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STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

June 9, 2022 - 9:03 a.m.
21 South Fruit Street
Suite 10
Concord, NH

RE: DE 21-119
EVERSOURCE ENERGY
Proposed Tariff Amendments to
Residential Time-of-Day Rate
[Hearing]

PRESENT: Chairman Daniel C. Goldner, Presiding
Commissioner Carleton Simpson
Commissioner Pradip Chattopadhyay

Tracey Russo, Clerk

APPEARANCES: Reptg. Eversource Energy:
Jessica A. Chiavara, Esq.

Reptg. Residential Ratepayers:
Julianne Desmet, Esq.
(Office of Consumer Advocate)

Reptg. N.H. Department of Energy:
David K. Wiesner, Esq.
Matthew Young, Esq.

COURT REPORTER: SUSAN J. ROBIDAS, NHLCR NO. 44

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I N D E X

WITNESS PANEL: EDWARD A. DAVIS
 ELIZABETH R. NIXON

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EXHIBITS		PAGE
1	Testimony of Edward A. Davis and attachments	PREMARKED
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3	Rebuttal Testimony of Edward A. Davis, filed 4/18/22	PREMARKED
4	Settlement Agreement and attachments	PREMARKED

1 P R O C E E D I N G S

2 CHAIRMAN GOLDNER: Good morning,
3 everyone. I'm Chairman Goldner. I'm joined
4 today by Commissioner Simpson and
5 Commissioner Chattopadhyay. We're here this
6 morning in Docket 21-119 for a hearing
7 regarding a settlement agreement relative to
8 Eversource Energy's proposed tariff
9 amendments for the residential time-of-day
10 rate.

11 Let's take appearances, beginning
12 with Eversource.

13 MS. CHIAVARA: Good morning, Chair
14 and Commissioners. Jessica Chiavara, counsel
15 on behalf of Public Service Company of New
16 Hampshire, doing business as Eversource
17 Energy. Today I have with me Edward Davis,
18 director of rates for Eversource Energy.

19 CHAIRMAN GOLDNER: Thank you.
20 Clean Energy New Hampshire.

21 [No verbal response]

22 CHAIRMAN GOLDNER: Is not here.
23 Noted.

24 The Office of Consumer Advocate.

1 MS. DESMET: Yes. Good morning,
2 Commissioners. Julianne Desmet, staff
3 attorney at the Office of Consumer Advocate.
4 And with me is Ms. Maureen Reno, director of
5 Rate and Market Policy.

6 CHAIRMAN GOLDNER: And finally, the
7 New Hampshire Department of Energy.

8 MR. WIESNER: Good morning,
9 Commissioners. David Wiesner, representing
10 the Department of Energy. With me this
11 morning is our witness, Elizabeth Nixon,
12 director of the electric group at the
13 Department. And also to my immediate left is
14 our new hearings examiner and staff attorney,
15 Matt Young, who is working with me this
16 morning.

17 CHAIRMAN GOLDNER: Okay. Very
18 good.

19 For preliminary matters, a question
20 for the parties: Do you plan to have the
21 Company and DOE witnesses as a panel or have
22 them testify separately?

23 MS. CHIAVARA: We were planning on
24 a panel this morning.

1 CHAIRMAN GOLDNER: Okay. Very
2 good.

3 Exhibits 1 through 4 have been
4 prefiled and premarked for identification.

5 Are there any other preliminary
6 matters before we have the witnesses sworn
7 in?

8 [No verbal response]

9 CHAIRMAN GOLDNER: No? Let's
10 proceed with the witnesses. If you guys
11 would like to join up front, that would be
12 appreciated. And when you're settled in, Ms.
13 Robidas will please swear in the panel.

14 (WHEREUPON, ELIZABETH R. NIXON and
15 EDWARD A. DAVIS were duly sworn and
16 cautioned by the Court Reporter.)

17 CHAIRMAN GOLDNER: Okay. Let's
18 begin with the Company.

19 Ms. Chiavara, after your witness
20 adopts his testimony, do you plan to ask him
21 to summarize his testimony or go straight to
22 Commissioner questions?

23 MS. CHIAVARA: We have two brief
24 questions and answers. We'll keep them very

1 brief.

2 CHAIRMAN GOLDNER: Okay. Thank
3 you.

4 Mr. Wiesner.

5 MR. WIESNER: A couple of brief
6 questions to summarize the Department's
7 position on the settlement.

8 CHAIRMAN GOLDNER: Okay. Very
9 good, sir. Thank you. So we'll proceed with
10 Ms. Chiavara.

11 MS. CHIAVARA: Thank you, Chair.

12 DIRECT EXAMINATION

13 BY MS. CHIAVARA:

14 Q. Mr. Davis, could you please state your name
15 and your title and your role at Eversource.

16 A. (Davis) Yes. I'm Edward Davis. I'm the
17 director of rates for Eversource Energy.

18 Q. And what are your responsibilities in your
19 role at Eversource?

20 A. (Davis) I'm responsible for gas and electric
21 rates, rate design, cost of service --

22 [Court Reporter interrupts.]

23 A. (Davis) Rate design, cost of service, and
24 administration of our tariffs for gas and

1 electric for the Eversource companies.

2 Q. Have you ever testified before this
3 Commission?

4 A. (Davis) Yes, I have.

5 Q. Thank you.

6 Did you file testimony and corresponding
7 attachments as part of the filing on
8 June 15th, 2021, marked as Exhibit 1?

9 A. (Davis) Yes, I did.

10 Q. And were the testimony and supporting
11 materials prepared by you or at your
12 direction?

13 A. (Davis) Yes.

14 Q. Do you have any changes or updates to make at
15 this time?

16 A. (Davis) I do not.

17 Q. So do you adopt your testimony today as
18 written and filed?

19 A. (Davis) Yes, I do.

20 Q. Thank you.

21 Moving to the April 18th rebuttal
22 testimony, did you also file that rebuttal
23 testimony and corresponding attachment on
24 April 18th, 2022, marked as Exhibit 3?

1 A. (Davis) Yes.

2 Q. And was that testimony and supporting
3 materials prepared by you or at your
4 direction?

5 A. (Davis) Yes.

6 Q. Do you have any changes or updates to make to
7 that testimony?

8 A. (Davis) I do not.

9 Q. So do you adopt that testimony today with
10 the -- as it was written and filed?

11 A. (Davis) Yes, I do.

12 Q. Fantastic.

13 Moving to the Settlement Agreement. Are
14 you also familiar with the terms of the
15 Settlement Agreement entered into by the
16 Company that's marked as Exhibit 4 and was
17 filed to this docket on June 2nd, 2022?

18 A. (Davis) Yes.

19 Q. And do you believe the terms of the
20 settlement are just and reasonable and in the
21 public interest and would result in just and
22 reasonable rates?

23 A. (Davis) Yes.

24 Q. All right. Thank you. So just a couple of

1 questions.

2 Mr. Davis, can you briefly explain the
3 intent of the provision in the Settlement
4 Agreement in Docket No. DE 19-057 that
5 required this revision to the Company's
6 residential time-of-day rate?

7 A. (Davis) Certainly. The intent was to update
8 our time-of-use rate for residential
9 customers to more accurately reflect cost of
10 service now that the utility is no longer on
11 generation and the rates are fully unbundled,
12 as the demands have changed for that service.
13 Updating the rate would also have the benefit
14 of a shorter peak period commensurate with
15 the cost of providing service under the
16 current demand curve, which could encourage
17 more customers to shift their usage to
18 off-peak hours.

19 The requirements in the Settlement
20 Agreement from Docket 19-057 were that the
21 Company continue to offer a two-period rate,
22 with a peak window of no more than eight
23 hours.

24 Q. And do you think that the Company's proposal,

1 as modified by the Settlement Agreement
2 proposed for approval in this docket,
3 accomplishes the purpose of the Settlement
4 Agreement in Docket No. DE 19-057?

5 A. (Davis) Yes, I think it satisfies the
6 Settlement Agreement from 19-057 and actually
7 goes further.

8 The proposed rate, we call it
9 "R-OTOD-2," as modified by the Settlement
10 Agreement in this docket, updates the rate in
11 a way that's reflective of the cost to serve
12 these customers. Additionally, the proposed
13 revision to the residential time-of-day rate
14 as represented in the Settlement Agreement
15 not only shortens the peak period over half
16 from the current 13-hour period to 6 hours,
17 but it also reduces the customer charge by
18 approximately half, making the rate more
19 appealing for a greater number of customers
20 to enroll in the rate, while also making it
21 easier for those customers to shift their
22 energy usage to off-peak hours.

23 Q. Thank you, Mr. Davis.

24 A. (Davis) You're welcome.

1 MS. CHIAVARA: That's all I have.

2 Thank you.

3 CHAIRMAN GOLDNER: Thank you, Ms.

4 Chiavara.

5 Mr. Wiesner.

6 MR. WIESNER: Thank you, Mr.

7 Chairman.

8 DIRECT EXAMINATION

9 BY MR. WIESNER:

10 Q. Ms. Nixon, for the record, please state your
11 name and your position with the Department.

12 A. (Nixon) My name is Elizabeth Nixon. I'm the
13 electric director in the Regulatory Support
14 Division in the New Hampshire Department of
15 Energy.

16 Q. And have you previously testified before the
17 Commission?

18 A. (Nixon) Yes, I have.

19 Q. Did you review and analyze the Company's
20 initial proposal in this proceeding?

21 A. (Nixon) Yes.

22 Q. And did you submit prefiled testimony and
23 related attachments marked for identification
24 this morning as Exhibit 2?

1 A. (Nixon) Yes, I did.

2 Q. Was that testimony and supporting materials
3 prepared by you or at your direction?

4 A. (Nixon) Yes, it was.

5 Q. Now, do you have any corrections or updates
6 to make to that testimony at this time?

7 A. (Nixon) Yes, I do.

8 On Page 4 of my testimony, Line 10, I
9 changed the number "11" to "13." And that's
10 referring to the number of peak hours in
11 Eversource's current time-of-day rate. I had
12 mistaken that.

13 And then we have an appendix -- or one
14 of my appendices or attachments is testimony
15 from Dr. Sergici, and she had referenced it
16 as "11." I'm not modifying her testimony
17 that was filed elsewhere, but I just wanted
18 to point that out as well.

19 Q. And that was testimony that Dr. Sergici had
20 filed in Docket 20-170; is that correct?

21 A. (Nixon) That's correct.

22 Q. Thank you. And with those corrections as
23 noted, do you adopt your testimony for the
24 purposes of this hearing?

1 A. (Nixon) Yes, I do.

2 Q. And were you also actively engaged in the
3 technical sessions and settlement
4 negotiations that ultimately resulted in the
5 settlement now pending before the Commission?

6 A. (Nixon) Yes, I was.

7 Q. And are you familiar with the terms of the
8 Settlement Agreement entered into by the
9 parties in this docket marked for
10 identification as Exhibit 4?

11 A. (Nixon) Yes, I do -- I am.

12 Q. And could you please provide a brief summary
13 of the key settlement terms, from the
14 Department's perspective, and how those
15 settlement terms address and resolve the
16 concerns expressed in your prefiled
17 testimony.

18 A. (Nixon) Yes. In the settlement, the proposed
19 rate, as Mr. Davis just mentioned, narrows
20 the window for the peak period to six hours;
21 it reduces the customer charge from
22 approximately \$32 to \$16.50; it moves
23 approximately the \$16 from the customer
24 charge to volumetric charges; and it also

1 commits the Company to explore additional
2 revisions, such as seasonality, a shorter
3 peak period window, greater peak to off-peak
4 ratio, and time-varying generation in
5 connection with this next base rate case. It
6 also obligates the Company to provide
7 education and outreach to the current
8 time-of-use customers and also to other
9 residential customers. We believe this
10 revised rate will provide incentives for
11 participating residential customers to shift
12 load to the off-peak, which would potentially
13 provide lower bills to those customers, as
14 well as provide benefits to the system as a
15 whole by moving load away from the peak
16 periods.

17 Q. Do you believe, therefore, that the terms of
18 the Settlement Agreement are just and
19 reasonable and in the public interest?

20 A. (Nixon) Yes, I do.

21 Q. And they would result in just and reasonable
22 rates, from the Department's perspective?

23 A. (Nixon) Yes.

24 Q. Thank you.

1 MR. WIESNER: I have no further
2 questions under direct examination.

3 CHAIRMAN GOLDNER: Okay. Thank
4 you, Mr. Wiesner. We'll move Commissioner
5 questions, beginning with Commissioner
6 Simpson.

7 COMMISSIONER SIMPSON: Thank you,
8 Mr. Chairman.

9 INTERROGATORIES BY COMMISSIONERS:

10 BY COMMISSIONER SIMPSON:

11 Q. And thank you, Ms. Nixon and Mr. Davis, for
12 being here today.

13 A. (Davis) You're welcome.

14 Q. So I'd like to start with some questions for
15 Mr. Davis. And I would invite you to point
16 me to wherever you think would be most
17 appropriate, either in the Settlement
18 Agreement or in your prefiled or rebuttal
19 testimonies. But I'd like you to walk me
20 through your process and what you provided in
21 terms of how you did your rate design and the
22 methodology for coming up with the periods
23 for peak and off-peak, and allocation of
24 costs within each of those periods, if you

1 would.

2 A. (Davis) Certainly. So our underlying
3 analysis that everything really hinges on is
4 marginal cost analysis, and as well as cost
5 to serve the residential class.

6 Our current structure, which is what we
7 predicated our final settlement design on,
8 identifies the current time-varying rates for
9 distribution and transmission. So we have
10 examined the cost to provide service and
11 identified those aspects that are
12 time-related, if you will, time-varying. We
13 did that by performing a separate marginal
14 cost study for distribution and a separate
15 marginal cost study for transmission. And
16 the result of those provide -- we basically
17 started with an eight-hour period -- I just
18 want to set the stage there -- and worked our
19 way toward finding the differentiation in
20 marginal cost separately from this process
21 for distribution and for transmission. For
22 costs that varied by time, by working our way
23 through what are the -- what's the
24 concentration of cost depending on the time

1 period and finding a strong statistical fit
2 between the peak costs for the distribution
3 period and distribution component of service
4 and then transmission component of service.
5 So when you combine -- you do those
6 separately. But you also do those on a
7 combined basis to find the strongest fit and
8 by having iterations that worked on different
9 periods, different hours. And because we
10 used a probability of peak analysis for
11 transmission to accomplish that, we basically
12 looked for a regression, a strong statistical
13 fit, both what's the highest regression that
14 we could get for transmission and
15 distribution separately and also combined.
16 And it turned out that seven hours was the
17 strongest fit. Also it matters which hours
18 you pick. It's not just seven hours, but
19 when does it start and end. So we used that
20 as the basis to come up with marginal cost
21 price differences, if you will. That becomes
22 a basis for designing rates. So having a
23 price difference based on marginal costs
24 allows us to then solve the price, the rates

1 to meet the revenue requirements targets.

2 So what I would perhaps -- probably the
3 best way to pivot to the data that
4 articulates that, I would say it's clearly in
5 the Settlement Agreement. And I would direct
6 our attention to Bates Page 47, as well as
7 Bates Page 49. So I'm going to start with
8 Page 49. And that's a summary table, and it
9 provides the results of our marginal cost
10 analyses for both distribution and
11 transmission. So do you have that page?

12 Q. Yes, I do.

13 A. (Davis) So I would like to focus on Lines 18
14 and 19. And there's a column under the
15 "6-Hour" label that says "MC Differential."
16 And what it shows -- we actually performed a
17 full marginal cost analysis for distribution
18 on the entire system. And I just want to
19 point out we have both local costs and
20 system-level costs. And this analysis showed
21 us that there is some time differentiation.
22 It's not a large difference, but particularly
23 at the substation level. And the result of
24 that is we have marginal cost differences

1 between peak and off-peak of just under half
2 a penny, about .00464 cents per kilowatt
3 hour.

4 So this is the fundamental basis for
5 designing rates because that tells us when we
6 design the peak and off-peak prices -- and we
7 have a revenue requirement target, so
8 obviously we have an allocated cost study
9 that gives us our residential revenue
10 requirement. But to find out for the costs
11 that are time-differentiated -- and they
12 happen to be volumetric rates, and that's
13 kilowatt hour per residential -- we basically
14 impute this difference between peak and
15 off-peak kilowatt hours, or cents per
16 kilowatt hour to ensure that we have at least
17 that difference between peak and off-peak
18 pricing. And we solve that pricing to equal
19 the designed revenue requirement.

20 And just so you can read across, there's
21 a rate under the Total column. It's .05196.
22 That's the overall average cents per kilowatt
23 hour we're solving to. So what we're trying
24 to accomplish is a rate that has a difference

1 of .00464, that when you multiply it times
2 the peak kilowatt hours and the off-peak
3 kilowatt hours, you come back to the 5.196
4 [sic] cents.

5 And a similar process using a
6 probability of peak analysis for transmission
7 gave us a marginal cost differential, which
8 we also solved. In that case, the rate we're
9 solving to is .3046. That's in Line 19.

10 So that's kind of a high-level summary
11 and overall theory of design based on
12 marginal costs. And by doing that, you have
13 cost-reflective rates. Because what it says
14 is during the peak hours I have a higher cost
15 that I want to make sure I reflect in rate
16 design. We still have a total revenue
17 requirement to reconcile to. But if there's
18 load in peak hours versus off-peak, there's a
19 higher price. So the price differential
20 gives us that basis for setting the rates.

21 Now, where the actual rate design shows
22 up is actually on Bates Page 47. Again, this
23 is the underlying cost data.

24 And by the way, before I jump away from

1 Page 49, the actual prices that make up the
2 marginal cost differential on that lower
3 table, so those are the results of our
4 studies.

5 So then if I pivot over to Bates
6 Page 47, you can see where I have carried
7 over -- and I'm going to focus on Lines 22
8 and 23 -- carried over those marginal costs.

9 So the upper section of this Section I
10 provides the determinants of that use. I'm
11 solving for revenue requirements, and I need
12 to solve for the volumetric-related rates.
13 So what I have is a total revenue requirement
14 of \$248 million for distribution. But I pull
15 out the customer piece, and I solve -- I want
16 to solve for \$78 million revenue requirement.
17 Distribution and transmission is about 94,
18 almost 95 million. Those are my ball case
19 for a rate design, the need to come back to
20 the revenue requirement.

21 The marginal cost in II in the middle
22 there are, again, price bases for solving
23 time-of-use rates. And the rate design
24 period is actually down below. I'm going to

1 focus up through Lines 40, just to walk this
2 through.

3 So earlier I mentioned that we have
4 honed in on a six-hour period. So the
5 residential rate class, if you look at the
6 kilowatt-hour usage for a six-hour period,
7 breaks down to 21 percent peak usage and
8 79 percent off-peak usage. So Line 34
9 provides the total kilowatt hours and the
10 peak and off-peak kilowatt hours for the
11 class if you use the six-hour peak window.
12 So we have 647 million kilowatt hours during
13 the peak and 2.5 -- 249 --

14 [Court Reporter interrupts.]

15 A. (Davis) All right. I'm going to start over.

16 My total usage is about 3 million
17 kilowatt hours, okay, 3.144 million kilowatt
18 hours. But that breaks down to 21 percent of
19 that is 646 million kilowatt hours, and
20 that's about 21 percent of the usage of the
21 total kilowatt hours that the residential
22 class utilizes. All right. So --

23 Q. And these are current.

24 A. (Davis) These are current. This is an

1 analysis from our test year. So based on
2 current rates, that's right. So we have
3 billing determinants in current rates.
4 They're derived from our base test year in
5 the rate case. That's actually the basis for
6 our billing determinants. So, yes.

7 And then so we just need the
8 kilowatt-hour breakdown. Because I need to
9 know when I multiply my off-peak price times
10 the off-peak kilowatt hours and the peak
11 price times the peak kilowatt hours, I get
12 revenue for off-peak and peak. And I add
13 those up, and I get a total revenue. And
14 that has to match the revenue target up
15 above, the 78 million that we showed up top.

16 Q. And that's because you're designing these
17 rates from the beginning to be
18 revenue-neutral?

19 A. (Davis) That's correct.

20 Q. Thank you. Continue.

21 A. (Davis) Thank you. That's an important
22 point.

23 CHAIRMAN GOLDNER: If I could just
24 interject --

1 [Court Reporter interrupts.]

2 BY CHAIRMAN GOLDNER:

3 Q. So you have 21 percent of the kilowatt usage
4 is peak. And it says six hours out of the
5 day, so that's a quarter of the day. So how
6 is a quarter of the day only 21 percent peak?

7 A. (Davis) These are the weekday hours, and
8 usage is very, very high during the weekdays.
9 So --

10 Q. But that would imply that peak is lower than
11 the average. See what I'm saying?

12 A. (Davis) Sorry, Mr. Chairman. Could you
13 repeat the question? I kind of missed that.

14 Q. Sure, sure. So you have -- you're using 1 to
15 7 p.m., which is six hours in the day.

16 A. (Davis) Correct.

17 Q. So that's a quarter of the day. So you would
18 expect in that time period the load to be
19 higher than the average.

20 A. (Davis) Yes.

21 Q. Maybe I'm missing something. But the peak
22 load you have at 21 percent out of the total.
23 So I would expect that peak load to be
24 30 percent or 35 percent to represent a peak

1 load. Does that make sense?

2 A. (Davis) Yeah, it's peak -- yeah, I think I
3 understand the question. But in some sense
4 it's a little counterintuitive. But the peak
5 demand might be different than the peak usage
6 because that's the focus of the residential
7 class. So you're looking at all types of
8 residential customers across the board here.

9 So what's happening is the kilowatt-hour
10 usage, while it's -- if you think about
11 what's peak demand level, that's different
12 than the kilowatt-hour usage during a peak
13 period, and so they're different numbers. I
14 don't have the stat on what the peak kilowatt
15 demand might be relative to average load.
16 But it just turns out, from our analysis of
17 the actual data for this class, that 1 to
18 7 p.m. weekdays, non-holiday weekdays, if you
19 add up all the kilowatt hours, we get this
20 result. And a deeper dive, I think that's --
21 and I haven't looked at this in some time.
22 But I will say it's a sample that we used
23 because we don't have meters and a full set
24 of data on the whole class. But it's a

1 statistically valid sample that we derived
2 this from. And clearly within a given class
3 you'll have usage that's all over the place.
4 You know, some customers may not be using
5 much at all during the day. But from our
6 sample extrapolated out to the entire
7 population, you know, that's the load shape.
8 That's the proportion of total kilowatt-hour
9 usage or consumption as opposed to peak
10 demand level during those hours.

11 Q. Okay. Yeah, please continue. I may come
12 back to that after other Commissioners'
13 questions. But thank you for that.

14 A. (Davis) Okay. Thank you. I actually invite
15 those questions because they also may test
16 the data further.

17 So given that backdrop, you know,
18 with the breakdown of kilowatt hours --
19 again, this is for rate design purposes -- we
20 are designing a rate so that the pricing for
21 peak and off-peak will have that differential
22 that we mentioned. You know, so I can point
23 you to Lines 38 and 39. We had a marginal
24 cost differential for distribution of .00464

1 over on the delta price column. And the
2 marginal cost differential we set at 7 cents
3 here. So we did a little bit of rounding.
4 It was actually 6.347 [sic], but we agreed to
5 use 7 cents here. It's still
6 cost-reflective, but we're solving rates.

7 I want to go back to that first
8 page I mentioned earlier. I had a
9 distribution rate of 5.196 [sic] cents. So
10 let's say it's about 5 cents. And also
11 transmission, we had a total average rate of
12 3 cents, 3.046 [sic]. So we're solving to
13 get to that same rate on average. But to
14 ensure that we have a peak and off-peak
15 difference of .00464, which is on Line 38,
16 and .07 on Line 39, we solve to meet those
17 total revenue requirements. And that turns
18 out to be in Line 38 for distribution, we end
19 up with a 2.868 [sic] peak rate and a 2.404
20 [sic] off-peak rate. If we multiply those
21 two prices times the corresponding peak and
22 off-peak kilowatt hours above, we're going to
23 come back to our total revenue, which is way
24 at the top on Line 15 of \$78.6 million. Kind

1 of a bit of baby algebra, really.

2 And then for transmission, the same
3 process. As I said a minute ago, we have an
4 overall average rate of 3 cents, 3.046 [sic]
5 cents. And that ties to that revenue
6 requirement up above of 94,695,072. To get
7 there, the rates on Line 39 would apply,
8 where we take the 8.572 [sic] cents times the
9 peak kilowatt hours on Line 34, plus the
10 .01572 dollars per kilowatt hour times the
11 2,498,286,160 on Line 34. When you multiply
12 those out, you're ensuring that you get a 7
13 cent differential between peak and off-peak,
14 which you come back to the total revenue
15 requirements target up above of 94,695,072.

16 So that gives us our starting point, and
17 that's kind of the core marginal cost base
18 rate design. So we end up with a peak to
19 off-peak difference, and I'm looking at Line
20 40 now, of about seven and a half cents, you
21 know, .07464.

22 Q. Which is basically your peak period is about
23 three times your off-peak period. So, peak
24 to off-peak differential to me would be

1 roughly three. Is that fair to say?

2 A. (Davis) Yes, and that's -- you know, that's
3 if you're measuring on just the time-varying
4 rates. But that's right.

5 Q. How would you -- when you make that
6 statement, how else would you suggest
7 measuring that differential?

8 A. (Davis) I would still suggest using that.
9 But I actually tend to prefer focusing on the
10 price differential. To me, that's ultimately
11 what translates to the bill impact. But I
12 recognize, and it's very common, to take the
13 total, like if we sum up all the rates. We
14 have other pricing that's not
15 time-differentiated. So if I took these that
16 are time-differentiated, but I also -- and I
17 do have some tables I could point to. But if
18 you sum up -- actually, let's look on
19 Page 48, the very next page. And this is
20 just a table of pricing.

21 If I were to look at that right-hand
22 column and I focused -- I have a little bit
23 of sort of a gray highlight over the
24 time-varying rates. So if I combine those,

1 to me that's a way to say what's the price
2 ratio for time-varying rates, you know, if
3 that's a metric that we want to use to
4 describe those. And I tend to use that. I
5 also tend to look at the difference in price.
6 I think that's the most relevant when it
7 comes to what customers see on a bill.
8 However, it's very common to take the sum of
9 all the rates and show a ratio. And so in
10 this table I show, for example, the total
11 peak price. If you sum up all the prices, I
12 have 26.932 [sic] cents for the peak period
13 and 18.194 [sic] for the off-peak. It's a
14 different ratio. And these prices change all
15 the time, so the ratios themselves are going
16 to change. But the underlying time-varying
17 rates, by focusing on that, it keeps you
18 focused on what ratio time-varying rates
19 have. And those reflect what the price
20 difference is.

21 So there's different ways -- I think
22 it's just like speaking different languages.
23 You know, how do we want to characterize and
24 refer to this. And I don't have a particular

1 preference, if you will, a bent toward, you
2 know, presenting it in a certain way. It's
3 just when I do this kind of analysis and I
4 try to identify what are the price signals
5 and impacts, I'm looking at the time-varying
6 rates. I mean, every price presents a price
7 signal of some sort. But again, focusing on
8 time-varying, I'm totally willing to speak to
9 it on just time-varying, which is, like you
10 said, the three-to-one ratio, or to look at
11 an overall basis that gives you a different
12 ratio. Those are important. Those are
13 important to recognize how people think and
14 what the implications are. There's a lot of
15 literature. The industry, I think more often
16 than not, uses the total price ratio as a
17 basis. And that certainly was a major part
18 of our discussions and how do we refer to
19 these prices and to price differences and
20 ratios and things of that nature.

21 Q. Yeah, I think that's helpful. I appreciate
22 that. These three pages are a helpful
23 analysis. And I would agree with you,
24 because in my view, I think customers at the

1 end of the day, they're going to ask
2 themselves: Do I do my laundry at 3:00 in
3 the afternoon, or do I do it at 9:00 in the
4 evening? And the implications of that, as
5 this table reflects, is roughly 50 percent.
6 You're going to pay 50 percent more to use
7 electricity during that peak period; is that
8 fair to say --

9 A. (Davis) Yes.

10 Q. -- as an all-in view?

11 A. (Davis) Yes, it is. My experience in other
12 jurisdictions -- when I mentioned down on
13 Line 40 on Page 47 we have seven and a half
14 cents, 7.464 [sic], the message there is, the
15 simple message is so you would pay seven and
16 a half cents less if you moved your usage to
17 the off-peak. That's a practical way to
18 present that to customers. At least that's
19 the way I think about it. And I find it
20 useful in dealing with our customers
21 directly.

22 But the ratios have a -- it's important
23 because you're trying to look at sort of the
24 policy and the economics of it, and you need

1 metrics to measure it and evaluate that as
2 well.

3 Q. So if my understanding is correct, it sounds
4 as if you didn't go into this analysis with a
5 predetermined ratio, whether on just the
6 time-varying rates or on the total; is that
7 fair to say?

8 A. (Davis) That's correct. Yeah, I would say
9 that for sure. But I know that at the end
10 you want to measure that, of course. But I
11 wanted to make sure we had cost-reflective,
12 efficient rates, which is what we did. I
13 mean, using the marginal cost analysis -- and
14 we did a very rigorous analysis here to
15 ensure that we at least started with marginal
16 cost differentials. And then you have to do
17 a second analysis, which I touched on in some
18 respects about this question of what's the
19 right peak period, and not just the duration,
20 but when it occurs. And that was another set
21 of analyses. So you're trying to come up
22 with the most cost-reflective basis to then
23 design the rate. So to go beyond that, at
24 least you're starting with as cost-reflective

1 and efficient ratemaking as you can. There's
2 assumptions here. And we talked earlier
3 about what's the percentage of peak and
4 off-peak usage and how do we get there. So
5 there's other factors here, you know, that
6 come into play, but starting with those
7 cost-reflective marginal costs and then
8 imputing those into rates the way we have, in
9 a way that tries to optimize and make the
10 rates most efficient, especially if you're
11 talking about, you know, cost of the system,
12 and by having customers respond to load, to
13 the extent they can and will. But, you know,
14 at least we're showing what the cost of the
15 system are. And beyond that, if there's
16 measures to change the rate in some manner to
17 further promote, you know, a particular
18 outcome, you can put that in front of the
19 customers, and that can achieve those kinds
20 of goals. But at the core, at the essence,
21 we have a cost-reflective marginal cost basis
22 on pricing to start.

23 Q. And it appears that your distribution peaks
24 don't align with the transmission peaks. Is

1 that true?

2 A. (Davis) They don't exactly, and especially
3 when looking at it by class. But when you
4 get to the system level, you're less
5 concerned about the class. We're looking at
6 like a substation is going to serve a whole
7 array of customers. And what we did is we
8 looked across all of our substations, over 50
9 substations. And that is truly at system
10 level. But when we looked at distribution,
11 it's a much wider period at that level
12 compared to transmission. And transmission
13 is different, in the sense that it's built
14 differently. We incur costs on a demand
15 basis. And they happen typically within a
16 pretty wide window. But if you keep
17 narrowing the period, you start to see, well,
18 when do they occur. And those tend to be in
19 a little narrower period than the
20 distribution system.

21 Q. And statewide, is there one transmission rate
22 that you're billed at?

23 A. (Davis) Yes. Transmission is billed to, we
24 call it "regional network service customers."

1 But the NEPOOL transmission tariff bills, I
2 think all utilities in the state are on the
3 same basis, which is a monthly peak demand.
4 It's called a "coincident peak." So there's
5 a particular system peak, and your
6 contribution as a utility to that peak,
7 whatever your demand level is, is the basis
8 for your charge. So as a distribution
9 company, that's an expense. So really we're
10 billed when we incur a demand-related cost in
11 the same way and at the same times as the
12 other utilities in the state.

13 Q. So New Hampshire statewide is viewed as a
14 single load zone?

15 A. (Davis) Well, for transmission it's regional.
16 So actually it's a little more -- it cuts
17 across a larger grouping of load because it's
18 a regional network. So New Hampshire is a
19 contributor. You know, it takes load as part
20 of the regional network, and then each
21 utility is part of that. So it's the same
22 charge at the same time, but it applies to
23 your respective peak that occurs within that.
24 It's a lot of through-put, if you will.

1 There's a total cost. It's billed on a
2 regional basis, and then it translates down
3 to what's your actual peak coincident with
4 the system peak; the greater the regional
5 system, if you would.

6 Q. Thank you. And you mentioned and walked
7 through a thorough marginal cost analysis.

8 What about embedded system costs? Have
9 you looked at how these rates might impact
10 those charges?

11 A. (Davis) Well, actually, that's part of the
12 analysis here. And there's a portion here --
13 I didn't, you know, go all the way through on
14 Page 47. But there is some supporting
15 material as part of our settlement where I
16 looked at the embedded system, and
17 particularly for residential time-of-day
18 customers. And it kind of hinges on the fact
19 that we have a customer charge of \$32 in our
20 current time-of-day rate. Our actual cost is
21 about \$33 and some change. So we ran both an
22 embedded and a marginal cost study to
23 determine that.

24 So we have an approved, you know, rate.

1 I think it's considered, you know,
2 characterized as a "just and reasonable" rate
3 approved in the rate case at \$32. But when
4 you dissect those embedded costs and the
5 marginal costs, that \$32 is comprised of a
6 pure customer-related cost. It has nothing
7 to do with usage or demand.

8 And then there's a fixed cost that's
9 called "local facilities." It has to do more
10 with transformer and services and cost to
11 serve directly these customers individually.
12 That varies by -- that's a function of the
13 customer's needs. It's not a system cost.
14 But we were able to carve that out. So in
15 terms of looking at embedded costs, we have
16 costs of transformers and services, for
17 example, to serve these customers. Meters
18 are unique as well. You know, they're
19 different depending on the sophistication and
20 technology involved, and they're a little
21 different for time-of-use customers than they
22 are for regular residential customers.

23 So those kinds of costs were examined.
24 And we treat -- and those are treated in the

1 customer charge. But I was able to move --
2 we agreed to move a portion of that out as
3 local fixed costs and treat them differently,
4 treat them on a volumetric rate basis. So
5 there you're crossing over from looking at
6 the cost to how you recover that cost and
7 what's an appropriate way to charge it. So
8 structures for residential customers are
9 really just a customer -- two-part: They're
10 customer charge and volumetric rates. And
11 here we're also taking an additional step to
12 say and what's time-varying. So embedded
13 costs, we really only looked at for
14 distribution. That's the only kind of study
15 where we study embedded costs.

16 The ratemaking for transmission is based
17 on embedded costs that's dealt within FERC.
18 And of course, generation supplies
19 market-based and other components, like SCRC
20 and SBC. Those are more the kind of costs
21 that are really treated differently. They're
22 a set of costs allocated, and the rates are
23 designed to recover those volumetrically.

24 But the real embedded cost analysis with

1 a distribution component, we took a very deep
2 dive. And that really was -- we went a
3 little further than a traditional marginal
4 cost study for distribution in our rate case.
5 And that gave us the benefit of being able to
6 find -- it was a big first step to say, okay,
7 we're seeing both substation costs across our
8 system and have some time-varying component,
9 and that's how I got my half a penny in my
10 .00464. So that also entailed looking at
11 both marginal and embedded costs, because at
12 the end of the day I have a total embedded
13 cost of all of my substations. And so my
14 price difference shows the difference in
15 marginal cost if I have to build -- or have
16 to build a new substation or add load to a
17 substation, capacity to meet that incremental
18 capacity. You're still looking at the
19 embedded cost at the end of the day. But
20 you're seeing what does it cost to bring on
21 another substation, you know, on our system.
22 So they kind of go hand-in-hand. But truly,
23 long story short, the embedded cost analysis
24 was part of our analysis for distribution.

1 Q. And it leads me to question with respect to
2 the methodology for how you took essentially
3 half of that customer charge and you moved it
4 into the volumetric component. It appears
5 that you've allocated of that \$16 or so, 90
6 percent to all hours of the volumetric rate
7 and then 10 percent to the peak. Can you
8 explain that for us?

9 A. (Davis) Sure. It was a long, thought-out
10 process. First of all, I recognize that for
11 Rate R, our residential class, I have a
12 customer cost which includes cost. It
13 includes fixed costs, local fixed costs, very
14 much -- very similar to Rate R-TOD again for
15 transformers --

16 [Court Reporter interrupts.]

17 A. (Davis) So there are those local facilities
18 costs in Rate R which are collected
19 volumetrically. So kind of on a principle
20 basis, I said, first of all, this is
21 whole-house service, so I have to recover all
22 the costs. You know, there's no avoiding
23 that cost. They have to install a
24 transformer and service to meet the

1 customer's whole-home load. And recognizing
2 that in Rate R we are recovering a portion of
3 our fixed costs, our customer costs
4 volumetrically, I said, well, what can we do
5 here. And I started with spreading them over
6 all kilowatt hours. That's appropriate.
7 It's consistent. And it provides also a bit
8 of parity, if you will. If you're Rate R and
9 you want to consider Rate R-TOD, we kind of
10 looked at what can we do further with the
11 customer charge.

12 But the 90 percent, I reasoned that
13 roughly 10 percent of that has a relationship
14 to the diversity on the system. And if --
15 this perhaps goes to the Chairman's question
16 earlier. If a customer is reducing their
17 peak by shifting load, there may be an impact
18 to the size of the transformer or the size of
19 service and things of that nature, that we
20 could provide some kind of a time-varying
21 price signal for that. So we literally
22 looked at what makes up those local fixed
23 costs and tried to get a sense of the
24 diversity of load.

1 And this class is roughly -- if you add
2 up all the residential peak demands and you
3 look at their diversified demand when
4 they're -- because they don't all peak at the
5 same time. It's about 25 percent, maybe
6 20 percent, actually. Probably a 20 percent
7 relationship. And then I don't have -- I
8 can't recall the details, but there was a
9 further sort of evaluation of how much of
10 that cost translates down to those local
11 fixed costs. I'm not talking about the
12 system. I'm talking about what these
13 customers needs specifically. And it all
14 came down to about 10 percent. On average,
15 high level, it's a reasoned approach. And
16 I'm saying let's put 10 percent of that into
17 the time-of-use rate. So I carved out
18 10 percent to be able to support a little
19 more time variation at distribution.

20 There's no pure study, certainly not
21 from the embedded or the marginal. I mean,
22 the marginal cost study tells us those are
23 local fixed costs. So basically, it was kind
24 of an agreed-upon level that reflects that

1 thought process that I kind of walked you
2 through at a high level.

3 Q. So that ultimately gives you a little bit
4 more of a price signal in that peak to
5 off-peak --

6 A. (Davis) That's correct.

7 Q. -- analysis for the customer. This is deeper
8 than, I would presume, most customers would
9 go in terms of analyzing their load. But it
10 gives you a little bit higher ratio at the
11 end of the day.

12 A. (Davis) It does. And I did it as an adder.
13 So I did the pure marginal cost analysis that
14 we talked about a little bit this morning,
15 you know, the price differentials. And our
16 Page 47 then shows how we translated that
17 10 percent to 90 percent as an adder and then
18 resolved the rate.

19 Q. Where on --

20 A. (Davis) On Lines 41 -- I'm sorry -- 42 and
21 43.

22 Q. Okay.

23 A. (Davis) You can see where I added 1.3 [sic]
24 cents to the marginal cost -- to the peak

1 rate. I had to recalculate it so I could
2 still come back to total revenue
3 requirements. But what I've done is I've
4 spread 90 percent, the Adder 2 in Line 43,
5 across all hours. That's very much on par
6 with what we do for Rate R. And Line 42 is
7 that 10 percent carve-out that we put into
8 the peak period only and just resolve. So
9 the end result is you can see on
10 distribution -- so I'm going to compare
11 Line 38 to Line 47.

12 Q. Yes.

13 A. (Davis) The very last column, I went from
14 about a half a penny differential to 1.7
15 [sic] cents differential. And that was the
16 outcome, and it's part of the settlement. We
17 agreed to do this.

18 But that's the rationale behind it,
19 super high level. And, you know, that was a
20 way to, like you said, I think provide that
21 additional price signal. And that's kind of
22 how we got there.

23 Q. And I would expect that the Company would
24 examine over time how successful that

1 approach has been with respect to recovering
2 your fixed costs via a volumetric component;
3 is that true?

4 A. (Davis) True. Absolutely true, yeah. That's
5 our intent, yes.

6 Q. And the outcomes would likely be either you
7 are over-recovering or under-recovering. So
8 in either of those scenarios, what approach
9 might you consider in the future for
10 resolving that question?

11 A. (Davis) I would let the data inform us a
12 little bit. Particularly, this is sort of
13 experimental in a way, you know. We have
14 committed to explore a number of things, you
15 know, in our next rate case. But this is a
16 little deeper dive than traditionally. I
17 don't know anyone else who's done this,
18 frankly. But this is sort of a move to learn
19 from customers and maybe study further,
20 particularly time-of-day customers.

21 When we performed our marginal cost
22 analysis, we literally went through every
23 component of our system. And here we would
24 sort of break it down a little further in the

1 next go-round, if you will, to start to say,
2 so what for this -- we only have fewer than
3 50 customers on this rate today. So taking a
4 look at that small group will give us some, I
5 don't know if it's anecdotal, but some
6 information. But to then further look at all
7 residential, or services that come into play
8 for residential. So perhaps a little more
9 detailed analysis of services, you know,
10 those local fixed costs, whatever makes those
11 up.

12 I can tell you, for example, we have
13 very lumpy investments. You know, you
14 don't -- they're not just -- they don't just
15 change incrementally. I have a 25 kVA
16 transformer and a 50 kVA transformer -- so if
17 a customer goes above 25, the next size up is
18 50. Service sizes are 200 amp, 400 amp, 600
19 amp. So it's lumpy investments. And so it's
20 almost like a manufacturing and production
21 function. You're looking at capacity of
22 serving. So, service capacity of a service
23 connection, service capacity of a
24 transformer, what's the marginal cost of

1 that. But when you start to put these price
2 signals in place, you know, there's no real
3 study laid out here. But you want to let the
4 data start to tell a story and see what --
5 and maybe just observe the data. So it might
6 take a couple -- you know, a longer period of
7 time to first see what the data is showing us
8 and then maybe do a little further, more
9 concentrated study. And this is just one
10 component, obviously, of what makes up our
11 marginal costs, as well as those that vary by
12 time.

13 So we started at the bulk substation
14 level in the discussion. And part of the
15 discussion would also very much go down to
16 the customer's meter, right at their point of
17 interconnection. And, you know, we did take
18 a look at distribution substations within the
19 system. And so this kind of stuff would need
20 to continue. But as we try this, for
21 example, and try to provide, for example, a
22 better price signal, maybe there's an
23 outcome -- just looking at that alone can
24 steer us in a direction of what do we look at

1 next. And if we look at the data here and
2 what actually is happening, are we
3 recovering our -- how much revenue are we
4 bringing in for that component of our rate,
5 and how does that compare to the cost that
6 we've now moved into the rate for the local
7 fixed cost, that alone could be a good --
8 something we'd look at in the very near term.
9 And that's part of what I think we would be
10 doing between now and let's say the next rate
11 case as we analyze costs again.

12 Q. So is it fair to say that as the Company
13 looks at those "lumpy" costs, as you say,
14 going up a conductor size or needing the next
15 size transformer, that these types of rate
16 options for customers might help mitigate
17 some of those investments?

18 A. (Davis) They could. And what's really
19 important is, as I said earlier, this is a
20 whole-house rate. So it's unlike an end-use
21 rate, like a water heater, you know, or
22 electric vehicle or any end-use device that
23 you're separately metering, where you can
24 study that explicitly. This is still the

1 result of sending a price signal, but
2 customers responding. And you don't
3 necessarily know what's driving it behind
4 their meter. But still, yes, the answer is
5 still yes, I think you can learn from that.
6 Where you have a specific end-use device and
7 you're able to measure that, you can see more
8 explicitly what's involved in providing that
9 service.

10 Q. You had mentioned -- or I believe I heard you
11 say that customers that enroll in this rate
12 would have different metering capabilities.
13 Is that true?

14 A. (Davis) That's true.

15 Q. Tell me about that. Tell me how customers
16 that would elect to go on this rate, what
17 different capabilities they would have over
18 your standard R rate.

19 A. (Davis) First and foremost, we measure the
20 kilowatt hours in the distinct peak periods.
21 So the metering for Rate R is basically
22 measuring kilowatt hours for the whole month.
23 So it's effectively a single value. The
24 meters are the simplest technology, lowest

1 cost, generally. Meters that can measure and
2 record and provide time-differentiated usage
3 in this case, a little more expensive and
4 different technology, I think those are
5 changing a little, too. But effectively,
6 there's a little higher cost for those
7 meters. That can be accomplished by a
8 so-called "AMR meter," which simply registers
9 the total kilowatt hours during the peak
10 hours, whatever you program into the meter
11 and whatever the programmed-in off-peak hours
12 are. So that is a different capability right
13 there alone. And meters that have that
14 capability are still part of our drive-by
15 system, if you will, to be able to pick up
16 the meter readings once a month. They may
17 also have the ability to record interval
18 data.

19 We have, for example, survey meters on
20 some of these customers. And that will
21 capture interval data with separate --
22 obtained separately. It's a separate
23 process. It's not part of the billing
24 process. But that may also be part of the

1 difference in technology and capabilities of
2 the meter for these kinds of customers. And
3 we also have interval meters on survey meters
4 on our regular residential Rate R customers.

5 So, but generally the fundamental
6 difference is the additional ability that
7 registers, you know, the electronics and
8 digital capabilities to separately measure
9 the peak and off-peak kilowatt hours. We do
10 have to program the meters for whatever the
11 designated time periods are.

12 So a big thing now is we would take
13 effectively the same meters we're using today
14 for Rate R-TOD and re-program those. So it's
15 a process of swapping out the meter to the
16 new time periods.

17 Q. And how often would the Company have
18 collected that data? Is it just over a
19 billing cycle? Van drops by and gets the
20 current read?

21 A. (Davis) For the peak and off-peak data, yes,
22 that's done as part of the routine monthly
23 billing process.

24 Q. And once you have that data, is there

1 interval data within that? So can you see a
2 time stamp at some frequency of when those
3 events occurred?

4 A. (Davis) My understanding is no, that we
5 separately collect the interval data, if a
6 meter has the recording capability. And, you
7 know, obviously we have to turn -- there's a
8 trigger you have to turn on to enable that as
9 well. But that's done separately. Well, the
10 survey meters, I don't know the frequency. I
11 could find that out, but --

12 Q. It's not 15-minute or anything like that,
13 though, would you expect?

14 A. (Davis) I think we're using a 30-minute
15 standard right now for Eversource, yeah. It
16 could be 15-minute.

17 Q. Can you speak to the Company's vision for the
18 next generation of the metering system and a
19 high-level time frame?

20 A. (Davis) Not really. I mean, I could speak to
21 it, but I don't know if I'd do it quite
22 justice. I mean, I think that's been
23 addressed elsewhere. But I think, high
24 level, our future is to have -- you know,

1 move toward AMI and have other capabilities
2 that we don't have today.

3 Q. And at that time, within a paradigm where you
4 have AMI deployed, would you envision
5 different options for rate designs?

6 A. (Davis) I can tell you this: Having AMI
7 metering will unlock and enable a lot of
8 other capabilities for advanced rate design.

9 You know, I filed an advanced rate
10 design in Connecticut, and it hinges on AMI
11 and examples. And it's not a -- there's a
12 lot of possibilities. But examples include
13 critical peak pricing and some of the more
14 conventional advanced rate designs that are
15 in play and have been in play for a number of
16 years. But there's a lot of emerging
17 requirements.

18 And we certainly have that in New
19 Hampshire for PSNH. I mean, we're about to
20 implement a commercial -- or proposed, you
21 know, the implementation of a commercial
22 electric vehicle time-of-use rate, which is
23 going to have three time periods. Well,
24 having AMI, you know, gives us flexibility

1 and capabilities that pose different kinds of
2 challenges for the current metering and
3 billing and data collection and all the other
4 process that come into play.

5 So, yes, I mean, it really does open up
6 a lot of other possibilities. And I would
7 imagine some that have -- are either emerging
8 or haven't been envisioned yet. But I do
9 think that opens up a whole different set of
10 capabilities.

11 Q. With respect to your business in Connecticut
12 and Massachusetts, would you say that the
13 Company is further ahead in those
14 jurisdictions, or the policy in those
15 jurisdictions is further ahead in terms of
16 enabling time-varying rate design versus New
17 Hampshire? How would you gauge the progress
18 if you look regionally per state?

19 A. (Davis) Yeah, I don't know if I could do
20 justice with a comparison. But let me --
21 maybe this would help. For example, in
22 Connecticut, we have sort of a grid mod
23 proceeding that's called "distribution
24 planning." And within that they've had 11

1 reopeners. And one of those reopeners is an
2 AMI segment. And what I was referring to a
3 moment ago was that we have had extensive
4 discovery and written comments and tech
5 sessions. But we have an order I think
6 pending. I'm not sure if it's an AMI order.
7 But we have filed -- I filed an advanced rate
8 design plan which syncs up with a plan to
9 deploy AMI meters, to put in place systems
10 such as MDM, and a new billing system that
11 can accommodate a whole host of things. It's
12 not just about rate design. But when you
13 introduce AMI, it's a long process. It's
14 capital-intensive. You then have to have
15 data collection, data storage, data
16 management, and then all the billing
17 processes and other processes that are
18 involved. And also AMI ties to the system
19 operational things as well.

20 But from a rate design perspective --
21 and it's funny because part of the plan I
22 outlined included conducting marginal cost
23 analyses and getting more data about your
24 system to help prepare and inform the future

1 rate designs, so that when you have a system
2 in place, everything from the new metering to
3 the data collection, data management and
4 billing, you can then introduce more advanced
5 rate design.

6 So it's not so much I'm doing a
7 comparison as I'm just saying there's a more
8 defined plan there. And it emulates from a
9 regulatory process, and it's really
10 policy-driven as much as anything else.

11 And by the way, I mentioned the 11
12 reopeners because that's also -- that one AMI
13 reopener is integral to all 11 reopeners, the
14 11th being a full rate design reopener. So
15 we've been delving into all kinds of rate
16 design issues, and those are ongoing. So
17 that's the kind of Connecticut thumbnail
18 view.

19 Massachusetts has its own grid mod plan,
20 and so we're engaged for different drivers.
21 You know, there's policy drivers and then
22 there's regulatory proceedings that have had
23 phases of grid mod, and within that is rate
24 design. For example, you know, we have on

1 the table a proposed -- and this is statewide
2 as well as utility-specific -- proposals for
3 a rate design for, like, commercial electric
4 vehicles. There's a particular plan or
5 filing that we made there. It's not a full
6 advanced rate design, certainly not as
7 complex as we have here in New Hampshire with
8 the commercial EV TOU, for example. But it's
9 a step in that direction. So it's on a
10 different path. It's really hard to compare
11 them, though. They're really on their own
12 individual paths. But there's a lot of
13 elements that are common and that, if you
14 look at an individual company, where they're
15 at with their meterings, you look at
16 Eversource and, you know, Unitil is in both
17 Massachusetts and New Hampshire, but you can
18 see what the differences are there based on
19 technologies, billing systems, et cetera.

20 So I think the AMI, you know, is getting
21 there from different paths in each state.
22 But ultimately they do provide the promise of
23 the ability to do a lot more with rate
24 design. So I find it kind of exciting and

1 intriguing. And you can look at utilities
2 who have employed AMI and the kinds of things
3 they've done. And even there, there's still
4 a lot of emerging and developing rate designs
5 for lots of purposes. And obviously the
6 electrification and renewable energy market
7 has spurred the need to be looking at a lot
8 of other rate design options. So...

9 Q. And given that the Company operates in
10 multiple states, it sounds like you have
11 plans filed in at least Connecticut for an
12 AMI deployment.

13 Would you expect that Public Service
14 Company of New Hampshire would come to this
15 Commission within some horizon with a similar
16 plan?

17 A. (Davis) I'm not close enough to that to
18 really be able to tell you what -- you know,
19 timing and what specifically might be
20 proposed or how we might approach it. So, I
21 mean, I think it's a good question. I'm just
22 not able to answer that.

23 Q. Okay. I think this is a good segue into some
24 questions about customer education, given

1 that data seems incredibly relevant for how
2 you would communicate with customers --

3 A. (Davis) Yes.

4 Q. -- and inform them of either changes in the
5 rate design or behavioral changes that they
6 might be able to make to save money, reduce
7 peak demand, reduce emissions regionally.

8 How does the Company intend to
9 demonstrate to customers the benefits of this
10 rate design and how they might benefit and
11 contribute to the greater system needs
12 through the rate?

13 A. (Davis) I think the biggest tool we have
14 right now, and it's included in our filing
15 and all the filings you mentioned, but
16 certainly in our Settlement Agreement, are
17 the bill comparisons. And we are looking to
18 work with existing processes and
19 capabilities, you know, looking for, like,
20 not a full marketing campaign, per se. But
21 customer education awareness I think is key
22 to that.

23 But I think with the existing
24 time-of-day customers, we're going to plan to

1 do direct outreach to them, direct
2 communication. So it's a small number of
3 customers, but, again, using existing
4 resources. But more importantly, education
5 about, well, here's your current rate. And
6 at least there's assumption -- but obviously
7 you want to refresh on that -- an assumption
8 that these customers have a sense of what
9 time-of-day rates are and what that means in
10 terms of what happens if they move their
11 usage behavior, if you will, and results of
12 the change and when they drop an hour and
13 when they consume. But that communication
14 then needs to include, and I think the bill
15 comparison tells the story, that we are
16 introducing a new rate, Rate R-OTOD-2. It's
17 got a new peak period, and here are the
18 implications.

19 And I think what's important is whether
20 it's these existing customers -- like I said
21 earlier, there's fewer than 50 of them -- but
22 also our other residential customers may not
23 know what their usage is because they don't
24 have meters and they don't have data to know

1 what their usage is during the new six-hour
2 period.

3 So part of that information is, first of
4 all, awareness of time-of-use rates so people
5 understand what -- individual customers
6 understand what time-of-use rates are, or
7 time-of-day, whatever you want to call them;
8 what is going to be implemented by the
9 Company and will be available to customers as
10 an option; and that we're going to provide
11 information that shows the potential for bill
12 savings. You know, if you use your power --
13 and there's a number of tables in our
14 attachments that talk about if you use
15 50 percent of usage on -- anywhere from
16 50 percent to 5 percent. We have a series of
17 different usages. And if a customer can
18 understand the peak period and then when
19 the -- how much of their usage is during that
20 period -- and that's probably a
21 self-assessment after providing enough
22 information and education so customers can
23 understand when they're using appliances and
24 everything else in their home -- that they

1 can assess that if they're able to determine
2 how much they're using, they can at least
3 have an idea of the bill impact and, further,
4 what the opportunities are for bill savings
5 as a minimum by moving their power to the
6 off-peak period in such a way that they can
7 put more and more of their usage and
8 consumption into the off-peak period.

9 The current Rate R-TOD customers who are
10 going from a 13-hour period to a 6-hour
11 period pretty much across the board can
12 expect some savings. Now, a big part of that
13 is the customer charge change that we did.
14 It removes a big -- it's a big step change in
15 their total bill; now it's all into the
16 volumetric rates. And so there's a starting
17 point where most customers on the current
18 time-of-day rate will see a bill benefit
19 under the new time-of-day rate. But they may
20 not still know exactly what their usage is
21 during the new peak period, but already
22 they're getting some benefit. And they can
23 further benefit by understanding their usage
24 and moving more of their usage out of that

1 six-hour period. Doesn't mean they can or
2 what have you. And they may not know exactly
3 what they're using until they have a meter in
4 place and can see how much usage is occurring
5 during the on-peak hours versus off-peak.

6 But we need to provide as much
7 information about the implications of the new
8 rate structure, particularly the time and the
9 price, and have customers evaluate and make
10 an informed decision on their own on whether
11 they want to be moved to the new time-of-use
12 rate or go to Rate R.

13 And for Rate R customers, similarly,
14 they don't even have time-of-day rate
15 information at this point so that they could
16 do any kind of an assessment. Again, seeing
17 the bill comparison information, they can
18 say, well, how much of their usage do they
19 think and evaluate in some way -- you know,
20 we'll provide as much tools and information
21 as we can. Customers can self-determine what
22 they think they're using during that peak
23 period. And if they see an opportunity, they
24 could choose to move to the new R-TOD-2 and

1 again manage that. You know, once you start
2 to see the usage during that peak period and
3 you internalize as a customer, you know,
4 what's driving that, and you determine that
5 you could do things. Maybe you don't -- we
6 used to have a campaign in Connecticut called
7 "Wait 'Til 8" because we had a noon to 8 p.m.
8 peak window. And so the simple thought was:
9 Do your laundry after 8:00. Do your
10 dishes -- you know, any energy-intensive
11 equipment, do it outside the peak period.
12 And that I think resonated with customers.
13 So any of those kinds of messages.

14 We don't intend to have a full campaign.
15 It be more like using every available channel
16 and resource we can. So there's direct
17 contact and communication and whatever
18 information and resources we can provide to
19 the existing time-of-day customers, and
20 similarly, but without the phone calls to
21 every customer, to inform all the other
22 residential customers of the same
23 opportunity.

24 Q. For customers that have the upgraded metering

1 technology for these time-of-use rates, how
2 would they access that data? Is there a
3 means online for them to access it, or is it
4 call customer service and get it sent to them
5 or told to them?

6 A. (Davis) Yes. Well, customers will always
7 have their bill. But we have from -- I think
8 from our customer experience and customer
9 group there's an online portal. We certainly
10 would have general information on the web and
11 those kinds of things. But each customer can
12 log into their account through a web portal
13 and see that information at any time.

14 Q. Download an Excel file?

15 A. (Davis) I don't know the details exactly.
16 But I think there is download capability.
17 I'm just trying to think of my own bill
18 because we're planning to use the same
19 system.

20 Q. Because when you say they have their bill, I
21 mean, other than kWh, maybe kW and the
22 billing cycle dollar amount, is there really
23 any more discrete information on it?

24 A. Oh, we have all the usage, not only the

1 billing determinants you mentioned, but all
2 the pricing broken down.

3 Q. But I mean in terms of their energy usage --

4 A. (Davis) There's a --

5 Q. -- on a time basis.

6 A. (Davis) Yeah, I'm trying to think out loud
7 here. I think there is certainly a current
8 bill that has that information. I don't
9 recall. But it might be something we would
10 want to internalize and ensure that happens.
11 But the amount of peak versus off-peak usage
12 I think would be important for customers to
13 have on a downloadable basis. So whatever
14 information is available when you log into
15 the portal -- I'm a little over my skis on
16 the details of how this works. But being
17 able to download not only the standard
18 information, but additional peak versus
19 off-peak type of information.

20 Q. Even I think you mentioned 30 minutes
21 sounds -- you're not sure. So I take that --

22 A. (Davis) Well, that information, no. That's
23 not typically available because we don't --
24 we're not billing off of that and we're not

1 utilizing that in billing. We might have the
2 capability through -- I know we have a system
3 called "EPO," which is a data repository for
4 interval metered data. I just don't know
5 that we have that for survey meters or
6 residential customers, per se. It's
7 typically available for our medium and large
8 C&I, where we use interval metering for
9 billing. And of course suppliers access that
10 data, too. So I don't know. Beyond that, I
11 couldn't tell you.

12 Q. Okay.

13 A. (Davis) But I think the takeaway would be to
14 see what information and how extensive
15 information could be made available to these
16 residential customers, so that particularly
17 if they switch to the new time-of-use rate
18 and we start to build month after month,
19 they'll be able to see their actual usage and
20 patterns and relate that to what's driving
21 them individually. And that's the price
22 signal, right. That's the information about
23 the usage and the information about the price
24 associated with, you know, the charges for

1 their usage and maybe decisions they can make
2 to impact that.

3 Q. I would say I certainly think the
4 availability of time-of-use rates is an
5 important option for customers. And it
6 sounds like there's some interesting work
7 going on in Connecticut and Massachusetts
8 with respect to smart meter deployment. And
9 I would just encourage the Company to think
10 about plans for New Hampshire with respect to
11 AMI smart meters, et cetera.

12 A. (Davis) Yeah, and I'm not saying there isn't.
13 It's just I will take that message back.

14 Q. Understood.

15 Can you explain how net metering
16 customers might participate in this rate?

17 A. (Davis) Currently they would not. You know,
18 this would not be available to net metering
19 customers. We don't have the capabilities
20 right now to differentiate and to perform net
21 metering on a time-differentiated basis.

22 Q. Do you think the character of service for net
23 metering aligns with a time-varying rate
24 structure?

1 A. (Davis) If I understand your question, net
2 metering customers are typically customers
3 who have solar PV. Their output
4 characteristics and the impact on their
5 purchases from the system, if you will, or
6 draw from the grid are different.

7 Q. Or export?

8 A. (Davis) The export, yeah. So starting with
9 production. So the export, exactly. So
10 there's an overlap in terms of ignoring
11 whether or not they have any solar PV; for
12 example, their usage is going to be what it
13 is. By then adding solar PV, it's typically
14 going to run based on the solar cycle, if you
15 will, and it's going to reduce depending on
16 the size of the unit or the array. It will
17 reduce their load from the system. And if
18 they generate more than they need at any
19 instant, they're going to be exporting. So
20 there's the characteristic of the solar PV in
21 terms of how much it produces at any time,
22 and then there's the characteristic of how
23 much of that is exported to the system. That
24 kind of gets customer-specific because it

1 depends on their individual load shape and
2 total requirements and the level of operation
3 or production from the solar array. I've
4 looked at this a lot, and it's kind of almost
5 seemingly random. I haven't seen -- it's
6 really a function of how the solar array
7 produces energy, how large it is. You know,
8 just the level of radiation, you know, solar
9 radiation, that could vary. You know, things
10 like cloud cover could vary the production.
11 But on average, generally there's a daily
12 cycle, and it's shorter in the winter and
13 longer during the summer. And there will be
14 many more hours of production during the
15 longer days and a likelihood of more output
16 than is needed, therefore exports to the
17 grid. So now you're seeing zero load at
18 times during the day compared to what's
19 otherwise peak-period usage.

20 So, actually, I would say if you look at
21 one to seven, which is our proposed
22 settlement period, during at least, let's say
23 four hours of that, you might see for the
24 whole year there's going to be an impact on

1 the peak usage by having solar operating. So
2 their operation will also affect the off-peak
3 because that unit's going to come on earlier
4 in the day during off-peak hours. But during
5 the peak period you're going to see impacts
6 of reduced peak usage because of solar. And
7 then toward the end of that one to seven
8 period, depending on time of year, you may
9 see almost no impact, depending on --
10 certainly in the dead of the winter, you
11 know, you're going to see very little, if
12 any, solar operation during the latter part
13 of the six-hour period. So there will be
14 peak-hour consumption from the grid during
15 those hours.

16 But it still matters what the individual
17 customer's load shape is. So your question
18 was about the characteristics. I think the
19 solar period will always have an overlapping
20 period during the six hours and then will
21 vary particularly toward the end of the peak
22 period here. So it will have an impact for
23 individual customers. And let's also not
24 forget that on a bill basis, they get the

1 benefit of allocating those exports against
2 any kilowatt hours anytime during the month.
3 So you have -- that's the monthly net
4 metering effect. So you kind of lose the
5 time-differentiation element when you get to
6 that point. But clearly, actual operation of
7 a solar PV I would expect would have a major
8 impact on the individual customer's peak-hour
9 usage. So there's some significant overlap I
10 would say during the six-hour period.

11 Q. So I think I'm asking more generally looking
12 at time-of-day rates as a general matter.
13 Would you agree or disagree that a
14 time-varying structure would provide an
15 option that might be beneficial to net
16 metering, or I should say customer
17 generators, or accurately reflect their
18 characteristics of service?

19 A. (Davis) Well, first of all, it will affect
20 and effect their character of service.
21 Things like the fixed costs don't change,
22 though, right. And that's kind of the point
23 about they still need a transformer of a
24 certain size. You know, that doesn't -- that

1 wouldn't be affected, but certainly the
2 system, impact on the system, individual
3 effect on the customer's usage. And when
4 they're drawing power, whether it's kilowatt
5 hours drawn over peaks, it could be peaks on
6 circuits, it could be peaks on -- and this is
7 a whole separate topic obviously we're
8 getting into. So there is an effect there.

9 While you were talking, I kept thinking
10 about like Hawaii and California, areas where
11 there's more penetration, to the point where
12 there's a double peak. There's actually so
13 much solar and other resources on a system,
14 that the system peak's no longer the peak
15 anymore. And so now you might have a peak
16 before the afternoon and another peak later
17 during the day because you operate so much of
18 these other resources behind the meter, that
19 you're reducing the peak on the grid. And so
20 there's that effect. And that could affect
21 the time periods, you know, the evaluations
22 of that. So it's a set of factors. And
23 we're not there here. That will take time
24 for that effect to come into play.

1 But as we see certainly in our other
2 jurisdictions, there's a higher level of
3 penetration, particularly in Massachusetts.
4 And I don't know if it's had an effect yet,
5 but it's something to consider, particularly
6 when you're doing your cost analysis and
7 trying to figure out what the time period, or
8 maybe more than two, you know, three. A lot
9 of those jurisdictions I mentioned have three
10 periods. And they might vary a lot. And
11 they might be dynamic. So I think it's going
12 to -- it could in theory at least have an
13 impact. And I think in practical terms, any
14 production behind the meter will have that
15 same effect.

16 Q. Okay. Thank you.

17 A. (Davis) I don't know if I quite answered your
18 question because I keep thinking of other
19 things that are important and relevant to
20 add.

21 Q. That's helpful. The last question I have, it
22 seems that supply is not time-varied in this
23 Settlement Agreement.

24 A. (Davis) That's correct.

1 Q. Is that correct?

2 A. (Davis) That's correct.

3 Q. Does the Company have the ability to enable
4 customers who enroll on this R-TOD-2 rate to
5 select a competitive supplier that might
6 offer a time-varying product?

7 A. (Davis) They have the ability to choose a
8 supplier, but we don't have the ability to
9 bill time-varying rates.

10 Q. So could a customer elect to utilize a
11 competitive supplier who bills separately on
12 time, a time-varying product?

13 A. (Davis) Absolutely.

14 Q. And that would be up to that supplier. They
15 could have their own peak and off-peak
16 periods on the supply component?

17 A. (Davis) Yes. Yes, although I will say they
18 typically still rely on the kilowatt hours
19 that we pass to them. So we'll read the
20 meter. And there's this thing called an "EDI
21 transaction." I don't know a lot about it,
22 but it's our way of taking meter readings and
23 providing it to a supplier. So I would
24 imagine they would want to price it based on,

1 in this case, the six-hour peak period. But
2 absolutely they could, a customer can take
3 competitive supply. And if it's what we call
4 "partial billing," where the supplier bills
5 the customer directly and they're able to
6 offer a time-varying rate, absolutely.

7 Q. And the Company doesn't have any plans or
8 desire to offer a default supply product that
9 aligns with these time periods in your
10 R-TOD-2 rate?

11 A. (Davis) Not in the settlement. We do have a
12 commitment to explore that and bring that
13 forward and address that in the next rate
14 case. And we are implementing that, of
15 course, in a small way for another rate class
16 for electric vehicles. But right now there's
17 an additional cost on the whole process to do
18 that. And we've committed to explore that,
19 so that when we get to the next rate case,
20 among other things, that we're looking at the
21 supply piece as well.

22 Q. And in the future, if that were on the table,
23 it would seem that a time-varying supply
24 component would increase that peak-to-

1 off-peak ratio that customers would see from
2 a rate design standpoint. Does that type of
3 product provide benefits or create risks as
4 you design these rates? How do you manage
5 that, or how might you weigh those risks?

6 A. (Davis) That's a great question. First of
7 all, we're not purchasing 'cause we pass
8 through our supply. For wholesale supply
9 energy service rates, company-supplied, you
10 know, we basically pass through our price of
11 electricity. So what we charge is flat cents
12 per kilowatt hour. That's what our cost is,
13 and that's the price that we would charge.
14 And that's obviously part of our proposal in
15 our settlement here.

16 The risk part is, if we were to price it
17 differently than what our cost is -- again,
18 pure pass-through -- so if it's cents per
19 kilowatt hour for all hours, that's what we
20 are going to be billed for supplying ES
21 service. If we time-differentiate it, I'm
22 going to bring in different revenues. And
23 the risk is I can be long or short, depending
24 on how customers actually take and use power

1 during the month during peak and off-peak
2 hours compared to what I have to pay. So the
3 risk is we would have to reconcile that
4 difference. And this is not large number of
5 customers, so it's not a magnitude issue.
6 But it could be, you know.

7 So the point is our costs are not
8 time-varying, and therefore that risk would
9 be created if we were to do something
10 different. And we do that in Connecticut.
11 We have an imputed peak and off-peak rate
12 price differential for residential
13 customers -- again, a small number of
14 customers on the rate. But that's a little
15 different because we ask suppliers to bid on
16 a peak and off-peak basis. There's still a
17 risk because there's not always going to be a
18 perfect match.

19 The other thing is the risk also exists
20 for the suppliers themselves, right. So
21 those suppliers that we bill on their behalf,
22 I guess it depends on what the outcome is.
23 If you just pass through their price, it may
24 not give you a big price difference. And

1 I've said this a couple times in other venues
2 where -- we have a law in Connecticut, for
3 example, where suppliers are required to bid
4 peak and off-peak pricing. And they do. But
5 the price ends up being the same. It's just
6 that was their response. You can't control
7 that. So I don't know that you're getting
8 the objective of a different higher ratio or
9 other objectives like that accomplished
10 through that. If you do, there's those risk
11 items I mentioned. So it's a lot of
12 considerations like that that do come into
13 play.

14 But I would say for this proposal, you
15 know, we don't have time-varying generation
16 at this point. But we are truly pricing our
17 supply portion of the rate exactly to our
18 costs, you know. Think of it that way.

19 Q. Thank you. And your comment spurred one
20 final question.

21 So adoption has been pretty low with
22 your R-TOD rate. So for this second version
23 of the time-of-day rate, it would seem to me
24 that your plan to automatically transfer

1 customers that are on the R-TOD rate to the R
2 rate and then ask them to re-enroll in this
3 new rate might cause a drop in enrollment in
4 customers that are currently on time-of-day
5 supply. Can you explain why, as a term of
6 the settlement, that was proposed or has been
7 proposed?

8 A. (Davis) Maybe I left a misunderstanding. Our
9 proposal, our plan, would be to move
10 customers to the new -- existing time-of-day
11 customers to the new time-of-day rate, but
12 give them the option to move to Rate R.

13 Q. So I'm looking at Page 6 of the settlement,
14 Section D, Discontinuance of R-OTOD. And it
15 says, second sentence, Upon Commission
16 approval of this Settlement Agreement,
17 Eversource shall notify all existing R-OTOD
18 customers that the rate has been discontinued
19 and offer those customers the option to
20 switch to either Rate R or R-OTD-2, with a
21 default switch to Rate R if the customer
22 makes no selection by the applicable
23 deadline.

24 A. (Davis) Oh, I see. Yeah.

1 A. (Nixon) I can help with that or have a
2 thought on that. "I think because this is an
3 optional rate, that without their approval --
4 and I can defer to the Company on this --
5 that we'd have to go to the default rate and
6 they would have to approve to switch to the
7 optional. But again, I defer to the Company
8 on that, though.

9 A. (Davis) Yeah, thank you, Ms. Nixon.

10 Yeah, we thought that through. The
11 optionality, I think that was a factor there.

12 I guess I also don't expect customers
13 would not elect to go to the new R-OTOD-2.
14 By and large, looking at the bill comparison,
15 for example, I would expect customers would
16 elect to go to the new option, if you think
17 of it that way. But I think that's how we
18 ended up at the default back to Rate R is
19 because R-TOD -- or OTOD is optional. So the
20 existing residential rate, the time-of-day
21 rate, and the new residential time-of-day
22 rate are both optional. And I think it was
23 more of a -- really, I think that was the
24 basis for that.

1 Now could you repeat the first part of
2 your question, because I think --

3 A. (Nixon) Can I add to that, actually?

4 Q. Please.

5 A. (Nixon) So I think the thought behind this
6 also was that, as Mr. Davis mentioned,
7 they're probably going to do actual outreach
8 to every single customer on this rate. And
9 the hope is that they will actually transfer.
10 But that was just put in as a backstop, that
11 if they don't make a decision in the right
12 time, that they will go back. But again, the
13 hope is they will go because they will see
14 bill savings.

15 Q. Thank you. And I wouldn't want to imply that
16 that's the right or wrong decision. It
17 somewhat seems like a semantic difference
18 when we say "discontinuance" of R-OTOD versus
19 an "update" to R-TOD, and now we're just
20 adding version two to it. Looks like you
21 have a comment --

22 A. (Nixon) Again, I mean, we struggled with that
23 as well. But the understanding is that you
24 can't just immediately switch everyone over,

1 like, you know, if this were approved the
2 next day. So there's got to be some
3 transition period so that you have to have
4 that current rate and then have a new rate.
5 But essentially, this is an update to that
6 current rate, but it had to have a separate
7 name.

8 Q. Okay. Thank you.

9 And Ms. Nixon, I would just ask you for
10 your position, the Department's position on
11 the settlement generally. I think we've had
12 a great dialogue with Mr. Davis here.

13 A. (Nixon) Yeah. As I think I said in the intro
14 questions, we agree with this settlement. We
15 think it's a very much improved rate over
16 their current rate. As I mentioned -- let me
17 look at my testimony and notes here.

18 Essentially it shifts -- it goes to the
19 shorter peak period, as you have been
20 speaking about. Really, the biggest
21 advantage I think is this customer charge
22 change because I think, just on the face,
23 customers won't even consider that. Because
24 if you have \$13 or \$32, I mean, right there

1 you're already paying \$20 more on your bill
2 without even having an impact. So I think
3 that's going to have a major impact and may
4 incite more people to switch.

5 And then the other thing that encouraged
6 us to agree with this settlement was the
7 Company's commitment to explore additional
8 updates to this rate in their next rate case,
9 like the seasonality, because transmission
10 and end distribution, it may vary depending
11 upon seasonality and then may possibly try to
12 get a greater off-peak to peak window if
13 that's possible. And maybe even shorten the
14 peak window. This is, as we've been talking
15 about, a much narrower window so that
16 customers can have the possibility to
17 possibly shift more of their load away from
18 it. But possibly a shorter window would
19 provide for more of that.

20 And then the other thing is the
21 obligation for the Company to do more
22 outreach and education, and the fact that DOE
23 and OCA would help review that education and
24 the outreach before it's implemented.

1 Q. How do you envision that process playing out
2 in conjunction with the Office of the
3 Consumer Advocate?

4 A. (Nixon) You mean the education piece?

5 Q. Yes.

6 A. (Nixon) Probably the three parties would
7 meet, have the Company propose something, and
8 we'd review it and critique it and provide
9 any additional comments if we thought it
10 should be revised.

11 Q. Okay. Thank you, Ms. Nixon. Appreciate
12 that. Thank you, Mr. Davis.

13 COMMISSIONER SIMPSON: Mr.
14 Chairman, I don't have any further questions.
15 Thank you.

16 CHAIRMAN GOLDNER: Thank you. Let
17 me suggest a 15-minute break and coming back
18 at five minutes till 11, if that would be
19 acceptable to everyone. That's good? Okay.
20 Let's return at five minutes to 11. Off the
21 record.

22 (Brief recess was taken at 10:41 a.m.,
23 and the hearing resumed at 11:00 a.m.)

24 CHAIRMAN GOLDNER: Please be

1 seated. Okay. We'll resume with questions
2 from Commissioner Chattopadhyay.

3 BY COMMISSIONER CHATTOPADHYAY:

4 Q. Good morning.

5 A. (Davis) Good morning.

6 Q. So I have maybe five or six items to touch
7 on. And the first one is about metering.

8 So I think you already had quite a bit
9 of back-and-forth with Commissioner Simpson,
10 but I just want to make sure I understand
11 exactly what we are talking about, as far as
12 the metering capabilities are concerned.

13 So for the OTOD that is currently in
14 place, they need a different meter than what
15 a typical residential customer has.

16 A. (Davis) That's correct.

17 Q. Okay. And can you give me a sense of how
18 much those meters cost?

19 A. (Davis) They're a little bit more -- let me
20 say two things: First, there's been an
21 incumbent number of customers on this rate
22 for many years. And we had the more
23 traditional, pure, they're called "scaler
24 meters," which were not that much more than a

1 conventional meter. I think they're, I'm
2 trying to recall, on the order of \$150 for a
3 traditional, you know, residential Rate R
4 meter versus \$250, \$300 difference in the
5 actual meter themselves. So that's the
6 capital cost, if you will. But the cost and
7 the technologies have changed. For example,
8 as the meter technologies have been
9 discontinued by manufacturers, the
10 introduction of AMR at one point, the use of
11 survey meters for the same purpose, you know,
12 that have the capability of recording the
13 data but also providing that registered data
14 that I mentioned earlier, you know, to
15 capture the peak and off-peak information.
16 The cost, it's a blend of costs at this
17 point. But nominally that's one of the major
18 differences in the customer charge or the
19 cost between the classes is the meter cost
20 differential. For discussion, I could
21 certainly follow-up. I don't recall the last
22 set of numbers, but let's just say it's on
23 the order of \$250 versus \$150.

24 Q. Thank you.

1 A. (Davis) Subject to check.

2 Q. Thank you. So let's talk about the other two
3 states. I want to understand, for example,
4 in Connecticut, would you say the interest,
5 like comparing it with New Hampshire -- you
6 have 43 customers right now, if I got it
7 right. Would you say it's pretty much
8 similar in Connecticut; there's not a lot of
9 customers that are interested in OTOD?

10 A. (Davis) Out of a million customers, we have
11 about 500 customers in Connecticut who take
12 what we call "Rate 7." So it's the
13 equivalent. It's a time-of-day rate for
14 residential customers. So proportionally,
15 it's about the same. It was a rate that had
16 under a hundred customers originally and has
17 been in place with our most recent changes
18 back in around 2005. It's grown to about 500
19 since then. So it's been a very slow growth.
20 There was an extensive marketing campaign
21 originally, and it didn't result in that many
22 more customers signing up. But we've had a
23 steady growth. So, you know, if you do the
24 math, it's maybe 40 or 50 per year for a

1 number of years, and then it's kind of
2 tapered off. But we haven't seen much growth
3 recently. But even despite having an
4 extensive marketing campaign, it was
5 surprising that not that many customers
6 switched.

7 Q. Do you remember or would you know why
8 initially you had less than a hundred
9 customers and then it kept going? I
10 understood that you said it's a slow growth.
11 But what led to that growth? And was it more
12 customers being there, generally speaking, or
13 was something else going on?

14 A. (Davis) So when we originally introduced
15 this, and I don't remember the exact date,
16 but it was when time-of-day rates were being
17 deployed across all rate classes, either
18 mandatory or optional. And that goes back to
19 the 1990s, if not earlier. For residential,
20 what was a big difference was
21 post-restructuring -- so that happened around
22 1999, 2000 in Connecticut -- there was a
23 number of rate unbundling, but then we turned
24 our attention to cost-based rates, and a

1 subset of that was time-based, time-varying
2 rates. So we had a legislative act, called
3 "Act 501" in Connecticut in 2005, which had a
4 number of components that were related to
5 time-of-day rates. So one of them was turned
6 over to processes with a regulator to expand
7 our time-of-use offerings.

8 So, short story, falling out of all this
9 is that we ended up changing our time-of-use
10 periods. This is a big driver because we
11 had, very much like in New Hampshire now, we
12 owned generation pre-structuring. So we had
13 these long, intermediate cycling generation
14 peaks. They started at 7 a.m. and ended
15 around 8 p.m., as we have here. And after
16 the sale of generation and after dealing with
17 a number of things over a number of years,
18 when we turned our attention to time-varying
19 rates, we looked at each unbundled component
20 of service. But one of the biggest pieces
21 was what is the appropriate time period. So
22 we ended up with looking at the market system
23 and looking at all of our costs, and it was
24 determined that a peak period of 12 noon to

1 8 p.m. was appropriate. So going to that
2 shorter peak period was a major issue.

3 Then there's probably some parallels
4 here. But the ability to offer time-of-use
5 rates depends on metering and a lot of other
6 technology enablers. So for residential, we
7 offered the shorter time period. And this
8 was always as an optional rate to standard
9 service. And we also had separate regular
10 use and heating customers.

11 We also ended up, among a number of the
12 various time-of-use directives, conducting a
13 pilot. So one of the major outcomes was to
14 look at peak versus off-peak, different
15 ratios, price sensitivities, things of that
16 nature. It was a full pilot, very much like
17 what the federal DOE did at the time. And
18 when we had a final order, we not only had
19 the results of that pilot and other work that
20 we did to look at cost-based,
21 time-differentiated rates, but also we had
22 that 12 noon to 8 p.m. kind of window. And
23 it was decided that this was still an
24 optional rate for residential customers. I

1 don't recall there was much reaction to just
2 having it 12 to 8, but I think that the
3 bubble of additional customers that initially
4 came on resulted from a full campaign and
5 awareness of the 12 to 8. I mentioned
6 earlier the slogan, "Wait 'Til 8," for
7 example, to do your laundry after 8:00 or
8 whatever it might be. And that was a
9 statewide initiative. You know, the other
10 utility in Connecticut also did that. But it
11 didn't seem to -- once we had the initial
12 bump, it didn't seem to carry any further
13 migration in any big way. So we had a
14 bubble, you know, a number of customers
15 signed on. Let's say we went from 100 to
16 maybe 250, maybe 300 customers. And it's
17 really been a slow trickle from there. And
18 there's been various ways to message and
19 communicate with customers. But I can't
20 attribute it to any one thing why it hasn't
21 taken off. It's also been difficult I think
22 because prices vary a lot. Particularly
23 during that time, we were coming out of a
24 long transition period for supply, and then

1 we had price caps. And suddenly when the
2 transition ended, these are things that are
3 going on in parallel. So, you know, the
4 whole overall environment, prices jumped, you
5 know, to solicitations, and energy supply
6 particularly went very high. And there were
7 other initiatives that came into play. So we
8 were introducing all kinds of other rate
9 changes. So that's sort of the complexities
10 I think that maybe overshadowed any one
11 thing, such as what about time-of-use rates.
12 Well, there was a lot more going on with
13 rates that impacts the bills.

14 So maybe getting that message through
15 and customers taking advantage of the
16 opportunity -- you know, I'm speculating a
17 little bit because it's hard to know why
18 customers didn't do things without actually
19 surveying and studying them.

20 Q. It's probably been a while, so you may not
21 recall. But I'm also trying to get a sense
22 of when in Connecticut the period was
23 changed, you know, to what I'm counting as 8
24 hours rather than 12, 13 previously.

1 A. (Davis) Correct. Yes. Actually, I
2 apologize. It was actually 16 hours not --

3 Q. It was sixteen hours --

4 A. (Davis) 7 a.m. to 11 p.m.

5 Q. Okay. You're right. So trying to -- do you
6 remember what happened in Connecticut, in
7 terms of the customer charge?

8 A. (Davis) The customer charge has had a slow,
9 steady increase. I forget the year, but we
10 had a major docket, might have been 2004 or
11 2005 time frame, where we started to look at
12 cost of service. And there was a major push
13 to align rates exactly with cost of service
14 as closely as possible. And so I don't
15 remember the magnitude of the number, but it
16 had steadily increased in a series of rate
17 cases. It got to a point roughly four or
18 five years ago where we ended up with
19 legislation which changed the method and the
20 approach and put a cap effectively on the
21 customer charge. So that moved it downward.
22 But it had steadily increased \$13, \$14, \$15,
23 in that range. And our costs were north of
24 \$25. So all the costs we talked about here

1 earlier, you know, very similar. The method
2 of cost of service really -- I don't know how
3 much weight it always got, but we always had
4 a very similar approach in valuating
5 allocated or embedded costs. We do not run
6 marginal costs. Since restructuring, we do
7 not run marginal costs. So we didn't have
8 that insight during rate cases to evaluate
9 the customer charge.

10 Q. Can you just speak a little bit about what is
11 the situation in Massachusetts?

12 A. (Davis) Regarding customer charge?

13 Q. No, overall, like for OTOD --

14 A. (Davis) Yeah.

15 Q. -- or TOD.

16 A. (Davis) We actually have gone away from
17 time-of-day rates. We had a -- well,
18 Massachusetts has combined with Western Mass.
19 and Eastern Mass. So we had a merger in
20 2012. And I came from Northeast Utilities,
21 where Western Massachusetts was part of the
22 NU legacy companies. And Western Mass.
23 actually followed a very similar path to
24 Connecticut; we redefined the time-of use

1 period to 12 to 8. But the methods and
2 approach to cost of service are different in
3 Massachusetts. So we never really introduced
4 a time-of-day rate for residential.

5 Q. Okay.

6 A. (Davis) And so looking at Eastern Mass. after
7 our merger, and I suddenly became involved
8 in, very involved, we had our first rate case
9 there in 20-plus years, maybe many more. So
10 time-of-day rates came up as a topic.

11 And the problem in Massachusetts,
12 Eastern Mass., is there's such a disparity of
13 rates alone. So that wasn't -- it was one of
14 many topics to address cost of service and
15 rate design. And the point there is now
16 you're looking at combining four operating
17 companies with many, many different rate
18 schedules, time-of-use periods, all over the
19 board. You might have seasonal and
20 non-seasonal, but very few of -- very little
21 of that. Boston rates are a lot different
22 than Cambridge or South Shore. Literally,
23 three different operating companies with a
24 complete different history, and then you

1 bring in Western Mass. So there's been a
2 very high-level envelope of working on rates,
3 rate consolidation. And things like
4 time-of-use rates have not gotten as much
5 attention. We're really looking more at a
6 more stable and bill continuity approach to
7 changing rates and rate structures.

8 So aside from the electric vehicle
9 proposal I had touched on earlier, we're not
10 seeing much in terms of time-of-use rates.
11 If there are time-of-use rates within an
12 incumbent utility's, you know, former
13 operating company rate class in a certain
14 service area, then they pretty much are
15 staying the same as they were. And they have
16 that longer peak period as a characteristic
17 in Eastern Mass. In Western Mass. they still
18 have the eight-hour peak period.

19 Q. So going back to metering again. Just out of
20 curiosity, if we go ahead and did AMI, do you
21 have a sense of what kind of -- like in terms
22 of cost, in terms of time? Because if TOD
23 has to go the next generation, and then if
24 AMI is the approach, I'm trying to get a

1 sense of what are we really talking about.
2 What kind of costs are we talking about?
3 Again, if it's possible, can you give me a
4 sense of, like, just the meter itself, what
5 that would cost?

6 A. (Davis) Yeah, I'm not really -- if it's meter
7 cost you're focusing on, I don't know the
8 costs, offhand. There are multiples of the
9 current cost I understand. Let's say for
10 discussion it's \$500 or \$600 for an AMI kind
11 of meter. Beyond that, it's really order of
12 magnitude, and I couldn't tell you what the
13 numbers are.

14 Q. At the utility end, you have to also do other
15 stuff to be able to -- so do you have a sense
16 of that cost? If it's no --

17 A. (Davis) I don't know. I can defer you to
18 things we filed. But I don't know, offhand.

19 Q. Okay.

20 A. (Davis) But to your point, I just want to
21 point out that, yes, those other requirements
22 I mentioned earlier, meter data management
23 and other systems and capabilities, are
24 required. I couldn't tell you the cost of

1 those in particular.

2 Q. I think it's Exhibit 4. I'm going to go back
3 to Page 47, where we were a while ago. I
4 just want to make sure I'm grasping
5 everything. So can we go there?

6 A. (Davis) I have that.

7 Q. Yeah. So first, I would try to -- let's
8 confirm that I get it right.

9 So, for example, when you moved on to
10 the MC-based Rate Design Step 2, for the
11 Distribution line you have peak; you have
12 0.065 on Line 47.

13 A. (Davis) Oh, yes.

14 Q. Right?

15 A. (Davis) Yes.

16 Q. That is essentially -- just confirm whether
17 that is -- if you go to Line 38 --

18 A. (Davis) Okay.

19 Q. -- and again you have 0.02868; right?

20 A. (Davis) Yes.

21 Q. So you're adding -- first of all, you're
22 adding the cell in Row 43 which comes under
23 Peak. So you're adding .02358 to that. And
24 then you're adding another .01274 to get to

1 the .065; correct? Just confirm. I'm just
2 trying to get a sense --

3 A. (Davis) Those are being added, yes.

4 Q. So I got it right; right?

5 A. (Davis) Correct.

6 Q. Yeah. So the -- okay.

7 So for the off-peak, it's likewise
8 simply going from Row 38 --

9 [Court Reporter interrupts.]

10 Q. In Row 38 for Distribution for off-peak, you
11 are looking at 0.02404. And then you're
12 adding only 0.02358 to get to the number.
13 That's what's going on.

14 A. (Davis) That's correct.

15 Q. So the other thing that I would mention, and
16 I'm conceptually trying to understand this.
17 You are -- if you go to again those rows, 38
18 and 39 -- sorry -- 38 and 39, and you look at
19 the delta price, that column, so you have
20 0.00464 for distribution and then 0.07000 for
21 transmission. Those are coming from your
22 analysis, and you're sort of fixing those
23 numbers and then trying to figure out by
24 changing the rates how you can ensure you

1 have the revenue that you need.

2 A. (Davis) Precisely.

3 Q. So my question to you is: Could you have
4 done it in terms of looking at the ratio
5 rather than the different differentials? So
6 what I mean is, for example, for
7 distribution, could you have used the number
8 that appears in Row 38 for peak and then
9 divided by the number that appears in the
10 same row under off-peak and fix the ratio
11 rather than use the differential, you know --
12 fix the ratio for both of them, for
13 distribution and transmission, and then
14 proceed and do your calculations differently?
15 You would get somewhat different prices. But
16 is that even possible? That's what I'm
17 asking. So in terms of looking at the
18 marginal cost, you're kind of looking at the
19 ratios.

20 A. (Davis) It's mathematically possible.

21 Q. Yes, I'm just asking that.

22 A. (Davis) Yes. I don't believe that's -- well,
23 it's certainly not the approach we took.

24 Q. Right.

1 A. (Davis) But that's certainly mathematically
2 possible.

3 Q. And is there a overwhelming reason why you
4 chose this approach as opposed to the other
5 one that I just talked about?

6 A. (Davis) Yes. I wanted to ensure we had the
7 price differential, because that's really the
8 result from our marginal cost analysis that I
9 relied on is what's the difference in price.
10 So maintaining the price differential in
11 performing the math was the principle that I
12 applied in designing to get back to the total
13 average rate and revenue requirement.

14 I feel that when you use a ratio, it's a
15 distortion away from the pure marginal cost
16 price difference. So I feel that the rigor
17 and work to determine the difference in
18 marginal cost, the price difference, is
19 diffused. It's certainly directionally, you
20 know, higher peak, lower off-peak. But you
21 really lose the benefit of trying to ensure
22 that we've set rates based on the price
23 differential. And I think that's really kind
24 of the essence of -- I feel that the ratio is

1 not nearly as precise, if not, you know,
2 accurate in terms of reflecting the cost and
3 the analysis that we did. Is it
4 cost-reflective to go by a different
5 approach, such as using a ratio? It still
6 reflects that, but I think it's closer to
7 actual cost and more efficient to try to
8 maintain the price differential.

9 Q. Thank you. There could be other reasons,
10 too, but I would also point out that when
11 you're comparing the price signals, the
12 approach that I mentioned, there are other
13 reasons that that could be the right
14 approach, too. So, again, I'm not -- I mean,
15 I understand what you did --

16 A. (Davis) Yeah.

17 Q. Yeah, so I get that.

18 A. (Davis) If I could say, I understand that,
19 too. And I think I call that -- I don't know
20 if it's the right term. But everything I
21 said is more of the science of it than the
22 art of the design itself. But then there's
23 the policy reasons and other drivers to then
24 go further and do something different.

1 Q. Yeah. And that's fine.

2 I think you also -- do you agree that
3 when you actually implement these rates, the
4 ones that are part of the settlement, the
5 customer's behavior could change, and that
6 could lead to, you know, what you had said,
7 trying to meet the revenue requirement? You
8 might see that it doesn't happen the way you
9 thought it would. I mean, I know the
10 question is we're really talking about
11 43-plus maybe. I don't know how many more
12 customers, but not a whole lot. So it may
13 not be a whole lot, but later you have to
14 start tweaking it, being more mindful of what
15 behavior do these customers display. And
16 so I --

17 A. (Davis) Yes.

18 Q. One question on education outreach. I'm just
19 thinking loud here, but I want to have a
20 back-and-forth.

21 So there are these residential customers
22 that are not on OTOD, right, and they have a
23 different meter, like very basic meter. How
24 do you tell them that, based on your look at

1 the residential load curve -- and you don't
2 follow individual customers because that's
3 not how you do it. You have monthly, you
4 know -- you calculate what the usage was over
5 the month.

6 So what I understood is that the current
7 readers do not have the availability for you
8 to know exactly what they did or what the six
9 hours and the rest of the hours. So you're
10 looking at monthly numbers. But you can --
11 generally can you get a sense based on the
12 residential load overall how things are
13 panning out during your six hours relative to
14 the 18 hours?

15 A. (Davis) So earlier I mentioned the survey
16 meters. So we do have at least some
17 analysis, and from a statistically valid
18 sample, which gives us an indication of the
19 class characteristics based on the sample.
20 So that gives us an idea of where customers
21 are on average. And so we know that there's
22 a potential. And it's not going to be for
23 every customer, because relative to the
24 average, some customers might be very much --

1 their load intensity may very much be in that
2 peak period, or it might be completely off of
3 that. But on average, you come back to that
4 relationship. So I think that's a starting
5 point for us to say we know there's some
6 customers who may by default benefit just by
7 switching without doing anything different.
8 But then it's a matter of if you're on the
9 rate, what can you do in response to that.
10 Is it a benefit? Is it something that a
11 customer can take advantage of? So it's sort
12 of a bit of a dialogue that way to inform a
13 customer what this means, what does -- the
14 time-of-use, time-of-day structure and how
15 does that compare to where you are now. But
16 what happens immediately -- and this is an
17 experience when you have any kind of rate
18 change like this -- is you're giving new
19 information to customers that they may not
20 think about or are aware of. So as a
21 minimum, that's the start. And then -- yeah,
22 so --
23 Q. So what I would suggest, given the customer
24 charge differential -- and I think it's

1 roughly \$3 something -- one could pitch the
2 information in a way that sort of says the
3 load curve for the residential customers on
4 average, and we have a flyer or a one-pager
5 that explains, okay, if you go this
6 percentage based on that average customer, if
7 you move some of your load away from the six
8 hours to the other hours -- and I'm making up
9 numbers -- 25 percent of your load, then
10 you're definitely going to be able to get
11 more than even the \$3 that you're paying
12 more, and it's beneficial to you. It's kind
13 of letting everyone know, being more visible
14 that this is going on. And it's something
15 that I think in New Hampshire we should be
16 doing. That's my --

17 A. (Davis) Could I then ask -- because I've
18 alluded to the bill comparisons. But those
19 probably are more tools, the entire set of
20 those, for our customer service reps.

21 But I'm just brainstorming with you a
22 little bit. Are you suggesting, for example,
23 choosing one of the scenarios among those
24 that demonstrates, again, customer charge

1 difference? And if you have this usage and
2 you're able to move X percent and maybe put
3 some kilowatt hours to that --

4 Q. Yeah.

5 A. (Davis) -- 'cause people relate to their --
6 one thing is you start with, well, what do
7 you use every month and then what's your peak
8 and off-peak relationship.

9 Q. Yeah.

10 A. (Davis) So I'm just, again, maybe soliciting
11 some information through your question,
12 because part of what we very strongly intend
13 to do is rely on the analysis we have done
14 that shows the bill impacts and then the
15 possible savings. So am I hearing that --

16 Q. Yeah. What I'm saying is sometimes the
17 numbers that you provide, your analysis,
18 people don't have time to, you know, delve
19 into it, okay. So you want to have a message
20 that goes to the customer in as simple manner
21 as possible and directly. Not necessarily
22 talking about their own behavior, but I'm
23 talking about in general giving them a sense
24 that if you are able to move your -- you

1 know, this much of your load away from -- you
2 don't know whether they're doing it. But
3 just to give a sense. If you have less load
4 during the off-peak -- sorry -- the on-peak
5 hours and by this much, then you will be able
6 to make -- you know, that's a deal for you.
7 That's better for you. So that's -- I
8 haven't thought through it fully.

9 But what I'm trying to flag here is the
10 message needs to be clear, and it should
11 trigger everybody knowing it, okay, you know;
12 otherwise, it's -- you'll keep getting maybe
13 43 plus 10. So that's my point.

14 A. (Davis) Thank you very much. Yes,
15 definitely.

16 Q. So the last question I have is, and I'm
17 just -- I want to know whether you have seen
18 any jurisdiction where time-of-day is
19 mandatory and it's for everyone, all
20 residential customers.

21 A. (Davis) Oh, for residential.

22 Q. Maybe all customers. But I'm also thinking
23 of residential, yeah.

24 A. (Davis) So in Connecticut, we actually made

1 time-of-day mandatory for all customers, all
2 the way down to if you had a maximum demand
3 of 200 kilowatts, and an optional for all of
4 our small C&I and our residential. That's
5 one data point, one company.

6 By contrast, oh, I don't know, in
7 Arizona, they had a whole series of rate
8 introductions years ago. And there was a lot
9 of folks, you know, and colleagues folks I
10 work with who consult from time to time and
11 exchange our experiences. And that was
12 another example of it was optional.

13 I think by and large they tend to be
14 optional. But there seems to be more
15 emphasis and promotion to move to almost, in
16 some cases, I won't say force, but make it
17 more mandatory, or at least something that
18 needs to be put in place. But I can't recall
19 any particular jurisdiction that made it
20 mandatory for residential. But I do believe
21 the Connecticut experience I mentioned has
22 happened in other places, where there's a
23 directive literally ordered to do so, but not
24 without having walked through how you get

1 there and then discussing what the process
2 should be.

3 For example, in Connecticut we already
4 had mandatory time-of-day for medium and
5 large C&I back from the 1980s. And part of
6 that was we had different vintage and
7 technology meters to be able to do that. The
8 TMR82-type meters, those were interval
9 meters. We put in place mandatory
10 time-of-use rates. But in the 2005 era I
11 mentioned earlier, we had a directive to do
12 that, but we needed to transition. So we
13 literally worked our way down through the
14 number of customers, and we did it based on a
15 demand threshold. So it went down to 500
16 kilowatts, and then we went several years
17 like down to 300, 250 and ultimately 200.
18 But that was the pathway to get to the
19 mandatory outcome.

20 But I don't think, for two reasons,
21 we've seen mandatory go much deeper than that
22 in any jurisdiction I can think of. One is
23 it's expensive. You got to swap out and get
24 more expensive meter technology and billing

1 processes. There's an education process.
2 It's a much larger number of customers as you
3 move into small C&I, residential. You know,
4 there's usually fewer medium and large C&I
5 customers in any utility than there are the
6 smaller C&I and residential. So it's a
7 larger undertaking.

8 And there's a lot of other
9 considerations. You know, part of it I think
10 is awareness. Part of it is rate continuity,
11 stability for rates. And there's a lot of
12 other considerations. But I have not seen
13 mandatory residential specifically.

14 Q. Anything outside the U.S.?

15 A. (Davis) Boy, great question there, too. I
16 was looking at Europe one time. And I also
17 at one time had a visit from some folks from
18 Japan after the nuclear accident, and they
19 were trying to think about rate design. And
20 I remember discussions about it, but I don't
21 recall it being mandatory. I'd have to do
22 some research.

23 Q. So I would suggest also take a look at
24 Canada.

1 A. (Davis) Oh, thank you. Yes.

2 COMMISSIONER CHATTOPADHYAY: That's
3 it. Thank you.

4 CHAIRMAN GOLDNER: Okay. I just
5 have a few final clarifying questions. I
6 think everyone can sense that this topic is
7 important and interesting to the Commission.
8 So I suspect some may have thought it would
9 have been a shorter hearing today than it is,
10 but that's because of the level of interest
11 from the Commission.

12 First, Ms. Desmet, will you be
13 addressing your position, the OCA's position
14 on mandatory TOD for residential in your
15 closing, or could you address that in your
16 closing?

17 MS. DESMET: I had not thought
18 about mandatory TOD. If it's something that
19 the Commission wishes us to chime in on, I
20 think it would have to be a bigger office
21 discussion and we could file a letter if the
22 Commission wishes. So I would not be
23 prepared on the fly today to answer that.

24 CHAIRMAN GOLDNER: Okay. Thank

1 you. Thank you. Yeah, just we would invite
2 comment on that topic, if that's something
3 the OCA would like to weigh in on.

4 BY CHAIRMAN GOLDNER:

5 Q. Next question is for Ms. Nixon. On your
6 Bates Page 7, Ms. Nixon, you -- Energy
7 encouraged the Commission to consider
8 allowing small customer generator, net
9 metering customers to opt in to this rate. I
10 believe Mr. Davis highlighted earlier, and I
11 didn't see it in the settlement. But you
12 would say that is -- you would encourage us
13 to consider it, but it's not in this
14 settlement; is that correct?

15 A. (Nixon) That's correct.

16 Q. Okay. And that was just part of the
17 negotiated settlement. It was something that
18 you and Energy wanted, but it wasn't workable
19 in the final settlement?

20 A. (Nixon) Right. It did not, and there's
21 nothing in the settlement related to that.

22 Q. Okay. Thank you. Okay. Just a moment
23 please.

24 Okay. So Mr. Davis, I think it was

1 noted earlier, and it's in the settlement,
2 that currently there's 43 customers that are
3 enrolled in R-OTOD. And I noticed you
4 mentioned in multiple places that you've done
5 a lot of forecasting and modeling. Have you
6 modeled or estimated how many OTOD-2
7 customers you would expect with this new
8 pricing?

9 A. (Davis) We've thought about it and tried to
10 see how we could possibly model that. We
11 didn't really come to a conclusion. I would
12 expect an increase, but I'm not sure it would
13 be that large. So we just couldn't come to a
14 conclusion about how we could project that.

15 Q. Okay. Very good. Thank you.

16 In Section E of the settlement, Bates
17 Page 6, a question again for Mr. Davis. It
18 looks like there's a robust process for
19 outreach in education.

20 Is it correct to say that there will be
21 no incremental costs; that is, no outreach
22 education costs charged to R-OTOD-2
23 customers?

24 A. (Davis) That's correct.

1 Q. And in Section G of the settlement, again a
2 question for Mr. Davis, Page 7. It didn't
3 look to me when I read the description that
4 there was consideration for the three-period
5 versus the two-period piece of the next
6 distribution rate case. Is that -- is
7 three-period a consideration for the next
8 distribution rate case?

9 A. (Davis) It's not an explicit consideration.
10 But I will comment that we are about to
11 implement a three-period electric vehicle
12 time-of-use rate. And I do think we
13 certainly will look at it particularly on
14 that basis because we expect to start having
15 some experience with that.

16 Q. And your issues are not on the meter side,
17 it's on the back-office processing side?

18 A. (Davis) No, metering is included because --

19 [Court Reporter interrupts.]

20 A. (Davis) Metering is part of that
21 consideration. We need different
22 information. We need interval data to be
23 able to break up usage into more than two
24 time-of-use periods. So that's a major part

1 of what we need to consider in any
2 three-period offering. And then, of course,
3 the billing. And then there's other aspects,
4 but it does start with the metering.

5 Q. Okay. Thank you.

6 I'm just reflecting on Commissioner
7 Chattopadhyay's comment about Canada. I used
8 to live in Europe for a while, and I believe
9 that they have the capability there with the
10 Itron meters and so forth. So it's probably
11 a cost benefit --

12 [Court Reporter interrupts.]

13 Q. It's probably a cost benefit trade-up, you
14 know, where these technologies are all
15 existing. It's just a question of what's the
16 benefit versus the cost of the
17 implementation. Is that fair?

18 A. (Davis) Well, generally I guess I'd agree,
19 yes. But I think the prospect of AMI brings
20 a lot of those, I'd call them "technology
21 enablers." But I think that's part of the
22 bigger picture of your process for what kinds
23 of meters you put in place when you do that.
24 But definitely that comes to play into that

1 consideration.

2 Q. Perfect. Thank you.

3 And just sort of a follow-up on that,
4 and a question to Ms. Desmet earlier. If the
5 Commission were to require, which I'm not
6 suggesting we're doing here, but if the
7 Commission were to require time-of-day rates
8 across the entire New Hampshire base, I just
9 want to understand any obstacles to doing
10 that. I think one is the meters. Your
11 current meters are not ready for that. And
12 new meters, if somebody called you today and
13 their meter broke or it was a new house or
14 something like that, the new meter you're
15 putting in today would not support
16 time-of-day rates; correct?

17 A. (Davis) New meter for?

18 Q. Yeah, a new house goes in --

19 A. (Davis) Oh, oh.

20 Q. -- a residential house putting in a meter.
21 It would not support a time-of-day rate;
22 right? It would be the low-cost meter for
23 your standard R rate. Would that be correct?

24 A. (Davis) Well, I would say we would offer --

1 we would make customers aware of either
2 option. So they could, right at the outset,
3 move right to a time-of-day rate and have
4 that meter in place, or take the conventional
5 Rate R, if you will, and that would be a
6 standard meter installed for that purpose as
7 well.

8 Q. Because you would be doing that today. You
9 already have an R-TOD rate today.

10 A. (Davis) That's correct.

11 Q. And so if maybe a builder's building a new
12 subdivision, you would go to them and say
13 here are your options for a new -- putting in
14 a new meter in a house. Maybe the meter
15 broke or needs replacement. You would have
16 that discussion in some form?

17 A. (Davis) We would. And I think we would as
18 part of -- I mean, we talked about outreach.
19 But sort of leading in all the way to the
20 front end of that, for any new home, new
21 residential customer, those options should be
22 available at that point. So there's at least
23 a point of awareness.

24 Q. It would be an interesting topic for your

1 next rate case, if we're forward-thinking and
2 there's alignment, that time-of-day rates are
3 the future, then what do new meters going
4 into houses and industry and so forth, what
5 does that look like. And folding that into
6 the rate case would be an interesting topic
7 I'll put that out there for folks.

8 And then the second obstacle, just to
9 kind of complete the question, was, yes,
10 okay, you need new meters to have mandatory
11 time-of-day rates. Then you also have the
12 back-office piece. And we have that in other
13 dockets. And the cost is substantial for
14 Eversource. And I think we understand that
15 position.

16 If I understood you correctly, Mr.
17 Davis, previously you said there's a lot of
18 work going on in Massachusetts and
19 Connecticut and that that work would be
20 leverageable into New Hampshire if that were
21 to come to pass. Is that fair?

22 A. (Davis) At a high level, I would expect we
23 would leverage any way we could. That makes
24 sense. It's just a general comment, for

1 sure.

2 Q. Yeah. Okay. Thank you. Just a couple more
3 questions.

4 Let's move back to the famous Page 47 of
5 the settlement. And I think, Mr. Davis, I
6 misunderstood you earlier, and I just wanted
7 to make sure I'm understanding your point.

8 On Line 34 of Page 47 of the settlement,
9 there's peak and off-peak kilowatt usage. Is
10 that your monthly actual? Or what am I
11 looking at there, Peak and Off-peak, Total
12 Kilowatt Usage? Is that like your monthly
13 load in New Hampshire?

14 A. (Davis) So thank you. Let me clarify.

15 That is the -- think about in a rate
16 case when we design rates. We set a
17 test-year number of billing determinants. So
18 these numbers represent for the total
19 residential class their total kilowatt hours
20 and how much of those kilowatt hours for the
21 total class are peak if you set a six-hour
22 peak period.

23 Q. Okay. No, thank you for the clarification.
24 This is actually where I'm confused, so I

1 appreciate that we zeroed in on this.

2 So if I take the total load of, let's
3 just call it 3.14 billion, and we divide that
4 by 4, you know, four six-hour periods, so
5 everything was equal over the course of the
6 day and you had an exactly level load, then
7 you would have 786. That's 3.144 divided by
8 4. So you'd have 786 million kilowatt hours
9 of usage.

10 And the reason I'm confused is, how can
11 the peak be 646 if the average load is higher
12 at 786? And I'll just pause there and --

13 A. (Davis) So I'll try to answer the question.
14 What does the 4 represent again?

15 Q. You have a six-hour period, from 1 to 7 p.m.
16 So that's one quarter of a day. So 24 hours
17 in a day, a six-hour period --

18 A. (Davis) Oh, okay.

19 Q. So I'm just saying if you level-loaded four
20 periods, you would divide 3.144 by 4. That's
21 786 million. So your level load would be
22 786. But it says the peak is only 646. How
23 can the peak be lower than the average?

24 A. (Davis) Because you need to also add the

1 weekend hours. So those are only the five
2 days of the week.

3 Q. That's what you were saying.

4 A. (Davis) Yeah. You know, it's not a big deal,
5 but there's also -- you have to add in the
6 week -- the holidays that are not counted as
7 peak. So those two numbers will get you down
8 to the -- from a high-level macro view, that
9 should make sense relative to the 646. I
10 mean, if you just think about weekends being
11 some 20 percent more or --

12 Q. Right, right.

13 A. (Davis) -- then you'll get there.

14 Q. Then you can get there.

15 A. (Davis) Yeah.

16 Q. I see your point. It would be helpful in the
17 future if the five days a week was broken out
18 so we can see the actual profile of the load.
19 You have two engineers and an economist on
20 the Commission. So we like numbers and would
21 appreciate good visibility on what's actually
22 happening. Because when you mesh it in like
23 this, it becomes unhelpful in terms of
24 determining what's going on.

1 COMMISSIONER SIMPSON: And some
2 graphs.

3 CHAIRMAN GOLDNER: And some, yes,
4 graphs. Graphs and tables we like, exactly.

5 COMMISSIONER CHATTOPADHYAY: Maybe
6 even 3D graphs. I'm just kidding.

7 A. (Davis) I'll just comment that I'm a visual
8 person and taking that feedback, as well as
9 recognizing not just here but in other
10 venues, that's helpful, for example, with the
11 three-period EV time-of-use. I mean, I think
12 we're presenting -- most people are
13 presenting just the numbers like this. But
14 that's helpful input so we can make sure that
15 we have a better kind of breakdown to quickly
16 discern what the various relationships are --

17 Q. Thank you.

18 A. (Davis) -- and then the graphics on top of it
19 can be simple enough to summarize that.

20 Q. Thank you.

21 A. (Davis) Okay.

22 Q. So another question for you, Mr. Davis.

23 On Bates Page 3, you mention that none
24 of the suggested DOE changes have been

1 analyzed to see if they would motivate a
2 change in energy use. So I'm kind of
3 wondering why Eversource didn't collaborate
4 with the DOE on different scenarios. Why
5 weren't -- why wasn't there the opportunity
6 for the DOE to make some suggestions on that
7 to get thrown into your models?

8 A. (Davis) I apologize, Chairman. Where are you
9 looking on Page 3?

10 Q. I'm on Bates 3 of your testimony. I think it
11 was your rebuttal testimony.

12 A. (Davis) Oh, rebuttal testimony. I'm sorry.

13 Q. Yeah, I believe that's the case, although my
14 notes are poor on this one. I believe it's
15 Bates 3 of your rebuttal. Yeah. So I'm
16 reading Lines 6, 7, 8 and 9, just so everyone
17 finds it.

18 None of the suggested changes has been
19 analyzed to see if in practice they would
20 even have the intended effect of motivating a
21 change in customer energy usage will result
22 in any positive bill impact for customers.

23 So I'm reading this to say that the DOE
24 had no opportunity to fold their ideas into

1 your models.

2 A. (Davis) And simply, this is a reaction to
3 suggested enhancements and changes to our
4 proposal. But there was no analysis behind
5 it, unlike what we had built into our
6 proposal. We got -- we received the ask for,
7 like, the topics, and they were more
8 theoretical because there was nothing that
9 demonstrated, first of all, when you make one
10 change, that there's sort of a domino effect
11 in a way, because when you make one change,
12 it's going to affect other moving parts. So
13 it was really just a summary kind of
14 statement about there really was no analysis
15 to help us even begin to understand it.

16 And as far as folding that into any
17 further work, I think it was more the timing,
18 you know, the timing of when that was
19 received and what we could accomplish in the
20 time available.

21 Q. Okay. I guess my encouragement in the future
22 would be to engage the parties in that
23 process. I think we might arrive at a better
24 solution. And maybe this is the perfect

1 solution in this case. But if we have
2 engagement in the modeling process in the
3 different scenarios...

4 Okay. Next question is again for Mr.
5 Davis.

6 Is it confusing for your customers to
7 have a whole-house rate and an EV rate that
8 are both, you know, TOD, TOU, whatever you
9 want to call them? Do you find customers are
10 confused by that issue? I mean, I was sort
11 of surprised when I read the filing that
12 there wasn't a single rate for both. And in
13 the explanation, I think I understand better
14 why there isn't at the moment.

15 But are customers confused, and do you
16 have a plan to sort of consolidate and
17 feather all this into a single rate in
18 perhaps the next rate case, for example?

19 A. (Davis) So we obviously don't have any
20 customers yet who are separately metered on
21 an electric vehicle time-of-use rate. I
22 expect there will probably be some confusion,
23 but perhaps not. And the reason I say that
24 is, whatever your residential whole-house

1 rate is, a separately metered electric
2 vehicle time-of-use rate in a way is a
3 special purpose rate. It's intended to be
4 additional to your whole-house service.

5 So just pictorially, I would imagine a
6 service would come in to meet the whole-house
7 requirements, but there would be a separately
8 metered electric vehicle meter off of that
9 same service. And that's really important
10 because that differentiates the type of
11 service. Just like a water heater. We have
12 separately metered water heaters.

13 But focusing on time-of-use electric
14 vehicles, I think the focus will be on that
15 meter and charging in a manner that works in
16 accordance with the rate design, the
17 time-of-use characteristics. If the
18 attention is broadened to compare the two,
19 then I think that's where there might be some
20 confusion. But I think it's a little early
21 to know what and how the extent of what the
22 issues are and what they may be. But I think
23 there's going to need to be much more
24 communication with customers not just for

1 electric vehicle time-of-use option, but
2 service to the whole house, and even just
3 time-of-use in and of itself. And I think
4 that could converge on something common down
5 the road. But it almost begs the question:
6 Why have a separately metered rate? You
7 know, it's sort of a conundrum.

8 So I think we're just at the beginning
9 of this. And I think that understanding
10 perhaps as many use cases as we can identify
11 as we roll out the electric vehicle
12 time-of-use rate and customers on whatever
13 rate they're on, but particularly if they're
14 on a residential whole-house time-of-use
15 rate, we can start to surface and understand
16 what customers' perceptions are and identify
17 the issues that arise from that.

18 Q. Okay. And this last is a comment. I think
19 my encouragement -- and I'm just really
20 building on what Commissioner Chattopadhyay
21 and Commissioner Simpson said earlier. Our
22 larger southern neighbors are doing a lot of
23 work in this area. And I think sharing that
24 information with us and helping us understand

1 what's going on there would be very helpful
2 in terms of our learning and understanding
3 what direction makes sense in the future. So
4 thank you.

5 Okay. Very good. That concludes the
6 questions. I'll just double-check with
7 Commissioner Chattopadhyay and Commissioner
8 Simpson to see if there's any additional
9 questions. Oh, Commissioner Chattopadhyay,
10 please.

11 BY COMMISSIONER CHATTOPADHYAY:

12 Q. Yeah, purely out of curiosity. Let's say
13 there's a customer that's part of net
14 metering. Can that customer choose to be
15 OTOD without the utility knowing, or even if
16 it knows? Like can somebody do that? And,
17 you know, let's not get into the issue of
18 changing what they will get paid or not.
19 That remains exactly what you have for net
20 metering, you know, right now. But I'm just
21 curious whether when you talk about, you
22 know, they don't work together, but -- I'm
23 asking in reality if somebody did what I just
24 described, net metering customer, but I also

1 want OTOD.

2 A. (Davis) I think at this point I'd say that's
3 not available at this point. But it's
4 something I think we kind of are on a path to
5 address. I think we clearly have to find a
6 solution for that. So currently I think it's
7 just not available at this point.

8 Q. Because you know that they're on net metering
9 rates. You would know if they wanted OTOD,
10 that you can tell them, sorry, currently
11 that's not available.

12 A. (Davis) Basically, yes.

13 Q. Yeah. Thank you.

14 COMMISSIONER SIMPSON: I'm all set.
15 I don't have any further questions, Mr.
16 Chairman.

17 CHAIRMAN GOLDNER: Thank you,
18 Commissioner Simpson, and thank you,
19 Commissioner Chattopadhyay.

20 So we'll move to redirect. Is
21 there any redirect for your witnesses?
22 Question for Eversource and the Department of
23 Energy.

24 MS. CHIAVARA: I don't believe I

1 have any redirect at this time. Thank you.

2 CHAIRMAN GOLDNER: Okay. Thank
3 you.

4 MR. WIESNER: And I have no
5 redirect questions for Ms. Nixon.

6 CHAIRMAN GOLDNER: Okay. Well,
7 thank you both. I'll thank the witnesses
8 today, and the witnesses are released. Thank
9 you very much.

10 So without objection, we'll strike
11 I.D. in Exhibits 1 through 4 and admit them
12 as exhibits. And there's no record request,
13 so there's no need to hold the record open.

14 And we'll move to closings,
15 beginning with the consumer advocate, Ms.
16 Desmet.

17 MS. DESMET: Yes. Thank you. I
18 guess maybe just a clarification question
19 about -- I'm not sure if it would be holding
20 the record open or not. But if we were to
21 submit a letter if the Commission requested
22 OCA input on a mandatory time-of-use rate for
23 ratepayers --

24 CHAIRMAN GOLDNER: We can. To make

1 it simple, if you're open to that, we can
2 just hold the record open and make it a
3 record request. And then if a week would be
4 sufficient time, that would be great, just so
5 we can efficiently process the docket.

6 MS. DESMET: Yes.

7 CHAIRMAN GOLDNER: Okay. Thank
8 you.

9 MS. DESMET: So with that squared
10 away, I would just make a brief statement.

11 From the OCA's perspective, in
12 signing on to this settlement, we believe
13 that it is a good start and resolution from
14 the agreement made by the Company and parties
15 in the DE 19-057 case for the Company to
16 revise its optional time-of-day rate for
17 residential customers. The OCA would just
18 like to highlight a few things in the
19 settlement that were very important to us,
20 from our perspective.

21 Under the Settlement Agreement in
22 the 2019 case, as you've heard, there was a
23 requirement for an eight-hour peak window.
24 And all parties came together and did better

1 than that, settling on the six-hour window.

2 Also what was very important to the
3 OCA and was brought home in this case by the
4 director to my left, Ms. Reno, was concern
5 about the customer charge. And she pointed
6 out during the course of this matter that her
7 belief was that there's no faster way to kill
8 a program than with a high fixed charge.

9 So the OCA is very pleased again
10 that the parties came together and came up
11 with a solution to greatly reduce this
12 charge.

13 Also, the OCA is pleased to see
14 additional language included in the customer
15 education regarding social media as opposed
16 to just bill inserts and general outreach.
17 The Company was agreeable to that. So we are
18 very pleased to see that in as well.

19 Further, the commitment to explore
20 improving the rate in the Company's next
21 distribution rate case to consider the
22 elements -- added elements, such as higher on
23 and off-peak ratio, time-varying generation
24 rates, seasonal rates, and a shorter peak and

1 on-peak window.

2 The OCA is hopeful, as you have
3 heard from other witnesses, that they're also
4 hopeful that this modified rate and
5 additional customer outreach will increase
6 this rate's adoption among residential
7 ratepayers. Not only is this advantageous to
8 the system as a whole, it is advantageous to
9 all ratepayers because the additional data
10 will help provide and pave the way for any
11 further tailoring of these advanced rates to
12 benefit the grid and all residential
13 ratepayers.

14 So with that, the OCA hopes that
15 the Commission adopts the Settlement
16 Agreement, as the resulting rates are just
17 and reasonable and in the public interest.
18 Thank you.

19 CHAIRMAN GOLDNER: Thank you.

20 And we'll move to the Department of
21 Energy and Mr. Wiesner.

22 MR. WIESNER: Thank you, Mr.
23 Chairman.

24 The Department supports the

1 settlement reached in this proceeding with
2 Eversource and other parties. The revised
3 optional residential time-of-day rate design
4 reduces the customer charge by almost half
5 and reduces the peak period by one hour, as
6 compared to the Company's original proposal.
7 It also includes a peak to off-peak period
8 rate differential that should further
9 incentivize beneficial load shifting by
10 residential customers. Those are all
11 positive improvements to the rate design,
12 from our perspective.

13 Moreover, the Company will engage
14 in customer outreach and education to promote
15 further uptake and effective use of this new
16 rate design without incurring significant
17 increases to related administrative costs.

18 We also believe the proposed
19 transition provisions are reasonable and
20 appropriate under the circumstances.

21 And we are encouraged that the
22 Company has committed to explore further
23 enhancements to this optional rate design
24 during its next base distribution rate case,

1 time-of-use rates in any form mandatory for
2 all residential customers. And I believe
3 that I can offer that that would reflect the
4 position of the Department as a whole,
5 although I haven't checked with anyone.

6 All that said, the Department
7 believes that the settlement terms you have
8 before you would result in just and
9 reasonable rates, and we urge the Commission
10 to approve them as soon as reasonably
11 practical.

12 In terms of timing, we believe it
13 would be beneficial to have the modified rate
14 available at the same time as other rate
15 changes go into effect on August 1st. And my
16 understanding is that if an order were issued
17 by July 15th, that that would be possible to
18 at least begin implementing this new
19 modified, updated rate as of August 1st.

20 And with that, we believe that the
21 result of this settlement would result in
22 just and reasonable rates for the residential
23 customers participating and those not
24 participating in the optional rate design,

1 and we urge the Commission to approve it.

2 CHAIRMAN GOLDNER: Thank you, Mr.
3 Wiesner.

4 First, my apologies for not asking
5 your thoughts on the topic. And if you would
6 like to put anything in the docket along with
7 the OCA, that would of course be welcomed as
8 well. But to clarify, I don't think we're
9 suggesting that here. We're just asking
10 about the thoughts and positions of each of
11 the departments. So that was really the
12 intent.

13 Okay. Thank you. Any other
14 comments, Mr. Wiesner? Have I --

15 MR. WIESNER: No, I think that
16 concludes our statement. Thank you.

17 CHAIRMAN GOLDNER: Okay. Thank
18 you.

19 And finally we'll move to
20 Eversource. Ms. Chiavara.

21 MS. CHIAVARA: Thank you. The
22 update to Eversource's residential
23 time-of-day rate presented in the Settlement
24 Agreement for Commission approval reflects

1 not just compliance by the Company with an
2 obligation arising out of the Settlement
3 Agreement in the Company's last rate case in
4 Docket No. DE 19-057, but also a
5 collaborative effort among the parties to
6 modernize the Company's time-varying rate
7 design to address evolving challenges to the
8 electric grid, while incentivizing customers
9 to adopt behaviors that would address those
10 challenges.

11 As mentioned in the Settlement
12 Agreement in this matter, this Settlement
13 Agreement in DE 19-057 only had two
14 requirements for the revision to the
15 residential time-of-day rate: That the rate
16 have two periods and that the peak period
17 last no longer than eight hours.

18 The intent behind the Settlement
19 Agreement was to update the rate to be more
20 reflective of current demand curves and cost
21 to serve customers taking the rate while
22 keeping within the existing rate structures
23 so that the updated rate could be quickly
24 implemented and at minimal incremental cost.

1 The proposed updated rate in the Settlement
2 Agreement achieves those objectives and goes
3 further to better incentivize greater
4 enrollment in the rate while maintaining
5 fidelity to the cost of service.

6 The proposed six-hour peak period
7 on non-holiday weekdays is sufficiently
8 cost-reflective of demand and facilitates
9 customers shifting their usage to the
10 off-peak period. By moving nearly half of
11 the customer charge into the volumetric
12 portion of the rate, reducing the customer
13 charge from \$32.80 to \$16.50, greatly reduces
14 what might otherwise be a deterrent for
15 customers considering switching from general
16 residential Rate R to the residential
17 time-of-day rate. However, the Company was
18 mindful in how it re-apportioned the
19 otherwise fixed costs of the customer charge
20 into the volumetric rate by distributing 90
21 percent of that portion across all hours and
22 10 percent into the peak period only. This
23 allocation should generate an appropriate
24 amount of revenue from those taking the

1 rates, so that any cross-subsidization from
2 other rate classes is minimized or prevented
3 altogether.

4 Aside from reducing energy usage on
5 the whole, the proposed updated residential
6 time-of-day rate will provide customers with
7 an opportunity to reduce their bills by
8 taking control of their energy consumption by
9 switching their usage behavior to the
10 off-peak period. While customers may not be
11 able to control the price of energy, they do
12 have the ability to manage when they use
13 their energy. And the Company can and will
14 encourage this customer empowerment through
15 education and outreach by integrating these
16 efforts into already available company
17 resources to avoid incurring incremental
18 costs.

19 By approving the proposed update to the
20 residential time-of-day rate in the
21 Settlement Agreement, the Commission will be
22 enabling an option for residential Eversource
23 customers that has the potential for
24 quantifiable bill savings and result in a

1 just and reasonable rate.

2 This rate update is also being proposed
3 at a particularly salient time when prices
4 for all types of energy are increasing
5 sharply. Eversource customers are likely to
6 be impacted by these energy price increases
7 as well when the Company's new default energy
8 service rate takes effect on August 1st.

9 So as a final matter, and as was
10 referenced by Attorney Wiesner just a moment
11 ago, the Company would respectfully request
12 that, if possible, the Commission issue an
13 order approving this settlement no later than
14 July 15 so the Company can undertake the
15 changes necessary and have sufficient time to
16 make those changes to make the new rate
17 available for customers to enroll starting
18 August 1st. Thank you.

19 CHAIRMAN GOLDNER: Thank you.

20 Is there anything else today?

21 [No verbal response]

22 CHAIRMAN GOLDNER: No? Okay. I'll
23 thank everyone, particularly our two
24 witnesses today. Thank you. We'll take the

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matter under advisement and issue an order.

We are adjourned.

(Hearing concluded at 12:10 p.m.)

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C E R T I F I C A T E

I, Susan J. Robidas, a Licensed
Shorthand Court Reporter and Notary Public
of the State of New Hampshire, do hereby
certify that the foregoing is a true and
accurate transcript of my stenographic
notes of these proceedings taken at the
place and on the date hereinbefore set
forth, to the best of my skill and ability
under the conditions present at the time.

I further certify that I am neither
attorney or counsel for, nor related to or
employed by any of the parties to the
action; and further, that I am not a
relative or employee of any attorney or
counsel employed in this case, nor am I
financially interested in this action.

(ORIGINAL CERTIFICATION FILED WITH
PUBLIC UTILITIES COMMISSION)

Susan J. Robidas, LCR/RPR
Licensed Shorthand Court Reporter
Registered Professional Reporter
N.H. LCR No. 44 (RSA 310-A:173)

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