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| 5 | Concord, New | Hampshire ZBHR 11 M1.03 |
| 6 | | |
| 7 | RE: | DE 16-463 |
| 8 | | UNITIL ENERGY SYSTEMS, INC.: 2016 Least Cost Integrated |
| 9 | | Resource Plan. |
| 10 | | |
| 11 | PRESENT: | Chairman Martin P. Honigberg, Presiding Commissioner Robert R. Scott |
| 12 | | Commissioner Kathryn M. Bailey |
| 13 | | Sandy Deno, Clerk |
| 14 | | |
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| 16 | | Reptg. Residential Ratepayers: |
| 17 | | D. Maurice Kreis, Esq., Consumer Adv. James Brennan, Finance Director |
| 18 | | Office of Consumer Advocate |
| 19 | | Reptg. PUC Staff: Suzanne G. Amidon, Esq. |
| 20 | | Richard Chagnon, Electric Division |
| 21 | | |
| 22 | | |
| 23 | Court Repo | rter: Steven E. Patnaude, LCR No. 52 |
| 24 | | |

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1 PROCEEDING

CHAIRMAN HONIGBERG: Good morning,
everyone. We're here in Docket DE 16-463,
which is Unitil Energy Systems' 2016 Least Cost
Integrated Resource Plan proceeding. We're
here for a hearing on the merits. And we know
there's an agreement on file. I see a panel is
already in place.

But, before we do anything else, let's take appearances.

MR. EPLER: Good morning, Mr.

Chairman and Commissioners. Gary Epler,

appearing on behalf of Unitil Energy Systems,

Inc. Thank you.

MR. KREIS: Good morning. I'm the Consumer Advocate, D. Maurice Kreis, sometimes also referred to as "Don Kreis". I'm here this morning on behalf of the residential utility customers.

MS. AMIDON: Good morning. Suzanne
Amidon, for Commission Staff. I have with me,
in the witness box, Rich Chagnon, who's an
Analyst with the Electric Division.

CHAIRMAN HONIGBERG: Are there any

| 1 | preliminary matters we need to deal with? |
|----|--|
| 2 | Mr. Epler. |
| 3 | MR. EPLER: Yes. There are two. One |
| 4 | is that I would request that the Company's |
| 5 | initial filing, which is the report on Least |
| 6 | Cost Integrated Resource Planning, as well as |
| 7 | the Appendices A through K, be premarked as |
| 8 | "Exhibit 1". |
| 9 | And the second issue is that there is |
| 10 | a pending Motion for Confidential Treatment. |
| 11 | There are load flow diagrams, which are line |
| 12 | diagrams, in Appendices C and D that the |
| 13 | Company has requested confidential treatment |
| 14 | for. These reveal critical facilities. And we |
| 15 | have attempted in both the New Hampshire and |
| 16 | Massachusetts jurisdictions to keep these |
| 17 | confidential. |
| 18 | CHAIRMAN HONIGBERG: I assume there's |
| 19 | no objection to the Motion for Confidential |
| 20 | Treatment? |
| 21 | MS. AMIDON: That's correct. |
| 22 | CHAIRMAN HONIGBERG: That's granted. |
| 23 | MS. AMIDON: I have sort of a |
| 24 | housekeeping inquiry. The Settlement Agreement |

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was filed April 7th. And I think it's Puc Rule 203.20 requires it to be filed within five business days of a hearing, and the letter requested a waiver of that rule. Thank you.

CHAIRMAN HONIGBERG: Waived.

Mr. Epler, is there a version of the filing that is redacted that's going to be marked as an exhibit as well?

MR. EPLER: It would -- if I can just -- if you just give me a moment please and let me check how this was filed.

I believe the filed version separated out the confidential material, so those specific pages. We did not prepare a redacted version of those pages because it — the nature of the drawing itself wouldn't make sense to prepare a redacted version. So, what is in the Commission's public file is, in effect, the redacted version, and the confidential material is segregated. It's just —

MR. SPRAGUE: We filed a redacted version, it looks like.

MR. BONAZOLI: A confidential and redacted version, with the pages redacted.

```
1
                    CHAIRMAN HONIGBERG: Let's go off the
 2
         record for a minute.
 3
                         [Off-the-record discussion
 4
                         ensued.]
 5
                    CHAIRMAN HONIGBERG: All right.
 6
         We're back on the record. We had a long
 7
         conversation off the record about exhibits.
         Mr. Epler, would you please clarify the
 8
9
         situation.
10
                   MR. EPLER: Yes.
                                      Thank you. And,
11
         first, I apologize for the confusion. I would
12
         ask that we identify, as "Exhibit 1", the
13
         version of the filing that does not contain any
14
         confidential information. The confidential
15
         information is limited to diagrams in
16
         Attachments C and D of the filing. And that we
17
         then mark those confidential pages as "Exhibit
18
         2". And the Company will work with the Clerk's
19
         office tomorrow to amend the filing, so that
20
         the public version indicates that that -- that
21
         segregates clearly only the confidential
22
         portions of the filing.
                         (The documents, as described,
23
24
                         was herewith marked as Exhibit 1
```

| 1 | and Exhibit 2 , respectively, for |
|-----|--|
| 2 | identification.) |
| 3 | CHAIRMAN HONIGBERG: Thank you, Mr. |
| 4 | Epler. |
| 5 | MS. AMIDON: Mr. Chairman? |
| 6 | CHAIRMAN HONIGBERG: All right. |
| 7 | Ms. Amidon. |
| 8 | MS. AMIDON: Yes. And I would just |
| 9 | like to mark for identification the Settlement |
| 10 | Agreement filed on April 7th as "Exhibit 3". |
| 11 | (The document, as described, was |
| 12 | herewith marked as Exhibit 3 for |
| 13 | identification.) |
| 14 | CHAIRMAN HONIGBERG: All right. Is |
| 15 | there any objection to striking ID now? These |
| 16 | are all going to be full exhibits, no one is |
| 17 | going to object at the end, correct? |
| 18 | [No verbal response.] |
| 19 | CHAIRMAN HONIGBERG: So, we're |
| 20 | striking ID. Those are all full exhibits. |
| 21 | They could be used as full exhibits. You don't |
| 22 | have to do any of that process at the end. |
| 23 | All right. Is there anything else we |
| 2.4 | need to deal with before we get started? |

[WITNESS PANEL: Sprague~Bonazoli~Chagnon]

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1
                         [No verbal response.]
 2
                    CHAIRMAN HONIGBERG: All right.
 3
         Mr. Patnaude.
 4
                         (Whereupon Kevin Sprague,
                         John Bonazoli, and Richard
 5
 6
                         Chagnon were duly sworn by the
 7
                         Court Reporter.)
 8
                    CHAIRMAN HONIGBERG: Mr. Epler.
9
                    MR. EPLER: Yes. Thank you.
10
                     KEVIN SPRAGUE, SWORN
                     JOHN BONAZOLI, SWORN
11
12
                    RICHARD CHAGNON, SWORN
                      DIRECT EXAMINATION
13
14
    BY MR. EPLER:
15
         The gentleman seated in the middle, please
    Q.
16
         state your name and your business
17
         identification.
18
         (Sprague) My name is Kevin Sprague. And I am
19
         the Director of Engineering for Unitil Service
20
         Corporation.
21
         And the gentleman to your left.
    Q.
22
         (Bonazoli) My name is John Bonazoli. I'm the
23
         Manager of Distribution Engineering at Unitil.
24
         Mr. Sprague, I call your attention to what had
    Q.
```

- 10 [WITNESS PANEL: Sprague~Bonazoli~Chagnon] 1 been premarked as "Exhibit 1", which is the 2 least cost filing of the Company in this 3 proceeding, including the report and Appendices A through K. Was this prepared by you or under 4 5 your direction? 6 (Sprague) That is correct. Α. 7 And do you have any changes or corrections? (Sprague) None at this time. 8 Α. And, Mr. Bonazoli, did you assist in the 9 Q. 10 preparation of this filing? (Bonazoli) Yes, I did. Α.
- 11
- 12 Okay. And you're familiar with the contents? Q.
- 13 (Bonazoli) Yes, I am. Α.
- 14 Okay. And both witnesses, are you familiar Q. 15 with the Settlement Agreement that's been filed 16 in this proceeding?
- 17 (Sprague) Yes, I am. Α.
- 18 Α. (Bonazoli) Yes, I am.
- 19 MR. EPLER: Okay. Thank you. That's
- 20 all I have. Thank you.
- 21 CHAIRMAN HONIGBERG: Mr. Kreis.
- 22 I'm sorry. You're right.
- 23 MS. AMIDON: Thank you.
- 24 CHAIRMAN HONIGBERG: Ms. Amidon.

- 1 MS. AMIDON: Thank you.
- 2 BY MS. AMIDON:
- Q. Good morning, Mr. Chagnon. Would you please state your name and your employment for the record.
- A. (Chagnon) Yes. Good morning. My name is Rich
 Chagnon. And I'm a Utility Analyst in the
 Electric Division here at the Public Utility
 Commission.
- 10 Q. Did you work on the review of the Least Cost
 11 Plan that's the subject of this docket?
- 12 A. (Chagnon) Yes, I did.
- Q. Did that review include discovery and technical sessions related to the filing?
- 15 A. (Chagnon) Yes, it did.
- Q. And, in your analysis, did you form an impression or assessment overall regarding Unitil's Least Cost Plan filing?
- 19 A. (Chagnon) Yes. We found -- Staff found that
 20 the filing is consistent with the provisions of
 21 RSA 378:38 and satisfies the planning
 22 criterias.
- Q. Did you participate in the discussions that led to the development of the Settlement Agreement,

[WITNESS PANEL: Spraque~Bonazoli~Chagnon]

- which is marked for -- was marked as "Exhibit 3"?
- 3 A. (Chagnon) Yes, I did.
- Q. So, are you familiar with the terms of the Settlement Agreement?
- 6 A. (Chagnon) I am.
- 7 Q. And, Mr. Chagnon, in the course of your
 8 employment, have you also reviewed the least
 9 cost plans filed by both Liberty and Eversource
 10 with respect to their electric distribution
 11 company?
- 12 A. (Chagnon) Yes, I did.
- Q. Did you use the same criteria in reviewing this

 Plan that you applied to the review of those -
 the plans of those other companies?
- 16 A. (Chagnon) Yes, I did. The same criteria.
- 17 Q. And, in terms of developing the Settlement
 18 Agreement, did you also apply the same
 19 principles in developing the Settlement
 20 Agreement?
- 21 A. (Chagnon) Yes, I did.
- Q. Okay. So, if we could turn to Exhibit 3, for purposes of just an introduction, would you please explain what Section I.B, on Page 1 of

1 the Agreement, what information that provides.

- A. (Chagnon) Yes. This is a brief description of the LCIRP, which is a 31-page document, with appendices of over 400 pages, which include a system improvement planning budget flow diagram, as well as planning guidelines, studies, and recommendations.
- Q. And would you characterize that as a thorough plan?
- 10 A. (Chagnon) Yes, I would. Very thorough.
 - Q. Thank you. If we move to Page 2, under II, I believe that the terms A and B are pretty much self-explanatory. So, I'd like to draw your attention to Paragraph C, Item i, which appears at the top of Page 3.

Would you please explain the benefit in your analysis that having a list of capital projects would provide? What kind of insight would that give you into Unitil's planning process and its LCIRP?

A. (Chagnon) Yes. This gives Staff the opportunity to analyze the Company's investment in plant, and the Company's priorities and focus on upgrading its electrical system. This

- also gives Staff a chance to ask additional questions on other projects that we're not asking for information on in the next filing.
- Q. So, if you looked at this list and there was a particular project that caught your attention, either through the cost or through some other means, you could ask additional questions regarding that planning for that project?
- A. (Chagnon) Correct.

- Q. Thank you. In addition, I refer to Paragraph
 ii, on Page 3, which requests information
 regarding the three highest-cost distribution
 capital projects. Could you again explain how
 useful this information -- how this information
 would be useful in the review of the next least
 cost plan to be filed by Unitil?
- A. (Chagnon) Yes, I can. Staff did ask for this information in data requests, to allow us to analyze the decisions made by the Company throughout the planning and approval process of their capital investments. Staff's requesting this in the next LCIRP, because we knew it was extremely useful, and useful to follow in regards to what kind of decisions did the

[WITNESS PANEL: Spraque~Bonazoli~Chaqnon]

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Company make throughout its least cost planning process for each of these large projects. So, it's three of the largest projects' capital investment.
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- Q. So, when I look at the last sentence in this section, the Company would be required in connection with those three projects to provide a "list of alternatives", and to discuss how it considered each alternative in connection with the investment. Is that right?
- 11 A. (Chagnon) That is correct.
- Q. And this was a provision, if I recall, that was also included in the Settlement Agreement with Eversource, am I right?
- 15 A. (Chagnon) Correct.

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- Q. Okay. Thank you. You said that you concluded that the Company had complied with the requirements of the existing statute in its preparation of the plan. As you may know, the Commission has before it a recommendation regarding grid modernization. Are you aware of that?
- 23 A. (Chagnon) Yes, I am.
- 24 Q. And I'm not asking if you're familiar with the

[WITNESS PANEL: Sprague~Bonazoli~Chagnon]

- contents of that, but if there were any
 recommendations that were adopted by the

 Commission, for example, let's say a storage
 element, that might be part of the next Unitil
 least cost plan, is that right?
- 6 A. (Chagnon) Yes. That's right.
 - Q. But you would expect that to be in a different proceeding, other than this one, is that fair to say?
- 10 A. (Chagnon) That's fair to say.
- 11 Q. Okay. And, so, based on Staff's review, do you
 12 conclude that the Settlement Agreement presents
 13 a just and reasonable resolution of the issues
 14 in this case?
- 15 A. (Chagnon) Yes, I do.
- MS. AMIDON: Thank you.
- 17 CHAIRMAN HONIGBERG: Now Mr. Kreis.
- 18 MR. KREIS: Thank you, Mr. Chairman.
- I just have a few questions. And I think
- they're all for Mr. Sprague really.
- 21 BY MR. KREIS:

7

8

- Q. First of all, if you could indulge my
 curiosity, on Page 23 of the Least Cost
- Integrated Plan, which I believe, and I looking

1 at the redacted version, which I believe is 2 Exhibit 1, there's a -- it's part of -- there's 3 a discussion of Unitil's vision of grid 4 modernization that starts on Page 22. And, 5 then, on Page 23, there's a chart that says 6 that it identifies the projects that the 7 Company identified through the project development process. And, then, in one of the 8 9 columns, there's an item "D.3" called a 10 "Gamification pilot". What is "gamification" 11 or "gamification"? It's a word I don't know. 12 Α. (Sprague) Right. It's pronounced 13 "gamification". And what it is is it's a way 14 for -- it's a program that's been successful in 15 some locations where, if you're able to provide 16 your customers information about their 17 neighbors' usage, then it becomes kind of a 18 game to see who can save more. It's a rather 19 low-cost, but has been kind of a successful way 20 of educating customers about their usage and how their usage compares to others, and they 21 22 can see how their responses to -- their 23 responses to their electricity use can compare

to how their neighbors are responding.

[WITNESS PANEL: Sprague~Bonazoli~Chagnon]

| Q. | I the | ought | it | was e | ither | going t | to be | that | or |
|----|-------|-------|----|-------|-------|----------|--------|--------|-------|
| | some | kind | of | pilot | for | shooting | g moos | se and | deer. |

You heard Ms. Amidon ask Mr. Chagnon about grid modernization and the grid modernization docket. And I have a few questions for you about that. And it really relates to the discussion of grid modernization in the Least Cost Integrated Resource Plan.

First of all, the docket that Ms. Amidon is referring to is the docket in which the report of the Grid Modernization Working Group was developed, correct?

13 A. (Sprague) That is correct.

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- Q. And is it your understanding that the report of the Grid Modernization Working Group has been submitted?
- 17 A. (Sprague) That is correct.
- 18 Q. That wasn't the subject of any adjudicative
 19 proceedings before the Commission, at least not
 20 yet, was it?
- 21 A. (Sprague) Not to my aware -- not to my understanding.
- Q. So, as far as you know, those recommendations are advisory in nature at this point, true?

[WITNESS PANEL: Sprague~Bonazoli~Chagnon]

- A. (Sprague) That is correct.
- Q. And were they unanimous?

- A. (Sprague) The report that was filed with the Commission identified areas where there was disagreement, in addition to areas that there were agreement.
 - Q. Would it be fair to say that there are some areas in which Unitil disagrees with other members of the Grid Modernization Working Group?
- 11 A. (Sprague) We took different positions in some locations on the report, yes.
 - Q. Would you say that either with respect to the positions Unitil took in the Grid Modernization Working Group Report, or the positions that anybody else took, is the discussion of Unitil's vision of grid modernization in the Least Cost Integrated Resource Plan submitted back in April of 2016 consistent with what emerged from the Grid Modernization Working Group?
 - A. (Sprague) The information that we provided here was based upon work that we had done down in our Massachusetts service territory. Which a

lot of -- a lot of which we will use in New
Hampshire as well. But I do believe that there
are some other aspects that have more detail or
different requirements in New Hampshire, or
that we're recommending to have different
requirements in New Hampshire than in
Massachusetts.

- Q. So, if the Commission were to approve the

 Settlement Agreement, and with it this Least

 Cost Integrated Resource Plan, would that be of
 any assistance to you in helping you to figure

 out how to modernize the grid that Unitil

 operates?
- A. (Sprague) I believe our assumption is that we would develop a New Hampshire specific plan, that will have many, if not all, of the components that we identified in this filing, but we'll also have some other components to it. But we would expect to file a separate plan with the Commission.
- Q. Right after the discussion of grid modernization in the Least Cost Integrated Resource Plan, there is a discussion of "Demand-Side Energy Management Programs",

1 correct?

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- A. (Sprague) That is correct.
- Q. And, in that report, there is a discussion or -- well, let me put it this way. Would it be safe to say or would it be reasonable to summarize that discussion in the Least Cost Integrated Resource Plan as a summary of the benefits that Unitil's customers have received through the CORE energy efficiency programs?
- 10 A. (Sprague) That's a fair statement.
- Q. Would it also be fair to say that the CORE energy efficiency programs are going to be changing significantly in the future?
- 14 A. (Sprague) I'm not as aware of that.
- 15 Q. Well, would you agree with me, subject to

 16 check, that the Commission has plans in 2018 to

 17 implement an Energy Efficiency Resource

 18 Standard?
- 19 A. (Sprague) Yes.
 - Q. And, so, therefore, assuming what I just said and what you just agreed to subject to check is true, is the discussion of how Unitil has done in its deployment of CORE energy efficiency programs, is that going to be of any use to you

as you, in the future, plan Unitil's operations and investments in a least-cost fashion?

A. (Sprague) So, we have in front of us multiple different dockets that are all rather kind of integrated, I would say. This least cost planning docket, the grid mod docket, the EERS docket. They all are kind of dancing to the same music, but right now potentially in different locations.

So, going forward, I think there needs to be a melding of those three into -- I'm not sure if it will be one plan, but a more informed plan amongst all three of those.

Least cost planning has been around a long time, originally with vertically integrated utilities. Most states have eliminated the "least cost" planning approach to distribution planning, in favor of more of a grid modernization approach. Just about all states now have at least dipped their toe in the water with respect to grid modernization. Some are more advanced than others. And I think the recommendation that comes -- that's in front of the Commission from the Grid Mod Working Group

is to, I don't want to say "forgo the least cost plan", but to modify the least cost planning process into more of a grid mod process, which is more of adding functionality, adding programs, adding more ability for customers to potentially take more control of their usage.

But, to me, least cost planning and grid mod are not the same thing. I don't know if that answered your question.

- Q. And then some. And I guess I want to focus on the very last thing you said. You said "least cost planning and grid modernization are not the same thing." How are they different?
- A. (Sprague) Right. So, least cost planning is primarily focused around identifying system constraints, typical system constraints, might be a voltage problem, might be a capacity problem. But physical electric system constraints, and developing a solution for those.

Grid modernization is more than that.

Grid modernization has different components,
like grid reliability, like adding different

functionality to the system, allowing the system to more readily integrate distributed energy resources. So, it's -- I like to -- I like to think of "grid mod" as investments that are going to be made in the system, some of which will give the customers the opportunity to reduce their bills, but not -- but not necessarily their rates. The rates will go up, but it will give the customers more opportunities to reduce their bills.

- Q. Assuming that the Commission approves the
 Settlement Agreement, and with it the Least
 Cost Integrated Resource Plan, how often do you
 expect to consult the Least Cost Integrated
 Resource Plan during the coming two years in
 order to guide you in your work at Unitil?
- A. (Sprague) The major components of our Least
 Cost Plan are obviously our planning studies.
 We do those planning studies every year. We
 review those every year. We start with where
 we -- are most recent planning study, and we
 redo those studies every year. So, I would say
 quite often. There's -- every year there's a
 realignment, I'll call it, review of, you know,

1 a project that might be two or three years down 2 the road, review the solution that was proposed 3 in the most recent plan, see does that still make sense. Are there other alternatives that 4 5 make more sense? Has the cost of alternatives 6 come down to make them more economical? Those 7 are the types of items that we're looking at. 8 MR. KREIS: Thank you, Mr. Sprague. 9 Mr. Chairman, those are all the questions I 10 have. 11 CHAIRMAN HONIGBERG: Commissioner 12 Scott. 13 CMSR. SCOTT: Good morning. 14 BY CMSR. SCOTT: So, and just to recap a little bit. So, Mr. 15 Q. 16 Kreis asked you about the Attachment K, I think 17 it is, your Fitchburg Electric Grid Mod. So, 18 just to clarify, that is included in this for 19 illustrative purposes, we're not approving that 20 in any way, shape or form in this filing. Is 21 that correct? (Sprague) That is correct. That's to educate 22 Α. 23 the Commission Staff and the Commissioners on 24 the efforts that have been underway to review

 $\{DE\ 16-463\}\ \{04-12-17\}$

some of these different alternatives and the costs associated with those. But we would ultimately expect to file a New Hampshire specific grid mod plan as the recommendation before you suggests.

Q. Okay. And, when I look at the Settlement
Agreement, I just want to get some
clarification. So, on Page 3 of the Settlement
Agreement, Section ii, the last sentence says
"Unitil shall include a list of alternatives
considered for each project", and you talk
about things like "conservation and load
management", "smart grid", "distributed
generation".

From my point of view, that's good. I would want to know what you considered. But I also moving forward would be interested in, if you didn't consider those things, why you didn't.

So, can you help me with the intent of the language here? I mean, would we see that if this language stays as is? Meaning, for whatever reason you didn't look at those things, right now that language would say then

1 you'd be silent on it.

- A. (Sprague) I'm not sure that that's our interpretation of the language, --
- Q. Okay.

A. (Sprague) -- to be silent. Right now, there's a major change going on in the electric industry. And it's all based around non-wires alternatives. And how do we evaluate those, how do we monetize those, and so forth. So, I'd like to just provide, if I may, kind of an illustrative example of some considerations that we took.

If you take two of our large projects, either our Broken Ground Substation or our Kingston Substation, stepping back just a little bit, from a distribution planning standpoint, we're worried about the peak.

That's what we need to design the system for.

And, so, I'm going to be speaking in watts, as opposed to kilowatt-hours or energy.

So, Broken Ground or Kingston, those were actually designed and installed for about ten cents a watt. Some alternatives to that could have been a solar installation. A solar

installation is somewhere between \$2.50 to \$3.50 a watt, as opposed to the 10 cents.

Because of our system peak being so late in the day, solar at that time of day is only about 10 percent. So, you could install ten times that amount of solar or combine storage with that. If you combine storage with it, that's another \$3.00 a watt installed for storage.

So, now we're taking a \$6.00 a watt project comparing it against a 10 cent a watt project.

If we were to look at energy efficiency, this is just my opinion with respect to energy efficiency, is that the low-hanging fruit is being used up, meaning the low-cost, high-benefit projects, over time, are being used up. So, incrementally, as we go forward, each additional savings from an energy efficiency standpoint is going to cause that price to go up incrementally. In 2016, the average cost was about \$1.60 a watt.

From a -- another option might be demand response. From a demand response standpoint, many of the largest customers that have the ability to shed load under those circumstances

are already part of the ISO market. They're already monetizing that, that ability. So, we can't take credit for that, because it's being taken credit for at the ISO level.

Residential demand response really hasn't got there yet. And it might be because of there -- we need to couple our residential demand response with other incentive for the customer, like time-varying rates, a time-of-use rate, something that is going to enable those customers to gain some benefit from it.

Another option might be wind. Wind right now is \$3.00 to \$8.00 a watt installed. Again, it's intermittent. So, you would put energy storage on that, so that would be another \$3.00 a watt installed.

So, any time we look at all of these different alternatives, we need to make sure that the alternatives that we're considering are designed to the same reliability, the same capacity, the same availability as a traditional investment. If we were to that point, and those were more competitive, I think

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         you would see more of those alternatives being
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         presented in documents like this. But, just
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         based upon our review, the market hasn't got
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         there yet. You know, it's dropping, all of
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         those technologies are dropping. They're
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         becoming more available, lower cost. I'm not
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         entirely sure yet that they're to the level of
         affordability as a traditional investment yet,
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         but that's where we're going to get.
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    Q.
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- Q. That's helpful. And I appreciate that. So, to my original question, what I'm interested in, say, your next filing is at least, you clearly have thought about those things, as a reflection that I could read your LCIRP and say "oh, yes, they did look at it. They decided it wasn't as cost-effective as other things. Therefore, this is what they did instead."

 That's helpful to me. And that's why I just wanted to make sure. So, is that --
- A. (Sprague) That would be the intention.

CMSR. SCOTT: Okay. Thank you.

That's all I have.

23 CHAIRMAN HONIGBERG: Commissioner

24 Bailey.

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CMSR. BAILEY: I'm new to this area.

And, so, I'm looking at it with different eyes

than everybody else. So, I guess I want to ask

than everybody else. So, I guess I want to ask a couple of questions, just so that I

5 understand what your report is saying.

6 BY CMSR. BAILEY:

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- Q. On Page 9, the table at the bottom of the page.
- 8 A. (Sprague) I see that.
 - Q. Shows that the average peak load that you expect is going to go down, and I understand that that's at a 50 percent level. So, half the time it's going to be above that, half the time it's going to be below. But this shows that you expect the load to slightly decrease over time, in the Capital Region, I think.

 Yes, the Capital Region. Is that right?
 - A. (Sprague) That is correct.
- 18 Q. Okay. So, can you explain to me why the peak
 19 design load and the extreme peak loads go up?
 - A. (Sprague) The way that this model is run is it's run using, not to get too technical, but a Monte Carlo simulation. And, at those higher confidence levels -- so, the peak design load is actually a 90 percent confidence that the

load is going to be below that level. So, as we run those simulations, going out into the future, in order to achieve that 90 percent confidence, it actually shows that the load is increasing, because there's a higher -- there's more of a chance of the higher level loads happening in those simulations.

- Q. Okay. On the Seacoast table, on Page 11, it looks like the average peak load is expected to be relatively flat.
- 11 A. (Sprague) Correct.

- Q. Can you explain to me why you think that the

 Seacoast is going to be flat, while the Capital

 Region is likely to decrease?
 - A. (Sprague) The two systems are actually very different in nature. The Seacoast area tends to be very driven by the summer load, specifically at the beach area and along the coast. Those areas tend to be growing right now. If you go down to the -- if you go down to, say, the Hampton Beach area, you'll notice that there's a lot of these smaller, single-floor buildings being torn down in favor of the larger, you know, multistory condos and

hotels. So, where -- and less of that is
happening in the Concord area. So, where
you're still getting some -- in Concord, you're
still getting the benefit of energy efficiency,
you're still getting the benefit of people
just, you know, conserving on their own, by
installing their LED lights and buying more
efficient appliances. In the Seacoast area,
that's getting overtaken a little bit by
growth, I'll call it.

- Q. Okay. In looking at Appendix C, and we don't need to really go there, but the asterisks the asterisked lines on those tables show where the analysis expects that you will need to do some improvements. Is that right?
- A. (Sprague) Correct. That's -- the asterisked lines are where the planning criteria is exceeded.
- Q. Okay. And I commend you for the thorough analysis on that aspect of the Plan. It's really well done, I think. But how do you decide then what the solution is going to be?
- A. (Sprague) So, that's where our engineers start developing different ideas, different concepts.

Some of which could be something as simple as shifting load. Some of it might be reconductoring. Some of it might be a substation upgrade. And, now, as we get into the newer age, it's going to be evaluating those typical type of investments with alternative investments, like solar, like wind, like energy storage, like other different types of programs, designed to either cut the peak or shift the peak into a different time of day.

- Q. And do the planners evaluate each of those options and decide which is the least cost option?
- 14 A. (Sprague) That's correct.

- 15 Q. And is that shown anywhere in this report?
 - A. (Sprague) The projects that -- yes. Throughout the reports, it's identified, for those larger projects, that -- where alternatives have been evaluated. I'm just trying to look at -- it would be generally Section 8 of the two different studies. We try to make the studies be very similar. So, those -- it's those Section 8s that's titled the "System Improvement Options", that that's where those

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different evaluations are made. It just so
happens, in this Appendix C, there's really
only one project that's identified, that's
exceeding -- or, at least the -- yes, the
Appendix C, which is the Capital Region
Planning Study, there's only one project that's
been identified.
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- Q. Okay. You, in response to, I think,

 Commissioner Scott's questions, gave an answer that the alternative that you had selected for the substation costs about "10 cents a watt".

 Where do you get that number?
- A. (Sprague) That's based upon the approximate cost of the projects, which are about \$12 million, and the installed capacity is about 120 megawatts.
- 17 Q. And where did you get your numbers for the cost of solar and the cost of storage?
- 19 A. (Sprague) The cost of solar is based upon a
 20 project that's being done down in our
 21 Massachusetts service territory.
- 22 Q. By you?

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23 A. (Sprague) By us, yes. We have a 1.3-megawatt
24 solar farm that we're installing down on an old

MGP site in Massachusetts. As part of that project, we're evaluating energy storage. So, we had gotten some estimates on energy storage with respect to -- with respect to that project. And we're also now evaluating energy storage for different types of projects, to see if that will be a viable option. Energy efficiency I got from our Energy Efficiency folks, and that's based upon the average cost of the projects that were supported throughout that time frame.

- Q. So, these numbers are based on actual costs of projects that you have direct involvement in?
- A. (Sprague) Except for wind. We don't have any wind. So, the wind number is based upon studies that I found online.
- Q. Okay. And I was going to ask you about storage, on Page 23 and 24, you say that "the Company is in the early stage of investigating...storage options". Is that -- are you doing that just in Massachusetts?
- A. (Sprague) Right now, that's where the focus has been. We had -- Massachusetts has a big drive right now to set state energy storage goals.

And, because of that, there's grant money available for different types of projects. So, there's a couple different energy storage things I'll talk about.

The first is we entered into a grant application with National Grid, UMASS, the City of Holyoke, and a couple other people, specifically around residential energy storage. And we put together a plan to do a pilot project, specifically around energy storage that is associated with solar PV. So that was one thing we did. Unfortunately, we did not get that grant application. So, that project has kind of been put on hold.

The other study that we're conducting right now, down in our Massachusetts territory, we have a distribution substation that is projected to become overloaded in the foreseeable future. So, we're looking at energy storage for a solution of that.

We also, down there, because of the amount of solar penetration, we have reverse power flow on I think it's three of our -- I mean, four of our substations right now, which causes

all sorts of problems for us. So, we're looking at "is energy storage an option for that?"

We have the solar installation that we talked -- that I talked about before, the 1.3 megawatts. We're evaluating if we should add storage as part of that.

And also evaluating, for a customer, who has a rather large solar farm, if storage -- excuse me -- would help or be beneficial, cost-effective for an application like that. And that's really in the early stages of the evaluation.

- Q. Do you think that any of them will be cost-effective or that you will proceed with them?
- A. (Sprague) At this point, I'm not sure. That's why we're doing the study. The challenge with the energy storage is it's -- it will defer investments, but it won't eliminate investments. So, it will push -- it will push those or has the potential to push those large substation investments out in time. But, at some point in time, I foresee that that

substation transformer will end up being replaced, it's just a matter of when. And does it make sense to use energy storage or some other alternative to delay that investment over a period of time?

CMSR. BAILEY: Okay. Thank you very much.

BY CHAIRMAN HONIGBERG:

- Q. Mr. Sprague, I want to return to something

 Commissioner Bailey was asking you about. And

 that's the numbers and the graph that's on Page

 nine. You talked about having done Monte Carlo

 simulations. I have some understanding of how

 those work. In that you have something

 programmed to project results out in the

 future, and a Monte Carlo simulation runs that

 with the push of a button a thousand times.
- 18 A. (Sprague) Right.
- 19 Q. And what you're saying about the results here
 20 is what exactly again?
- 21 A. (Sprague) So, you're correct. So, the Monte
 22 Carlo simulation is run. And we use a
 23 Boltzmann curve --

[Court reporter interruption.]

CONTINUED BY THE WITNESS:

| Α. | (Sprague) Boltzmann, B-o-l-t-z-m-a-n-n. And |
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| | that curve is used for projecting what we |
| | projecting loads within the criteria excuse |
| | me within the criteria of the Boltzmann |
| | curve. So, Boltzmann's curve is kind of an "S" |
| | curve, which is very accurate kind of along the |
| | spine of the S, less accurate out towards the |
| | two tails, at the low levels and at the high |
| | levels. And, so, the results of that, what I |
| | was trying to explain before, the results of |
| | that, we design our system to that peak load. |
| | So, we want to make sure that, say, one out of |
| | every ten years we're not we would exceed |
| | that amount. And, in order to achieve that |
| | level, the growth the growth that you're |
| | seeing in years is to exceed that is to make |
| | sure that only one out of every ten of those |
| | Boltzmann or Monte Carlo runs falls above that. |
| Q. | And, then, the plain English reason why the red |
| | and blue lines on Page on the graph on Page |
| | 9 continue to go up and get farther away from |

uncertainty, more uncertainty going out, your

the green line, is that the result of

1 cone of uncertainty is larger as you get 2 farther away from today? And so that your 3 90 percent number is more divergent from your projected average peak? 4

(Sprague) That's correct.

CHAIRMAN HONIGBERG: Okay.

Commissioner Scott.

BY CMSR. SCOTT: 8

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- Your early discussion with Mr. Kreis, talking Q. about "gaming", I thought that -- when I read that I thought "Oh, that's a Monte Carlo analysis." So, I realize I shouldn't assume anything. So, I'm going to ask you this next question. You mentioned "wind and storage". I assume you're talking small-scale residential wind, is that what you were talking about?
- (Sprague) That's kind of the range, anything Α. from small to wind farm scale.
- 19 Q. Okay.
- 20 (Sprague) Kind of like at \$3.00 to \$8.00. 21 smaller, lower capacity tends to be a higher 22 cost, because of the tower and so forth. As you get the higher capacities, the cost per watt ends up coming down, just because of

1 economies of scale.

- Q. And, obviously, probably because of wind issues, that's really a Seacoast solution, if it is a solution?
- A. (Sprague) Exactly.
- 6 Q. Okay.

- A. (Sprague) And just, if I could just jump back to this forecast, we redo this forecast every year. So, it's a way for us to identify projects out in the future and when they might exceed the load levels. But every year we review that. Every year we look at these, redo this load forecast. And, if you were to look at these over time, the slope of those, the red lines and blue lines, going forward, is coming down. So, there is -- you know, so, ten years ago those lines were rather steep. Right now, they're starting, and every year they tend to flatten out more and more.
- Q. And my other question was, you -- again, back on storage. I assume you follow, even nationally, but certainly regional storage installations. And, if I understand right, there is an approved, I don't know if it's

[WITNESS PANEL: Sprague~Bonazoli~Chagnon] 1 installed, project in Maine to put storage at a 2 substation, rather than upgrade. Does that 3 sound familiar to you? (Sprague) Yes. I'm not sure if it's installed 4 Α. 5 yet or not. 6 Okay. So, you're following those? Q. 7 (Sprague) Yes. Yes. Α. 8 CMSR. SCOTT: Great. Thank you. CHAIRMAN HONIGBERG: I don't have 9 10 anything else. 11 Mr. Epler, Ms. Amidon, do you have 12 any further questions for the panel? 13 MS. AMIDON: Not I. 14 CHAIRMAN HONIGBERG: All right. 15 We've already struck -- oh, yes, Mr. Epler. 16 I'm sorry. 17 MR. EPLER: That's okay. Yes. Ι have just a couple of questions. 18

REDIRECT EXAMINATION

20 BY MR. EPLER:

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Q. Mr. Sprague or Mr. Bonazoli, in your positions,
you oversee both the engineering and planning
activities for Unitil in New Hampshire, as well
as in Massachusetts, is that correct?

 $\{DE\ 16-463\}\ \{04-12-17\}$

[WITNESS PANEL: Sprague~Bonazoli~Chagnon]

A. (Sprague) That is correct.

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- Q. So that any knowledge or pilots that we do in one jurisdiction or in the other is definitely -- we inform the other jurisdiction, we don't keep that information in silos. Is that correct?
 - A. (Sprague) That is correct.
- 8 Q. Okay. So, to the extent that there is
 9 knowledge gained as a result of the pilots that
 10 you discuss taking place in Massachusetts, they
 11 would be -- you'd share that information and it
 12 would inform your decision-making process here
 13 in New Hampshire?
- 14 A. (Sprague) That is correct.
- 15 Q. Okay. The other thing, if the Commission would

 16 just indulge me just for a moment, Mr. Sprague,

 17 you were -- you took part as a witness in

 18 Unitil's rate case in 2010, that was Docket

 19 10-055?
- 20 A. (Sprague) That is correct.
- Q. Okay. And do you recall, in the Settlement
 Agreement in that docket, that there was a
 provision whereby the Staff was to hire, and
 the Company was to pay for, the services of a

[WITNESS PANEL: Spraque~Bonazoli~Chaqnon]

- engineering consultant to review the planning operations of the Company?
 - A. (Sprague) That is correct.

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- Q. Okay. And was one of the -- one of the areas
 that that consultant was to review including
 the identification of potential alternatives
 for the deferral of the second Kingston
 transformer?
- 9 A. (Sprague) That is correct.
- 10 And, as part of that, did the Company, along Q. 11 with the consultant, look at a range of 12 alternatives, including distributed energy 13 resources, demand-side planning, including such 14 extremes as possible brownouts, and so the 15 Company, with that consultant, looked at a very 16 comprehensive range of alternatives before 17 making the investment in Kingston?
 - A. (Sprague) That is correct.
- MR. EPLER: Okay. Thank you.
- 20 CHAIRMAN HONIGBERG: All right. ID
- 21 has been struck on the exhibits.
- Is there anything we need to do
- before the parties sum up?
- [No verbal response.]

CHAIRMAN HONIGBERG: All right.

2 Mr. Kreis, you may go first.

MR. KREIS: Thank you, Mr. Chairman.

At the prehearing conference in this docket seven months ago, I said that Unitil's Least Cost Integrated Resource Plan was a 20th century document, and that we hoped to use this proceeding to bring the utility's least-cost integrated resource planning process into the 21st century. We did not succeed.

At the conclusion of this hearing, all three of the state's distribution utilities will have LCIRPs under advisement to the Commission; Liberty's, in Docket DE 16-097, and that of PSNH in Docket DE 15-248. I will briefly reiterate the point I made at the hearing in each of those dockets.

The Commission and its Staff have allowed and encouraged the state's electric utilities to treat the obligation to file an LCIRP as a make-work exercise, a homework assignment with little purpose. This is inconsistent with the requirements set forth in RSA 378:39.

RSA 378:39 requires the Commission to evaluate the consistency of each utility's LCIRP with the entire subdivision, Sections 37 through 40, governing the least-cost integrated resource planning process. The first of those sections lays out in succinct form the state's energy policy, meeting the energy needs of the state at the lowest reasonable cost while providing for the reliability and diversity of energy sources, while maximizing the use of cost-effective energy efficiency and demand-side management, protecting the health and safety of the state, while also protecting the environment and future supply of resources, and while also giving consideration to the financial stability of the utilities. Those are substantive criteria.

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Consistent with Section 37 of the statute, Section 39 contemplates a review of the substantive outcome of the planning efforts under adjudicative review. "In deciding whether or not to approve the utility's plan, the Commission shall consider potential environmental, economic, and health-related

impacts of each proposed option." At the end of the section, there's even a tie-breaker provision, telling the Commission to give priority first to energy efficiency and demand-side management, then renewable sources, then everything else.

The LCIRP before you today does not allow the Commission to do any of these things. It offers a laudably detailed description of how the utility plans, but it says little, if anything, about what the utility plans.

Unitil and the Staff are well aware of the OCA's perspective on this subject, and thus did not include us in the discussions of the settlement or give us an opportunity to propose language for inclusion in it. I saw it for the first time when it was filed with you. I would prefer not to do business in that fashion.

This is not to say that we have not had some very deep discussions with Unitil in the past year about the stuff of which LCIRPs should be made. The dockets on grid modernization and net metering, and also energy

efficiency, provided robust opportunities for Unitil and the other electric utilities to lay out a vision for a 21st century grid. As the Commission is aware, in the net metering docket, DE 16-576, we even reached consensus with the utilities on a path forward.

Mr. Sprague, in his responses to my question, very interestingly distinguished grid modernization from least-cost integrated resource planning, by saying that the latter is focused on, and this is what he -- the phrase he used, "identifying system constraints".

That is a heroic effort on his part to deal with the cognitive dissonance arising out of the lack of harmony between grid modernization and least-cost integrated resource planning.

The Commission should resolve the dissonance.

To look at this another way, when I asked Mr. Sprague "do you intend to consult the Least Cost Integrated Resource Plan in the period between now and whenever the next one gets approved?" He said that he would, quite frequently. But it was clear that what he was really talking about are the two appendices,

Appendix C and Appendix D, because they really discuss the substantive options that his company has considered. Well, and then he said that it's Section 8 of each of those two appendices that really is where the rubber hits the road, I'm paraphrasing him, because that's where the Company really compares the various options it has, and then picks one.

Well, in Appendix C, as he acknowledged, there's really only one option under consideration for the Capital area portion of the Unitil system. And, so, the plan, of course, adopts that option and says "It's the recommended solution, as there are no other viable alternatives to address this constraint." Again, totally consistent with his testimony that least-cost integrated resource planning is about identifying system constraints. The problem with that is, as I've already pointed out, that's not what the statute says.

The OCA takes no position on whether the Commission should accept or reject the settlement now before you. But we do suggest

that the Commission use all three pending LCIRP dockets as an opportunity to put the utilities on notice that henceforth there will be a new era in least-cost planning, one that requires utilities to prove their systems are indeed least cost, in light of, or in some senses in spite of, restructuring, the muscular assertion of federal authority over transmission planning and wholesale markets, a largely unaccountable regional transmission organization, smart grid technology, distributed generation, and the proliferation of third party providers of all sorts.

In that regard, we commend to the Commission's favorable attention the Sixth report issued by the Lawrence Berkeley National Lab in its "Future Electric Utility Regulation" series. The report is entitled "The Future of Electricity Resource Planning", and it offers a roadmap for dealing with exactly the problems we are confronting here.

The report highlights ten considerations for regulators. I'm not going go through all ten, but I'll highlight a

couple. One is "greater attention in resource planning to customer behavior". I think that's what "gamification" is getting at. Another is "risk analysis and the use of risk-adjusted metrics" by utilities, and those who regulate and evaluate utilities. Another is the need for "deeper expertise at state regulatory commissions and energy agencies", and dare I say, even the OCA. And, then, finally, "regional coordination in resource planning".

Thanks to the waiver provisions in RSA 378-38-a, the Commission has broad authority to reform the LCIRP process to bring it into the 21st century. The interests of residential utility customers and the interests of utility shareholders will be well-served if you do.

CHAIRMAN HONIGBERG: I have a couple of questions, Mr. Kreis. First, is the document you just referenced, from Lawrence Berkeley Labs, is that in our record anyplace?

MR. KREIS: It is not in your record anyplace. And I, of course, by referring to it, I thought "well, do I need to introduce

that into the record?" And I don't think I do.

CHAIRMAN HONIGBERG: Just that kind of leads to the second question.

Do you have a suggestion as to a process the Commission should follow in doing what you just recommended, which is taking advantage of the waiver provisions in the statute, to rethink and redo the LCIRP process?

MR. KREIS: Yes, I would -- yes, I
do. I think that it would be appropriate for
the Commission, in each of the three orders it
now has to issue in each of these LCIRP
dockets, to convene some sort of, I don't know,
not really a task force, but a working group
that would, over the course of really just a
couple of months, come up with some different
ideas that could be submitted to the Commission
for what it might do.

We have had quite a few conversations with the utilities, mainly in the context of the Grid Mod Working Group, about this subject.

And I think it's fair, I can't really speak for the utilities, of course, but I think it's fair that they regard as unnecessary a need for

legislation. That was where I started. I thought "there's something wrong with the Least Cost Integrated Resource Planning statute."

It's really describing a process that worked before restructuring and doesn't work now, because of all the changes that I just described.

But, given that there are waiver provisions, I think there are ways of taking the insights that have been produced, by places like the Lawrence Berkeley Lab, and coming up with a different way of approach least-cost integrated resource planning.

CHAIRMAN HONIGBERG: So, tying it back to the document you have in front of you, you would say that whatever the working group is convened would use a document like that, and other similar resources, to work whatever magic they feel they could work?

MR. KREIS: I would. And I know that these kinds of processes can become ponderous.

But I actually have a fair degree of optimism about this. Because I know, from having talked to the utilities, that they -- they share some

of my concerns. They're maybe, because they're companies, they're less inclined to speak forthrightly and candidly about this than I am on the record, but I know that this process isn't working for them either. And that they really are doing planning. If you look at the appendices, and if you listened, and you did, to what Mr. Sprague said, it's clear that the utilities want to do really great planning.

You know, we will argue with the utilities at the margins about their priorities. The utilities want to maintain their, I guess for lack of a better word, their hegemony, and their concern about the threat to their business model that is raised by the arrival of third party providers, the rise of customer-generators, that presents a challenge and a threat to them. And, so, they're going to grapple with us about where that all fits in.

But I really think that we can develop a agreed-upon system that allows the Commission to evaluate the choices that the utilities are making in a manner that is truly

least cost. Because, again, the objective here is to let the shareholder have a reasonable opportunity to make a return on their investment, but while providing service to consumers that is least cost.

CHAIRMAN HONIGBERG: Commissioner Scott.

CMSR. SCOTT: On your suggestion for a work group, whatever you want to call it is, does the pending order on net metering and the smart grid docket, is it better to wait till those are done to inform that group? Or do you think that really is not necessary?

MR. KREIS: Well, you have the report of the Grid Mod Working Group already before you. So, you know, and that also lays out some recommended future steps. And, you know, the net metering case is about to go under advisement to you. That's been sort of conceived as sort of a freestanding little attempt to solve problems that relate to how to compensate customer-generators. And you, I think, are under some pressure from the Legislature to issue an order fairly quickly in

1 that docket. And, so, in practical terms, you 2 don't have to wait, because you have to act 3 quickly in net metering and you already have the Grid Mod Report. 4 5 CMSR. SCOTT: And the report you 6 mention from Lawrence Berkeley, if you don't 7 enter it into the record, is it safe to assume that it's readily available on their website? 8 9 MR. KREIS: Yes. In fact, all six or 10 seven reports that have been issued so far in 11 the Future Electric Utility Regulation series of the Lawrence Berkeley Lab are all really 12 13 excellent, and easily downloaded from their 14 website, and well worth reading. 15 CMSR. SCOTT: All right. Thank you 16 for you thoughts. Thanks. 17 CHAIRMAN HONIGBERG: Thank you, Mr. 18 Kreis. Ms. Amidon. 19 MS. AMIDON: Well, first of all, I 20 just want to say, this filing deals with a filing that was made in April 2016. And it 21 22 deals with the statute before us, whether it's, 23 you know, desirable or not. 24 I think it is unfortunate that the

Consumer Advocate decided to characterize the utility and the Staff working together as enabling the perpetuation of some outmoded model of least cost planning, when I think, actually, this Company probably does the best job of any of the electric distribution utilities in its least cost planning process.

And what we did in the Settlement Agreement was to strive to add an element that would make it even better.

I also dispute the Consumer Advocate saying that he was "omitted" from settlement discussions. Purely, that was on his own choice. He elected, in connection with the prior case, to disengage from settlement. And when inquired — an inquiry was made if he was interested in this case, he said, you know, he was pretty much going to adopt the position that he had with the prior case, with Liberty and Eversource. So, I think that is not a correct characterization as well.

However, having said that, we believe that the Plan that was submitted by Unitil satisfies the requirements of the statute as

1 they are at this point in time. And we believe that the Settlement Agreement will enhance the 2 3 process by allowing Staff to evaluate the alternatives and other issues related to 4 5 capital development decisions made by the 6 Company in connection with the planning 7 process, and request the Commission approve the Settlement. 8 CHAIRMAN HONIGBERG: 9 Thank you, 10 Ms. Amidon. Mr. Epler. 11 MR. EPLER: Thank you. I quess, let 12 me start out by saying, first of all, 13 specifically, with respect to our filing in 14 this proceeding, a lot of it was informed by a 15 previous settlement agreement in our last least 16 cost plan, and the order of the Commission and 17 the direction that we were given as a result of 18 that settlement agreement and the order. 19 We do see this as -- as Mr. Sprague 20 indicated, we are constantly engaged in 21

We do see this as -- as Mr. Sprague indicated, we are constantly engaged in planning activities on a yearly basis. So, whether we have this requirement to file this report or not, that's what we do. That's how we plan our system. That's how we make sure

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that we are able to deliver service reliably, on time, in a least cost manner to our customers.

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So, what we try to do in this process is to give you a picture of what it is we do on a regular basis, and how we do that planning on a going-forward basis. And, certainly, that planning, as Mr. Sprague discussed, is informed by developments that are happening in the industry, that our customers are taking advantage of, that both residential and commercial and industrial, that's happening in other areas of the country. We're not blind to that. We see that. We're part of an industry that exchanges information on a regular basis. So, all that is incorporated into our planning. And you see when we have our projections of growth. And we see how, both in the Capital region and in the Seacoast region, what's happening to demand, what's happening to our projections. We still have to make sure the lights go on when somebody turns the switch. So, we still have kind of the present day requirements, we're still responsible to the

Commission when we get complaints when the lights don't go on when you turn on the switch. So, we have those present, very real constraints that we're operating under. And then we're also trying to plan for the future, knowing that the industry and technology and so on is changing. And, so, that's what we try to convey to you in these filings.

If there's a better way to do that, we're certainly amenable to having those discussions and to changing our ways.

Utilities may be compared to large ships. Sometimes it takes a lot to turn them around. Sometimes you feel like you're in a rowboat, you know, trying to turn the Queen Mary.

But, if you step back and look at the history of the industry, it really does respond to the incentives, the directions, and sometimes the penalties that apply to them.

If you look at the whole restructuring activities that took place, when I first came into this state and became part of this Commission Staff, and you look at the

transformation that's happened, I mean, the industry has diversified, and disengaged from vertically integrated, and sold off its generation. There was a push to develop a competitive supply market and a competitive capacity market, and that's what's developed in New England.

If you look at recent events, like in 2008, when you had a major ice storm, that caught not only our company, but all the other companies throughout New England short, in terms of their emergency response planning, their vegetation management activities. If you look at what's happened in the last eight years, that has totally turned around. Every company in New England has a comprehensive emergency response plan, a comprehensive vegetation management practice.

So, the industry does respond. And I feel confident that it will respond to all these new technological changes, political pressures, consumer desires, and so on.

So, I think, in the long view, I feel confident that those changes will occur. I

think, in the short term, we have specific 1 2 statutory responsibilities that we have to pay 3 attention to, precedent from prior orders, direction from prior orders. And, so, we try 4 5 to mush that all together and put together 6 something that makes sense. And, so, we hope 7 we have achieved that in doing that. 8 If you have other ideas, suggests, directions, orders, we will attend to that and 9 10 do the best we can. 11 CHAIRMAN HONIGBERG: Thank you, Mr. 12 Epler. 13 If there's nothing else, and I think 14 there's nothing else, we will take this matter 15 under advisement, issue an order as quickly as 16 we can. And we will adjourn. Thank you. 17 (Whereupon the hearing was 18 adjourned at 11:25 a.m.) 19 20 21 22 23 24