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STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

NHPUC 6APR17PM1:46

March 28, 2017 - 1:45 p.m.
Concord, New Hampshire

DAY 2
AFTERNOON SESSION
ONLY

RE: DE 16-576
ELECTRIC DISTRIBUTION UTILITIES:
Development of New Alternative
Net Metering Tariffs and/or Other
Regulatory Mechanisms and Tariffs
for Customer-Generators.
(Hearing on the Merits)

PRESENT: Chairman Martin P. Honigberg, Presiding
Commissioner Robert R. Scott
Commissioner Kathryn M. Bailey

Sandy Deno, Clerk

APPEARANCES: *(No appearances taken - refer
to the daily sign-in sheets for
this date of the proceedings)*

COURT REPORTER: Cynthia Foster, LCR No. 014

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I N D E X

WITNESS PANEL	HEATHER M. TEBBETTS ASHLEY BROWN EDWARD A. DAVIS MICHAEL HARRINGTON RICHARD LABRECQUE	PAGE NO.
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(Resumed)

Cross-Examination by Mr. Buxton	4
Cross-Examination by Mr. Below	8
Cross-Examination by Mr. Wiesner	46
Redirect Examination by Mr. Epler	106

**QUESTIONS FROM SUBCOMMITTEE
MEMBERS & SEC COUNSEL BY:**

By Commissioner Honigberg	70
By Commissioner Bailey	79

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2
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E X H I B I T S

EXHIBIT ID	D E S C R I P T I O N	PAGE NO.
81-86	ID stricken	46

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

P R O C E E D I N G S

(Hearing resumed at 1:45 p.m)

PRESIDING OFFICER HONIGBERG: All right.

Who's picking up, Mr. Griset? No. Mr. Buxton.

MR. BUXTON: Thank you, your Honor. I have a few questions for Ashley Brown. I have passed out a set of data request responses. These are also in the magic binder. They are numbers EFC Exhibit 63, 64, 66, 67, 78, 80, and 82. I would ask to have, I think I have to ask to have them marked?

PRESIDING OFFICER HONIGBERG: Yes, you do, and since 74 never made it past the discussion stage and was withdrawn, which 74 is the next number, so we're going to go 74, 75, 76, 77, 78, 79, and 80. Correct?

MR. BUXTON: Thank you.

CROSS-EXAMINATION

BY MR. BUXTON:

Q Mr. Brown, just a couple of questions, and given your time constraints, I encourage yes or no or briefly where we can. Is it not correct that in multiple data responses, you indicated that you did no studies of a quantitative nature in

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 preparing your testimony in this proceeding?

2 A (Brown) Did I personally do a study? I
3 personally did not. I reviewed quantitative
4 studies.

5 Q And that includes your not doing any
6 quantitative studies about facts in New
7 Hampshire, including, for example, some of the
8 topics covered in these data responses?

9 A (Brown) I guess I don't understand the question.
10 Data responses that --

11 Q I'll make it easier. Did you do any
12 quantitative analyses underlying your testimony,
13 which quantitative analyses pertained to the
14 State of New Hampshire?

15 A (Brown) No, and I'm not sure, unless I found
16 some reason to think that New Hampshire was
17 unique, substantially unique, my testimony was
18 basically broadly applicable in terms of the
19 relevant markets. It was not New Hampshire. It
20 was ISO New England. So I didn't see a reason
21 to look at New Hampshire uniquely. If you'd
22 like to ask me a question that's unique to New
23 Hampshire and changes the whole nature of how
24 you price Distributed Generation, ask the

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 question.

2 PRESIDING OFFICER HONIGBERG: Mr. Buxton?
3 Is your microphone on and are you close enough
4 so that everything is picking up?

5 MR. BUXTON: It was on, but I was too far
6 away. I apologize.

7 PRESIDING OFFICER HONIGBERG: And Mr.
8 Brown, same. Make sure you're close enough to
9 the microphone.

10 MR. BROWN: It is on.

11 BY MR. BUXTON:

12 Q Did you do quantitative analyses in preparation
13 of your testimony of issues in ISO New England?

14 A (Brown) I looked at studies involving ISO. I
15 did not do my own quantitative analysis.

16 Q And have you testified previously on energy
17 metering in other states?

18 A (Brown) Yes, I have.

19 Q Would you tell us what states, place?

20 A (Brown) If I remember them all, Arizona,
21 Wisconsin, Oklahoma, I testified alongside of
22 you in Maine. Did I miss something?

23 Q I have no idea.

24 A (Brown) I testified in those states.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 Q Thank you. We took off the GPS some time ago.

2 And Mr. Brown, let me ask --

3 A (Brown) It is a solar-powered GPS, right?

4 Q The best, and it's 24/7.

5 Mr. Brown, did you do any quantitative
6 analysis or studies in preparation of your
7 testimony in any of those other states?

8 A (Brown) No. I reviewed other work that was done
9 by other people.

10 Q In this case, you have indicated you're relying
11 on the testimony primarily of Mr. Overcast and
12 Mr. Meissner; is that correct?

13 A (Brown) In regard to some of the technical
14 issues, right.

15 Q Let me just check. Mr. Brown, thank you very
16 much. Good to see you again.

17 A (Brown) Thank you.

18 Q That concludes my questioning.

19 PRESIDING OFFICER HONIGBERG: Okay. Who's
20 up next?

21 MR. GRISET: Mr. Chairman, I have no
22 questions for this panel.

23 PRESIDING OFFICER HONIGBERG: Is Mr. Below
24 up next? All right. Mr. Below.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 MR. BELOW: Thank you, Mr. Chairman.

2 **CROSS-EXAMINATION**

3 **BY MR. BELOW:**

4 Q Mr. Brown, is there something about realtime
5 pricing or perhaps mixed with data pricing that
6 is, that might be particularly optimal for a
7 price signal or rate structure or pilot for the
8 generation supply component of rates with regard
9 to distributed energy resources including net
10 metered systems, storage and demand response?

11 A (Brown) I assume when you say net metering, you
12 mean in the broadest sense.

13 Q Yes.

14 A (Brown) Not just the status quo in New
15 Hampshire.

16 Q Right.

17 A (Brown) Yes. As the cost of solar panels have
18 declined, there's no particular reason to think
19 that solar can't actually be competitive with
20 the wholesale price of energy. You've got a
21 whole series of questions to get to doing that
22 relating to metering technology and other
23 things. So the question is, given all those
24 other variables, are there suboptimal results,

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 and the answer is there's an array of options,
2 but probably the most primitive is the status
3 quo of simple net metering.

4 Q Right. Of the spectrum of time of use or time,
5 variable rates is realtime pricing sort of at
6 one end of that spectrum in terms of a price
7 signal in terms of its temporal immediacy?

8 A (Brown) I think I would agree with that. In
9 regard to Distributed Generation the spectrum
10 would be at one end realtime pricing, and the
11 other end is the primitive net metering such as
12 the status quo in New Hampshire now.

13 PRESIDING OFFICER HONIGBERG: Hang on.
14 Let's go off the record for a second.

15 (Discussion off the record)

16 PRESIDING OFFICER HONIGBERG: Mr. Below,
17 you may proceed.

18 BY MR. BELOW:

19 Q Let me elaborate a little bit. We have a
20 wholesale market in New England in which
21 generation is responding or there's a bid stack
22 in which generations clearing based on,
23 historically, it was a one-hour load settlement,
24 but as of March 1st, it's now a five-minute

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 interval when generation is both priced on the
2 margin and since generation responds to that
3 five-minute price is now settling in five-minute
4 intervals; is that correct?

5 A (Brown) I think you're right.

6 Q And would there be value if load was seeing
7 those same price signals in terms of more
8 optimal price formation?

9 A (Brown) From purely an economical theoretical
10 point of view, yes, it would be valuable. It
11 would be very valuable. But as I was saying,
12 there are a lot of variables that one would have
13 to consider, such as what would you have to
14 invest in metering technology and whatever else
15 you would need to do in order to get there. So
16 there is kind of a cost/benefit test you'd have
17 to go through because it's not so -- but in
18 economic theory, I would agree with you, but I
19 think there are other questions besides the
20 theory.

21 Q And are you aware that the City of Lebanon has
22 proposed in its direct testimony a realtime
23 pricing pilot that could work with both net
24 metering as well as sort of load generally that

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 might be flexible that could respond to those
2 realtime prices and potentially pay or be
3 compensated based on those real time prices?

4 A (Brown) I was not aware that Lebanon had done
5 that, but I know those kinds of experiments
6 exist around the country.

7 Q No, we've proposed it in this proceeding.

8 A (Brown) I believe you. I haven't personally
9 read your proposal.

10 Q Do you think that would potentially provide
11 valuable information?

12 A (Brown) It might. Well, the answer is in theory
13 it would. The question that I can't answer
14 because I don't know is how much investment
15 would have to be made in order to accommodate
16 because you don't do that without building the
17 infrastructure to do it, and that costs money,
18 and the question is who pays for that. So it's
19 kind of a cost/benefit test you'd have to look
20 at. So the answer to your question in pure
21 economic theory I would agree with you, but
22 there are a lot of practicalities, and I'm not
23 sure how they play out.

24 Q Okay. Thank you.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 MR. BELOW: That's all the questions I have
2 for Mr. Brown, but I can, I'll continue with the
3 rest of the panel if that's appropriate.

4 PRESIDING OFFICER HONIGBERG: Yes. It's
5 your turn.

6 MR. BELOW: Thank you.

7 Q Ms. Tebbetts, would it be fair to say that since
8 the original direct testimony, meaning both
9 Liberty's and City of Lebanon's prepared by you
10 and me respectively, that we've had some,
11 several conversations about the feasibility of
12 implementing the City's proposed pilot and
13 Liberty has indicated a willingness to work with
14 the City to see if we can't figure out ways that
15 this could be done in an economically feasible
16 way.

17 A (Tebbetts) Yes.

18 Q And Liberty has indicated a willingness to work
19 with the City to explore a variety of possible
20 metering options, ranking from a
21 utility-provided meter and potential data system
22 to a potentially City-provided revenue grade
23 meter that might require waivers to the PUC
24 rules or tariffs? That you haven't committed to

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 anything, but you're willing to discuss and try
2 to think those through in terms of something
3 that could make this pilot work; is that fair to
4 say?

5 A (Tebbetts) Yes. We've discussed with the City
6 of Lebanon to come up with something that we'd
7 like to file before the Commission to get
8 approval, some sort of pilot, to look at
9 realtime pricing for anything that the City and
10 the company can come up with that is
11 appropriate.

12 Q Okay. Thank you. And the Settlement Agreement,
13 Exhibit number 5, at page 10 at the top of the
14 page, it has under a list of pilots, item c, as
15 to Large Projects, says "following completion of
16 the study related to RNS and LNS costs
17 identified in Section 12.b above, an opt-in
18 pilot program would be run to review the
19 feasibility of providing transmission credits
20 based on actual avoided marginal costs." Is
21 that correct?

22 A (Tebbetts) Yes.

23 Q And also outside of the settlement, has Liberty
24 and the City discussed the idea of incorporating

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 such a potential pilot tariff with a realtime
2 pricing pilot where we might actually have
3 actual hourly data that would actually
4 potentially demonstrate the contribution of
5 net-metered generation to reduce the monthly
6 points on peaks on which wholesale transmission
7 charges are based?

8 A (Tebbetts) Yes.

9 Q Okay. Thank you. Turning to page 7 of the
10 settlement, and this is for anyone who wants to
11 respond, under paragraph B, it says that the
12 default service portion of the credit for
13 exported energy will be recovered by a
14 reconciliation through the default service
15 charge.

16 So that sounds like there's a monetized
17 credit when systems export, and the value of
18 those credits, you're saying, would be added
19 essentially as a cost to the default service
20 charge; does that sound correct?

21 A (Tebbetts) Yes.

22 Q And in the next paragraph it says the avoided
23 cost credit provided to customers on competitive
24 supply for exported energy will also be

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 recovered by a reconciliation through the
2 default service charge. Is that correct?

3 A (Tebbetts) Yes.

4 Q So if a customer was on competitive supply, and
5 they were given credits based on the prior
6 year's calculation of avoided cost, and it was a
7 solar system for solar systems under the PUC
8 rules, the cost of those credits would be
9 recovered and charged to default service
10 customers?

11 A (Tebbetts) Yes.

12 Q Can you or any member of the panel cite an
13 economic theory or rate principle by which
14 default service customers would pay for credits
15 to customers that are on competitive supply?

16 A (Davis) I'll take a first stab at that, and
17 actually it's a little bit different than maybe
18 what you're probably expecting. These prices
19 and the way we break them down here and how we
20 recover them are really a function of two
21 things. The negotiated price for the basis for
22 the pricing so here we're talking about the
23 commodity-related portion of the total
24 compensation price, and then what happens then,

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 it's more, probably more of an accounting
2 perspective that that becomes a power purchase.
3 We're purchasing power at these negotiated
4 prices, and, therefore, it becomes part of our
5 total cost of supply which is then recovered
6 through default service. So that cost of supply
7 becomes part of the mix and blend of total cost
8 that we then recover through the default service
9 charge. So it's really more of a cost recovery
10 approach than necessarily pricing signals and
11 economic theory per se.

12 Q So is what you're saying is any exported power
13 from a customer generator on competitive supply
14 would be purchased by the utility to be used to
15 help serve default service loads?

16 A (Davis) It becomes part of the total cost of
17 supply for default service, yes.

18 Q So somebody who's looking forward to when
19 Eversource is procuring default service through
20 competitive procurement, would you make that a
21 term of the competitive procurement that if you
22 purchase power from customers on competitive
23 supply that that would be used to offset the
24 load obligation, the wholesale load obligation

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 of the default service provider?

2 A (Davis) I don't think so, and I'm relying on my
3 experience in other Eversource service areas
4 where we do exactly what I described. And I
5 don't think we have any conditions of that kind,
6 whether it's the wholesale supply we purchase
7 for what's called default service by different
8 names in each jurisdiction or competitive
9 suppliers themselves. There's no such condition
10 on that.

11 Q So maybe an example would help. Let's say you
12 had a customer generator that had
13 behind-the-meter production of 500 kilowatt
14 hours for a given month and they had a gross
15 consumption of 700 kilowatt hours, and they only
16 had 100 kilowatt hours that was offset in
17 realtime instantaneously so that they had an
18 import channel of 600 kilowatt hours, which
19 would be the 700 minus the 100, and they would
20 have an export value in their channel, export
21 channel of 400 kilowatt hours. The 500 produced
22 less the 100 offset instantaneously.

23 So you would say that the default service
24 provider gets the revenue from sales of 600

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 kilowatt hours and you would provide a credit
2 for the 400 kilowatt hours equal the default
3 service, and what would you do with that 400
4 kilowatt hours in terms of accounting for it?

5 A (Davis) Okay. So really what's important here,
6 and I'll directly answer the question in just a
7 second, but it actually gets to the actual when
8 I add an opening statement, I'm talking about
9 the framework, you know, this is really what
10 we're talking about in our proposed, our
11 proposal of having, I'll refer to it as
12 buy/sell. Don't get confused with buy all/sell
13 all, but we're purchasing all power that's being
14 delivered to the grid as measured at the meter
15 physically. So that's your 400 kilowatt hours.

16 And somebody, some supplier is providing,
17 in this case a competitive supplier, is
18 providing 600 kilowatt hours, I believe in your
19 example, 600 kilowatt hours at other times. So
20 they're actually at two distinct periods of time
21 during the month. There's a supplier who's
22 serving 600 quality hours during one part of the
23 month, and when the production is greater than
24 the customer's need in other hours, 400 kilowatt

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 hours are being pushed off to the grid.

2 It's actually pretty simple. The meter is
3 telling what's coming off to the grid and what's
4 coming into the grid, and somebody is supplying
5 the 600 kilowatt hours, and the customer has
6 surplus what they need of 400. So at that time,
7 that's when we would be paying the negotiated
8 price for our proposal for the 400 kilowatt
9 hours, and we are purchasing that power. We are
10 using that to meet our supply needs, the supply
11 needs of our entire load, okay? And that in
12 that case would be the load not served by
13 competitive suppliers. So they're all blocked
14 out and mutually exclusive of each other, and
15 it's a pure, transparent set of transactions.

16 So to fully answer your question, that the
17 proposed negotiated price base, price that comes
18 out of our proposal, times the 400 kilowatt
19 hours, we'll purchase that power. That's the
20 cost of supply from that individual customer
21 during those hours, and that becomes part of
22 supply on the one hand, and we're meeting the
23 load of all of our customers who aren't
24 competitively supplied through a mix of

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 wholesale supply, and a set of Distributed
2 Generation sales, if you will, purchases that
3 the Utility is making by taking on that power
4 and having it delivered to the distribution
5 company.

6 Q How does that comport with the very next
7 paragraph on page 7 of Exhibit 5 which states,
8 "The total of all kWh exports that are credited
9 at default service rates or avoided cost rates
10 will be applied to reduce the Utility's ISO-NE
11 wholesale load obligations that is allocated to
12 all suppliers, except for projects registered
13 with ISO New England as settlement only
14 generators."

15 A (Davis) So this is referring to the kilowatt
16 hours themselves, correct? So what's happening
17 here is the load obligation is being set, and in
18 this case, unless they're registered as
19 settlement-only generators, and that power is
20 being delivered through to the ISO market as
21 under a settlement-only generated construct,
22 your customer example is really reducing the
23 load by 400 kilowatt hours. So it's a so-called
24 load reducer.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 And what happens is the reported load
2 obligations reflect that in the accounting of
3 kilowatt hour load obligation. And, you know,
4 we mentioned by hour today, and I suppose that
5 would be done on a 50-minute basis in a future.
6 Lot of details. I don't know how that would
7 work exactly, but assuming the current construct
8 where we look at total settlement obligation,
9 it's basically settled over a month.

10 Q But this says it's allocated to all suppliers.
11 So I guess my question is, say, in a given hour,
12 you've got a default service provider that
13 delivers a megawatt hour of supply, and there's
14 a couple hundred kilowatt hours of exports so
15 that for that given hour, the net amount of
16 power measured at retail that has to be acquired
17 at wholesale is 800 kilowatt hours. That's the
18 one megawatt hour less 200 kilowatt hours would
19 be 800. Would you have a formula that says for
20 the default service provider that their net
21 retail load is 800 kilowatt hours or would you
22 take that 200 kilowatt hours and use it as a
23 load adjustment factor that applies to all
24 suppliers?

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 A (Davis) I think it's the latter, and I think
2 it's done through a settlement process, and
3 there's a fairly set, fairly elaborate set of, I
4 guess, processes that result from the rules and
5 the protocols that are applied for settlement.
6 I'm not an expert in that area so there might be
7 a lot of technical details about that I'd have
8 to maybe spend some more time with.

9 MR. BELOW: Mr. Chairman, I have a series
10 of exhibits that I'd like to have marked for
11 identification, and they're all either one page
12 or stapled set of a few pages, mostly discovery,
13 and they're all in separate packets that can be
14 distributed so we can just walk through each one
15 and perhaps mark them?

16 PRESIDING OFFICER HONIGBERG: And you'll
17 have one of your friends sitting around you help
18 you with this?

19 MR. BELOW: Yes. This starts with a
20 discovery request that is entitled City of
21 Lebanon set one, date request received 6/27/16,
22 and it says request number Lebanon 1-1.3. And
23 so what this is is discovery. We had sort of an
24 informal discovery process that occurred in this

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 proceeding prior to the filing of Direct
2 Testimony. So all of these are from that summer
3 period before Direct Testimony was filed.

4 PRESIDING OFFICER HONIGBERG: All right.
5 Let's figure out what's what and get them
6 marked. The next number is 81.

7 MR. BELOW: So the next one after that is
8 an excerpt from an email.

9 PRESIDING OFFICER HONIGBERG: Hang on.
10 Let's just see how many there are.

11 MR. BELOW: There's 6.

12 PRESIDING OFFICER HONIGBERG: Good. I came
13 up with the same number. We're off to a good
14 start there. So it will be 81 through 86.

15 MR. BELOW: I'm only going to be asking
16 Eversource and Liberty about these particular
17 exhibits.

18 PRESIDING OFFICER HONIGBERG: Mr. Aslin is
19 coming to the rescue anyway.

20 MR. BELOW: Thank you.

21 BY MR. BELOW:

22 Q So starting with 81, and I know, Ms. Tebbetts,
23 you're not the Respondent, but do you recognize
24 this Request and Response?

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 A (Tebbetts) Yes.

2 Q And essentially, it was inquiry about line loss
3 factors, and I will say at the time I prepared
4 this request I was thinking that the line loss
5 factor pretty much was on average the difference
6 between retail loads and wholesale loads because
7 from the wholesale delivery point to the retail
8 meter point, energy is lost in the form of heat
9 as it goes through transformers and across
10 electrical lines, and I was simply seeking what
11 the line loss factors were, and the response is
12 that they are considered confidential. Is that
13 correct?

14 A (Tebbetts) Yes.

15 Q And on the next page of that Bates stamped page
16 2 is another sequential request, and it just
17 simply asks if the same line loss factors are
18 used for grossing up from retail meter reads to
19 wholesale, to figure out wholesale load
20 obligations, and the answer was essentially yes,
21 same factors are used, correct?

22 A (Tebbetts) Yes.

23 Q And the third one was seeking a little bit more
24 detail. Some loss factors were presented based

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 on publicly available information about
2 wholesale load and retail sales, and that's what
3 shown on that sheet, and it ranged quite a bit
4 of variability from 3.4 percent in the most
5 recent year back to 8 percent in 2011, correct?

6 A (Tebbetts) Yes.

7 Q And so that raised some more questions, and if
8 you turn to Exhibit 82, it's an email from
9 Attorney Michael Sheehan to the entire discovery
10 service list. I left out the addresses because
11 that took a whole page. And it said consider
12 this a further clarification, and it goes into
13 some detail about National Grid's process for
14 estimating loads for hourly market settlement
15 which is what Liberty continues to use, and it
16 describes a process by which Liberty has to
17 develop estimates for hourly load for each
18 customer, aggregate that based on who the
19 supplier is, adjust that, and there's some steps
20 involved, and he attaches an additional
21 explanation which is Bates stamped 2 and 3. I
22 don't know if you've had a chance to review
23 this, but this is sort of an outline of the
24 settlement process that is actually what

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 Mr. Davis was referring to as a fairly
2 complicated process that has to occur for every
3 day of the year; is that correct?

4 A (Tebbetts) Yes.

5 A (Davis) Yes.

6 Q On Bates stamped 2 and 3, it's entitled
7 Estimation of Seller Hourly Loads, and there's
8 some explanation, refers to the buyer, if you
9 look towards the end of the first paragraph. It
10 says buyer will estimate seller's default
11 service load, obligations within buyer's service
12 territory and report hourly results to the ISO
13 on a daily basis. And the buyer in this context
14 probably refers to the distribution utility,
15 does that seem correct?

16 A (Tebbetts) Yes. I believe so.

17 Q Because it's the distribution utility that has
18 the wholesale meter reads and the retail meter
19 reads and has to report to ISO New England each
20 supplier, whether it's default service or
21 competitive default supplier, their estimated
22 load obligation for every hour of every day,
23 correct?

24 A (Tebbetts) Yes.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 Q And there's some additional description about a
2 reconciliation process, and there's also an
3 explanation here that, the second bullet point
4 on page 2, that the load shapes, that load
5 shapes are used from your load research data
6 base which is typically a sample of customers,
7 and for each customer class, and that creates an
8 average load shape, and those have to be scaled
9 based on actual usage levels, and then all of
10 this has to be reconciled at the end of the
11 month when you actually have actual meter reads;
12 is that roughly correct?

13 A (Tebbetts) Yes.

14 Q And does that sound like a similar process for
15 Eversource and Unitil?

16 A (Davis) It's very similar, and that's actually
17 what I was alluding to so thank you for
18 providing the details.

19 Q Okay.

20 A (Davis) And, again, this is just the starting
21 point because there's a lot of mechanics behind
22 that.

23 Q Right. Right. I would just point to a
24 statement in the middle of the second paragraph

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 that says, "In cases where telemetered data on
2 individual cases is available, it will be used
3 in place of estimated shapes."

4 So what that means for the fairly small
5 handful of large C & I customers that have
6 interval data that you can actually telemeter,
7 meaning you can pull the data every day, you
8 could actually use actual hour load rather than
9 estimated, and that actually be more accurate;
10 is that a fair statement?

11 A (Tebbetts) Yes.

12 Q Okay. And if we turn to Exhibit 83, this was a
13 second round of informal summer discovery, and I
14 asked about, well, if you can't give me the
15 estimated line loss, and here I've changed the
16 term to load adjustment factor for line loss
17 because that previous document made it clear
18 that it's not simply the line losses, it's just
19 the overall reconciliation process that is going
20 to deviate sort of necessarily from line losses
21 because those actually, those are just from
22 studies, just averages, and every hour of every
23 day line losses are probably different.

24 And the response was the annual average

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 load adjustment factors are negative and between
2 1 and 5 percent. And does that sound correct?

3 A (Tebbetts) Yes. That's what the response says.

4 Q And okay. If would turn to Exhibit 84, this is
5 an excerpt from Eversource's New Hampshire
6 Utility page, so maybe Mr. Davis could respond,
7 and it's entitled Electric Information for
8 Suppliers and Aggregated; is that correct?

9 A (Davis) Yes. I've seen this. I'm not
10 intimately familiar with this, but it definitely
11 states that on there, and I understand -- go
12 ahead.

13 Q If we skip down to loss factors, it says, "The
14 loss factors below are utilized to calculate
15 losses which will then be added to actual or
16 estimated load to arrive at total supplier
17 assigned load. These do not include
18 transmission losses," and then for different
19 rate classes, it gives loss factors, and those
20 are sort of the average line loss factors; is
21 that your understanding?

22 A (Davis) Yes. What I understand these to
23 represent is the losses, and there's some
24 definitional terms on what they mean I think

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 pretty much in our service agreements, but
2 losses between the customer's meter and the
3 point at which supply is delivered I think they
4 called the generation tie location or the system
5 tie location. So it's right, pretty much at the
6 interface with the transmission grid.

7 Q Right. And if we go back up to where it says
8 load shape profiles, it states that, "The
9 methodology used to estimate supplier loads is
10 described in the terms and conditions for energy
11 service provider sections of the currently
12 effective," and then it gives a hyperlink to the
13 tariff.

14 A Yes.

15 Q So what it's really pointing to the fact that
16 these are two elements, you know, the load shape
17 for different customer classes, plus the loss
18 factors, and if we turn to Exhibit 85, what we
19 see is a page 39 from your current tariff that
20 has a section entitled Determination of Hourly
21 Loads for ISO New England, ISO-NE, Reporting; is
22 that correct?

23 A Yes.

24 Q And this is essentially a summary of this fairly

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 complex process that occurs every day to
2 determine wholesale load settlement obligations?

3 A (Davis) Yes. I would look at page 39 as sort of
4 the road map on how you might -- so these other
5 factors come into play. For example, the
6 profiles. In your earlier example of the 400
7 kilowatt hours, we would estimate, have a
8 profile for what we think the load obligation is
9 for that customer during the month. At the end
10 of the month, we realize that the total billed
11 kilowatt hours are, I'm sorry. The 600 kilowatt
12 hours. This is the power delivered to the
13 customer. So we would scale the profile to
14 equal the 600 kilowatt hours and this page 39
15 provides more of the details and depending on
16 the profile and then the reporting process how
17 you would actually go about applying the losses,
18 the scale factors, and, ultimately, show what
19 that customer's individual load obligation is
20 regardless of supplier.

21 Q And turn to page 86, there's a further response
22 from Eversource, the particular witness is not
23 identified, but it also somewhat summarizes this
24 process, but it makes a notation that under the

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 response, under the second paragraph, that said,
2 "Customer load is calculated by either using
3 actual hourly metered values or an estimation
4 method that uses a rate class average load
5 profile." So you've got this, if you have the
6 actual hourly data, you'll use that, but if you
7 don't, then you have to use this estimation
8 method which also has a monthly reconciliation;
9 is that correct?

10 A (Davis) Yes. And the estimation method portion
11 of that sentence, that clause refers to what I
12 just described a moment ago. And as you said
13 earlier, if you have interval data, it would be
14 used to explicitly state each hour what that
15 customer's load obligation is. Again, you have
16 a meter that shows exactly what portion of the
17 total 600 kilowatt hours were drawn in a given
18 hour in this case in the interval. So you can
19 report that actual amount.

20 Q So in this case, you wouldn't actually use the
21 exports and imports. You'd use the net for the
22 hour.

23 A (Davis) In our proposal, we would use the actual
24 imports. The meter would be an interval meter

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 in this case, and we would know the exact
2 imports in a given interval and report that
3 consistent with the corresponding ISO New
4 England interval itself.

5 Q Well, considering that the only load reporting
6 interval being accepted by ISO New England
7 currently is hourly intervals, wouldn't it make
8 sense to use the hourly load profile as is
9 stated in your tariff in Exhibit 85, paragraph
10 C?

11 A (Davis) No, because the meter has the actual
12 measured kilowatt hours during that interval so
13 we'd use that measured amount as opposed to
14 having a profile which estimates what the amount
15 for that class of customer would be in advance
16 so that, because I'm referring to when you don't
17 have an interval meter, you apply the profile.
18 When you have an interval meter, you use the
19 interval because you have an explicit
20 measurement of the actual power.

21 Q If you have the actual interval -- I guess maybe
22 my question wasn't clear. If you have the
23 actual interval, would you be using the hourly
24 net or would you actually be using the gross

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 imports over that hour without subtracting the
2 exports for that hour?

3 A (Davis) Technically, and, again, I'm going to
4 beg off a little not being expert on the details
5 of this, but I believe ISO New England reporting
6 requires netting over the hour. Okay? But our
7 example had the customer drawing power for that
8 interval and across all the intervals that added
9 up to the 600 kilowatt hours. So, presumably,
10 there's no netting going on for ISO reporting
11 and load obligation purposes. So my example, I
12 guess I'm thinking kind of purely, let's say all
13 the 600 kilowatt hours were drawn, let's say, in
14 one hour, so you had 600 kilowatt hours in one
15 hour, and all the other hours was the export
16 amount. So they're mutually exclusive in that
17 case so there's no concern over any kind of
18 netting consideration during that interval.

19 But there's also a difference between what
20 you take from the retail meter and how you
21 translate that to the ISO New England reporting
22 load obligation for that hour so you have to
23 follow those rules to determine supplier load
24 obligation. So that's really on the supply

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 side, sort of behind the whole transaction, but
2 that's for reporting and showing load
3 obligation, and then the entity providing the
4 power is required to fulfill that however they
5 do that.

6 Q Do you know a reference to the rule -- the rules
7 that you're referring are ISO New England rules
8 about reporting wholesale load obligations, not
9 necessarily the detail how you translate retail
10 loads to those wholesale loads, is it?

11 A (Davis) Correct. Retail and wholesale are
12 different. They have different rules, but
13 they're generally aligned, and the schedule 39
14 from the Eversource/PSNH terms and conditions
15 that we talked about earlier, the page 39,
16 provide the mechanisms to translate the metered
17 retail loads to reported ISO New England loads.
18 So there's sort of a transformation between
19 retail and wholesale, and I think that it's
20 so-called market Rule 1, but ISO New England has
21 market rules that define what you have to report
22 for load obligation.

23 Q The bottom line is that all of your wholesale
24 meter, it has to match all the wholesale meter

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 points, the total load that pass over the
2 wholesale meters for everything to balance out,
3 New England wide, right?

4 A (Davis) Ultimately, it's settled. There are
5 differences between the two. But the rules
6 basically accommodate that difference and settle
7 it out.

8 Q And turning back to Exhibit 5, page 7, I'm still
9 not really clear on how you would account for
10 the kilowatt hour exports. It sounds like
11 you're saying it might be that it's accounted
12 for because it reduces the wholesale load
13 obligation and sort of ends up as part of this
14 load adjustment factor that is applied across
15 the board to all suppliers. Is that possible
16 that that's how it would work?

17 A (Davis) Give me a moment, please. I do believe,
18 the colloquy we just had, effectively is how we
19 would accomplish this provision in the
20 settlement terms. There's a kilowatt hour set
21 of adjustments, and this happens to tie to
22 exports, kilowatt hour exports, that are
23 credited at default service rates or avoided
24 rates. In other words, what the utility would

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 purchase, you know, the 400 kilowatt hours that
2 we talked about. You know, that amount. But
3 those kilowatt hours will be applied to reduce
4 the wholesale load obligation that is allocated
5 to suppliers. So, effectively, what's happening
6 is we're reducing our total system load. And
7 then it has to be done at a customer-specific
8 level as well as a total supplier level. So all
9 the mechanics we talked to earlier, if you walk
10 through the mechanics of that exhibit we had, I
11 think would play out, whether it's profiled or
12 interval. So it's really what we do today.
13 Maybe that's the short answer.

14 Q Okay. So, just to try to be clear, if somebody
15 was a competitive supplier and they had a few
16 customers who were net metered, and you were
17 giving them credit because the competitive
18 supplier hadn't opted for their own terms, you
19 would be giving them a credit based on the prior
20 year's avoided cost calculation under the PUC
21 rules, and those kilowatt hours associated with
22 that credit would not be deducted from that,
23 directly from that competitive supplier's
24 obligation or retail sales but rather would end

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 up in this perhaps across-the-board load
2 adjustment factor.

3 A (Davis) No, we're not net metering. Our
4 proposal does not contemplate net metering.

5 Q So there's no netting even at the supplier level
6 between exports and imports?

7 A (Davis) Like I said, there might be that within
8 the interval if you had an interval meter. It
9 might occur in that scenario.

10 Q Okay.

11 A (Davis) Mr. Below, would it be helpful, you want
12 us to take another shot at this? Maybe Rick
13 Labrecque might have a way to clarify.

14 A (Labrecque) I want to be sure that we don't
15 leave something that might be inaccurate in this
16 back and forth here.

17 A (Davis) Go ahead.

18 A (Labrecque) In the example that you walked
19 through, I believe there was 600 kilowatt hours
20 in the purchase channel. That would be the
21 supplier's obligation. That would get through
22 this complicated system, get added to the
23 supplier's overall load asset that gets put up
24 to ISO, and it is the basis for the energy

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 supply that they have to procure to be
2 consistent with the revenues that they get for
3 the customers for those 600 kilowatt hours. 400
4 kilowatt hours are going to act as a load
5 reduction. They're going to lower our total in
6 this discovery question you were alluding to
7 earlier, where it describes our system, is what
8 we refer to on that piece of paper as the
9 generation and tie line load or the total
10 wholesale franchise load. So it's going to
11 result in a reduction in that load. So that
12 when you do the true-up and make sure everything
13 matches, there's going to be in that, where we
14 call it here, the difference positive or
15 negative is applied proportionally to each load
16 asset. So there's going to be some
17 socialization of that reduction in the overall
18 wholesale load across all suppliers.

19 Q That helps.

20 A (Labrecque) I think that's what you were trying
21 to get to.

22 Q Yes. And early in this colloquy, there was
23 reference to the fact that when for a given
24 customer over the course of a month, when

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 imports occur and when exports occur are going
2 to be different, but as a practical matter, for
3 residential customers, the only thing that's
4 really used is your average load profile for
5 that customer class. So even if there's a shift
6 for a given customer's load shape, it really
7 doesn't matter in terms of what that default
8 service or competitive supplier's obligation is
9 going to be because you're using average
10 customer load shapes scaled to their consumption
11 for the month.

12 A (Labrecque) Yes. If a competitive supplier or
13 any supplier had nothing but hundreds of
14 residential customers, their overall shape, you
15 know, the magnitude would float up or down with
16 actual metered sales but the overall shape would
17 be identical to the average shape, and if the
18 handful of those customers went and installed
19 solar, their kilowatt hours of imports would be
20 lower based on the amount of solar power that
21 was consumed internally and lowered their
22 consumption in the purchase channel, and even
23 though, in reality, that customer might have a
24 somewhat spastic profile over the day or the

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 month, the only data point that we have is going
2 to be the aggregate in that purchase channel,
3 the import channel, that's going to then be
4 applied to this average residential load shape,
5 and, again, I hope that was your question.

6 Q Yes. Yes. I'm almost done here.

7 Mr. Harrington, earlier on, you made the
8 observation that overall load in New England is
9 relatively stable or perhaps even decreasing.
10 Were you referring to load as well as peak load
11 or --

12 A (Harrington) I was referring to overload load.
13 Number of gigawatt hours consumed in a year.

14 Q And I think you made the observation in
15 conjunction with that that there was limited
16 benefit to avoiding transmission costs as a
17 result of Distributed Generation that might
18 further reduce loads.

19 A (Harrington) Yes. What I was getting at is over
20 the past we've had a dynamic we've been
21 operating on in New England for quite some time.
22 It always assumes an ever-increasing load. It's
23 gone up and down, but it's always, I mean, the
24 amount has gone up, it's has been higher in some

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 years than others, but it's always been positive
2 generally, and that's one of the things that
3 people look at as if you can avoid bidding
4 future projects whether they be distribution or
5 transmission, there's a saving involved in
6 keeping load down, but you get to a point where
7 if the load is growing at such a small rate that
8 the amount of new projects being built is de
9 minimis, then the potential savings has also
10 gotten extremely small, and I just think they
11 have to be looked as potential for future
12 savings where we certainly seem like on energy
13 efficiency in the last ten-year Vermont/New
14 Hampshire plan which I don't remember the exact
15 figure, but I think it was in excess of 200
16 million dollars was deferred in new transmission
17 because of the import of energy, the effective
18 energy efficiency.

19 As we start getting into a time of flatter
20 load growth in the future, there won't be that
21 much of an increase in demand for new
22 transmission projects so Distributed Generation
23 cannot produce additional savings. You're not
24 going to take the transmission down and sell it

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 because you don't need as much anymore.

2 Q Did you have a chance to review my Direct
3 Testimony in this docket?

4 A (Harrington) No, I did not.

5 Q Would it surprise you that ISO New England's
6 latest load forecast, at least as of that time,
7 that was for 2016, projected that after
8 accounting for behind-the-meter PB and PDR or
9 Passive Demand Response, that New Hampshire's
10 projected growth in peak demand was 1.1 percent
11 which was more than five times the regional rate
12 and more than double any other state. The
13 regional rate was projected at 0.2 percent.

14 A (Harrington) I have no reason to question your
15 figures.

16 Q Okay. If that forecast were to play out and the
17 rest of New England saw little, very little
18 growth in peak demand, but New Hampshire had a
19 1.1 percent compound annual growth rate, would
20 that mean New Hampshire would tend to pick up a
21 larger share of the forward capacity market cost
22 compared to the rest of New England?

23 A (Harrington) Most of those costs are based on
24 the percentage of load consumption. So yes,

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 whether it would be the socialization cost
2 associated with transmission or the actual
3 forward capacity charges, they're based on
4 consumed load. So if New Hampshire were to
5 increase its amount relative to the other
6 states, our bill would go up accordingly.

7 Q And if so, if net-metered generation were to
8 reduce, for instance, some portion of the
9 monthly coincident peak demand which is the
10 basis on which transmission is charged, that
11 would tend to have some reduction of at least
12 New Hampshire's share of the regional cost for
13 transmission.

14 A (Harrington) Yes. My point I was trying to get
15 at is if those load growths were what we've seen
16 in the past of 3 and 4 percent a year, there's a
17 lot more potential for savings than when they're
18 in the 1 or less than one percent a year.

19 Q Okay.

20 MR. BELOW: All right. I believe that's
21 all the questions I have, Mr. Chairman. Thank
22 you.

23 A (Brown) Mr. Chairman, could I clarify one of my
24 responses to his earlier question if I might?

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 PRESIDING OFFICER HONIGBERG: You may.

2 A (Brown) We were only talking about energy, am I
3 correct?

4 Q Yes.

5 A (Brown) Because capacity and demand charge and
6 so forth is a different question. So as long as
7 we're on the same band wagon.

8 Q Yes.

9 PRESIDING OFFICER HONIGBERG: Are there any
10 others we've missed in terms of people other
11 than staff and Commissioners? Questions?
12 Panel? I didn't think so. Mr. Wiesner, you may
13 proceed.

14 MR. WIESNER: I just have some followup
15 questions, and I have some questions about areas
16 that we haven't yet covered, I believe.

17 PRESIDING OFFICER HONIGBERG: I'm sorry,
18 Mr. Wiesner. I apologize for interrupting.

19 Mr. Below, did you want to move the
20 admission of 81 through 86?

21 MR. BELOW: Yes, I would like to do that.
22 Thank you.

23 PRESIDING OFFICER HONIGBERG: Any
24 objection? All right. Seeing none, we'll

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 strike the ID on 81 through 86, and they're all
2 full exhibits.

3 I apologize, Mr. Wiesner. You may proceed.

4 **CROSS-EXAMINATION**

5 **BY MR. WIESNER:**

6 Q This morning I believe Ms. Tebbetts testified
7 that customers could obtain specific and metered
8 load data upon request. Is that correct?

9 A (Tebbetts) There is a provision in Liberty's
10 tariff, I can't comment on the other Utilities,
11 that allows the customer to request information
12 about their load, yes.

13 Q And would a residential customer be able to
14 obtain hourly interval metered data specific to
15 their usage?

16 A (Tebbetts) Well, they wouldn't unless they
17 requested to have the interval meter installed.
18 So although customers can request this, they
19 would first request that the interval meter be
20 installed as part of them wanting to gather the
21 data. We don't have interval meters
22 automatically installed on those customers.

23 Q And that would not change for DG customers even
24 under the Utility Consumer Coalition proposal?

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 A (Tebbetts) That's correct. We're not offering
2 interval meters for these customers.

3 Q Just to clarify, the bidirectional meters that
4 are proposed to be used to implement the new
5 version of net metering would not include
6 interval meter recording capability?

7 A (Tebbetts) They would not by default be provided
8 interval metering.

9 Q Okay. A customer would have to ask for that
10 separately?

11 A (Tebbetts) Yes.

12 Q And pay the corresponding charge?

13 A (Tebbetts) I'd have to look back at our tariff
14 at the exact language. I don't have it off the
15 top of my head.

16 Q Okay. Thank you. Would the answer be the same
17 for the other utilities?

18 A (Davis) I apologize. I was trying to get the
19 exhibit number for the prior set of handouts
20 from Mr. Below. So I missed part of your
21 question.

22 Q I'm sorry then. The question went to the
23 ability of a residential customer to obtain
24 hourly interval metered data, either currently

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 or once bidirectional meters are installed for
2 those customers under the Utility proposal?

3 A (Davis) We're in an interesting situation where
4 there are interval meters that have been placed
5 on some residential customers within the
6 Eversource system, not necessarily New
7 Hampshire. So those meters are in service, and
8 we have the capability to work with those, and
9 those are meters that we had from a previous
10 pilot, particularly in Connecticut.

11 I know you asked about residential, but for
12 larger customers we often have interval meters
13 for bidirectional measurement of power. The
14 real question is if we were to put such meters
15 on the residential, would we be capturing
16 interval data for billing and compensation for
17 exports.

18 We don't do that today. We actually use
19 those meters I've referred to for residential
20 for research purposes for a small handful of
21 customers. So I think our standard, I think Ms.
22 Tebbetts said, the default would be that we
23 weren't contemplating having interval meters.
24 That doesn't mean we couldn't install such

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 meters. I don't believe we have the
2 infrastructure, however, to use the interval
3 data for residential customers for a more
4 granular transaction than monthly as we've
5 contemplated currently. Very similar to the AMI
6 discussions or questions you responded to.

7 Q Would the answer be similar for Unitil, Tom?

8 A (Meissner) Yes. We were not contemplating
9 installing interval meters as part of the
10 settlement, and even if we were to do so, I'm
11 not sure how we would provide that data to
12 customers.

13 Q Okay. Thank you. I want to turn to the
14 Settlement Agreement now. This is Exhibit 5 and
15 on page 5, I'm looking at the provision where
16 for a large project, and I take that, that's
17 defined as over 100 kilowatts up to 1 megawatt.
18 A customer must have behind-the-meter
19 consumption of at least 20 percent of the actual
20 or estimated generation in order to qualify for
21 this proposed tariff or effectively they may
22 become a group host and participate in group net
23 metering.

24 Can you explain the rationale for that

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 provision and this may be a question for
2 Mr. Labrecque, but anyone is free to answer it.

3 A (Labrecque) Well, given that the current
4 structure requires -- in order to get a monthly
5 payment for your excess payment, you need to be
6 a group host. Otherwise, status quo, today's
7 version net metering, carried forward and
8 credit, and it would accumulate and you'd be
9 provided that annual opportunity for cashout of
10 an accumulated kWh credit at the end of the year
11 at the avoided cost rate.

12 So the extent that our settlement proposal
13 was modifying that to include monthly on bill
14 crediting of the excess, we start to think about
15 those large projects that are really stand alone
16 merchant generators, if you will, just a large
17 solar project in the middle of a field, and how
18 today the group net metering structure requires
19 these project developers or sponsors to go out
20 and prove that they have enrolled a list of
21 members in their group that are somehow
22 participating in the project. Whereas, if under
23 this tariff proposal that we're submitting here,
24 if we didn't include this 20 percent provision,

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 you could build a one megawatt solar project in
2 a field and get paid the default service rate
3 without having to prove that you're doing it as
4 part of a group of beneficial group members.

5 So we thought we would want to put some
6 discipline or keep some discipline in the solar
7 development world to require these large
8 projects to still either have on-site
9 consumption so they're co-located at an actual
10 legitimate customer site that has usage,
11 traditional sense of the word. I think that
12 answers your question. That's the basis for
13 that restriction.

14 Q And why was 20 percent chosen as the threshold?
15 Is there a basis for that?

16 A (Labrecque) Nothing highly technical, no. It
17 was just considered high enough to make sure it
18 wasn't something fairly fictitious or frivolous,
19 I guess I should say, you know, some very minor
20 amount of onsite load that would trigger the
21 ability to take this tariff, if you built a 1000
22 kW solar and you put up a little farm stand that
23 had a light bulb in it, that kind of a thing.
24 We were trying to make it a significant portion

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 of the solar production.

2 Q Thank you. I want to turn now to page 8 of the
3 Settlement Agreement, and this is the Section 12
4 that describes Data Collection and Studies, and
5 one study that is proposed to be completed under
6 the Utility Consumer Coalition proposal is a
7 locational value study, and it's described as
8 being similar to the Nexant study that was
9 performed with respect to Central Hudson Gas &
10 Electric in New York, and I just want to spend
11 some time with that. And this, again, may be a
12 question best addressed to Rick Labrecque
13 because I think it was in his Direct Testimony
14 that this was initially discussed. Can you just
15 describe previously the scope and methodology of
16 that study?

17 A (Labrecque) Yes. I can. It uses actual
18 circuit-by-circuit substation-by-substation
19 interval loading from a particular utility
20 relative to the maybe capacity of the substation
21 or other projected upgrade needs. They look at
22 a projection, and I don't know if it's out 20
23 years or whatnot, of load growth on the various
24 scenarios and they don't just hold it flat.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 They do all kinds of different scenarios, and
2 they look at the profiles of solar, its
3 contribution to load reduction circuit by
4 circuit, and it attempts to do a probabilistic
5 assessment of the extent to which solar or other
6 types of DG can defer or eliminate a typical
7 utility capital investment.

8 And in the case of Central Hudson, the
9 conclusion was something like 49 out of 53
10 substations DG had essentially zero value, but
11 that on the other, I don't know if it was three
12 or four substations, there was some significant
13 locational value. So we looked at that and
14 thought that was a model that we thought
15 incorporated the most appropriate data and the
16 most appropriate method of analyzing this topic.

17 Q Does that study, does that study go to the level
18 of distribution circuit feeders? Or is it
19 focused only on substations and transmission
20 which I take it is local transmission, not high
21 voltage transmission subject to the regional
22 grid operator?

23 A (Labrecque) Subject to check, I believe they
24 went down to the circuit level, but I'd have to

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 refresh my memory.

2 Q Is the proposal that, are there any differences
3 from the study that was conducted in New York
4 that the coalition is aware of that would be
5 proposed for the study to be performed here that
6 you can identify?

7 A (Labrecque) Forgive me if I'm wrong, we say here
8 a value study similar to. I wasn't sure if this
9 study and others were part of a, let's just call
10 it a task force that might be assembled to
11 analyze and manage these various data
12 collections and studies that are contemplated by
13 both settlements. So I'm not suggesting that
14 Nexant is the only vendor and that methodology
15 is the only methodology that makes sense. It
16 was just an example.

17 Q Okay. So I understand that to mean then that
18 the Settlement Agreement includes some
19 flexibility on the type of study that would be
20 performed to determine locational value of
21 Distributed Generation and other Distributed
22 Energy Resources, is that correct?

23 A (Labrecque) That's the way I understand it, and
24 if anyone else up here would like to correct me,

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 feel free, but that's the way I understand it.

2 MR. WIESNER: Mr. Chairman, this study that
3 we've been discussing is not in the record. It
4 has not been provided with any parties' Prefiled
5 Testimony to my knowledge, and I don't believe
6 it was produced in discovery. I think it would
7 be useful to have it included in the record, and
8 I'd like to ask that a record request be issued
9 for it to be provided as a piece of evidence in
10 the case.

11 PRESIDING OFFICER HONIGBERG: Who has it?
12 Mr. Labrecque, do you have access to it?

13 A (Labrecque) I do, and I am fairly certain it was
14 provided in a discovery response. I apologize
15 for not having that with me.

16 PRESIDING OFFICER HONIGBERG: Can anyone
17 confirm that off the top of their heads? Seems
18 like the answer is no. Does anyone have an
19 objection to having that included in the record?
20 Mr. Buxton?

21 MR. BUXTON: Your Honor, we've heard of the
22 study. We've never seen it. It has been
23 controversial in its own right. Having it come
24 into the record as evidence is not consistent

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 with your practice and procedures at this point
2 in this case. I mean --

3 PRESIDING OFFICER HONIGBERG: That was the
4 question. Does anyone have an objection.
5 Sounds like you do.

6 MR. BUXTON: Yes.

7 PRESIDING OFFICER HONIGBERG: I'm
8 sympathetic to that. I mean, it seems like it's
9 out there. I was going to ask some questions
10 about it, too. It's not clear to me exactly who
11 knows what about it. But it seems like, I mean,
12 maybe Mr. Wiesner, maybe it would make sense
13 just to confirm what maybe you've already
14 confirmed, that this like a lot of other things
15 would be the subject of further discussion
16 amongst stakeholders because both sides,
17 everybody here recognizes, and, in fact,
18 advances affirmatively that it be a good idea to
19 have more data, and that in that discussion,
20 studies like this and maybe others that people
21 would bring to bear would be relevant to the
22 development of whatever studies are going to be
23 done going forward.

24 MR. WIESNER: I think my concern was that

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 it seemed that the Settlement Agreement was
2 trying to specify the type of study that would
3 be done with reference to this other study, and,
4 for example, if that other study did not include
5 distribution circuit feeder information, if that
6 was outside the scope of that study, then I
7 think the Commission should be aware of that in
8 considering with that's, in effect, it's
9 incorporated by reference, if you will, in the
10 Settlement Agreement, and yet we don't have a
11 copy of it.

12 PRESIDING OFFICER HONIGBERG: That's true.
13 But I think I heard Mr. Labrecque disclaim that
14 being a limiter on the scope at least from his
15 perspective, and I even think he invited his
16 fellow panelists to contradict him, and no one
17 did. So I think in light of that question and
18 answer, and maybe you want to clarify it just to
19 make sure that I heard it right, or maybe I can
20 ask Mr. Labrecque if you don't, that this panel
21 doesn't view that whatever the scope of that was
22 as being the limit of anything that they would
23 ever agree to having studied, and if it doesn't
24 include a particular element, even though others

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 might say that's an element that should be
2 explored, and some experts we could find to do a
3 study would say I can do that for you, without
4 it costing six times more, than that's a subject
5 for further discussion.

6 MR. WIESNER: If that's the level of
7 flexibility --

8 PRESIDING OFFICER HONIGBERG: Why don't we
9 find out what the level of flexibility is from
10 this panel? They're speaking for a very large
11 group of stakeholders here, and I think if their
12 Counsel has a problem with the way they're
13 answering the questions, then I think they'll
14 pipe up.

15 MR. WIESNER: So I probably already asked
16 this --

17 PRESIDING OFFICER HONIGBERG: Mr. Epler, you
18 have something?

19 MR. EPLER: Yes. I was just going to
20 indicate Mr. Meissner may not know the answer to
21 the particular question you're posing because he
22 wasn't involved in that part of the
23 negotiations, but I can state on behalf of the
24 company to verify what's just been discussed

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 that at least the intent from Unitil's
2 perspective was not to put a limitation on the
3 type of study. It was to point out a study that
4 we thought had some good elements in it, but
5 certainly what's, I think, important in that
6 paragraph is the very end which talks about
7 under the supervision of the Commission so
8 certainly we would look to the Commission to
9 approve whatever study gets done.

10 PRESIDING OFFICER HONIGBERG: Thank you,
11 Mr. Epler. Any of the other representatives of
12 this side of the equation, the consumer/utility
13 side, ratepayer/utility side, disagree with what
14 Mr. Epler said or Mr. Labrecque has indicated?
15 I see Mr. Sheehan shaking his head. Thank you,
16 Mr. Sheehan. Anybody? All right. Are we
17 satisfied, Mr. Wiesner.

18 MR. WIESNER: I think with that
19 clarification of the answer previously provided
20 by the panel, and with the understanding that
21 there will be a stakeholder process to develop
22 study criteria and parameters that I'm happy
23 withdrawing the request.

24 PRESIDING OFFICER HONIGBERG: All right. I

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 think Mr. Fossum raised his hand as you were
2 starting to speak. So, Mr. Fossum, what you
3 got?

4 MR. FOSSUM: Not to disagree, just to point
5 out that there was a request in discovery for
6 that report. We did answer that request with a
7 link to the specific location of that report so
8 that was provided in discovery in response to an
9 earlier question.

10 PRESIDING OFFICER HONIGBERG: Do you happen
11 to have the discovery request designation?

12 MR. FOSSUM: I do.

13 PRESIDING OFFICER HONIGBERG: Why don't you
14 put that on the record so people who are
15 interested can go out and look at it.

16 MR. FOSSUM: The discovery response was
17 NHSEA question 4-004 answered on January 20th,
18 2017.

19 PRESIDING OFFICER HONIGBERG: Fortunately,
20 we have the internet here. There's a whole slew
21 of people that are about to go out and look at
22 it, I suspect.

23 MR. FOSSUM: Just for clarity, there was a
24 link to the location of the report, not the

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 report itself.

2 PRESIDING OFFICER HONIGBERG: Understood.

3 Mr. Wiesner?

4 MR. WIESNER: Okay. Thank you.

5 BY MR. WIESNER:

6 Q I also want to talk a little bit and ask you
7 questions a little bit about the value of DER
8 study, and this is, again, on page 8 of the
9 Settlement Agreement, and this is where some
10 broad parameters for the type of study that will
11 be performed are outlined, including what I see
12 as subparagraph 2, this is 12 C, subparagraph 2,
13 valuation shall be based as closely as possible
14 to realtime prices and near term marginal costs
15 with no long-term projections or forecasts to be
16 considered in this study.

17 Can someone please explain what is meant by
18 near term in this context?

19 A (Davis) Quick moment, please.

20 A (Labrecque) I'll give this a shot. I changed my
21 mind. No. I won't. Well, we've seen some
22 value of solar studies. There's been at least
23 one model put forth in this docket. There's
24 others across the country that use long-term

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 projections, say, of NYMEX gas futures or Ford
2 power prices or future cost of carbon reductions
3 based on some study, and we're just here trying
4 to suggest that, again, subject to whatever
5 process is used, to create a model for this
6 study, whatever stakeholders are involved, to
7 the extent we're involved, we would be
8 advocating for, at least in the commodity
9 portion of any valuation, that you've already
10 got the ISO New England market available to
11 provide you with a near term if not realtime
12 pricing signals. I think that's what we were
13 getting at here.

14 Q I see the references to near term marginal
15 costs, and I guess my question is, is near term
16 one year, three years, five years?

17 A (Labrecque) I can't pin it down. I would
18 imagine, you know, five years would be the
19 maximum there for near term. Like if you're
20 talking about a five-year capital budget on
21 distribution spending, you know, you could maybe
22 look at what, if this study was looking at the
23 ability of DER to delay or defer distribution
24 costs, you might only want to look at projects

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 that are on the current plan and not think
2 about, you know, a 20 or 30-year future, and
3 unless you were going to use the appropriate net
4 present valuing of an investment 20 or 30 years
5 in the future, you would only want to focus on
6 the near term.

7 Q So then the reference to no long-term
8 projections or forecasts, should we understand
9 that to mean a period longer than five years?
10 Or is that the 20 or 30 years you were
11 referencing, Mr. Labrecque?

12 A (Labrecque) Anyone?

13 A (Harrington) Let me just add a comment here that
14 the shorter we keep this, the better off it is.
15 I think five years is probably a reasonable
16 number. If you just go back, let's go back 15
17 or 20 years, and over and over and over again
18 we've proven the only thing we know about
19 long-term future energy costs is we know nothing
20 about long-term future energy costs. Every
21 projection has virtually been wrong over the
22 last 20 years when we go out beyond that
23 five-year interval so I would think keeping it
24 five years or less would be the most accurate

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 and, therefore, the most useful and could always
2 be reperformed again in a few years.

3 Q Thank you. Just to clarify, the reference to
4 realtime prices is essentially to realtime
5 wholesale prices? Realtime LMPs?

6 A (Davis) So, for example, you have normal pricing
7 which is LMP, but it would be perhaps at various
8 substation nodes or locations that are defined
9 by ISO New England and the market system as LMP
10 nodal-type pricing. So that's for the energy
11 market. Regarding the longer term and what
12 Mr. Harrington just described, I think we
13 envision, for example, let's say distribution
14 planning and capital budgeting typically is a 3
15 to 5-year horizon, and we would want to look at
16 that a little more closely, but that I think
17 helped define what that near term really
18 represented because that's kind of what we're,
19 from an engineering operations perspective,
20 you're kind of looking at planning and
21 operations, and I'm not sure where transmission
22 fits in that because that's performed by ISO New
23 England for planning purposes, but that really
24 is, in that horizon is what led us to this near

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 term without a hard, defined period of a year or
2 two years. So I think you have to consider all
3 of those.

4 So in the energy market you typically have
5 what's clearing, what's pretty much hourly
6 pricing. There's, of course, the capacity
7 market. There might be a three-year kind of
8 forward look where you have the forward capacity
9 market. Things like that. So that to me
10 defined the general shorter term period as
11 opposed to a more traditional, for example,
12 long-term marginal cost distribution study where
13 you're doing, some studies are done on 30 years.
14 Those are long-term studies that are really kind
15 of way beyond that, that planning horizon where
16 decisions are made.

17 Q And the reference here to marginal cost, would
18 that require marginal cost of service studies by
19 the Utilities including Eversource which, as we
20 know, has not done one for some time?

21 A (Davis) I can't say it's precluded. You know,
22 we raised issues about the cost of performing
23 those, and I think that's true for any study
24 work here, but I think we're assuming that we're

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 all cost recovery is handled. Yes, I would
2 think so. In the form of marginal cost study,
3 it may very well be that particularly if we use
4 a form of marginal distribution cost study,
5 there really is around a kind of currently
6 installed cost or the type of costs that are
7 relevant today as opposed to a 30-year trend of
8 history or something of that nature which isn't
9 even forward looking. So there's, that
10 probably, this is also one of those studies I
11 think the task force would help define. The
12 whole concept of having a task force and
13 oversight by the Commission to help guide and
14 steer what that ought to be.

15 So the only reason I hesitate a little on
16 the marginal cost study is we also have that
17 obligation, at least for Eversource, in a Rate
18 Case, and the other Utilities had recently had a
19 Rate Case so they conducted that study. So I
20 don't know if they're for the exact same purpose
21 so we just want to better define what it is we
22 want to do with that kind of a study here as
23 opposed to what's relevant for a Distribution
24 Rate Case.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 Q And as with the locational value study, I take
2 it there is flexibility in the specific design
3 criteria and parameters of this value of DER
4 study which would be developed through a
5 stakeholder process following the conclusion of
6 this docket. Is that fair to say?

7 A (Davis) I think so.

8 A (Tebbetts) Yes. That was the intent that, as in
9 Section 12 A, we work with the stakeholders and
10 other parties to come up with. The idea behind
11 the list of items in here were things that we
12 felt were important for the task force or
13 stakeholders to take a look at and make sure
14 that if they need to be incorporated in the
15 study, we've at least listed these concerns to
16 take a look at if they, ultimately, should they
17 be included, and if so, the task force would
18 agree to include them, and, if not, I'm sure
19 there will be other items that the task force
20 will find that are similar or at least as
21 important to include in this study of that Value
22 DER.

23 Q And we had some testimony on this before, but
24 would someone like to explain in a little bit

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 more detail subparagraph 3 which is the
2 reference to actual cost to installers and
3 customers for implementing DER resources in New
4 Hampshire.

5 A (Labrecque) Yes. That was a reference to
6 something I spoke of this morning limited to
7 getting some more information in front of the
8 stakeholders regarding the current cost to build
9 DG and solar of various sizes and various types
10 where those costs might go in the future and
11 model the type of compensation structure that
12 might be required to provide a significant
13 motivation to continue to develop solar in New
14 Hampshire. So that's what that's getting at.

15 Q Okay. Thank you. I now want to circle back to
16 Ms. Tebbetts. I apologize. A specific question
17 about the availability of interval data for
18 customers. Do those customers wanting interval
19 data take service under the Liberty tariff
20 titled Optional Interval Data Service Provision?

21 A (Tebbetts) I don't have the tariff in front of
22 me. I don't know off the top of my head.

23 Q Is that service currently available online? By
24 which we mean the ability to access the data

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 online for customers?

2 A (Tebbetts) No. That access is not available
3 online. We would provide the data to the
4 customer. I don't know. It would be data, I
5 don't know how. I would bet email or I,
6 hopefully not mail, but I don't know.

7 Q Have you received many such requests?

8 A (Tebbetts) We haven't for small customers. We
9 receive it all the time for large customers
10 requesting data usage information because their
11 competitive suppliers are out there looking to
12 serve them so we provide that kind of data to
13 our large customers and those that request it
14 for usage.

15 Q And it's provided to them electronically or --

16 A (Tebbetts) Yes. That is provided
17 electronically, as I understand. At least, if
18 it's been provided on paper, no one has told me
19 they've asked for it on paper.

20 Q Thank you.

21 MR. WIESNER: I believe we should be able
22 to take administrative notice of the Liberty
23 tariff?

24 PRESIDING OFFICER HONIGBERG: I think

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 you're right.

2 MR. WIESNER: Unless there's any objection.

3 Q That's all. Thank you.

4 PRESIDING OFFICER HONIGBERG: I'm going to
5 go first because I'm the one who might have to
6 leave. Does anyone have an idea of how long it
7 takes to do a Nexant type of study? Is it the
8 kind of thing that's done in six months, 18
9 months, three years?

10 A (Labrecque) I'm sorry. I don't. I had a
11 conversation with the vendor, and you'd think
12 that would have been one of my questions, but it
13 wasn't. I'd anticipate six to 12 months. There
14 is a lot of data collection and model setup back
15 and forth that would be required.

16 PRESIDING OFFICER HONIGBERG: Any sense of
17 how much such a study costs?

18 A (Labrecque) No.

19 PRESIDING OFFICER HONIGBERG: How much does
20 a bidirectional meter cost?

21 A (Davis) They vary. One could be installed for a
22 smaller customer, single phase, I think, around
23 \$200. Some of the more complex metering could
24 be on the order of \$450, in that range. 400 to

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 even more. And then, of course, there's always
2 the question of the infrastructure so if you
3 want to think of the total cost, the more
4 complex the meter, there's a point when you
5 aren't necessary to do anything, even collect
6 the data, without some additional expense.

7 PRESIDING OFFICER HONIGBERG: Thank you.
8 That's helpful.

9 Ms. Tebbetts, you were asked a question
10 about notice to customers about changes in your
11 rates and tariffs. I thought you were going to
12 go to town on that answer. Why don't you talk a
13 little bit more about what you have to do and
14 what the Commission expects you to do which is
15 sometimes more than you've done but sometimes
16 not because it's a topic of virtually every
17 discussion we have with you when you're in front
18 of us, isn't it?

19 A (Tebbetts) Absolutely.

20 PRESIDING OFFICER HONIGBERG: I'm inviting
21 you to go to town which is what I expected you
22 to do earlier.

23 A (Tebbetts) Okay. Thank you. So with regard to
24 rate changes, we're required to notify our

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 customers, I believe it is in one of the
2 statutes, within 30 days or 30 days prior to the
3 rates changing, and so we do notify our
4 customers through bill inserts, our website,
5 sometimes maybe even press releases if there are
6 certain things that we want to address
7 specifically with regards to the rate changes.
8 That happens for every rate change that affects
9 our customers.

10 With regards to net metering specifically,
11 we get a lot of questions from our customers
12 calling. They ask questions about how is my
13 bill going to work, they ask questions to us
14 about what size should they get for their
15 systems, what is the process for which I apply.
16 And we try to answer their questions as best we
17 can. For questions we can't answer such as what
18 size should they be installing, we let them know
19 they should talk to the developer that they're
20 dealing with.

21 We get lots of questions about their
22 financing, and should I lease, and the types of
23 questions we receive from customers sometimes
24 can be quite disheartening because at the end of

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 the day we feel, Liberty at least, that these
2 customers are not informed. They go and spend a
3 lot of money on an installation, and they have
4 no notification, no information about their
5 billing at all. So, for example --

6 PRESIDING OFFICER HONIGBERG: You're going
7 in a different direction than I expected you to
8 go.

9 A (Tebbetts) Okay.

10 PRESIDING OFFICER HONIGBERG: Interesting,
11 but I'm really more interested in the notices
12 that you give to your customers about the
13 changes in rates which happen regularly.

14 A (Tebbetts) Yes.

15 PRESIDING OFFICER HONIGBERG: And the paces
16 that our Office of Consumer Affairs puts you
17 through in terms of the content of those
18 notices, vetting them with our office first, et
19 cetera.

20 A (Tebbetts) Okay. Yes. Okay. So I want to say
21 back in October Liberty had been ordered through
22 one of our gas proceedings to work with Ms.
23 Noonan's office to deal with how we're going to
24 notify customers with rate changes.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 (Discussion off the record)

2 A (Tebbetts) We'll just reiterate so it gets back
3 to my spot. So, basically, Liberty was ordered
4 to work with Ms. Noonan's office to figure out
5 the best language in which we should provide to
6 our customers with regards to rate changes. And
7 we've been going through this process of
8 figuring out, I'll say a bill insert as well as
9 notification on the bills as well as
10 notification on our website of the most
11 appropriate language so customers understand the
12 implications of the rate change as well as why
13 the rates are changing, and, you know, it isn't,
14 Liberty doesn't just get to throw something up
15 on its website and say yup, there you go. We
16 actually have to get approval from Ms. Noonan's
17 office to provide the language. She and her
18 office many times edit the language so that we
19 are in compliance with what they're looking for
20 customers to understand.

21 So I'd say it's not, it's not an easy
22 process, and I don't think it's meant to be easy
23 because customers should understand that their
24 rates are changing and why their rates are

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 changing, and that only benefits those customers
2 and actually it benefits the Utility as well
3 because our customers ask less questions which
4 they shouldn't have to call us to ask questions.
5 They should be fully informed at the time that
6 they're reading the material. Certainly, there
7 are times when they do ask questions because
8 maybe they weren't expecting this or something
9 triggered a question specific to their usage,
10 and that's totally fair and that's why we have
11 the Call Center so they can answer those
12 questions. But it's a very rigorous process we
13 go through on the gas and electric side for
14 which we notify our customers and explain to
15 them why our rates are changing, what they're
16 changing to, when it's going to affect them.
17 It's quite a process.

18 PRESIDING OFFICER HONIGBERG: Thank you.
19 Mr. Brown, I'm not sure exactly how to ask this
20 because I don't think my notes are very good.
21 When you were talking about the 6 positive
22 attributes of the proposal that you're here
23 supporting, I ended up with 7 items. So I don't
24 remember which, where this would fall. But it

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 was a point about all customers benefiting but
2 the cost being borne by relatively lower income
3 customers to benefit higher income customers.
4 Can you get me back there and that may help me
5 figure out what question I have noted in the
6 margin.

7 A (Brown) Actually, I said not as a benefit but
8 essentially a concession. With traditional of
9 the status quo net metering, there have been
10 several studies on this, all of which concludes
11 that it's socially regressive. Why is it
12 socially regressive? Well, it's because who can
13 afford solar and some states, I don't know about
14 New Hampshire, but in some state the tariffs
15 actually provide incentives to wealthier people
16 that they don't provide to lower income people.
17 That's the way they're designed.

18 Basically what happens, people who can
19 afford solar by meeting the credit criteria for
20 leasing or purchasing it tend to be more
21 affluent. They tend to have more consumption.
22 They have, obviously, more disposable income.
23 And so low income, so what happens is once they
24 get net metering which is a substantial

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 cross-subsidy, that cross-subsidy is then passed
2 on to the rest of the customers who become
3 disproportionately lower income. So, in effect,
4 it's a wealth transfer.

5 Also relates to the housing stock. Lower
6 income people tend to be more likely to live at
7 homes they don't own and buildings they don't
8 own. They tend to live in, more likely to live
9 in substandard buildings. They can't sustain
10 rooftop solar. So it's basically a wealth
11 transfer upwards.

12 PRESIDING OFFICER HONIGBERG: I am
13 confident that the people on that side of the
14 room largely disagree with some of the premises,
15 but they would point out to you, I think, that
16 or legislature has told us, told us through the
17 enactment of statutes, that solar is a good
18 thing. Do you think that what your group is
19 proposing and that you're supporting fulfills
20 all of the legislative mandates and objectives
21 that we've been given and that are expected to
22 be fulfilled to promote solar in the state?

23 A (Brown) I think so. The point is I'm not
24 disputing that solar -- solar is a good thing.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 But that's a different question than what's the
2 appropriate way to price it, and there are ways
3 of pricing it. The simply, the simple thing is
4 what I alluded to earlier. The costs of solar
5 have declined rapidly, but a majority of states
6 still have a net metering regime that came into
7 existence at the time that the costs of rooftop
8 solar were essentially prohibitive. That's no
9 longer the case.

10 So moving towards a more market sensitive
11 pricing regime does two things. One is it
12 passes on the benefits of declining costs to
13 customers. The second thing it does is it tends
14 to reduce the socially regressive aspect, the
15 tariff.

16 PRESIDING OFFICER HONIGBERG: Thank you.
17 That's helpful.

18 The other questions I had were answered
19 through the course of others' questioning, I
20 believe, so I'll turn it over to Commissioner
21 Bailey.

22 PRESIDING OFFICER HONIGBERG: Let's go off
23 the record for a second.

24 (Discussion off the record)

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 PRESIDING OFFICER HONIGBERG: Commissioner
2 Bailey.

3 COMMISSIONER BAILEY: Thank you. Mr.
4 Brown, I think I'll start with you to follow up
5 with some of the questions that Chairman
6 Honigberg asked you. I heard you say that solar
7 is a good thing, but pricing has to be right.
8 And in your Prefiled Testimony, you had a list
9 of six things, and I think the second bullet was
10 that pricing should provide an incentive for
11 good behavior of solar customers? Something
12 like that? Do you want me to find it in your
13 testimony?

14 A (Brown) Yes. I think I remember it, but if you
15 can look for it, that's fine.

16 COMMISSIONER BAILEY: It certainly wasn't
17 good behavior. That was not the word you used.

18 MR. BROWN: I was going to say, not in a
19 moral sense.

20 COMMISSIONER BAILEY: Right. I wrote it
21 down. DG customers, you want to make sure that
22 DG customers don't receive price signals that
23 encourage them to maximize the value of solar
24 energy they produce. That they do receive price

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 signals that encourage them to maximize the
2 value that they produce.

3 A (Brown) Correct. And the idea would be solar is
4 obviously, lot of discussion here shown is it's
5 one of an array of the DER services and
6 products. And so the idea is let's maximize
7 what is the --

8 COMMISSIONER BAILEY: Nobody can hear you.

9 PRESIDING OFFICER HONIGBERG: Off the
10 record.

11 (Discussion off the record)

12 A (Brown) The issue is to provide incentives for
13 customers to use that solar energy in the most
14 efficient way and the way that most benefits
15 both themselves and the system as a whole, and
16 that would mean sending price signals that, for
17 example, I think we've had other testimony on
18 that that would encourage the use of batteries
19 or other storage technology as ancillary to the
20 provider. The use of smart inverters, that is
21 also useful. Those typically aren't being used
22 in states that have what I would call primitive
23 net metering regimes which is we'll slap the
24 panel on the roof, and we'll do net metering and

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 we can forget about the price. The idea is to
2 incentivize appropriate behavior or for that
3 matter, if the price goes up and it really
4 reflects what's going on in the marketplace,
5 then customers, solar customers might want to
6 curtail and sell more to the system and be
7 compensated in a way that reflects the value
8 they've added to the system by the timely
9 addition supplied to the system as a whole when
10 it's needed.

11 So the idea is let's maximize the value,
12 the worth to society and to the customer of that
13 solar. If we just give primitive pricing,
14 there's almost no chance in the world we're
15 going to capture the full word of the solar
16 panel.

17 COMMISSIONER BAILEY: I understand that,
18 and moving from primitive pricing to something
19 else and it's probably not going to be the last
20 place that we land. Hopefully, we'll get to the
21 best kind of pricing. In the interim, I heard
22 testimony yesterday that suggested that the
23 pricing that is in your proposal, the
24 instantaneous netting where the price for

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 exported power is lower than the price they pay
2 to import power would motivate customers to use
3 the power that they need during the time that
4 they're producing it which happens to be maybe
5 not exactly at the same time as the peak but
6 around the time of late afternoon around the
7 time of the peak.

8 A (Brown) Actually, if you look at New England in
9 the aggregate, I mean, we have one slide, was it
10 August 12th, 2016, I think? Whatever the date
11 was.

12 COMMISSIONER BAILEY: Yes.

13 A (Brown) That day was a real anomaly.

14 COMMISSIONER BAILEY: But that was the
15 system peak for the year.

16 A (Brown) Yes, that was a real anomaly. There was
17 a storm that day, temperatures as I understood
18 it dropped substantially over the course of the
19 day. So what usually would have been the peak
20 wasn't the peak because after the storm the
21 temperatures dropped and people didn't have as
22 much air conditioning. So that day was an
23 anomaly. If you look typically over a longer
24 period of time, peak in New England in the

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 summertime needs to be late afternoon or early
2 evening. And other three seasons of the year it
3 tends to be late in the day as well.

4 So actually, if they're using that energy
5 when solar is in its peak production as proposed
6 to when the demand on the system is at a peak,
7 that's generally off peak. It's not the low end
8 of off peak, but it's still off peak. And if
9 that's what they do, that's what they do. I
10 mean, the point is people should be following
11 the price signals. So giving people a price
12 signal to operate in certain ways makes total
13 sense. Right now the price signal that right
14 now, meaning the status quo before whatever
15 changes you choose to make, that's status quo
16 situation. You're giving nobody a signal to do
17 anything but just sort of move along. They have
18 this solar panel. They're kind of passive.
19 They don't act. They don't respond to price
20 signals. There's nothing in the price they're
21 getting paid or in the cost to them that gives
22 them any idea about how to be more efficient.

23 So this is, and I think you're right, what
24 you're doing is a work in progress, and this is

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 a step beyond, away from the primitive, whatever
2 you choose to do. But what's important here is
3 as this process becomes more integrative, as
4 technology enables us to do more things, we're
5 going to develop more and more sophisticated
6 prices.

7 The settlement that's been offered is not a
8 draconian leap into the unknown. It's actually
9 a very modest step, but it's a step in the right
10 direction towards markets, towards more
11 efficient pricing, towards giving customers
12 information that they can use. If we use a
13 different regime, for example, there are a lot
14 of technologies out there that won't get to
15 market.

16 Let me give you an example. We don't have
17 a price signal that reflects what the demands
18 are on the system at any given point in time.
19 There's technologies that actually can actually
20 queue the demand on every customer's system and
21 queue it up so that the usage goes up when the
22 demands on the system are lower rather than
23 higher.

24 COMMISSIONER BAILEY: Time-of-use pricing.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 A (Brown) Well, time of use, realtime. There's a
2 spectrum to that, but time of use is an example
3 of that. So what happens is we do that, what
4 we're really doing is giving customers
5 information to use the system more economically
6 beneficial to themselves but also more
7 economically beneficial to the system as a
8 whole, and that's what we want to do, and you're
9 absolutely right, this is a work in progress,
10 moving ahead. What's being proposed here is
11 what I would call a very modest step forward in
12 the right direction. Beginning the position of
13 the state to keep on making progress on this
14 front. As they do more studies, as they develop
15 more technology and deploy it, the Commission
16 and the Utilities are going to be able to do
17 more things that benefit the customers.

18 COMMISSIONER BAILEY: Thank you. Okay.
19 About the studies and specifically the value of
20 DER. Were the Utility gentleman here for the
21 testimony of the coalition panel where they
22 expressed a desire to have the Commission put
23 sort of some parameters of that study in the
24 order?

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 A (Labrecque) Yes. We were all here.

2 COMMISSIONER BAILEY: Okay. So have you
3 thought about that? Is that your position? Do
4 you want us to do that? Because that's not
5 really consistent with your settlement which
6 says create a task force to figure that out.

7 A (Labrecque) Yes. I believe subject to being
8 interrupted that we have a position that these
9 types of studies, data collection, pilots,
10 should all be fleshed out in some form of
11 proceeding or stakeholder engagement following
12 the order and that the order does not
13 necessarily have to be prescriptive, and I
14 recall some of the testimony yesterday from the
15 other Coalition asking for some more, I guess,
16 direction in the order, but I'm not sure I
17 remember what direction or what options they
18 said that they wanted you to put in the order
19 other than saying they wanted some direction in
20 the order. So I guess I don't know what they
21 gave you to work with.

22 COMMISSIONER BAILEY: And if we were going
23 to put direction in the order, are there
24 guidelines that you would like to see?

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 A (Labrecque) Yes. Do you want to take over?
2 Directions in conflict from what we already put
3 in our settlement?

4 COMMISSIONER BAILEY: Well, your
5 settlement, for one example, says, and you
6 talked a little bit about this a moment ago, the
7 marginal cost on the near term. And their
8 witnesses said that the study should be done
9 over a long term because the investment in solar
10 lasts for 20 years, and so in order to determine
11 the benefit from that investment you have to
12 look over the same period of time. And so it
13 doesn't sound like you two parties or groups are
14 going to agree on the length of time that those
15 studies should cover.

16 A (Davis) Just a comment on that that I think
17 there's two different sets of life cycles, and I
18 would almost say the Utilities' cycle is more of
19 a recurring ongoing cycle. Our marginal costs
20 are just a series of these short-term capital
21 investments that go on and on and on, but that
22 could be useful. But I think the life cycle,
23 what I heard yesterday was more centered around
24 the life cycle of a single installation so the

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 kind of cradle-to-grave whole life of that unit,
2 and that's the end of it.

3 So there's probably an awful lot we would
4 need to discuss, and I think the idea of
5 separate proceeding or task force or some other
6 forum where that could be discussed further,
7 particularly so we can better understand each
8 other and kind of what's different. We're a
9 different business than a supplier, per se. I
10 think that's just an example of the kind of
11 things that certainly appears like we disagree
12 on a lot of things, and I think we just don't
13 necessarily understand exactly where we're each
14 coming from, but I think from a distribution
15 company perspective, we have a whole different,
16 it's a different business, nature of the service
17 is delivery service, and we heard a lot of
18 examples of benefits or scenarios. We also
19 heard there was a long-term plan that was really
20 more fitting of a market or business plan. A
21 little difficult than the paradigm we have as a
22 distribution company. So it's hard to even to
23 say what parameters we think ought to be in
24 there today. It's a very difficult position to

{DE 16-576} [Day 2 - Afternoon Session ONLY] {03-28-17}

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 be in or to have to be kind of forced into where
2 there might be better opportunity in that
3 follow-on, and I'm not saying something way down
4 the road, but immediately follow-on type of a
5 proceeding or process where we can better design
6 those things, and I think we need the Commission
7 to help guide that.

8 COMMISSIONER BAILEY: So the staff would be
9 involved in the process, and then if you
10 couldn't come to agreement we'd have another
11 proceeding to talk about what studies are going
12 to be done?

13 A (Davis) I dare say that's probably the --

14 COMMISSIONER BAILEY: That's your preferred
15 path?

16 A (Davis) Not having discussed it fully amongst
17 the parties here, but I would put that out there
18 as sort of a straw concept that we ought to be
19 thinking about.

20 A (Harrington) If I could just comment, I realize
21 there's kind of a clash here between the two
22 lengths of time for study. People are going to
23 be putting in a substantial solar investment.
24 It's not going to be for three or four or five

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 years, it's going to be for 15 or 20 years is
2 the life of that. But at the same time, we have
3 to look and see what we've learned from history
4 on this and that. If you go back 12, 15 years
5 ago and you said we were going to be getting,
6 what is it, 52 percent of our electricity from
7 natural gas, and the price of natural gas was
8 going to undercut coal and nuclear, people would
9 say you have no idea what you're talking about.

10 We just witnessed, if you go back about 7
11 or 8 years ago, we had the so-called nuclear
12 renaissance in the United States and today or
13 tomorrow we're going to have Westinghouse
14 Electric declare bankruptcy because they're so
15 over cost and far behind on their four plants
16 they're building in the United States right now.

17 The further we go out, the more risk you
18 have. Maybe a layered study where you look at
19 something and say let's do it on the planning
20 horizon. That's things that are actually going
21 to be planned on being built. People are
22 willing to make a commitment on that. And
23 that's in the 3 to 5-year period, and then you
24 go out beyond that. But each one of those 3 to

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 5-year periods you stretch, you know the chances
2 of being accurate go almost to zero.

3 COMMISSIONER BAILEY: And yet, you have to
4 do things like hold other things equal and say
5 everything stays the same as today, your present
6 value of the investment back to today's dollars,
7 and you see what over time investments you would
8 need to make on the margin. Or what you don't
9 have to make on the margin because of addition
10 of solar.

11 A (Harrington) The problem, of course, is that all
12 those things don't stay equal, and I just
13 caution the Commission to look to other people.
14 I mean, I'm sure the Commission in South
15 Carolina and Georgia wish they hadn't authorized
16 those nuclear plants that are now going to be up
17 to 20 billion dollars for two plants. That's 20
18 billion times two when you look at all four
19 plants. There's just no way we can look in the
20 future that far and be accurate at all. So you
21 do the best you can and I think part of that
22 with all the additional RECs and the tax breaks
23 and everything that they're giving to solar,
24 there has to be, some risk has to be transferred

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 to those people, understand they're not going to
2 be guaranteed the greatest deal forever; that as
3 times change that they're going to have to adapt
4 with those changes, and that maybe in the
5 short-term their value is A, but in ten years
6 from now or five years from now you revisit that
7 and find out their value is less than A. So I'm
8 not sure we can make it, and making like a
9 20-year commitment or something really makes it
10 difficult if you start going out and projecting
11 that far into the future. History has shown us
12 we're going to be wrong.

13 COMMISSIONER BAILEY: Okay.

14 A (Brown) Commissioner, if I could, in this same
15 vein, it's a lesson I drew from several studies,
16 but most notably the MIT study on the future of
17 solar. There's a big difference between pushing
18 and aggressively using solar energy and what its
19 future is and serving the short-term energy
20 interests of people that choose to sell solar
21 panels. They're not the same things. So when
22 you look about these kind of value study, what
23 you're looking at is how do we maximize the
24 contribution of all DER resources, and in

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 looking at all the different DER of which solar
2 is but one, so we have to look, and that
3 technology for, we know that's going to change.
4 It's changed dramatically in the past few years,
5 and it's a growing area. It's going to change
6 more.

7 So looking at that in a shorter run than
8 what's in the interest of the time horizon for
9 people that buy and sell two solar panels are
10 two different questions. The public policy
11 interest is not selling solar panels per se.
12 It's maximizing the value of the assets we use
13 and also taking maximum advantage of technology
14 as it evolves.

15 So the fact that solar may look out over a
16 20-year horizon, but the Utilities' distribution
17 system has a shorter horizon because it's a
18 recurring series of investments reflecting a lot
19 of different values, I think what's really
20 important is to capture the public interest and
21 in the long-term more efficient distribution
22 system is in the interest of solar energy.

23 So looking at, I think we need to separate
24 what makes it easier to sell panels today from

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 what's the long range way to maximize the value
2 of solar.

3 COMMISSIONER BAILEY: Okay. Let's talk
4 about the bidirectional meters and the timing of
5 your proposal. Do you Utilities have
6 bidirectional meters installed today? I think
7 we might have gone over this, but I just want to
8 make sure.

9 A (Tebbetts) Liberty does not have bidirectional
10 meters installed for its customers under 100 kW.

11 A (Davis) Eversource does.

12 COMMISSIONER BAILEY: Okay.

13 Q (Meissner) We do not presently have directional
14 meters for all customers, but we have the
15 capability to install bidirectional meters, and
16 we would be proposing to do so only for new
17 customers in the queue after the order.

18 COMMISSIONER BAILEY: Okay.

19 A (Tebbetts) I would like to add that,
20 Commissioner, that we also have the capability
21 to program our current meters to become
22 bidirectional meters. We just have not under
23 the current net metering rules that it's not
24 required.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 COMMISSIONER BAILEY: Okay. So assume your
2 proposal gets approved and you have to implement
3 the order, when would the bidirectional meters
4 be ready to record information so that you can
5 do the billing?

6 A (Tebbetts) They'll be ready to record as soon as
7 we program them and install them when the
8 customer has it on their premise. With regard
9 to our billing system being able to create a
10 bill, that is a separate issue where we have to
11 do some updates and some tweaks to our billing
12 system to allow it to automatically bill.
13 Certainly we can manually bill it, but to
14 automatically bill, we have to make some
15 changes.

16 COMMISSIONER BAILEY: So how long will it
17 take to upgrade your billing system?

18 A (Tebbetts) I'm trying to remember what I put in
19 my testimony, but I think it was, although,
20 well, I'm not positive because my testimony is
21 slightly different in our proposal than what the
22 settlement provided. It could be anywhere from
23 three to six months. I just am not positive
24 because this is slightly different than what we

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 originally proposed.

2 COMMISSIONER BAILEY: Okay. So customers
3 in the queue after June 30th, if everything goes
4 your way, will be subject to the new rates but
5 billed at the March 2017 rate until your billing
6 system is updated, correct?

7 A (Tebbetts) Yes. That's correct.

8 COMMISSIONER BAILEY: Are you going to keep
9 the meter data and recover the revenue they
10 would have had to pay if your billing system
11 were in place on June 30th or do they get the
12 retail net metering in the interim?

13 A (Tebbetts) They're just going to get the retail
14 net metering in the interim, and we'll notify
15 customers once we're able to implement the
16 change that this change will be coming, and
17 they'll know a date specific to cut over so they
18 understand fully as I mentioned earlier about
19 notifying customers.

20 COMMISSIONER BAILEY: Will you notify them
21 when, at the time that they become a net
22 metering customer after June 30th that they're
23 going to be on a rate that's not, that you know
24 will change in the near future?

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 A (Tebbetts) Yes, and we've been notifying our
2 customers now to let them know that the current
3 net metering structure may not be in place once
4 they put their solar panels in. We just don't
5 know at this time. So yes, we will be notifying
6 our customers that there will be a change, and
7 that in the interim they will be billed under
8 the current tariff which we would provide to
9 them at their request. We do today.

10 COMMISSIONER BAILEY: And Eversource,
11 what's the status with your Utility?

12 A (Davis) So fundamental difference between what
13 Heather just described and our situation is the
14 metering itself, but we still have to make the
15 programming changes on our billing system. So
16 all of the other activities and things that have
17 to be accomplished that Heather just walked
18 through we would have to do as well. We had
19 preliminary target about a six-month period to
20 be able to make the billing changes.

21 And the other issue that you had asked
22 about I just wanted to elaborate a little bit
23 more on is with the Commission order, and with
24 any customer that applies for, that's coming to

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 us to interconnect with a renewable resource, to
2 the extent they would be on this new rate we
3 would let them know immediately, but it would
4 pretty much be an upfront thing so that they
5 would know that there is an interim period, a
6 transition period, where they would continue to
7 be on one rate schedule, and we would let them
8 know, get as much information and let them know
9 as quickly as possible of date certain when we
10 would actually be able to start implementing,
11 and they'd jump off the transition period to the
12 new rate structure.

13 COMMISSIONER BAILEY: Okay. Unitil?
14 A (Meissner) Just to clarify, I misspoke earlier.
15 Our meters themselves are bidirectional meters,
16 and they do have two channel capability now just
17 to be clear on that. We would also have to then
18 make changes to be able to bill customers
19 according to the new tariff. I do not have an
20 estimate on how long that would take personally.

21 COMMISSIONER BAILEY: Eversource and Unitil
22 don't expect to charge customers for the
23 difference between retail net metering and
24 instantaneous net metering between June 30th and

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 whenever you get your billing system functional?

2 A (Davis) No. We would not. No.

3 A (Meissner) No.

4 COMMISSIONER BAILEY: So if you know that
5 you're not going to charge anything different
6 than retail net metering until you get your
7 billing systems changed, and it sounds like
8 that's beyond the date in the other proposal,
9 the start date in the other proposal, which was,
10 I think, September 1st or the end of August, why
11 is June 30th so important?

12 A (Tebbetts) I don't think it was the importance
13 of the date. I think we were more or less
14 looking at the order for the March 2nd tariff
15 with regards to looking to get an order in June,
16 and that this would become effective soon after.
17 So June 30th was just kind of a date we chose
18 that was close to that period with regards to
19 the fact that I believe the House Bill 1116
20 talks about ending of the cap. There wasn't a
21 real dire need to have it be June 30th. We just
22 tried to get it as close as we could hoping
23 there would be an order in June in this docket.

24 COMMISSIONER BAILEY: Thank you.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 A (Davis) Before I respond. Thank you. I was
2 just conferring to confirm, I do believe we'd
3 still have to address some billing system
4 changes even under the alternative net metering
5 proposal that the Energy Future Coalition had
6 submitted. So there's still some of those same
7 considerations that would have to be factored
8 in.

9 COMMISSIONER BAILEY: So if the Commission
10 were to approve the Coalition's proposal, then
11 we would have to do a condition that you begin
12 billing once your billing systems are ready?

13 A (Davis) I would think so. We'd certainly want
14 to look at the details of everything we're
15 saying here to really pin it down once we have
16 more certainty.

17 COMMISSIONER BAILEY: Okay. Thank you.

18 A (Tebbetts) I'd like to add to that as well. For
19 Liberty, any change, even if you took out just
20 the system benefits charge, we actually would
21 have to make a change to our billing system
22 because the way our billing system is programmed
23 today is it's all or nothing.

24 COMMISSIONER BAILEY: So everybody knows

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 today that the billing system has to change
2 because both proposals require the same change.

3 A (Tebbetts) Yes. That's correct.

4 COMMISSIONER BAILEY: Okay.

5 A (Davis) Just to add further, we actually have a
6 similar type of structure that we apply in
7 Connecticut using the very same billing system.
8 So I think we already have some of the so-called
9 logic and capability. It would simply be the
10 programming and then testing and all would still
11 have to occur. So same overall consideration
12 but part of what we considered originally and is
13 certainly reflected in our proposal is having
14 had some experience on how to make that work.

15 COMMISSIONER BAILEY: What's the net
16 metering rate in Connecticut?

17 A (Davis) So the structure is, there's different
18 types of net metering. For the type of net
19 metering we're referring to here in New
20 Hampshire, for customers under 100 kilowatt
21 hours, 100 kW of installed capacity, the
22 structure there that's similar is we would
23 provide monthly kilowatt hour netting, and what
24 happens is we don't apply the netting to two of

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 our per kilowatt hour rate components for
2 customers who have units that are ten kilowatts
3 and above. There's actually a legislature
4 requirement that we must charge those
5 nonbypassable charges. So that's the same
6 structure that we have in Connecticut that would
7 overlay here.

8 COMMISSIONER BAILEY: So under ten
9 kilowatts, do they get the full retail rate?

10 A (Davis) Full net and full retail, yes.

11 COMMISSIONER BAILEY: And over ten they
12 don't, they still have to pay the nonbypassable
13 charges?

14 A (Davis) There's two specifically cited in the
15 legislation. One is the systems benefits
16 charge, and the other is the transition charge,
17 we call it the CTA. But those are very much
18 equivalent to the nonbypassable charges that are
19 contemplated in both proposals here.

20 COMMISSIONER BAILEY: What about the
21 distribution charge?

22 A (Davis) So that's to the extent you're, there's
23 full monthly netting that occurs there. If
24 you're a Class 1 type resource which is pretty

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 much, it's solar, wind, hydro is included there
2 and fuel cells because, you know, statutory fuel
3 cells, those we would bank the kilowatt hours,
4 but they would all get full retail credits
5 except for those two nonbypassables. And then
6 the kilowatt hours are banked and carried
7 forward for an annual period, and then we close
8 those out with a credit on the bill at the
9 average LMP so it's just the energy price for
10 any kilowatt hours in excess of the annual
11 consumption for netting.

12 We have a different type of net metering
13 where we apply monthly netting, but we actually
14 pay at the LMP for the month, and that's for
15 renewable resources that aren't necessarily zero
16 omissions, let's say, or low omissions.

17 COMMISSIONER BAILEY: Is there any state in
18 which you operate -- it's Connecticut and
19 Massachusetts and New Hampshire, right?

20 A (Davis) Correct.

21 COMMISSIONER BAILEY: So in Massachusetts
22 do they get credit for the full retail rate, 400
23 kilowatt or less?

24 A (Davis) No, it varies. So it's more defined

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 there by the class or the type of facility as
2 well as the type of customer you are.

3 COMMISSIONER BAILEY: So let's talk about a
4 residential customer less than 100 kilowatts.

5 A (Davis) With a rooftop solar.

6 COMMISSIONER BAILEY: Yes.

7 Q (Davis) That's comparable. So there we perform
8 the full netting. We do have the annual cap,
9 but there's a new program which is now going
10 to --

11 COMMISSIONER BAILEY: The cap just never
12 ends in Massachusetts.

13 A (Davis) It significantly affects the REC
14 payments. It's a whole brand-new program that's
15 going to be launched and implemented next year
16 which adds -- so we've got the production aspect
17 that we didn't really touch on too much but
18 earlier we did. So our proposal talks about the
19 opt-in for production payment, REC payments for
20 production. So in Massachusetts they have a
21 program where we differentiate the SREC prices
22 so solar, it's solar RECs, by a lot of different
23 factors. In theory, you could almost have as
24 many different prices as you have customers

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 participating. So it's a pretty extensive
2 incentive program. It's there.

3 But for net energy or net metering, we're
4 going to see a change there as well where
5 customers wouldn't necessarily have to net or
6 participate in net metering because there's
7 alternate payments, there's three different
8 options, but for net metering it would continue
9 and we actually have mix in Massachusetts where
10 we have bidirectional meters for western Mass.
11 and meters that do the internal netting on the
12 eastern Mass. side. So we're proposing to
13 change that so we're at the same paradigm as we
14 have here. Bidirectional meters, monthly
15 netting of the quality hours, and then it's just
16 a matter of the treatment of the excess kilowatt
17 hours so you can carry and apply it and --

18 COMMISSIONER BAILEY: But what's the rate?

19 A (Davis) The rate is, so if you're residential,
20 it is the sum of distribution transmission,
21 transition, and the equivalent. We call it
22 basic service, but it's the equivalent of
23 default service.

24 CHAIRMAN BAILEY: So they get the full

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 retail rate.

2 A (Davis) Just about. Just about.

3 CHAIRMAN BAILEY: And Unitil, is there any
4 place in your territory that doesn't get the
5 full retail rate for this kind of customer?

6 A (Meissner) The only other place we operate is in
7 Massachusetts so it would be identical to what
8 was just described.

9 CHAIRMAN BAILEY: All right. Thanks. I
10 think that's all I have. I think it's time now
11 for the Utilities to do redirect.

12 **REDIRECT EXAMINATION**

13 **BY MR. EPLER:**

14 Q Mr. Meissner, there were a series of questions
15 regarding options and dealing with voltage
16 issues on a circuit if you recall those. Can
17 you comment on the cost of a capacitor versus
18 the cost of some of the other alternatives that
19 were discussed?

20 A (Meissner) If we were to install a capacitor on
21 a circuit, the cost would somewhat depend on the
22 size of the capacitor and whether a single phase
23 or three phase but would generally be in the
24 range of several thousand dollars to perhaps 10

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 to \$20,000 depending on the size and phases of
2 the capacitor bank.

3 In terms of the alternatives we talked
4 about, I guess I can't really put a number on
5 it, but I would have to imagine that the cost to
6 install smart inverters, energy storage to
7 ensure the reliability of the output, the
8 controls on that and the communications to
9 ensure that we could dispatch it would be far
10 more expensive than we would normally spend to
11 just install a capacitor bank on a circuit.

12 Q So then is the point that it's not that there
13 are no theoretical or possible nonwires
14 alternatives to distribution but that it would
15 be necessary to at least conduct the
16 cost/benefit analysis to determine what is
17 realistic and appropriate to install?

18 A (Meissner) I would say that's correct. I think
19 there are many potential things we can do as
20 solutions on the distribution system that
21 theoretically are possible but economically are
22 infeasible.

23 Q And then sticking with you, Mr. Meissner, and
24 this is something that Mr. Brown touched on a

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 little bit talking about the peak in 2016 on
2 August 12th, is there anything that you wanted
3 to talk about to put that into context?

4 A (Meissner) Yes, and I do recall the peak
5 actually because we introduced low profile data
6 into the proceeding for both the 11th and the
7 12th of August last year. And what's important
8 to recognize is that the time of peak and the
9 magnitude of the peak from year to year tends to
10 be very dependent on the weather conditions at
11 the time. So, for example, we may not have
12 significant peaks for several years in a row
13 because we don't have the weather conditions
14 that would result in such a peak. And so during
15 those years, oftentimes the peak will tend to be
16 earlier in the day because it's commercially
17 driven as opposed to residential.

18 But in those years when we do experience
19 extreme peak conditions, there's a heavy
20 residential component, and those tend to be late
21 in the day, typically five or six o'clock at
22 night right now. And on August 12th in
23 particular, we experienced another phenomenon
24 that's not unusual where weather conditions that

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 day came in late in the day and essentially
2 truncated the peak. And that happens with some
3 regularity. We'll either have a peak during
4 extremely hot humid conditions where we'll get
5 thunderstorms rolling through in the afternoon
6 in which case a peak that we may have
7 experienced at five or six at a much higher
8 level gets essentially chopped off when the
9 thunderstorms go through, and I believe I saw a
10 reference to that in the CELT material that that
11 was a bullet referring to thunderstorms.

12 Last year we actually had a sea breeze kick
13 in around five or six o'clock in the evening,
14 and temperatures on the Seacoast area dropped
15 from 90s to 70s in a span of an hour. So as a
16 result of that, our peak dropped off
17 immediately, and we never actually experienced a
18 peak in the evening that we were expecting.

19 Q Thank you. Ms. Tebbetts, I'm going to address
20 this question to you since you've been part of
21 the grid mod working group and discussions. If
22 you can turn to the grid mod report that was
23 handed out earlier today. And I know that there
24 was some discussion as to whether or not this is

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 the final report, but in any event, could you
2 turn to, it's either page, I guess in the report
3 it's page 13. I guess the Bates stamp is page
4 14.

5 A (Tebbetts) Would you use the microphone, please?
6 I can hardly hear you.

7 Q Sure. I apologize. So I've asked you to turn
8 to the grid mod report that was handed out and
9 turn to page, I guess it's Bates stamped 14 but
10 in the report itself it's page 13 and look at
11 the paragraph towards the bottom of the page.

12 A (Tebbetts) Yes. I'm there. Rate design
13 recommendations?

14 Q Yes. And could you review that paragraph and
15 explain how that impacts the rate design
16 recommendations that are then on the next page?

17 A (Tebbetts) Yes. Just give me one moment,
18 please, to review. So during the course of the
19 grid modernization docket there was much
20 discussion about should we or shouldn't we
21 include net metering as part of really the total
22 package within this report, and although net
23 metering coexists really with grid
24 modernization, it was the view of the majority

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 of the group that because this proceeding was
2 happening at the exact time of the grid
3 modernization docket, we really should separate
4 the two with regards to how we're going to write
5 up this report.

6 So when looking at rate design specifically
7 because that's what Mr. Epler has asked, on the
8 rate design recommendations, we had much
9 discussion about how should we look at customer
10 charges, demand charges and the other items on
11 the page, Bates page 15, page 14 of the report,
12 and the discussion really went around let's not
13 include for the time of this report net metering
14 as a factor in here because we don't know what's
15 going to come out of this docket, and we felt it
16 would be most appropriate to really just on the
17 face value of grid modernization take a look at
18 these different rate design recommendations.

19 Q So, in other words, the principles that are laid
20 out on page 14 here, Bates stamped 15, on the
21 report are not applicable to net metering.

22 A (Tebbetts) Yes. That's correct.

23 Q That's all we have. Thank you.

24 COMMISSIONER BAILEY: Okay. Thank you.

{WITNESSES: Tebbets-Brown-Davis-Harrington-Labrecque}

1 Thank you to the panel. You can probably stay
2 in your seats because I'm just going to say
3 we're going to start again at 9 o'clock and
4 close the hearing for today. Thank you.

5 (Hearing recessed at 4:04 p.m.)

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