

STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

NHPUC 6APR'17PM1:46

March 29, 2017 - 9:14 a.m.

DAY 3

Concord, New Hampshire

MORNING 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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1 people are going to do oral closings or do
2 closings in writing. My understanding is that
3 most people want to do something in writing. Is
4 that correct? Yes. I see lots of nodding
5 heads, except for Mr. Aalto who I assume wanted
6 to do something orally and probably Mr. Rodier.
7 Matthew, you want to just do an oral?

8 MR. FOSSUM: My thought had been we're all
9 here. We've all heard what needs to be said. I
10 didn't see reason to belabor it and wait for
11 writing. If the will of the group is to do it
12 in writing, I'll certainly do it that way, but I
13 just didn't feel the need to bait and do it down
14 the road.

15 PRESIDING OFFICER HONIGBERG: What do
16 others think? Mr. Buxton?

17 MR. BUXTON: We would prefer to do in
18 writing if it's an either/or.

19 PRESIDING OFFICER HONIGBERG: Certainly not
20 doing both. Mr. Sheehan?

21 MR. SHEEHAN: I'm with Matthew.

22 PRESIDING OFFICER HONIGBERG: Mr. Kreis?

23 MR. KREIS: I, too, am with Mr. Fossum. I
24 think given the need, I know the Commission has

1 to get an order out in this case in fairly
2 rapid-fire fashion, it seems to me, and given
3 the fact that we don't have a lot of legal
4 research to do, we're really just going to talk
5 about the evidence we heard, I think an oral
6 presentation would be the most felicitous.

7 PRESIDING OFFICER HONIGBERG: Felicitous.
8 As in lucky?

9 MR. KREIS: Yes. I intend to get lucky.

10 PRESIDING OFFICER HONIGBERG: Mr. Epler?

11 MR. EPLER: Oral, please.

12 PRESIDING OFFICER HONIGBERG: Ms. Birchard?

13 MS. BIRCHARD: Far be it for me to stand in
14 the way of Don's felicity, but I do think there
15 are local matters that would benefit from paper
16 writing rather than oral presentation. We don't
17 want to have to sit here citing statutes orally.
18 I think that the paper form is more conducive.

19 PRESIDING OFFICER HONIGBERG: Anyone else?
20 Mr. Rodier?

21 MR. RODIER: Orally is fine.

22 PRESIDING OFFICER HONIGBERG: Anybody else?
23 Mr. Below?

24 MR. BELOW: I could go either way though if

1 it's oral, I think it might be preferable to do
2 it Friday to give a little time for people to
3 compose their thoughts. And if it's in writing,
4 maybe there should be a page limit.

5 PRESIDING OFFICER HONIGBERG: Mr. Wiesner?

6 MR. WIESNER: I think we would support the
7 option for parties to either submit a written
8 closing statement/brief or make an oral
9 presentation at their option.

10 PRESIDING OFFICER HONIGBERG: Mr. Hinchman?

11 MR. HINCHMAN: Based on the schedule, my
12 understanding and my entire approach to the
13 hearings would be that there was briefing at the
14 close of the hearings, and it's influenced how I
15 have participated. So I would strongly prefer
16 the opportunity for written.

17 PRESIDING OFFICER HONIGBERG: I think we
18 should allow people the opportunity, the option.
19 You're not required to do it in writing. We can
20 schedule time for as many people as want to do
21 it orally to do it orally, but as I said, we are
22 not going to do both. Any individual is not
23 going to do both.

24 So understanding that that's the lay of the

1 land, how many people want to do an oral closing
2 or summation? Mr. Aalto, Representative
3 Oxenham. Anybody else? So we're only -- yes,
4 Mr. Epler?

5 MR. EPLER: Would they be due at the same
6 time.

7 PRESIDING OFFICER HONIGBERG: No. Oral is
8 going to happen in the next day or two to sum up
9 what you heard and what your sense is. Look,
10 going into this I was actually where I think Mr.
11 Kreis and Mr. Below were. We give people an
12 overnight or even two overnights, and people
13 would come up and pretend they were Perry Mason
14 and do a stemwinder. With a significant time
15 limit. But I understand. People want to do it
16 in writing. They may want to cite to transcript
17 testimony. I am skeptical of Mr. Hinchman's
18 true need and what he would have done
19 differently because if he was going to be able
20 to sum up, he was going to be able to tie it all
21 together orally instead of tying it all together
22 in writing, but I accept what he said and I do
23 understand that the schedule contemplated it as
24 it was laid out in what was sent out to the

1 parties. You're shaking your head, but my
2 understanding is that at least one of the
3 secretarial letters that set a schedule
4 contemplated written closings. Am I wrong about
5 that?

6 MR. EPLER: I think it said something like
7 briefs, if necessary, but I haven't checked, but
8 I don't think it had a date associated with
9 that.

10 PRESIDING OFFICER HONIGBERG: I think
11 that's right. I think it didn't have a date,
12 but I think if people felt it necessary, they
13 were going to be allowed to do that, and I think
14 how people would read that. I think if I were
15 in your shoes, that's how I would have read it.
16 So yes, Mr. Epler?

17 MR. EPLER: The only other issue is
18 transcripts are not available. I mean if we, if
19 the transcripts are the necessity for a written
20 summation, transcripts aren't going to be
21 available for a couple weeks.

22 PRESIDING OFFICER HONIGBERG: Wrong.

23 MR. WIESNER: We have asked for expedited
24 turnaround on the transcripts, and we expect to

1 have them by the middle of next week.

2 PRESIDING OFFICER HONIGBERG: Does anybody
3 seriously think that what they're going to be
4 writing will rely significantly on what is in
5 the transcript? Mr. Hinchman?

6 MR. HINCHMAN: My practice would be to cite
7 facts and either reference where the fact came
8 from. If it came from the testimony or the
9 transcript.

10 PRESIDING OFFICER HONIGBERG: And based on
11 what you've heard so far, where is the weight of
12 the facts going to come from in your summation?

13 MR. HINCHMAN: I think it would be a blend
14 of both, testimony and the hearing.

15 PRESIDING OFFICER HONIGBERG: Really. What
16 do you think the balance will be? Do you think
17 it will be 50/50, 60/40, 90/10?

18 MR. HINCHMAN: Somewhere between 50/50 and
19 75/25. I'm sorry. I can't say.

20 PRESIDING OFFICER HONIGBERG: Ms. Birchard?

21 MS. BIRCHARD: Because the written
22 testimony was largely filed before the
23 Settlement Agreement and the Settlement
24 Agreement was not, in fact, the Utility

1 Settlement Agreement was not filed with any
2 testimony. Therefore, actually, the live
3 activity is more critical in this case than it
4 might have been in another instance.

5 PRESIDING OFFICER HONIGBERG: So the
6 transcript will be available next week. That's
7 what we arranged, that's what we're paying for.
8 So they'll be available if people want to use
9 them.

10 Deadline for written submissions.

11 MR. WIESNER: If the transcripts are
12 available by Tuesday or Wednesday, you know, one
13 thought would be that the deadline would be next
14 Friday. April 7th, I believe it is.

15 PRESIDING OFFICER HONIGBERG: That would be
16 April 7th. April 7th work for people?

17 MR. BUXTON: Could we spoil the next
18 weekend and make it Monday?

19 PRESIDING OFFICER HONIGBERG: You think
20 completely differently from the way I think,
21 but --

22 MR. BUXTON: We're in completely different
23 places, your Honor.

24 PRESIDING OFFICER HONIGBERG: Mr. Emerson?

1 MR. EMERSON: I was just maybe going to
2 suggest, since we don't know exactly when the
3 transcript will be ready, maybe a week to have
4 it? Set it based on the day when the transcript
5 is actually available.

6 PRESIDING OFFICER HONIGBERG: No. It's
7 going to be a date certain. When we're done
8 with this conversation, it's going to be a date
9 certain. Other thoughts? There's no difference
10 between Friday and Monday from our perspective
11 so if the parties want until Monday, they can
12 have until Monday, the 10th. Those who don't
13 want to ruin their weekends are certainly free
14 to file on Friday the 7th.

15 And then in terms of the oral closings, the
16 few who want to do them, we'll do them whenever
17 we're done with the testimony or tomorrow.
18 Maybe at 2 o'clock. But we'll let you know as
19 we're getting closer to that, and you can start
20 preparing your oral remarks, those who want to
21 do them.

22 With respect to the memos. Page limits?
23 That's a question.

24 MR. KREIS: That's a fabulous idea.

1 PRESIDING OFFICER HONIGBERG: Mr. Buxton?

2 MR. BUXTON: I would gather that we use
3 more pages at our peril and that a page limit
4 probably isn't necessary.

5 PRESIDING OFFICER HONIGBERG: I tend to
6 agree with you. I think I would encourage you
7 to forego the first four pages of procedural
8 history because we know it, and it's not
9 necessary. I would encourage you to put on page
10 1 the summary of the important points that you
11 would have said orally in the beginning of your
12 summation rather than spend the first four pages
13 telling me things I already know, and we won't
14 impose page limits on people, but you would be
15 wise to heed Mr. Buxton's caution there.

16 We will be keeping the record open for the
17 submission of affidavits. We haven't had any
18 record requests yet. If we need them, we'll
19 leave the record open for them as well. We'll
20 just, we'll get those in as they come in.

21 Mr. Emerson?

22 MR. EMERSON: We do have the Rate Impact
23 Model. As Eversource's cross-examination
24 pointed out, there was an error in there. I've

1 discussed with Mr. Wiesner filing updated or
2 corrective pages, just the actual pages that are
3 corrected. I think there's four to that exhibit
4 so --

5 PRESIDING OFFICER HONIGBERG: Everybody
6 understand that? I mean, I remember the error
7 in the exhibit. Mr. Fossum?

8 MR. FOSSUM: I mean, I guess the purpose of
9 me asking those questions was to point out
10 exactly that. That there are errors in the
11 exhibit. Whether they're corrected or not, I
12 suppose, is irrelevant to the point being that
13 the exhibit itself was erroneous. So corrected
14 pages at this point would seem to be
15 unnecessary.

16 PRESIDING OFFICER HONIGBERG: I tend to
17 agree. I mean, he made his correction orally
18 with respect to his conclusions. He explained
19 what the problem was. I'm not sure what benefit
20 you have by putting in additional pages, and I
21 mean, you could have had him make all
22 corrections right on any piece of paper he had
23 in front of him on redirect.

24 MR. EMERSON: I had understood it was the

1 desire of staff to have the corrected pages. If
2 it's not, then we don't have to.

3 PRESIDING OFFICER HONIGBERG: I'm not
4 ruling up front on something that hasn't
5 happened. I'm not giving you permission to do
6 it, but if you want to submit something that's
7 part of your closing that explains the error and
8 how immaterial it is, have at it.

9 Other issues with respect to that?
10 Mr. Wiesner?

11 MR. WIESNER: I wanted to backtrack a
12 moment to the written briefs, memos, closing
13 statements, whatever we want to call them.
14 Should there be an expectation that each
15 settling Coalition would only submit one on
16 behalf of that Coalition?

17 PRESIDING OFFICER HONIGBERG: That would be
18 nice. I kind of assumed that would be what we
19 would see. Mr. Buxton?

20 MR. BUXTON: I think we would endeavor to
21 do that, your Honor. I would really note that
22 really increases the length of time it takes to
23 get it done. There are a lot of people, and
24 there's always a possibility that somebody will

1 disagree on a point, but what we could do is
2 agree to not be redundant. I can't speak for
3 everybody. That's the problem. It is a
4 coalition.

5 PRESIDING OFFICER HONIGBERG: Use your best
6 judgment. It's not effective for five people to
7 say the same thing five different ways. You all
8 know that.

9 Anything else in that category? All right.

10 The last thing is exhibits. We have struck
11 the ID and made full exhibits of many of the
12 exhibits that were premarked but not all. I
13 have a list that may or may not be right. I'm
14 hopeful that the Clerk has a list that I hope is
15 right. I think it would be wise during one of
16 the breaks today, probably the lunch break
17 because it is going to be a little longer, for
18 everybody to come back a little early and sit
19 down with the exhibit list and make sure
20 everybody's in the same place as to what is a
21 full exhibit and what isn't. And the things
22 that aren't yet, haven't yet been made full
23 exhibits, figure out if there's objections and
24 what the issue is. Maybe it was premarked and

1 not used by anybody and no one cares anymore,
2 that's certainly possible, but let's make sure
3 we're all working with the same basic
4 information on that.

5 Any questions or concerns in that regard?
6 All right. Is there anything else we need to
7 cover before the next panel of witnesses gets
8 heard from? Mr. Epler has his finger up. Yes.

9 MR. EPLER: I apologize for belaboring
10 this, but can I get a clarification. Was it
11 decided that one brief per joint group or you
12 left that up to the discretion?

13 PRESIDING OFFICER HONIGBERG: Use your best
14 judgment.

15 MR. EPLER: Okay. Thank you.

16 PRESIDING OFFICER HONIGBERG: Anything
17 else? Now I see shaking heads. That's always a
18 good sign when a question like that gets asked.

19 The next panel belongs to the CLF and the
20 Acadia Center, correct?

21 MS. BOYD: Yes, it does.

22 PRESIDING OFFICER HONIGBERG: All right.
23 And the witnesses are in place so we don't we
24 have them sworn in.

{WITNESSES: Chernick-Hawes}

1 (Whereupon **Paul Chernick** and
2 **Ellen Hawes** were duly sworn
3 by the Court Reporter.)

4 PRESIDING OFFICER HONIGBERG: And who is
5 going to be questioning?

6 MS. BOYD: That is me. Amy Boyd. Counsel
7 for Acadia Center.

8 PRESIDING OFFICER HONIGBERG: Why don't you
9 proceed.

10 **PAUL CHERNICK, SWORN**

11 **ELLEN HAWES, SWORN**

12 **DIRECT EXAMINATION**

13 **BY MS. BOYD:**

14 Q Mr. Chernick, please state your full name and
15 title.

16 A (Chernick) My name is Paul Chernick, and I'm the
17 President of Resource Insight, Inc., of
18 Arlington, Massachusetts.

19 (Discussion off the record)

20 A (Chernick) My name is Paul Chernick, and I am
21 the President of Resource Insight of Arlington,
22 Massachusetts.

23 Q And what party are you here submitting testimony
24 on behalf of?

{WITNESSES: Chernick-Hawes}

1 A (Chernick) Law foundation.

2 Q Do you have before you what has been marked as
3 Exhibit 22, Prefiled Direct Testimony; 23,
4 Errata to that testimony; and 24, Exhibits to
5 that testimony?

6 A (Chernick) Yes, I do.

7 Q And these are collectively your Direct Testimony
8 in this case?

9 A (Chernick) They are.

10 Q Do you have any changes to that testimony other
11 than what was already noted in the errata?

12 A (Chernick) No, I don't.

13 Q Do you also have before you what has been marked
14 as Exhibit 59? Your Prefiled Rebuttal
15 Testimony?

16 A (Chernick) Yes.

17 Q Do you have any changes to that testimony?

18 A (Chernick) No, I don't.

19 Q So if I were to ask you the same questions now
20 that are in your Prefiled Direct and Rebuttal
21 Testimony, would your answers be the same?

22 A (Chernick) Yes. They would.

23 MS. BOYD: I move that Mr. Chernick's
24 Prefiled Direct and Rebuttal Testimony be

{WITNESSES: Chernick-Hawes}

1 admitted into the record?

2 PRESIDING OFFICER HONIGBERG: Seeing no
3 objections, the ID will be struck on those
4 exhibits and they're now fully admitted into the
5 record.

6 BY MS. BOYD:

7 Q Mr. Chernick, did you also file Joint Testimony
8 with Ellen Hawes on March 10th in support of the
9 settlement achieved by Energy Future Coalition?

10 A (Chernick) I did.

11 Q Is that testimony what has been marked Exhibit
12 4?

13 A (Chernick) Yes.

14 Q Do you have any changes to that testimony?

15 A (Chernick) No, I don't.

16 Q So if I were to ask you the same questions now
17 that are in that Supplemental Prefiled
18 Testimony, would your answers be the same?

19 A (Chernick) Yes.

20 Q Ms. Hawes, can you please state your full name
21 and title?

22 A (Hawes) My full name is Ellen Booth Hawes
23 Hobson, and I am a senior analyst at Acadia
24 Center.

{WITNESSES: Chernick-Hawes}

1 Q But you go by Ellen Hawes professionally?

2 A (Hawes) I do.

3 Q Do you have before you what has been marked as
4 Exhibit 57 and 58?

5 A (Hawes) I do.

6 Q Is this your Rebuttal Testimony and the exhibits
7 thereto?

8 A (Hawes) It is.

9 Q Do you have any corrections to this testimony?

10 A (Hawes) I do not.

11 Q So if I were to ask you the same questions now
12 that are in your rebuttal testimony, would you
13 give the same answers?

14 A (Hawes) I would.

15 MS. BOYD: I move that Ms. Hawes' Rebuttal
16 Testimony be submitted to the record.

17 PRESIDING OFFICER HONIGBERG: Seeing no
18 objection, ID will be struck on those exhibits
19 and they're admitted.

20 BY MS. BOYD:

21 Q Finally, do you have before you what has been
22 marked as Exhibit 4?

23 A (Hawes) I do.

24 Q Is this your Supplemental Testimony of March 10,

{WITNESSES: Chernick-Hawes}

1 2017, in support of the Energy Future Coalition
2 Settlement?

3 A (Hawes) It is.

4 Q Do you have any changes to that testimony?

5 A (Hawes) I do not.

6 Q So if I were to ask you the same questions now
7 that are in your Supplemental Prefiled
8 Testimony, would your answers be the same?

9 A (Hawes) They would.

10 MS. BOYD: I move that the Supplemental
11 Testimony of Chernick and Hawes be admitted to
12 the record.

13 PRESIDING OFFICER HONIGBERG: Seeing no
14 objection, Exhibit 4 is admitted.

15 BY MS. BOYD:

16 Q Mr. Chernick and Ms. Hawes, are you now prepared
17 to discuss the settlement regarding which your
18 previously filed Joint Testimony, including the
19 reasons why you hold the position that the terms
20 of the Settlement Agreement satisfy the
21 requirements of House Bill 1116 and the order
22 initiating this Commission proceeding and are
23 just and reasonable and in the public interest?

24 A (Hawes) Yes. We are.

{WITNESSES: Chernick-Hawes}

1 Q Please do so.

2 A (Hawes) Good morning, members of the Commission,
3 staff and attorneys. Thank you for having me
4 here this morning.

5 The larger Energy Future Coalition panel on
6 Monday summarized our joint settlement proposal
7 so today I will focus on why this proposal is
8 reasonable from the perspective of Acadia
9 Center. We are a nonprofit that focuses on
10 energy policy advocacy and data analysis. Our
11 interest centers not on the impacts to the solar
12 companies and their investment opportunities,
13 but on a sensible transition to energy policies
14 that enable the integration of distributed
15 energy systems of all types in a manner that
16 protects both utility and consumer interests.

17 Any net metering tariff to an overall
18 energy policy that promotes consumer friendly
19 rate design, provides incentives to use energy
20 wisely, gives consumers control of energy bills,
21 and fully accounts for the economic costs and
22 benefits of a distributed generation.

23 I believe that the EFC proposal
24 accomplishes this by laying out a clear path to

{WITNESSES: Chernick-Hawes}

1 a data-driven credit system with a series of
2 easy-to-understand incremental steps.

3 The Utility panel yesterday highlighted
4 that they had thought through the implementation
5 and practicality of their proposal. We have
6 done so as well. We know that our approach is
7 implementable. Moreover, we have also thought
8 through the impact on consumer-generators, on
9 the future of distributed renewable resources
10 and on New Hampshire ratepayers.

11 To maximize long-term benefits, our
12 proposal moves towards a new tariff in Phrase 2
13 reflecting the value of DER and also the data
14 and experience from the pilots during Phase 1.
15 To move towards Phrase 2, the PUC must address
16 four key issues, and I will highlight how our
17 proposal does so.

18 The first issue is that we need to know the
19 value of DER. Current retail net metering
20 structure roughly approximates the value of
21 solar generation. In order to appropriately
22 encourage and reward customers to add the most
23 available types of distributed resources to the
24 grid, there is value in moving towards rate

{WITNESSES: Chernick-Hawes}

1 structures that can better account for the costs
2 and benefits to the grid and enable more
3 granular price signals.

4 We know that Distributed Generation, in
5 particular solar, reduces the cost of
6 generation, transmission and distribution for
7 all customers. Depending on the circumstances,
8 those benefits may be higher or lower than the
9 retail energy rates for various tariff classes.

10 The benefits of Distributed Generation are
11 driven by marginal costs while utility rates are
12 driven by embedded costs.

13 The pattern of load reductions from
14 Distributed Generation over the course of the
15 day and the year differs from the patterns of
16 loads at the various rate classes which also
17 vary among themselves.

18 The average kilowatt hour generated by
19 rooftop solar installation may reduce some cost
20 components by more than the energy rate, but
21 reduce other cost components by less than the
22 energy rate.

23 Different Distributed Generation
24 installations provide different patterns of

{WITNESSES: Chernick-Hawes}

1 output, and, hence, different benefits. For
2 solar installation, for example, west facing
3 panels produce more variable energy in general
4 than east facing panels. The value of storage,
5 either freestanding or integrated with solar
6 generation, can be even more variable depending
7 on how it is operated.

8 The second key issue is the fact that we
9 need to conduct studies and pilots. Our
10 proposal includes data collection, pilots and
11 studies designed to help us move towards the
12 Phrase 2 rate structure that more accurately
13 compensates customers with generation based on
14 their value to the grid.

15 The most important study in Acadia Center's
16 estimation is the value of DER and also the
17 requirement that it evaluate the long-term
18 value.

19 Acadia Center also believes strongly in the
20 importance of the pilots put forward in the
21 proposal. The pilots will dovetail well
22 time-wise and substantively with the State's
23 already ongoing grid modernization efforts.
24 Acadia Center and CLF are both involved in those

{WITNESSES: Chernick-Hawes}

1 efforts and urge the Commission to take
2 advantage of the synergies between these two
3 related areas of state policy in the interest of
4 saving time and reducing the overall burden on
5 the Commission while also ensuring coherence and
6 consistency. In particular, we support the
7 OCA's low to moderate income adder pilot, the
8 residential voluntary TOU pilot, the residential
9 voluntary smart home energy rate pilot, both of
10 which are designed to lead into the opt-in TOU
11 rates that we would propose begin in 2021. Also
12 important is the nonwires alternative pilot.

13 The GridSolar Boothbay Sub-region Smart
14 Grid Reliability Pilot I referred to in my
15 written testimony demonstrate the potential of
16 such pilots in New Hampshire. In that
17 particular pilot, the short-term or direct
18 savings were roughly 12.5 million, but the
19 commercial life of the avoided transmission
20 upgrade is 45 years. So over that 45-year
21 period known as the book life of the
22 transmission line, the cost to ratepayers would
23 have been about 76 million, according to the
24 Utility. So with those numbers, the long-term

{WITNESSES: Chernick-Hawes}

1 savings would have been around 70 million.

2 This is also a good example of how this
3 pilot was done of how NTAs like DER can be used
4 in a way that makes them dispatchable, and this
5 is why conducting an NTA pilot in New Hampshire
6 is crucial in taking NTAs from a theoretical
7 concept to the end state necessary to
8 consistently meet grid reliability requirements.
9 This also points to the advantage of nonwire
10 solutions. Not only are they lower cost and
11 cleaner, but they can be dynamically scaled to
12 match need as it arises, helping avoid stranded
13 costs. Transmission upgrades are enormously
14 expensive and once built become a sunk cost. If
15 it turns out that the new line was not needed,
16 it still stays in the rate base and ratepayers
17 still pay for it.

18 Our proposal has a timeline for data base
19 export rates to take effect in 2021. That
20 target, we feel, balances the need for enough
21 time to conduct pilots and studies with the
22 desire expressed to move forward expeditiously.

23 The proposal also switches immediately from
24 energy credits to monetary crediting so as to be

{WITNESSES: Chernick-Hawes}

1 able to apply an export credit different from
2 the retail rate. Monetary crediting will also
3 support time-varying rates when the Commission
4 chooses to implement such rates.

5 A third key issue is we need to find a way
6 to transition through Phase 1. In order to
7 reflect the desire to move forward immediately
8 without waiting for the results of studies that
9 will guide the development of Phase 2 rates.
10 Our settlement offers a Phase 1 transition
11 process which subtracts several cost components
12 from the credit for energy exported to the
13 Utility, motivated by a belief that these costs
14 are not avoided by Distributed Generation as
15 well as by a concern that all customers continue
16 to support objectives including low income
17 ratepayer support and energy efficiency
18 programs.

19 It also in Phase 1 reduces export credit by
20 25 percent of the distribution component for
21 projects joining the connection queue after
22 August 2017, and by 50 percent for those joining
23 in 2019 and 2020. These distribution discounts
24 are offered in the nature of a settlement

{WITNESSES: Chernick-Hawes}

1 compromise.

2 These values may well result in
3 compensation for net exports to the grid that is
4 less than the value of solar generation for
5 common installations.

6 And the last key issue revolves around new
7 meters and netting. As has been discussed
8 because our settlement proposes to exclude from
9 the credit value of all exports a set of
10 nonbypassable charges, two channel meters are
11 needed and will be straightforward for this
12 purpose.

13 We also propose that the monthly bill or
14 export credit be computed on a monthly basis,
15 matching the billing interval as a difference
16 between energy delivered to the customer and
17 energy delivered by the customer to the
18 distribution system. This computation is also
19 straightforward with the two channel metering
20 that Utilities have been using for net metering
21 customers.

22 As customers transition to time-varying
23 rates in 2021, after the completion of a time of
24 use pilot or as determined by the Commission,

{WITNESSES: Chernick-Hawes}

1 the netting computation should, in our opinion,
2 be conducted for each time of use period. For
3 example, the energy purchased in the off peak
4 period would be netted against the energy
5 supplied in the off peak period in the billing
6 cycle.

7 Acadia and CLF strongly support the clear
8 trajectory of this settlement, not only towards
9 value-based rates but also actionable price
10 signals including time sensitive rates.

11 I now defer to Paul Chernick to discuss how
12 behind-the-meter solar generation impacts cost.

13 A (Chernick) Good morning, Commissioners. In the
14 course of this hearing you've heard two stories
15 about how the timing of solar generation
16 coincides with the loads that drive utility
17 costs. One of those stories has been based on
18 the factual reality of the timing of the --

19 (Discussion off the record)

20 A (Chernick) Good morning, Commissioners. You've
21 heard two stories about the timing of solar
22 generation and how it coincides with the loads
23 that drive utility costs. One story has been
24 based on the factual reality of the timing of

{WITNESSES: Chernick-Hawes}

1 the ISO's annual system peaks, the monthly
2 transmission network peaks, the substation
3 peaks, the feeder peaks and the drivers of other
4 ISO charges. The reality as shown in my
5 testimony among other places is that solar
6 reduces utility costs and costs for all New
7 Hampshire customers.

8 The other version that you've heard
9 consists of unsupported assertions, claims that
10 solar does not affect the generation and
11 transmission peaks, that solar cannot reduce the
12 need for distribution, that solar generation
13 occurs at times of low energy costs. The
14 written record has already disproven these
15 assertions, yet you've continued to hear them as
16 recently as yesterday.

17 The Utility witnesses incorrectly claimed
18 that the ISO New England annual peaks occur in
19 the evening after work hours and that the 3 p.m.
20 peak in 2016 was some sort of anomaly. My
21 Direct Testimony filed in this docket, which
22 they had all seen or should have seen, showed
23 that every peak load from 2000 through 2015 fell
24 between noon and five p.m., all in the summer.

{WITNESSES: Chernick-Hawes}

1 All high solar hours. 11 of those occurred
2 between 2 p.m. and 3 p.m. as did the 2016 peak.
3 That brings it up to 12 in the last 17 years at
4 that particular hour. So 2016, far from being
5 anomalous, was a completely typical year in
6 terms of the timing of the ISO peak, and
7 everything you heard from the Utility witnesses
8 yesterday was mere obfuscation.

9 As a result of the timing of the solar
10 generation, behind-the-meter solar impacts a
11 wide variety of local and regional costs that
12 are reflected in the bills of New Hampshire
13 ratepayers. Generation energy, generation
14 capacity, transmission, distribution, and a
15 handful of smaller charges from the ISO.

16 The savings from an average kilowatt hour
17 of solar generation compared to the cost of
18 serving the average kilowatt hour used by a
19 residential customer, the relationship between
20 those two vary depending upon the cost component
21 you're looking at. For generation energy, the
22 value of solar is about equal to the cost to the
23 customer. Solar output is concentrated in the
24 higher priced peak hours as illustrated by the

{WITNESSES: Chernick-Hawes}

1 Utility's Exhibit 67, that very pretty curve,
2 and solar generation reduces the market energy
3 price paid by all customers and line losses as
4 well.

5 Generation capacity value, on the other
6 hand, for solar is much higher than the cost to
7 customers per kilowatt hour because the capacity
8 bill for the entire year is a result of the load
9 on the New England peak hour which as we've seen
10 occurs in the afternoon on some hot summer days,
11 sunny summer days, and Exhibit 71, that
12 presentation on the draft 2017 CELT forecast,
13 shows that there could be a substantial
14 contribution from solar to reducing peak loads
15 even on a day with thunderstorms, many of which
16 affected Massachusetts and Vermont which are
17 sort of the heartland lane of solar in New
18 England.

19 The net metered solar has contributed to
20 reducing the clearing prices paid by all New
21 England customers, including New Hampshire
22 customers, in the last couple of capacity
23 auctions. In the 2017 auction for delivery in
24 2020 and '21, the last 748 megawatts of

{WITNESSES: Chernick-Hawes}

1 resources which would be about 650 megawatts of
2 load reductions saved New England customers
3 about 64 million dollars or roughly \$100 a
4 kilowatt of load reduction. And
5 behind-the-meter PV reduced the 2016 peak by
6 over 700 megawatts. So we're talking about
7 behind-the-meter solar essentially saving the
8 New England customers on the order of 60 million
9 dollars, and actually the previous year the
10 value for every kilowatt of load reduction was
11 even higher, and that is a benefit to everybody,
12 not just the solar customers.

13 Moving on to transmission, the value of
14 transmission reductions from solar is higher in
15 the summer and lower in the winter. At least
16 that's true for Eversource and Unitil. We don't
17 have data from Liberty. So Mr. Brown's sweeping
18 assertion that solar does not reduce the charges
19 for transmission or from some other cost
20 category that he called demand charges is simply
21 incorrect.

22 For distribution, we have somewhat limited,
23 quite limited information from the Utilities on
24 the timing of the peak loads of their

{WITNESSES: Chernick-Hawes}

1 distribution equipment. From what we have,
2 solar is very valuable. For the Liberty feeder
3 data that they gave us, solar contributes more
4 to load reductions on the feeder peaks than the
5 customer usage would contribute per kilowatt
6 hour.

7 And for the Eversource substations, the two
8 are about the same. It's greater in the summer,
9 lower in the winter. It would be nice to be
10 able to compile the missing data, data from
11 Unitil, for Liberty substations, for Eversource
12 feeders during the study period leading up to
13 setting value base rates. It's probably
14 essential that the utilities get those data
15 together.

16 Portions of all these costs accrue to the
17 other customers, to those that don't have
18 rooftop solar. The generation energy side solar
19 helps to suppress prices and changes the New
20 Hampshire load shape, reducing the amount of the
21 profiled loads that occur in the expensive
22 onpeak hours each month, and those proxy load
23 shapes are used for all the customers who don't
24 have interval meters which would mean all the

{WITNESSES: Chernick-Hawes}

1 residential and small commercial.

2 For generation capacity, again, you have
3 the price lowering and the improved load factor
4 for the proxy loads. For transmission, you're
5 reducing the allocation of the transmission
6 network costs to the New Hampshire Utilities and
7 you're avoiding some additions that are going to
8 be paid for by everybody. And for distribution,
9 you're avoiding the future investments in
10 helping your existing equipment last longer.

11 So as a result of all this, there's a
12 significant value to the nonsolar customers from
13 the existence of the net meter generation, and
14 under the existing net metering rules, the
15 Utilities' lost revenues have been de minimis,
16 and those are offset by that range of benefits
17 that reduce cost to the customers who don't have
18 net metering.

19 The Utilities haven't done any analysis to
20 try and demonstrate that their concerns about
21 cost shifting are justified. So we don't even
22 really have a full-fledged analysis from the
23 Utilities making a case for the problem that
24 they say exists.

{WITNESSES: Chernick-Hawes}

1 Our settlement proposal reduces
2 compensation for net metering so the net
3 benefits to the non-net metering customers would
4 rise. There's no evidence that the status quo
5 creates any cost shift, and there's no problem
6 to be solved. Our proposal builds in a safety
7 margin which should protect non-DG customers
8 until more data are available in just a few
9 years.

10 We'll now move to the critique of the
11 Utility proposal.

12 PRESIDING OFFICER HONIGBERG: That wasn't a
13 critique of the Utility proposal?

14 A (Chernick) No, that was talking about how
15 wonderful our proposal is.

16 But let me start by saying that there are
17 several similarities between the Utilities'
18 proposals and the EFC joint proposal, including
19 the designation of some nonbypassable charges,
20 migration to monetary crediting, and commitment
21 to gathering additional data.

22 The settlements differ in just a few key
23 areas in which the Utility proposal would
24 prevent New Hampshire from implementing the

{WITNESSES: Chernick-Hawes}

1 level of distributive resources that would
2 maximize benefits to the grid and to ratepayers.

3 Now, I'm just going to talk about one of
4 those and then hand this off to Ms. Hawes. And
5 that problem is that the Utility proposal
6 improperly assumes zero distribution benefit.
7 The Utilities really haven't participated in
8 this process in quantifying distribution
9 benefits. They've simply insisted that the
10 benefits are zero, despite the fact that all of
11 the available data demonstrates that solar DG
12 has substantial benefits.

13 As a result of that argument or connection
14 with the proposed dramatic cuts to compensation
15 for exports from the customer-generators to
16 distribution system, again, without any cost
17 justification and before the gathering of the
18 data that would be necessary to support any
19 major change in the status quo.

20 Now, it is possible that a careful analysis
21 will lead to value-based export compensations
22 that is significantly lower than the existing
23 net metering arrangement, but that should be the
24 result of the analysis, not just assumptions

{WITNESSES: Chernick-Hawes}

1 that are just drawn out of thin air. And if the
2 Utility start cooperating in data gathering and
3 analysis, it's reasonable to expect that
4 value-based rates can be in place in a few
5 years.

6 If it turns out that the utility claims are
7 correct, the Commission can reduce the export
8 credits. If the Utility is wrong, as we
9 believe, the new export credit in, say, 2021
10 would be higher than the Phase 1 rates they've
11 proposed, and now I'll pass it back to Ellen.

12 A (Hawes) Thank, you Mr. Chernick. Since it is
13 not clear whether the current compensation is
14 higher or lower than the system benefits, any
15 large change in compensation is unwarranted.
16 Gradualism is a key component of rate design and
17 should govern here, too. The Utility proposal
18 to change from monthly net metering which
19 corresponds with the billing interval of
20 customers to 2-way metering, frequently referred
21 to as instantaneous netting in this proceeding,
22 would be unworkable, inefficient and we also
23 believe unreasonable. It is not a moderate
24 proposal. It's an extreme proposal that moves

{WITNESSES: Chernick-Hawes}

1 from no cost signal to a potentially bad cost
2 signal that incentivizes the wrong behavior to
3 the extent customers are even able to understand
4 and access the data. It also proposes a
5 consumer protection issue to impose a cost that
6 consumers cannot predict or reasonably control.
7 This is in contrast to our proposal which seeks
8 to harmonize a transition to more granular
9 netting to the availability of more granular
10 data and rates.

11 No one, not the customer, the Utility nor
12 the Commission would be able to anticipate or
13 estimate the bill effect of adding solar
14 generation for that customer under the Utility
15 proposal. Generating energy in the instant when
16 the customer's load is low, perhaps as a
17 refrigerator cycles off, would result in much
18 lower compensation than when the customer's load
19 is high, perhaps as it cycles back on. No
20 customer has the data necessary to assess this
21 detailed correlation of load and generation.
22 The Utilities do not even have hourly load
23 profiles for most customers, let alone profiles
24 of load by the minute or second. The Utilities

{WITNESSES: Chernick-Hawes}

1 do not have enough data to determine the typical
2 effect of their proposal on compensation. This
3 uncertainty would create an avoidable market
4 barrier to adoption of cost effective
5 Distributed Generation impeding an option for
6 reducing New Hampshire ratepayers electric
7 bills.

8 The Utility panel may have been correct
9 that their proposal is easy for customers to
10 understand, but it is literally impossible for
11 the customers to evaluate the effect of the
12 metering proposal on the economics of installing
13 DER. The Utility metering scheme would
14 arbitrarily reduce compensation to DG customers
15 for variation of net generation on time scale,
16 the seconds and minutes that have no effect on
17 the Utility's costs.

18 It is through that on the scale of hours
19 the value of generation and the cost of
20 consumption vary, depending on the load on
21 various parts of the system. In their proposal,
22 though, the Utilities would vary compensation in
23 a manner completely unrelated to cost.

24 Instantaneous netting provides an incentive

{WITNESSES: Chernick-Hawes}

1 for customers to maximize the percentage of
2 Distributed Generation energy that they consume
3 rather than allowing it to flow back to the
4 utility. The utility panel described this as a
5 benefit of their proposal, but we believe it is
6 actually a major defect of the proposal.

7 The solar generation patterns maximizing
8 the self-consumption would require customers to
9 schedule as much of their discretionary load as
10 possible during peak hours, increasing rather
11 than decreasing system costs. As storage
12 becomes more affordable, the Utility proposal
13 would encourage customers to charge their
14 storage capacity when the sun is shining in peak
15 hours and use the stored energy at lower value
16 hours rather than using the storage to provide
17 system benefits.

18 Again, the utility panel asserted that they
19 favored rate design that encourage customers to
20 install storage and use that storage to shift
21 energy from when it is generated to when the
22 customers uses power. Since that would largely
23 mean that the energy would be shifted from
24 exporting during peak to reducing consumption

{WITNESSES: Chernick-Hawes}

1 during nighttime hours, the Utility approach
2 would reduce the value of solar to the Utilities
3 and their customers.

4 In fact, the Utilities' proposal would
5 negatively impact the value proposal of solar to
6 New Hampshire ratepayers as a whole in four main
7 ways. It would incentivize consumer generators
8 to consume at the wrong hours when putting
9 energy on the grid is most beneficial. It would
10 incentivize building smaller size systems to
11 maximize the amount of self-generated energy
12 they can consume, but this would lose economics
13 of scale. It would incentivize building fewer
14 systems because the value is so uncertain. And
15 finally, because of these three points, it would
16 increase the bills of all New Hampshire
17 ratepayers including those who do not have DG
18 but who substantially profit from benefits such
19 as the massive regional cost savings associated
20 with the peak load reductions depicted in the
21 recent CELT reports.

22 Finally, the Utilities do not propose any
23 time frame for transitioning to value-based
24 compensation or trajectory for introducing

{WITNESSES: Chernick-Hawes}

1 meaningful price signals designed to lower
2 bills. And regarding the value of distributed
3 energy resources study that they do include,
4 they propose that the Commission be limited to
5 considering realtime market prices, distribution
6 system needs and near term marginal costs and
7 that the Commission be prohibited from
8 considering any longer term cost in setting
9 rates for generation resources that will produce
10 decades of benefits. If the Utilities are
11 successful in suppressing DER, all New Hampshire
12 customers will have to bear the longer term
13 marginal costs. And this concludes our
14 statement so thank you for your time and
15 attention.

16 PRESIDING OFFICER HONIGBERG: Ms. Boyd?

17 MS. BOYD: They are now available for
18 cross-examination.

19 PRESIDING OFFICER HONIGBERG: All right. I
20 assume no one from the Coalition has questions
21 for these witnesses?

22 MR. BUXTON: That's correct.

23 PRESIDING OFFICER HONIGBERG: Thank you.
24 Who's next, Mr. Wiesner? Would that be

{WITNESSES: Chernick-Hawes}

1 Mr. Below or Mr. Rodier or Mr. Aalto?

2 MR. WIESNER: I think we would expect that
3 the opposing Coalition if they have questions
4 would take the first crack.

5 PRESIDING OFFICER HONIGBERG: All right.
6 So that would be Mr. Fossum or Mr. Sheehan or
7 Mr. Epler? Who has questions for the panel?

8 MR. FOSSUM: I have a few. Not a
9 tremendous number.

10 PRESIDING OFFICER HONIGBERG: You may
11 proceed.

12 MR. FOSSUM: Thank you.

13 **CROSS-EXAMINATION**

14 **BY MR. FOSSUM:**

15 Q Mr. Chernick, you said you have your Rebuttal
16 Testimony in front of you, Exhibit 59?

17 A (Chernick) Yes, I do.

18 Q Can I ask you to look at page 2 of that
19 testimony.

20 A (Chernick) I have that.

21 Q Now, is it correct to say that the bulleted
22 items that appear on that page are a listing of
23 what you contend are various errors committed by
24 the Utilities in some of their analyses?

{WITNESSES: Chernick-Hawes}

1 A (Chernick) Yes.

2 Q Looking at the bullet that appears on line 7 and
3 following, in that bullet, it says that one of
4 those errors was that rather than analyzing
5 benefits at current or near term penetrations,
6 the Utilities had hypothesized conditions that
7 may occur many years in the future. Correct?

8 A (Chernick) Yes.

9 Q So is it your position that an analytical error
10 committed by the Utilities was to look far out
11 in the future in their analyses?

12 A (Chernick) No. That they're confusing the
13 effect of adding solar generation today that
14 will be on the system for, say, 20 years with
15 decisions that need to be made 10, 20 years from
16 now about adding additional solar after a lot
17 more solar has been added. So that, for
18 example, discussions of increasing cost due to
19 adding solar which assumed that or must assume,
20 as far as I can see, that the solar generation
21 is causing the distribution flows to go
22 backwards from the existing situation and
23 requiring either reinforcement of the system or
24 addition of new controls, that that assumes a

{WITNESSES: Chernick-Hawes}

1 very different world than the one we're in and
2 very different effects than you get from the
3 solar being added over the next five or ten
4 years.

5 Q Thank you. Now, I have a couple of questions
6 both about the Supplemental Testimony from you
7 and Ms. Hawes as well as some of it, I guess,
8 based on some of the comments you just made.

9 Is it your position that net metering rates
10 today are done on the base of cost causation, is
11 that how those rates are set?

12 A (Chernick) No. I think Ms. Hawes explained
13 quite clearly that the existing rates are a
14 rough approximation.

15 Q And correct me if I'm wrong, but in your
16 comments just a few minutes ago, one of your
17 contentions was that the rates proposed by the
18 Utilities are not cost based, and, therefore,
19 shouldn't be adopted. Is that an appropriate
20 summation of what you had said?

21 A (Chernick) I don't think so.

22 A (Hawes) I don't think so, and to clarify you're
23 talking about our comments on your proposal
24 here?

{WITNESSES: Chernick-Hawes}

1 Q Correct.

2 A (Hawes) I would say, specifically, we are saying
3 that what the Utilities are proposing for the
4 value of the distribution component, namely
5 zero, is not based on a cost/benefit analysis.

6 A (Chernick) Or any reference to the data.

7 Q The 75 percent and 50 percent referenced in your
8 testimony, are those cost-based analyses? Are
9 those based on a cost-based analysis? Sorry for
10 the complex question.

11 A (Hawes) No. I think as I mentioned in the
12 statement that those were also offered in the
13 nature of a settlement compromise, and we feel
14 with the evidence on the record from Mr. Beach
15 showing that roughly 50 percent of value that in
16 the nature of a fair settlement offer that
17 reducing to 50 percent now in the absence of
18 data is more reasonable than going to zero
19 percent in the absence of data.

20 Q And Ms. Hawes, I believe in your comments near
21 the end, you had stated that, and correct me if
22 I'm wrong, one of the issues as you saw it with
23 the Utility proposal is that it would incent
24 customers to build smaller systems. Did you, in

{WITNESSES: Chernick-Hawes}

1 fact, say that?

2 A (Hawes) That is, in fact, what I said.

3 Q So is it your position then that there should be
4 an incentive for customers to be building larger
5 systems?

6 A (Hawes) Well, I think our goal in all of this is
7 to move to a Phrase 2 system that is accurately
8 quantifying the value to the grid, and insomuch
9 as it is more solar is providing more value to
10 all ratepayers, then more would be better, but
11 certainly we don't also want to overvalue. We
12 want to find the correct value and the correct
13 incentive.

14 A (Chernick) And for each installation, if you're
15 encouraging customers to use, to put in smaller
16 amounts of solar, and some of the costs are
17 fixed, you're going to wind up with more
18 expensive installations per kilowatt hour
19 produced per kilowatt of peak load reduction and
20 so on.

21 Q But would it be the case that if systems are
22 built to take advantage of the economies of
23 scale and to avoid some of those impacts that
24 customers would be by and large exporting far

{WITNESSES: Chernick-Hawes}

1 greater amounts of energy than they would
2 otherwise?

3 A (Chernick) If the system is larger, the customer
4 will export more.

5 Q And in your mind, would that make these
6 customers closer to, I hesitate to use the term,
7 but I'll use it, closer to merchant generators
8 than customer generators?

9 A (Chernick) I don't think that somebody who has a
10 few kilowatts of solar on their rooftop is a
11 merchant generator. And a lot of what we're
12 talking about here doesn't apply to the very
13 large customers. So I don't see that that's a
14 good comparison.

15 A (Hawes) I mean, there are some project-sized
16 limitations in the statute, and I'm not a solar
17 installer, but there's certainly a physical
18 limitation to how many panels you can install on
19 your roof. So even if there were an incentive
20 to export more, I don't think we're talking
21 about a massive increase in the relative size of
22 the system.

23 Q Just a couple questions left. Looking at page 8
24 of your Supplemental Testimony, I believe it's

{WITNESSES: Chernick-Hawes}

1 Exhibit 4. Yes. Exhibit 4. And on lines 15
2 and through 17, there's a statement there in
3 transitioning to new rates or rate structures,
4 it's essential to prioritize simplicity, ease of
5 understanding, and predictability for smaller
6 customers. Do you see that statement?

7 A (Hawes) I do.

8 A (Chernick) Yes.

9 Q Now, earlier in your testimony, both written and
10 this morning, you recommended moving customers,
11 and I believe it was all customers eventually to
12 time of use rates, is that correct?

13 A (Chernick) Yes. Whether it's all customers or
14 it's voluntary or it's limited to customers over
15 a certain size, that's yet to be determined.

16 Q Back on page 6 of Exhibit 4, you state there
17 should be a greater effort to move customers to
18 a, quote, more sophisticated tariff structure.
19 My question is just trying to understand if the
20 priority is to emphasize simplicity, ease of
21 understanding and predictability, how do you
22 square that with moving to time of use rates and
23 other as yet undefined, more sophisticated
24 tariff structures?

{WITNESSES: Chernick-Hawes}

1 A (Hawes) I can go first. It's obviously a
2 balance, and you think it's important to move to
3 these new rate structures in a phased approach
4 so customers do understand. And so for time of
5 use rates, it may be the most practical to move
6 to a simple onpeak/offpeak rate, opt in and then
7 opt out, and then in the future perhaps it would
8 be reasonable to move to realtime pricing.
9 That's not something that I think we have a
10 clear position on yet. But in all cases, as
11 you're moving to more sophisticated rates, it's
12 important that customers have the ability in
13 their meters to understand their usage and that
14 any price signal is actionable, that they can
15 actually realistically respond to it so yes, any
16 new, more sophisticated rate in granular data
17 needs to be faced in and you're not going to
18 move, jump right away to something that's
19 extremely complicated.

20 A (Chernick) And these principles that we lay on
21 page 8, I believe those are a fairly close
22 paraphrase of some of Bonbright's Principles of
23 Rate Design. And in going to time of use rates,
24 for example, many Utilities have first given

{WITNESSES: Chernick-Hawes}

1 customers parallel billing for a period of time,
2 perhaps a year, so that they can see when
3 they're using power, how much it's costing them,
4 whether they should be concerned about doing
5 things to move some of their usage out in the
6 peak period, and that's relatively
7 straightforward. You put on the time of use
8 meter that you're going to use when you have
9 gone to the rate, and you just do the parallel
10 billing for a period of time so that customers
11 understand and can predict the effects on their
12 bill. You can't really do that for the
13 Utilities proposal because you'd have to put the
14 solar system on and then see how the customers
15 system operated with a very sophisticated,
16 either very sophisticated metering or just put
17 in the two-way meters and start charging them
18 basically.

19 Q I'm not quite sure I understand the distinction
20 you just made there. So under the, and I'm just
21 looking to understand your comment. Under the
22 parallel billing, I understood what you were
23 saying is that another meter would need to be
24 installed.

{WITNESSES: Chernick-Hawes}

1 A (Chernick) Just the new meters, not an
2 additional meter.

3 Q So an additional meter would need to be
4 installed and customers would need to be
5 provided for, say, a year essentially two bills,
6 maybe on one piece of paper, but essentially two
7 separate bills. And that to you is a reasonable
8 and appropriate thing. But putting on another
9 meter to do the same thing for the Utility
10 proposal to measure usage and provided
11 information to customers is not a reasonable
12 thing?

13 A (Chernick) Well, you would have to do that and
14 also put solar panels on so that would you see
15 how much power was actually being generated
16 minute by minute or I guess you wouldn't
17 actually see that. You'd just see the result in
18 the amount of import and the amount of export.
19 You can't do that kind of parallel billing just
20 with the meter. You would have to have the
21 solar output to compare it to.

22 Q I see. Thank you.

23 MR. FOSSUM: That's all I have.

24 PRESIDING OFFICER HONIGBERG: Anyone else

{WITNESSES: Chernick-Hawes}

1 from the Utility/Ratepayer Coalition have
2 questions? Mr. Kreis?

3 MR. KREIS: Thank you, Mr. Chairman.

4 **CROSS-EXAMINATION**

5 **BY MR. KREIS:**

6 Q Good morning, witnesses. Let me start by
7 thanking you for your testimony. I guess I
8 might be stating the obvious, but I think it's
9 helpful to hear your perspective in a case like
10 this because unlike some of the other, many of
11 the other parties you have no investors who
12 stand to either gain or lose by virtue of the
13 outcome in a case like this, and in that sense,
14 you are a lot like the Office of the Consumer
15 Advocate, and yet the Conservation Law
16 Foundation and the Acadia Center are on, you
17 signed on to one settlement proposal and we have
18 signed on to the other settlement proposal and
19 that contrast, I think, is worth exploring. And
20 I would like to understand a little bit more.
21 I'd like to have more of your perspective on why
22 you signed on to the proposal you signed on to,
23 and I did the opposite.

24 And I think, well, let me start with

{WITNESSES: Chernick-Hawes}

1 Mr. Chernick. Mr. Chernick, in your comments
2 this morning, you spent some time reacting to
3 testimony we heard yesterday from the witnesses
4 for the Utilities who were talking about the
5 system peak as it has occurred over the course
6 of the last decade or decade and a half. That's
7 what you were talking about.

8 A (Chernick) Yes.

9 Q And I hope this doesn't come across as a snarky,
10 question but assuming that you properly
11 characterized the Utilities' perspective on this
12 and maybe even accurately impeached their
13 contentions about that, how is that relevant or
14 how does that help the Commission decide between
15 the two settlement proposals that are pending
16 here?

17 A (Chernick) Well, in two ways. First of all, the
18 Utilities' general thrust that solar doesn't
19 really provide any benefits and there are these
20 massive subsidies to customers with
21 behind-the-meter solar, that's just not true,
22 and the Commission should know that's not true.
23 The credibility of the Utilities in terms of
24 their factual statements I think has been very

{WITNESSES: Chernick-Hawes}

1 badly damaged by some of the things that they've
2 said. They've not only failed to show any
3 interest in getting real data and doing serious
4 analysis, they've also simply said things that
5 are untrue.

6 Q I'm sorry. I didn't mean to interrupt.

7 A (Chernick) And so the implications are, one,
8 setting the distribution credit to zero is
9 completely baseless. Two, the suggestion that
10 net metering customers are currently greatly
11 disadvantaging other customers is not supported,
12 and, therefore, in my view, the Utility proposal
13 doesn't really have a justification.

14 Q Mr. Chernick, you are aware, are you not, that
15 the proposal you were just describing is not
16 limited to Utilities in terms of those that are
17 signed on.

18 A (Chernick) That's true. You've signed on to it
19 as well.

20 Q And I, in fact, are not the only other party
21 that has signed on to that proposal.

22 A (Chernick) That's, I believe, I'm aware of one
23 other individual. I'm sorry. It's an
24 association that signed on. Yes.

{WITNESSES: Chernick-Hawes}

1 Q You're aware that the Office of Energy and
2 Planning has also signed on to the proposal?

3 A (Chernick) I was not aware of that.

4 Q Does that proposal ask the Commission to
5 conclude that solar doesn't provide any
6 benefits?

7 A (Chernick) Well, if it does provide benefits for
8 distribution, you wouldn't set the distribution
9 values to zero.

10 Q Would you say that setting the distribution
11 credit to zero is a full and accurate statement
12 of the compensation that customer-generators
13 would receive for their exports under the
14 Utility/Consumer proposal?

15 A (Chernick) You mean there are other charges that
16 they would get compensated for.

17 Q Correct.

18 A (Chernick) Yes. You're correct about that.

19 Q And would you agree with me that the
20 Utility/Consumer proposal is in the nature of a
21 compromise with other parties?

22 A (Chernick) I'm not sure who it's a compromise
23 with.

24 Q Presumably the other parties that signed on to

{WITNESSES: Chernick-Hawes}

1 the Settlement.

2 A (Chernick) I'm sorry. Who --

3 MS. BOYD: Objection. He's asking for
4 speculation.

5 PRESIDING OFFICER HONIGBERG: I don't think
6 he's asking for speculation, but I think he has
7 confused the witness.

8 MR. KREIS: I'll withdraw the question.

9 Q Let me bounce back over to Ms. Hawes.

10 Ms. Hawes, you in your statement said that
11 you support, that's the word you used, the pilot
12 program that my office proposed with respect to
13 low income customers and community solar. Does
14 that mean that you believe that if the
15 Commission approves your settlement proposal
16 that the pilot program proposed by the OCA in
17 its Prefiled Direct Testimony would in fact go
18 forward?

19 A (Hawes) I think in both settlement exhibits the
20 actual details of what is in the pilots and
21 exactly how that's tying the Commission's hands
22 is a little vague. I think our intention was to
23 in the settlement detail that these are what we
24 feel are the most important pilots that should

{WITNESSES: Chernick-Hawes}

1 be considered by this task force. Whether in
2 what the Commission approves is, do they
3 necessarily say that that has to go forward or
4 not? I think some of that is up to the
5 Commission. I think we're merely saying that
6 this is an important pilot that we would
7 definitely like to see happen, but some of the
8 details are going to be decided by the task
9 force.

10 Q Thank you. Ms. Hawes, in your testimony, you
11 said you were describing some features of the
12 Utility/Consumer proposal. You said that the
13 rate design in that proposal is easy for
14 customers to understand but impossible for them
15 to evaluate. Did I hear that correctly?

16 A (Hawes) I think I said that the Utilities may be
17 right that it's easy to understand. I think in
18 that sense easy to see what they're proposing.
19 In terms of evaluating or just referring to the
20 actual economic impact caused by the individual
21 load and how that corresponds to the individual
22 generation, and the fact that that data is not
23 available, and so specifically that part would
24 make it difficult for them to evaluate ahead of

{WITNESSES: Chernick-Hawes}

1 time how their installation would impact their
2 bills.

3 Q Difficult for consumers to evaluate?

4 A (Hawes) Yes, the DG customer who is planning on
5 installing solar panels or other Distributed
6 Generation.

7 Q Do you have any experience in helping individual
8 customers evaluate whether to move forward or
9 not with a particular Distributed Generation
10 proposal?

11 A (Hawes) I do not. I am clearly not a solar
12 installer, but given that there is no data
13 available, I can't see how you would be able to
14 evaluate that.

15 Q I think this bounces back to Mr. Chernick. When
16 you were testifying, you said, and I guess both
17 of you could comment on this. Mr. Chernick said
18 there's no evidence of cost shift. That's
19 consistent with something that both of you have
20 said. Therefore, Mr. Chernick, you said there's
21 no problem to be solved, and I guess that's the
22 source of a fundamental disagreement between the
23 two parties that you represent and my office.
24 And so I'd like you to comment on this

{WITNESSES: Chernick-Hawes}

1 hypothesis, and I truly want to know what you
2 think about this.

3 Our perspective is that it doesn't make
4 sense to wait for there to be a problem to be
5 solved. That rather than assume there's no cost
6 shift, we should avoid a cost shift in the
7 future by dealing with the problem now. What is
8 wrong with that hypothesis?

9 A (Chernick) Well, that's sort of like locking
10 everybody up to make sure they don't commit any
11 crimes. Why not prohibit customers from doing
12 anything that would reduce their bill and
13 potentially shift costs. Why not prohibit
14 customers from insulating their houses because
15 that could shift costs. There are lots of
16 things you can do to proactively prevent people
17 from shifting costs, but I don't see that it's
18 warranted in a situation where there are clearly
19 benefits and within a few years we can have the
20 data necessary to determine whether there is a
21 shift, whether there's likely to be a shift in
22 the near future, and figure out how to mitigate
23 that. But right now we don't know whether other
24 New Hampshire customers are paying higher bills

{WITNESSES: Chernick-Hawes}

1 or lower bills because of the behind-the-meter
2 solar. So just assuming that it's a problem and
3 saying well, let's stop it, and that's clearly
4 the intention or certainly where the effect of
5 the Utility approach is unwarranted.

6 A (Hawes) Sorry. Would you like me to weigh in as
7 well?

8 A (Chernick) Sure.

9 A We may differ slightly there. I don't think
10 Acadia Center would say that no changes are
11 warranted. Regionally we are interested in
12 working proactively towards the VDER future. We
13 think that's the right way to go. I would just
14 say I don't think there's any evidence on the
15 record that this is an emergency, that there are
16 these huge cost shift that are happening that
17 outweigh any benefits. So we want to make sure
18 we don't do anything silly or totally arbitrary
19 or that would cause real harm to the industry in
20 this interim while we're moving towards Phase 2.

21 Q That's your assessment of the Utility/Consumer
22 proposal that it's silly and arbitrary?

23 A (Hawes) I was just speaking generally there. I
24 think arbitrarily saying that there is zero

{WITNESSES: Chernick-Hawes}

1 benefit to the distribution grid from
2 Distributed Generation is highly improbable. I
3 don't think that's where we will end up after
4 the results of the VDER study so I don't think
5 it's appropriate to move there now.

6 Q And Mr. Chernick, your perspective on the
7 Utility/Consumer proposal is that its intention
8 is to stop the development of solar or
9 Distributed Generation in New Hampshire? I'm
10 just reading back something you said.

11 A (Chernick) I think I corrected intention to the
12 effect. If you wanted to stop it, that would be
13 a pretty effective way of doing it. At least,
14 you'd slow it down a lot.

15 Q Presumably, the two of you are aware that the
16 Utilities abandoned some pretty extreme
17 positions that they took initially in this
18 docket, are you not?

19 A (Hawes) I guess, I think, I mean, we cannot
20 refer to settlement discussions here, but I
21 think the commonalities between the two
22 proposals are self-evident, and I think that
23 both sides are, we're doing some work on a good
24 faith effort. We just feel that this proposal

{WITNESSES: Chernick-Hawes}

1 that we signed on to was the more reasonable
2 approach.

3 Q Sure. And I want to make sure you understand --

4 PRESIDING OFFICER HONIGBERG: Let's go off
5 the record for a minute.

6 (Discussion off the record)

7 PRESIDING OFFICER HONIGBERG: We're going
8 to take this opportunity to take a short break,
9 and that will allow us to fix Commissioner
10 Scott's connectivity. And then we'll resume in
11 15 minutes. About quarter of.

12 (Recess taken 10:30 - 10:45 a.m.)

13 PRESIDING OFFICER HONIGBERG: Mr. Kreis?
14 I'm not exactly sure where we broke. You may
15 have been in midsentence for all I recall.

16 BY MR. KREIS:

17 Q I was not in midsentence because I was almost
18 finished with these two distinguished witnesses.
19 And let the record show that they laughed when I
20 called them distinguished.

21 A (Chernick) Always pleased by your excellent good
22 manners.

23 Q I'm nothing if not that. I think this is my
24 last question. Or this is I guess my last

{WITNESSES: Chernick-Hawes}

1 series, a very small number of questions.

2 The two of you are aware, are you not, of
3 the positions that the Utilities and the New
4 England Ratepayers Association took at the
5 outset of this docket in their initial Prefiled
6 Direct Testimony, are you?

7 A (Hawes) Yes.

8 A (Chernick) Yes. I'm not sure how much attention
9 I paid to the New Hampshire Ratepayers, New
10 England Ratepayers Association.

11 Q Well, if I told you that their proposal is that
12 customer-generators should receive a locational
13 marginal price and nothing more, you would
14 accept that, subject to check?

15 A (Chernick) Yes.

16 Q And if I told you that the Utilities' positions
17 involved things like demand charges and very
18 limited compensation for customer-generators
19 that is close to, if not identical, with the New
20 England Ratepayers Association proposal, you'd
21 agree with that, subject to check?

22 A (Chernick) Yes.

23 Q So would you agree with me that the
24 Utility/Consumer coalition proposal reflects a

{WITNESSES: Chernick-Hawes}

1 significant movement off of those initial
2 positions by those parties?

3 A (Chernick) It's an improvement, yes.

4 Q A significant improvement?

5 A (Chernick) I'm not sure how you measure
6 significance in this case. It's entirely
7 possible that the Utility proposal implemented,
8 that the Utility/Consumer proposal, excuse me,
9 if implemented in its current form would have
10 almost the same effect as the original Utility
11 proposals.

12 A (Hawes) I would also just note that this
13 Coalition settlement proposal is different than
14 the original positions of many of the parties as
15 well.

16 Q To be sure. In fact, I don't know. Let's try a
17 metaphor. If the Utilities in the New England
18 Ratepayers Association started in New York, and
19 if the solar companies started in San Francisco,
20 how close to meeting have they come, and where
21 are they geographically?

22 A (Chernick) You know, you might say that we're
23 all in the midwest somewhere, but that's a large
24 area.

{WITNESSES: Chernick-Hawes}

1 Q Would you agree with that, Ms. Hawes?

2 A (Hawes) That's a lovely metaphor that it's
3 difficult for me to give a precise answer to,
4 but I would also note that while it's great that
5 there's been a lot of movement towards the
6 center, it's not necessarily an indication of
7 how good the proposal is and how accurate it is
8 in terms of value.

9 Q Okay. Well, speaking from my outpost in Webber,
10 Kansas, I thank you for your answers to my
11 questions, and that's all I have.

12 A (Hawes) Thank you.

13 PRESIDING OFFICER HONIGBERG: All right.
14 Who's next? There's no one else from the
15 Utility ratepayer? Mr. Brown? Do you have a
16 question?

17 MR. BROWN: May I ask a a question?

18 PRESIDING OFFICER HONIGBERG: Get you to a
19 microphone then.

20 **CROSS-EXAMINATION**

21 **BY MR. BROWN:**

22 Q Thank you. I believe you categorized our
23 proposal as extreme. Is that fair?

24 PRESIDING OFFICER HONIGBERG: Mr. Brown,

{WITNESSES: Chernick-Hawes}

1 which proposal are you talking about?

2 Q Sorry. The Utility/Consumer proposal as
3 extreme?

4 A (Hawes) Yes. In my part of the statement I did
5 contrast it to how the Utilities coalition was
6 describing their own proposal in the panel
7 yesterday.

8 Q Okay. Are you aware that the Utility proposal,
9 Utility/Consumer proposal, calls for
10 compensating the energy at default rate for
11 Distributed Generation?

12 A (Hawes) Yes. I'm aware of that.

13 Q Are you aware of what the wholesale LMP price
14 was for 2016 last year?

15 A (Hawes) If you want to give that to me, I will
16 accept it, subject to check.

17 Q It was 2.8 cents a kilowatt hour. Are you aware
18 that the default service rates for Unitil,
19 Liberty and Eversource range from anywhere from
20 9 cents to 11 cents?

21 A (Hawes) Yes.

22 Q So would it be fair to say that compensating a
23 commodity for 2, 3, 4 times the market rate is
24 not necessarily extreme?

{WITNESSES: Chernick-Hawes}

1 A (Chernick) I don't think that you're comparing
2 two things that are comparable.

3 Q Okay.

4 A (Chernick) I mean, it's like saying well, if I
5 were in Gilmore, California, I could buy garlic
6 for five cents a pound, and, therefore, I'm
7 being overcharged by a thousand times when I go
8 to the supermarket in New Hampshire. If you
9 grow your own garlic, you avoid the New
10 Hampshire supermarket price, not some
11 theoretical price some place else. And in fact,
12 if New Hampshire customers had used less
13 electricity in 2016, they would have avoided
14 their default service price or their contract
15 price which includes a lot of things other than
16 the locational marginal price was set before the
17 locational marginal price was known and was the
18 real avoided cost for those customers for
19 reduced usage.

20 Q I think that's subject to debate, but okay.
21 Thank you.

22 PRESIDING OFFICER HONIGBERG: Mr. Voles?

23 MR. VOYLES: Thank you, Mr. Chairman. I'll
24 be brief.

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CROSS-EXAMINATION

BY MR. VOYLES:

Q Just a question posed to the both of you. Did I correctly hear that you considered the Utility and consumer proposal to be extreme?

MR. BOYD: Objection. Asked and answered.

MR. VOYLES: I'm moving off of it. It's simply a one-question confirmation.

PRESIDING OFFICER HONIGBERG: Asked and answer is not a legitimate objection. I mean, outside of a deposition or some other, I mean, it's repetitive, it's redundant, it's a waste of time. But yes, I think we all remember what they said.

MR. VOYLES: I ask your pardon for wasting your time.

BY MR. VOYLES:

Q Are you familiar with the Utility and consumer proposals grandfathering provisions?

A (Chernick) Yes. In general.

Q Okay. Just generally familiar with them, and are you familiar with how far they extend into the future?

A (Hawes) About 20 years?

{WITNESSES: Chernick-Hawes}

1 Q About 20 years. December 31st, 2040, was the
2 proposed term.

3 Are you also familiar with, we'll call it
4 the UCC, not to be confused with the Commercial
5 Code, the UCC proposals low to moderate income
6 customer pilot program? Are you familiar that
7 that's part of the proposal?

8 A (Chernick) We're familiar that that's part of
9 the proposal.

10 Q Just a question generally. How do those two
11 provisions fall into the characterization of
12 extreme and silly?

13 A (Hawes) I don't think I characterized the
14 proposal as silly. I think just as a
15 clarification, we're focusing in our statements
16 and testimony on the major differences, and so
17 when we are describing some of these provisions,
18 we're not talking about the areas of commonality
19 such as grandfathering where we all more or less
20 agree, I think. We're speaking mostly to
21 instantaneous netting and its impacts being
22 extreme for the customer side of things and also
23 contrasting it to the approaches in other
24 state's prior testimony has addressed many of

{WITNESSES: Chernick-Hawes}

1 which are still on monthly net metering.

2 So I would not say as a blanket statement
3 every single provision of the Utility/Consumer
4 Coalition is extreme or certainly not silly.

5 A (Chernick) Right, and I don't think we meant to
6 imply that this was absolutely the most extreme
7 position that the Coalition could have taken.

8 Q Great. We don't either as signatories to it so
9 I'm very glad to hear you say that.

10 Just to be go back to your characterization
11 of the proposal as locking people up before
12 they've committed a crime, does the
13 grandfathering provision in the agreement help
14 put your mind at ease in that respect?

15 A (Chernick) The grandfathering provision is a
16 good provision, and it's something that's
17 applied almost every place for changes in the
18 treatment of distributed generation.

19 Q So there's definitely --

20 A (Chernick) At least for small customers. But
21 the, I was talking about locking up the people
22 who would otherwise put on solar so that they
23 don't go out and do that because it's possible
24 that in the future we would find that there was

{WITNESSES: Chernick-Hawes}

1 some cost shift.

2 Q So there are substantial reasonable grounds
3 within the UCC's proposal?

4 A There are some aspects of the UCC's proposal
5 that are reasonable like the grandfathering of
6 the existing facilities, and I believe that our
7 statement listed some of the areas where the two
8 proposals overlap fairly closely.

9 Q Thank you for fielding my questions.

10 PRESIDING OFFICER HONIGBERG: Mr. Epler?

11 MR. EPLER: Yes. Thank you.

12 **CROSS-EXAMINATION**

13 **BY MR. EPLER:**

14 Q Morning, Mr. Chernick.

15 A (Chernick) Good morning.

16 Q How are you?

17 A (Chernick) All right.

18 Q It's been a long time. It's nice to see you
19 again. My understanding is that Unitil's
20 marginal cost of service study that was
21 submitted in Unitil's Rate Case was also
22 provided to you in discovery. Is that correct?

23 A (Chernick) I believe that's correct.

24 Q And did you have a chance to review that?

{WITNESSES: Chernick-Hawes}

1 A (Chernick) I believe I looked at it but quite a
2 while ago. I'm sorry.

3 Q Would you accept, subject to checking this, that
4 if you were to look at the direct customer cost
5 assigned to the domestic class which for Unitil
6 that's the residential class, make up
7 approximately 75 percent of the total
8 distribution cost that would be assignable to
9 the domestic class?

10 A (Chernick) I'm sorry. I would have to look at
11 the study, and like I said, I looked at it at
12 some point, I'm quite sure, but it was a while
13 ago and I've looked at a number of another
14 marginal cost studies for other cases in the
15 interim.

16 Q Well, in terms of directly assignable costs to
17 the customer, those would include items like
18 line transformers; is that correct?

19 A (Chernick) No.

20 Q You wouldn't assign line transformers directly
21 to the customer?

22 A (Chernick) No. Line transformers are, the costs
23 are driven largely by demand because you have to
24 size the transformer for the customers it

{WITNESSES: Chernick-Hawes}

1 serves. If customer loads are higher, you have
2 to put in more line transformers to pick up the
3 additional load and the rate at which the
4 transformer wears out depends on the level of
5 demands on it.

6 Q Wouldn't there be customer-related carrying
7 costs that would be assignable in the marginal
8 cost study directly to the customer?

9 A (Chernick) Well, I don't know about assignable
10 to the customer, but, I mean, there's the cost
11 of a meter, there's the cost of a service drop.
12 Not all customers require a separate service
13 drop. But there are some capital expenditures
14 related to connecting customers, and those would
15 have to their own service.

16 Q No further questions.

17 PRESIDING OFFICER HONIGBERG: Not sure
18 there's anybody left. No. On that other side
19 of the Utility, Mr. Sheehan or Mr. Aslin? All
20 right. I think that exhausts the entire group
21 that's here from that Settlement. Mr. Rodier,
22 you have a few questions for the panel?

23 MR. RODIER: Just a few.

24 PRESIDING OFFICER HONIGBERG: Find a

{WITNESSES: Chernick-Hawes}

1 microphone. Next to Mr. Sheehan.

2 **CROSS-EXAMINATION**

3 **BY MR. RODIER:**

4 Q I have a question for Ms. Hawes. It has to do
5 with, I think you were touching upon the
6 Boothbay project in Maine.

7 A (Hawes) Yes.

8 Q Solar project. And can everybody hear me? So
9 okay. I'll speak louder. In connection with
10 that, I think I heard you say, well, if we
11 build, something like if we, you know, rebuild
12 that transmission line from wherever it goes to
13 Boothbay, and then we, because of the
14 advancement of all the things that we're here
15 talking about, solar, grid modernization and all
16 that, that that line could become, what would
17 the wording, stranded? Did I hear that
18 correctly, what you were saying? Or not needed?

19 A (Hawes) Right. I think if it was built and it
20 turned out it was not needed, the cost to build
21 it then remain stranded costs in the rate base.
22 I think that's the part you're referring to.

23 Q Yes. And that was your point? What's the
24 point, very simply?

{WITNESSES: Chernick-Hawes}

1 A (Hawes) I think, there were several points in
2 referring to that pilot. I think one was just
3 showing the potential cost savings that could
4 result for testing out nontransmission
5 alternatives, and, two, generally just given the
6 results of that experience in the other state
7 that it is demonstrating cost savings, and I
8 think there was the general point of yeah,
9 nontransmission alternatives can be cheaper, and
10 they can be more variable responding up and down
11 to the demand and you're not building a huge
12 project physically with fixed-on costs so the
13 end it can result in ratepayer savings.

14 Q Okay. Now, did you go on from that, I
15 understand that point now. Did you go on and
16 say ratepayers would have to pay the stranded
17 cost?

18 A (Hawes) If a transmission project were built and
19 were also was overbuilt, then, yes, the
20 ratepayers would be on the hook for those
21 stranded costs.

22 A (Chernick) In other words, you wind up in the
23 situations not all the time, but it certainly
24 happens where you think that there's going to be

{WITNESSES: Chernick-Hawes}

1 load several years out, you start building an
2 additional line, building a substation. You
3 then find that the load doesn't materialize or
4 that efficiency programs have been more
5 effective and the load is not growing, and you
6 get the thing done and it works, it's in
7 service, but you didn't really need it. Or you
8 defer it a little bit with some targeted energy
9 efficiency or Distributed Generation, and then
10 you find that, lo and behold, you didn't need it
11 when you get out a couple years and situations
12 change.

13 Q In your career, haven't you testified on a
14 number of occasions that anything that's not
15 used and useful should not be recovered in
16 rates?

17 A (Chernick) Well, I don't, I don't think it's
18 that simple.

19 Q Okay. Let's leave it at that.

20 A (Chernick) Okay.

21 Q Ms. Hawes, my question for you, I think you were
22 just asked about the Utilities' opening bid in
23 the negotiations and the filing or whatever was
24 locational marginal price; do you recall that?

{WITNESSES: Chernick-Hawes}

1 A (Hawes) Yes. That was in a few of the proposals
2 or additional testimony.

3 Q Could that possibly, in your view, if that was
4 ever adopted by the Commission result in a
5 reasonable opportunity to invest in solar?

6 A (Hawes) At those levels, I don't think it would
7 be a reasonable opportunity. I think, more
8 importantly, I don't think it would be the
9 appropriate cost signal. I think as you move
10 forward into the future, you can start to break
11 down some of the energy supply cost into its
12 various component, but I don't think in any case
13 the LMP on its own would be the appropriate
14 credit value there.

15 Q Couple more questions. Having said that, the
16 lower bound here is probably, you know, two and
17 a half cents or whatever of the LMP, maybe with
18 some losses on it, my question to you is I've
19 seen a number of your studies like in Maine and
20 in Massachusetts, and you've come up with a
21 value for these resources of what, about 18
22 cents a kilowatt hour?

23 A (Hawes) Yes. Acadia Center has conducted a
24 number of value of solar analyses in the region

{WITNESSES: Chernick-Hawes}

1 which aren't currently in the record as
2 evidence, but with all of the components, it was
3 roughly equivalent to the retail rate.

4 Q Which is roughly what?

5 A (Hawes) It varies in each state.

6 Q Okay. Certainly a lot larger than LMP, loss
7 adjusted LMP, correct?

8 A (Hawes) Yes.

9 Q Ten cents a kilowatt hour?

10 A (Hawes) Yes.

11 Q I guess that is my point is there's a wide range
12 here of possibilities bracketed by the Utility
13 opening bid of LMP versus what you anyway have
14 pretty prominently said around New England to
15 regulators and everybody else that the value is
16 15, 18 cents a kilowatt hour. That would be
17 perhaps one of the counterarguments to just LMP;
18 is that correct?

19 A (Hawes) Yes, and we certainly think it points to
20 the need to conduct a detailed VDER study in New
21 Hampshire given that we think that the values
22 will be higher certainly than LMP.

23 Q So and then lastly, based upon what I think I
24 heard, sounds like you do believe there's really

{WITNESSES: Chernick-Hawes}

1 two main issues in this proceeding. You know,
2 one is the instantaneously versus monthly net
3 metering and the other is whether distribution
4 costs should be included in the compensation for
5 solar; is that correct?

6 A (Hawes) That's correct. And I would add I think
7 there's somewhat of a discrepancy in the
8 firmness of the trajectory towards Phrase 2
9 which we also think is an important issue.

10 Q Sure. I think this is my last question. Is
11 there any way to bridge that gap between, I
12 mean, in it's simplest sense, the dispute is
13 over a couple of big issues and a lot of perhaps
14 smaller issues, but with respect to the big
15 issues, any ideas or vision about how Solomon
16 could come down and take care of this so that
17 everybody could sing kumbaya after and be happy?

18 A (Hawes) We're here today to support our
19 settlement proposal which we think is eminently
20 reasonable. I'm sure there's a whole world of
21 reasonable ways to make this transition, but
22 currently, we feel like this is the best one on
23 the table so I would leave to the Commission.

24 Q So I suppose what you're saying is you think the

{WITNESSES: Chernick-Hawes}

1 Utilities have at this point, Utilities and
2 Consumers or I probably shouldn't say that, I
3 don't know, but the Utilities have come up and
4 you've come down and you think that basically
5 the Commission is going to have to make a
6 decision on that as to which way to go.

7 A (Chernick) The parties tried to get closer, and
8 I wasn't directly involved in those
9 negotiations, but I think a lot of work went
10 into that, and it didn't get anywhere. So I'm
11 afraid that, as far as I can see, the parties
12 have done as much as they can, and it's time to
13 pass it over to the Commission.

14 Q Yes. Okay. That's the way it looks, but
15 certainly there's been a lot of movement on each
16 side.

17 PRESIDING OFFICER HONIGBERG: Mr. Rodier,
18 I'm not sure how productive it is for you to
19 explore that with these witnesses further.

20 MR. RODIER: Yes, I agree.

21 PRESIDING OFFICER HONIGBERG: They don't
22 speak for an entire coalition, they have their
23 own opinions, and I think they've just expressed
24 them as to where things lie right now.

{WITNESSES: Chernick-Hawes}

1 MR. RODIER: You're right. Thank you.

2 PRESIDING OFFICER HONIGBERG: Every once in
3 a while.

4 Who's next. Mr. Below?

5 MR. BELOW: No questions. Thank you,
6 Mr. Chairman.

7 PRESIDING OFFICER HONIGBERG: Mr. Aalto, I
8 just want to make sure, you have no questions
9 for this panel?

10 MR. AALTO: No questions.

11 PRESIDING OFFICER HONIGBERG: Is there
12 anybody else out before Mr. Wiesner grabs the
13 microphone? Mr. Wiesner, you may proceed?

14 MR. WIESNER: Thank you, Mr. Chairman.

15 **CROSS-EXAMINATION**

16 **BY MR. WIESNER:**

17 Q Good morning, Mr. Chernick, Ms. Hawes. I want
18 to begin with a question directed to
19 Mr. Chernick. This is with respect to your
20 Direct Testimony which is Exhibit 22, and, in
21 particular, pages 9 and 10 and the table on page
22 10. I'll give you a moment to get there.

23 A (Chernick) I have that.

24 Q Thank you. This table, as I understand it,

{WITNESSES: Chernick-Hawes}

1 references ISO New England peaks for particular
2 years. My question is, do you know if those
3 peak hours identified for those years were days
4 that were sunny or partly cloudy or cloudy?

5 A (Chernick) I haven't checked the weather data
6 for those days. In my experience, it would be
7 very unusual to have a peak load for New England
8 on a day that was very cloudy because you
9 wouldn't have the heat buildup in especially
10 commercial buildings that tend to push us over
11 into the peak and homes as well.

12 Q But with respect to any particular hour, did you
13 perform any analysis of the level of insolation
14 for that hour, either based on weather
15 conditions or based on the time of day?

16 A (Chernick) I did not. If you'd like to make a
17 record request, I'm sure those data are
18 available.

19 Q I will not. Thank you. And just to clarify,
20 and I believe you may have corrected this for
21 your errata, but the allocation of transmission
22 costs by ISO New England is in fact based on ISO
23 New England's system peaks rather than monthly
24 zonal peaks; is that correct?

{WITNESSES: Chernick-Hawes}

1 A (Chernick) No.

2 Q That's not correct?

3 A (Chernick) No.

4 Q Please clarify.

5 A (Chernick) It's not, my mistake was that I
6 referred to the zones so I was under the
7 impression that New Hampshire was a transmission
8 zone. In fact, there are transmission networks
9 which are called local transmission networks,
10 but they're not particularly local. The one
11 that Eversource and Unitil are part of includes
12 Connecticut and western Massachusetts. Big
13 chunk of western Massachusetts. That's the old
14 Northeast Utilities service territory from
15 before Northeast Utilities merged into
16 Eversource. So that's the network whose peak
17 load drives the allocation of transmission
18 peaks. So whenever that system peaks, which
19 would be driven to a large extent by Connecticut
20 and to a lesser extent by New Hampshire and
21 western Massachusetts, that determines the
22 monthly contribution to each Utility's
23 obligation for transmission costs.

24 Q And in fact, the level of insolation may vary

{WITNESSES: Chernick-Hawes}

1 within a given hour based on geographic region,
2 would you agree with that?

3 A (Chernick) Yes. You could have a day that was
4 sunny in New Hampshire and cloudy in western
5 Massachusetts and sunny again in Connecticut.

6 Q Thank you. I want to turn now to your
7 Supplemental Testimony, and this is the Joint
8 Testimony of both witness so I'll just direct
9 the question to the panel and whoever is best
10 able to answer it can respond.

11 This is Exhibit 4, Supplemental Testimony.
12 I'm looking at page 5.

13 A (Hawes) I've got it.

14 Q In particular line 7 to 8 where it's recommended
15 that time-of-use rates be adopted for other New
16 Hampshire customers as well, not solely
17 customers with DER.

18 Did I correctly paraphrase that statement?

19 A (Hawes) Yes.

20 Q Thank you. My question is, does that mean that
21 the recommendation is that Phrase 2 as proposed
22 by the Energy Future Coalition not be
23 implemented until time-of-use rates are in place
24 for all New Hampshire customers?

{WITNESSES: Chernick-Hawes}

1 A (Hawes) I believe the intent of that sentence
2 was just to put it into context that we do want
3 to see as part of Phrase 2 the DER customers on
4 time of use, but that they also be, those opt-in
5 rates would also be available to other customers
6 as well.

7 Q So the recommendation is that those time-of-use
8 rates would be opt-in and would be available to
9 all customers at that time?

10 A (Chernick) I would say that our position is
11 actually somewhat broader than that. It's that
12 these parties see the future as moving towards
13 time-varying rates. We don't have firm
14 positions about exactly when, exactly for whom,
15 and even exactly what type of time-varying rate.
16 There are a number of options. We just wanted
17 to make it clear in that testimony that we're
18 not saying time-varying rates are somehow
19 uniquely suited to distributed energy resources;
20 that they would be good in a broader sense and
21 that requires additional analysis of for whom
22 and what kind of rate and how fast.

23 MS. BOYD: Can I just ask to clarify
24 whether the question and the answers in your use

{WITNESSES: Chernick-Hawes}

1 of "we," whether that's intended to apply to
2 just Acadia, CLF or the whole EFC Coalition?

3 A (Hawes) So that applies just to Acadia Center
4 and CLF. I mean, the coalition as a whole has
5 proposed a time-of-use pilot and envisions that
6 the Utilities develop optional time-of-use and
7 other rates that might come out of the smart
8 energy home pilot and that those be made
9 available perhaps starting in 2021. I think
10 that Acadia Center and CLF, this is a particular
11 area of interest for us, and we went into a
12 little bit more detail in our Supplemental
13 Testimony in terms of what we'd want to see in
14 time-of-use rates and time of use netting.

15 BY MR. WIESNER:

16 Q And I appreciate that clarification. So in
17 fact, it is not the position even of CLF or
18 Acadia Center that the Phrase 2 which is
19 proposed to be implemented in January 2021, if
20 I'm correct, under the Energy Future Coalition
21 is dependent upon time-of-use rates being
22 generally available to all New Hampshire
23 customers?

24 A (Hawes) No.

{WITNESSES: Chernick-Hawes}

1 Q Other on an opt-in basis or --

2 A (Hawes) Right, to clarify, no. It's not
3 dependent on that, and I think this just speaks
4 to the need to harmonize this process and Phrase
5 2 with the grid modernization process because
6 obviously those sorts of rates being available
7 to all customers are being discussed in that
8 proceeding as well.

9 Q Thank you. And moving down that page slightly
10 to lines 11 through 17, there is what I
11 understand to be a question and answer regarding
12 netting, netting over an applicable period once
13 time-of-use rates are available, and I
14 understand the recommendation here to be that
15 netting should be done on a time-of-use basis
16 when time-of-use rates are in effect, and it
17 says that the simplest verse of time-of-use
18 netting would be on a monthly basis. Is that a
19 fair summary?

20 A (Hawes) Yes, it's a fair summary.

21 Q Are there less simple but perhaps arguably more
22 accurate methods for netting over time-of-use
23 periods that have been considered by CLF and
24 Acadia?

{WITNESSES: Chernick-Hawes}

1 A (Hawes) No. I mean, I think as time-of-use
2 rates can be very simple to very complex. So I
3 think it's appropriate that the netting interval
4 match the level of complexity in the rates.

5 A (Chernick) So, if, for example, you had a
6 critical peak price where under certain system
7 conditions the price went up to, you know, 20
8 cents a kilowatt cents a kilowatt hour, 25 cents
9 a kilowatt hour or a dollar a kilowatt hour,
10 then you'd have another kind of charging you'd
11 have to think about, well, how do we deal with
12 netting for those conditions which are not a
13 fixed period. We're not trying to lay out a
14 full design here. We're talking about a general
15 direction and how we're thinking about it. But
16 the time-of-use rates would be developed in
17 Phase 1 leading up to Phrase 2, and we're not
18 trying to present a final recommendation here.

19 Q Okay. I appreciate that. One final question, I
20 believe, and this is a followup. Would it be
21 possible to have the netting within a particular
22 peak or off-peak period? So, for example, if
23 time-of-use rates had a peak period from, let's
24 say, 2 to 6 o'clock every weekday that's not a

{WITNESSES: Chernick-Hawes}

1 holiday, would it make sense, would it be
2 possible, would it be advantageous in some
3 respect to have the netting performed within
4 that peak period?

5 A (Chernick) I don't see a reason for that at the
6 moment, and it would require a lot more data
7 collection. You wouldn't just be reading off,
8 say, four numbers at the end of the month,
9 kilowatt hours out, kilowatt hours in, in the
10 off-peak, same thing for the on-peak. That's
11 four numbers. You'd have to have two numbers
12 for each of your periods for each of your days,
13 and I'm not sure what it buys you, but nobody's
14 mentioned it to me recently, and so I haven't
15 really thought it through in any great detail.
16 That's the kind of thing that would be useful to
17 think about over the next couple years.

18 Q Thank you.

19 MR. WIESNER: I have no further questions
20 for this panel.

21 A (Hawes) Thanks.

22 PRESIDING OFFICER HONIGBERG: Commissioner
23 Bailey?

24 COMMISSIONER BAILEY: Mr. Chernick, you

{WITNESSES: Chernick-Hawes}

1 said that movement from the Utilities would have
2 almost the same effect as their initial
3 proposal.

4 A (Chernick) I don't think I said that
5 definitively. I said it's possible that it
6 would have about the same effect. That their
7 proposal, their settlement appropriate and their
8 original proposals might both basically shut
9 down solar development for small customers.

10 COMMISSIONER BAILEY: I think I understand
11 how that might happen under their initial
12 proposal, but can you explain to me how that
13 might happen under the compromised proposal?

14 A (Chernick) Well for one thing, the compensation
15 would be much lower than it is currently, and,
16 secondly, it would be very difficult for
17 customers to anticipate what compensation they
18 would get because of the instantaneous net.

19 COMMISSIONER BAILEY: I understand the
20 second point, but the first point, the only
21 difference between their proposal and your
22 proposal is 50 percent of the distribution
23 charges.

24 A (Chernick) That's correct.

{WITNESSES: Chernick-Hawes}

1 COMMISSIONER BAILEY: Which is about two
2 cents a kilowatt hour.

3 A (Hawes) Can I clarify that?

4 COMMISSIONER BAILEY: Sure.

5 A (Hawes) It's a difference of 50 percent but
6 applied with a different netting regime. So a
7 50 percent cut in distribution applied with
8 monthly netting is a small amount whereas a 50
9 percent cut in the distribution part of the
10 export credit applied instantaneously is a much
11 larger amount.

12 A (Chernick) And very much variable between
13 customers.

14 COMMISSIONER BAILEY: Yes, I understand
15 that part of it. Okay. Thank you. That's all
16 I have.

17 PRESIDING OFFICER HONIGBERG: I want to ask
18 about the stranded cost concept again because
19 it's not clear to me that you're using that
20 phrase the way it has happened here in New
21 Hampshire where we have a lot of experience with
22 a particular type of stranded cost. Is what
23 you're saying is that a system will be overbuilt
24 and be used, useful, so it remains a rate base,

{WITNESSES: Chernick-Hawes}

1 but it was overbuilt so it will be, end up
2 paying more than we need to. Not true stranded
3 costs as we use them here in New Hampshire.

4 A (Chernick) It depends on what you mean by
5 stranded, I suppose. It's an excess cost, and
6 whether the Commission decides to let it into
7 rates or not, it will depend, I assume, on some
8 kind of determination of prudence and perhaps
9 your view of usefulness. It's certainly
10 possible to decide that just because electricity
11 flows through a transmission line, it's not
12 really useful because it would flow just as well
13 without that line, and you never really needed
14 it, and you've pulled the trigger on building
15 the line too fast.

16 PRESIDING OFFICER HONIGBERG: Well, until
17 that very last sentence, I was with you. But
18 pulling the trigger too early may still mean
19 that it is used and useful but maybe not, maybe
20 wasn't needed at that time.

21 A (Chernick) And maybe not prudent.

22 PRESIDING OFFICER HONIGBERG: And maybe not
23 prudent. So it would be whole other series of
24 discussions and may or may not end up with the

{WITNESSES: Chernick-Hawes}

1 type of stranded cost that this Commission has
2 been dealing with for literally decades.

3 A (Chernick) Right. It is not the same as you now
4 no longer have an asset. You've sold your
5 generating plant or you've retired a
6 transmission line and there are unrecovered
7 costs that need to be dealt with somehow. And
8 just for the record, I believe we were kind of
9 dragged into the stranded cost issue. It
10 wasn't, I mean, other than a very general
11 reference. We didn't really intend to make this
12 a seminar on stranded costs.

13 PRESIDING OFFICER HONIGBERG: Thank God.
14 That was the only issue I wanted to explore. My
15 other questions were answered. Ms. Boyd, do you
16 have any further questions for the witnesses?

17 MS. BOYD: No. We do not.

18 PRESIDING OFFICER HONIGBERG: All right. I
19 think the witnesses can return to their seats.
20 I see no reason not to press on at this point.

21 The next presentation comes from Mr. Below,
22 is that correct? While that's happening, I
23 guess I have a question since I see Mr. Rodier
24 approaching a microphone. Is the mechanism here

{WITNESS: Below}

CLIFTON BELOW, SWORN

DIRECT EXAMINATION

BY MR. RODIER:

1
2
3
4 Q Mr. Below, what is your name, position and who
5 are you appearing for?

6 A I am Clifton Cross Below, and I am a City
7 Councilor, and I am here on behalf of the City
8 of Lebanon pursuant to a unanimous vote of the
9 City Council for me to represent the City in
10 this proceeding.

11 Q Obviously, you've filed testimony in this
12 proceeding?

13 A Yes.

14 Q And has your Direct Testimony and attachments
15 been marked as Exhibits 25 and 26?

16 A Yes.

17 Q Okay. Do you have any changes to Exhibits 25
18 and 26 that we just talked about, your Direct
19 Testimony?

20 A I have just one minor correction in my Direct
21 Testimony. At page 16, line 444, the word
22 "form" should be "from." That's all in the
23 Direct Testimony.

24 Q Okay. Let me ask you, you have filed Rebuttal

{WITNESS: Below}

1 Testimony along with accompanying attachments?

2 A Yes, I did file rebuttal testimony.

3 Q And they've been marked as Exhibits 60 and 61?

4 A Yes. 61 are the attachments, yes.

5 Q And if you were asked the same questions today,
6 would you have the same responses?

7 A First I have a couple of minor corrections to
8 that testimony as well. Rebuttal testimony.

9 Q And those are Exhibits 60 and 61.

10 A Yes. Exhibit 60 at page 15, line 417. I'll
11 read the whole sentence. It starts on line 415.
12 It says this would still encompass most winter
13 evening hours when, it says peak is most likely
14 to occur. It should say when winter peak is
15 most likely to occur.

16 And then on page 17, at line 452, starts at
17 the end of line 451. Says BTM self-generation
18 does not directly involve the use of the
19 distribution system. It should read BTM
20 self-generation that offsets load in realtime
21 does not directly involve the use of the
22 distribution system.

23 Those are the only corrections I have. I
24 do in terms of the question of whether I would

{WITNESS: Below}

1 answer all the questions the same way, that is
2 almost true. There is one response that I gave
3 in my rebuttal testimony that if I was asked
4 today I would answer somewhat differently due to
5 sort of further information and further thinking
6 the issue through. And that is at the top of
7 page 13, the question is asked, what is your
8 view on the distribution Utilities treatment of
9 distribution rates and their proposed
10 alternative NM tariffs, and my answer was I
11 think Liberty Utilities' proposal to charge
12 existing distribution rates whenever power is
13 imported from the grid through a bidirectional
14 meter and not give a credit when power is
15 exported is reasonable and essentially the same
16 as what the City has proposed for its pilot.
17 And then I go on to talk about the benefits to
18 the distribution grid being likely to be highly
19 locational and temporally specific and also
20 pointing out that some generic aggregate credit
21 might be reasonable.

22 How I would answer that differently is,
23 first of all, I would not say it's essentially
24 the same as what the City has proposed. The

{WITNESS: Below}

1 City proposed an hourly netting based on an
2 hourly interval that would be used for realtime
3 pricing as well. And what I've come to realize
4 is that likely there's a significant different
5 effect between hourly netting and instantaneous
6 or no netting.

7 And then the question whether it's
8 reasonable, I think it's a reasonable place to
9 get to. I think, conceptually, the idea that
10 when you put power onto the grid that is being
11 consumed by somebody else who's paying
12 distribution for it is sort of generally
13 logically true that it doesn't make sense to
14 give a distribution tax credit for sending it
15 out which is not to say that I don't think there
16 isn't some value to that power on the
17 distribution grid. But that at this point, I
18 think that's, so I think that's a reasonable
19 goal. The lack of information is to the
20 consequences of that and the predictability of
21 it and the lack of sort of further analysis of
22 what sort of modest credit maybe there should be
23 I think suggests that it might be reasonable to
24 set that as a goal but it might be reasonable,

{WITNESS: Below}

1 more reasonable, to have an at least a couple
2 year transition so we can collect the data and
3 understand the impact of that transition.

4 Q Very good. So with the corrections that you've
5 made and with the clarification or expansion of
6 your testimony that you just made, do you adopt
7 your testimony on behalf of the City of Lebanon?

8 A I do.

9 Q Okay.

10 MR. RODIER: So Mr. Chairman, I'd like to
11 move the admission of Exhibits 25, 26, 60 and 61
12 as evidence?

13 PRESIDING OFFICER HONIGBERG: Seeing no
14 objection, we'll strike ID on those, and those
15 are full exhibits.

16 BY MR. RODIER:

17 Q Mr. Below, would you like to begin by providing
18 a critique of the two proposed partial
19 settlements and any analysis or recommendations
20 that you may have with the Commission with
21 regard to the findings and decisions that they
22 need to reach in this proceeding?

23 A Yes. I would. Thank you. Mr. Chairman,
24 Commissioner Bailey, let me say at the outset

{WITNESS: Below}

1 that as contentious as this proceeding has been
2 at times, all of the parties have moved
3 significantly from their original positions,
4 perhaps some more than others, but a good bit of
5 common ground and direction has been found.

6 I did fully participate in settlement
7 discussions, but in the end I concluded that I
8 could not support either proposal on behalf of
9 the City and its interest.

10 I think the Commission needs to strike a
11 new balance somewhere between the two proposals
12 to best achieve the legislative purposes stated
13 in HB 1116 that initiated this proceeding, and
14 support the just and reasonable findings that
15 need to be made. I hope I can provide you with
16 some useful guidance, and I appreciate the
17 opportunity to be heard today.

18 I'm going to start by zooming out to a wide
19 view before drilling down to specifics in the
20 proposed settlement. And I would just generally
21 reference my Direct Testimony from pages 1
22 through 6 when I give some background about sort
23 of how I came to this whole issue and field.
24 And just very briefly, when I was first elected

{WITNESS: Below}

1 to the house in 1992, the issue that we were
2 dealing with at that time, I was assigned to
3 Science, Technology and Energy was the aftermath
4 of the bankruptcy of PSNH and the rate path
5 which had annual, significant annual percentage
6 increases in the rates, and the fact that we
7 were headed quickly to the highest electric
8 rates in the nature which at some point in the
9 '90s we hit, even above Alaska and Hawaii.

10 And part of that bankruptcy settlement was
11 that PSNH would try to renegotiate some of the
12 purchase power agreements pursuant to the LEPA
13 statute which is where net metering is housed,
14 as well as the federal PURPA QF provisions, and
15 it was clear that we had very high overmarket
16 compensation rates, and so I sort of was
17 assigned to a Study Committee to work on that
18 and found myself becoming a student of LEPA and
19 PURPA and all that entailed and how to sort of
20 untangle what had been administrative decisions
21 about forecasting the future that sort of were
22 derived from the forecasted cost of Seabrook to
23 justify continued investment which then became
24 the avoided cost rates for the QFs and all the

{WITNESS: Below}

1 implications of that for employment in New
2 Hampshire.

3 So there's sort of echoes of that today.
4 As you mentioned, this Commission has been
5 dealing with the question of stranded cost. And
6 of course, the whole movement to restructure the
7 industry and try to take those components, move
8 them to a competitive market where we could and
9 move the idea that generation which there was
10 growing up a need for competition for would be
11 subject more to market forces and discipline
12 rather than the sort of administrative
13 forecasting of needs that can lead to those
14 significant above-market costs.

15 So in that context, we come forward to
16 today. It's been more than 20 years since our
17 restructuring statute was enacted, and we are
18 now within a year's time of PSNH/Eversource, the
19 dominant Utility, sort of finally getting out of
20 the generation supply business and getting that
21 functional separation between distribution and
22 supply, and I think how the Commission decides
23 this and the sort of structure with regard to
24 net metering is going to really set the stage

{WITNESS: Below}

1 for how retail markets for electric services can
2 develop in New Hampshire.

3 I think that so far we've had fairly
4 limited competition. It's been constrained by
5 the fact that it's the only product that can be
6 offered to most customers, just the fixed
7 forward price. So people could choose whether
8 to fix it under default for six months or go to
9 competitive supply and fix it for a different
10 period of time. But there's no real options for
11 much beyond that because of the lack of meter
12 interval data.

13 Large customers do have other
14 opportunities. If they're big enough, they can
15 participate in the realtime market. They can
16 access day-ahead prices. They can get block and
17 swing rates. They can get sleep rates. They
18 can do contracts for differences to contract for
19 the output from remote generation. Those
20 opportunities, I think the conceptuation of the
21 statute to begin with which refers very strongly
22 to the notion and the very PURPA statement that
23 increased customer choice in the development of
24 competitive markets for retail electric services

{WITNESS: Below}

1 are key elements in a restructured industry.
2 There's wholesale and retail. And the
3 competitive markets should open markets for new
4 and improved technologies, and provide
5 electricity buyers and sellers with appropriate
6 price signals.

7 And so the idea was to open up choice and
8 open up competitive alternatives that could open
9 up innovation much as occurred in the telecom
10 industry. And sometimes to make that
11 transition, some things to have to be more of a
12 break from the past than simply a gradual
13 evolution, although I think both of these
14 settlements point to the fact that there are
15 steps we still need to get to where we want to
16 go, but I think we're finally at the beginning
17 of trying to get there.

18 And part of that with regard to net
19 metering which came shortly after the aftermath
20 of enacting the restructuring statute, we
21 continue to grapple with the buyout questions,
22 and I ended up as the sponsor of House Bill 485
23 with Representative Bradley that took, actually,
24 I looked at the legislative history and there

{WITNESS: Below}

1 are 18 work sessions. I think I chaired most of
2 those that worked on the legislature that
3 created both net metering and helped to resolve
4 some of those other past problems, and it ended
5 up being a consensus type resolution. And I'd
6 hoped that we would get to a consensus here.
7 We're not quite there, but I think there's a
8 reasonable path forward.

9 And a key part of that path is moving from
10 what was recognized at the time as a rough
11 justice. We were limited by the technology
12 available then, and we knew that this seemed to
13 be appropriate for early adopters. The amount
14 that was going to go in this direction was
15 limited so we didn't end up with a whole lot of
16 excess cost shifting or stranded cost. And
17 that's been gradually increased over time. We
18 have moved beyond the stage of early adopters.
19 This is becoming a much more widely available
20 technology, and we need to move to the granular
21 justice, the granular rate structures that give
22 the most appropriate price signals that will
23 maximize the efficiency and the value that's
24 created for our economy and ratepayers across

{WITNESS: Below}

1 the board. So that's sort of the big picture.

2 So coming down to some of the specifics.

3 I'm going to start with what I see as the

4 biggest problem in the Utility/Consumer

5 Coalition proposal which is the way that the

6 commodity credit is proposed to be dealt with.

7 And sort of my questioning, my cross-exam

8 yesterday sort of drew out the reality that the

9 process of truing up retail loads to wholesale

10 is a complicated one.

11 But part of what we heard there in that

12 settlement proposal is the idea that there be a

13 credit for all these exports in real time and

14 that that credit cost would be recovered from

15 default service customers, including the charge

16 to, the credit being given to competitive

17 customers on competitive supply who happen to be

18 net metered, they would get this avoided cost

19 rate from the past calculation pursuant to the

20 PUC rules, and that cost would also be charged

21 to those default service customers through the

22 default service reconciliation.

23 And then the benefit there instead of being

24 netted against the supplier's load or the

{WITNESS: Below}

1 default service load would instead be
2 essentially buried, disappear into the load
3 adjustment process, how you true up true retail
4 load and wholesale load, and I have a concern
5 right there that there's a lack of transparency,
6 and I'd like to refer to some exhibits as to why
7 there's a lack of transparency there. But I
8 also think it's too rough of a justice when we
9 have alternatives to have a more refined justice
10 that starts to align the cost and benefits in a
11 better way, and in a sense that is reflected in
12 the other proposal or some specific suggestions
13 I might make.

14 If we were to turn to Exhibit 82 which was
15 the -- I'm going to spend a little bit of time
16 with this. This was one of the exhibits I
17 introduced yesterday in the cross of the
18 Utility/Consumer Coalition, and it had, the
19 document Bates stamped page 2 of that Exhibit 82
20 had an estimation of seller hourly loads which
21 you heard from the witnesses for Liberty and
22 Eversource sort of generally describes or
23 describes in some detail the process by which
24 retail loads are matched against the wholesale

{WITNESS: Below}

1 load obligations.

2 And I just want to read a little part of
3 this, starting at the third sentence in the
4 overview, it says in each hour, some suppliers
5 with low cost production units or that contract
6 for the output of such units are net sellers of
7 electricity to the pool while other suppliers
8 are purchasing power from the pool to meet the
9 demand of their customers. To determine the
10 extent to which suppliers are net buyers or
11 sellers on an hourly basis, it is necessary to
12 estimate the hourly aggregate demand for all the
13 customers served by each supplier.

14 So there's an interesting point there which
15 is it suggests that for the suppliers, we need
16 to figure out their hourly aggregate demand.
17 And for at the present time that is effectively
18 how load is settled in the wholesale market,
19 either day-ahead or realtime prices. ISO New
20 England, it doesn't matter whether you're on an
21 instantaneous basis you have some negative loads
22 and some positive loads. What they care about
23 is what is your total load for a given hour at
24 the wholesale meter point and who is that

{WITNESS: Below}

1 assigned to, and what we heard from the panel
2 yesterday was not that it would be, if you're
3 the default service provider and you have
4 customers, some with positive loads, some with
5 negative loads, you don't sort of net those to
6 figure out your hourly load. They're proposing
7 to take the gross exports that's sort of
8 attributed to them, and I think Mr. Davis
9 specifically testified that there would be no
10 netting even at the supplier level and certainly
11 no netting at the customer level except for what
12 happens in realtime behind the meter.

13 So what we, I think conceptually that
14 diverges from the concept that a supplier should
15 be responsible for both the import and exports
16 of their customer base, and this pertains, for
17 instance, to the City of Lebanon's proposed
18 pilot which would try to go to the sort of
19 granular hourly realtime pricing for both import
20 and exports on the commodity product, and as a
21 group, you know, take that net and that would
22 reflect our municipal aggregation net load for a
23 given hour, and that's what we would be
24 responsible for in the wholesale market after

{WITNESS: Below}

1 adjusting for line losses in effect.

2 Instead, what the Utility/Consumer
3 Settlement proposes to do is add into the line
4 loss factor which is the only thing that's
5 really going on between retail meters and
6 wholesale meters and throw into that all the
7 exports that occur instantaneously in realtime
8 which nobody in this docket has any idea what
9 the magnitude of that might be because there is.
10 I know of but a single data point as to how
11 instantaneous consumption compares to hourly or
12 monthly netting.

13 And I say I know one data point, and I'll
14 just offer that today. Last September 24th, I
15 installed, after getting a building permit, a
16 revenue grade meter directly behind the utility
17 meter so it measures all my imports and exports
18 in realtime instantaneously. I could actually
19 look at it on my phone right now and tell you
20 within one minute what my voltage loads are at a
21 pretty affordable cost. It meets the ANSI
22 standards that are specified in the PUC rules.
23 Manufactured certified revenue grade.

24 And I was able to look at my imports and

{WITNESS: Below}

1 exports up until midnight last night, and what I
2 can tell you, and I also have my production data
3 for that same period of time, and what I can
4 tell you is that over those six months, three
5 days and three hours, since my meter started
6 working, I have had imports of 2945 kilowatt
7 hours. I have had production of 2254 kilowatt
8 hours. So my total imports from both my PV
9 which is at one end of my system, it's in the
10 bottom of my remote subpanel, and my import
11 across through my main panel total 5199 kilowatt
12 hours. And my exports for that same period of
13 time were 1829 kilowatt hours.

14 So my net load for those 6.1 months was
15 3371 kilowatt hours. Then if I subtract out my
16 imports of 2945, I find that I had 425 kilowatt
17 hours of load offset in realtime behind my
18 meter. That works out, if we compare that to my
19 total, total load, my gross load for that period
20 of time, that is 12.6 percent of my total load.

21 PRESIDING OFFICER HONIGBERG: Mr. Below, we
22 are very deep in the weeds with your own system
23 here, but I know Commissioner Bailey wanted to
24 follow those numbers.

{WITNESS: Below}

1 A Okay.

2 PRESIDING OFFICER HONIGBERG: So do you
3 want to give those again slowly?

4 COMMISSIONER BAILEY: Just slow it down a
5 little bit.

6 A Okay. Production. I'll start with production.
7 2254 kilowatt hours. They're all kilowatt
8 hours.

9 COMMISSIONER BAILEY: Yes.

10 A Imports, 2945. Total in from both imports and
11 production, 5199. Exports, 1829. Subtracting
12 exports from the total of production and imports
13 leaves net load which is 3371. And then when I
14 take that net load, which is, well, that's not
15 really net load. That is my gross load. That's
16 my gross consumption behind the meter, and if I
17 subtract from that the imports, then I can
18 figure out how much I offset in realtime.

19 So subtracting the imports of 2945 from my
20 3371 total consumption, I know that I used 425
21 kilowatt hours over the past 6 months from my
22 production in realtime instantaneously, and that
23 is 12.6 percent of my gross behind-the-meter
24 load.

{WITNESS: Below}

1 I have no idea how typical I am. It
2 doesn't reflect, it reflects this sort of winter
3 six-month period from one equinox to the other
4 roughly. It might be quite different. My only
5 point is from that one data point it's a fairly
6 small portion. What I do know is that my
7 particular system is sized to produce more than
8 I consume, but it's also skewed towards summer
9 production, and there's snow cover on part of
10 the system because a lot of it is fairly low
11 pitch.

12 So what's my point. My point is that we
13 need a lot more data to really grasp the
14 implications of this, and that has to do with
15 the idea that consumers have a reasonable
16 opportunity to choose behind-the-meter, net
17 metered, self-generation. So in that respect,
18 I'll just kind of cut to my recommendation, but
19 then I'll back into some of the issues related
20 to this, is I think it's, my conclusion is sort
21 of that it would be reasonable to continue with
22 monthly netting for at least a year, probably
23 more like two years, and make a commitment to
24 collect the data so we can compare

{WITNESS: Below}

1 instantaneous, preferably also hourly, to
2 monthly netting, and everybody can know the
3 ramifications of that before we sort of take the
4 leap.

5 I have to back up to my outline. Because
6 we don't know how much that's going to be, we
7 don't know how much cost shifting might occur
8 relative to how this is being paid for and how
9 this benefits suppliers, both the default
10 service supplier and competitive supplier, in
11 part, because they end up getting revenue, in
12 essence, for their gross sales in realtime, not
13 their net sales over the course of an hour which
14 is what would occur, you know, the retail load
15 directly participate in the wholesale market,
16 but in those exhibits that I went through
17 yesterday, Liberty indicated that these, you
18 know, what the actual adjustment is they
19 consider a confidential number. Because if you
20 know what the adjustment is between retail and
21 wholesale, then that would let you back into
22 what people's bids were for default service.

23 Part of the concept of having effective
24 markets that work is an ability for new entrants

{WITNESS: Below}

1 to be able to compete with existing parties. If
2 a new entrant might have no idea or somebody
3 bidding on default service might have no idea
4 how the retail sales and rates is going to
5 result in their wholesale load obligation. In
6 fact, in theory, if you had so much
7 instantaneous exports that it exceeded the
8 nominal line losses, you could have sales in
9 kilowatt hours allocated to suppliers that are
10 in excess of their wholesale load obligation
11 which is totally counterintuitive but pretty
12 much unpredictable, and I think could possibly
13 result in a windfall for suppliers because they
14 can't really predict. They'd have to base it on
15 their historic experience with how their retail
16 sales get adjusted to wholesale, and they'd have
17 to set prices based on the historic experience
18 but depending on the adoption rate and what the
19 effect of this new net metering approach is,
20 they could end up with a certain percentage
21 windfall because they have less load obligation.

22 And if you're a competitive supplier, you
23 could end up with this benefit even though it's
24 not sort of costing you anything. All the costs

{WITNESS: Below}

1 are being charged to the default service
2 customers which I think is on the face of it an
3 unreasonable and unjustified cost shifting when
4 there's a simpler alternative which is to
5 actually kind of use the process that was
6 described in that exhibit I just cited which is
7 to determine each supplier's hourly aggregate
8 demand for all customers served by each
9 supplier. I think that's what the Energy Future
10 Coalition was suggesting occur within each
11 supplier's customer base.

12 There's another issue that sort of related
13 to this which is how this fits in with the
14 definition of net metering under PURPA and you
15 heard some questioning about that earlier with
16 Dr. Rabago. And the definition of net metering
17 within PURPA talks about an offset, that
18 generation is being used as an offset to
19 consumption even if it's not exactly in
20 realtime. And the fact that the only thing
21 that's being used is sort of average customer
22 load shapes for settlement purposes suggests
23 that that cost shifting really doesn't matter to
24 a competitive supplier. A competitive supplier

{WITNESS: Below}

1 might, if it was going to affect the load shape
2 that they are going to have to charge their
3 wholesale load obligation on, then they might
4 say it's either advantageous or not advantageous
5 that have customers that are exporting to the
6 grid at particular times, but they are in fact
7 ambivalent. So just this sort of structure of
8 that is not really a promoting a direction that
9 gives appropriate price signals for either the
10 suppliers or the retail customers.

11 But perhaps more importantly, you get into
12 this question of is this essentially approach of
13 the Utility/Consumer Coalition, is this
14 essentially moving to a QF sales sort of model
15 or is it really going to fit within the PURPA
16 net metering provisions, and there's a couple of
17 issues here. One is that within HB 1116, it
18 gave the Commission authority to waive or modify
19 particular terms of service for net metering,
20 including those specified in the paragraph that
21 describes how net metering is to be done,
22 although, as I pointed out, it does not give any
23 latitude on the fact that competitive suppliers
24 could set their own terms.

{WITNESS: Below}

1 But two divergent thoughts here. The
2 competitive suppliers have no reason to try to
3 develop rate structures to deal with this for
4 net metered customers in part because they get
5 all the revenues from gross exports and some
6 other customer base that default service would
7 pay for any output. Doesn't make a lot of
8 sense.

9 But the other issue here is what is the
10 nature of this under PURPA, and I think that as
11 my testimony, both Direct and Rebuttal and
12 Direct at page 14, lines 380 to 394, and
13 Rebuttal at page 2, lines 46 to line 124 on page
14 5, deals with this question of are we going to
15 work within the net meter construct under PURPA
16 of offsetting or are we going to move to
17 something that looks like a sale for resale to
18 the Utility.

19 And my concern is that Mr. Davis in his
20 testimony yesterday said very clearly that he on
21 behalf of Eversource sees this as more like a QF
22 sale and there's no netting at the customer
23 level, there's no netting at the supplier level.
24 Rather it's a buy/sell proposition. Customer

{WITNESS: Below}

1 buys at one rate and they sell at a different
2 rate, and that's what you get credit for.

3 I would note that the Utility/Consumer
4 Coalition Settlement Agreement never uses the
5 term "sale" in conjunction with the export. It
6 uses the term credit, that the exports would be
7 a credit against purchases, and I think that's
8 conceptually correct, but maybe Mr. Davis didn't
9 get the memo that we want to avoid structuring
10 this and conceptualizing this as a buy all/sell
11 all at the point of interconnection.

12 And this sort of leads to the concern about
13 the potential for unintended adverse tax
14 consequences, and I would like to speak to that
15 in the context of Exhibit 66 and Mr. Rabago's
16 testimony, and maybe I don't need to do this,
17 but I'm going to for a moment anyways speak to
18 why I feel comfortable and competent to speak to
19 this issue.

20 And I'd just note that I've dealt with
21 income tax issues a great deal. I've prepared
22 well in excess of 100 tax returns over my life,
23 most of those business tax returns in a number
24 of states, many of them fairly complex. I've

{WITNESS: Below}

1 investigated a lot of questions about what
2 income means. I was a part of a partnership on
3 taxation in the Electric Utility industry. I've
4 spoken on the topic.

5 After we completed restructuring and the
6 Claremont 2 decision came down, I spent several
7 years of my life trying to devise an income tax
8 for New Hampshire, personal income tax to
9 replace property taxes as a prior way of funding
10 education, and through that, I ended up reading
11 a lot of court cases and doing a lot of work to
12 evolve that proposal to the point where it
13 actually passed both the House and Senate at one
14 point in time.

15 That being said, I think this is a
16 legitimate issue to take note of, and if we turn
17 to Exhibit 66, which the article on solar shift
18 analysis of the federal income tax issues
19 associated with the residential value of solar
20 tariff, by an attorney, Kayci Hines. Just in
21 the synopsis of it, she points out that as solar
22 stakeholders consider shifting from using
23 traditional rate design to newer value of solar
24 tariff with the residential model, they must

{WITNESS: Below}

1 also consider the federal income tax
2 consequences of such a shift. Of course,
3 Mr. Rabago said that was something he took into
4 consideration when they were starting down the
5 path of changing net metering for Austin Energy.

6 And you know you can read that article
7 yourself as it's been admitted into evidence,
8 but I would just point out a few things in it of
9 significance. One is the discussion that's on
10 Bates stamp page 7 and 8 about the issue of a
11 qualified, what is considered a qualified solar
12 electric property expenditure under 26 USC
13 Paragraph 25D which is the residential energy
14 tax credit, and at the top of Bates stamped page
15 8, you see the explanation that actually comes
16 from the regulation that if less than 80 percent
17 of the use of an item is for nonbusiness
18 purposes, only that portion of expenditures for
19 such item which is properly allocable to use for
20 nonbusiness purposes shall be taken into
21 account.

22 In other words, if less than 80 percent of
23 your production is not being used to offset your
24 load on site, sort of pursuant to the PURPA

{WITNESS: Below}

1 definition of net metering, then the balance,
2 then you have to reconfigure your tax credits so
3 it's in proportion to what is being used to
4 offset load, and then the article goes on to
5 point out that if you interpreted the production
6 or the exports as sell, then the transaction may
7 be interpreted as a business transaction, lose
8 the credit and, furthermore, in the next
9 paragraph, the author says the utility's
10 compensation method is another structural
11 indicator in a buy all/sell all or FIT, FIT
12 meaning feed-in tariff, agreement, it says
13 resident utility agreement, that's like a
14 tariff, the customer is compensated a fixed
15 price per megawatt hour. The home owner's
16 receipt of a monetary sum for his electricity
17 generation likely presents another tax issue
18 because the payment likely falls under the
19 definition of gross taxable income, and it
20 provides that definition, it cites a Supreme
21 Court case on page 9 that says the Supreme Court
22 has interpreted gross taxable income as
23 instances of undeniable accessions to wealth
24 clearly realized and over which the taxpayer has

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{WITNESS: Below}

1 complete dominion.

2 It just indicates that, and I've read a
3 number of private ruling letters related to this
4 issue that also indicate that IRS's presumption,
5 if there's not a reason to say it's not income,
6 then it is income. And I think that they have
7 not considered additional net metering to be
8 income. I believe that pretty universally when
9 you have a QF selling that that is being
10 considered income, business income, and it's my
11 impression, I forgot to ask this, but it's my
12 recollection that the Utilities, if they cut a
13 check for your surplus under the PUC rules, if
14 you've got a big enough surplus they could cut a
15 check for that at the end of the year, that they
16 would do a 1099 on that and report that to IRS
17 as possible income.

18 PRESIDING OFFICER HONIGBERG: You're just
19 about 32 minutes in. How much more do you have?

20 MR. BELOW: I just have a little bit more
21 on this issue and less on a few other issues.
22 Quite a bit less on others issues.

23 PRESIDING OFFICER HONIGBERG: Okay.

24 MR. BELOW: I'll try to do it in 8 minutes.

{WITNESS: Below}

1 COMMISSIONER BAILEY: Don't speed up.

2 MR. BELOW: Okay.

3 A I do want to point out one thing. When I was
4 reading this article over, there was one
5 sentence that just did not make sense to me so I
6 contacted the author, and I have an email
7 response to her and I just want to get this into
8 the record because if you read this, you may
9 have the same effect. At the bottom of page 9,
10 there's a contrast between the buy all/sell all
11 approach and structuring it close to the current
12 net metering structure, and at the very top of
13 page 10, the sentence, there's a sentence at the
14 end of the highlighting that says further,
15 because the resident does not sell his
16 generation back to the utility, and this is
17 essentially under offsetting or crediting
18 mechanism, but instead receives credit for all
19 self-generated electricity, parens, which may be
20 carried over into future months, the gross
21 taxable income issue is likely to surface. I
22 thought likely? It seems less likely in that
23 circumstance.

24 So I contacted the author and she responded

{WITNESS: Below}

1 that I was correct. She dug up her original
2 draft. Her original draft, the last phrase said
3 the gross taxable income issue likely does not
4 surface. She said the publishers apparently in
5 their editing process made a mistake, and they
6 said you are correct. She intended to state
7 that with a net metering rate structure, the
8 gross taxable income issue is less likely to
9 appear.

10 PRESIDING OFFICER HONIGBERG: We're going
11 to take administrative notice of the fact that
12 law review articles are edited by law students.

13 A So it has been pointed out that the Utility
14 Consumer Coalition proposal is not sort of a
15 true feed-in tariff or the sort of exactly buy
16 all/sell all because it's allowing offsetting in
17 realtime behind the meter, but I think,
18 essentially, it's essentially, I've heard that
19 called a hybrid buy all/sell all. It is a buy
20 all/sell all at the point of interconnection
21 with the utility. I mean, it would be
22 characterized that way.

23 The point is it's not, I don't think
24 there's a problem with having a credit rate that

{WITNESS: Below}

1 is different. I don't think there's a problem
2 with basing that even necessarily on
3 instantaneous flows. I think the problem comes
4 is when there's no netting anywhere in the
5 process, that the supplier is not even getting
6 the netted hourly load or the netted monthly
7 load. As a practical matter, the supplier's
8 ending up with a monthly bill and so the monthly
9 netting period, I think, makes sense as a
10 transitional mechanism. It stays much truer to
11 form. It creates much less of this uncertain
12 amount of export.

13 There's two separate issues. If you allow
14 the netting at least at the supplier level, then
15 it's still conceptually an offset to the load
16 obligation, and it truly is. If the supplier
17 gets kilowatt hours that are exported, then it
18 should offset what they need to acquire in the
19 wholesale market specifically for them. That's
20 my point. I guess I've made it.

21 So I just think that that is, with modest
22 modifications to how this is structured and
23 characterized, we can perhaps avoid or reduce or
24 minimize potential adverse tax consequences

{WITNESS: Below}

1 which could -- I'd hate to see New Hampshire
2 become the pioneer for an IRS ruling that we've
3 created a structure that does something that
4 would really harm the industry and harm the
5 ability of customers to have reasonable
6 opportunity to interconnect.

7 Moving on quickly. The lost revenue
8 recovery mechanism in my Direct Testimony as
9 well as rebuttal testimony, I made the point
10 that when the Co-op looked at this, they found
11 that, I believe the number was 52 percent, that
12 their customers who adopted net metering
13 actually increased their consumption, their
14 gross consumption, because they had both. They
15 had production meters and instantaneous meters.
16 They were able to determine that their
17 customers, net metered customers increased their
18 consumption by 52 percent compared to customers
19 who were not net metered over the same time
20 period.

21 The significance of that is that in the
22 previous Unutil proposal for lost revenue
23 recovery, I don't think there was any mention of
24 that possibility in the consideration. I think

{WITNESS: Below}

1 what is in that proposal, that for at least a
2 couple years that we continue with that
3 mechanism that's already been approved recently,
4 that I think that's reasonable. My concern is
5 if it turns out on a broad base if you had the
6 instantaneous netting, and they were getting 80
7 percent of the revenue because only 20 percent
8 of the load was being offset in realtime, and
9 those customers were increasing their
10 consumption as a result of putting in their own
11 solar PV, and I explained why that might be the
12 case in my own case. I know that we increased
13 our consumption both to utilize the power we
14 were producing, but also because we wanted to
15 electrify with a renewable resource and change
16 all sorts of things that were fossil fuel to
17 electric, and we've done that. Increased our
18 load significantly from what it otherwise would
19 have been, absent our choice to put in
20 behind-the-meter solar generation, and that at
21 some point that should be taken into account in
22 terms ever what the lost revenues are.
23 Particularly, if there's not sort of a
24 decoupling mechanism that looks at both

{WITNESS: Below}

1 increases and decreases in sales as a result of
2 energy efficiency and all sorts of things.

3 See I would just point to the fact that I
4 think that the study that's been proposed that
5 would collect that data within the
6 consumer/Utility settlement is, I think, a wise
7 collection of information.

8 Data collection, I did want to mention that
9 I think it would be productive to collect hourly
10 interval data so at least some sampling, you
11 know, this might be done in the context of
12 pilots, but as Utilities put in bidirectional
13 metering, it would be nice if some of those at
14 least could start regarding interval data,
15 hourly interval data so we could compare that
16 because I think a step at some point might be to
17 do hourly netting between monthly and
18 instantaneous.

19 With regard to pilots, I have quite a
20 discussion in our testimony and none of the
21 settlements probably referenced the City
22 proposal. My only concern there is that I think
23 we have a pretty feasible path forward through
24 the municipal aggregation statute sort of even

{WITNESS: Below}

1 outside of this process, but we would like to
2 work with Liberty and a pilot task force but not
3 necessarily be held up by them. I think, for
4 instance, in the proposal I think it said that
5 there would be an effort to study the issue of
6 transmission credit for large net metered
7 production. That would be completed maybe by
8 next April 30th, and that then some pilot
9 tariffs might be considered.

10 I think Liberty has indicated to me that
11 they would be willing to work with the city to
12 try to develop a pilot tariff on a somewhat
13 quicker timetable, and that's significant
14 because next Wednesday we have on our Council
15 agenda to initiate a CIP project to develop our
16 landfill gas project, and we hope to have that
17 under construction next year. We hope to be
18 issuing revenue bonds to fund that early next
19 year, and we need to sort of develop our
20 business case for that, and it would be helpful
21 if we were allowed to work with Liberty to come
22 back to the Commission at some subsequent point
23 to start to pilot a transmission credit tariff
24 based on the fact that we'd have actual hourly

{WITNESS: Below}

1 data. Almost done.

2 I'll skip over a couple things and go to my
3 concern about the Energy Future Coalition
4 distribution credit. As I pointed out with
5 Mr. Phelps' illustration, that when you go to
6 monthly netting, for customers who have sized
7 the system primarily to offset their own load,
8 they might well receive most of the distribution
9 offset, and I did another little analysis to try
10 to further understand that. I took two data
11 sets from testimony or discovery. One is the PV
12 watts monthly production or hourly production
13 data and I put it into calendar months, and then
14 I drew from Eversource's response to Lebanon
15 1-009 F. Let me say that again. Eversource
16 attachment Lebanon 1-009 F which is an Excel
17 spreadsheet, and in it they have their 2015
18 average load shape for every hour for a
19 residential customer.

20 So I took the PV watts data that's used for
21 an optimal system. Compared it, sized it so it
22 exactly met the customer load, and what I found
23 was that only 8 percent of the total load which
24 is also the same as 8 percent of the total

{WITNESS: Below}

1 consumption would be exported over the course of
2 the year using monthly netting meaning the
3 customer would be getting a 92 percent offset of
4 their distribution credit because it would be
5 within the month that they consumed it. So
6 that's sort of one point which is actually
7 pretty close to the nine to ten percent number
8 that I derived from Mr. Phelps' analysis.

9 And then I also took my own system, just
10 because it is sort of skewed to summer
11 production pretty heavily, and ran that against,
12 again, the average Eversource hourly residential
13 load shape for 2015, and in that instance, 24
14 percent of the total production or load was
15 exported, were exports over some monthly period.
16 So even then, somebody who's got sort of a
17 skewed system would be getting on the order of
18 75 percent of the distribution credit.

19 So my recommendation is if we stuck with
20 monthly netting for at least a couple years
21 while data is collected, then I think it would
22 also be appropriate to zero out the distribution
23 credit, recognizing that for most customer's
24 residential, they can offset most of their load

{WITNESS: Below}

1 within the month and probably still end up with
2 75 or at least more than 50 percent credit.

3 The inverse of that is a concern that if
4 the current proposal were to go forward and
5 there would be a 75 or 50 percent credit, you
6 actually are substantially increasing the credit
7 for somebody, small business, whatever, who's
8 not a group host, who's got a 90 kW system, and
9 now they're getting full credit for generation,
10 transmission, as well as 75 percent or 50
11 percent of distribution, even though most of
12 that power is being routinely exported to the
13 grid. And right now they would only get the
14 avoided cost calculation for that. So we could
15 actually end up with potentially a larger cost
16 shifting problem, and simply by saying zero
17 credit on net monthly exports would just, I
18 think, be a very fair and a reasonable approach
19 and provide a more appropriate level of
20 compensation to those systems that are just
21 producing a lot of surplus power.

22 PRESIDING OFFICER HONIGBERG: I think
23 you're going to need to wrap things up.

24 A I think I'm done. Let me just look. That's it.

{WITNESS: Below}

1 Thank you.

2 PRESIDING OFFICER HONIGBERG: All right.
3 Before anybody asks any questions, let me find
4 out who has questions for Mr. Below.
5 Mr. Emerson does, Ms. Birchard does, Mr. Fossum,
6 Mr. Aalto, Mr. Sheehan, Mr. Kreis. All right.
7 So there's a fair number of people that want to
8 ask questions. I think it's appropriate to
9 break right now. You can all gear up. Focus
10 your questions. Sharpen them up, if you can,
11 over the next hour and a quarter, hour and 20
12 minutes. Maybe probably be close to two o'clock
13 when we get back, but that should also allow you
14 time as we discussed this morning for you to go
15 over exhibits, where we stand with what's become
16 a full exhibit and what people are going to let
17 go.

18 So unless there's anything else we need to
19 deal with right now, we will go off the record
20 and come back, we'll try to be here a little
21 before 2 o'clock.

22 (Lunch recess taken at 12:32
23 p.m. and concludes the **Day 3**
24 **Morning Session**. The hearing

{WITNESS: Below}

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continues under separate cover
in the transcript noted as **Day
3 Afternoon Session ONLY.**)