benefits. The project, in several
11 parts: One is a 100-kilowatt PV system, solar PV
12 system, to be installed at the Exeter High School. The
13 second part is a 65-kilowatt micro-turbine to be
14 installed on the Tuck campus at the SST building. And,
15 the third part is at the Administration building, also
16 on the Tuck campus, are two gas brand-new boilers
17 replacing old -- old equipment. What's prevalent to
18 this hearing today is the micro-turbine and the solar
19 PV system.

20 Q. Does the micro-turbine portion of this project qualify
21 for net metering? And, will electricity backfeed up to
22 the grid?

23 A. (Palma) It does not qualify for net metering under Puc
24 Rule 900, being a non-renewable source, as the

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1 micro-turbine is a gas -- natural gas fed piece of
2 equipment. The baseload of the building is
3 85 kilowatts, and the micro-turbine is 65 kilowatts.
4 So, it will not backfeed up, up the grid. During power
5 outages, the micro-turbine will be used as a backup
6 generator. And, the proper controls and protections
7 are in place to make sure the generator does not
8 backfeed up the grid.

9 Q. Is it your understanding that the micro-turbine
10 complies with the emissions standards spelled out in
11 Chapter 374-G:3?

12 A. (Palma) Yes, it does. I researched the specifics of
13 that Chapter 374-G:3, and also discussed this, and have
14 a letter in writing from the developer, regarding
15 complying with this emissions standard. New Hampshire
16 has adopted California Resource Board's 2007 Standards.
17 And, this particular micro-turbine qualifies under --
18 it's called -- they use the acronym "CARB" 2007. This
19 micro-turbine is a CARB 2007 compliant micro-turbine.
20 The developer actually paid, knowing that this
21 requirement was in place, the developer actually paid
22 more for this micro-turbine, being a CARB 2007, as
23 opposed to buying a non-CARB 2007 version. So, I do
24 have a letter that's from the developer that we could

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1 enter into the record or send in later. Which includes
2 product brochures from the manufacturer, which spells
3 out that it's a CARB 2007 compliant piece of equipment.

4 Q. Could you outlined the Stratham Fire Station project?

5 A. (Palma) The Stratham Fire Station project is a -- is
6 proposed to be a 44-kilowatt solar PV project,
7 installed on the roof, to be owned and operated by the
8 Company, Unitil. It's attached -- It will be attached
9 to the Unitil side of the meter. And, Unitil will
10 receive all the Investment Tax Credits, other tax
11 benefits, Renewable Energy Certificates, and any
12 Forward Capacity Market payments.

13 Q. And, who will maintain the system?

14 A. (Palma) Unitil will maintain the electrical components
15 of the system and the Town will maintain clearing off
16 the panels, in the event of a heavy snowstorm, and a
17 periodic cleaning of the panels, if need be, which is
18 unlikely in our climate. But, occasionally, it might
19 happen.

20 Q. And, what are the advantages to the Town under the new
21 proposal?

22 A. (Palma) Under the new proposal, if you're comparing the
23 new and the old proposal, under the new proposal the
24 town will receive a roof lease payment of \$4,600 per

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1 year, which would be adjusted based on Unitil's default
2 rate, Default Service rate annually. So, as the rate
3 was -- we used 9 cents going as the rate for this year.
4 And, if the rate on January 1st of next year is 10
5 cents, based on a ratio of the two years' rates, we
6 will adjust the lease payment.

7 The other advantage, the Town has no
8 real maintenance. And, normally, in year 11, the
9 inverter --

10 (Interruption by the court reporter.)

11 CONTINUED BY THE WITNESS:

12 A. (Palma) Normally, in year 11 -- mind if I stand -- the
13 inverter will have to be replaced. We'll have a 10
14 year warranty on the inverter. And, the inverter
15 usually costs about 15 percent of the project cost. In
16 this case, it would be about \$40,000.

17 BY MR. EPLER:

18 Q. What price does the Company expect to receive per watt
19 installed? And, how does that compare to the original
20 proposal?

21 A. (Palma) The original proposal was \$7.80 per watt, which
22 was done a couple years ago, a year or two ago. Solar
23 PV panel prices have come down significantly in the
24 last couple of years, due to global market conditions.

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1 We're expecting a price somewhere between \$6.25 and
2 \$7.25 per watt.

3 Q. Do you know how this compares to the PSNH solar
4 project?

5 A. (Palma) The PSNH project is approximately the same
6 size, it's 51 kilowatts. Their price installed was
7 \$6.78.

8 Q. And, do you know what process the Town will go through
9 to -- in order to approve this project?

10 A. (Palma) The Select Board has decided to take the
11 project to town meeting, which is this coming month.

12 MR. EPLER: Thank you. Commissioners,
13 there's one more exhibit that was brought to my attention
14 that would probably be beneficial to have introduced. It
15 was a filing that was made of some updated schedules.
16 And, I've got copies of these summary sheets here. If I
17 could, if I may.

18 (Atty. Epler distributing documents.)

19 MR. EPLER: Yes. This was filed, and
20 there is an electronic copy of this entire exhibit.

21 CMSR. BELOW: This is the three revised
22 schedules that were filed on December 18th by Unitil
23 Energy Systems, is that correct, Mr. Epler?

24 MR. EPLER: Yes.

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1 CMSR. BELOW: And, you would like to
2 have this marked as Exhibit 6?

3 MR. EPLER: Yes. It would be the
4 revised schedules. And, if you turn the cover letter,
5 there's a two-page summary of the update.

6 CMSR. BELOW: The update for Crutchfield
7 and Stratham, and as well as SAU 16, correct?

8 MR. EPLER: Right. And, since we are
9 withdrawing the Crutchfield proposal, that's actually not
10 necessary, but it was copied for reference.

11 CMSR. BELOW: Okay. So, we'll mark that
12 for identification as "Exhibit 6".

13 (The document, as described, was
14 herewith marked as Exhibit 6 for
15 identification.)

16 BY MR. EPLER:

17 Q. Mr. Gantz, could you please turn to what's been marked
18 as "Unitil Exhibit 6", and just very briefly explain
19 what it is.

20 A. (Gantz) Yes. This was a submittal that we sent in in
21 this docket subsequent to some technical sessions that
22 we had, and some updates and enhancements to the
23 screening model, particularly as to the benefits side
24 of it. So, there's a memo that simply explains what

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1 some of the enhancements were that we reflected in the
2 models. And, then, the summary reports are included
3 for the three projects that were being considered at
4 that time. And, so, for example, if you turn to the
5 last page, it shows the updated Summary Report that we
6 had at that point for the SAU 16 project. The cost
7 value reflected here was the Unitil direct investment,
8 the number being assumed at the time. So, it didn't
9 include a complete revenue requirements analysis. So,
10 most of the enhancements were in terms of the benefit
11 side, and those are explained in the memo. And, as
12 indicated, based upon these calculations, it provided
13 an overall benefit/cost ratio of 2.24. And, then,
14 looking specifically at all customers and the
15 non-participants, it came in at 2.36.

16 MR. EPLER: And, I'll also just note,
17 Commissioners, that we did provide a full copy of this
18 Synapse 2009 Report. I don't think that there is a need
19 to introduce this here in the record, but it is available,
20 if that's requested?

21 CMSR. BELOW: I personally kind of think
22 it might be useful to have as an exhibit, since there's
23 references of witnesses on both sides about some of the
24 assumptions that are in that. I see it's referenced in

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1 Exhibit 6 as something that you electronically filed or
2 provided on disk with the filing. I think we would
3 probably -- my suggestion is we mark it as a separate
4 exhibit, and that you provide at least one hard copy for
5 the Clerk as reference. And, I believe the -- I don't
6 know if the electronic version is available on our
7 website. If not, we can make sure it is available on our
8 website.

9 So, we'll mark the 2009 Avoided Energy
10 Supply costs in New England Synapse Report as "Exhibit 7".
11 And, we'll need to have a hard copy of that filed.

12 (The document, as described, was
13 herewith marked as Exhibit 7 for
14 identification.)

15 MS. AMIDON: Commissioner Below?

16 CMSR. BELOW: Yes.

17 MS. AMIDON: I can take care of that for
18 the Company and provide that to the Clerk --

19 CMSR. BELOW: Okay.

20 MS. AMIDON: -- later today or tomorrow.

21 CMSR. BELOW: Okay. And, just to
22 clarify, for Exhibit 6, was your intention just what was
23 in the paper version of the December 18th filing or did
24 you also want to include the active Excel files for those

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1 revised schedules, which were provided on a disk with the
2 filing?

3 MR. EPLER: For the Company's purposes,
4 I think the summary sheets are sufficient. But we have no
5 problem including the active Excel files, if that would be
6 the preference of Staff or another party.

7 MR. McCLUSKEY: What the Company
8 actually filed was an electronic version -- what the
9 Company actually filed was an electronic version of those
10 files. And, the summary sheets that you see are
11 essentially one sheet of those, of that model. We can
12 provide the updated model that the Company provided, if
13 that can help?

14 CMSR. BELOW: I don't know that it's
15 needed at this point. So, let's, for the moment, assume
16 it's not part of Exhibit 6. It will just be the output
17 filed as part of the paper copy. And, if somebody needs
18 that, we can deal with that at that time.

19 Yes, Commissioner Ignatius.

20 CMSR. IGNATIUS: Can I just, Mr. Epler,
21 perhaps you're going to do this, or another party, but the
22 relationship between Exhibit 5 and Exhibit 6 would be
23 helpful to understand, since numbers are different between
24 the two. If I look at the Stratham Summary Report on

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1 Exhibit 6 and compare it to the Stratham numbers in
2 Exhibit 5.

3 MR. EPLER: Yes. I believe Mr. Gantz
4 can clarify that.

5 CMSR. IGNATIUS: Thank you.

6 BY MR. EPLER:

7 Q. If you would.

8 A. (Gantz) Yes. This sort of exemplifies the process. I
9 think we've been, throughout this proceeding, putting
10 forward material that we felt were the best -- best
11 effort at the time. And, then, through subsequent
12 discussion, finding refinements and enhancements. So,
13 Exhibit 6 reflected the Company's best estimates as of
14 December 18th for the three projects that were in
15 discussion. We had subsequent technical sessions, the
16 benefit of seeing the Staff's rebuttal testimony, and
17 further focus on the Stratham project, in particular.
18 So, we put the updated exhibits in Exhibit 5 together,
19 that's the very last step in our process of refinement
20 and enhancement. And, the most significant change from
21 December to February in the update is using the
22 full-scale revenue requirement analysis to look at the
23 costs. And, then, based on some additional
24 discussions, the process in the benefit summary just

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1 sort of separate out the non-direct costs from the
2 direct costs, so that that portion of the analysis was
3 a bit more explicit.

4 MR. EPLER: Thank you. Commissioners,
5 I've finished my direct and tender the witnesses for
6 cross-examination.

7 CMSR. BELOW: Okay. We'll start with
8 Mr. Aney for cross-examination.

9 MR. ANEY: Thank you very much. Good
10 afternoon, panel. Dr. Axelrod, can you hear me?

11 WITNESS AXELROD: Yes, I can. Sorry.

12 MR. ANEY: That's okay. I'm going to
13 ask some questions of Mr. Gantz first. I will have some
14 questions for you as well. I just wanted to make sure
15 that you could hear me loud and clear from where I'm
16 sitting in the room.

17 WITNESS AXELROD: No, I can hear you
18 very clearly.

19 MR. ANEY: Great. Thank you.

20 CROSS-EXAMINATION

21 BY MR. ANEY:

22 Q. Mr. Gantz, I believe you were involved in the drafting
23 of the senate bill that became RSA 374-G, that would be
24 Senate Bill 451, is that correct?

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1 A. (Gantz) Yes.

2 Q. And, in fact, did you indeed draft the initial bill
3 that was submitted for consideration?

4 A. (Gantz) I know I was involved, in terms of discussions
5 with the sponsors of the bill. It was their bill. I
6 had input. I don't remember specifically, you know,
7 whose computer generated the words that went into that
8 first version. So, I don't remember specifically, but
9 I was involved.

10 Q. So, you were obviously very involved, it sounds like,
11 in actually the creation of the bill, not just the
12 discussion of it?

13 A. (Gantz) Yes.

14 Q. Thank you. And, so, therefore, you're very aware of
15 the purpose of the bill?

16 A. (Gantz) Yes.

17 Q. And, as I read from RSA 374-G:1, the purpose statement
18 for the bill, it discusses the public interest in this
19 matter. And, it says "It is therefore in the public
20 interest to stimulate investment in distributed energy
21 resources in New Hampshire by encouraging New Hampshire
22 electric public utilities to invest in distributed
23 energy resources including clean and renewable
24 generation benefiting the transmission and distribution

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1 system under state regulatory oversight."

2 A. (Gantz) Yes.

3 Q. Would you -- do you recall, was there a discussion
4 about how distributed energy resources could be used as
5 an alternative mechanism to traditional investments in
6 the transmission and distribution system in Unitil's
7 service area as a means of addressing capacity issues
8 and line loss issues that would otherwise be addressed
9 through traditional investments in those assets?

10 A. (Gantz) Yes. That's part of the context for looking at
11 these kinds of investments.

12 Q. And, I believe the notion was that it could potentially
13 be more cost-effective to invest in distributed energy
14 resources to address some of the capacity issues and
15 some of the line loss issues?

16 A. (Gantz) Yes.

17 Q. That's correct? In your testimony, on Page 3 of 14,
18 Bates Number 005, of Exhibit 3, I believe, is that
19 correct? Exhibit 3? Thank you. You note in the
20 "Goals and Objectives for UES's DER Initiative", in the
21 first answer and the final sentence to the question
22 "What are UES' guiding goals and objectives in
23 undertaking its DER initiative?" You state "Finally,
24 we view DER", that is "Distributed Energy Resources",

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1 as a potentially more cost-effective option for
2 maintaining and improving distribution reliability and
3 performance than traditional distribution investments."

4 A. (Gantz) Yes.

5 Q. And, you maintain that that is still one of your goals
6 and objectives of this program?

7 A. (Gantz) Yes.

8 Q. Okay. Thanks. When Unitil began to consider its
9 options for identifying good projects, DER projects, to
10 invest in and to propose as part of this docket, how
11 did it identify the projects that it thought were good
12 candidates or good enough candidates to propose as part
13 of this docket?

14 A. (Gantz) During the development of the bill, the passage
15 of the bill, we had had some contacts with various
16 customers around the system. And, when we were
17 beginning the process of preparing our filing in this
18 proceeding, we took those expressions of interest and
19 had conversations with those prospects. And, out of
20 that, those conversations, the three projects we
21 proposed rose to the top as potentially feasible and
22 ready to be implemented.

23 Q. Were you proactive in your prospecting or did you
24 simply react to customers that had expressed an

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1 interest in a renewable generation project to be
2 interconnected with Unitil's system?

3 A. (Gantz) Yes. I describe it as reacting to expressions
4 of interest, with the possible exception of the
5 Crutchfield project, where we had heard about some
6 interest, and then reached out to the customer to have
7 further conversations. And, I think it was appropriate
8 for us to do that, given that the structural framework
9 had not been established. We needed some candidates to
10 bring into the process, to flesh out the screening
11 methodology, the ratemaking mechanism, and get that
12 before the Commission. So, I think that was an
13 entirely appropriate process given where we were.

14 I anticipate that, as we go forward in
15 time, we will be looking at doing a more structured
16 look at options and candidates and potentials. You
17 know, we're gaining experience as we go. And, I do
18 know that we had several potential candidates that we
19 had discussions with that we took off the list and
20 didn't include in the original DER filing.

21 One was conversations we had with the
22 Ice Bear Storage, a manufacturer of storage, ice
23 storage units for cooling. That we didn't feel we
24 could put into a proposal that would be feasible at

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1 this point in time, so we excluded that one. We had
2 another, as many people know, we did some piloting of
3 small wind turbines on utility poles. That, again, we
4 didn't feel we could build into a feasible proposal at
5 this point in time that would meet the criteria of RSA
6 374-G. And, we have a couple of conversations that we
7 have had with people that we've -- weren't quite ready,
8 but we suspect they will be things we'll be looking at
9 when we do our second year's proposal development.

10 Q. Did you reach out to any developers, private
11 developers, of renewable generation projects that are
12 active in the Unitil service area for potential
13 candidate projects for -- to work with them on the
14 development of these projects, versus, you know,
15 responding to the ones that you did react to?

16 A. (Gantz) I don't recall any specific conversations. We
17 focused on the project proposal that we were aware of
18 and the ones that we thought might be feasible, and
19 those were the ones we moved forward with.

20 Q. How did you determine the feasibility of the Ice Bear
21 Storage and the small wind turbines, as you were
22 looking at the prospects and determined which ones kind
23 of -- which cream kind of moved to the top, if you
24 will, and how others fell off the list? What were --

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1 What were the primary criteria you used to filter out
2 those projects?

3 A. (Gantz) I'd say it was a judgmental process, with maybe
4 two key parameters. One being kind of technical
5 feasibility, and the other being economic feasibility.
6 And, for both the wind and the Ice Bear, I think the
7 initial sense was that the technical feasibility was
8 there, but the economics weren't. That we just didn't
9 see how, based upon the early conversations, that we'd
10 ever be able to, you know, get a pilot project going
11 that would, you know, have any economics, even if you
12 factored in, you know, economic development and other
13 factors, it just didn't look like it was a useful route
14 to take.

15 Q. So, based on a preliminary set of -- a preliminary
16 screen, you didn't think that the total resource
17 benefits were going to exceed the total resource cost
18 for those projects, and, therefore, --

19 A. (Gantz) And, I would not characterize it as a "total
20 resource cost analysis". It's much more rudimentary
21 than that, in terms of just looking at the economic.
22 You know, I think Ice Bear is a good example. We had a
23 lot of conversations, several conversations with the
24 manufacturer. And, if you look at what we expected the

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1 cost curve on that technology was going to be, you
2 know, if you got up to a thousand units or 10,000
3 units, you know, it was going to start to look
4 potentially very good. But, just getting out of the
5 blocks with the first unit or the first couple of
6 units, the costs were just prohibitive. It was way out
7 of the ballgame. So, we suspended those discussions.
8 We've recently heard that they have undertaken a
9 massive initiative out in southern California. We know
10 they have a New England rep., and we'll be talking with
11 that rep. about the possibility of doing something in
12 the second year set of proposals.

13 Q. Going forward, do you believe that Unitil should submit
14 for review and approval to the PUC the criteria it uses
15 in the development of the prospects in its pipeline of
16 potential projects, to ensure --

17 A. (Gantz) No. I think that would just slow the process
18 down. This is an experimental, you know, in a sense,
19 trial-and-error kind of process. We don't want to be
20 digging a lot of dry holes. So, we're going to focus
21 in on the things that we think will have value, we'll
22 be able to bring forward. At the time when we think we
23 have something appropriate, that would be the time for
24 us to present it to the Commission under the terms of

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1 RSA 374-G.

2 Q. Okay. So, in that sense, Unitil will decide what
3 projects get advanced and proposed to the PUC and which
4 projects do not, on criteria that are up to the
5 discretion of Unitil?

6 A. (Gantz) Yes. And, I think it's entirely the way RSA
7 374-G is set up. These are voluntary initiatives on
8 the part of the utilities. We are interested in moving
9 forward, because we think there are significant
10 long-term benefits to our customers and to the state.
11 We're going to use our best judgment, in terms of the
12 resources that we have to put into something to bring
13 it forward. And, we're going to try and find the
14 things that we think are the best options.

15 Q. So, if we look at the ones that you're proposing now,
16 again, they passed a reasonable technical feasibility
17 test, and then they had to pass an economic feasibility
18 test. When you look at the portfolio of items that are
19 defined as "distributed energy resources" in RSA 374-G,
20 it includes a lot of different items, including the
21 renewable generation project types that are being
22 proposed here. For example, it also includes energy
23 storage, energy efficiency, demand response, load
24 reduction, and control programs, etcetera. When you

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1 looked at proposing projects to invest in, did you
2 consider any energy efficiency projects as candidate
3 measures for this docket?

4 A. (Gantz) We talked in general terms about that as an
5 option, and had maybe a small handful of conversations
6 with companies, with entities or individuals outside
7 the Company, but nothing -- nothing looked to be a
8 project that could be brought to bear and put into the
9 proceeding that we were anticipating at the time. I
10 think those conversations go back, you know, a year ago
11 or so. So, some interesting conversations, but nothing
12 materialized as a viable project.

13 Q. What do you think were the reasons or the primary
14 criteria why those projects weren't included in this
15 docket?

16 A. (Gantz) Well, as I said, energy efficiency ideas that
17 were being talked about didn't develop into project
18 concepts. We had, you know, I don't -- I wouldn't want
19 to estimate the number of people that contacted us
20 since RSA 374-G was passed, but I know it's dozens of
21 contacts and inquiries. And, what we've said, at this
22 stage of the game, what we said is, "if you can come to
23 us with a project concept that we can look at, that's
24 great." But we're not in a position at this point of

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1 actually designing something from the ground up. You
2 know, we're early in that process. As we gain
3 experience, we may start to be able to flesh out the
4 concepts and focus on some targeted projects and
5 programs that we could perhaps put together from the
6 ground up. But, right now, we're looking for projects
7 that are, you know, potentially ready to go that we can
8 evaluate. So, even -- and, again, we've had those
9 conversations with people that had expressed interest,
10 but nobody had put on the table anything in the energy
11 efficiency arena that was a specific potentially viable
12 project that we could look at.

13 Q. Did anybody proposing a potential energy efficiency
14 project back out, because perhaps it wasn't a very
15 timely process of participating with Unitil on the
16 development and implementation of it? Or, for that
17 matter, any other distributed energy resource idea?
18 Anybody?

19 A. (Gantz) I'm not aware of any. I know we have, as I
20 said, we have a couple of things that we'll be looking
21 at as part of the next year's possibilities. And, in
22 terms of energy efficiency, and, specifically, I know
23 there's so much activity going on from the CORE
24 Programs and RGGI funding and ARRA funding, you know,

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1 there's been a lot of activity in that area. So, I
2 think people are, with projects, are kind of looking in
3 that direction first, and maybe not looking at the RSA
4 374-G as the best way to proceed. Particularly given
5 that we hadn't established the framework, we haven't
6 established the rate mechanism. We have to get this
7 part of the work done, and then I think we'll get a
8 better sense of what might be possible.

9 Q. But, similarly, you have had people contacting Unitil
10 through the CORE Program that you administer regarding
11 energy efficiency projects. So, you were aware of many
12 prospects out in the marketplace who were thinking
13 about investing in energy efficiency projects, were you
14 not?

15 A. (Gantz) Yes. And, those -- the Company participates in
16 those activities through the CORE Program.

17 Q. The Company participates through the distribution of
18 SBC funds. The Company could have also participated
19 through the investment in what otherwise might be
20 considered the "customer costs" associated with
21 investing in those projects. That would have been a, I
22 think, an approved and authorized and perhaps prudent
23 investment for these DER projects, would it not?

24 A. (Gantz) Yes. But, as I said, none of those rose to the

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1 -- none of those got put on the table, nothing rose to
2 the point where it was a potential project that we
3 could actually evaluate.

4 Q. Is there a particular reason why you focused on
5 renewable generation projects for this docket?

6 A. (Gantz) Those were the ones that were on the table and
7 that the customer participants were pursuing, and with
8 great vigor. And, so, I think those are the ones that
9 were first and foremost for us to start to work on.

10 Q. Mr. Palma, approximately how many small business or
11 large business customers did Unitil serve through the
12 CORE Program or does it expect to serve through the
13 CORE Program in 2010? I recognize that you haven't
14 been too involved since you recently joined Unitil, but
15 I think you have a sense for the scope of their program
16 and the customer set that they're servicing?

17 A. (Palma) Actually, I apologize, but I don't have that
18 information. I am looking into that information, and
19 it will take a few weeks or months to get that.

20 Q. What is, on average, based on your best recollection,
21 the total resource benefit to total resource cost of
22 the energy efficiency projects that Unitil invests in,
23 in, say, the small business and large business or the
24 C&I sector?

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- 1 A. (Palma) Again, I don't have that information in front
2 of me. And, I really -- I'm not in a position to make
3 a guess at it. Maybe Mr. Gantz has an answer.
- 4 A. (Gantz) Well, I know all the programs being pursued in
5 the CORE Programs have positive benefit/cost ratios.
- 6 Q. You mean greater than one?
- 7 A. (Gantz) Yes.
- 8 Q. Okay.
- 9 A. (Gantz) Okay.
- 10 Q. But you don't have a sense of how great, how much
11 greater than one perhaps?
- 12 A. (Gantz) Not off the top of my head.
- 13 Q. And, do you have a sense for what the cost per
14 kilowatt-hour is, as you submitted in the testimony of
15 the CORE docket, for the CORE Programs for their energy
16 efficiency projects?
- 17 A. (Palma) Again, I don't -- you know, some of this data I
18 don't have in front of me. I might have had it
19 yesterday. But, in today's docket, I'm not prepared
20 with that.
- 21 Q. Would you -- Do you believe that typically energy
22 efficiency projects have a higher total resource
23 benefit to total resource cost than renewable
24 generation projects?

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1 A. (Gantz) I think that question may be misleading, so I'm
2 not going to answer it. But I will say this. That, at
3 the present point in time, if you look strictly at the
4 direct dollar cost, solar projects are marginal or not
5 economic, if they're looked at just in terms of the
6 direct cost. And, that's a function of the immaturity
7 of the industry, where we are in the curve, and also
8 the fact that energy prices have dropped significantly
9 in the last couple of years. So, getting solar PV
10 going in New Hampshire is going to take some time and
11 it's going to take some effort, and it's going to take
12 some aggressive efforts to really get it going.

13 Q. Based on your analysis of these projects and your
14 familiarity with energy efficiency projects that your
15 customers have pursued, is it -- would you -- do you
16 believe that the energy efficiency projects have
17 typically had a lower cost per kilowatt-hour saved
18 versus and/or a higher total resource benefit to total
19 resource cost than the projects you're proposing in
20 this docket?

21 A. (Gantz) Well, again, I'm not going to answer that
22 question, other than to say that there is no single
23 perfect solution to our energy problems. And, we think
24 we need to push down all of the potentially valuable

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1 opportunities that we can. We think energy efficiency
2 is a key part of that policy framework. And, we've got
3 a way of moving those things forward. We also think
4 that renewables and alternatives that are included in
5 the broader scope of DER projects are also very
6 valuable and worth pushing down that avenue. So, I
7 think it's important, from a policy standpoint, that we
8 do as much as we possibly can. And, I think our
9 initiative and RSA 374-G and the efforts that we've
10 taken to get it going are part of that process.

11 Q. When Unitil makes an investment to the benefit of its
12 customers, its ratepayers, how does it define or
13 determine whether that investment is prudent?

14 A. (Gantz) In this proceeding, in the context of RSA
15 374-G, there are nine criteria that the Commission has
16 to evaluate. We've got two proposals before the
17 Commission in this proceeding that we think meet that
18 standard.

19 Q. What about for your traditional transmission and
20 distribution assets, not including this 374-G, how
21 would Unitil determine whether an investment was
22 prudent?

23 A. (Gantz) Are those investments used and useful, in
24 service to the public, and do they reflect the prudent

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 deployment of the Company's capital to serve those
2 needs?

3 Q. So, again, not to be recursive here, but you said
4 "prudent deployment of the Company's capital to meet
5 those needs." What do you mean by "prudent deployment
6 of the Company's capital"?

7 A. (Gantz) Well, that's going to require --

8 MR. EPLER: I'm going to --

9 CMSR. BELOW: One at a time.

10 MR. EPLER: I'm going to object at this
11 point. I think we're getting -- we're starting to get far
12 afield from the scope of the Company's proposal, and also
13 the scope of the statute. What's at issue in this
14 proceeding is not the prudence of the Company's overall
15 investments, but the reasonableness of the two projects it
16 has proposed. There are specific criteria that are laid
17 out in the statute by which those are to be judged, and we
18 presented testimony on that.

19 So, I think the question goes beyond the
20 scope of the docket.

21 CMSR. BELOW: Mr. Aney, briefly?

22 MR. ANEY: I would suggest that it
23 actually goes straight to the heart of this docket,
24 because I was asking specifically what -- how they

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1 determine the prudence of an investment in their
2 transmission and distribution network or, you know, asset
3 base. And, I think, fundamentally, that is a question of
4 this docket.

5 MR. EPLER: And, that was answered by
6 the witness.

7 MR. ANEY: The witness answered whether
8 the -- gave a definition regarding the investments of this
9 docket specifically, not in regards to its transmission --
10 its alternative options for investment and traditional
11 investments in its transmission and distribution network.

12 (Cmsr. Below and Cmsr. Ignatius
13 conferring.)

14 CMSR. BELOW: I think we're having a
15 hard time seeing the connection. But, if you want to try
16 to reframe your question, and, in some respects, the
17 question of prudence is a question sort of of law, a legal
18 interpretation. So, could you kind of get to your point
19 with the question.

20 MR. ANEY: Thank you. As I understand
21 it, neither the law here in the New Hampshire, nor the
22 rules of the PUC, define a "prudent investment" in any
23 clear and specific way that is used to guide PUC
24 decision-making regarding whether somebody has made --

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1 whether a utility has made a prudent investment in its
2 asset base or not. But it is something that the PUC is
3 frequently called upon to judge, as to whether investments
4 were prudent or not, and, therefore, should be recovered
5 or not. So, I'm trying to get at the question of prudence
6 in regards to transmission and distribution networks of
7 the electric utilities, and specifically how Unitil
8 defines that, because this is a case of Unitil's
9 transmission and distribution system, and the inclusion of
10 additional costs in the rate base of that system.

11 CMSR. BELOW: So, what's your question?

12 BY MR. ANEY:

13 Q. So, my question is, for the traditional T&D system,
14 transmission and distribution system, what is the, I
15 guess, the judgment criteria or the decision-making
16 criteria that Unitil utilizes to determine if something
17 is prudent or not?

18 CMSR. BELOW: The witness may answer.

19 BY THE WITNESS:

20 A. (Gantz) It's an impossible question to answer, in, you
21 know, in a hypothetical sense. The factors that go
22 into a company's evaluation of reliability, of safety,
23 providing service to customers and convenience to
24 customers, of cost-effectiveness, you know, it's a very

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1 complex set of analyses. And, ultimately, it boils
2 down to what the Commission determines in the context
3 of a rate case.

4 BY MR. ANEY:

5 Q. Let me see if I can approach this a different way
6 please. If Unitil had an option to invest in its
7 transmission/distribution network, and one option cost
8 \$100, providing a certain level of benefit to that
9 network, and another option was \$50, providing the
10 identical functional value, would Unitil consider it to
11 be prudent, a prudent use and deployment of its
12 capital, to invest, therefore, in the cheaper of the
13 two alternatives, given that they both provided
14 identical value to Unitil?

15 A. (Gantz) Assuming the benefits are identical, it would
16 be prudent to invest in the \$50 option.

17 Q. Thank you. In this docket, did Unitil identify a
18 particular need of its transmission and distribution
19 system at the locations where the proposed renewable
20 generation projects are being installed? Was there a
21 need of any type that was identified to make those
22 project locations good candidates for investment in its
23 transmission and distribution network?

24 A. (Gantz) We did not make a specific evaluation relative

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1 to the location of these projects. We did factor in
2 the transmission and distribution benefits in the
3 context of the benefit screening analysis. And, we
4 have also looked at and provided, in the testimony of
5 Dr. Axelrod, an analysis of potential local system
6 value from displacement of investments that would
7 otherwise occur. But that was not a location-specific
8 analysis in this proceeding. And, that's what it is.

9 Q. So, the way you framed, it was more of a macroeconomic
10 or service territory wide basis, it had nothing to do
11 with the specific circuits on which these projects are
12 located, it had nothing to do with the line losses
13 actually experienced in sending electricity to those
14 customers at those sites?

15 A. (Gantz) We didn't do a circuit level analysis for those
16 projects.

17 Q. Okay. So, you never did identify, as a result, a need
18 to improve the distribution and transmission systems in
19 the localities of the projects you're actually
20 proposing?

21 A. (Gantz) Nor did we think it was necessary to do so.

22 Q. Okay. So, as a result, you therefore also never
23 determined whether any investment was required at all
24 to upgrade your transmission and distribution system to

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 benefit the localities in which these projects are
2 proposed, and, therefore, everything we're suggesting
3 is an increase in the rate base and potentially the
4 rates of your customers that wasn't necessary, because
5 no need was identified to upgrade or improve the grid
6 in the areas where these projects are being requested?

7 MR. EPLER: Objection. This is more in
8 the nature of testimony than cross-examination.

9 CMSR. BELOW: I think that's a fair
10 statement. And, so, I would ask you to focus on questions
11 you have in the form of cross-examination.

12 MR. ANEY: Thank you. I appreciate
13 that.

14 BY MR. ANEY:

15 Q. So, again, just to clarify, you never identified a
16 need, you never identified a specific benefit or value
17 associated with potentially improving the capacity or
18 reducing the line losses associated with these
19 distribution projects?

20 A. (Gantz) I disagree with that characterization. We
21 looked at the guidelines in RSA 374-G. We identified
22 projects that we believe met those criteria. It's a
23 balancing of a variety of factors that are required to
24 meet the "public interest" test. We think these

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1 projects meet the "public interest" test, and,

2 therefore, they should be approved.

3 Q. But it's impossible, by going back to one of your

4 initial goals and objectives, to determine whether

5 these projects, these DER projects, are even

6 potentially more cost-effective options for maintaining

7 and improving the distribution reliability and

8 performance of relative to traditional distribution

9 investments, because you never undertook the analysis

10 to determine what those alternatives might have been in

11 this situation or whether there was even a need

12 required to invest in alternative traditional

13 distribution investments?

14 MR. EPLER: Again, I'll object. This is

15 in the nature of argument. I think the Company

16 appreciates the position that Mr. --

17 MR. ANEY: Aney.

18 MR. EPLER: -- Aney is putting forward

19 here. The Company has testified as to the analysis that

20 it's done and its position with respect to the criteria

21 that are set forth in 374-G:5, II. But I think this is

22 really getting into the nature of agreement at this point.

23 MR. ANEY: I think that's fair.

24 CMSR. BELOW: Okay.

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1 MR. ANEY: So, I -- I'll move on to
2 another set of questions.

3 BY MR. ANEY:

4 Q. Mr. Palma, are you aware that photovoltaic
5 implementation costs have been, and I think somebody
6 referenced it in the direct testimony, that the cost of
7 implementing or installing photovoltaic projects here
8 in New Hampshire and across the United States has been
9 coming down dramatically.

10 A. (Palma) I'm aware that the cost of the panels has come
11 down, but not necessarily the cost of the inverter, the
12 other equipment, nor the labor. I'm not aware if those
13 three have come down.

14 Q. Are you -- do you have a sense for how large that
15 reduction in cost has been over the course of the last
16 year?

17 A. (Palma) I would say probably, in a dollar per watt
18 range, maybe possibly \$2.00 per watt.

19 Q. And, do you expect that there is going to be a similar
20 or continued decrease in the cost of implementing
21 projects over the course of the next year, based on
22 what you've been able to ascertain from public media or
23 other sources?

24 A. (Palma) I'm not an economist on solar PV panels.

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1 There's multiple market forces. One being the Chinese
2 manufacturing machine, you know, factories to be built
3 in China that are able to produce panels at below U.S.
4 production market costs. Other factors include the
5 world economy, the need for solar PV, feed-in tariffs,
6 such as Germany and other markets opening up. So, I
7 really can't make a prediction in the next year of
8 what's going to happen.

9 Q. What's your sense? Are they going to go up or down, do
10 you think?

11 A. (Palma) I really don't know.

12 Q. Okay. If you thought that the costs were going to go
13 down, when -- how far down would your expectations --

14 what would your expectations have to be in regards to
15 how far they might reduce, before you decided it was
16 more prudent to wait?

17 A. (Gantz) I'll answer that one.

18 Q. Okay.

19 A. (Gantz) I think, if everybody made their decisions on
20 that basis, the prices never would go down. So, you
21 have to base your analysis on where you are today, and
22 make your best judgment and move forward. If you get
23 involved in kind of deciding you're going to wait for
24 the prices to come down, I just think it's, you know,

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1 that's going to get you nowhere. And, if everybody
2 made the same decision, then the industry would
3 collapse and the prices would never come down.

4 Q. So, in other words, you are never in favor of waiting
5 or would there be a case where your expectations of
6 declining prices might incline you to wait?

7 A. (Gantz) We're not in that position right now. We think
8 the RFP that we plan to issue for the Stratham project
9 will be a very important test of the market and get
10 current effective rates. And, we would suggest, if
11 what comes out of that process is within the range we
12 propose to the Commission, that it would satisfy the
13 public interest test.

14 Q. Okay. So, again, would there be a expected level of
15 price reduction that might cause you to wait?

16 A. (Gantz) If the prices did not reduce down into the
17 range that we expect, then we would not proceed with
18 the project.

19 Q. It was a different answer though. And, let me see if I
20 can, again, rephrase it one more time here. How much
21 of a reduction of prices over the next 12 months, how
22 much would that potential reduction have to be before
23 you would decide to wait on the implementation of a
24 project?

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 A. (Gantz) Actually, the speculating on the forward price
2 reduction is -- I don't think would be an appropriate
3 factor. You need to take into effect -- into account
4 the price that's being bid to you at that point,
5 relative to the benefits of the project. And, again,
6 if the RFP produces a bid price that comes within the
7 range we've suggested to the Commission, we think that
8 would meet the "public interest" test and we would
9 proceed.

10 Q. Why was the Crutchfield project withdrawn?

11 A. (Palma) The Crutchfield project is a solar hot water
12 project, Crutchfield Place, in Concord. It's a
13 multi-unit low-income housing project for those that
14 don't know it. The project is a solar hot water system
15 heated by electricity and by gas. At the initial
16 contacts with Crutchfield, it was suggested that the
17 gas system was going to be taken off line. So, we saw
18 a need that we would be able to reduce kilowatt demand,
19 as well as kilowatt-hour usage, by putting in a fairly
20 sizeable solar hot water system. In further
21 investigations by myself, when I joined Unitil in
22 November, and into December, I had met with Crutchfield
23 personnel and the manager of the housing facility, as
24 well as the maintenance supervisor technical person.

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1 And, in further discussions, it was determined that
2 they planned to continue to use the gas unit and the
3 electric unit, and the gas more as a preheater to the
4 electric, the Company felt we had no way to really know
5 what percentage was gas and what percentage was
6 electric, as far as BTUs heating the actual hot water,
7 the blow water. Without that knowledge and without the
8 assurance that this was an electric project, since
9 374-G is for electric projects, we felt it would be
10 appropriate to withdraw the project. And, I discussed
11 this at length with the building manager, and they felt
12 that that was also the right approach.

13 Q. Thank you. Dr. Axelrod, can you hear me?

14 A. (Axelrod) Yes, I can.

15 Q. In your testimony, on Page 5 of 8, Bates Number 027 of
16 Exhibit 3, on the -- your answer to the first question
17 on that page, you state that "It is [your] contention
18 that each of the DER projects, by their very design
19 will, at a minimum, have a neutral effect on each of
20 these objectives, but should have a positive intrinsic
21 benefit although the degree of impact will be difficult
22 to quantify." And, specifically, one of those
23 objectives was the "effect on competition". Can you
24 please expand upon your answer and explain why you

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1 believe why these projects will have a minimum impact
2 on competition, have a "neutral effect", and
3 potentially have a "positive intrinsic benefit" for
4 competition?

5 A. (Axelrod) Oh, sure. I'd be glad to. What the DER
6 projects were attempting to do, essentially through
7 this legislation, is to find alternatives to
8 traditional utility investment in transmission and
9 distribution. And, by the very nature of the fact that
10 we're looking for alternatives -- Hello?

11 Q. Yes.

12 CMSR. BELOW: Yes.

13 WITNESS AXELROD: Are you hearing me
14 okay? Okay.

15 CONTINUED BY THE WITNESS:

16 A. (Axelrod) By the very nature of the fact that we're
17 looking for alternatives, right at the highest level,
18 would suggest that we're going to increase competition.
19 Because, instead of -- well, I'll give you a very
20 specific example. For example, if we were to identify
21 a substation that was experiencing a higher ground
22 fault of current, and that's caused by more customers
23 putting distributed generation at their site for backup
24 purposes. We might have to add a new substation or

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1 high impedance transformers, I'm just giving you a very
2 specific, those would be traditional investments.

3 If we could alternatively reduce the
4 peak demand on those substations, at times -- at
5 certain times of the day or during seasonal
6 differentials, we could avoid upgrading that
7 substation. That's what the purpose is of DER. So, by
8 its very nature, we've just added a competitive
9 alternative to the traditional investment, that would
10 have been a prudent investment, we were talking
11 "prudence" before, that would have been a prudent
12 investment, and this is an alternative technology.

13 So, at a minimal -- a minimum impact, my
14 statement was referring to the fact that, just
15 comparing to a utility traditional investment, we now
16 have an alternative that utilities in New Hampshire can
17 take advantage of.

18 As you go down the list, obviously, the
19 approach that Unitil has taken here is to look at a
20 variety of technologies. George Gantz had mentioned
21 not only the two that are being talked about today, but
22 there are others that are being considered, whether
23 they're solar, they're wind, whether they're more
24 conservation-oriented, it adds to the mix of

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1 opportunities that could be used to displace
2 traditional utility investment in transmission and
3 distribution.

4 So, I didn't use an economic analysis to
5 look at the marketplace. It was more of a logical
6 approach to that answer, that the more players that
7 could be involved in answering a same problem, then
8 we're going to have greater competition.

9 BY MR. ANEY:

10 Q. So, what's the problem these more players are trying to
11 address? The substation issue? Or, I'm sorry, I lost
12 you there.

13 A. (Axelrod) Well, I was just trying to give you an
14 example of how a traditional investment of a utility of
15 responding to a particular problem could now be
16 addressed by alternative technologies. And, in this
17 case, we're calling them "distributed energy
18 resources".

19 Q. But you didn't address my question around how this is
20 going to benefit competition in the energy services
21 marketplace?

22 A. (Axelrod) Well, I guess I didn't understand your
23 question then. Because, by offering -- in the past, if
24 a utility had an issue relating to a need for what

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1 we're calling "traditional transmission or distribution
2 investment", they wouldn't go to a customer or they
3 wouldn't offer a program like you have right now to
4 alternatives like the Stratham project. So, by the
5 very nature that they're offering those opportunities
6 provides a greater -- greater competition among
7 providers of the energy services that you're talking
8 about. I hope I'm answering your question.

9 Q. Let me see if I can paraphrase it. So, you're saying
10 that customers will have more choice regarding
11 alternative energy projects, because now the utility
12 will be involved and it will be a participant in the
13 market offering those services, is that correct?

14 A. (Axelrod) You know, it sounded like you stated it
15 properly, yes.

16 A. (Gantz) If I could just add, I think I just want to
17 make clear that Unitil does not have the intention or
18 expectation that the Company or its employees are
19 actually going to be, you know, installing equipment,
20 or, you know, doing work on a customer premises. Our
21 expectation is that kind of work is going to be done by
22 the energy services industry that we would hire through
23 RFPs or customers will hire through RFPs and
24 solicitations. So, I just want to make clear that the

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1 way we see it is, and I think this is consistent with
2 what Dr. Axelrod just said, to the extent we are
3 successful in making investments in this space, the DER
4 space, as opposed to investments in traditional utility
5 investments, we will be increasing market activity
6 among energy service companies in this sector, which
7 will be promoting competition and business development
8 in the energy services sector. Because it's not that
9 the Company is going to be doing that work, we're going
10 to be hiring the experts in the industry to do that
11 work.

12 Q. Is there anything that commits Unitil to that decision,
13 in either your proposal or 374-G? Or, to the contrary,
14 does 374-G allow Unitil and the other electric
15 utilities to invest and providing those services to the
16 marketplace?

17 A. (Gantz) I think the inclusion of a guideline that asks
18 the Commission to look at the impact on competition is
19 an important factor. And, from our standpoint, we
20 think that strongly suggests that the utilities should
21 not be the doers. And, so, we've taken that to mean,
22 and I think we've said consistently, both in the
23 legislation, legislative process, as well as
24 discussions subsequent to that, that the Company would

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1 not be doing the installations, would not be using its
2 employees to do that kind of work. We view our role as
3 a facilitator and a funder of that kind of work. And,
4 it's really the energy services industry that's going
5 to be asked to pick that up and do that work and be
6 involved in working with customers.

7 And, I think, in the case of customers
8 that come to us, you know, we're not, you know, our
9 desire is not to, you know, become essentially some
10 sole source provider, but to expect the customer to
11 come to us, in the case of both Crutchfield and
12 Stratham and SAU 16, they actually came to us with a
13 relationship. We worked to build on that relationship.
14 When the Stratham project needed to be restructured, in
15 order to address some of the concerns that had been
16 raised, you know, we felt it was appropriate, with the
17 restructuring then, to commit to an RFP process for the
18 PV project.

19 So, I think through our proposal and
20 through our behavior and through the things that we've
21 said, I think that commitment is clear. And, I think
22 it's backed up by that guideline in RSA 374-G.

23 Q. What are the advantages that you can offer a customer
24 seeking a, say, a renewable generation project that

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1 they could not get from an energy services provider in
2 the marketplace?

3 A. (Gantz) Funding.

4 Q. Okay. So, you have a funding advantage?

5 A. (Gantz) I wouldn't say it's an "advantage". It's a
6 part of the puzzle. A customer who wants to implement
7 a project is going to have a number of barriers. You
8 know, information is a barrier, a significant barrier,
9 funding is a barrier, technical expertise is a barrier.
10 And, as we've seen, the more complicated the technology
11 becomes, there's a whole issue of the integrator and
12 how this all comes together. We view the utility role
13 as a facilitator, not supplanting the role of
14 potentially third party funding or third party
15 expertise, technology expertise, installers, equipment
16 suppliers, we're not -- we're not trying to get in the
17 way of that, we're trying to facilitate that market
18 development. And, so, what we bring to the table is,
19 through a process like we're trying to develop with the
20 DER project, you know, some screening tools, some
21 techniques of analysis, we're building some technical
22 knowledge that we can share, both with customers, as
23 well as the industry in general. And, then, assuming
24 we can put together projects that meet the criteria of

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1 374-G, we can then bring some funding to bear on the
2 project.

3 Q. Why do you think the utility has a particular funding
4 benefit that it can bring to customers that it can't
5 find in the private marketplace?

6 A. (Gantz) Well, I think the example is that things aren't
7 getting done. 374-G was put in place by the
8 Legislature to encourage utilities to get involved in
9 this as an alternative way of helping to develop a
10 nascent industry.

11 Q. What are -- What's your understanding of the factors in
12 the marketplace right now that are limiting the
13 industry from getting things done?

14 A. (Gantz) I already answered that. Information,
15 integrator roles, the funding, and the general
16 immaturity of the industry. You know, we need to see
17 more activity, we need to see things happening out
18 there, we need to see that the energy services
19 marketplace that's going to serve these purposes become
20 more mature and more sophisticated, and better in
21 delivering it at a better cost.

22 Q. Are you familiar with the Renewable Energy Fund --

23 A. (Gantz) Yes.

24 Q. -- here in the State of New Hampshire? Are you

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1 familiar with the fact that they are about to propose a
2 commercial scale incentive?

3 MR. EPLER: Again, I think, again, we're
4 starting to wander from the scope of this docket and
5 bringing in some external matters that are really not
6 germane to the Company's specific two proposals.

7 CMSR. BELOW: And, I need to ask, how
8 many more -- much more questioning do you have, Mr. Aney,
9 because --

10 MR. ANEY: Let me -- I'll try to wrap up
11 in the next five minutes, if that's okay?

12 CMSR. BELOW: Okay.

13 MR. ANEY: Thanks.

14 BY MR. ANEY:

15 Q. Well, Mr. Gantz, you suggested that the evidence of
16 "things not happening in the marketplace" is the
17 justification for the utilities entering the
18 marketplace. Did I paraphrase you correctly?

19 A. (Gantz) Well, I think that is why the Legislature
20 passed the law.

21 Q. Okay. And, I'm not going to try to submit some
22 argument in testimony to get some facts in here,
23 although I'm very tempted. But I will move on to
24 another set of questions. Because I do believe that

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1 there is quite a lot of pent-up activity in the
2 marketplace, and I'm very interested in how Unitil will
3 facilitate the development of projects, from both
4 developers and customers, going forward. And, I think
5 it's critical to an evaluation of Unitil's effect on
6 competition and the development of that marketplace,
7 and --

8 CMSR. IGNATIUS: Excuse me, Mr. Aney,
9 before we get, because I'm afraid we're going to get into
10 one of these battles again, can I just try to remind you,
11 and anyone else involved in this docket, we're here to
12 decide whether these two proposals should be approved.
13 We're not here to decide whether there are other proposals
14 that should be approved, because these are the two that
15 are before us. And, we welcome your knowledge about this
16 industry and questions about these two proposals. But the
17 statute is as it is. It's been passed, good or bad. The
18 proposals have been made. And, now, it's time for us to
19 evaluate, with all of your help in bringing out details
20 about these two proposals, whether they meet the terms of
21 the statute and should be approved.

22 MR. ANEY: Thank you. And, thanks for
23 reminding me. The docket specifically is establishing or
24 suggesting or recommending a set of steps to be used in

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1 the decision-making in regards to projects. And, the PUC
2 has a set of criteria, including the effect on competition
3 in the marketplace, that it uses to evaluate the
4 investments that utilities make. And, so, some of my
5 questions are specific in regards to the process that is
6 being used now for this docket, and even certain steps
7 that haven't been clearly articulated in the docket
8 testimony to date, but they are extremely relevant. For
9 example, how Unitil is filtering in or out or finding
10 projects that it seeks to propose to the PUC for funding.

11 CMSR. IGNATIUS: All right. And, you've
12 already had a number of questions on that and answers to
13 that. So, if there is anything that needs to be addressed
14 there, I guess you have a right to do that. But we've
15 been through quite a lot of this. We've been at it for an
16 hour. We have a lot more to go this afternoon.

17 MR. ANEY: Okay. Thank you.

18 BY MR. ANEY:

19 Q. Will Unitil accept any project from a developer or
20 customer that has a total resource benefit to total
21 resource cost that exceeds the total resource benefit
22 or total resource cost of previously submitted
23 proposals regarding distributed energy resource
24 projects?

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- 1 A. (Gantz) We will answer a phone call from anybody that
2 wants to call us up, and we'll have a conversation and
3 start to look at whether it makes sense to proceed.
4 And, we're open to thoughts about how that should work,
5 how we should get things organized. We need to do it
6 with administrative efficiency, at the lowest cost as
7 we can do it. But we're looking for good ideas. And,
8 we'd appreciate hearing further from you once this
9 docket closes.
- 10 A. (Palma) If I could jump in, Mr. Aney. We've been tied
11 up timewise on this docket. And, the plan in the
12 office was, after today, since we would be -- we will
13 move forward with a plan on looking at projects and a
14 method -- some sort of methodology on how to assess the
15 projects. So, it will be -- it will be an organized
16 methodology, but it has not been established as of yet.
- 17 Q. Do you believe that's a critical factor in the
18 decision-making of the PUC, in regards to whether
19 Unitil proposals should be accepted or not?
- 20 A. (Palma) I'm sorry, I missed your question.
- 21 Q. Do you believe that your decision-making -- that
22 Unitil's decision-making, which Mr. Gantz previously
23 testified to would be Unitil's decision alone, in
24 regards to what projects get proposed, do you believe

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 that's an important factor in the decision-making of
2 the PUC regarding the process and set of criteria that
3 should be used to determine whether a project or a
4 proposal or even a process should be used as part of
5 374-G?

6 A. (Gantz) Within the context of the Commission evaluation
7 of the guideline, and the impact on things like
8 competition in the energy services industry, it is an
9 appropriate factor for consideration, but only within
10 that context.

11 Q. And, would you say that you have sufficiently proposed
12 and shared or articulated how you will be doing that in
13 this docket for the PUC to be able to make a good
14 decision in regards to that?

15 A. (Gantz) Well, let me rephrase --

16 MR. EPLER: Asked and answered. Again,
17 I think the record is now clear what the Company is
18 proposing and how it's proposing, and that the Company's
19 position is that it is establishing its criteria by which
20 it is coming forward to the Commission to propose
21 projects. And, I think the cross-examiner has made clear
22 that he has some disagreement with that. That can be
23 addressed in briefs or closing statements.

24 CMSR. BELOW: Okay.

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1 MR. ANEY: Those are all my questions.

2 Thank you.

3 CMSR. BELOW: Okay. Mr. Mitchell, do
4 you have any cross-examination?

5 MR. MITCHELL: Yes. Good afternoon. I
6 only have a couple of questions. My name is Clay Mitchell
7 from New Hampshire Seacoast Energy Partnership and
8 Revolution Energy.

9 BY MR. MITCHELL:

10 Q. Earlier in your testimony today, and in some of the
11 filed testimony, you note that there are nine criteria
12 in the statute. And, elsewhere you've also mentioned
13 the concept of "balancing". I was wondering if you
14 could elaborate on "balancing" and all the other
15 criteria, so that it's more clear how each of these
16 criteria play into the decision that the Commission
17 ultimately makes, Mr. Gantz?

18 A. (Gantz) Yes. I think the Legislature, you know,
19 there's always a tension between providing a clear
20 definition and very specific guidance, and yet giving
21 the Commission the authority to exercise their
22 judgment. And, so, I read that section of the statute
23 as guidance from the Legislature, that it is asking
24 more than a simple dollars-and-cents evaluation. It is

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1 asking the Commission to take a broad look at the
2 implications of projects being proposed. You know,
3 it's not setting it up as Criteria A, and also
4 factoring other things, it's setting up a balancing of
5 these criteria. So, I think that's guidance from the
6 Legislature to the Commission that they want a
7 significant weighting in the Commission's deliberations
8 to be given to all of those factors, including the ones
9 that can't be precisely quantified the way the direct
10 economic impacts are.

11 So, you know, ultimately determining
12 what the word "balance" means in that context is up to
13 the Commission. It's a responsibility that the
14 Legislature has delegated to the Commission. But we
15 think the fact that it's structured the way it is is
16 good evidence that the Legislature wants the Commission
17 to think very broadly and to provide an appropriate
18 weighting to all of the factors that are listed, not
19 just one or two factors.

20 Q. Thank you very much. My only other question, in some
21 of the calculations, this concept of "participant" has
22 come up. And, one thing that I would be interested to
23 know a little bit more about from the Company is the
24 participant has been limited to a title like the "Town

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1 of Stratham" or the "SAU district", which is comprised
2 of six towns. Of those towns, does Unitil have
3 customers in those towns? And, if there is some kind
4 of economic benefit to the "participant", doesn't that
5 mean then that the tax taxpayers of those, who are the
6 ultimate funders of the "participant", benefiting from
7 these projects? And, if that's hard -- well, again,
8 it's one of these things that is hard to quantify, but
9 is it fair to at least look at that issue?

10 A. (Gantz) Yes, I think that's fair. And, that is a
11 differentiating factor between, say, a public entity,
12 the SAU 16 or the Town of Stratham, and a commercial
13 enterprise. If we were looking at a solar PV on a, you
14 know, on a commercial building, where the stakeholders,
15 if you will, of that commercial enterprise are really
16 limited to the owners of the enterprise.

17 Whereas, the stakeholders for a
18 municipal entity, SAU 16, is really a much broader base
19 of the population, most of whom are also customers of
20 the utility.

21 So, I think it's important, and this is
22 a good point probably for the Commission to keep in
23 mind, that, if you're looking at a participant in a DER
24 project that is a public entity that has a very broad

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1 set of constituents, it's a somewhat different scenario
2 than where you're looking at strictly an individual
3 resident or a commercial customer whose, you know,
4 whose constituency is a lot more narrow and more of the
5 private interests.

6 And, the way the Company will tend to
7 approach that, as we move forward and look at DER
8 projects of various types, you know, we are going to be
9 differentiating between those private types of projects
10 and private participants, and things that fall into the
11 "municipal" category or potentially a state building.
12 So, it's an important factor in that distinction. And,
13 I think it's something that the Commission should take
14 into account in its evaluation.

15 MR. MITCHELL: Thank you very much.

16 That's all I have.

17 CMSR. BELOW: Mr. Steltzer, do you have
18 any cross-examination?

19 MR. STELTZER: No thank you.

20 CMSR. BELOW: Okay. Ms. Hatfield.

21 MS. HATFIELD: Thank you. I'm going to
22 try standing with the podium right here, if that's okay?

23 CMSR. BELOW: Okay.

24 MS. HATFIELD: Just to try to project a

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1 little bit more. Good afternoon.

2 BY MS. HATFIELD:

3 Q. Mr. Gantz, I'd like to begin with you in looking again
4 at the statute. And, I don't know, do you have it in
5 front of you?

6 A. (Gantz) I have it.

7 Q. Okay. And, if you could look at -- I'm actually going
8 to refer to a couple different sections of 374-G. I'm
9 going to refer to G:1, which is the "purpose" section,
10 and then I'm also going to refer to G:2. And, so,
11 those both appear on the first page of the statute. If
12 you look at G:1 and the "purpose", the very last
13 sentence, I'm just going to read it: "It is therefore
14 in the public interest to stimulate investment in
15 distributed energy resources in New Hampshire by
16 encouraging New Hampshire electric public utilities to
17 invest in distributed energy resources including clean
18 and renewable generation benefiting the transmission
19 and distribution system under state regulatory
20 oversight." Did I read that correctly?

21 A. (Gantz) Yes.

22 Q. Can you just briefly tell us how you believe the
23 Company has fulfilled the latter part of that
24 requirement, that it's benefiting -- that these

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- 1 projects are "benefiting the transmission and
2 distribution system under state regulatory oversight"?
- 3 A. (Gantz) Sure. I think, quite simply, the fact that
4 we've identified benefits in the transmission and
5 distribution component of the direct cost analysis just
6 satisfies that on it's face. So, I think it meets that
7 purpose on it's face. More broadly, however, I think
8 -- I think we need to read the purpose from the broader
9 concept of "where is this going and where are we going
10 to get in the future?" And, you know, there I think
11 the DER initiatives are not simply the individual
12 projects, but potentially where is this going to help
13 get the state, in terms of developing alternatives,
14 moving in a different direction, you know, establishing
15 a process that "potentially" will lower the future
16 investments needed for distribution and transmission by
17 putting investments in alternative processes, such as
18 energy efficiency and renewable resources.
- 19 Q. And, if you look at 374-G:2, I, Subsection (b), do you
20 see the definition of "distributed energy resources"
21 there?
- 22 A. (Gantz) Yes.
- 23 Q. And, the last part of the definition, I'm just going to
24 read the very last phrase of that section, my

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1 understanding is it defines what could be included as a
2 distributed energy resource, and the end says "as part
3 of a strategy for minimizing transmission and
4 distribution costs as provided in RSA 374-F:3, III."

5 Do you see that?

6 A. (Gantz) Yes.

7 Q. And, are you familiar that that reference to 374-F is
8 to language that states "however, distribution service
9 companies should not be absolutely precluded from
10 owning small-scale distributed generation resources as
11 part of a strategy for minimizing transmission and
12 distribution costs"?

13 A. (Gantz) Yes.

14 Q. You're familiar with that section?

15 A. (Gantz) Yes.

16 Q. Does Unitil have a strategy for minimizing transmission
17 and distribution costs?

18 A. (Gantz) The short answer is "yes." And, I think that
19 the strategy is embedded in the Company's way of
20 planning and designing and building its distribution
21 system. We don't own transmission, so our strategy
22 there is the cost-effective procurement of necessary
23 transmission resources to meet the needs of our
24 customers. And, DER now is an additional supplemental

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1 component to that strategy. You know, we are looking
2 at Smart Grid, the Time-of-Use Pilot is an example, the
3 two projects that we have on the table here are part of
4 a strategy of looking at alternatives to the
5 traditional approach of planning distribution and
6 transmission, as a way of potentially achieving a more
7 cost-effective future for our customers.

8 I don't view this language as limiting
9 the consideration to simply T&D benefits. You know, in
10 fact, a significant portion of the benefits of the
11 alternatives in DER are for displacing of generation
12 and avoidance of generation. But I think it's a
13 reminder to us that, you know, that DER needs to stand
14 as a part of the strategy, the long-term strategy, to
15 minimize costs to customers and specifically to try and
16 minimize T&D costs.

17 Q. And, are you familiar with the New Hampshire statute,
18 primarily 378:38, that requires the submission of what
19 we refer to as "Least Cost Integrated Resource Plans"
20 to the Commission?

21 A. (Gantz) Not in detail, but, in general terms, yes.

22 Q. And, does Unitil have to submit such a plan for its
23 distribution system?

24 A. (Gantz) It's my understanding that we have a limited

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1 reporting responsibility under the current statute, in
2 large measure because we don't have ownership of
3 generation.

4 Q. And, would you say that your proposals under 374-G are
5 consistent with the plans that you provided under
6 378:38?

7 A. (Gantz) I haven't looked at that yet. I'm not sure
8 what the timing of those filings are, and whether they
9 -- whether the last filing predated the, you know, this
10 filing. I would say, going forward, what we provide,
11 in terms of least cost planning, is going to need to be
12 consistent with and incorporate what we're doing in the
13 DER framework. And, specifically, energy efficiency is
14 another example, that specifically will need to be
15 factored in.

16 Q. Generally, would you say that these proposals, at a
17 minimum, wouldn't be inconsistent with your integrated
18 resource plans that you filed?

19 A. (Gantz) I'm sorry, I didn't hear the question.

20 Q. At a minimum, would you believe that or do you believe
21 that the projects you propose under 374-G at least
22 aren't inconsistent with the -- aren't inconsistent?

23 A. (Gantz) They are not inconsistent.

24 Q. Are not inconsistent?

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1 A. (Gantz) That's correct. I agree with that.

2 Q. You testified earlier today, and it's also described in
3 your direct prefiled testimony, which I believe is
4 Exhibit 3, that Unitil is proposing a two-stage review
5 process, is that correct?

6 A. (Gantz) Yes.

7 Q. And, I want to direct you actually to Mr. McCluskey's
8 testimony that hasn't yet been marked. Do you have a
9 copy of that with you?

10 A. (Gantz) Yes, I do.

11 MS. HATFIELD: And, I don't know if the
12 Commission wants to give it a number now, I think it's
13 probably the next thing in line. But I can refer to it
14 without a number.

15 MS. AMIDON: I can provide copies to the
16 stenographer and the Clerk at this time, if you want to
17 mark it for identification.

18 CMSR. BELOW: Well, let's go ahead and
19 mark Mr. McCluskey's testimony as "Exhibit 8".

20 (The document, as described, was
21 herewith marked as Exhibit 8 for
22 identification.)

23 BY MS. HATFIELD:

24 Q. And, Mr. Gantz, if you could turn to Page 8 of Mr.

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1 McCluskey's testimony please.

2 A. (Gantz) Yes.

3 Q. And, if you look, starting -- there's a question to Mr.
4 McCluskey on Line 12, where he begins to discuss the
5 "two-stage framework", do you see that?

6 A. (Gantz) Yes.

7 Q. And, then, starting on Line 15, Mr. McCluskey describes
8 Staff's understanding of the process that Unitil would
9 go through. And, I just wanted to read that to you,
10 because I want to make sure that you agree with Staff's
11 characterization. "In stage one, UES would file with
12 the Commission, prior to making actual investments, a
13 detailed description of each proposed DER project along
14 with information needed to satisfy the public interest
15 test included in RSA 374-G. The Commission would then
16 decide whether each project as presented satisfies the
17 public interest test. If the Commission finds that a
18 particular project is in the public interest, UES would
19 be authorized to proceed to stage two, which involves
20 filing a request to recover the DER investments once
21 incurred. As we understand the Company's proposal, a
22 public interest finding would not guarantee cost
23 recovery but simply authorize UES to proceed to stage
24 two without putting the Company at risk that the

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1 investment would fail to meet the public interest
2 test." Do you agree with Staff's description of the
3 Company's two-stage proposal?

4 A. (Gantz) Yes.

5 Q. Specifically, I want to call your attention to language
6 on Page 8, Line 21, where Staff is saying that, in
7 stage two, Unutil has to "[file] a request to recover
8 the DER investments once incurred." Is that the
9 Company's proposal?

10 A. (Gantz) Yes. But, and the "but" is I think a fairly
11 solid point, but it is something where different
12 parties I think have different positions. Our proposal
13 was for a fully reconciling rate recovery mechanism,
14 similar to what we've used in other cases, where we
15 would establish at the front end a rate based upon a
16 forecast. Again, this would only be for DER projects
17 that had been approved. But it would be a forecast of
18 the costs that would be incurred in the rate period.
19 And, as each month went along, the Company would then
20 book, as either actual expense for expenses incurred,
21 or, more importantly, for investments, it would only
22 book a return on investments for projects that were
23 used and useful and had been placed into service. But,
24 under that proposal, one, you know, and I think this is

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1 a potential concern of Staff and the OCA, that the
2 point that, when that rate goes into effect, it's based
3 upon estimates. If the project is delayed, for
4 example, the Company might potentially be collecting
5 funds from customers prior to when the investment was
6 actually in service.

7 And, my response to that is, yes, that
8 is true, however, the Company never books the cost into
9 the mechanism until a project is actually completed.
10 And, if there is a period where there's an overrecovery
11 under the reconciliation mechanism, that overrecovery
12 would be returned subsequently to customers with
13 interest.

14 So, you know, my argument is that it
15 still satisfies the requirement. The Company does not
16 recover costs prior to when they were actually
17 incurred, but it is doing it through the mechanism of
18 the reconciliation charge. And, I think one of the
19 Staff's concerns, and potentially OCA's concern, was
20 what does that, you know, what does that mean?
21 Wouldn't it be better to not have anything in rates,
22 even on an estimated basis, prior to when an investment
23 comes, you know, goes into service?

24 So, I think it's a legitimate point of

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1 concern. We think our proposal does address that
2 issue. We don't think it violates the Commission's
3 principles, but it's an important factor to be aware
4 of.

5 Q. So, you're making a decision, as I think you do in your
6 rebuttal testimony, between collecting the DERIC
7 charge, as you proposed it, versus booking the cost?

8 A. (Gantz) Yes.

9 Q. So, you're making a collection versus booking
10 distinction. But, from a ratepayer perspective, why
11 does that matter to ratepayers?

12 A. (Gantz) Well, we use that technique already in, for
13 example, in the context of, you know, of reconciling
14 charges, where, you know, we don't know that we're
15 going to be spending expenses in particular months,
16 and, you know, under the external delivery charge or
17 under the -- the SBC is a little different. But, you
18 know, we don't know that we're actually going to be
19 incurring expenses. So, it could -- it has happened at
20 certain points where we don't incur the expense, yet we
21 are collecting something in rates from customers for
22 that. But that's taken care of in the reconciliation,
23 because, if there is a -- if you want to say the
24 customer might be prepaying a but for some cost, if

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1 that cost doesn't occur, they get paid back with
2 interest. So, we distinguish between the accounting,
3 where the Company does not account for a cost until
4 it's actually entitled to get that cost recovered,
5 versus the rate mechanism, which has a reconciliation
6 feature. The benefits of the rate mechanism is rate
7 stability, predictability, you, you know, avoid large
8 jumps one way or the other, because you're doing it
9 based upon estimates. But it's -- if there are
10 discrepancies between estimates and actual, they will
11 get taken care of in the reconciliation process, with
12 interest.

13 Q. And, in your rebuttal, I believe you state, on Page 4,
14 around Line 24, that one of the purposes of the DERIC
15 proposal is that it "[addresses] the Company's concern
16 for a contemporaneous investment recovery", is that
17 correct?

18 A. (Gantz) Yes.

19 Q. But, would that not mean that the Company would be
20 recovering costs for expenses that have not yet been
21 incurred or for capital that's not yet in service to
22 customers?

23 A. (Gantz) No. Again, I view it as the -- the accounting
24 process is the bedrock. That the Company is not going

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1 to be booking as a cost anything related to a project
2 that's not completed and used and useful in the public
3 service. So, you know, I'd say the accounting
4 provisions are the ones that govern. And, the rate
5 mechanism is a -- is a convenient mechanism for the
6 benefit of the customers that simply allows it to be
7 administered efficiently and with a minimum of
8 confusion to customers.

9 Q. In Mr. McCluskey's testimony, on Page 18, at Line 18,
10 he states "UES's proposal will not only" -- excuse me,
11 "will result not only in the elimination of regulatory
12 lag for DER investments but also the premature recovery
13 of certain costs, if only temporarily." Do you agree
14 with that statement?

15 A. (Gantz) No, I don't. I don't, for the reasons I think
16 I've explained. You know, we view the accounting
17 process as the thing that's really determinative.

18 Q. Also, in your rebuttal, you did discuss the possibility
19 of some other type of mechanism, is that correct?

20 A. (Gantz) Yes.

21 Q. And, I think you talked specifically on Page 5 about
22 the possibility of multiple rate increases over the
23 course of one year, is that correct?

24 A. (Gantz) Yes.

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1 Q. And, then, earlier today I think you testified that a
2 step adjustment type mechanism might be able to work as
3 an alternative to the DERIC, but I think you raised
4 certain issues that would need to be addressed in the
5 step adjustment mechanism?

6 A. (Gantz) Yes.

7 Q. And, are you aware, actually, in Mr. McCluskey's
8 testimony he analogized what they're calling the step
9 adjustment type of mechanism to other mechanisms that
10 the Commission usually -- excuse me, currently uses,
11 such as those for the Bare Steel Replacement Program of
12 the gas -- of at least one gas utility, do you recall
13 that?

14 A. (Gantz) Yes.

15 Q. And, he also makes reference to a mechanism that is
16 used for some water companies, do you recall that?

17 A. (Gantz) Yes.

18 Q. And, are you aware of an order that the Commission
19 issued in a water docket late last year, where they
20 approved another type of mechanism?

21 A. (Gantz) Well, I wasn't till this morning, when somebody
22 gave me a copy.

23 Q. And, have you had a chance to look at that order?

24 A. (Gantz) Yes, I did have a chance to take a look at the

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1 description of the mechanism that was included in the
2 Commission's order.

3 MS. HATFIELD: Commissioners, I'd like
4 to ask Mr. Gantz a few questions about this order. I
5 don't intend to put it in the record, but I did make
6 copies of the pages I'm going to be referencing for the
7 Commissioners.

8 CMSR. BELOW: Okay.

9 (Atty. Hatfield distributing documents.)

10 CMSR. BELOW: Of course, another order
11 of the Commission, official notice could be taken of it
12 without making it an exhibit. Go ahead.

13 MS. HATFIELD: Thank you.

14 BY MS. HATFIELD:

15 Q. Mr. Gantz, are we both looking at Order Number 25,019?

16 A. (Gantz) Yes.

17 Q. And, that's an order of the PUC in docket DW 08-098?

18 A. (Gantz) Yes.

19 Q. And, it's an order in a rate case of Aquarion Water
20 Company of New Hampshire?

21 A. (Gantz) Yes.

22 Q. And, it's an "Order Approving Settlement Agreement and
23 Permanent Rate Increase", issued September 25th, 2009?

24 A. (Gantz) Yes.

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1 Q. Could you please turn to Page 15 of the order?

2 A. (Gantz) I have it.

3 Q. Just going to read from that Section G. Is that titled
4 "Water Infrastructure and Conservation Adjustment
5 Charge Pilot Program"?

6 A. (Gantz) Yes.

7 Q. The third line down, I'm just going to start there and
8 read a little bit from this order: "The program would
9 be initiated by Aquarion filing a projected budget of
10 proposed projects on or before November 1 of each year.
11 The settling parties would have an opportunity to
12 comment on these projects and request a hearing. The
13 Commission would be asked to approve the listed
14 projects for inclusion in a WICA charge." That's
15 W-I-C-A.

16 "Aquarion would file all final project
17 costs with the Commission at least sixty days prior to
18 the proposed effective date of the WICA charge. The
19 settling parties propose the WICA charge go into effect
20 sixty days after the filing or no later than January
21 1st following Aquarion's filing, whichever is later.
22 The projects must be used and useful and in service by
23 the effective date of the proposed WICA. The settling
24 parties propose that, if further investigation is

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1 deemed necessary, the Commission approve the WICA
2 charge on a temporary basis and order that it be
3 reconciled once the final charge is determined. Once
4 the permanent WICA charge is determined, it will be
5 implemented on all bills issued after the date of such
6 order", and I'm going to stop reading there.

7 If you could also turn to Page 17, would
8 you accept subject to check that Page 17 is part of the
9 Commission's ordering section of that order. It's part
10 of their Commission analysis?

11 A. (Gantz) Yes.

12 Q. I'm just going to read, starting from the second
13 sentence: "The proposal appears to comply with RSA
14 378:30-a which prohibits the inclusion in rates of the
15 cost of utility assets not yet in service to customers.
16 WICA eligible assets will be used and useful in
17 accordance with 378:28 prior to their inclusion in a
18 WICA charge." Did I read that correctly?

19 A. (Gantz) Yes.

20 Q. I have just a few questions I wanted to ask you about
21 that, knowing that you just saw this order for the
22 first time this morning. Do you think that this type
23 of a mechanism might be something that would address
24 Staff's concerns and also meet the Company's needs?

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1 A. (Gantz) I'm not sure that I see this as meeting the
2 Company's objectives quite. As I indicated in rebuttal
3 and earlier today, a step adjustment mechanism we think
4 is an appropriate alternative to what we proposed in
5 the DERIC. But the three areas of concern we think we
6 would like to see addressed, we think it's important to
7 address: One would be the carrying charges from the
8 point in time that the investment goes into service and
9 the time that the rates go in. The second, and I'm not
10 sure how the WICA handles this, would be updating both
11 the cost calculation and the rate calculation for
12 factors that are closer in time, for example, the
13 capital structure, the debt cost, interest rates, and
14 sales factors. And, then, the third one being --
15 what's the third one? Oh. Being the level of O&M
16 expenses in the DER area that I think are going to be a
17 little bit different than what we've maybe seen in
18 traditional step adjustment mechanisms.

19 If those three factors are taken care
20 of, then I think -- I think the step adjustment would,
21 from the Company's standpoint, be fine. But those are
22 the three areas of concern. And, I would make a
23 distinction between the -- two distinctions. One is,
24 what we're trying to do with DER is done on a voluntary

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1 basis. And, one, you know, if you look at cast iron
2 replacement or if you look at kind of increasing the
3 replacement activity in water infrastructure, those are
4 maybe a little bit less voluntary and a little bit more
5 of a mandatory basis. So, there's a difference there.
6 And, then, also, we have a specific statutory framework
7 under RSA 374-G. And, I think part of that framework
8 is really trying to encourage this kind of activity.

9 So, I think there are two points of
10 difference maybe with the WICA and with cast iron
11 replacements that the Commission should factor into
12 determining what the best mechanism is going forward.
13 I think the overall concern, and the points that I've
14 raised with our concerns, and also with the LBR issue,
15 is, again, this is a voluntary program for utilities.
16 So, if the Commission wants to find ways to encourage
17 these types of voluntary investments to be looked at
18 and to be made, then I think it needs to make sure that
19 it eliminates and minimizing things that companies
20 might perceive to be financial disincentives.

21 Q. Looking back at that Aquarion order, on Page 17, the
22 Commission specifically references two statutes, and
23 finds that the WICA complies with them or comports with
24 them. And, those are "378:30", which the Commission

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1 states "prohibits the inclusion in rates of the cost of
2 utility assets not yet in service", and then "378:28"
3 they also cite. For all of the reasons you've already
4 testified to, is it your belief that your mechanism
5 meets those requirements of those other two statutes?

6 A. (Gantz) I haven't read the statutes recently. I'm
7 familiar generally with the concerns about investments
8 being used and useful prior to being reflected in
9 rates. I think our proposed DERIC addressed that, and
10 -- but perhaps that's also something that we need to
11 address on brief.

12 Q. And, in terms of an incentive, are you aware of the
13 section in 374-G, it's 374-G:5, IV, that states that
14 "The Commission may add an incentive to the return on
15 equity component as it deems appropriate to encourage
16 investment in distributed energy resources"?

17 A. (Gantz) Yes. We're very aware of that provision of the
18 statute. We've had lots of discussions about that at
19 the Legislature, we talked about it internally, and
20 made a determination that in this -- in this filing we
21 would not seek any incentive in the rate of return.

22 Q. Turning to another issue, which relates to the
23 participating customer contribution, starting on Page 7
24 of your original direct testimony, you are there

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1 discussing the level of investment that the utility
2 might make in a customer-owned DER project, do you see
3 that? That's at Line 23, on Bates Page 009?

4 A. (Gantz) Yes.

5 Q. And, you later state that the goal of this analysis
6 that the Company undertakes is "to achieve a reasonable
7 allocation of [the] costs and benefits and [also] an
8 appropriate sharing of risks and responsibilities"
9 related to a project. Do you recall that?

10 A. (Gantz) Yes.

11 Q. Can you discuss why you believe that the two projects,
12 the Stratham project and what we're calling the "SAU
13 project", do have that appropriate sharing of costs,
14 benefits, risks and responsibilities?

15 A. (Gantz) Yes, I think the bottom -- the bottom line in
16 these cases was the perception that, you know, those
17 projects as proposed would not go forward without the
18 Company investments. They are municipal entities.
19 They're not going anywhere. You know, these are
20 20-year investments. You know, we're confident that
21 the customers aren't going anywhere. You know, that
22 helps in terms of the risk of the projects. We think,
23 in both cases, they're both a little bit different now
24 in terms of how they're structured, but we think

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1 there's a balance, in terms of the obligations. For
2 example, SAU 16, they take a much higher level of
3 financial responsibility for the project and a higher
4 level of O&M responsibility for the project. The
5 investments that we're putting into it is only a
6 portion of the project. You know, that helps,
7 obviously, in supporting the project, and in increasing
8 the value to the non-participants.

9 In the case of Stratham, I think the
10 restructuring that we made in the project, which
11 significantly reduced the value to the Town, and by
12 allowing the acquisition of the Investment Tax Credit,
13 significantly decreased the cost to non-participants.
14 You know, those reflect an appropriate balance. And,
15 again, on the O&M side, you know, they have
16 responsibility over the building, the structures, you
17 know, keeping them clear and clean, where we have the
18 responsibility over the electrical equipment and
19 ultimately the inverter. I think that reflects, you
20 know, an appropriate balance that takes those factors
21 into account.

22 MS. HATFIELD: Mr. Chairman, I thought I
23 would pause now. I know it's been two hours for the court
24 reporter. I do have probably at least another half an

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1 hour for this panel.

2 CMSR. BELOW: Okay. Then, let's take a
3 break for ten minutes, and resume at 3:00. We'll be in
4 recess.

5 (Whereupon a recess was taken at 2:51
6 p.m. and the hearing reconvened at 3:09
7 p.m.)

8 CMSR. BELOW: Come out of recess and
9 resume the cross-examination of the panel by Ms. Hatfield.

10 MS. HATFIELD: Thank you, Mr. Chairman.
11 I have some questions about cost-effectiveness. And, I'm
12 going to be referring to a document that Staff just filed
13 on February 25th. So, I don't know if the Commission
14 would like to have that marked now?

15 CMSR. BELOW: Sure. I'm sorry, which is
16 the document?

17 MS. HATFIELD: It's a letter filed by
18 Suzanne Amidon on February 25th, and it includes
19 worksheets related to the Stratham project that I believe
20 is Staff's revised benefit/cost analysis.

21 CMSR. BELOW: Okay. We'll mark that for
22 identification as "Exhibit 9".

23 (The document, as described, was
24 herewith marked as Exhibit 9 for

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1 identification.)

2 MS. HATFIELD: Thank you.

3 BY MS. HATFIELD:

4 Q. Mr. Gantz, as I just said, I have a few questions for
5 you related to the Company's cost/benefit analysis, and
6 also a few specifically related to the Stratham
7 project. So, if you could refer both to Exhibit 9 that
8 was just marked and also to your Exhibit 5, which I'm
9 looking at the Updated Schedule GRG-2?

10 A. (Gantz) Yes. I have them, yes.

11 Q. If I understand Staff's position correctly, it is that
12 there should not be an additional CO2 reduction value
13 as the Company has proposed. Do you understand that as
14 well?

15 A. (Gantz) Yes.

16 Q. And, I think the Staff's reason for that is that the
17 Synapse study, in their view, incorporates CO2
18 reduction benefits, is that correct?

19 A. (Gantz) Yes. And, I think the distinction is, there
20 are -- there are CO2 costs that have been internalized
21 by being reflected directly in costs, specifically, the
22 avoided energy costs in the New England markets, that
23 internalized CO2 costs have already been factored.
24 And, the additional CO2 value that Dr. Axelrod

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1 testifies to can be characterized as "additional value"
2 for CO2 reduction that has not yet been internalized.
3 So, it's therefore an externality or external factor.
4 And, so, I think it's, you know, there are often
5 discussions among economists about internal costs and
6 external costs. And, I think what our discussions in
7 technical sessions have helped to clarify is that we're
8 in agreement with Staff, in terms of the internalized
9 CO2 costs, and they are in the avoided energy costs.
10 But we think there is merit in terms of factoring in
11 environmental externalities, i.e, those that are not
12 internalized at this point, including a value for CO2.
13 And, that, in our Updated Schedule GRG-2, that
14 externalized CO2 value is reflected down below as a
15 non-direct benefit.

16 Q. I think, if I understand Staff's position on another
17 issue, I want to see if you agree with me, I think they
18 oppose the inclusion of a dollar value in the
19 cost/benefit test for economic benefits of projects.
20 Do you understand that to be the case?

21 A. (Gantz) Yes.

22 Q. And, I believe Mr. McCluskey, in his testimony, he
23 stated that he recommends that the Commission only
24 consider any economic benefits of a project

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1 "qualitatively rather than quantitatively". Do you
2 remember that?

3 A. (Gantz) Yes.

4 Q. And, what's the Company's response to how would the
5 Commission consider it "qualitatively"?

6 A. (Gantz) Well, we think, and have suggested in our
7 numbers, that it should be factored in quantitatively.
8 We think the method that Dr. Axelrod has provided is a
9 very good method, used for many similar purposes. But
10 what we have done, on Updated Schedule GRG-2, is we've
11 separated out those non-direct benefits, and then
12 looked at different weightings that could be provided
13 in those benefits, to provide additional information to
14 the Commission about what the impact of those benefits
15 are.

16 We do think his analysis, in terms of
17 the full value, is supportable. So, there is an
18 argument that one could factor those in at 100 percent.
19 You know, you can see the impact of that on the
20 cost/benefit ratio. But, even if one were to say, you
21 know, weight the fact that they're external costs or,
22 you know, maybe less precise on things that are
23 quantitative dollars and cents, and therefore provide
24 some discounting on those benefits, they still have a

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1 significant impact on the benefit/cost ratio for the
2 project.

3 Q. And, the fact that you have shown that, as you just
4 said, the three different potential weightings of the
5 non-direct benefits on this schedule, the 25 percent,
6 the 50 percent, or the 100 percent, does the Company
7 have any preference or are you making a recommendation
8 to the Commission on what weighing to give the
9 non-direct benefits?

10 A. (Gantz) Well, I think we support Dr. Axelrod's
11 analysis, and think that it's correct and accurate, and
12 demonstrates how significant the economic benefits of
13 developing this industry will be to the state. And, I
14 think, given what we show on Updated Schedule GRG-2, I
15 think that should be sufficient to convince the
16 Commission that this project meets the public interest
17 test.

18 In a future proceeding, dealing with a
19 different project, the Commission may, you know, there
20 may be a different evaluation that might come into
21 play. I already mentioned the issue of the fact that
22 this project is a municipal project, as opposed to a
23 private entity. You know, there are different factors
24 that could come into play, in terms of how one wanted

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1 to view the balancing of those factors.

2 Q. And, in terms of trying to maximize the economic
3 benefit of a project, would it be possible for Unitil
4 to try to focus its procurement of either equipment or
5 supplies or labor to businesses within its service
6 territory or at least within the State of New
7 Hampshire?

8 A. (Gantz) Well, there's a trade-off between restricting
9 the potential bidders on a project and the
10 cost-effectiveness, or potentially even the
11 feasibility, depending upon the technology. So, our
12 preference is not to -- not to require any specific
13 procurement test, because, ultimately, we want to get
14 the lowest price we can, and to view industry
15 development as something that will take place over
16 time.

17 If we send out RFPs for projects, and
18 all we're getting or the best bids we're getting happen
19 to be across the state line, over time, that demand for
20 that type of expertise should start to generate some
21 interest among businesses inside the state line. So,
22 that economic development, as an aspect of DER projects
23 overall, is something that may take some time to
24 develop. And, so, we would argue against a bright line

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1 or a specific requirement on in-state procurement,
2 because we think that undercuts the economics. But we
3 clearly think that, over time, the more of these
4 projects are done, the more we are likely to get an
5 internal in-state business development starting to take
6 some of these projects on.

7 Q. Has the Company committed to using RFPs for projects
8 that are funded through this mechanism?

9 A. (Gantz) Where it makes appropriate sense for the case
10 at hand, I think the answer is "yes." There may be
11 some projects, we've been contacted, for example, from
12 people who have proprietary technology, where a
13 competitive bid wouldn't -- would not be necessarily
14 the right way to go. But, in other cases, where it's
15 essentially a commodity product, something that can be
16 procured from multiple vendors, in that case, we would
17 have the preference to go with competitive
18 solicitations.

19 Q. Looking --

20 A. (Palma) I had a comment, if I could back up to your
21 question about procurement. Could you ask that
22 question again? I might be able to shed some light.

23 Q. Well, in terms of trying to maximize the potential
24 economic benefit from a project, and I believe the

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1 statutory language is "within the State of New
2 Hampshire", we were wondering if the Company could, you
3 know, sort of narrowly define or, when you issue an
4 RFP, if you're looking for labor or equipment, could
5 you limit an RFP to within the state? But I think Mr.
6 Gantz has said, you know, "obviously, there's a
7 trade-off there between the costs or the potential bids
8 that you would get."

9 A. (Palma) Well, from a practical standpoint, to my
10 knowledge, there are no manufacturers of PV panels in
11 New Hampshire. There's a company that makes components
12 for the panels, but not the actual panels. And, the
13 same for inverters. And, I can't speak to the racking
14 systems. But there are laborers in-state and
15 installation companies that are based in-state. But
16 most of these companies may have a presence in this
17 state, but they work all over New England. And, so,
18 it's going to be very difficult to identify, you know,
19 what is an in-state company. Because they're all --
20 the New England states, as you know, are pretty small.
21 Companies go from Maine to New Hampshire to do
22 projects, and vice versa.

23 Q. Thank you. Turning back to Schedule GRG-2, and I have
24 a few specific questions about Stratham. Starting at

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1 the top, the capacity factor that you're using now is
2 14.8 percent, is that correct?

3 A. (Gantz) Yes.

4 Q. I'm wondering if you could just speak briefly to how
5 the Company arrived at that capacity factor?

6 A. (Palma) I took -- the original capacity factor was done
7 by the original contract proposal by a company, I
8 believe, Solar Market. And, they used, basically, sort
9 of a model based on, you know, how many hours they
10 thought the system -- they used four and a half hours
11 per day as the -- and basically divided by 24 as the
12 capacity. I used a product called RETScreen,
13 R-E-T-S-c-r-e-e-n, as it sounds, which is a software
14 product of Natural Resources Canada. It's a pretty
15 well-known, internationally well-known model to be
16 used. I used that model for I believe whatever the
17 closest weather station was, I think it was -- it may
18 have been Portsmouth. And, I put in, you know, basic
19 parameters to get what would a typical PV system, and
20 picked a typical -- I think I used BP Solar, it really
21 wouldn't make that much of a difference in regards to
22 which panels I used. And, I put in some assumptions
23 for efficiencies on the equipment and the inverters and
24 came out with that 14 and a half percent. I then went

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1 back and I used PV Watts 1, which is a product of NREL,
2 National -- somebody help me here?

3 CMSR. BELOW: Renewable Energy Lab.

4 CONTINUED BY THE WITNESS:

5 A. (Palma) -- Renewable Energy Laboratory, which is a lot
6 more simplified. So, I basically put in the same
7 parameters on a more simple version, and it came out
8 very close to the same number. So, I felt that's a
9 pretty -- I'm pretty confident, from a model
10 standpoint, those are the numbers.

11 BY MS. HATFIELD:

12 Q. And, do you know if that's comparable to other
13 projects, either in the state or in the region?

14 A. (Palma) I don't know specifically. That's a comparable
15 number to be used for modeling. As far as actual
16 results, I can't speak to that.

17 Q. In the revised proposal for Stratham, it contemplates
18 that Unitil will own the project. You testified to
19 that, correct?

20 A. (Palma) Yes.

21 Q. So, the project would be on the utility side of the
22 meter?

23 A. (Palma) Yes.

24 Q. How did you determine the 20-year -- excuse me, strike

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1 that. Why does -- does the Company still propose to
2 turn the system ownership over to the Town after 20
3 years?

4 A. (Palma) We do. Basically, 20 years came from the life
5 expectancy of the panels. Panels typically last 20 --
6 they could last 40 years. But, you know, in normal
7 terms of depreciation and panels would depreciate
8 slightly, we used 20 years as a time where we turn the
9 system over to the Town for a basic price, we'll sell
10 the system to the Town for one dollar at that time.
11 And, they're agreeing to that. And, they will also
12 take over maintenance. So, electrically, we'll have to
13 switch the connection from being tied to our side of
14 the meter, and they will have to have it tied to their
15 side of the meter.

16 Q. And, looking again at Exhibit 5, which is Updated
17 Schedule GRG-2, as well as Exhibit 9, Mr. Gantz, I just
18 wanted to ask you a few questions about these two
19 exhibits, having them side-by-side. Do you have both
20 of those?

21 A. (Gantz) Yes.

22 Q. Earlier, you ran us briefly through these, and I think
23 you said that "most of the numbers are pretty close
24 between Staff and the Company", is that right?

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 A. (Gantz) Most of the numbers, where there are
2 differences, are explainable.

3 Q. And, one where you actually pointed out a major
4 difference is on the REC value, is that correct?

5 A. (Gantz) Yes.

6 Q. Can you just briefly discuss why there's such a
7 difference between the Company's value and Staff's
8 value?

9 A. (Gantz) Well, I can't, and Mr. McCluskey can explain
10 how Staff derived their value better than I can, but I
11 can say that we based our value on 75 percent of the
12 projected ACP. We don't know that -- you know, we know
13 that that may not be a good indicator of the market
14 conditions today. But we also know that that's going
15 to change over time. And, it's a factor that can be
16 changed by future actions of this Commission, in terms
17 of setting portfolio levels and setting ACP levels.
18 So, trying to come up with a value that is a reasonable
19 estimate of, you know, either the future cash value of
20 the RECs or the future value to society of the RECs, we
21 felt that 75 percent of the ACP was a reasonable
22 estimate.

23 Q. And, the other major difference between Staff's
24 analysis that results in the benefit/cost ratio of 0.65

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 is that they don't include any of the non-direct
2 benefits, is that correct?

3 A. (Gantz) That's the second major benefit. However, the
4 other difference is, Staff has devalued or discounted
5 the --

6 (Court reporter interruption -
7 extraneous noise from the speakerphone.)

8 CMSR. BELOW: Could you just hold on,
9 suspend a moment.

10 (Brief off-the-record discussion ensued
11 between Cmsr. Below and Witness
12 Axelrod.)

13 CMSR. BELOW: Okay. We'll start back
14 up.

15 (Court reporter requesting Witness Gantz
16 to repeat the end of his answer.)

17 CONTINUED BY THE WITNESS:

18 A. (Gantz) Staff discounted the energy benefits by
19 10 percent.

20 BY MS. HATFIELD:

21 Q. Turning briefly to the issue of Lost Base Revenues,
22 Mr. Gantz, do you agree that that is only an issue if
23 the proposed project is on the customer side of the
24 meter?

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 A. (Gantz) Yes.

2 Q. So, in this case, you'd only -- or, would you be
3 seeking LBR for any of these projects?

4 A. (Gantz) There would be LBR associated with the SAU 16
5 project.

6 Q. And, if the Commission allows the Company to have LBR,
7 would it be zeroed out at the time of a future base
8 rate case?

9 A. (Gantz) I believe that would be the case, because you'd
10 be updating the sales figures at that time for actuals.
11 What I'm puzzling over, I haven't thought this through
12 yet either, but our proposal, even under a step
13 adjustment, was to use updated sales figures in the
14 rate calculation. But I think -- I'm going to conclude
15 that that's not going to affect -- that in and of
16 itself doesn't affect the LBR calculation, because
17 there was a change in the customer consumption that
18 creates the LBR, and that will still be the case.

19 But, in the context of a full base rate
20 case, where all factors are brought up-to-date with
21 respect to sales levels and cost levels, my expectation
22 is that LBR, essentially, as of the test year, will be
23 zeroed out. The other thing that could make an LBR
24 calculation moot were if revenue decoupling were

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 adopted in the context of a base rate case.

2 Q. I believe in your rebuttal testimony the Company
3 continued to advance a 30 percent factor for overhead
4 costs, is that correct? I believe that appears on Page
5 6 of your rebuttal, around Line 17.

6 A. (Gantz) Yes, I have that. I'd make a distinction, what
7 we have been proposing to include as part of the
8 investment cost is the actual costs incurred. When we
9 prepare the original filing, I check with our
10 Accounting Department, you know, in terms of estimating
11 -- estimating what the Unitil costs would be on a
12 project that involved supervision and oversight, but
13 not direct construction responsibilities. They said,
14 in general, those types of projects would have overhead
15 loading of approximately 30 percent. So, I use that as
16 an estimate. But, to a certain extent, that number is
17 affected by how the Company approaches capitalization
18 of overheads related to these projects. I've had a
19 subsequent calculation of the Accounting Department
20 based upon what we saw the Public Service Company PV
21 project, the way they handled that PV project. And,
22 also, given the nature of our involvement with
23 projects, we think it makes sense to look at a lot of
24 those expenditures, development of customer agreements,

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 you know, sending out an RFP, program activities,
2 regulatory approvals, as really expense-related
3 activities of the Company, as opposed to capitalized
4 activities of the Company. If we do that, then the
5 Accounting Department felt more comfortable with using
6 a 1 percent general overhead adder for things that
7 can't be directly documented. But it would cover
8 things like, you know, the Accounting Department and
9 the different things that have to come into play.

10 But, again, our goal was not to
11 predefine a specific number, but to recognize that this
12 would be actual numbers that would be booked to plant,
13 in accordance with the Company's normal plant and
14 investment and accounting procedures.

15 At this point, we believe that the
16 dividing line that we could move forward with is one
17 that said most of the activities in the DER area, you
18 know, Mr. Palma and myself and staff, for example, that
19 are working on these things, would be expenses. We'd
20 have minimal investments on the Company side that would
21 have to be added to that, and the estimate at this
22 point is that that would be 1 percent. So, those are
23 the numbers that I included in the updated schedule.

24 Q. So, if we look at Exhibit 5, this time at Updated

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 Schedule GRG-1, --

2 A. (Gantz) Yes.

3 Q. -- and the "Estimated UES cost" at "1.55 percent", and
4 I believe, does that include general overhead there?

5 A. (Gantz) That includes general overhead of 1 percent,
6 plus three months of AFUDC, at the Company's current
7 AFUDC rate, which is 2.21 percent.

8 Q. I believe, in Mr. McCluskey's testimony, he recommended
9 that the Company should be required to file conditional
10 customer agreements for each project for future
11 proposals. Is the Company willing to agree to that?

12 A. (Gantz) We agree in principle, but we think there are
13 going to be circumstances where having a definitive
14 customer agreement at that point is not possible or may
15 not be appropriate. It's hard to imagine all of the
16 hypothetical situations that can arise. But we
17 understand what the concern of the Staff is, and that
18 is the need to have a specific, definitive structure
19 and cost information, in order to make a good
20 evaluation of the projects. And, you know, I think our
21 experience in this proceeding is that what we filed
22 originally were memorandums of understanding, perhaps
23 they weren't as detailed as we now think they probably
24 need to be in future proceedings. And, so, we think

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1 that the closer we can get to having definitive signed
2 customer participation agreements, the easier it makes
3 the evaluation. So, we can certainly agree with the
4 intent of the Staff in that recommendation, but we know
5 there are going to be cases where there will be
6 exceptions.

7 Q. Also in his testimony, Mr. McCluskey stated that
8 several factors included in the statute, including
9 energy security benefits, reliability, safety, only
10 received, in his words, a " cursory" or "conclusory
11 discussion by the Company". What's your response to
12 that?

13 A. (Gantz) We addressed that in the rebuttal testimony,
14 which is Exhibit 4, in addition to Schedule GRG-R-1 and
15 R-2, we had a third schedule, which was a table that
16 simply summarized or assesses the benefits in each of
17 the 374-G guidelines. And, as we said in the rebuttal
18 testimony, we think any future project is going to have
19 at a minimum a Schedule 1, a Schedule 2, and a Schedule
20 3 that walks through all of the different guidelines
21 and addresses them.

22 So, we think the Staff is correct, each
23 of these areas need to have some specific attention to
24 it. As Dr. Axelrod testified, some of them are areas

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 that can't be quantified. But I think it's important
2 for the Commission to have this kind of information so
3 that these areas can be evaluated.

4 Q. I believe that Mr. Axelrod earlier testified that, and
5 I'm paraphrasing, but that "one of the weaknesses in
6 Staff's analysis was that Mr. McCluskey focused very
7 heavily on just the first criteria", but I think Mr.
8 Axelrod said "didn't consider all nine". Is that the
9 Company's position?

10 A. (Gantz) Yes. And, if Dr. Axelrod is still on, he could
11 address your question in more detail, if you want.

12 A. (Axelrod) I am on.

13 Q. I really just want --

14 A. (Axelrod) Hello.

15 A. (Gantz) Yes.

16 Q. Actually, Mr. Gantz, I just wanted to ask if that was
17 consistent with your view of one of the weaknesses in
18 the Staff's analysis, that it focuses too much on that
19 first --

20 A. (Gantz) Yes. I would add, if you look carefully at the
21 guidelines, I think it's fair to say the Staff focused
22 on Guideline (a) and (c). (a) refers to the "benefits
23 to utility ratepayers" and (c) is "costs and benefits
24 to participating customers". So, I think that those

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 are the two that kind of go together, in terms of the
2 direct economic costs, and then you need to look at
3 participants and non-participants discretely.

4 MS. HATFIELD: Thank you. I have no
5 further questions.

6 CMSR. BELOW: Okay. Thank you.
7 Ms. Amidon.

8 MS. AMIDON: Thank you. Good late
9 afternoon.

10 BY MS. AMIDON:

11 Q. Mr. Gantz, do you agree that the statute requires a DER
12 filing to include a copy of customer contracts or
13 agreements to be executed as part of the program?

14 A. (Gantz) It does, which is why we included the
15 memorandums of understanding in our original filing.
16 We felt that was a filing requirement.

17 Q. But I'm thinking of something that Mr. Palma said
18 during break, and contracts usually are more than one
19 page, they usually define responsibilities to parties,
20 the risks each bear, the liability, the costs and the
21 benefits, is that correct?

22 A. (Gantz) Yes. And, that's why I made the distinction
23 earlier, in terms of the memorandum of understanding
24 versus a definitive customer participation agreement.

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 Q. So, you agree that, where there are customers
2 participating in a DER project, a customer
3 participation agreement should be filed, consistent
4 with the statute?

5 A. (Gantz) Well, yes, I would. But I would make a
6 distinction in cases where a definitive executed
7 customer participation agreement is not feasible or
8 appropriate, given the program that's being proposed,
9 we believe something in the nature of a memorandum of
10 understanding or a formal contract or a formal tariff,
11 if the programs are proposed in the form of a tariff,
12 would satisfy that requirement of the statute.

13 Q. You do agree, though, that an analysis of the risks and
14 liabilities and benefits is advanced by having a
15 contract which spells out those responsibilities,
16 liabilities, and benefits?

17 A. (Gantz) Yes.

18 Q. Did I understand your testimony to say that, other than
19 DER projects including proprietary technology, that the
20 Company would utilize a competitive bidding process to
21 purchase equipment and materials?

22 A. (Gantz) I gave the example of proprietary technology as
23 one where competitive bidding wouldn't be appropriate.
24 And, if there are other cases where it wouldn't be

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 appropriate, off the top of my head I can't think of
2 them at this point, but, clearly, if we are in a
3 position of proceeding with something on a
4 non-competitive basis, we'll have to document and
5 validate and explain that to the Commission in our
6 filing. I think that's an important factor.

7 Q. Okay. In Staff's testimony, I believe, we stated the
8 support for the Company's proposed two-step review of
9 the DER projects, provided that the projects that have
10 not started within one year of the date of the
11 Commission order must be resubmitted for approval.
12 Does the Company support that recommendation?

13 A. (Gantz) Yes, we do.

14 Q. And, this is again for you. Please clarify whether the
15 Company is proposing to use an updated cost of capital
16 just for cost recovery purposes or for the economic
17 evaluation as well?

18 A. (Gantz) No, we think it should be used for both.
19 Clearly, the economic evaluation should be using the
20 best estimates that are available for the costs through
21 time. So, those should reflect the most up-to-date
22 values as well.

23 Q. Thank you. Regarding the step adjustment that was
24 recommended by the Staff, which was designed, according

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 to Staff's model, to recover the actual costs of DER
2 projects, did the Company accept that recommendation?

3 A. (Gantz) With the qualification that we believe the
4 three items that I referred to need to be addressed,
5 yes, we would accept that.

6 Q. So, -- okay.

7 MS. AMIDON: Pardon me for one minute.

8 (Atty. Amidon conferring with Mr.

9 McCluskey.)

10 MS. AMIDON: Thank you.

11 BY MS. AMIDON:

12 Q. Would the carrying charge, in the Company's mind, apply
13 to just the investment or to the expenses as well?

14 A. (Gantz) We think it should apply to the time lag for
15 both investment and expenses. But there is an
16 additional consideration on expenses, in terms of the
17 fact that, in the second year -- well, expenses are
18 different, because, in a step adjustment, you will have
19 a base of expenses that will reflect one year. In the
20 subsequent year, those expenses would go to zero, and
21 you'll have a new base of expenses in the ensuing year.
22 So, the factor, the step adjustment factor, for the
23 expense component only, could actually go down in a
24 given year, if the expenses go down. And, I think what

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 that means is that, going through time, the issue of
2 carrying charges for expenses might become an
3 insignificant factor in a future year.

4 So, clearly, though, with the
5 investment, where each investment in a subsequent year
6 is an incremental investment, it's important to capture
7 that time lag. But, for the expenses, it's not as
8 important, because that expense, you know, once an
9 expense level gets built in, it won't, you know, the
10 carrying charges won't be a factor in future years. I
11 hope that -- I don't know if I've confused it or
12 explained it.

13 MS. AMIDON: Commissioner Below, with
14 your permission, I'd like Mr. McCluskey to follow up.

15 CMSR. BELOW: Very well.

16 MR. McCLUSKEY: Thank you.

17 BY MR. McCLUSKEY:

18 Q. My understanding of the Company's proposal with regard
19 to applying a carrying charge to the investment was to
20 eliminate the regulatory lag between the investment
21 being completed and the time that investment got into
22 rates. Is that a correct understanding?

23 A. (Gantz) Yes.

24 Q. Now, with regard to expenses, there's potentially the

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 same regulatory lag. The expense is incurred. You
2 seek to recover it. And, then, it eventually gets into
3 rates. So, our question is, do you intend to apply
4 some kind of carrying charge to the expenses to
5 eliminate the regulatory lag from incurrence to the
6 time it gets into rates?

7 A. (Gantz) Yes. It is our proposal to include a carrying
8 charge on the time lag between expenses and recovery in
9 rates. My earlier response was really simply trying to
10 elaborate that I think that may only be a first year
11 issue, and it may not be an issue in subsequent years,
12 depending upon the fluctuation in expenses. So, if
13 carrying charges on the investment piece is important,
14 the carrying charges on the expense-related piece may
15 really only be a first year issue and is of lesser
16 importance to the Company.

17 MS. AMIDON: Very good. Thank you.

18 BY MS. AMIDON:

19 Q. I wanted to just backtrack a little bit and talk about
20 overhead. Ms. Hatfield stole many of my questions, it
21 seems. But the one question I did have is, with
22 respect to Exhibit 5, where you used the 1.55 percent
23 for overhead, is this something that the Company
24 intends to use only for Stratham or is this an

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 adjustment that you're making to your economic
2 evaluation model going forward?

3 A. (Gantz) Based on the discussions I've had with the
4 Accounting Department, I would expect most projects
5 going forward to be -- to have a similar accounting
6 structure as the Stratham project. And, therefore,
7 there would be a minimal overhead factor added of
8 Company general overhead, at this point estimated to be
9 1 percent. And, in addition, there would be the AFUDC
10 factor, as I already indicated. And, I would say that
11 that is identical to at least our understanding of how
12 Public Service Company has accounted for their solar
13 project.

14 Q. Thank you. Earlier on, there was a discussion about, I
15 think it was -- the question was raised by Commissioner
16 Ignatius, regarding the difference with respect to the
17 benefit/cost analysis on Exhibit 5, which is your
18 updated economic analysis of the Stratham project, and
19 Exhibit 6, which was the December 21st revised model
20 analysis for the Stratham project. Do you recall that?

21 A. (Gantz) I do.

22 Q. Isn't it true that one of the reason, or perhaps even
23 the principle reason for the differences between
24 Exhibit 6 and Exhibit 5, is that the Stratham project

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1 was restructured, and Exhibit 5 depicts the economic
2 analysis for the restructured project, is that correct?

3 A. (Gantz) That is correct.

4 Q. And, Mr. Palma, when did the Company revise or
5 restructure that Stratham project?

6 A. (Palma) I can't pick the exact date, but it was after a
7 tech session --

8 (Court reporter interruption.)

9 BY THE WITNESS:

10 A. (Palma) I cannot pick an exact date, but it was after a
11 tech session we had on --

12 BY MS. AMIDON:

13 Q. Well, to help you out, given the lateness of the day,
14 would you agree that it was first explained in your
15 rebuttal testimony, which was filed with the Commission
16 on January 28th, I believe it should be 2010?

17 A. (Palma) Yes.

18 Q. And, without getting into the weeds, could you briefly
19 explain the differences between the Stratham project as
20 filed and the revised project, which led to a different
21 benefit/cost analysis?

22 A. (Palma) Sure.

23 Q. And, either of you can answer that question.

24 A. (Palma) I'll explain the nuts and bolts, and then

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 Mr. Gantz can explain the benefit/cost sides. The
2 original proposal was like a typical -- any typical PV
3 project, where the building owner, Stratham, would own
4 the project. They would have the system, they would
5 apply for net metering, which they would normally be
6 approved for, since the system was 40 kilowatts under
7 the net metering allowance. And, they would own it,
8 maintain it, and they would have -- they would receive
9 all the -- the kilowatt-hours would basically flow, if
10 you can envision, to their electric panel on that
11 particular building. They would have an inverter,
12 which converts the power from the solar PV system from
13 DC to AC, and then, from the inverter, it would be
14 flowed to the panel. They would respond to any
15 maintenance. If a panel was to stop working, it would
16 be their responsibility to contact, you know, the
17 installer or the manufacturer and deal with all those
18 maintenance issues. And, then, in year -- normally,
19 you would end up with a 10-year warranty, and, in the
20 beginning of year 11, roughly around that time, they
21 would have to pay to have an inverter replacement done.
22 They would be responsible to have the system checked
23 annually or be it any mechanism that they felt was
24 improper, to see that the system was actually

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1 performing as it was designed. That was the initial
2 proposal. And, what they couldn't take advantage of
3 were tax benefits, investment tax credit or any of the
4 depreciation benefits that's paid to the municipality.

5 A. (Gantz) And, I can follow up by talking about how that
6 affected the benefit/cost comparison. Being able to
7 capture ITC obviously reduces -- has an effect on
8 reducing cost.

9 Q. And, this is when -- I'm sorry to interrupt, but I just
10 wanted to clarify. This is on the restructured
11 project, correct?

12 A. (Gantz) Yes.

13 Q. Where the utility is taking ownership of the
14 facilities?

15 A. (Gantz) Yes.

16 Q. Thank you. I'm sorry.

17 A. (Gantz) So, it will capture the ITC and tax benefits
18 that Mr. Palma mentioned, a reduction in the value to
19 the customer by no longer being net metered. Instead
20 of getting a net metering benefit, now they're simply
21 getting a lease payment, which is at a lower level.
22 So, those were the key differences. And, those are
23 reflected in the difference between those two exhibits,
24 in terms of the benefit/cost analysis. But there are

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 other changes as well that reflected refinements that
2 we identified in the technical sessions with Staff.
3 One of those refinements is, in fact, doing a full net
4 present value revenue requirement analysis, which we
5 had not done previously. That was Staff's proposal --
6 Staff's testimony. We have adopted that testimony and
7 have done a revenue requirements analysis.

8 Going down some of the benefits, it was
9 Staff's testimony that we use transmission and
10 distribution marginal cost values from the last rate
11 case. We're now doing that. Staff also pointed out
12 that this project is potentially eligible, not only for
13 reducing demand, but also as a Forward Capacity Market
14 other demand resource, potentially increasing the
15 generation value of the project. So, we've now
16 incorporated that as well.

17 And, although I don't think it now makes
18 a difference, the Staff also pointed out that two
19 pieces of the REC and RPS value, the Company had only
20 factored in one in its consideration, so the Staff
21 provided that. Now, that it's a -- on the Company side
22 of the meter, it doesn't have an impact on the RPS
23 compliance. So, that's not a factor in the evaluation.
24 But those are the primary differences between the

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1 schedule for Stratham provided in late December and the
2 one that we provided last week.

3 Q. Regarding the lease payment, did the Company engage in
4 any market survey of the value of leases for solar
5 panel installations?

6 A. (Palma) We did not. But, trying to balance a benefit
7 for the Town to make the project worth doing on their
8 end, the original benefit to the Town was basically
9 around 14 cents per kilowatt-hour, plus the downside of
10 maintenance, we used our current Default Service rate
11 of 9 cents a kilowatt-hour. And, again, I went back to
12 the -- using a RETScreen model, I recalculated 1,300
13 kilowatt-hours a year, times 40 kilowatts, and then
14 rounded down to \$4,600 as the lease payment.

15 Q. Is it possible for the lease payment to go down?

16 A. (Palma) If our Default Service rate goes down, the
17 lease payment can go down.

18 Q. Mr. Gantz, the Company used the total resource cost
19 test as the basis for its economic evaluation. In your
20 rebuttal testimony, you agreed that it is appropriate
21 to remove from the test any indirect benefits that are
22 not presently monetized, is that correct?

23 A. (Gantz) It's appropriate, you know, to approach a total
24 resource cost test as only looking at the direct

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1 costs/benefits. But, in the context of RSA 374-G, we
2 think the other guidelines that need to be factored
3 into the evaluation also need to be taken into account.
4 Which is why, in our updated schedule, we've separated
5 the direct costs and benefits up above from those that
6 we -- that Dr. Axelrod had quantified, which we
7 characterized as "non-direct", which are now provided
8 below.

9 Q. What is the difference between including indirect
10 benefits in the determination of public inference --
11 strike that -- public interest and including those same
12 benefits in the TRC test?

13 A. (Gantz) I think it's partly a matter of semantics. The
14 TRC test is not the only determinative factor. And,
15 so, if you say, "all right, well, for the TRC, we only
16 want that to be the direct costs and benefits." And,
17 you know, and that's Guideline (a). And, in Guideline
18 (c), "well, okay. But then we also have to find a way
19 of factoring in the non-direct benefits", which are,
20 you know, our effort at quantifying things that are in
21 the other guidelines as well. So, you know, you can do
22 a comparison of numbers with the non-direct benefits
23 and you can do a comparison of numbers without the
24 non-direct benefits. And, those are both things that

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 the Commission should take into consideration.

2 Q. But the statute doesn't require the Commission to
3 monetize non-direct benefits, is that correct?

4 A. (Gantz) Well, that's actually a complex question,
5 because monetization is a process that's taken by, for
6 example, RGGI monetized certain CO2 costs. You know,
7 and, so, RGGI monetized CO2 costs, it's not the same to
8 say whether they should be -- whether certain costs
9 should be taken into account or not taken into account
10 in the Commission's review.

11 Q. However, essentially, you believe that all the
12 monetized non-direct benefits should be included in,
13 basically, in the TRC test to determine the
14 benefit/cost of a project, is that correct?

15 A. (Gantz) Again, I'm not sure -- I don't want to be
16 difficult, but I think it's -- let me put it this way.
17 It's important to look at the evaluation both ways.

18 Q. Let's leave it at that. On the SAU 16 project,
19 Mr. Palma, you mention, I think, that the Revolution --
20 the owner of the project agreed to or did file
21 something to comply with the emissions reduction
22 evidence that was one of the conditions of the Staff's
23 approval, I believe?

24 A. (Palma) Yes.

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 Q. And, isn't it true that they also agreed to operate the
2 micro-turbine during -- as a peaker during summer
3 months?

4 A. (Palma) Yes. They agreed to operate the micro-turbine
5 when Unitil -- actually, when there's a peak summer
6 event. And, the way it's set up is that the system
7 will be remotely controlled by Unitil. And, they
8 managed to configure the micro-turbine so that the
9 waste heat from the heat side gets dissipated properly.

10 Q. So, in other words, Staff would recommend that the
11 Commission approve that project at this point, because
12 you're telling me that the conditions in Staff's
13 testimony have been met?

14 A. (Palma) Yes. All the conditions in Staff's testimony
15 have been met.

16 Q. Thank you. Mr. Gantz, I was trying to understand your
17 response to Attorney Hatfield regarding "Lost Base
18 Revenue". And, I believe you said, and you can correct
19 me if I'm wrong, that, with respect to the two pending
20 projects, "the Company would only seek Lost Base
21 Revenue with respect to SAU 16", is that correct?

22 A. (Gantz) Yes.

23 Q. Would the Company ask for that regardless of the
24 economics of the project?

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 A. (Gantz) If the project --

2 Q. In this case, we're -- I'm sorry. In this case, we're
3 dealing with a project, obviously, that is -- meets the
4 benefit/cost test. Would you apply a Lost Base Revenue
5 to projects that don't?

6 A. (Gantz) If a project is determined by the Commission to
7 meet the public interest test, then, and it's going to
8 create Lost Base Revenues, then those Lost Base
9 Revenues should be recovered. I should point out,
10 there's a bit of a theoretical argument, but LBR is not
11 incremental, and should -- does not need to be taken
12 into account in the benefit/cost analysis, because the
13 Company is going to collect that revenue if there is no
14 project. LBR recovery simply assures that the Company
15 will collect that revenue if there is a project. So,
16 it's not incremental, it's simply a factor. That, if a
17 project goes in, there will be LBR, and we believe that
18 the provision needs to be provided for the Company to
19 recover that.

20 BY MR. McCLUSKEY:

21 Q. If I could ask the question a little differently. What
22 we are trying to determine is what the Company is
23 asking the Commission with regard to Lost Base
24 Revenues. Are you asking in this proceeding for

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[WITNESS PANEL: Gantz|Palma|Axelrod]

- 1 blanket authorization to recover Lost Base Revenues in
2 all future projects or are you asking for Lost Base
3 Revenues with regard to a single project that is
4 generating such revenues, as the SAU 16 project?
- 5 A. (Gantz) It would make the Company, and potentially
6 other companies, feel more comfortable in pursuing DER,
7 if the Commission were to provide an authorization
8 under RSA 374-G for companies to recover LBR when they
9 occur. If we -- In the case of the current proceeding,
10 all that's pending before the Commission is two
11 projects, one of which will generate LBR. So, you
12 know, it's a matter of how much encouragement the
13 Commission wants to provide to utilities considering
14 DER projects.
- 15 Q. I understand that. But, I'm asking, what is the
16 Company asking in this proceeding? Are you asking for
17 blanket authorization?
- 18 A. (Gantz) If we get authorization for LBR recovery in --
19 for the SAU project in this proceeding, then we will
20 proceed. If we got a Commission order that said, "in
21 future cases under RSA 374-G, they would provide LBR",
22 if we got that more general notion, it would be seen as
23 an encouragement for the Company to be more aggressive
24 in pursuing DER.

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 Q. If you are requesting blanket authorization, and I said
2 "if" because I don't think you've indicated exactly
3 what you're looking for. But, if you are, is that
4 request regardless of the cost-effectiveness of
5 projects?

6 A. (Gantz) Yes.

7 BY MS. AMIDON:

8 Q. Well, with respect to the SAU 16 project, does that
9 Lost Base Revenue relate to the solar PV facility, to
10 the micro-turbine, or to both?

11 A. (Gantz) It would be both.

12 Q. And, do you intend to take into account the additional
13 base revenues that the Company's gas affiliate will
14 receive in supplying the micro-turbine?

15 A. (Gantz) This is an electric, this is UES, it's a UES
16 proceeding, it's a UES proposal, it's a UES project.
17 And, those would be the -- the factors affecting UES
18 would be the ones that we think are appropriate to take
19 into account.

20 Q. Fair enough. Have you determined the impact on
21 customers of recovering the Lost Base Revenue in this
22 instance?

23 A. (Gantz) No, we haven't done a calculation. I don't
24 think it's a big factor. But it's an important one

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 from a perception standpoint.

2 Q. However, as Attorney Hatfield pointed out, the statute
3 at RSA 374-G:5, IV, says "The Commission may add an
4 incentive to the return on equity component as it deems
5 appropriate to encourage investments in distributed
6 energy resources." It doesn't matter if you did not
7 ask for it. The Commission could look at that
8 alternative, would you agree?

9 A. (Gantz) Yes.

10 MS. AMIDON: Thank you. With your
11 permission, at this point, Mr. McCluskey is going to
12 conduct some cross.

13 CMSR. BELOW: Okay.

14 MR. McCLUSKEY: Thank you. I was going
15 to switch the questions to Mr. Axelrod, but something came
16 up in the cross-examination from the OCA. And, so,
17 perhaps I'll start with you Mr. Gantz, and quickly move
18 onto Mr. Axelrod.

19 BY MR. McCLUSKEY:

20 Q. If you could look at Exhibit 5, which is your economic
21 evaluation of the Stratham project.

22 A. (Gantz) Yes.

23 Q. And, that is showing a total lifetime cost estimate of
24 516, \$517,000, correct?

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[WITNESS PANEL: Gantz|Palma|Axelrod]

- 1 A. (Gantz) Yes.
- 2 Q. And, at least from the direct benefits, it's showing
- 3 "410,000", correct?
- 4 A. (Gantz) Yes.
- 5 Q. Dividing the total lifetime costs by the lifetime
- 6 kilowatt-hours produces a rate of 50 cents per
- 7 kilowatt-hour. Would you agree with that, subject to
- 8 check?
- 9 A. (Gantz) Subject to check.
- 10 Q. Okay. Which is about -- it's almost six times the
- 11 Default Service rate. So, here you are, you are
- 12 proposing to make an investment, which costs, on a per
- 13 kilowatt-hour generated, six times the cost that the
- 14 Company would incur to buy Default Service
- 15 kilowatt-hours. My question will come in a moment. In
- 16 response to a question from Ms. Hatfield, regarding the
- 17 benefits to the T&D system, I believe you claim that
- 18 the Company's evaluation of the Stratham project,
- 19 Exhibit 5, shows, on its face, that there are T&D
- 20 system benefits, "on its face", you said. And, I
- 21 wonder if you could explain how a project, that costs
- 22 50 cents per kilowatt-hour, shows on its face that
- 23 there are T&D benefits to be had. Would you mind doing
- 24 that?

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 A. (Gantz) Yes, I was referring specifically to the items
2 in that evaluation labeled "transmission and
3 distribution", which show benefits from the demand
4 reduction associated with the project in the "T&D"
5 category. So, I think that's evidence that there are
6 benefits. Saying that "there are benefits" is not the
7 same thing as weighing the costs versus the benefits,
8 and I think that's what your question is driving at.

9 And, I take some -- a difference in
10 terms of how you've done that calculation, of simply
11 dividing the cost by the energy, because, as this
12 exhibit shows, clearly, there are benefits in other
13 categories than just energy. And, it's not
14 appropriate, I think, to do that kind of a rough
15 comparison, when you're down into this level of detail
16 looking at specific benefits in the "capacity"
17 category, "energy" category, the "other" category, you
18 know, the value of the RECs is clearly something that's
19 not going to be reflected. So, I'm not sure that I
20 would agree that that's a good analysis to use.

21 Q. Well, the exhibit is showing that, from a cost
22 standpoint, the project is going to cost 50 cents a
23 kilowatt-hour. Adding up all of your direct benefits,
24 it came to 410,000, which is 39 cents a kilowatt-hour.

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 On its face, it would appear the direct benefits fall
2 short of the direct costs?

3 A. (Gantz) I would agree with that.

4 Q. And, recognizing that part of the direct benefit is the
5 avoidance of T&D, but the exhibit appears to be showing
6 on its face that there is a shortfall?

7 A. (Gantz) Yes.

8 Q. And, so, how can there be a benefit to the T&D system,
9 when there's a shortfall in the total benefits versus
10 costs?

11 A. (Gantz) Well, all I'm saying is that there's a positive
12 number when you look at the benefits of the demand
13 reduction. It's there. It's positive. It is a
14 benefit.

15 Q. So, to get --

16 A. (Gantz) And, different than saying "there is a net
17 benefit", I just think is what you're going to.

18 Q. Okay. Okay. I guess we will move onto Mr. Axelrod.
19 Are you there?

20 A. (Axelrod) Yes, I am. Can you hear me okay?

21 CMSR. BELOW: We hear you well. The
22 question is whether you hear Mr. McCluskey adequately?

23 WITNESS AXELROD: I had been. So, I'll
24 try as he goes forward. I'll let you know if I can't

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 hear.

2 MR. McCLUSKEY: Okay. Thank you.

3 BY MR. McCLUSKEY:

4 Q. Mr. Axelrod, again focusing on Exhibit 5, we have
5 listed there three indirect or non-direct benefits.
6 The first of which is "Economic Development", is that
7 correct?

8 A. (Axelrod) That's correct.

9 Q. And, your calculation produces a number of \$426,000, is
10 that correct?

11 A. (Axelrod) That's correct.

12 Q. Thank you. And, as I indicated, this is not a direct
13 benefit, this is an indirect benefit. This will not be
14 reflected in customer rates, is that correct?

15 A. (Axelrod) Yes.

16 Q. So, this -- the Company is proposing to have this
17 indirect benefit essentially as a subsidy that will,
18 hopefully, from the Company's standpoint, persuade the
19 Commission that this project is economic in total, when
20 both direct and indirect benefits are considered. Is
21 that a fair summary?

22 A. (Axelrod) Well, I don't -- I don't know if I'd agree
23 the way you characterized it. What we -- the economic
24 development benefits are a result that -- of the amount

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[WITNESS PANEL: Gantz|Palma|Axelrod]

- 1 of dollars that flows back into the community as a
2 result of the initial investment, as we estimated it.
3 And, I know you don't have entire agreement with the
4 methodology. But the point is is that the \$426,000
5 does flow back to consumers within the community,
6 assuming those consumers use electricity. I don't
7 think we did it to persuade the Commission. I think
8 it's in response to the balancing of this act to
9 support distributed energy resources. It's one of the
10 nine criteria that -- that was outlined in the
11 legislation as something we should -- that we and the
12 Commission should consider.
- 13 Q. Okay. Well, let's get a feel for the magnitude of that
14 benefit. We could compare the dollars with the total
15 costs by just looking at the schedule. But would you
16 agree that, on a per kilowatt-hour basis, that benefit
17 is equivalent to 41 cents a kilowatt-hour, subject to
18 check?
- 19 A. (Axelrod) Yes. I'll take your computation subject to
20 check.
- 21 Q. Okay. Thank you. So, it's -- compared with the other
22 direct benefits, this calculation of the economic
23 development benefit is quite important certainly
24 measured by its magnitude, would you agree with that?

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 A. (Axelrod) Absolutely.

2 Q. Okay. Now, does your calculation of that economic
3 development benefit assume that 100 percent of the DER
4 investment, which, in this project, is \$271,000, will
5 actually be spent in New Hampshire?

6 A. (Axelrod) Well, I think, as my earlier testimony
7 indicated, we used the Bureau of Economic Analysis RIMS
8 model to estimate the multiplier effect, which is, in
9 effect, you know, what the economic development benefit
10 is. And, that model does not assume a
11 dollar-for-dollar, that, if money is spent in the
12 community, every dollar will stay within the community.
13 One can see from the model that we had that only a
14 portion stays within the community. So, I don't
15 believe that it's assuming that every dollar stays in
16 New Hampshire. But, on the other hand, it does assume,
17 on average, that a large part would.

18 Q. Okay. So, I think Mr. Gantz has indicated that the
19 Company will issue an RFP to select a vendor that would
20 essentially install this project. The vendor would
21 both install it and also acquire the equipment,
22 presumably from some manufacturer, and then install the
23 equipment. If this RFP results in a solar PV facility
24 being acquired from a manufacturer outside of the state

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 or, in fact, outside of the country, would your
2 calculation of the economic development benefit be
3 valid in that case?

4 A. (Axelrod) Yes, again, I have to reiterate, we're using
5 a method with a certain degree of precision relating to
6 -- you're asking, "did we do an economic analysis for
7 this particular project?" And, it's -- the assumption
8 is that "they're buying solar panels outside of New
9 Hampshire, then those dollars wouldn't necessarily stay
10 within New Hampshire." But, it's far more complex,
11 when you're looking at how dollars flow. There may be
12 indirect benefits. In other words, you may buy outside
13 of the -- the money might fall out of New Hampshire,
14 but, because of that, more total of dollars go back
15 into New Hampshire as a result of more purchases.

16 We relied upon a model that is
17 well-adopted, utilized throughout business and
18 government, to estimate the impacts associated with an
19 injection into an economy. To be able to say with
20 precision that that 400 and some thousand dollars is
21 actually what would stay within New Hampshire, I don't
22 think we tried to say that that's true. But, on
23 average, over a number of projects that emerge, this
24 would be a very cost-effective means of estimating that

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 impact relative to the directive of this legislation.

2 Q. Mr. Axelrod, I'm not really looking for precision.

3 We've had testimony from one of your witnesses that

4 said that "there is no manufacturer of PV facilities in

5 New Hampshire." So, whether it's this project, or any

6 future project, with regard to PV facilities, the

7 portion of the investment, the \$271,000 in this case,

8 cannot stay in the state, surely, it must go out of the

9 state. You don't accept that?

10 A. (Axelrod) Yes, again, I don't want to -- I'm not trying

11 to mince words with you, by any means. I just want to

12 make sure it's understood. I would agree that, if

13 \$100,000 of this project was solar panels that were

14 manufactured outside of New Hampshire, one would

15 believe that that 100,000 would flow outside of the

16 state. But what I'm trying to convey is, is that the

17 complexities that this model that the Bureau of

18 Economic Analysis utilizes considers a lot of flows, so

19 that, if that 100,000 went out, we don't know how much

20 of that 100,000 comes back into the state in other

21 forms. So, in other words, if the solar panels were

22 manufactured in Massachusetts, we don't know how much

23 of the Massachusetts dollars would flow back. This

24 model attempts to measure those things. I cannot say

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 with precision that the \$100,000 would stay in or out.

2 All I can tell you is, on a typical investment of a

3 dollar, you get about a dollar back into the state.

4 Q. Okay. Now, is it also possible that, if an installer
5 who is based in Massachusetts has arrangements with
6 what turns out to be the most economic, the least cost
7 PV facility, say, manufactured in China, that you could
8 have a situation where both the facility itself and the
9 installer are both from outside of the state? They
10 happen to provide the least cost option for the
11 Company, but none of the dollars stay within the State
12 of New Hampshire. Is that possible?

13 A. (Axelrod) I'm assuming that's possible.

14 A. (Palma) Can I jump in here? There's actually a
15 requirement that the installer in New Hampshire be a
16 New Hampshire licensed electrician. So, there will be
17 some installers from this state working on these
18 projects.

19 Q. Is it possible that we have an installer based in
20 Massachusetts, that's also licensed in New Hampshire?

21 A. (Palma) It's possible.

22 Q. Thank you. On the assumption that the facility is
23 manufactured in China or Arizona, which is a
24 significant producer of PV facilities in the United

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 States, but the installer is from New Hampshire, are
2 you aware of what portion of the \$271,000 investment is
3 likely to be covered by equipment and materials? Would
4 you accept, subject to check, based on the PSNH
5 project, that it's roughly two-thirds of the
6 investment?

7 A. (Axelrod) I will accept that subject to check.

8 Q. So, that would leave roughly \$90,000 that potentially
9 could remain in New Hampshire. Would you agree with
10 that?

11 A. (Axelrod) That, under those calculations and that
12 assumption, yes.

13 Q. Okay. This Exhibit 5 shows that there are avoided
14 transmission and distribution costs totaling roughly
15 \$126,000. Do you see that?

16 A. (Axelrod) Yes.

17 Q. And, presumably, if the Company had gone ahead and made
18 those T&D investments, there would have been economic
19 development benefits associated with those investments.
20 Would you agree with that?

21 A. (Axelrod) That's correct.

22 Q. So, in the scenario that I just laid out, where we have
23 a New Hampshire installer, but an out-of-state
24 manufacturer, wouldn't there be a net loss of economic

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 development associated with going ahead with this
2 project and displacing the transmission and
3 distribution investment?

4 A. (Axelrod) Well, one is, let me respond, the method I
5 used was, and I explained in my testimony, we are
6 looking at the avoided or I should say "net difference"
7 between the utility investment of what would it have
8 cost versus the DER. So, if you look at my
9 computation, you were provided the model, we subtracted
10 the utility multiplier for both costs of labor, as well
11 as wages and salaries, from the total multiplier that
12 we calculated for the DER. So, we already took out
13 utility assets. We're looking at the net difference.
14 And, you might -- what might be very interesting for
15 you is that, I want to give you an example, for the
16 overall economic output for the construction industry
17 in New Hampshire for the two counties, we had a
18 multiplier of 1.85. That means, for every dollar that
19 was invested, you would get \$1.85 out in terms of
20 overall economic development.

21 For a utility investment of a dollar,
22 you get 1.23. So, there is greater, well, multiplier
23 effect in general construction as there would be for a
24 utility. So, we have already taken into that account.

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 So, I don't quite agree with your assumption, because
2 I've already subtracted the utility part out. We're
3 not double-counting. We've already taken into account
4 the fact that the utility would have invested and
5 received some economic development benefits. And,
6 we've already subtracted that out.

7 Q. Okay. Thank you for that. Moving on, Mr. Gantz, again
8 focusing on Exhibit 5, you indicated earlier, I believe
9 it was in response to Ms. Hatfield, with regard to the
10 avoided energy costs, perhaps you were looking at
11 Staff's analysis, which is what? Which Exhibit?

12 MS. AMIDON: Eight. I'm sorry.

13 MR. McCLUSKEY: Is that --

14 MS. HATFIELD: Nine.

15 BY MR. McCLUSKEY:

16 Q. Exhibit 9.

17 A. (Gantz) Yes.

18 Q. I'm sorry. I had the wrong exhibit in front of me.
19 When you were commenting on Staff's calculation of the
20 avoided benefits, specifically with regard to the
21 avoided energy benefits, you noted that Staff had
22 reduced the avoided energy benefits to take into
23 account its claim that the natural gas prices reflected
24 in the Synapse report are significantly higher than

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 today's natural gas price. I'm not sure whether you
2 said that, but that's --

3 A. (Gantz) I didn't say that, but that was --

4 Q. But that's the basis of Staff's --

5 (Multiple people speaking at the same
6 time.)

7 BY THE WITNESS:

8 A. I didn't say that this morning, but, yes, that is the
9 basis of the Staff's testimony. That is my
10 understanding, yes.

11 BY MR. McCLUSKEY:

12 Q. And, you objected to that reduction, because you said
13 that -- I believe you said that "those Synapse avoided
14 energy costs were used in the CORE Energy Efficiency
15 Programs". Was that the justification for objecting to
16 that reduction?

17 A. (Gantz) It's a primary reason, yes.

18 Q. Okay. But, with regard to the transmission and
19 distribution components on this Exhibit 9, I believe
20 you also said to another question that you "accepted
21 Staff's recommendation with regard to those items to
22 replace the numbers that Synapse had in its report."
23 Is that correct?

24 A. (Gantz) Yes. As Staff pointed out in a technical

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 session, the numbers in the Synapse report are generic
2 T&D numbers. And, the Company, in fact, has more
3 specific T&D numbers from its last marginal cost study.
4 And, we agree, in that case, as you have a vetted set
5 of numbers from a prior proceeding before the
6 Commission, it's appropriate to use those numbers.
7 And, we would agree with that.

8 Q. So, it seems that your objection is not so much that
9 it's in the Synapse study, it's, at least with regard
10 to T&D, you think it's appropriate to change the
11 Synapse numbers when -- particularly when they go up,
12 and it's inappropriate to change the avoided energy
13 cost numbers from the Synapse study when they go down?

14 A. (Gantz) Well, I'm not -- I'm not sure that's the case.
15 It's my understanding that the -- well, I know, in
16 Massachusetts, we had the same issue in our energy
17 efficiency filings, and found out that we had been
18 using the Synapse numbers and should be using
19 company-specific numbers. I think the same applies
20 here. And, I think the Synapse T&D numbers are more in
21 the nature of placeholders. That, if companies have
22 more accurate information, they should use them. I'm
23 not sure how we do that in the CORE Programs, whether
24 the understanding is to use the generic numbers or the

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 specific numbers. But, in Massachusetts, we use the
2 specific numbers. And, in this proceeding, it made
3 sense to us, and I think the Staff arguments were
4 compelling that we should use the specific numbers from
5 last rate case.

6 Q. Okay. And, the Company, Unitil, has also proposed to
7 include the benefits in its calculation that the
8 utilities in the CORE Programs do not use, for example,
9 energy DRIPE, capacity DRIPE. They have been rejected
10 for the CORE Programs, but the Company believes they
11 were appropriate, is that correct?

12 A. (Gantz) Yes.

13 Q. And, as we've heard also, you've proposed the CO2
14 externality benefit, which has been rejected by the
15 utilities in the CORE Program, is that correct?

16 A. (Gantz) Yes. And, we've agreed to put the external CO2
17 value into the category of "non-direct benefits".

18 Q. But, as we've seen, you still believe it's appropriate
19 for the Commission to take that into account in
20 determining whether something is in the public
21 interest?

22 A. (Gantz) Yes, I do.

23 Q. Okay. And, the CORE Programs also do not calculate
24 economic development benefits when they determine

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 whether a project is cost-effective or not, is that
2 correct?

3 A. (Gantz) That's correct. I just would simply
4 acknowledge that RSA 374-G has other guidelines that
5 the Commission should take into account. So, there is
6 a difference with the framework that applies to DER in
7 that regard.

8 Q. So, that would suggest then, really, it's not what they
9 do in the CORE Program that is or should be controlling
10 for the Commission here, it's the -- what's in the
11 legislation, and specific to DER, that really matters.
12 Would you agree with that?

13 A. (Gantz) Well, the legislation trumps.

14 Q. Thank you. A question for Mr. Axelrod. Are you still
15 there?

16 A. (Axelrod) Yes, I am.

17 Q. Okay.

18 A. Yes, I am. Hello.

19 Q. We're back to Exhibit 5. The analysis for the Company
20 is showing a benefit/cost ratio of 0.79, excluding
21 indirect benefits?

22 A. (Axelrod) That's correct.

23 Q. If the Commission were to approve this project, perhaps
24 based on the strength of the indirect benefits, the

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 fact that the benefit/cost ratio is less than one,
2 would suggest that there would be a rate impact as a
3 result of implementing this program, this project,
4 would you agree with that?

5 A. (Axelrod) Well, to the extent that you do not consider
6 some of the non-direct, like the localized system
7 capacity value and things like that, but, yes, it could
8 be a very -- there could be a rate impact.

9 Q. Did you take into account, when you were developing the
10 economic development benefit, the contraction in the
11 New Hampshire economy associated with that rate impact?

12 A. (Axelrod) I'm sorry. I didn't hear the last part of
13 your question.

14 Q. The contraction in the New Hampshire economy associated
15 with that rate impact?

16 A. (Axelrod) Well, I'd have to, I mean -- I mean, I don't
17 want to take any money, any dollar amount taken out of
18 the pockets of an individual has an impact. But, if
19 the differential between the 79, 0.79, assuming that's
20 correct, and having a 1, is roughly, what, about
21 \$100,000, my guess, spread out over the life of the --
22 these are lifetime, spread out over the life, the 20
23 years, we're talking about \$5,000 a year of benefits,
24 in present value, I'd argue that it would probably be

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 pretty minuscule.

2 Q. Thank you.

3 A. (Axelrod) You're welcome.

4 MR. McCLUSKEY: We're going to have to
5 have a word with the telephone company, there seems to be
6 a delay.

7 (Laughter.)

8 BY MR. McCLUSKEY:

9 Q. Okay. Mr. Axelrod again. Would you agree that the
10 2009 Synapse study, on which most of the benefits shown
11 in Exhibit 5 are based, uses a discount rate of 1.66 to
12 discount the benefits?

13 A. (Axelrod) I believe that's correct. I'd have to go
14 back, but that sounds like the right number.

15 Q. Okay.

16 A. (Axelrod) Now, that's a real discount rate.

17 Q. That is the real discount rate, that's correct.

18 A. (Axelrod) Right.

19 Q. 1.66.

20 A. (Axelrod) I mean, "real" meaning not -- "real" meaning
21 that's net of inflation?

22 Q. That's correct.

23 A. (Axelrod) Okay.

24 Q. Mr. Gantz, given that response, could you please

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 explain why you discounted the costs using a 3.25
2 discount rate, instead of 1.66?

3 A. (Gantz) My understanding, the 3.25 percent is the value
4 used for discounting of the CORE programs --
5 discounting calculations for the purposes of the CORE
6 Programs.

7 Q. Okay. But, as we've just agreed, we're not in the CORE
8 Programs. We're dealing with DER projects as a result
9 of RSA 374-G, is that correct? Yes. So, it appears
10 that the Company, in its calculations, summarized in
11 Updated Schedule GRG-1 and 2, has a 3.25 discount rate
12 for costs, a 1.66 rate discount rate for benefits.
13 Does that seem accurate?

14 A. (Gantz) What I'm puzzling over is the fact that we also
15 used an inflation rate on our costs. So, we used an
16 inflation rate on the costs and a nominal discount rate
17 on the discount side. And, in fact, the net of the two
18 numbers that we used was 1.69. So, that number is very
19 close to the real discount rate the Staff has used.

20 Q. I'll try not to testify. I almost find it impossible
21 not to testify at this point, so I will move on to
22 another question. Okay. Mr. Gantz, you've proposed to
23 include in the determination of the public interest
24 some or all of the CO2 externalities, correct?

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[WITNESS PANEL: Gantz|Palma|Axelrod]

- 1 A. (Gantz) Yes.
- 2 Q. What's the basis of your calculation of the CO2
- 3 externalities, the \$27,000?
- 4 A. (Gantz) I think Dr. Axelrod can answer that question
- 5 before than I.
- 6 A. (Axelrod) Okay. You're asking the question, if I could
- 7 understand it, the basis for the CO2, the additional
- 8 CO2 value?
- 9 Q. That's correct.
- 10 A. (Axelrod) All right. Let me get -- give me one second,
- 11 I wanted to just check the model to make sure I give
- 12 you a correct answer.
- 13 Q. Mr. Axelrod, maybe we can --
- 14 A. (Axelrod) Yes.
- 15 Q. -- cut to the chase. Did you use the \$80 per ton for
- 16 CO2 cost estimate reflected in the Synapse 2009 report?
- 17 A. (Axelrod) Well, here is -- well, let me answer, that
- 18 number was calculated by the model that is developed
- 19 for -- that we adopted and used as the Synapse
- 20 assumptions. I did call the principal researchers,
- 21 actually, it's one of the senior members, and I'm
- 22 grasping for his name, but he was one of the authors of
- 23 the report on avoided costs, on exactly what's in and
- 24 out of those numbers. And, I think there was some

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 discussion with you in the past in some of the
2 meetings. In the price of -- wholesale price for
3 energy and capacity, they have included the RGGI price,
4 which is about \$4.00 roughly, through 2012. And, then,
5 after 2012, assumes the Cap-and-Trade starting at about
6 \$15, rising to about \$30 by 2030, I think, or 2020.
7 The point is, that's built into the price forecast, the
8 wholesale price for energy and capacity.

9 What the \$27,000 is, is the difference
10 between that which is priced out as a direct cost,
11 associated with either RGGI or Cap-and-Trade, and what
12 is viewed as the cost to society for the CO2, which is
13 more like \$80 a ton. And, so, the 27,000 is the
14 incremental amount of cost to -- for this project would
15 be avoided -- or, the incremental avoided cost
16 associated with CO2 reductions that society gains from
17 this particular project. Hopefully, I anticipated and
18 answered your question.

19 Q. Yes, that's -- you did. So, in your testimony, did you
20 explain why that estimate of \$80 a ton, the societal
21 cost of CO2 emissions, is reasonable?

22 A. (Axelrod) I don't know if I did it in testimony or not.
23 I'd have to go back and look. I wrote it so long ago.
24 The \$80 has been generally, and I can get you a cite

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 for that, it is the technological solution to capture
2 and sequestering CO2. So, that is the assumed cost, if
3 we were going to remove the CO2 before it reaches the
4 atmosphere.

5 Q. Assumed by who?

6 A. (Axelrod) I'm sorry, I didn't hear you?

7 Q. Who made that assumption as to the cost being \$80 per
8 ton?

9 A. (Axelrod) Oh. That is reports that I have read, and
10 that's what was confirmed with my dialogue with the
11 folks at Synapse.

12 Q. Okay. And, to your knowledge, has this Commission ever
13 had a proceeding to determine whether that \$80 per ton
14 is a realistic number?

15 A. (Axelrod) I'll be honest with you, I don't know. But
16 the Synapse avoided cost, as I understand, both in New
17 Hampshire and Massachusetts, Synapse has been retained
18 to do that analysis for you to come up with this
19 impartial assessment of avoided costs.

20 Q. But New Hampshire has rejected using the \$80 per ton,
21 are you aware of that?

22 A. (Axelrod) No, I'm not.

23 Q. Well, let me correct what I said there. I said
24 "rejected". The Commission has never had a proceeding,

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 to my knowledge, to determine whether \$80 per ton is
2 reasonable, because the CORE Program utilities have
3 never requested that that figure be used in the
4 economic evaluations. Would you accept that?

5 A. (Axelrod) I would accept that. And, we understood
6 that. And, in fact, in the model, it had -- that we
7 used when I first started to learn how to use it, it
8 had a New Hampshire versus a Massachusetts trigger on
9 it. But we were looking at what the legislation had
10 requested, and they were very specific in evaluating
11 what the environmental benefits were. And, we can't
12 ignore that CO2 is a significant effect that we should
13 be considering.

14 Q. So, while there is no testimony before this Commission
15 in this proceeding on the reasonableness of this \$80
16 per ton, the Company is nevertheless requesting
17 authority to use that external benefit, alleged
18 benefit, in the cost-effectiveness methodology for DER
19 projects, is that correct?

20 A. (Axelrod) I don't know if, you know, I apologize that I
21 haven't testified in New Hampshire before. But I think
22 what we're doing is trying to comply with the -- at
23 least the nine criteria, and come up with a reasonable
24 estimate of what that impact would be for the

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 environmental impact. We know it's above and beyond,
2 we know it's not \$4.00 a ton as RGGI, and it's unlikely
3 that it's \$15 or \$20. If I'm in Europe, which has a
4 Cap-and-Trade market, it's been well into the 30s and
5 \$40 a ton at times. You know, the economy has affected
6 prices all around. But the point is is that we did the
7 best we could to give the Commission as much
8 information as we hope they could use to make this
9 determination.

10 Q. Thank you.

11 A. (Axelrod) You're welcome.

12 Q. Okay, back to Mr. Gantz. Again, focusing on Exhibit 5,
13 would you agree that the Company has included two REC
14 benefits in its analysis of the Stratham project?

15 A. (Gantz) Yes. One listed as the "REC value" and one is
16 listed as "RPS compliance value".

17 Q. Would you agree that the Company has included two
18 monetary values of REC benefits in its analysis?

19 A. (Gantz) I think what you're getting at is the
20 possibility that some RPS compliance is included in the
21 Synapse avoided energy supply cost. Because, in this
22 table, we have one entry, and it's for the "REC value"
23 associated with the certificates. We've included no
24 number in here in this table for RPS compliance value.

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 But there is a possibility that there is some RPS
2 compliance value reflected in the Synapse avoided
3 energy supply cost. It's a very confusing process when
4 we looked at it. I have heard some comments from other
5 people that know the model better than I do that
6 indicate that there is an inclusion of RPS compliance
7 value in the avoided energy cost. But I don't have it
8 -- I don't have definitive information on that at this
9 point.

10 Q. So, if the avoided energy costs do include a cost to
11 reflect RPS compliance costs, would you agree then that
12 you would have to subtract from your benefits that
13 estimated RPS compliance cost?

14 A. (Gantz) Yes, that would be appropriate to do.

15 Q. Thank you. With regard to the REC value that you're
16 showing in the exhibit, the \$133,000, \$134,000, what
17 you said is based on the assumption of a 75 percent of
18 the ACP. Has the Company done a study of supply and
19 demand for RECs, Class II resources --

20 A. (Gantz) No.

21 Q. -- that would support that 75 percent?

22 A. (Gantz) No.

23 Q. And, today, is the Class II REC price at the 75 percent
24 level?

[WITNESS PANEL: Gantz|Palma|Axelrod]

1 A. (Gantz) No.

2 Q. Do you know what level it is at?

3 A. (Gantz) I don't know that number offhand.

4 Q. Okay. Mr. Gantz, again, on Exhibit 5, we heard
5 testimony and the exhibit shows that the Company is
6 assuming a capacity factor for this facility of
7 14.8 percent. Do you agree?

8 A. (Gantz) Yes.

9 Q. And, Mr. Palma explained the basis for that number
10 earlier.

11 A. (Gantz) Yes.

12 Q. In my testimony, I referred to data owned by NREL with
13 regard to solar PV projects around the country, which
14 indicate, for the Northeast portion of the United
15 States, that the average capacity factor is
16 13.5 percent. Do you recall?

17 A. (Gantz) I haven't reviewed that information.

18 Q. You saw that in my testimony?

19 A. (Gantz) Yes.

20 (Court reporter asking Witness Gantz to
21 repeat his prior answer.)

22 BY THE WITNESS:

23 A. (Gantz) I have not. I have not reviewed the source of
24 that information.

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 BY MR. McCLUSKEY:

2 Q. Okay. Any reason to dispute the accuracy of that NREL
3 number?

4 A. (Gantz) I have no independent knowledge to refute or
5 review or otherwise.

6 Q. Okay. And, NREL is, I would say, a pretty reliable
7 organization, don't you think?

8 A. (Gantz) Oh, yes. My colleague referred to them at
9 least once today.

10 Q. Okay.

11 A. (Palma) But, again, in the NREL model, it doesn't show
12 13.5 percent. It shows -- it would show a higher
13 number, closer to our 14. -- I believe 14.8 percent.

14 Q. Which NREL model are you referring to?

15 A. (Palma) PV Watts Version 1.

16 Q. And, I'm not referring to an NREL model. I'm referring
17 to an NREL database of actual capacity factors for live
18 PV projects around the country.

19 A. (Gantz) Yes. It is true that the technology is getting
20 better all the time as well. So, the historic data may
21 not be the best indicator of the future.

22 CMSR. BELOW: And, Mr. McCluskey, don't
23 forget you'll have a chance to testify yourself. And, can
24 I ask how much more cross-examine you have at this point?

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[WITNESS PANEL: Gantz|Palma|Axelrod]

1 MS. AMIDON: This is our last subject

2 area, so --

3 MR. McCLUSKEY: It is. I will be done

4 in two minutes.

5 CMSR. BELOW: Okay.

6 MS. AMIDON: You can put the timer on

7 him to be sure.

8 BY MR. McCLUSKEY:

9 Q. Earlier you mentioned was of PSNH's solar facility.

10 Have you checked the capacity factor for that project

11 since it began operation?

12 A. (Palma) No, I have not.

13 A. (Gantz) No.

14 Q. Would you accept that it is 9.16 percent?

15 A. (Palma) No.

16 Q. You wouldn't accept that?

17 A. (Palma) I would accept your saying that that's what it

18 is. But I would not base it on -- I would not base the

19 capacity factor of a system that has been installed for

20 what I think is less than a year, and knowing that last

21 summer was a much more cloudy, rainy summer than

22 normal, you really have to get several years of data to

23 actually formulate the results, because every year is

24 different. If the capacity factor came in at

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1 25 percent, I wouldn't accept that either.

2 Q. Good point. But New England is normally cloudy and
3 short of sunlight, would you agree with that?

4 A. (Palma) Not in the summer.

5 Q. Not in the summer?

6 A. (Palma) Not in the summer. And, cloudy, well, solar PV
7 panels can still pick up plenty of Sun in cloudy
8 weather. It's that, you know, last summer was
9 predominantly, you know, we had many more inches of
10 rain, and it was basically subtropical, which was more
11 like Florida weather.

12 MR. McCLUSKEY: Okay. That's it. Thank
13 you.

14 CMSR. BELOW: Okay. Any redirect,
15 Mr. Epler?

16 MR. EPLER: No.

17 CMSR. BELOW: No? Okay. I think that
18 we need to conclude for the day at this point. Obviously,
19 we're not done. I'm wondering if we can continue tomorrow
20 morning? We can take this off the record at this point.

21 (Brief off-the-record discussion
22 ensued.)

23 CMSR. BELOW: We'll go back on the
24 record. And, I'll dismiss the witnesses, since there's no

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1 more questions. And, if all the parties are amenable,
2 we'll adjourn for the day and reconvene at 9:00 a.m.
3 tomorrow morning, the same place. I think this room is
4 free then.

5 MS. AMIDON: Off the record?

6 CMSR. BELOW: Off the record.

7 (Brief off-the-record discussion
8 ensued.)

9 CMSR. BELOW: Okay. Back on the record.

10 We'll go ahead and adjourn for the day, and we'll
11 reconvene at 9:00 a.m. Whether it's in this room or
12 Hearing B will be determined tomorrow morning before
13 9:00 a.m. Thank you.

14 CMSR. IGNATIUS: Thank you.

15 (Whereupon the hearing was adjourned at
16 5:00 p.m., and the hearing to reconvene
17 on March 3, 2010, commencing at 9:00
18 a.m.)

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