

In The Matter Of:

*Connecticut Siting Council Review of the Ten-Year
Forecast of Connecticut Electric Loads and Resources*

*Hearing Docket No. F-2014/2015
September 24, 2015*

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Original File 15-09-24 - Part 01.txt

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STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Docket No. F-2014/2015
Connecticut Siting Council Review of
the Ten-Year Forecast of Connecticut
Electric Loads and Resources

Technical Meeting held at the
Connecticut Siting Council, Ten Franklin
Square, New Britain, Connecticut, on
Thursday, September 24, 2015, at 12:59 p.m.

H e l d B e f o r e :
MELANIE BACHMAN, ESQ.,
Executive Director and Staff Attorney

1 A p p e a r a n c e s :

2

3 Council Member:

4 DANIEL P. LYNCH, JR.

5

6 Council Staff:

7 MICHAEL PERRONE, Siting Analyst

8

9 For FirstLight Power Enterprises, Inc.

10 and Dominion:

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13 Hartford, Connecticut 06103-3597

14 BY: KENNETH C. BALDWIN, ESQ.

15

16 For Connecticut Municipal Electric

17 Energy Cooperative:

18 CONNECTICUT MUNICIPAL ELECTRIC

19 ENERGY COOPERATIVE

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22 BY: ROBIN KIPNIS, ESQ.

23

24

25

1 A p p e a r a n c e s : (Cont'd.)

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3 For the United Illuminating Company:

4 UIL HOLDINGS CORPORATION

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6 New Haven, Connecticut 06510

7 BY: LEONARD RODRIGUEZ, ESQ.

8

9

10 For Eversource Energy Service Company,

11 as agent for the Connecticut Light and

12 Power Company d/b/a Eversource Energy:

13 EVERSOURCE ENERGY

14 107 Selden Street

15 Berlin, Connecticut 06037

16 BY: DANIEL R. CANAVAN, ESQ.

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1 MS. BACHMAN: Ladies and
2 gentlemen, this technical session is called
3 to order this Thursday, September 24th, at 1
4 p.m. My name is Melanie Bachman. I'm
5 acting executive director and staff attorney
6 for the Connecticut Siting Council.

7 Members of the Council present
8 this afternoon are Mr. Daniel P. Lynch, Jr.
9 Members of the staff are Michael Perrone,
10 our siting analyst.

11 The Council is holding this
12 technical session on the 2014/15 ten-year
13 forecast of electric loads and resources in
14 Connecticut, pursuant to Connecticut General
15 Statute Section 16-50r. The purpose of this
16 technical session is to examine the adequacy
17 and reliability of electric generation and
18 transmission in the state while considering
19 the cost to consumers and protecting the
20 environment.

21 Pursuant to the statutory
22 requirements, this technical session will
23 analyze load growth forecasts of the state's
24 electric utilities and plans to meet the
25 demand for electricity through the year

1 2024. Included in this analysis will be the
2 following: Estimated peak loads, resources
3 and margins for each year within the
4 forecast period; data on energy use and peak
5 loads for the five preceding calendar years;
6 existing generating facilities in service;
7 scheduled generating facilities for which
8 property has been acquired for which
9 certificates have been issued and for which
10 certificate applications have been filed;
11 planned generating units at plant locations
12 for which property has been acquired, or at
13 plant locations not yet acquired, that will
14 be needed to provide estimated additional
15 electrical requirements and the location of
16 such facilities; planned transmission lines
17 on which proposed route reviews are being
18 undertaken or for which certificate
19 applications have already been filed; steps
20 taken to upgrade existing facilities and to
21 eliminate overhead transmission and
22 distribution lines; and electricity
23 purchased from private power producers.

24 We will hold a public comment
25 session commencing this evening at 6:30 p.m.

1 for the convenience of the public. Any
2 person who desires to make their views known
3 to the Council may make an oral statement
4 this evening or submit a written statement
5 to the Council no later than October 23,
6 2015.

7 A verbatim transcript of this
8 technical session and the public comment
9 session will be made and deposited at the
10 Council's office in New Britain for the
11 convenience of the public.

12 We do have a hearing program
13 available on the table. There are some
14 items that the Council wishes to
15 administratively notice, and they are shown
16 on that program as Roman Numeral I.B, items
17 1 through 10.

18 The first participant in the
19 hearing program is FirstLight Power
20 Enterprises.

21 If you could state your name?

22 ERIC DEBARBA: Good afternoon.

23 Yes, my name is Eric DeBarba, and I'm with
24 GDF Suez, FirstLight Power.

25 MS. BACHMAN: Thank you. We'll

1 begin with questions from Mr. Perrone.

2 MR. PERRONE: Thank you.

3 Mr. DeBarba, could you tell us
4 about the status of the FERC licensing and
5 expiration dates for the hydro facilities in
6 Connecticut?

7 MR. DEBARBA: Sure. We have FERC
8 licenses for most of our hydro units in
9 Connecticut. All of the units on the
10 Housatonic River, starting from Falls
11 Village, including Bulls Bridge, Rocky
12 River, Shepaug and Stevenson, have FERC
13 licenses that go until 2044, and then in the
14 eastern part of Connecticut in the Scotland
15 plant that has a license that goes until
16 2053.

17 MR. PERRONE: Could you comment
18 on the differences between the Seasonal
19 Claimed Capability numbers in the ISO CELT
20 report versus FirstLight's forecast report?

21 MR. DEBARBA: I think there is
22 some slight discrepancies between the two,
23 and I think it may be a timing thing. In
24 the CELT report it's noted that it
25 includes -- it says and as of the 2014/15

1 winter and 2015 summer peaks, so it looks
2 like it included some of the 2015 data. And
3 this being a very dry year, our hydros
4 experienced it, the intermittent hydros
5 experienced very low flows.

6 And the way the ISO program works
7 in terms of units like that, they basically
8 take like a five-year average of the median
9 positions during certain hours, and those
10 hours the median positions have been zero.

11 So one of the prior years, which
12 was a wet summer, has fallen off and has
13 been picked up by a dry summer period now.

14 MR. PERRONE: Okay. About how
15 many hours could the Rocky River facility
16 provide pump storage electricity?

17 MR. DEBARBA: From its full
18 position it's about 60 hours.

19 MR. PERRONE: Is the megawatt
20 output more or less flat or does it decline
21 with the --

22 MR. DEBARBA: It declines
23 slightly, but it's pretty flat.

24 MR. PERRONE: Okay. Good.

25 And I'd like to ask you about

1 Seasonal Claimed Capability audits. When
2 are they typically performed, and is it an
3 ISO requirement, or is it more determined by
4 the generator?

5 MR. DEBARBA: It's an ISO
6 requirement, and it's changed slightly in
7 the last year or two. There are
8 requirements for both summer and winter
9 audits for the plants that are not
10 intermittent. So for those plants you have
11 to perform a claimed capability test every
12 summer and every third winter, and those
13 periods occur during and for the summer
14 periods the month of June through August,
15 and it has to be a day when the temperature
16 is greater than 80 degrees, or alternatively
17 during a period where the ISO opens the
18 window and lets it be known on their web
19 site that it's an acceptable testing period.

20 MR. PERRONE: Is the winter
21 testing also temperature sensitive?

22 MR. DEBARBA: It is. It has to
23 be below 32 or, again, during a period where
24 the ISO has opened its window.

25 MR. PERRONE: In the ISO CELT

1 report Tunnel 10 is listed as having
2 kerosene as the fuel type. Is that
3 essentially the same as jet fuel?

4 MR. DEBARBA: It is. It's an
5 ultra-low-sulfur distillate.

6 MR. PERRONE: Okay. So we could
7 list it with the others under oil-fired
8 generation in our report?

9 MR. DEBARBA: Sure. Yes.

10 MR. PERRONE: Do you have any
11 planned upgrades or additions to your
12 FirstLight facilities in Connecticut at this
13 time?

14 MR. DEBARBA: No.

15 MR. PERRONE: Has Waterbury
16 Generation been operating primarily as a
17 peaking plant or more of an intermediate
18 facility?

19 MR. DEBARBA: Kind of in between.
20 It's about 300 hours a year, so we consider
21 that peaking, but maybe a little more than a
22 typical peaker.

23 MR. PERRONE: And your fuel type,
24 you've been operating exclusively on gas?

25 MR. DEBARBA: We have, yes.

1 MR. PERRONE: Thank you. That's
2 all I have for FirstLight.

3 MS. BACHMAN: Mr. Lynch, do you
4 have any questions?

5 MR. LYNCH: No questions.

6 MS. BACHMAN: Thank you.

7 (Whereupon, the representative
8 from FirstLight was excused.)

9 MS. BACHMAN: The next
10 participant, Dominion.

11 KEVIN HENNESSY: Good afternoon,
12 my name is Kevin Hennessy. I'm with
13 Dominion Resources.

14 MS. BACHMAN: Mr. Hennessy, we're
15 going to begin with questions on the fuel
16 cell facility in Bridgeport.

17 MR. PERRONE: I looked at the
18 energy output numbers for 2014, and it looks
19 like the capacity factor is about 91
20 percent. So is it fair to say that the fuel
21 cell facility is a base load facility?

22 MR. HENNESSY: Yes.

23 MR. PERRONE: Are the ISO CELT
24 numbers accurate?

25 MR. HENNESSY: Yes.

1 MR. PERRONE: And I understand
2 the 14.9 megawatts that's reported in the
3 forecast report, is that more like a peak
4 nameplate output?

5 MR. HENNESSY: That is, that's
6 nameplate, and the attribute with the fuel
7 cells is the output is actually going to
8 decrease throughout the life of the fuel
9 cells, and then every five years you replace
10 the stack. So it will degrade a little bit
11 over the five years, and then we'll replace
12 the stack and get back up close to the
13 nameplate.

14 MR. PERRONE: Great. That's all
15 I have on the fuel cell topic.

16 MS. BACHMAN: Mr. Lynch, do you
17 have any questions on the Bridgeport fuel
18 cell facility?

19 MR. LYNCH: No.

20 MR. PERRONE: I'll move on to
21 Dominion Nuclear. Are the NRC license
22 expiration deadlines of July 31, 2035 and
23 November 25, 2045 for Millstone 2 and 3
24 still accurate?

25 MR. HENNESSY: Yes, they are

1 accurate.

2 MR. PERRONE: Have you also
3 reviewed the CELT Seasonal Claimed
4 Capability numbers for Millstone and are
5 those accurate?

6 MR. HENNESSY: Yes.

7 MR. PERRONE: How often are the
8 outages for refueling for Millstone?

9 MR. HENNESSY: Each unit is on a
10 cycle that lasts 18 months, so we do a
11 refueling outage every 18 months.

12 MR. PERRONE: And you stagger
13 them so one unit is on line while one is
14 off?

15 MR. HENNESSY: Correct. Yes,
16 they're staggered.

17 MR. PERRONE: When is the next
18 one scheduled?

19 MR. HENNESSY: Next month. So
20 Unit 2 at Millstone will have a refueling
21 outage next month, and Unit 3 is scheduled
22 for a refueling outage in the spring of
23 2016.

24 MR. PERRONE: I know in the past
25 there were some power upgrades at Millstone.

1 Do you have any other upgrades or power
2 upgrades projects that you're looking at at
3 this time?

4 MR. HENNESSY: No, not currently.

5 MR. PERRONE: And also I'll ask
6 about the Seasonal Claimed Capability
7 audits. How often are those typically
8 performed at Millstone?

9 MR. HENNESSY: The same as Mr.
10 DeBarba, they're done twice, you know, we do
11 one in the summer, one in the winter, and
12 we've got the same requirements that the
13 summer is annual and the winter now is every
14 three years, same time period, June through
15 August for summer, and the winter is I
16 believe November through May 1, and the same
17 ambient temperature requirements or
18 notification on the ISO web site.

19 MR. PERRONE: Great. That's all
20 I have on the Dominion Nuclear topics.

21 MS. BACHMAN: Mr. Lynch?

22 MR. LYNCH: I have a few
23 questions. They are kind of off the
24 forecast topic, but I'm going to ask them
25 anyhow.

1 How's our old friend Dan Weekley
2 doing?

3 MR. HENNESSY: Dan is doing
4 terrific. He's my boss, so he's doing
5 great.

6 MR. LYNCH: I was going to say a
7 lot of good things about him.

8 MR. HENNESSY: I'll let him know
9 that he was being asked for.

10 MR. LYNCH: Second is how are the
11 storage cages that are in place down there
12 working out?

13 MR. HENNESSY: The dry cask
14 storage?

15 MR. LYNCH: Yes.

16 MR. HENNESSY: Dry cask storage
17 on site is working out terrific. We have 31
18 horizontal storage modules, and currently 25
19 of them are filled with fuel. Right now
20 it's all Unit 2. We've upgraded the pad
21 that stores those horizontal storage
22 modules, as you know, and we are going to be
23 putting out additional modules, as needed.

24 Our next fuel campaign is next
25 year, but no issues. It's a passive system.

1 They're sitting in wait for the Federal
2 Government to accept the fuel.

3 MR. LYNCH: And lastly -- this is
4 more of a curiosity factor -- I check the
5 ISO every day on dispatch, and I noticed
6 that in like July and August nuclear
7 dispatch over the entire system was in the
8 20, 26 percent range, and now here in
9 September it's up over 30. Is there any
10 reason for that?

11 MR. HENNESSY: There could have
12 been units off line for unforced outages or
13 planned outages. It was not Millstone.

14 MR. LYNCH: All right. That was
15 my next question. Thank you. I'm all set.

16 MS. BACHMAN: Moving on to the
17 Somers Solar.

18 MR. PERRONE: On the Somers Solar
19 project does that project have fixed or
20 tracking panels?

21 MR. HENNESSY: They are
22 single-access tracking.

23 MR. PERRONE: Could you tell us
24 about the pros and cons of tracking versus
25 fixed panels?

1 MR. HENNESSY: The pros of
2 tracking is that you can program them to
3 follow the sun so you can maximize
4 efficiency in your output. So I'd say that
5 that's the main difference. It's a
6 technology upgrade compared to the fixed
7 panels.

8 MR. PERRONE: Are there any
9 reliability challenges like when you get
10 snow and ice and --

11 MR. HENNESSY: Interesting, no
12 reliability issues with snow and ice. The
13 panels are designed for that to slide off.
14 And because they're on the tracking, we
15 actually have the ability to make them
16 vertical or horizontal so that can -- you
17 know, we don't even need to do that in order
18 for the snow to slide off, but you have that
19 capability. Last winter where we actually
20 had -- we didn't have issues, but what we
21 were monitoring was the actual snow packed
22 on the ground because it got so deep last
23 winter it started approaching where it could
24 have impacted the tracking from the ground
25 up, but it did not.

1 MR. PERRONE: So being able to
2 remove the snow, snow, did that
3 significantly affect your electrical
4 production?

5 MR. HENNESSY: No, it didn't, no.
6 Electrical production in the winter can be
7 the same as the summer.

8 MR. PERRONE: But in the case of
9 a fixed panel design, is snow cover
10 something they consider when they --

11 MR. HENNESSY: I believe they
12 would, depending on the climate where they
13 are and what angle they fix the panels, but
14 I think traditionally the panels now are
15 designed where, even if you have a snowstorm
16 at night, you know, the next morning it's
17 going to slide right off.

18 MR. PERRONE: Are there any other
19 prospective solar projects that Dominion is
20 considering in Connecticut at this time?

21 MR. HENNESSY: Not in
22 Connecticut, not right now.

23 MR. PERRONE: Great.

24 Thank you. That's all I have for
25 Dominion.

1 MS. BACHMAN: Mr. Lynch, do you
2 have any questions?

3 MR. LYNCH: Just one. I've got a
4 curiosity question, a little bit off the
5 track.

6 Seeing that you're up and
7 operational, have you applied for your
8 federal 30 percent credits?

9 MR. HENNESSY: Yes.

10 MR. LYNCH: Thank you.

11 MS. BACHMAN: Thank you, Mr.
12 Hennessy.

13 (Whereupon, the representative
14 from Dominion was excused.)

15 MS. BACHMAN: The next
16 participant is Milford Power Company.

17 (No response.)

18 MS. BACHMAN: Next is Lake Road
19 Generating Company.

20 (No response.)

21 MS. BACHMAN: Wallingford Energy.

22 (No response.)

23 MS. BACHMAN: Wheelabrator
24 Bridgeport.

25 (No response.)

1 MS. BACHMAN: Wheelabrator

2 Lisbon.

3 (No response.)

4 MS. BACHMAN: Waste Management of

5 Connecticut.

6 (No response.)

7 MS. BACHMAN: PSEG Services

8 Corporation.

9 (No response.)

10 MS. BACHMAN: Kimberly-Clark

11 Corporation.

12 (No response.)

13 MS. BACHMAN: Waterside Power?

14 (No response.)

15 MS. BACHMAN: Emera Energy?

16 (No response.)

17 MS. BACHMAN: Capitol District

18 Energy Center Co-Generation Associates.

19 (No response.)

20 MS. BACHMAN: Covanta Bristol.

21 (No response.)

22 MS. BACHMAN: Manchester Methane.

23 (No response.)

24 MS. BACHMAN: CMEEC.

25 If you gentlemen could please

1 identify yourselves for the
2 transcriptionist?

3 CHARLES CARPINELLA: Yes. My
4 name is Charles Carpinella. I'm the
5 principal planner analyst for CMEEC.

6 BRIAN FORSHAW: I'm Brian
7 Forshaw. I'm the chief regulatory risk
8 officer.

9 JUSTIN CONNELL: I'm Justin
10 Connell, the director of portfolio
11 management.

12 MR. PERRONE: Does CMEEC submit a
13 forecast report or at least forecast data to
14 ISO for ISO to provide their forecast?

15 MR. CARPINELLA: No, we do not.
16 The only thing we submit to and verify with
17 ISO relating to the CELT report is the
18 generation numbers that make up part of that
19 report.

20 MR. PERRONE: And CMEEC's
21 generation would be subject to the same
22 Seasonal Claimed Capability audits that was
23 discussed before?

24 MR. CARPINELLA: That is correct.

25 MR. PERRONE: Does CMEEC have

1 time-of-use rates anywhere in its service
2 area?

3 MR. FORSHAW: We have, our
4 members have effectively real-time pricing
5 rates for their major customers under
6 special riders, so they're treated as if
7 they were purchasing directly from the
8 wholesale markets.

9 MR. PERRONE: When we experience
10 a heat wave that's several days long with
11 consistently high temperatures, do you find
12 that the daily peak demand tends to increase
13 over that time period?

14 MR. CARPINELLA: Usually if
15 especially like a two or three-day period,
16 you would tend to think that it usually
17 really reaches its max on the third day. We
18 have noticed this summer where in certain
19 times that the peak can occur any time
20 during that period of time. So it's usually
21 after an extended period of hot humid
22 weather.

23 MR. PERRONE: And that would be
24 due to more people turning their AC on?

25 MR. CARPINELLA: Or basically

1 they reach a certain point of tolerance
2 where they can't handle it anymore, so at
3 that point they would obviously turn on the
4 air-conditioning.

5 MR. PERRONE: And my
6 understanding is there's approximately a one
7 megawatt peak load for Fishers Island, New
8 York?

9 MR. CARPINELLA: That is correct.

10 MR. PERRONE: Also CMEEC's
11 forecast mentions a Norwalk-based data
12 center that came on line. What is the
13 ballpark load on that?

14 MR. CARPINELLA: So far right now
15 it's been only in about the roughly 300, 400
16 kilowatt range; however, they have indicated
17 to us that the near-term forecast for them
18 could increase significantly over what we're
19 currently seeing for this particular
20 customer.

21 MR. PERRONE: How does the Cool
22 Choice HVAC Rebate Program work; is that for
23 replacing heating/cooling units?

24 MR. FORSHAW: Yes. I think it's
25 been modeled after the other programs from

1 the larger utilities in the state.

2 MR. PERRONE: I know in UI's
3 forecast they had discussed in some areas
4 upgrading from CFL lights to LEDs. Have
5 LEDs been deployed in CMEEC's area?

6 MR. FORSHAW: There have been
7 some. I'm not sure exactly what the numbers
8 are.

9 MR. PERRONE: What is the status
10 of the naval submarine peaking plant
11 project?

12 MR. CONNELL: The EUL lease has
13 been signed, and right now it's really
14 vendor selection and project planning, and I
15 think shortly they're going to apply for the
16 air permits.

17 MR. PERRONE: Are prospective
18 solar plant projects modeled in your
19 forecast numbers? For example, the Council
20 has pending 4.93 megawatt and 2.74 megawatt
21 solar projects in Norwich.

22 MR. CARPINELLA: In the current
23 forecast that we submitted on March 1st, no,
24 that has not been included in the forecast.
25 However, subsequent forecasts forthcoming

1 would address such an issue.

2 MR. PERRONE: So the DG that's
3 buried into your forecast currently are the
4 two megawatt internal combustion units which
5 total about 40 megawatts?

6 MR. CARPINELLA: I believe the
7 total is now about 50 megawatts, which
8 includes the 10 megawatt facility that came
9 on at Backus Hospital.

10 MR. PERRONE: And the Backus
11 Hospital unit, that was deployed as part of
12 a microgrid?

13 MR. CARPINELLA: Yes, that is
14 correct, in 2014.

15 MR. PERRONE: Is it also fair to
16 say that your DG units would be used for
17 peaking so their overall effect on the
18 megawatts hours would be small?

19 MR. FORSHAW: That's correct.

20 MR. LYNCH: Can I just follow up
21 a little on the solar? And I think you're
22 also incorporating fuel cells into your
23 upgrades, just a little bit more information
24 on that, and also a little bit more -- Mike
25 hit my other question on what's happening at

1 the sub base.

2 MR. CONNELL: We're actually
3 doing battery storage, not the fuel cells,
4 to interact with the --

5 MR. LYNCH: Is that from Tesla or
6 UTC? I live in East Hartford. I'm trying
7 to plug UTC, you know.

8 MR. CONNELL: It's from Tesla.
9 No, it's through Solar City, and it was
10 effectively packaged with the community
11 solar that we're putting in place. So we'll
12 leverage those two assets, along with the
13 other distributed DG within the system, to
14 enhance the microgrids in those areas. And
15 the solar is really -- it's owned by Solar
16 City, and we have long-term PPAs, so CMEEC
17 won't own those facilities, but we'll take
18 the power off of them.

19 MR. LYNCH: Now the solar
20 projects have to be up and running and in
21 place by January of 2016 --

22 MR. CONNELL: Well, yes.

23 MR. LYNCH: -- to get the 30
24 percent tax credit or federal credits?

25 MR. CONNELL: (Nodding head in

1 the affirmative.)

2 MR. FORSHAW: Which, again,
3 that's not on our side. That's the
4 developer's side.

5 MR. CONNELL: That's right.

6 MR. LYNCH: I'm just inquiring.
7 That's all.

8 Thank you, Mike.

9 MR. PERRONE: I understand that
10 CMEEC's forecast does not include electric
11 vehicles at this time. Is that because the
12 penetration rate is relatively low in your
13 service area or more because charging would
14 likely be off peak and wouldn't materially
15 affect peak?

16 MR. CARPINELLA: No, the impacts.
17 In fact, I've queried all of our members
18 extensively on this question, and at this
19 present time there has been no market
20 penetration at all in that area in our
21 service territories.

22 MR. PERRONE: How has
23 Connecticut's population been affecting your
24 forecast? Have you seen like a slight
25 decline or flat growth?

1 MR. CARPINELLA: I think in terms
2 of any decline we may have seen and in terms
3 of our energy consumption, maybe in terms of
4 the cumulative effects of conservation or
5 energy efficiency that we've seen in various
6 members in our service territories, so I
7 don't think population, per se, has played
8 an important factor at this point in time in
9 our forecast.

10 MR. PERRONE: Do you track
11 population shifts like some people move from
12 an urban to a suburban area?

13 MR. CARPINELLA: The numbers we
14 look at is more on a statewide level. I
15 think we have some that are broken down by
16 various SMAs within Connecticut.

17 MR. LYNCH: How has the downturn
18 in the casino operations impacted your --

19 MR. CARPINELLA: At least for
20 this year we've noticed, for some
21 unexplained reason that I'm still trying to
22 get to the bottom of, a decrease in terms of
23 both their peak demand and their energy
24 consumption based on what we initially
25 thought we were going to see this year, so

1 we're a little bit concerned by that.
2 However, not included in this forecast but
3 for next year's forecast they're going to be
4 completing the addition of a hotel at the
5 casino which is supposed to obviously
6 increase their load significantly.

7 MR. PERRONE: Thank you. That's
8 all I have for CMEEC.

9 MR. LYNCH: Is Mr. Stern still
10 with the company?

11 MR. CARPINELLA: He sends his
12 regards.

13 (Whereupon, the representatives
14 from CMEEC were excused.)

15 MS. BACHMAN: The next
16 participant is the United Illuminating
17 Company.

18 If you would just identify
19 yourselves for the record?

20 DAVID BRADT: My name is Dave
21 Bradt. I'm the director of transmission
22 planning for UI.

23 ROBIN LYONS: And I'm Robin
24 Lyons. I'm the manager of system integrity
25 for UI.

1 MR. LYNCH: Ms. Lyons, could you
2 please speak up?

3 MS. LYONS: I'm sorry. Robin
4 Lyons. I'm the manager of system integrity
5 for UI.

6 MR. PERRONE: I had asked CMEEC
7 this question. I'll ask UI the same
8 question. Do you submit a forecast report
9 or at least forecast data to ISO for
10 infrastructure planning purposes or for
11 their forecasts?

12 MS. BRADT: We actually utilize
13 ISO's forecast, and they provide a certain
14 allocation of load for UI based on their
15 estimation, and then UI, based on our
16 distribution planning forecast station by
17 station, we allocate that amount of load
18 across our territory. So the load comes
19 from ISO, but we allocate it across our
20 substations based on our individual
21 forecast.

22 MR. PERRONE: In the response to
23 Interrogatory Number 1, I understand it was
24 actually provided in energy, gigawatt hours.
25 Would you have that same data in load,

1 megawatts, or if that could be supplied?

2 MS. LYONS: We'll see if we can
3 supply it.

4 MR. PERRONE: Okay. That would
5 be great.

6 Turning to Interrogatory Response
7 Number 3, down at the bottom there's a
8 footnote where it has grossed up 2.73
9 percent for line losses, and I see how
10 that's tied in with DG and C&LM. How does
11 that work?

12 MS. LYONS: So, for example, if
13 let's say you had a PV, and let's say it was
14 900 kW, if they were backfeeding into the
15 system and they're using our infrastructure,
16 we would want to account for line losses.
17 So we would, by what we calculate every year
18 for our loss on the system, we would gross
19 that up just to make sure we're carrying for
20 the total potential that would be coming on
21 the backfeed.

22 MR. PERRONE: So they would have
23 a contribution to the grid, but some of it
24 would be lost, and so you're finding like
25 their net contribution?

1 MS. LYONS: Correct.

2 MR. PERRONE: Okay, great.

3 And also, as I asked before, if
4 you have an extended heat wave of several
5 days long, do you generally find that the
6 peak loads increase during that period?

7 MS. LYONS: Yes. If it's during
8 the week on weekdays, yes. If it were over
9 the weekend or there was a holiday and let's
10 say the end, that third day or so, was the
11 end of the heat wave and it was on a holiday
12 or a weekend, we might not find that.

13 MR. PERRONE: And going back to
14 the discussion about LED lights, I read in
15 the forecast how UI is concentrating its --
16 or increasing its deployment of LEDs. Could
17 you talk about the pros and cons of LEDs
18 versus CFLs?

19 MS. LYONS: Actually would it be
20 okay to bring Dick up to the table for that?

21 MR. PERRONE: Yes.

22 RICHARD OSWALD: Richard Oswald,
23 the lead engineer in the C&LM department.

24 Can you repeat? I think it was
25 the advantages and disadvantages of LEDs

1 versus CFLs?

2 MR. PERRONE: That's correct.

3 MR. OSWALD: Okay. Well, the
4 main advantage of the LEDs is that they have
5 a longer life than we're projecting, and
6 they have roughly a 10 to 12-year life span
7 compared to CFLs, which is five or six
8 years.

9 The other big advantage of LEDs
10 compared to a lot of CFLs, you can dim the
11 lights. Many customers find that the light
12 quality of LEDs is more acceptable than
13 CFLs.

14 The other big advantage now is
15 that LEDs, the pricing of LEDs has been
16 coming and continues to go down pretty
17 dramatically over the last couple of years.

18 MR. PERRONE: And do the LEDs
19 have more of an instant on or a faster start
20 time?

21 MR. OSWALD: Yes. Yes.

22 MR. PERRONE: How is the State of
23 Connecticut's policy on increasing the use
24 of natural gas for residents and businesses
25 affecting electric load growth, if any?

1 MS. LYONS: I don't think I have
2 that answer.

3 MR. PERRONE: Has the Connecticut
4 population staying flat or declining affect
5 your forecast?

6 MS. LYONS: Yes, absolutely.

7 MR. PERRONE: Do you also track
8 population shifts from urban to suburban
9 areas?

10 MS. LYONS: No, we wouldn't do
11 that, but when we do prepare our load
12 forecasts, we do as part of the modeling,
13 there's some regression modeling that's
14 based on economic drivers, you know, through
15 independent third-party, Moody's, looking at
16 housing, those sort of things, so population
17 density would probably be one of them.

18 MR. PERRONE: Do your customers
19 have time-of-use rates or just the larger
20 customers?

21 MS. LYONS: I think just the
22 larger customers.

23 No? Mark, we have no time-of-use
24 rates?

25 MARK COLCA: I'm Mark Colca,

1 manager of rates.

2 We have residential and
3 commercial/industrial time-of-use. We have
4 residential. We have about 20 percent of
5 our residential customers are on a
6 time-of-use rate. In fact, anyone who
7 consumes 2,000 kWh or greater per month on a
8 monthly billing cycle has to go on our
9 residential time-of-use rate, if they're a
10 residential customer.

11 MR. PERRONE: What is a typical
12 or average monthly kilowatt hour usage for a
13 residential customer?

14 MR. COLCA: It's on the order of
15 600 to 650. We find our time-of-use
16 customers probably average around 1,000, and
17 our regular straight residential in the
18 500s. It's highly seasonal though.

19 MR. PERRONE: Thank you. That's
20 all I have for UI.

21 MS. BACHMAN: Mr. Lynch?

22 MR. LYNCH: No questions.

23 (Whereupon, the representatives
24 from the United Illuminating Company were
25 excused.)

1 MS. BACHMAN: The next
2 participant is Eversource.

3 Gentlemen, could you just
4 identify yourselves for the
5 transcriptionist?

6 JOSEPH SWIFT: I'm Joseph Swift
7 with Eversource.

8 BRADLEY BENTLEY: Brad Bentley,
9 Eversource, director of transmission
10 planning.

11 DANIEL LUDWIG: Daniel Ludwig,
12 Eversource Energy, load forecasting analyst.

13 DAVID ERRICHETTI: I'm Dave
14 Errichetti, manager, NEPOOL markets, power
15 supply, policy and analysis.

16 MR. PERRONE: As we were
17 discussing before, how does Eversource
18 interact with ISO with regard to load data?

19 MR. BENTLEY: Similar to UI, we
20 take the ISO CELT load forecast and take
21 their numbers. We also roll up from our
22 distribution folks the ratio and allocate
23 the load accordingly.

24 MR. PERRONE: So in a sense they
25 work out the macro, you work out the micro?

1 MR. BENTLEY: Yes.

2 MR. PERRONE: And also in the
3 forecast report it mentions losses. Those
4 are losses in the distribution system?

5 MR. BENTLEY: Losses in the
6 transmission and transformers.

7 MR. PERRONE: I'd like to move on
8 to solar DG. Do you include commercial
9 solar farms in your forecast; and if so, how
10 do you treat it? Is it just treated as a DG
11 item or as a local reduction in load?

12 MR. BENTLEY: I'll answer it from
13 the ISO perspective first. For the ISO
14 forecast they include PV as a load reducer.
15 That's new this year in the CELT load. So
16 to the extent that they know from the
17 programs that get those solar numbers
18 together, they'll put it into the forecast.
19 So there's a number that they get from
20 Eversource and UI, and they put it into the
21 forecast.

22 And then for the financial side
23 for us.

24 MR. LUDWIG: So for financial
25 forecasting we do not include large

1 commercial solar farms in our demand
2 forecast.

3 MR. ERRICHETTI: And just to add
4 a nuance, the ISO forecast reflects two
5 categories of solar DG. As he indicated,
6 some reduce the load, but some that are
7 actually metered hourly are included in the
8 supply to meet the load, and so those do not
9 reduce the load forecast.

10 So for instance, we have three
11 solar facilities in Massachusetts. Our
12 affiliate installed them and owned them.
13 Their hourly output is included in the
14 hourly load calculation, so they don't
15 reduce the load, they actually are a part of
16 meeting the load.

17 MR. PERRONE: So it's more about
18 how it's metered?

19 MR. ERRICHETTI: Yes.

20 MR. PERRONE: Is it fair to say
21 that most of these solar farms, because of
22 their size, are tied to distribution rather
23 than transmission?

24 MR. ERRICHETTI: I'd say yes.

25 MR. PERRONE: And moving to the

1 topic of electric vehicles, you basically
2 have the energy consumption because you're
3 making the assumption that charging would be
4 off peak, it would not materially affect the
5 peak loads?

6 MR. LUDWIG: For financial
7 forecasting purposes, that is correct.

8 MR. LYNCH: Could you speak up?
9 I just didn't hear that. That's all.

10 MR. LUDWIG: For financial
11 forecasting purposes, that's correct.

12 MR. LYNCH: Thank you.

13 MR. PERRONE: Is it also fair to
14 say that we're not yet at the point where we
15 have significant numbers of charged vehicles
16 backfeeding into the grid for peak load
17 shaving?

18 MR. LUDWIG: That's safe to say.

19 MR. PERRONE: Is electric vehicle
20 penetration, are you finding that it's more
21 or less uniform throughout Connecticut, or
22 because of the cost of the vehicles, they
23 are located in more affluent areas?

24 MR. BENTLEY: I haven't looked
25 into that.

1 MR. LUDWIG: Yes, I have not --

2 MR. PERRONE: I'd next like to
3 talk about import capacity. In the older
4 forecast the import limit into Connecticut
5 was about 2,000 megawatts, then it grew to
6 2,500, and now in the IRP and the RSP I'm
7 seeing numbers of about 2,950. Does that
8 sound reasonable?

9 MR. BENTLEY: Yes, with the
10 completion of the Greater Springfield NEEWS
11 Project and the Interstate Reliability
12 Project, those were the numbers that were
13 included in the transfer analysis, and those
14 are pretty close to what I think is showing
15 up.

16 MR. PERRONE: Because the IRP is
17 showing about 2,600 for 2015; 2,600 for
18 2016; 2,800 for 2017; and then it becomes a
19 flat 2,950.

20 MR. BENTLEY: Yes. And that was
21 based on the completion of interstate, which
22 was at that time anticipated to be in
23 service by the end of this year. So that
24 2016, you would see that jump. So that's
25 why you see the jump between '15 and '16.

1 MR. PERRONE: Okay. And the
2 status of Lake Road being incorporated into
3 Connecticut?

4 MR. ERRICHETTI: To the best of
5 my knowledge, that is what's happening. I
6 want to say it happened in the eighth
7 auction or it was the ninth, but I believe
8 it is now with the completion of the
9 interstate project or the anticipated
10 completion that, you know -- let me start
11 over.

12 The forward capacity auction is
13 forward looking, so they were sitting here
14 and said looking out there, we're going to
15 acknowledge it as a Connecticut resource.
16 The actual completion of the project is
17 coming along, and so the anticipation is
18 that was the right decision.

19 MR. PERRONE: And that would be
20 for all their units?

21 MR. ERRICHETTI: All three.

22 MR. PERRONE: Yes.

23 MR. ERRICHETTI: Yes.

24 MR. PERRONE: Okay, great.

25 And also for the forecast report

1 -- I had asked this before -- approximately
2 the number of homes per megawatt? I believe
3 I was quoted about 500 homes per megawatt.
4 Is that a typical number?

5 MR. BENTLEY: It sounds
6 reasonable. I think it's in the range.

7 MR. PERRONE: Has the state's
8 policy on increasing the use of natural gas
9 for residences and businesses affected load
10 growth in your area?

11 MR. SWIFT: Not that I know of.

12 MR. PERRONE: Has Connecticut's
13 flat or slightly declining population
14 affected your forecast?

15 MR. LUDWIG: For financial
16 forecasting purposes it's negatively
17 impacting the forecast.

18 MR. PERRONE: Do you track
19 population shifts from urban to suburban
20 areas in your forecasting?

21 MR. LUDWIG: We do not because we
22 have so much of Connecticut we focus on the
23 state.

24 MR. PERRONE: Can you talk about
25 the challenges with deploying large solar

1 facilities and connecting them to the
2 distribution system? Does it become an
3 issue when you're generating a lot in one
4 area from the solar farm and maybe loads are
5 light in other parts of your distribution
6 system?

7 MR. BENTLEY: From a technical
8 perspective, I'm aware of a number of
9 discussions at ISO about connecting large
10 solar farms. The distribution circuits,
11 they have a limited capacity. There's
12 technical reasons why it makes it
13 challenging from a distribution perspective
14 to protect the circuits and make sure
15 everything works properly. So there's
16 definitely challenges to large connections.

17 MR. LYNCH: Now, do you do
18 extensive -- with these solar farms do you
19 go in there long before they're up and
20 operating and evaluate how you're going to
21 do this?

22 MR. BENTLEY: To the extent that
23 they're large, over -- to the extent they've
24 got to apply to ISO New England, over five
25 megawatts, there's studies that would be

1 done to know whether they could be connected
2 to the distribution; and if they cannot,
3 then they'd be looking at a larger
4 connection and the associated process with
5 that.

6 MR. LYNCH: And who pays for
7 these connections?

8 MR. BENTLEY: At ISO the
9 applicant would pay for those studies if
10 it's a large connection.

11 MR. PERRONE: I have one last
12 question. Just to go back to the electric
13 vehicle topic, when you modeled electric
14 vehicles, were you looking exclusively at
15 battery-only vehicles, or were there also
16 some plug-in hybrids?

17 MR. LUDWIG: That includes all
18 electric vehicles.

19 MR. PERRONE: Thank you. That's
20 all I have for Eversource.

21 MR. LYNCH: I'm all set.

22 MS. BACHMAN: Thank you.

23 (Whereupon, the representatives
24 from Eversource Energy were excused.)

25 MS. BACHMAN: Our next

1 participant is the Town of Wallingford.

2 (No response.)

3 MS. BACHMAN: The Council is
4 going to recess until 6:30 p.m., at which
5 time you're welcome to join us for the
6 public comment session. Thank you for your
7 participation and have a nice afternoon.

8 (Whereupon, the above proceedings
9 adjourned at 1:43 p.m.)

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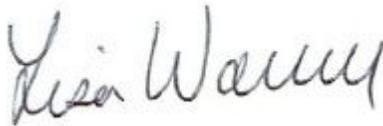
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CERTIFICATE

I hereby certify that the foregoing 45 pages are a complete and accurate computer-aided transcription of my original stenotype notes taken of the Technical Meeting in Re: DOCKET NO. F-2014/2015, CONNECTICUT SITING COUNCIL REVIEW OF THE TEN-YEAR FORECAST OF CONNECTICUT ELECTRIC LOADS AND RESOURCES, which was held before MELANIE BACHMAN, ESQ., EXECUTIVE DIRECTOR AND STAFF ATTORNEY, at the Connecticut Siting Council, Ten Franklin Square, New Britain, Connecticut, on September 24, 2015.



Lisa L. Warner, L.S.R., 061
Court Reporter

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