1		STATE OF NEW HAMPSHIRE		
2		PUBLIC UTILITIES COMMISSION		
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4	January 6, 2010 - 10:06 a.m.			
5	Concord, New	Hampshire		
6	RE:	NHPUC JAN13'10 PM12:5: DE 09-137 UNITIL ENERGY SYSTEMS, INC.:		
7				
8		Petition for Approval of Distributed Energy Resources Investment Proposal		
9		and Proposed Tariff. (Hearing regarding Time-of-Use Settlement		
10		Agreement)		
11				
12	PRESENT:	Commissioner Amy L. Ignatius, Presiding Commissioner Clifton C. Below		
13				
14		Sandy Deno, Clerk		
15		-		
16	APPEARANCES:	Reptg. Unitil Energy Systems, Inc.:		
17		Gary M. Epler, Esq.		
18		Reptg. Residential Ratepayers: Meredith Hatfield, Esq., Consumer Advocate		
19		Kenneth E. Traum, Asst. Consumer Advocate Office of Consumer Advocate		
20		Reptg. PUC Staff:		
21		Suzanne G. Amidon, Esq.		
22				
23	Com	rt Donorton. Charan E. Datasada IGD W. 50		
24	cou.	rt Reporter: Steven E. Patnaude, LCR No. 52		

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PROCEEDING

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CMSR. IGNATIUS: Okay. We'll open the hearing in DE 09-137, which is Unitil Energy Systems, Inc.'s petition for approval of distributed energy resources investment proposal and proposed tariff. August 5th, 2009, Unitil Energy Systems filed a petition pursuant to RSA 374-G, requesting approvals in connection with distributed energy resources projects, including a two-stage framework for review of its DER investment proposals, a DER project screening process, a DER rate recovery mechanism, and a DER tariff to be activated with a later rate filing, and its 2009 DER Program. then, a Settlement Agreement has been received on one particular aspect of the filing, a Time-of-Use Pilot Program. And, it is my understanding that's what we're doing today is addressing that one issue, with the rest of the filing to continue through the discovery process. And, with that, let's take appearances. MR. EPLER: Good morning, Commissioners. Gary Epler, on behalf of Unitil Energy Systems, Inc. CMSR. IGNATIUS: Good morning. MS. HATFIELD: Good morning, Meredith Hatfield, for the Office of Commissioners.

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Consumer Advocate, on behalf of residential ratepayers.

And, with me for the Office is Ken Traum. 1 2 CMSR. IGNATIUS: Good morning. 3 MS. AMIDON: Good morning. Suzanne 4 Amidon, for Commission Staff. 5 CMSR. IGNATIUS: Good morning. there's one preliminary procedural matter I do want to 6 7 PSNH filed a late intervention request in this 8 docket, which the Commission I don't believe has ruled on There was no objection to it. And, if you recall, 9 10 the filing said PSNH wanted to intervene, excuse me, for 11 informational purposes and see non-confidential materials 12 to better understand the program and its own design in the 13 future. The Commissioners are, although it may not be a 14 direct interest, it's certainly within our discretionary authority to grant intervention and think that's useful 15 16 for PSNH's participation, although they are not here 17 today. 18 And, I notice another -- two other 19 intervenors are not here today, Office of Energy & 20 Planning and Revolution Energy. Do the parties know if 21 they have taken an active interest on this one aspect 22 that's going to hearing today? Mr. Epler. 23 MR. EPLER: Yes, Commissioners.

understanding is that they have not taken an active

interest in this portion of the filing. They're more interested in the remaining portions of the filing.

MS. AMIDON: And, just for your information, PSNH did attend a technical session that related to the other issues, other than this Time-of-Use settlement that we're discussing today. So, I believe that they're interested in the distributed energy aspects of the filing.

CMSR. IGNATIUS: All right. Thank you.

Any other procedural matters or other matters before we begin with testimony?

MR. EPLER: Just that we'll be submitting two exhibits this morning. The first is the Direct Testimony of Justin Eisfeller, which is in the filing that we made on August 5th. It's Bates stamp 071 through 135. That's his testimony and exhibits. That would be -- we would like that to be premarked as "Unitil Exhibit Number 1". And, then, the second exhibit, I guess we could offer as a joint exhibit, if that would please the Commission, would be the Settlement Agreement.

CMSR. IGNATIUS: All right. So, marked "Exhibit 1", Mr. Eisfeller's testimony and exhibits, and which is within the green binder that was submitted, previously filed in August. And, then, the Settlement

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Agreement itself would be "Exhibit 2".
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                          (The documents, as described, were
                          herewith marked as Exhibit 1 and
 3
 4
                          Exhibit 2, respectively, for
                          identification.)
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                          CMSR. IGNATIUS: And, it looks as though
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       we have a panel of witnesses today. You want to swear
       them.
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                          (Whereupon George R. Gantz, Justin C.
10
                         Eisfeller, and George R. McCluskey were
11
                          duly sworn and cautioned by the Court
12
                         Reporter.)
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                          CMSR. IGNATIUS: Mr. Epler.
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                         MR. EPLER: Okay.
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                         GEORGE R. GANTZ, SWORN
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                      JUSTIN C. EISFELLER, SWORN
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                      GEORGE R. McCLUSKEY, SWORN
18
                          DIRECT EXAMINATION
19
     BY MR. EPLER:
          Starting with Mr. Eisfeller, could you state your full
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21
          name and your position with Unitil.
22
     Α.
          (Eisfeller) My name is Justin Charles Eisfeller.
23
          I'm the Director of Energy Measurement and Control at
          Unitil.
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- Q. And, Mr. Eisfeller, did you prepare testimony and exhibits in this proceeding?
- 3 A. (Eisfeller) I did.
- Q. And, could I draw your attention to what's been premarked as "Unitil Exhibit Number 1". And, is this your testimony and exhibits?
- 7 A. (Eisfeller) It is.
- 8 Q. And, do you have any changes or corrections?
- 9 A. (Eisfeller) I do.
- 10 Q. Could you turn to Page 4 of 8 of your testimony, and on
 11 Line 31. Is there a change in that?
- 12 A. (Eisfeller) Yes. Line 31 should state "The simple rate will include a time-of-use rate structure."
- Q. Okay. And, with that change, do you adopt this as your testimony and exhibits?
- 16 A. (Eisfeller) I do.
- Q. And, Mr. Gantz, could you state your position with Unitil?
- A. (Gantz) Yes. My name is George Gantz. And, I am

 Senior Vice President for Distributed Energy Resources

 with Unitil.
- Q. And, Mr. Gantz, while we're not submitting your testimony at this point in this proceeding, were you intimately involved in the technical sessions,

[WITNESS PANEL: Gantz|Eisfeller|McCluskey]

- discovery, and the negotiation of the Settlement
- 2 Agreement?
- 3 A. (Gantz) Yes.
- 4 MR. EPLER: I could introduce
- 5 Mr. McCluskey, of course, who probably needs no
- 6 introduction, as the Staff witness or --
- 7 BY MS. AMIDON:
- 8 Q. Would you state your name for the record.
- 9 A. (McCluskey) My name is George McCluskey.
- 10 Q. And, what is your position?
- 11 A. (McCluskey) I work as an Analyst in the Electric
- 12 Division at the Commission.
- Q. And, have you testified before this Commission
- 14 previously?
- 15 A. (McCluskey) Several times.
- 16 Q. And, did you participate in the construction of the
- document that's been marked for identification as:
- 18 "Exhibit 2", the Settlement Agreement?
- 19 A. (McCluskey) I did.
- MS. AMIDON: Thank you.
- 21 BY MR. EPLER:
- 22 Q. Mr. Gantz, turning to what's been premarked as "Exhibit
- Number 2", the Settlement Agreement, could you very
- 24 briefly give a little bit of background to the

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Company's filing. And, then, if you could walk through the Settlement Agreement, the major provisions of it, and give us some explanation to that.

the Company's proposal goes back really a couple of years. The Company is fully aware and cognizant of the Department's order in the -- regarding Time-of-Use rates back in docket DE 06-061. Subsequently, in Massachusetts, there was also the passage of the Green Communities Act, which contained within it a specific requirement for companies in Massachusetts to file Smart Grid Pilot Programs.

So, as we looked at the two policy directions in both states, we felt that it might be appropriate to develop a pilot program looking into the Time-of-Use rates, and also the ability to develop or deploy some of the capabilities of the AMI system that the Company had previously completed for its system.

So, we acquired some consulting expertise to help us. We felt it was appropriate to focus on air conditioning load and on residential customers as a target for the initial pilot program.

In part, because we felt it was important to minimize the cost of what we were doing, and look at air

conditioning, because that's, obviously, a key driver of summer period peak demand growth, which is a key planning factor for the Company going forward.

We also saw this as an opportunity to minimize costs by developing a program that essentially shared the sampling process across the two states, so we could minimize the cost of doing the pilot program. And, with that kind of the initial starting point, the Company then began to put together a plan for a pilot program.

The Massachusetts Green Communities Act had a specific deadline for filing a pilot program.

So, that was kind of a driver in terms of our timetable. And, we did get that filed with the Department in -- Department of Public Utilities in Massachusetts. That filing is contained as an attachment, a schedule in Mr. Eisfeller's testimony.

It's Schedule JCE-1. And, that was the initial filing of the Joint Program.

In New Hampshire, we were at that point working on a proposal and a proposed filing under RSA 374-G, the distributed energy resources statute. And, initially, we made a decision to include the New Hampshire component of the Time-of-Use Pilot Program as

an element of that proposal. That proposal was then filed in New Hampshire in early August of last year. That then initiated the process, the proceeding in New Hampshire. We had discovery and we had technical sessions in New Hampshire. And, those discussions led to an agreement among the parties as reflected ultimately in the Settlement Agreement. But the initial agreement of the parties was to look at the Time-of-Use Pilot Program separately from the remainder of the proposal. And, in fact, to take it out of the statutory framework of RSA 374-G, look at it independently, and provide for an appropriate cost recovery mechanism that was not tied to RSA 374-G.

In Massachusetts, we went through the hearing process and -- concluded discovery, went through the hearings, and the docket reached a point where the parties were ready to brief the case. At the Company's request, the briefing schedule was postponed, allowing us to continue the discussions pertaining to potential settlement. That those discussions focused here in New Hampshire on the technical sessions and discussions with Staff and led to the development of a formal settlement proposal, which has been filed with the Commission and marked as "Exhibit 2".

In Massachusetts, we, given the state of the proceeding in Massachusetts, while we discussed the concepts, the provisions that were being discussed here in New Hampshire for settlement purposes with the parties, we made a decision that it would be more expeditious in Massachusetts simply to file the Settlement Agreement, essentially, in lieu of a brief, and hopefully obtain the concurrence of the other parties in Massachusetts. We believe that the Settlement Agreement we're discussing here today addresses the concerns that were raised in Massachusetts. And, we're confident that it will be accepted and ultimately approved in that proceeding in Massachusetts.

So, that's the background to where we are today. And, I think I'll just take a few additional moments to walk through the key provisions of the Settlement Agreement, so the Commission has the context for those.

The Article I, the "Introduction", 1.1 is simply additional review of the history of the Company's Pilot Program. 1.2 describes in very general terms the framework for the program. There are three components to the program; a Simple Time-of-Use

Program, "simple", in the sense that it's simply a rate program, but it will have, in addition to on-peak and off-peak, it will have a "critical peak" feature as well. The second program is the Enhanced Technology, which will have a Time-of-Use rate, and also employ an advanced technology allowing the customer to get information and potentially control appliances in the customer premises. And, then, the third component will be essentially a Smart Thermostat Program, which will be a direct control program, where, based upon the signals initiated by the Company, there will be a thermostat setback on the air conditioning on the customer premises.

Section 1.3 refers to the fact that this is going to be a Joint Pilot Program. And, indicates that, although our initial proposal was to recover the costs of the program under the provisions of RSA 374-G, we've now agreed to modify that and to propose recovery of the costs, the incremental costs associated with this program, through Default Service rates. 1.4, 1.5, 1.6, and 1.7 are simply recitations as to process issues.

Article II goes into more detail on the Pilot Program itself. We're going to be implementing

the Pilot Program for the three summer months in 2010, the high load months. We're -- our initial proposal has been a very simplified pricing, where we simply used multipliers to the Default Service rate to come up with a proposed pricing structure. Based upon the work with the Staff and the other parties in New Hampshire, we're going to modify that proposal to look at actual market energy and capacity costs in the final design of the rate itself that we will use.

2.2 refers to the time period and the critical peak criteria. Again, we're going to be finalizing that, the time periods and the critical peak criteria, in the coming months. And, specifically, we want to ensure that the critical peak period would include a minimum of two and a maximum of eight critical peak events in the period, so that we actually get a real-world test of what we have in the field.

The actual rates, including time periods, critical peak criteria, would be contained in a tariff specifying those provisions. And, we will be preparing that tariff and those studies in consultation with the parties in both states. And, 2.3 indicates we will file that tariff at least 60 days in advance of the Default Service period.

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2.4 specifies the cost recovery process. The incremental program costs will be recovered as a component of the non-G1 Default Service rates over one year, commencing with the Default Service rate period beginning on November 1, 2010.

2.5 is a provision referring to the stratification and sampling process. That's explained in some detail in Mr. Eisfeller's testimony. But, in addition, based originally on some concerns raised in Massachusetts, we think there's an opportunity to look at a sub-sampling of low income residential customers, in order to obtain some statistically useful results, looking at the differences between non-low income and low income customers and their reaction to the program. So, we have a provision in here to look at a very modest oversampling of low income, to make sure that we've got enough of a sample to provide for statistically valid conclusions. And, the provision also indicates that the low income customers will be subject to the same screening process applied to other residential customers.

Section 2.6 refers to the fact that our original proposal had anticipated the Company offering a cash participation incentive for a customer to enroll

in the Pilot Program. We've agreed to begin the program with the assumption that -- and the expectation that we won't need a participation incentive of that nature. But this reserves the right for us to bring that incentive back, if we find that we're unable to secure a sufficient participation to meet the statistical requirements.

Section 2.7 refers to the Smart

Thermostat Program. And, we've agreed to include a

Peak Reward Incentive for customers that actually

continue with the program and result in demand

reductions during the critical peak periods. This is a

modification from our original proposal, which didn't

have an incentive award for that.

Section 2.8 refers to the "Evaluation Protocol". This was a significant issue in Massachusetts. And, what we have agreed to here is that we'll work with all the parties in both states on the development of an evaluation protocol for the Pilot Program in advance. We all want to make sure that the study results provide adequate and reliable conclusions and specific recommendations for going forward.

Section 2.9 is a provision that's with a specific interest to the Staff and the parties in New

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Hampshire. And, given -- particularly given the
 1
          Commission's policy support for Time-of-Use rates, 2.9
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          indicates that we will develop a proposal for a
 3
          Time-of-Use Pilot Program for our Non-G1
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          non-residential customers, to implement it in the
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          Summer of 2011. And, we'll file that program towards
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          the end of this year, after the conclusion of this
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          initial Pilot Program.
                         Article III are the "General
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          Provisions". I don't think there's anything in there
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          that I need to highlight. And, I think, with that,
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          that concludes my initial summary.
                         MR. EPLER: That concludes Unitil's
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       portion of the examination of the witnesses.
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                         CMSR. IGNATIUS: Thank you.
16
       Ms. Hatfield.
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                         MS. HATFIELD:
                                        Thank you. Good morning,
18
       gentlemen.
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                         WITNESS McCLUSKEY:
                                             Good morning.
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                         WITNESS GANTZ: Good morning.
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                         WITNESS EISFELLER:
                                             Good morning.
22
                           CROSS-EXAMINATION
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    BY MS. HATFIELD:
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          If I could turn your attention to what's been marked as
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- 1 "Exhibit 1", and specifically your Schedule JCE-2, 2 which appears at Bates Page 079 in the filing.
- 3 A. (Eisfeller) Okay. The cost summary?
- Q. Yes. This shows -- it's entitled "Summary Report TOU". And, it shows at the top an amount listed as the
 "Unitil Investment". Could you tell us what that
 amount is?
- 8 A. (Eisfeller) "\$312,136".
- 9 Q. And, right below that it says "Total Project Cost" in the same amount, is that correct?
- 11 A. (Eisfeller) Correct.
- Q. And, is that the current projected cost that Unitil expects for this program?
- 14 A. (Eisfeller) For the New Hampshire participation,
 15 correct.
- Q. Mr. Gantz, you gave us the -- I think the status of the
 Massachusetts aspects of this program in your
 testimony. I'm wondering, from the Company's
 perspective, if the New Hampshire Commission were to
 approve the Time-of-Use Pilot, is your actually running
 the Pilot contingent upon approval in both states?
- 22 A. (Gantz) Yes.
- Q. So, in your mind, this has been designed with the sample size including customers in both states, so it

Τ		is necessary to have the approval of both states?
2	A.	(Gantz) Yes. Essentially, we have, in Mr. Eisfeller's
3		well, in Schedule JCE-1 of Mr. Eisfeller's
4		testimony, I think there's some information regarding
5		sample sizes and strata required. On his Schedule
6		JCE-1, Page 17 of 56, for example, is a table that
7		shows what the sample sizes are. They're based upon
8		essentially the electric customer base in the two
9		states. So, New Hampshire is about two-thirds of the
LO		sample; Massachusetts is about one-third of the sample.
L1		And, we need the full sample in order to be able to
L2		gain the statistics that we would expect.
L3		Specifically, the 90 percent confidence of the result,
L4		plus or minus 10 percent. So, you know, that's the
.5		statistical standard that's been used in designing that
.6		sample. If we lose a significant portion of that
.7		sample, you know, that would undermine the statistical
.8		results. So, we would either then need to look at
.9		increasing the sample size in New Hampshire, which
20		would affect the cost of the programs. We wouldn't
1		propose to do that without coming back to the parties
2		and the Commission for a review, a determination as to
:3		whether that was appropriate to do or not.
4		That said, I think we're very confident

of where we are in this process. The discussions, the hearing process in Massachusetts I think went very well, and I have -- I'm very confident we'll get the full support of the parties and the approval of the Department.

- Q. Thank you. Mr. McCluskey, could you briefly describe why Staff believes that it's appropriate to authorize Unitil to undertake this Pilot?
- A. (McCluskey) With the various modifications that we've proposed in this Settlement Agreement, we believe the Time-of-Use Pilot will provide significant information regarding the usefulness of Time-of-Use pricing, in terms of obtaining demand reductions at the peak. Mr. Gantz said that there are three components to the Time-of-Use Pilot. Two of which are Time-of-Use rate structures; one the Simple Time-of-Use rate structure and the other the Enhanced. So, those two themselves are going to give information. Can you get reductions just with the simple pricing or do you have to have the sophisticated technology to help with automated load reductions behind the meter, in order to have successful Time-of-Use pricing?

The third element is also extremely important. That does not involve the Time-of-Use rate

Structure. Essentially, what that program is is the Company signaling to the customer that the critical peak period is about to occur, and we'd like to have you reduce your load. And, if the customers respond, then that will give us good information as to whether we need Time-of-Use pricing or can we simply get the load reductions through that more basic program?

In Staff's view, we feel as though, in order to make that program successful, you had to give the customer some financial incentive. And, so, we've built in into this Settlement document an agreement that we will work together on determining how much of the cost saving that results from a load reduction should be given to the participant as an incentive, one, to participate in the program, and, two, to make a load reduction. So, both elements of this Pilot Program are going to give us significant information in New Hampshire that we have not had before, and that is basically the usefulness of Time-of-Use pricing and other mechanisms in order to encourage load reductions. And, I don't need to say why it's important to have load reductions, it's fairly obvious why.

So, that I think -- we haven't had a Pilot Program of this nature in New Hampshire before.

And, I think this will -- this program, once it completes, will fill a lot of the information holes that we have regarding Time-of-Use pricing.

- Q. Mr. Gantz, you mentioned or you referenced one of the provisions of the Settlement calls for, I believe it's 2.3, calls for the Company to make a tariff filing in order to implement this on May 1st, 2010. And, I'm wondering, does the Company have a date by which it needs to receive a Commission order approving this program in order to proceed for this summer?
- A. (Gantz) That's a good question. I think, as a practical matter, everything will need to be approved prior to the implementation of the rate on June 1. Our advanced filing of the tariff and associated information is intended to kind of facilitate the review. And, I would hope that those rates and provisions would be approved simply as part of the Default Service approval process.
- Q. Mr. Gantz, with respect to how the Company will do outreach to participants who you hope to enroll in the program, could you just speak a little bit about, since this is a voluntary program, how you might do outreach and try to get the customers interested and willing to sign up?

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Α. We -- the target audience is residential (Gantz) Sure. customers with whole house air conditioning. been able to segment our residential customer groups looking at using a criteria of summer load in excess of average load, and with that have been able to narrow down the potential pool of customers. We will develop a -- and, actually, we've done some research, are doing some research now on that population, to look at issues associated with marketing the program. And, I believe -- I believe that research is underway and we'll be getting that in a few weeks. So, that will provide more information about exactly what we need to do to secure sufficient participation and help us in terms of how we describe the program to customers and explain it.

When we get to the actual acquisition of participants, we would use a sampling of -- initially, a sampling of those populations. We would initiate direct contact with those customers, trying to interest them in participation of the program. And, we would continue that solicitation process until the various stratified sample targets had been secured in both states, so that we've got a complete sample in place, in both the three program participation groups, as well

1 as ir

as in the control group.

The control group or we believe most of the control group is going to be available under our existing load research sample population. So, I think, you know, that will help, again, minimize the cost of doing the program.

So, I think that summarizes the plan.

You know, we have hired GDS Associates to assist us.

They're helping to get the research conducted and help us design the specifics of the customer recruitment process.

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

CMSR. IGNATIUS: Thank you. Ms. Amidon.
MS. AMIDON: Thank you.

BY MS. AMIDON:

- Q. Mr. McCluskey, you referenced the "Peak Reward Pricing Incentive", that's at Paragraph 2.7, on Page 5. Did you have any additional comments that you wanted to make regarding the significance of the Peak Reward Pricing program?
- A. (McCluskey) I think most of my comments were made in response to the OCA's question. However, I just want to emphasize the importance of the Smart Thermostat

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Particularly, now that we have built in an Program. incentive to the participant, so now we have the opportunity to determine whether time-of-use pricing is a more effective method of obtaining load reductions than the standard thermostat approach. The Time-of-Use customer gets the benefit of a bill reduction, so they're definitely getting something out of the Now, with this incentive component to the Smart Thermostat Program, the participant is going to get something there. Is it more effective? Is it the least cost way of obtaining the load reductions than through time-of-use pricing? We will get some information on that issue through the Pilot Program. And, it will indicate to the Company whether it's better to put its effort into pricing or into thermostat, or maybe a combination of the two if the information is not clear.

So, I think I just wanted to make that point with regard to that component of the Settlement. It doesn't really jump out at you the importance of the Thermostat Program just reading the Settlement Agreement.

Q. Thank you. Also, on Page 5, and Mr. Gantz referred to this in his testimony, Paragraph 2.9 indicates the

1		Company's agreement to develop a proposal for the
2		Non-G1 non-residential customers. What about the large
3		customers, the large commercial and industrial
4		customers? What are your thoughts on that?
5	A.	(McCluskey) Okay. This Settlement Agreement does not
6		address the Large G1 customers. And, so, the question
7		is "why?" We posed that question through the discovery
8		process to the Company and we kind of liked the
9		Company's response. The Company voluntarily came
10		forward with the Time-of-Use Programs for the component
11		of the Non-G1 class. And, what we've done here is
12		we've essentially expanded the Pilot to include all of
13		the Non-G1 class. So, why don't we have something for
14		the G1 class? And, their response, which I think is a
15		good one, is "Hey, they volunteered on this one. We
16	-	have other utilities in the state. And, maybe they
17		should offer something with regard to the G1." And,
18		Staff strongly agrees with that position. If the
19		Commission thinks it's appropriate to have a pilot for
20		the G1 class, not necessarily a time-of-use, maybe
21		something more sophisticated for those more
22		sophisticated customers, then I think it would be
23		appropriate for the Commission to indicate that to the
24		other companies. But I think Unitil has I think made a

substantial effort in developing the initial program
and agreeing to expand the program.

- Q. Thank you. If you refer now to Page 3, just below the heading "Article II. Time-of-Use Pilot", what do you think of that sentence? The way it's worded is a little --
- A. (McCluskey) Oh, yes. Yes, I think the sentence is kind of clumsy, where it says this program "shall be approved as filed." This is a Settlement Agreement, and we're submitting it to the Commission for their approval. I think it could have been better developed by saying "subject to Commission approval, the Pilot Program is subject to the following modifications."

 So, we'll try to do better next time.
- Q. Thank you. Do you have any other observations you want to make about the Settlement Agreement for the record?
- A. (McCluskey) Just one, with regard to 2.1, the Default Service rates. Mr. Gantz indicated that the Time-of-Use rates are going to reflect the actual market prices for peak, off peak and critical peak periods. I just wanted to emphasize that this is a Time-of-Use pricing for Default Service, and it's a pilot. So, the objective is to compare essentially what happens under a Time-of-Use structure with

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non-Time-of-Use rates. That these Time-of-Use rates
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          need to be adjusted up or down to recover the Default
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          Service rate that will be in effect during this period.
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          So, if the Default Service rate in that period needs --
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          is a little higher, than we're going to have to adjust
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          these rates, so that the average rate is going to
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          recover the Default Service price. Based on that, we
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          can then draw relevant conclusions with regard to
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          Time-of-Use and non-Time-of-Use rates. So, I just
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          wanted to make that point.
11
                         MS. AMIDON: Thank you.
                                                   I have no
12
       further questions.
13
                         CMSR. IGNATIUS:
                                          Thank you.
14
       Commissioner Below.
15
                         CMSR. BELOW:
                                       Yes.
16
     BY CMSR. BELOW:
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     Q.
          Mr. Eisfeller, in your Exhibit 1, on Bates stamp Page
          121, is part of a sample Energy Savings Management
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19
          Educational Component.
    Α.
          (Gantz) I'm sorry, we don't have the Bates stamp
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          numbers in this copy.
21
22
                         CMSR. IGNATIUS: Yes, please.
                                                         Make sure
23
      he has a copy.
                      Thank you.
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(Atty. Epler handing document to the

witnesses.)

BY CMSR. BELOW:

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It's Page 42 of 56 in Schedule JCE-1. I was just wondering if you noticed what is potentially a contradictory statement in this draft. If you look at the second bullet, "Water heating can account for 14 to 25 percent of the energy consumed in your home." you look at the fifth subbullet, it says "Install times to turn off water heater during the time when hot water -- when hot heater is not used, such as at night." Then, on the next page, in the next to the last bullet, it says "If you have an electric water heater, add a timer to shut off the water heater during peak periods, and turn it back on during off-peak periods." Nights are usually an off-peak period when rates would be low and demand is low. So, it might not make sense to set your hot water heater to turn off at night. since it's a storage device, it might make more sense to charge that storage at off-peak, is that correct? Α. (Gantz) That's correct. I think that discrepancy there highlights the difference between energy efficiency measures and demand reduction measures, which we'd have to educate the customer on the benefits and the challenges of both.

- Q. Okay. This is strictly a residential program as proposed, correct?
 - A. (Eisfeller) Correct.

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- Q. And, the focus is on air conditioning, which is, you know, the big demand. I was wondering, in the Technology -- in the Enhanced Technology Program, you're still planning to provide an in-home wireless control system with flexible control devices, is that correct?
- 10 A. (Eisfeller) Yes.
- Q. And, you referenced "Smart Thermostats", which could control the air conditioning load, as well as outlets.

 A Smart Outlet might be a device that, through a wireless signal, could turn something off, say, at peak demand, at critical peak demand times, is that correct?
 - A. (Eisfeller) As well as any other time.
 - Q. Okay. And, I was just wondering if you had a plan to support customers in targeting high-demand devices, including some that are hard-wired, like hot water heaters, and, in particular, dishwashers, which can have a 1 to 2 kilowatt or more electric booster heater in them, but is typically hard-wired, so it might not be easy for a customer to control that device so it doesn't run at high cost or high-demand hours. Have

{DE 09-137} {01-06-10}

1 you thought about that?

- A. (Eisfeller) The customers will receive an educational package that will include items such as that, other means to reduce demand and energy in their household.

 And, the dishwasher, I would imagine, would be part of that consideration. Additionally, the outlets are able to measure usage real-time. And, so, the Company has the advantage of using that real-time measurement to investigate opportunities within their house to reduce energy, as well as reduce demand.
- Q. Would those outlets include an outlet that's suitable for an electric clothes dryer, which is a different --
- A. (Eisfeller) It will not. They are just a 120 volt standard two-prong outlets, with a ground. So, it's just --
- Q. So, with the Enhanced Technology Program, would there be anything to help a customer not run their clothes -- you know, to delay their clothes dryer operation to an off-peak time?
- A. (Eisfeller) Only from an educational perspective,
 educating them on how to run, you know, considerations
 for running that type of equipment.
- 23 Q. Okay.
- 24 A. (Eisfeller) The other advantage they would have, this

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group of customers, would be that they could see the direct impact on their usage. There's also a meter installed that gives them real-time information. They could monitor the impact of their total load within their house for clothes dryer, the dishwasher, those types of things, and see the direct impact of turning those on and off, from a whole house perspective.

- Q. Your meters and the program, will it document what the consumption and the demand --
- 10 A. (Eisfeller) Yes.

- 11 Q. At what intervals?
- A. (Eisfeller) Fifteen minute intervals is the plan.
 - Q. Okay. So, how does that work, if a booster heater in a dishwasher draws 2 kW for five minutes when it's running hot water, will that 2 kW show up as demand in a 15 minute interval, even though it's for only five minutes of that interval?
 - A. (Eisfeller) It will. We'll be recording that information for analysis purposes for our own benefit. The customer will have real-time information, those particular customers on the Enhanced Program will have real-time usage information directly from the meter. So, they will see the immediate impact.
 - Q. So, they might see, in a real-time basis, that booster

heater --

- A. (Eisfeller) They might see that 2 kW impact and be able to correlate that "Hey, my dishwasher, I just turned my dishwasher on, and that's a 2-kilowatt impact. I might want to reconsider that during a pricing period of eight times or five times the average."
- Q. But the pricing, the critical peak pricing is still just a usage charge, it's a kilowatt-hour charge?
- A. (Eisfeller) That's correct. It's an average over a time period.
- 11 CMSR. BELOW: Okay. That's all.

12 Thanks.

13 CMSR. IGNATIUS: Thank you.

14 BY CMSR. IGNATIUS:

- Q. I'd like to ask a couple questions to clarify the number of customers involved. And, both Mr. Eisfeller and Mr. Gantz have spoken to it, so I'll leave it to you to see who best to answer. There's a discussion of "76" as an appropriate number for sampling purposes.

 Can you clarify, is that 76 between the two states or New Hampshire alone? And, is it across the board in all three programs? Or, does each program get to be just a handful of people?
 - A. (Gantz) If you can find Bates stamp 099, is that the --

- 1 it's Schedule JCE-1, Page 17 of 56, Bates stamp 096.
 - Q. Thank you.

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- 3 Α. (Gantz) Has a little table. And, it shows you, 4 essentially, the full collection of samples, each of the four groups, each of the two states, and how we 5 6 split them up. So, there are 76 target participants in 7 each of the group; 24 in Massachusetts, 52 in New Hampshire. And, then, those sum up to the totals, 8 9 including the control group, of 96 in Massachusetts and 208 in New Hampshire. And, I believe the sampling 10 11 includes a few extra, relative to the statistics, if I recall, I think maybe 72 is kind of the minimum number, 12 but 76 was the target number, to allow for some 13 14 retirements in the middle of the program, customers move or change their minds in the middle. So, that's 15 16 the -- that's what the plan is.
 - Q. Thank you. And, because those numbers are fairly small, if you had additional people who were excited about the program and wanted to participate, is there any -- but you've already filled your numbers in each of the strata, is there any opportunity for them to take advantage of the program?
 - A. (Gantz) I would -- I think we would recommend against that at this time. Under the program, for example, in

order to get that 15 minute interval data, we are going to install analysis meters on every one of these That's an expensive investment. And, I think we've designed the program to try and minimize the overall cost and maximize the information that we gain. Ultimately, our goal will be to design a program that would use the functionality of the existing AMI meters. So, there would be no incremental metering cost to deploy a program across the board, you know, based upon the design that came out of the Pilot. So, I think we -- our intention is to secure the appropriate sample sizes, conduct the Pilot, draw some conclusions about what direction we should go, but, ultimately, implementing a program that would then utilize the AMI without requiring an incremental metering expense.

CMSR. IGNATIUS: Commissioner Below.

18 BY CMSR. BELOW:

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- Q. And, just to be clear, the Smart Thermostat Program, the direct load control is basically just the AC and potential heating loads, and would not include any control of hot water heater or clothes dryer or electric booster heaters?
- A. (Gantz) Right. What we're studying is the direct

thermostat setback for whole house air conditioning.

CMSR. BELOW: Okay. Thanks.

BY CMSR. IGNATIUS:

- Q. And, in following up, Mr. Gantz, your description of design of a larger program after review of the Pilot Program results, do you have a target date on when you might be able to roll something out? I know the Settlement Agreement talks about non-residential customers in a new filing, but, if it's here, I missed it, of the hope of when you might be able to roll out a larger residential program, if this is successful?
- A. (Gantz) Well, as I recall, our plan is to complete the Pilot and to prepare a full evaluation report and have that completed by November 1. That would include recommendations. Based upon the nature of those recommendations, we might then be in a position to move forward with a more full-scale deployment. At this point, we wouldn't be able to estimate the amount of time that would be required to, you know, to do that. You know, and, obviously, a pilot program affecting, you know, 208 customers is very different than something affecting potentially thousands of customers. So, you know, I think we've laid out the plan, we've laid out our commitment to file a report by November 1.

And, we'll, you know, we'll see what conclusions come out of that process.

- Q. One last question. You said that Massachusetts had scheduled deadlines for filing of a proposal. Are there any deadlines that the two states have to coordinate on for approval of this Pilot?
- A. (Gantz) I would hope that we could get approval in both states by the end of this month, if possible. Because, based upon the strength of our confidence in the Settlement Agreement in this state, and concurrence in Massachusetts, we are now spending money. And, there's a critical path. We've already passed the point, you know, the critical path point, we can't delay the work that we need to do to have this in place by June 1.

 And, you know, we're confident that the approvals will be forthcoming. But I think getting those approvals will add, you know, confidence that we're spending money wisely, and that both Commissions will be looking forward to getting the results from the Pilot.

CMSR. IGNATIUS: Thank you. Mr. Epler, anything in redirect?

MR. EPLER: No, Commissioner. I could just let you know that yesterday I did have conversations with the Hearing Officer in Massachusetts, as well as the

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Attorney General. And, so, we are moving ahead with that.
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       And, I have a filing that I'm trying to get in very
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       quickly there. But they understand the time
       considerations as well.
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                         CMSR. IGNATIUS: All right. Thank you.
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                         MR. EPLER: And, they were pleased to
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       hear of the developments in New Hampshire.
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                         CMSR. IGNATIUS: Anything further for
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       these witnesses?
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                          (No verbal response)
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                         CMSR. IGNATIUS: If not, you're excused.
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       Anything other than closings?
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                          (No verbal response)
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                         CMSR. IGNATIUS: And, is there any
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       objection to admitting the exhibits as full exhibits,
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       striking the identification?
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                          (No verbal response)
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                         CMSR. IGNATIUS: If not, we'll do so.
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       Ms. Hatfield, anything in closing?
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                         MS. HATFIELD: Thank you, Commissioner.
       The OCA fully supports the Settlement Agreement that's
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       before the Commission. We urge the Commission to approve
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       it as quickly as possible. And, we would just like to
       note our thanks to Unitil for their work in bring forward
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both this Pilot and their overall distributed energy 1 resources filing. And, we're hopeful that, now that we've 2 moved on from this chapter of that filing, that we can now 3 focus on those other distributed energy resource projects. 4 Thank you. 5 Thank you. Ms. Amidon. CMSR. IGNATIUS: 6 As you heard from Mr. MS. AMIDON: 7 McCluskey, the Staff worked diligently with the Company 8 and with the OCA to develop this settlement agreement. 9 And, we believe that the Time-of-Use Pilot Project will 10 give the Company the data that they need to have to 11 determine what's an appropriate price signal or other 12 mechanism to get customers to respond and to reduce their 13 So, we support the Settlement Agreement and we ask loads. 14 the Commission to approve it. Thank you. 15 Thank you. Mr. Epler. CMSR. IGNATIUS: 16 Just would reiterate what MR. EPLER: 17 both the OCA and the Staff have already said. 18 appreciate your indulgence and ask for an order as 19 reasonable as possible. And, thank you very much. 20 Thank you. All right. CMSR. IGNATIUS: 21 With that, we'll close the hearing and I guess take it 22 under advisement. 23 (Whereupon the hearing ended at 11:02 a.m.) 24