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STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

September 6, 2016 - 1:42 p.m.
Concord, New Hampshire

NHPUC SEP22'16 PM12:54

RE: DE 15-147
UNITIL ENERGY SYSTEMS, INC.:
2013 and 2014 Displaced
Distribution Revenue Due to Net
Metering Generation.

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

Sandy Deno, Clerk

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

Reptg. Residential Ratepayers:
Donald M. Kreis, Esq., Consumer Adv.
Office of Consumer Advocate

Reptg. PUC Staff:
Suzanne G. Amidon, Esq.
Stephen Eckberg, Sustain. Energy Div.

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



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I N D E X

PAGE NO.

**WITNESS PANEL: DOUGLAS J. DEBSKI
 STEPHEN R. ECKBERG**

Direct examination by Mr. Epler	9
Direct examination by Ms. Amidon	18
Cross-examination by Mr. Kreis	25
Interrogatories by Cmsr. Scott	34
Interrogatories by Chairman Honigberg	37

* * *

CLOSING STATEMENTS BY:

PAGE NO.

Mr. Kreis	41
Ms. Amidon	42
Mr. Epler	42

1
2
3
4
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6
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8
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E X H I B I T S

EXHIBIT NO.	D E S C R I P T I O N	PAGE NO.
1	Direct Testimony of Douglas J. Debski, including attachments (05-14-15)	8
2	Settlement Agreement, including attachments	8
3	Revised Page 6 to the Settlement Agreement	8

P R O C E E D I N G

1
2 CHAIRMAN HONIGBERG: We're here this
3 afternoon in Docket DE 15-147, which is a
4 Petition by Unitil Energy Systems to recover
5 displaced distribution revenue due to net
6 metering generation. There is a Settlement
7 that was filed earlier this year. I think
8 we're here for a hearing on the merits.

9 Before we do anything else, let's
10 take appearances.

11 MR. EPLER: Good afternoon, Mr.
12 Chairman and Commissioners. Gary Epler, on
13 behalf of Unitil Energy Systems, Inc. And with
14 me today is Douglas Debski. He's a Senior
15 Regulatory Analyst with Unitil. Thank you.

16 MR. KREIS: Good afternoon. I'm
17 Consumer Advocate Donald Kreis, here on behalf
18 of residential utility customers.

19 MS. AMIDON: Good afternoon. Suzanne
20 Amidon, for Commission Staff. And my witness
21 today, sitting at the table with me, Stephen
22 Eckberg, who is an Analyst in the Sustainable
23 Energy Division.

24 CHAIRMAN HONIGBERG: All right. What

1 do we need to do here before we get started?

2 Let me see what's going on back there
3 with Representative Backus.

4 REP. BACKUS: Thank you, Mr.
5 Chairman. I'm not a party here, but I am
6 interested. So, I'm here. I'm still
7 Representative Backus, ST&E. And
8 Representative Shepardson is on the Committee
9 and with me also.

10 CHAIRMAN HONIGBERG: So, you're just
11 here for the show?

12 REP. BACKUS: Yes.

13 CHAIRMAN HONIGBERG: All right.

14 REP. BACKUS: Unless you wanted
15 something more, but that's my plan.

16 CHAIRMAN HONIGBERG: I wouldn't want
17 to -- wouldn't want to disappoint you.

18 Ms. Epsen, are you also here just as
19 a spectator?

20 MS. EPSSEN: Yes.

21 CHAIRMAN HONIGBERG: All right.

22 Welcome all.

23 How are we going to proceed? Are we
24 doing a panel of witnesses?

[WITNESS PANEL: Debski~Frink]

1 MR. EPLER: Yes, Mr. Chairman.
2 That's the proposal. That Mr. Debski and
3 Mr. Eckberg would sit as a panel. I will do
4 the direct exam of my witness, and Ms. Amidon
5 will do the direct exam of her witness. And we
6 have a couple of exhibits. And we also have a
7 couple of pages in front of you that I can also
8 explain.

9 CHAIRMAN HONIGBERG: You decide. You
10 want to do witnesses, get the witnesses up
11 there? You want to tell me about what's up
12 here? I'm at your disposal.

13 MR. EPLER: Why don't we get the
14 witnesses up there, and I can then start to
15 explain the exhibits and move forward. Thank
16 you.

17 (Whereupon **Douglas J. Debski** and
18 **Stephen R. Eckberg** were duly
19 sworn by the Court Reporter.)

20 CHAIRMAN HONIGBERG: Mr. Epler.

21 MR. EPLER: Yes. Unutil would
22 propose to have premarked three exhibits. The
23 first of which is the Company's original filing
24 made on May 14th, 2015, consisting of the

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 prefiled Direct Testimony of Douglas Debski and
2 schedules that followed. That would be
3 premarked as "Exhibit No. 1". Exhibit No. 2,
4 we propose to have the Settlement Agreement
5 marked as "Exhibit No. 2". And, then, Exhibit
6 Number 3 would be the two pages that you see in
7 front of you there. They are the same page.
8 One is a redline version and one is a clean
9 version. And that is a Page 4, a revised Page
10 4 of the Settlement Agreement. And what that
11 does in I believe it's Paragraph 2.4, let me
12 turn to it.

13 CHAIRMAN HONIGBERG: Looks like 2.4.

14 MR. EPLER: It just recognizes the
15 passage of time. That the time this was filed
16 was before the Company made its June 2016 EDC
17 filing. And these, the changes that are
18 proposed in the Settlement Agreement are
19 intended to take effect with the EDC filing.
20 Since the passage of time, we've already made
21 that filing, the calculations that underlie the
22 Settlement Agreement would be proposed in the
23 next EDC filing. So, we're adding a year. And
24 that's the changes that accompany it.

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 There's no other changes -- it
2 doesn't change the substance of the Agreement.
3 The calculation remains as proposed. The
4 burden is on the Company to show that the
5 calculation is correct. So, there's no
6 other -- no other change to the Settlement
7 Agreement.

8 But I invite my colleagues to opine
9 on that, if they wish.

10 CHAIRMAN HONIGBERG: Seems pretty
11 simple. I think one of them will pipe up if
12 they have a problem.

13 (The documents, as described,
14 were herewith marked as
15 **Exhibit 1, Exhibit 2,** and
16 **Exhibit 3,** respectively, for
17 identification.)

18 CHAIRMAN HONIGBERG: All right. You
19 want to proceed with the witnesses?

20 MR. EPLER: Yes. Yes. Thank you.

21 **DOUGLAS J. DEBSKI, SWORN**

22 **STEPHEN R. ECKBERG, SWORN**

23 **DIRECT EXAMINATION**

24 BY MR. EPLER:

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 Q. Mr. Debski, you've been sworn in. Actually,
2 can you state your position with the Company
3 please?

4 A. (Debski) Okay. My name is Douglas Debski. I'm
5 a Senior Regulatory Analyst for Unitil Service
6 Corp.

7 Q. And, Mr. Debski, in the course of your work,
8 did you prepare testimony and exhibits that
9 were filed on May 14th, 2015?

10 A. (Debski) Yes, I did.

11 Q. And they have been premarked as "Exhibit
12 No. 1". Can you turn to that and tell me if
13 this was prepared by you or under your
14 direction?

15 A. (Debski) Yes, it was.

16 Q. And do you have any changes or corrections to
17 your prefiled testimony or exhibits?

18 A. (Debski) No, I do not.

19 Q. Okay. And, now, can you turn to what's been
20 premarked as "Exhibit No. 2", which is the
21 Settlement Agreement?

22 A. (Debski) I have that.

23 Q. Okay. And could you turn to the substantive
24 terms of the Settlement Agreement, which starts

{DE 15-147} {09-06-16}

1 on Page 3?

2 A. (Debski) Yes.

3 Q. And, actually, first of all, let me just walk
4 you through just a little bit of the history.

5 As introduced in the Settlement Agreement, the
6 Company had originally made a filing in Docket
7 DE 14-170, proposing the calculation that's now
8 in the Settlement Agreement, is that correct?

9 A. (Debski) Yes, it is.

10 Q. And, as a result of discussions with Staff and
11 the OCA, it was agreed to withdraw that
12 proposal in that docket?

13 A. (Debski) Yes. That's correct.

14 Q. And the Commission granted that withdrawal
15 without prejudice, is that --

16 A. (Debski) Yes.

17 Q. Okay. And, so, then the Company basically
18 refiled that proposal and which became this
19 current docket, is that correct?

20 A. (Debski) The Company did refile the proposal,
21 and it also made certain slight modifications
22 from its original proposal, to incorporate some
23 of the comments made during that proceeding.
24 Most specifically, the discussion of whether

[WITNESS PANEL: Debski~Frink]

1 there should be adjustment for customers that
2 were -- had installed generation prior to or
3 during a test year. Because it was decided
4 that, if customers had already had installed
5 generation on-site during the period prior to
6 the test year of a rate case, or during the
7 test year of a rate case, that any displaced
8 revenue due to their generation would already
9 be incorporated into the revenue requirements
10 of the Company at that time.

11 Q. So, it was determined, when you refiled this,
12 to exclude those customers that were either
13 prior to or during the test year, is that
14 correct?

15 A. (Debski) Customers that had been there prior to
16 the test year were removed from the analysis.
17 And customers who installed generation during
18 the test year, we only looked at the portion of
19 the year that was prior to their installation.
20 In other words, there would have been no change
21 in the revenue requirements due to them during
22 the test year.

23 Q. Okay. Thank you. Now, could you please turn
24 to Page 3 of the Settlement Agreement and the

[WITNESS PANEL: Debski~Frink]

1 terms.

2 A. (Debski) I have that.

3 Q. And could you simply summarize the calculation
4 that is proposed in the Settlement Agreement.

5 A. (Debski) Sure. I mean, without reading the
6 Settlement Agreement verbatim, basically, what
7 we're doing is trying to estimate the displaced
8 distribution revenue that's caused by customers
9 who install on-site generation. Most of these
10 customers do not have -- well, I should restate
11 that many of the customers have metering that
12 measures the amount of generation from their
13 systems, but Unitil does not have access to
14 that metering. It's not part of the revenue
15 metering that we do on the customer. It's a
16 separate meter, behind the revenue meter, that
17 we don't have information from. So, what we do
18 is we estimate the on-site generation using a
19 model, it's called the "PVWatts model", and
20 it's produced by the National Renewable Energy
21 Laboratory. And it's a pretty well-respected
22 model for estimating generation. What we do is
23 we -- that model actually looks at many
24 different sites throughout the country. For

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 Unitil's purposes here, we've used Concord
2 Airport, which is the most -- the closest site
3 to our service territory. And the model has a
4 lot of generic assumptions. And, for the most
5 part, Unitil hasn't changed most of those.

6 One thing that we do make is an assumption
7 of the DC to AC ratio. You know, that's a
8 figure that can vary anywhere from a certain
9 percentage negative to a certain percentage
10 positive.

11 And what we did when we made our original
12 proposal was to assume a 1.25 DC to AC ratio.
13 The reason that we did that is because we also
14 have an affiliate in Massachusetts, Fitchburg
15 Gas & Electric Light Company, that is also
16 under the scrutiny of net metering regulations,
17 and also has net metering caps. And, in
18 Massachusetts, it's been decided that, for the
19 cap purposes, what they're going to do is use
20 80 percent of the DC ratio for these systems.
21 Well, 100 percent divided by 80 percent comes
22 up to be 125 percent. So, that's how we came
23 up with that number to use for the model
24 assumptions.

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 So, the model basically estimates the
2 annual kilowatt-hour output for every one kW of
3 installed generation. So, starting with that
4 basis, what we do is we put together a
5 complicated spreadsheet that actually looked at
6 every customer that we had in our system with
7 installed on-site generation, and the amount of
8 installed kW. And, for each customer,
9 multiplied the installed kW times the output of
10 the PVWatts model, to come up with annual kWh
11 generated for each system.

12 Q. And do you, in your estimation, is the
13 calculation that you're performing a
14 conservative calculation? In other words, in
15 terms of trying to estimate the generation,
16 will this tend to overestimate or underestimate
17 generation?

18 A. (Debski) I think the PVWatts model actually
19 has, in its most recent update, a range of
20 kilowatt-hours from year to year. Because it
21 is an estimate, you know, things like weather,
22 sunlight, cloud cover, wind, things like that,
23 can affect the output of systems. So, there is
24 a range now. But, because we've used the

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 nameplate kW rating on these systems, the
2 nominal nameplate, rather than the maximum
3 rating of the systems, I believe we are erring
4 on the side of conservatism with our
5 estimates.

6 The PVWatts model actually puts the annual
7 generation on a monthly basis. So, we've gone
8 one step further to break it down from an
9 annual figure to a monthly figure in the
10 spreadsheet. So, for every customer, we
11 actually have 12 columns of data, one for each
12 month of the year.

13 So, once we have the estimated generation
14 for each month of the year, we look at the
15 customer class of which customers there are.
16 We have residential customers that are on block
17 kilowatt -- kilowatt-hour distribution rates.
18 And then we also have general service customers
19 that are on either a kW or a kVA rate for a
20 distribution charge, with -- during the years
21 2013 and 2014 had a zero kilowatt-hour rate.
22 And the reason I mention that is because, in
23 2013 and 2014, we've made a simplifying
24 assumption that customers do not reduce their

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 demand as a result of on-site generation. It's
2 just a simplifying assumption. We don't have
3 data to corroborate that. But, as an
4 intermittent resource, it's entirely possible
5 that many customers won't reduce their demand
6 at all as a result of on-site generation. And
7 that's another step that, if you wanted to
8 quantify it as such, would be erring on the
9 side of conservative estimate of displaced
10 power.

11 Because the -- oh, did you have a
12 question?

13 Q. Go ahead.

14 A. (Debski) Because the residential customers are
15 on a block rate that differs for the first 250
16 kilowatt-hours versus the excess 250
17 kilowatt-hours, it's important to try to
18 estimate which block the displaced
19 kilowatt-hours is occurring. So, for every
20 customer in the spreadsheet, we actually looked
21 at their monthly billed kilowatt-hours, to see
22 if they're in the excess block or if they
23 happen to be maintained in the first block of
24 kilowatt-hours billed, or many customers with

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 these types of situations actually are billed
2 zero kilowatt-hours in many particular months.

3 CHAIRMAN HONIGBERG: Mr. Epler, why
4 don't you focus the testimony a little bit.

5 MR. EPLER: Sure. Yes.

6 BY MR. EPLER:

7 Q. And, as part of the Settlement Agreement, the
8 parties have also agreed to a change in the
9 Company's EDC tariff, is that correct?

10 A. (Debski) That is correct.

11 Q. And that change would allow the Company to file
12 this calculation when it files its next EDC
13 reconciliation, in June of the next year?

14 A. (Debski) That's correct.

15 Q. Okay. And, in that filing, the Company has the
16 burden to demonstrate that the calculation
17 that's proposed is consistent with the
18 calculation that's agreed to as part of this
19 Settlement?

20 A. (Debski) Yes. That's correct.

21 Q. And, as far as you're aware, this Settlement
22 Agreement is only precedent for the Company,
23 it's not precedent for any of the other
24 electric utility companies that serve within

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 the state?

2 A. (Debski) That's correct.

3 Q. And, just in summary, do you feel that this
4 Settlement Agreement is a fair resolution of
5 the issues in this docket?

6 A. (Debski) I do.

7 MR. EPLER: Thank you. Thank you,
8 Mr. Chairman.

9 CHAIRMAN HONIGBERG: Ms. Amidon.
10 Ms. Amidon, you want to --

11 MS. AMIDON: Yes.

12 CHAIRMAN HONIGBERG: -- do the
13 questions for Mr. Eckberg?

14 MS. AMIDON: Thank you.

15 BY MS. AMIDON:

16 Q. Mr. Eckberg, please state your name and
17 employment for the record.

18 A. (Eckberg) My name is Stephen R. Eckberg. I'm
19 employed as a Utility Analyst with the
20 Sustainable Energy Division of the PUC, and
21 have been in that position since August of
22 2014. I was formerly employed as a Utility
23 Analyst with the Office of Consumer Advocate
24 for approximately seven years.

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 Q. Thank you. Mr. Eckberg, did you investigate
2 the filings of Unitil in the external delivery
3 docket that resulted in this Settlement
4 Agreement?

5 A. (Eckberg) Yes, I did. And, by that, I presume
6 you were specifically referring to the filing
7 in this matter, DE 15-147?

8 Q. Thank you for your correction. Yes.

9 A. (Eckberg) Yes. Well, I just would expand on
10 that. I also participated in the prior docket,
11 which was mentioned in Mr. Epler's
12 questioning of Mr. Debski, and that was DE
13 14-170. That was when the Company made its
14 original filing for this displaced revenue. At
15 that time, I was with the Office of Consumer
16 Advocate and participated in that docket as
17 well.

18 Q. And, by "participation", did that include
19 participation in discovery and technical
20 sessions with the Company?

21 A. (Eckberg) Yes, it did.

22 Q. And did you also participate in discussions and
23 in review of this Settlement Agreement that was
24 ultimately signed by Staff?

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 A. (Eckberg) Yes, I did. I worked with the
2 Electric Division's Analyst, Grant Siwinski,
3 who worked on this docket for the Electric
4 Division while he was with the PUC, and
5 subsequently participated in the development of
6 the Settlement Agreement as well.

7 Q. And it's fair to say that you kindly agreed to
8 be a witness in this proceeding for Staff?

9 A. (Eckberg) Well, I think I was kind about it,
10 yes.

11 Q. Thank you. Mr. Debski talked about PVWatts.
12 Could you please just briefly describe what
13 your familiarity with PVWatts is, and if you
14 have any additional observations you'd like to
15 make, in addition to Mr. Debski's?

16 A. Sure. I think Mr. Debski did a good job of
17 describing that software modeling tool. I'm
18 very familiar with the PVWatts tool. I do use
19 it, not every day, but certainly several times
20 a week in developing energy generation
21 estimates from PV -- proposed PV projects. As
22 he described, its a modeling tool developed by
23 the U.S. Department of Energy's National
24 Renewable Energy Lab. It's publicly available

[WITNESS PANEL: Debski~Frink]

1 on the NREL website for use by anyone and
2 everyone in developing energy production
3 estimates for solar voltaic -- photovoltaic
4 systems.

5 It's quite customizable. There's lots of
6 adjustments that one can make to the various
7 inputs into the model, the azimuth, and the
8 tilt, and the weather station or the physical
9 location where a system is located. So, I'd
10 say it's a very common tool. It's very
11 recognized among solar PV developers,
12 certainly.

13 Q. Thank you. As we heard a little earlier, the
14 proposal in the Settlement Agreement is to
15 allow the Company to recover revenue displaced
16 through net metering through the External
17 Delivery Charge. And are you aware that the
18 External Delivery Charge is a
19 Commission-approved mechanism, which allows for
20 recovery, among other things, of stranded costs
21 and transmission costs incurred by Unitil from
22 its New Hampshire customers?

23 A. (Eckberg) Yes. I'm aware of that annual filing
24 that the Company makes, having previously

[WITNESS PANEL: Debski~Frink]

1 participated in those dockets.

2 Q. And your understanding, and I think the general
3 understanding, is that, when those filings are
4 made on an annual basis, Staff would have an
5 opportunity to review the calculations related
6 to the specific issue of displaced revenue due
7 to net metering. Is that your understanding?

8 A. (Eckberg) Yes. Absolutely. That, with its
9 annual filing, with the inclusion of this new
10 rate element, that Staff would have the
11 ability -- Staff and others would have the
12 ability to review that calculation in as much
13 detail as they wanted to.

14 Q. Thank you. And, with your familiarity with the
15 External Delivery Charge, will a customer see
16 this particular part of the EDC called out on
17 its customer bill?

18 A. (Eckberg) No. I don't believe customers will
19 see this charge or this cost directly on their
20 bill. The EDC charge is one of several rate
21 components which comprise the Company's
22 distribution rate. And customer bills do show
23 an overall amount charged for distribution
24 service, based upon their tariff class, so,

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 whether it's an energy or demand type
2 calculation. But these smaller individual rate
3 components, such as this displaced revenue,
4 which is part of the EDC, those are not
5 specifically shown individually on the customer
6 bill.

7 Q. Thank you. But we do have an annual proceeding
8 to review those costs and the bill impacts of
9 those costs in the EDC?

10 A. (Eckberg) Yes, absolutely.

11 Q. Okay. With respect to Section 3.3 of the
12 Agreement, which you will find on Page 5, let
13 me know when you're there?

14 A. (Eckberg) That's Exhibit 2?

15 Q. Yes. Thank you for your reference.

16 A. (Eckberg) Okay. I'm there, yes.

17 Q. Okay. So, I mean, the plain reading of this
18 first sentence is that this agreement does not
19 constitute precedent for any other utility, is
20 that fair?

21 A. (Eckberg) That's certainly my non-legal
22 understanding of that language here in this
23 section, yes.

24 Q. Well, I appreciate you qualifying your

[WITNESS PANEL: Debski~Frink]

1 perspective. And, in the event, and again
2 looking at that same section, if there were new
3 technologies that would provide a better
4 measure of this production, could the
5 Commission, with notice and hearing, undertake
6 a change in how Unutil calculates its displaced
7 revenue due to net metering?

8 A. (Eckberg) Again, from my perspective as an
9 analyst, that's certainly my understanding of
10 this language here in this section, where it
11 says "acceptance of this Settlement Agreement
12 does not constitute continuing approval of", I
13 think that it's my belief that, if there's new
14 technology or new rate elements or something,
15 which would modify the consideration of how
16 this calculation is done in the future, that we
17 have the opportunity to do that.

18 Q. Thank you. And I know you're not a lawyer, you
19 understand that the Company has a statutory
20 authority to make this filing and propose
21 recovery of these revenues. In your opinion,
22 letting that, not offering opinion on that, but
23 is it your opinion that the Settlement
24 Agreement is a just and reasonable resolution

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 of the issues in this docket?

2 A. (Eckberg) Yes, it is. I believe so.

3 MS. AMIDON: Thank you. I have no
4 further questions.

5 CHAIRMAN HONIGBERG: Does either of
6 you have questions for the other's witness?

7 MR. EPLER: I do not. Thank you.

8 CHAIRMAN HONIGBERG: All right. Mr.
9 Kreis, do you have questions?

10 MR. KREIS: Yes, just a few, Mr.
11 Chairman. Thank you.

12 In the grand tradition of
13 Commissioner Scott, I think I'm just going to
14 pose my questions to the panel, and let both of
15 you gentlemen decide which of you is best able
16 to answer them, or perhaps, if you both care to
17 answer, that would be fine with me as well.

18 **CROSS-EXAMINATION**

19 BY MR. KREIS:

20 Q. I'm looking at Exhibit 2, which is the
21 Settlement Agreement we've been talking about.
22 And, on Page 2 of that Settlement Agreement, in
23 Paragraph 1.2, at the very end, it says "In its
24 proposal, Unitil seeks recovery of a total of

[WITNESS PANEL: Debski~Frink]

1 \$41,628, of which a little more than 15,000 is
2 attributable to 2013, and a little more than
3 26,000 is attributable to 2014."

4 We updated the Settlement Agreement to
5 reflect a flow-through the EDC charge with
6 rates for effect in August of 2017. Does that
7 change the amount of money that Unitil is
8 seeking to recover in connection with this
9 Settlement Agreement?

10 A. (Debski) I think, I believe for the years that
11 are mentioned here, 2013 and 2014, at this time
12 we don't foresee a change to those amounts.
13 But, under the modified page of the Settlement
14 Agreement today, in the June 2017 filing, we
15 will also be including amounts for 2015 and
16 2016 at that time.

17 Q. Mr. Eckberg testified at some length about the
18 PVWatts model, its public availability, and its
19 adaptability. In your -- I guess my question
20 for the panel would be, if you were designing a
21 method for estimating the displaced or lost
22 revenue in a proceeding like this, is the
23 PVWatts model the best available software or
24 other method or is there some other device,

[WITNESS PANEL: Debski~Frink]

1 software system that either of you would use,
2 if you could? I guess to be a little more
3 concise, is there anything better out there
4 than PVWatts?

5 A. (Eckberg) Well, I guess it depends on what you
6 mean by "better". I think there are some
7 software modeling tools which give the user
8 more complex functionality. They can -- the
9 user can upload specific performance data files
10 about each and every inverter and solar panel
11 that is used in a given system, because there
12 are probably some very minor differences in
13 those performance specifications.

14 I think that the PVWatts model is a very
15 good one to use here, because it is -- it's
16 very available, and it's very easy to use.
17 And, therefore, anyone who wishes to verify the
18 Company's calculations is able to do that with
19 a publicly available tool, without having to
20 expend thousands of dollars for some
21 proprietary software modeling tool. So, I
22 think it meets the needs of this situation very
23 well.

24 Q. So, if I'm understanding your testimony

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 correctly, what you're essentially saying is
2 that we might be able to come up with some
3 other method that would provide a more accurate
4 estimate, but the added accuracy wouldn't be
5 worth the cost in these circumstances?
6 A. (Eckberg) Well, I certainly -- I'm not sure
7 whether that's exactly my point. I think that
8 every additional element or level of detail
9 that you add into a process can add cost to it.
10 But I'm not sure we would have even the data
11 available to use a more complex modeling tool,
12 for instance. Whether the Company -- the
13 Company collects certain types of information
14 in its interconnection applications from each
15 and every installation of distributed
16 generation. But they may not have all the
17 information available to use a more advanced
18 tool. And I think there's also other --
19 there's probably other elements to this
20 discussion as well, rather than just the
21 software modeling tool, which may come into
22 play in the future as well. For instance,
23 maybe the type of metering that's used could
24 impact the interpretation of what's an

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 appropriate calculation. But, given the
2 totality of the circumstances before us, I
3 believe this is a reasonable approach that
4 we've used here.

5 Q. Super. Thank you. According to Page 3 of the
6 Settlement, and Mr. Debski testified about this
7 before, the kWh is displaced -- "the kWh
8 displaced per kW of AC generation installed is
9 based on the PVWatts Calculator" --

10 *[Court reporter interruption.]*

11 MR. KREIS: I'm just reading now from
12 Page --

13 CHAIRMAN HONIGBERG: But he's not
14 looking at what you're looking at. He's just
15 doing what he hears.

16 MR. KREIS: Understood.

17 BY MR. KREIS:

18 Q. Just reading now from Section 2.2 of the
19 Settlement Agreement, "the PVWatts Calculator
20 generation model uses here a 125 percent DC to
21 AC ratio for the Concord Airport location." I
22 want to make sure I understand exactly what
23 that means. Here's what I think it means, and
24 you guys can correct me.

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 You take a kWh of nameplate capacity, and
2 you basically take 80 percent of that, and
3 assume that that is the power generation that
4 each of these installations is able to create,
5 because it has to convert, obviously, from DC
6 to AC?

7 A. (Debski) Basically, the PVWatts model does its
8 estimates based on a DC amount. The Company
9 collects interconnection data on an AC amount.
10 And one of the inputs in the PVWatts model is
11 this ratio of DC to AC. So, basically, what I
12 do is I make the numbers work, so I get the
13 correct estimate per one kW of nameplate AC
14 rating.

15 Q. You explained why you chose this particular
16 ratio. Why would one choose a different ratio
17 in some other application? In other words, why
18 isn't this just the standard ratio?

19 A. (Debski) Certain systems may be more efficient
20 than other ones. Older systems may be less
21 efficient. In addition, typically, the AC
22 rating is based on the inverters at the site,
23 and the DC rating is based on the actual panels
24 and the output of those panels. So, they're

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 two different amounts. I've seen numbers all
2 over the board. Some customers actually have a
3 rating, a DC to AC rating that's less than
4 100 percent. Others have up to 140 percent.
5 We're just trying to make a simplifying
6 assumption that will apply in general to most
7 of the systems on our, you know, distribution
8 system.

9 Q. And, if I understood and remembering your
10 testimony correctly, you used this number, 125,
11 because that's what the Unitil affiliate in
12 Massachusetts is using, because that's what
13 everybody in Massachusetts does? Or just your
14 company?

15 A. (Debski) As far as calculating the cap amounts
16 in Massachusetts, they do use 80 percent of a
17 DC rating. So, we just used it as an
18 assumption for consistency between the two
19 affiliates.

20 Q. Understood. Finally, following up on the
21 discussion about what future effect this
22 Settlement Agreement has, in the event somebody
23 came up with a better method than PVWatts, what
24 effect would that have? Given that we're

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 changing the Company's tariff here, assuming
2 acceptance of the Settlement Agreement, and
3 there's no temporal limit on the effective
4 language in the tariff?

5 MR. EPLER: Mr. Chairman, if the
6 distinguished representative of the OCA is
7 asking a legal or procedural question, I'd be
8 happy to try to respond. But, if the witness
9 can give his understanding, I wouldn't object.

10 MR. KREIS: And by no means do I want
11 to transgress on the realm that's appropriately
12 reserved to counsel. But there was some
13 discussion of this earlier, when Ms. Amidon and
14 Mr. Epler were conducting their direct exam of
15 these witnesses. So, I just wanted to make
16 sure I understood what their testimony was.

17 CHAIRMAN HONIGBERG: Does either of
18 you feel like you understand the question
19 sufficiently to provide an answer? Analysis.

20 WITNESS DEBSKI: I believe I do.

21 CHAIRMAN HONIGBERG: Go for it.

22 BY THE WITNESS:

23 A. (Debski) You know, to the extent that there are
24 two figures for 2013 and 2014 already hardcoded

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 in the Settlement Agreement, I think we'd just
2 like to agree that the methods used to come up
3 with those figures are going to be approved
4 here in the Settlement Agreement.

5 But, when they come forward in 2017 with
6 another proposal for 2015 and 2016, and future
7 years, if an intervenor or another party in the
8 proceeding has an alternate proposal, the
9 Company is more than happy to discuss and work
10 with those parties to implement a model that's
11 deemed to be more accurate or better than the
12 PVWatts model.

13 BY MR. KREIS:

14 Q. I think I have only one last question. You,
15 Mr. Debski, said you "assume no reduction in
16 demand as a result of on-site generation".
17 It's possible, isn't it, that there could
18 actually be an increase in demand that is --
19 that goes along with customers installing
20 on-site generation, yes?

21 A. (Debski) When I referred to the demand, I'm
22 talking about the demand that's measured by the
23 Company for billing purposes. And it's a 15
24 minute integrated demand during the billing

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 cycle, and it's only in one direction. We only
2 measure the demand that, you know, we serve to
3 the customer.

4 It is possible that customers may export a
5 higher demand, but that demand is not used for
6 billing purposes. So, in this case, that's not
7 what I was referring to.

8 MR. KREIS: Understood. Mr.
9 Chairman, I think those are all the questions I
10 have.

11 CHAIRMAN HONIGBERG: Commissioner
12 Scott.

13 CMSR. SCOTT: Good afternoon. And,
14 since Mr. Kreis already preempted me by
15 saying -- knowing I would say "whoever is best
16 suited to answer this", but I think Mr. Debski
17 is going to be most likely the one to answer
18 this.

19 BY CMSR. SCOTT:

20 Q. So, my presumption in reading the Settlement
21 is, and I understand it's a simplified model,
22 but all the generation being accounted for in
23 the model is assumed to be displacing sales,
24 and, therefore, the exercise here is to make up

[WITNESS PANEL: Debski~Frink]

1 for those displaced sales, correct?

2 A. (Debski) The assumption is, customers who have
3 the on-site generation, everything displaces a
4 kWh at that site up until the point where the
5 customer is a net exporter for the month. So,
6 if they actually what we refer to as "banking"
7 kilowatt-hours in that particular month towards
8 a future billing cycle, we don't count the
9 amount that is banked towards displaced
10 revenue. We're trying to only capture the
11 amount that, if not for the generation, the
12 customer would have been billed.

13 Q. And, when we look at distributed generation,
14 are there not some benefits to the utility,
15 too, whether it's for making up for line losses
16 or other structural benefits?

17 A. (Debski) Many of those benefits are subject to
18 interpretation. And, in the technical session
19 here, that we had in this proceeding with Staff
20 and OCA, we did talk about external benefits.
21 And it was determined that those really weren't
22 pertinent to the calculation, the simplified
23 calculation of displaced revenue.

24 Q. Well, I would agree that it complicates things

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 quite a bit, depending on how you look at it.
2 Maybe an easier question, I'm looking at, on
3 the Settlement Agreement, the first page of the
4 schedule on the back. I don't see a Bates
5 Page, I apologize.

6 CHAIRMAN HONIGBERG: One of 16?

7 CMSR. SCOTT: Yes, 1 of 16.

8 BY CMSR. SCOTT:

9 Q. Are you there?

10 A. (Debski) I have that.

11 Q. I was just curious, the "Reciprocating Gas
12 Engine" kind of struck me, I didn't expect to
13 see that. Is that a -- is that an outlier?

14 A. (Debski) I guess I could first mention that it
15 is an outlier. In the actual spreadsheet, it's
16 highlighted in yellow. So, this is a general
17 service customer, which gets billed on demand.
18 So, there is no displaced revenue associated
19 with that customer.

20 But I believe installation of that size
21 that's a reciprocating gas engine, even though
22 it's not a renewable source of energy, is still
23 eligible for net energy metering.

24 CMSR. SCOTT: Interesting. Thank

[WITNESS PANEL: Debski~Frink]

1 you. I think that's all I have.

2 CHAIRMAN HONIGBERG: Commissioner
3 Bailey?

4 CMSR. BAILEY: No questions.

5 CHAIRMAN HONIGBERG: I have a couple
6 of questions.

7 BY CHAIRMAN HONIGBERG:

8 Q. The first is, looking at that same page that
9 Commissioner Scott just had you looking at, on
10 the version that I have, a number of the dates
11 show up as number symbols or hashtags. Am I
12 correct that those are just dates that are long
13 dates with two digits in the month, two digits
14 in the day?

15 A. (Debski) That's correct. And I believe, when
16 the file was converted to an Acrobat pdf, it
17 did that.

18 Q. It freaked out, and gave us those symbols
19 instead of the date?

20 A. (Debski) That is correct.

21 Q. I've seen that happen. I think I'm interested
22 in the question -- the social science question
23 that Mr. Kreis raised, about how people behave
24 if they have generation installed. But,

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 ultimately, you're not interested in measuring
2 that. Because what you're interested in is
3 what you're not billing, because that person
4 isn't using the system. So, if someone
5 increases or decreases, it hardly matters to
6 you. Because what you really want to know is,
7 what that person would have used if they didn't
8 have the installed generation, isn't that
9 right?

10 A. (Debski) That's correct.

11 Q. And, so, whatever tool you use is, almost by
12 definition, going to be imprecise, because it's
13 measuring a negative, and the social science
14 question becomes truly academic. Would you
15 agree with that?

16 A. (Debski) I would.

17 Q. But it is a really interesting question. I'm
18 sure there's studies out there about how people
19 behave when they have solar panels on their
20 roof and other types of generation.

21 For context, and I'm sure I know this
22 somewhere and have it somewhere in files, what
23 is the total amount of distribution revenue
24 that the Company collects that these numbers,

{DE 15-147} {09-06-16}

[WITNESS PANEL: Debski~Frink]

1 14,000, and I forgot what the other number
2 is, --

3 CMSR. BAILEY: Twenty-six.

4 BY CHAIRMAN HONIGBERG:

5 Q. -- 26,000, is being lost or displaced. Do you
6 have an order of magnitude?

7 CHAIRMAN HONIGBERG: Or maybe,
8 Mr. Epler, do you have an order of magnitude of
9 what we're talking about here, in terms of
10 total distribution revenue of the Company?

11 MR. EPLER: One would think I should
12 have that number handy.

13 CHAIRMAN HONIGBERG: One would be
14 wrong.

15 MR. EPLER: But, for context, I
16 guess, if you looked at the Unitil Exhibit 1,
17 and the Testimony of Doug Debski at Page 7 of
18 7, he does give bill impacts. So, for the --
19 for the \$41,000 that was requested at the time
20 we filed the original testimony, that would
21 have a two-cent increase on a monthly 600
22 kilowatt-hour residential bill. And someone
23 with better math skills than me would probably
24 be able to reverse engineer that to talk about

{DE 15-147} {09-06-16}

1 what the total amount was. But --

2 CHAIRMAN HONIGBERG: Qualitatively,
3 it's very small, right?

4 MR. EPLER: I would agree, yes.

5 CHAIRMAN HONIGBERG: All right. I
6 think that's all I have.

7 Mr. Epler or Ms. Amidon, do either of
8 you have further questions for your witnesses?

9 MS. AMIDON: I do not. Thank you.

10 MR. EPLER: I do not either.

11 CHAIRMAN HONIGBERG: All right
12 Mr. Eckberg, Mr. Debski, you can either stay
13 where you are or return to your seats, it's up
14 to you.

15 The things we have left to do are to
16 strike the ID on the three exhibits, I assume
17 there's no objection to that?

18 MR. KREIS: None.

19 CHAIRMAN HONIGBERG: This is a
20 hearing on the merits. We do have members of
21 the public here. Would any of the members of
22 the public like to provide comment, in the
23 nature of public comment at this time?

24 *[No verbal response.]*

1 CHAIRMAN HONIGBERG: All right.
2 Seeing none. Opportunity to sum up. Mr.
3 Kreis, you can go first.

4 MR. KREIS: Thank you, Mr. Chairman.
5 The statute and the applicable Puc rule say
6 that Unitil is entitled to recover the lost
7 revenue that it is seeking to recover here.
8 The method agreed upon provides, I think, a
9 reasonable basis for estimating that lost
10 revenue. In a more perfect world, we wouldn't
11 have to estimate, we would just know. And we
12 will grope our way towards that perfect world.

13 As the witnesses made clear, and as
14 hope Mr. Epler will also make clear, in the
15 event that, in the future, some newer and more
16 improved method for determining lost revenue
17 becomes apparent, the Company is amenable to
18 adopting that.

19 And, for those reasons, the OCA is a
20 signatory to the Settlement Agreement, as it's
21 been revised with a newly updated page today,
22 and we recommend its approval to the
23 Commission.

24 CHAIRMAN HONIGBERG: Ms. Amidon.

1 MS. AMIDON: Thank you. Staff
2 participated in the investigation and in -- of
3 this, of the testimony and the proposal by
4 Unitil to recover displaced revenue due to net
5 metering, and participated in the Settlement
6 Agreement which led to the hearing today. We
7 believe that the Settlement Agreement is a just
8 and reasonable resolution of the issues and is
9 in the public interest.

10 And agree also with the comments of
11 the Consumer Advocate, insofar as that, in the
12 event that new technology allows for a better
13 calculation of displaced revenue, there is a
14 process in place whereby the Commission can
15 open a new proceeding to implement such change.

16 Thank you.

17 CHAIRMAN HONIGBERG: Mr. Epler.

18 MR. EPLER: Yes. Thank you, Mr.
19 Chairman. I'll just echo and won't repeat the
20 comments of my colleagues about the Settlement
21 Agreement and its reasonableness.

22 Excuse me. I would only add that
23 some of the issues that were raised in
24 questions, and, certainly, the question the

1 Chairman raised about the social science
2 implications of demand, are being looked at in
3 a current docket before the Commission, 16-576.
4 And, certainly, if there were some methodology
5 or some agreement or proposals that were to
6 come out of that docket that the Commission
7 would then approve that were superior to what
8 has been agreed to here, the Company would be
9 open to revisiting this and making
10 modifications as necessary.

11 So, certainly, we see this as a first
12 step. But, if there are better things down the
13 pike, we would agree to try to implement them.

14 CHAIRMAN HONIGBERG: All right. If
15 there's nothing else then, we will adjourn,
16 take the matter under advisement, and issue an
17 order as quickly as we can.

18 MR. EPLER: Thank you.

19 ***(Whereupon the hearing was***
20 ***adjourned at 2:32 p.m.)***