

In The Matter Of:
STATE OF CONNECTICUT v.
CONNECTICUT SITING COUNCIL

Docket No. 461A
August 29, 2017

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STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Docket No. 461A

Eversource Energy Application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 115-kilovolt bulk substation located at 290 Railroad Avenue, Greenwich, Connecticut, and two 115-kilovolt transmission circuits extending approximately 2.3 miles between the proposed substation and the existing Cos Cob Substation, Greenwich, Connecticut, and related substation improvements.

Continued Public Hearing held at the Connecticut Siting Council, Ten Franklin Square, New Britain, Connecticut, Tuesday, August 29, 2017, beginning at 11 a.m.

H e l d B e f o r e :
ROBERT STEIN, Chairman

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

2

3 Council Members:

4 SENATOR JAMES J. MURPHY, JR.,

5 Vice Chairman

6 ROBERT HANNON

7 MICHAEL HARDER

8 DR. MICHAEL W. KLEMENS

9 LARRY P. LEVESQUE, ESQ.

10 ROBERT SILVESTRI

11

12

13 Council Staff:

14 MELANIE BACHMAN, ESQ.

15 Executive Director and

16 Staff Attorney

17

18 ROBERT MERCIER

19 Siting Analyst

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23

24

25

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

2

3 For EVERSOURCE ENERGY:

4 CARMODY TORRANCE SANDAK & HENNESSEY, LLP

5 195 Church Street

6 New Haven, Connecticut 06509

7 BY: ANTHONY M. FITZGERALD, ESQ.

8 MARIANNE BARBINO DUBUQUE, ESQ.

9

10 For THE TOWN OF GREENWICH:

11 COHEN AND WOLF, P.C.

12 P.O. Box 1821

13 Bridgeport, Connecticut 06601

14 BY: DAVID A. BALL, ESQ.

15 DAVID E. DOBIN, ESQ.

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1 SENATOR MURPHY: Ladies and gentlemen,
2 this hearing is called to order this Tuesday,
3 August the 29th, 2017 at approximately 11 a.m. My
4 name is James J. Murphy, Jr. I'm the vice
5 chairman of the Connecticut Siting Council. Our
6 Chairman will be here within a short period of
7 time, but we're going to start in his absence just
8 to get things moving.

9 This evidentiary session is a
10 continuation of the hearing held on July the 13th,
11 2017, and July 25, 2017. It is held pursuant to
12 the provisions of Title 16 of the Connecticut
13 General Statutes and of the Uniform Administrative
14 Procedure Act upon an application of Eversource
15 Energy for a Certificate of Environmental
16 Compatibility and Public Need for the
17 construction, maintenance and operation of a
18 115-kilovolt bulk substation located at 290
19 Railroad Avenue, Greenwich, Connecticut, and two
20 115-kV transmission circuits extending 2.3 miles
21 between the proposed substation and the existing
22 Cos Cob Substation, Greenwich, Connecticut, and
23 related substation improvements. On May the 25th,
24 2017, the Council, pursuant to a request filed by
25 Eversource Energy and the provisions of

1 Connecticut General Statutes 4-181a(b), reopened
2 the May 12, 2016 final decision rendered in this
3 matter.

4 A verbatim transcript will be made of
5 this hearing and deposited with the Town Clerk's
6 Office in the Greenwich Town Hall for the
7 convenience of the public.

8 We will proceed in accordance with the
9 proposed agenda, copies of which are available at
10 the table.

11 We will continue with the appearance by
12 the applicant, Eversource Energy, to verify new
13 exhibits marked as Roman numeral II, Items B 10
14 through 14 on the hearing program.

15 Attorney Fitzgerald, please begin by
16 verifying the exhibits you have filed in this
17 matter, and verifying the exhibits by the
18 appropriate sworn witnesses.

19 MR. FITZGERALD: Thank you, Senator
20 Murphy.

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1 R O N A L D J. A R A U J O,
2 F A R A H S. O M O K A R O,
3 K E N N E T H B O W E S,
4 J A S O N C A B R A L,
5 J O H N C. C A S E,
6 C H R I S T O P H E R P. S O D E R M A N,
7 M I C H A E L L I B E R T I N E,

8 called as witnesses, being previously duly
9 sworn, continued to testify on their oaths as
10 follows:

11 DIRECT EXAMINATION

12 MR. FITZGERALD: Starting with exhibit
13 for identification 10, which comes in three parts,
14 I'll start with part A on pages D-4 and D-5 of
15 Exhibit B to the motion to reopen, and ask
16 Mr. Soderman if the substitute pages identified
17 here are true and accurate to the best of your
18 knowledge and belief and expertise?

19 THE WITNESS (Soderman): They are.

20 MR. FITZGERALD: And then with respect
21 to sub items B and C, which are substitute figures
22 on pages 4 and 10 of Eversource's initial prefile
23 testimony, I'll ask Mr. Bowes if those figures are
24 true and correct to the best of your knowledge and
25 belief?

1 THE WITNESS (Bowes): Yes, they are.

2 MR. FITZGERALD: And the next item is
3 Exhibit 11, revised response to Council
4 interrogatory 61. And I'll ask Mr. Case, is that
5 revised response true and correct to the best of
6 your knowledge and belief.

7 THE WITNESS (Case): Yes, it is.

8 MR. FITZGERALD: And while we're on
9 that subject, Mr. Case, I'd like to ask you
10 whether you also have a minor correction to the
11 table in the response to Interrogatory Number 63?

12 THE WITNESS (Case): I do. I would
13 like to make one correction to table 063 in the
14 response to the Council. There is an item in the
15 column labeled "Currently Proposed GSLP." In the
16 "Variations" section toward the bottom of that
17 column it's called "Extension of underground
18 transmission line to 290 Railroad Avenue." The
19 listed value is 1.0 million. That actual value
20 should be 0.9 million.

21 MR. FITZGERALD: That is an incremental
22 value?

23 THE WITNESS (Case): That is correct.

24 MR. FITZGERALD: Now moving on to --

25 SENATOR MURPHY: Mr. Ball, did you get

1 it?

2 MR. BALL: I did. Thank you, Senator
3 Murphy.

4 MR. FITZGERALD: Moving on to item
5 Eversource Exhibit 12, responses to the Council
6 Set Two and Three Interrogatories. Mr. Bowes, are
7 the responses to those interrogatories true and
8 correct to the best of your knowledge and belief?

9 THE WITNESS (Bowes): Yes, they are.

10 MR. FITZGERALD: And now moving to
11 Eversource Exhibit 13 for identification. It's a
12 response to Parker Stacy's Set Two
13 interrogatories. Mr. Bowes, are those responses
14 true and correct to the best of your knowledge and
15 belief?

16 THE WITNESS (Bowes): Yes, they are.

17 MR. FITZGERALD: And finally moving to
18 item 14, Eversource's responses to the Town of
19 Greenwich Set Two Interrogatories, are those
20 responses true and correct to the best of your
21 knowledge and belief, Mr. Bowes?

22 THE WITNESS (Bowes): Yes, they are.

23 MR. FITZGERALD: May it please the
24 panel, I offer Eversource Exhibits 10 through 14
25 for identification as full exhibits.

1 SENATOR MURPHY: Any objection?

2 MR. BALL: No objection.

3 SENATOR MURPHY: Any objection from any
4 other party?

5 (No response.)

6 SENATOR MURPHY: Hearing no objection,
7 Mr. Fitzgerald, they are admitted as full
8 exhibits.

9 (Applicant's Exhibits II-B-10 through
10 II-B-14: Received in evidence - described in
11 index.)

12 MR. FITZGERALD: Thank you. I do
13 have -- there's one other item which is shaded in
14 the hearing program to indicate that they are not
15 yet part of the record. And that is under
16 administrative notice, which is Roman II, capital
17 A. There are two items. One is Docket 474, the
18 so-called GACC docket. And the other is to update
19 annual reports of the Town of Greenwich that have
20 previously been noticed in this matter. I would
21 ask that the most-recently published report for
22 the fiscal year July 1, 2015 to June 30, 2016 be
23 administratively noticed.

24 SENATOR MURPHY: Is there any objection
25 to administrative notice of those items?

1 (No response.)

2 SENATOR MURPHY: Not hearing any, they
3 are so admitted by Mr. Fitzgerald.

4 (Administrative Notice Items II-A-1 and
5 II-A-2 were admitted into the record.)

6 MR. FITZGERALD: Thank you, Senator
7 Murphy. With that, our panel is ready for
8 cross-examination.

9 SENATOR MURPHY: I think we're here
10 today for the panel to be examined by the Town of
11 Greenwich. So Attorney Ball.

12 MR. BALL: Thank you, Senator Murphy.
13 If I may, I just will introduce Attorney Dobin
14 from my office who is also representing the Town
15 of Greenwich, and Mr. Mailman who is an energy
16 consultant. Attorney Dobin and I will be doing
17 the questioning.

18 CROSS-EXAMINATION

19 MR. BALL: Now, Mr. Bowes, good
20 morning.

21 THE WITNESS (Bowes): Good morning.

22 MR. BALL: If I can, I'd like to
23 perhaps just very quickly make sure I understand
24 as an overview the way the electrical system
25 works. Okay?

1 THE WITNESS (Bowes): Yes.

2 MR. BALL: All right. So as I
3 understand it, energy is transmitted to the Cos
4 Cob Substation from the 115-kV lines that
5 originate in Stamford?

6 THE WITNESS (Bowes): Yes.

7 MR. BALL: And those lines, which we'll
8 get into in a bit, they're called lines 1740 and
9 1750?

10 THE WITNESS (Bowes): Yes.

11 MR. BALL: Those numbers don't have any
12 particular meaning, that's just how you designate
13 them, that's what they're called, it doesn't speak
14 to their capacity or anything like that?

15 THE WITNESS (Bowes): So it's a
16 nomenclature that does have meaning. A four digit
17 indicates that it's a 115-kV transmission line
18 with a 1 in front of it, versus a 3 in front of it
19 would indicate a 345-kV line.

20 MR. BALL: Thank you. Now, as I
21 understand it, as the 115-kV electricity comes to
22 the Cos Cob Substation, it is then transformed to
23 27.6 kV on transformers at the Cos Cob Substation.
24 Is that correct?

25 THE WITNESS (Bowes): Partially

1 correct. It also feeds two other substations and
2 some 13-kV equipment as well.

3 MR. BALL: Let's make sure I stick with
4 the flow to Cos Cob, if I can. When the
5 electricity comes to the 27.6-kV transformers at
6 Cos Cob, it is then distributed out through
7 feeders to various substations on 27.6 kV feeders.
8 Right?

9 THE WITNESS (Bowes): To both
10 substations and directly to customers.

11 MR. BALL: So you have multiple
12 substations that receive that energy at 27.6 kV.
13 Right?

14 THE WITNESS (Bowes): Yes.

15 MR. BALL: You have, as you just
16 identified, there's actually 11 large commercial
17 customers who specifically get 27.6 kV directly
18 from the Cos Cob Substation?

19 THE WITNESS (Bowes): Commercial or
20 industrial, yes.

21 MR. BALL: And also there's the
22 Greenwich network that receives the energy at 27.6
23 kV?

24 THE WITNESS (Bowes): That is correct.

25 MR. BALL: Now, just to be drilling

1 down on the distribution system here, the
2 electricity is distributed to the substations at
3 27.6 kV. It will then be transformed to 13.2 kV
4 for purposes of distribution at those substations?

5 THE WITNESS (Bowes): Yes.

6 MR. BALL: And then let's put aside
7 Tomac. Other than Tomac, which I understand is on
8 a 4.8-kV system, the rest of the substations are
9 distributing out the energy at 13.2 kV to the end
10 users?

11 THE WITNESS (Bowes): Yes.

12 MR. BALL: And that 13.2-kV
13 distribution is largely on overhead wood poles in
14 Greenwich?

15 THE WITNESS (Bowes): Yes, it is.

16 MR. BALL: Now, this is, for lack of a
17 better word, a reopened docket, right? This is
18 Docket 461A. It originated as Docket 461. It was
19 a different proposal at that time. Right?

20 THE WITNESS (Bowes): Yes, it was.

21 MR. BALL: It's fair to say that a lot
22 of the focus in Docket 461 was on Eversource's
23 contention that there was a risk of overloads on
24 the 27-kV transformers at the Cos Cob Substation.
25 Isn't that true?

1 THE WITNESS (Bowes): I think that was
2 part of the consideration, yes.

3 MR. BALL: All right. And you will
4 recall the town argued in the original Docket 461
5 that the projections on which Eversource based its
6 claim for need, the projections of the risk of
7 overloads on the Cos Cob transformers were false,
8 that was our position, the town. Right?

9 THE WITNESS (Bowes): I believe both
10 the town and the OCC questioned the 1 percent
11 annual increase in loads.

12 MR. BALL: Right. So going back to
13 that docket, what you were projecting was
14 continuous load growth on the 27.6-kV
15 transformers, that was what your projections were
16 just two years ago. Right?

17 THE WITNESS (Bowes): That was part of
18 it, yes.

19 MR. BALL: Now, you'll recall the town
20 made an argument that the peak load at the Cos Cob
21 Substation, there's this magic number that you
22 cite to in 2013 of 130.5 MVA on the Cos Cob
23 transformer. That was the peak load in 2013.
24 Right?

25 MR. FITZGERALD: Objection. The

1 question started in one direction and ended up in
2 another. So it's a compound question that can't
3 be answered intelligently.

4 MR. BALL: Somehow I suspect Mr. Bowes
5 can, but I'll break it down.

6 You agree that in 2013 the recorded
7 peak load, according to you, was 130.5 MVA at the
8 Cos Cob Substation?

9 THE WITNESS (Bowes): For the 27-kV
10 system, yes.

11 MR. BALL: And we argued that, wait a
12 minute, if we look at 2014 and 2015, the load was
13 substantially less going forward, it wasn't
14 increasing, as you projected. You recall that?

15 THE WITNESS (Bowes): Yes, I do.

16 MR. BALL: Now, as I recall -- and I'm
17 sure you'll correct me if I'm not right -- in
18 Eversource's original application in Docket 461,
19 you were projecting overloads on the 27.6 kV
20 transformers in Cos Cob, you were projecting those
21 overloads would happen as soon as this year 2017,
22 right, if I compare it to the -- well, I'll just
23 ask that question.

24 THE WITNESS (Bowes): I believe that
25 was the projection, yes.

1 MR. BALL: And that was one of the
2 arguments you made as to the immediate need for
3 what was then your \$140 million proposal. Right?

4 THE WITNESS (Bowes): It was one of the
5 arguments, yes.

6 (Whereupon, Chairman Stein entered the
7 hearing room.)

8 MR. BALL: And, in fact, after that in
9 2016 we have actual data. 2016 was the hottest
10 summer on record, do I understand that correctly?

11 THE WITNESS (Bowes): So I believe it
12 was the highest average daily temperature on
13 record.

14 MR. BALL: And, in fact, the recorded
15 peak load at the Cos Cob Substation on the Cos Cob
16 transformers, the 27.6-kV transformers in 2016,
17 was just 115.6 MVA. Am I right about that?

18 THE WITNESS (Bowes): Subject to check,
19 I'll accept that, yes.

20 MR. BALL: Significantly less than the
21 numbers you were projecting that could have
22 resulted in overloads on those transformers,
23 right, in the original docket?

24 THE WITNESS (Bowes): So I guess I was
25 was fine until you said the overloads on those

1 transformers because at 115.6 MVA, two of the
2 transformers would be overloaded.

3 MR. BALL: Well, let's take a step
4 back. The capacity in the Cos Cob transformers,
5 what is the capacity of the Cos Cob transformers?

6 THE WITNESS (Bowes): So if you account
7 for a contingency of N minus 1, which would be the
8 loss of the largest transformer, the capacity
9 would be around 94 MVA.

10 MR. BALL: Let me focus the question a
11 little better. Your projections for 2016 were --
12 I'm looking at Table E.1 of your original
13 application.

14 THE WITNESS (Bowes): Okay. Hold on
15 just a second. I'll get it.

16 MR. BALL: Yes, please.

17 THE WITNESS (Bowes): Table E.1. Is
18 there a page as well?

19 MR. DOBIN: It's page E-5, page E-5.

20 THE WITNESS (Bowes): I have the table.

21 MR. BALL: Thank you. In 2016, your
22 projection initially in Docket 461 was that the
23 load on the Cos Cob transformers was going to be
24 134.5 MVA. Right?

25 THE WITNESS (Bowes): Yes.

1 MR. BALL: And the actual peak load on
2 the Cos Cob transformers in 2016 was 115.6 MVA?

3 THE WITNESS (Bowes): I believe I've
4 answered that, yes.

5 MR. BALL: And you would agree that the
6 permissible load at the Cos Cob Substation on the
7 27.6-kV transformers is 135 MVA. Right?

8 THE WITNESS (Bowes): So that was a
9 different question than you originally asked.

10 MR. BALL: I'm asking that now.

11 THE WITNESS (Bowes): So the
12 permissible load level, yes, which accounts for an
13 emergency rating of two hours.

14 MR. BALL: Now, let's fast forward this
15 to this docket. Now we're up to May 2017. You
16 filed a petition for reconsideration. And it is
17 true, is it not, that one of your arguments as
18 recently as May of this year was that the need for
19 this project is based on load projections, in
20 part, based on load projections of overloads on
21 the Cos Cob transformers. Isn't that true?

22 THE WITNESS (Bowes): You have to point
23 me to where that is.

24 MR. BALL: Sure. Let's take a look at
25 attachment A of your prefiled. And you can go to

1 page 26.

2 THE WITNESS (Bowes): So 26 I have as
3 attachment A.

4 MR. BALL: I'm sorry. One more time,
5 Mr. Bowes?

6 THE WITNESS (Bowes): My page 26 is
7 attachment A.

8 MR. BALL: Right. And we've sort of
9 blown it up on that screen. I just want to make
10 sure we're looking at the same picture. Right?
11 So that there's no misunderstanding as to what you
12 were arguing when you sought to reopen this
13 petition, do you see findings of fact 95 to 108,
14 load forecasting? Do you see that?

15 THE WITNESS (Bowes): Yes, I do.

16 MR. BALL: And your statement was these
17 findings remain accurate and relevant, that was
18 your position when you sought to reopen this
19 docket in May of 2017. Right?

20 THE WITNESS (Bowes): Yes.

21 MR. BALL: Okay. And finding of fact
22 97, in fact, was a chart with those projected
23 overloads on the Cos Cob transformers. Right?

24 THE WITNESS (Bowes): I don't know
25 that, no.

1 MR. BALL: Let's take a look. I want
2 you to be comfortable with what I'm asking you.
3 If you pull out finding of fact 97 from the first
4 docket, you'll see the Eversource projections of 1
5 percent growth rate working off the 130.5 MVA peak
6 load in 2013. Do you see that? That was one of
7 the findings.

8 THE WITNESS (Bowes): I do, but that's
9 not the same chart that was in the application.

10 MR. BALL: Okay. Well, that is a chart
11 that assumes 1 percent growth, the same percentage
12 growth that you were applying. Right?

13 THE WITNESS (Bowes): It's the same
14 percentage as the other chart, yes.

15 MR. BALL: You would agree that if
16 those projections were accurate in 2017, the Cos
17 Cob transformers, 27.6-kV transformers, would be
18 at risk of overloading. Right?

19 THE WITNESS (Bowes): No.

20 MR. BALL: They're not at risk of
21 overloading if the total MVA is 135.7 MVA?

22 THE WITNESS (Bowes): I'll try to be
23 patient. So I originally said that if you take N
24 minus 1 contingency and loss of the largest
25 transformer, the overload would occur at 94 MVA.

1 MR. BALL: I'm asking you about your
2 projections.

3 THE WITNESS (Bowes): But you tied it
4 to would the transformers be overloaded. The
5 transformers would be overloaded at 94 MVA.

6 MR. BALL: I'm asking you a different
7 question. I'm asking you based on your
8 projections in 2017 isn't it true that at 135.7
9 MVA the load would exceed the permissible capacity
10 of the 27.6 kV transformers?

11 THE WITNESS (Bowes): So, again, that's
12 a different question.

13 MR. BALL: I'm asking you that.

14 THE WITNESS (Bowes): So would it be
15 above the permissible load? Yes.

16 MR. BALL: And your contention in May
17 of this year, three months ago, was that that
18 finding that I'm looking at on that screen was
19 accurate and relevant?

20 THE WITNESS (Bowes): So I would agree
21 that it's confusing, the fact that the 1 percent
22 is not materialized, and it probably should not
23 have been included in the listing of findings of
24 fact.

25 MR. BALL: Okay. So I'm just trying to

1 understand the company's position. So is it your
2 position now that it was a mistake by the company
3 to rely on this chart in May when you were seeking
4 the reconsideration of this docket?

5 THE WITNESS (Bowes): We probably
6 should not have included it as one of the findings
7 of fact.

8 MR. BALL: All right. Well, let's make
9 sure I understand your current position. As you
10 sit here -- and I believe you made an announcement
11 at the beginning of the first hearing in July of
12 this year, right, the first hearing date was July
13 25th? And your announcement was that you were no
14 longer basing the claim of the need for this
15 project on the projections of overloads on the Cos
16 Cob transformers. Isn't that true?

17 THE WITNESS (Bowes): Based on the load
18 growth, that is correct. There is not a 1 percent
19 load growth for these transformers.

20 MR. BALL: Right. So one of the
21 alleged bases of the need for this project two
22 years ago, right, the \$140 million project, that
23 there would be this growth in load on the Cos Cob
24 27.6-kV transformers is no longer a concern as you
25 sit here today?

1 THE WITNESS (Bowes): The load growth
2 is no longer a concern.

3 MR. BALL: And even though -- I just
4 want to be clear -- even though this contention
5 that was part of the basis for your alleged need
6 for the \$140 million project two years ago, even
7 though it's no longer a concern, you have not made
8 any changes to your application from May when you
9 sought to reopen? Let me state that again. May
10 2017 when you sought reconsideration of the
11 docket, you said this was relevant. From May to
12 today you haven't made any changes in your
13 proposal. Right?

14 THE WITNESS (Bowes): Yes, we have.

15 MR. BALL: You're still proposing \$100
16 million transmission line, right, from May 2017 to
17 today you have not changed that?

18 THE WITNESS (Bowes): You said any
19 changes.

20 MR. BALL: Have you changed that?

21 THE WITNESS (Bowes): We are proposing
22 approximately \$100 million substation and
23 transmission line project, yes.

24 MR. BALL: And, by the way, just to be
25 clear, one of the reasons, correct me if I'm

1 wrong, that you testified you no longer have this
2 concern about the projections in this chart coming
3 to fruition with this load growth of 1 percent a
4 year is because of the energy efficiency efforts
5 of the town. Isn't that true?

6 THE WITNESS (Bowes): I think that's
7 part of it, yes.

8 MR. BALL: So your forecasting has
9 changed?

10 THE WITNESS (Bowes): Yes, it has.

11 MR. BALL: And part of the
12 consideration of that forecasting is energy
13 efficiency, distributed generation, demand
14 response programs in Greenwich. Right?

15 THE WITNESS (Bowes): So I was fine
16 with the energy efficiency and distributed
17 generation. I can't make that statement for
18 demand response.

19 MR. BALL: Fair enough. Maybe I
20 misunderstood your testimony from July, but that's
21 okay. The point is the same that you're not only,
22 if I understood your testimony in July, not only
23 do you expect the load growth to be flat, in fact,
24 you would project it to decline a bit because of
25 those energy efficiency efforts?

1 THE WITNESS (Bowes): If the town and
2 customers in the town were successful at those,
3 you could see a decline.

4 MR. BALL: And you're aware of the
5 efforts the town has been undertaking in
6 cooperation with Eversource to implement those
7 energy efficiency programs?

8 THE WITNESS (Bowes): Yes, I am.

9 MR. BALL: Now, I just want to make
10 sure I understand your terminology. So your
11 terminology at the July hearing was you're no
12 longer basing the claim for need of this project
13 on load growth, right, but you're still
14 characterizing this as a project that's needed for
15 the reliability of the system?

16 THE WITNESS (Bowes): So I would say
17 that's how I originally characterized it as well
18 in 2011. That was two years before the 2013 peak
19 occurred. And that's when the public announcement
20 was made for the need for a new substation in
21 Greenwich due to reliability concerns.

22 MR. BALL: Right. And in 2011 and '12
23 and '13 one of your concerns was load growth.
24 Right?

25 THE WITNESS (Bowes): That was one of

1 the concerns, but not the primary one.

2 MR. BALL: Well, put aside primary. I
3 can't get inside your head, but I want to make
4 sure I understand the company's position. Right
5 now you are no longer claiming it's based on load
6 growth. Right?

7 THE WITNESS (Bowes): So today that is
8 correct, yes.

9 MR. BALL: And, in fact, what you're
10 proposing is a new substation that will have 60
11 MVA of capacity. Right?

12 THE WITNESS (Bowes): It's actually two
13 60 MVA transformers. So again, accounting for
14 loss of one of them, same contingency, it would be
15 60 MVA.

16 MR. BALL: And you are proposing
17 retiring the Prospect Substation, which has 55 MVA
18 of capacity you would agree?

19 THE WITNESS (Bowes): Yes.

20 MR. BALL: So just taking into account
21 the retirement of Prospect and the proposed
22 construction of the new substation, the added
23 capacity would only be 5 MVA net, you would agree
24 with that, if I take into account the retiring of
25 Prospect?

1 THE WITNESS (Bowes): So on contingency
2 that would be correct. But again, it has to look
3 at a permissible load rating for an emergency
4 situation, which would be different than 60 MVA.

5 MR. BALL: All right. So let's take a
6 look at the distribution system. Because as I
7 understand it now, you've got a concern about the
8 reliability of the distribution system. Is that
9 correct?

10 THE WITNESS (Bowes): That was the
11 original concern in 2011.

12 MR. BALL: I'm just asking you today.
13 Is that the concern you have?

14 THE WITNESS (Bowes): It is still a
15 concern, yes.

16 MR. BALL: So let's take a look, if we
17 can, at figure 1, which I think you submitted a
18 revised chart which Attorney Dobin is about to
19 broadcast.

20 All right, Mr. Bowes. So what is
21 called revised figure 1, is that an accurate
22 depiction of the 27.6-kV system today in
23 Greenwich?

24 THE WITNESS (Bowes): Yes, it is.

25 MR. BALL: So what we see on the chart

1 are -- this is before the project is built, right,
2 this is as it exists today, so in the lower
3 left-hand corner it says existing prospect.
4 Right?

5 THE WITNESS (Bowes): That is correct.

6 MR. BALL: So if I got this right, I'm
7 looking at six substations as well as the
8 Greenwich network, all part of the 27.6-kV system?

9 THE WITNESS (Bowes): That is correct.

10 MR. BALL: And if we're going to be a
11 little more precise in this chart, we would have
12 included your testimony earlier this morning that
13 in addition to these loads that are served on the
14 27.6-kV system, we have 11 commercial or
15 industrial customers in Greenwich also served on
16 the 27.6-kV system?

17 THE WITNESS (Bowes): That is correct.

18 MR. BALL: So, other than that, this
19 chart shows the feeders from substation to
20 substation on the 27.6-kV system. Right?

21 THE WITNESS (Bowes): I'm not sure what
22 "other than that" means.

23 MR. BALL: Other than the fact that I
24 don't see the 11 commercial customers, other than
25 those loads, or the other loads served by the

1 27.6-kV system, are depicted on that chart. Isn't
2 that right?

3 THE WITNESS (Bowes): So this doesn't
4 show any of the loads that are connected. All it
5 shows is boxes that indicate the substations. So
6 it doesn't show any customers, and it doesn't show
7 any loads.

8 MR. BALL: Well, it doesn't show -- I
9 don't think you're saying anything differently
10 than I am. There's 11 commercial customers who
11 are also fed directly at 27 kV who are not
12 depicted on this chart?

13 THE WITNESS (Bowes): That is accurate,
14 yes.

15 MR. BALL: Now, the way the system is
16 designed, you'll correct me, I'm sure, if I'm
17 wrong, is that there's always at least one normal
18 feeder and one alternate feeder in order to
19 provide redundancy to any of these substations.
20 Is that true?

21 THE WITNESS (Bowes): No, it's not.

22 MR. BALL: It's not true that you
23 always have a normal feeder, and you always have
24 an alternate feeder?

25 THE WITNESS (Bowes): No, it's not.

1 MR. BALL: Let's take a look at --
2 actually before I show you Exhibit 76, why is that
3 not true?

4 THE WITNESS (Bowes): There are several
5 substations that have multiple feeders as the
6 normal supply and no alternates.

7 MR. BALL: Let me take a step back.
8 There are no substations that have only one source
9 of being fed?

10 THE WITNESS (Bowes): That is correct.

11 MR. BALL: Okay. So there is multiple
12 feeders to every substation. Right?

13 THE WITNESS (Bowes): Again, to be
14 clear, from Cos Cob, yes.

15 MR. BALL: Okay. Thanks.

16 THE WITNESS (Bowes): Excluding Cos
17 Cob, yes.

18 MR. BALL: Thank you for that
19 characterization.

20 So is it true that the system is
21 designed so that if any one feeder is down going
22 to a substation, there is still sufficient
23 capacity on the other feeders in the system to
24 serve the load in that substation?

25 THE WITNESS (Bowes): No, it's not.

1 MR. BALL: Where is that not the case?

2 THE WITNESS (Bowes): The Prospect.

3 MR. BALL: It's not true in Prospect?

4 THE WITNESS (Bowes): That is correct.

5 MR. BALL: The feeders don't have,
6 based on their normal rating, sufficient capacity
7 to serve Prospect?

8 THE WITNESS (Bowes): That's correct.

9 MR. BALL: Okay. Let's take a look at
10 a couple charts. Let me start with this. The
11 highest recorded peak load at Prospect since 2013
12 was actually in 2013, and it was 51.2 MVA. Right?

13 THE WITNESS (Bowes): Is there a
14 reference you have?

15 MR. BALL: Sure. CSC-13, this docket.

16 THE WITNESS (Bowes): Yes, I have that.
17 It's 51.2 MVA in 2013.

18 MR. BALL: So that's the highest
19 recorded peak load at Prospect since 2013, in
20 fact, it's gone down since then. Right?

21 THE WITNESS (Bowes): Yes, it has.

22 MR. BALL: But let's just work off of
23 51.5 MVA. Would you take a look at the response,
24 the chart you gave us in response to Town 001?

25 THE WITNESS (Bowes): Yes, I have it.

1 MR. BALL: Now, Prospect has multiple
2 feeders coming out of Cos Cob, in fact, there's
3 four of them. Right?

4 THE WITNESS (Bowes): That is correct.

5 MR. BALL: 11R51, 11R52, 11R55 and
6 11R58. Have I got that right?

7 THE WITNESS (Bowes): I believe that's
8 correct, yes.

9 MR. BALL: Now, we asked you to provide
10 to us the normal rating for those feeders based on
11 an assumption of 75 percent load factor, and you
12 did that in response to Town 001; did you not?

13 THE WITNESS (Bowes): Yes.

14 MR. BALL: So if I add up each of those
15 normal ratings, you would agree that the combined
16 MVA capacity far exceeds the highest recorded peak
17 load at the Prospect Substation? We can go
18 through them one by one, if you like? So, Mr.
19 Bowes, why don't we do it this way. 11R51, Cos
20 Cob to Prospect, the normal rating is 24.6 MVA?

21 THE WITNESS (Bowes): That is correct.

22 MR. BALL: 11R52, Cos Cob to Prospect,
23 the normal rating is 33.5 MVA?

24 THE WITNESS (Bowes): Yes.

25 MR. BALL: 11R55, Cos Cob to Prospect,

1 32.5 is the normal rating?

2 THE WITNESS (Bowes): Yes.

3 MR. BALL: 11R58, Cos Cob to Prospect,
4 25.6 is the normal rating of that feeder. Right?

5 THE WITNESS (Bowes): Yes, it is.

6 MR. BALL: So those four feeders are
7 serving Prospect. Right?

8 THE WITNESS (Bowes): Yes.

9 MR. BALL: Prospect has a transformer
10 capacity of 55 MVA, right, the substation, the
11 transformers at that substation?

12 THE WITNESS (Bowes): Yes.

13 MR. BALL: We talked about that a
14 minute ago. And the peak load from 2013 on, the
15 highest peak load is 51.2 MVA?

16 THE WITNESS (Bowes): Yes.

17 MR. BALL: So these four feeders, as
18 the system was designed, have more than enough
19 capacity to serve the load at the Prospect
20 Substation. You would agree with that?

21 THE WITNESS (Bowes): No.

22 MR. BALL: The system wasn't designed
23 to allow those feeders to adequately serve
24 Prospect?

25 THE WITNESS (Bowes): With all lines in

1 service, yes. As soon as you lose one, overloads
2 occur.

3 MR. BALL: Well, I'm asking you about
4 design, so stick with me on this. Was the system
5 designed to work with one feeder down?

6 THE WITNESS (Bowes): Yes.

7 MR. BALL: Okay. So let's take the
8 feeder with the greatest capacity -- the greatest
9 normal rating, 11R52. Of the four that had the
10 highest, 33.5. Do you see that?

11 THE WITNESS (Bowes): Yes, I do.

12 MR. BALL: If I add up the normal
13 rating of 11R51, 24.6; 11R55, which is 32.5; and
14 11R58, which is 25.6 MVA, they didn't teach math
15 in law school, but I think you've got more than 80
16 MVA of capacity in terms of their normal ratings.

17 THE WITNESS (Bowes): So if you look at
18 that original diagram we talked about, revised
19 figure 1, there are other loads served besides
20 Prospect Substation.

21 MR. BALL: Okay. Are you saying that
22 those feeders, as designed, that I just walked you
23 through, that the design was not set up in a way
24 to serve the capacity at Prospect. Is that what
25 you're saying?

1 THE WITNESS (Bowes): So I would say
2 they were designed to feed both the underground
3 network and also other loads besides that.

4 MR. BALL: Well, even assuming some of
5 the load is served at the network, there is still
6 sufficient capacity with one feeder down, as the
7 system was designed, to serve the load at
8 Prospect. Isn't that true?

9 THE WITNESS (Bowes): No. So if I
10 could point you to --

11 MR. BALL: Go ahead, Mr. Bowes.

12 THE WITNESS (Bowes): -- in the prefile
13 testimony there's a series of charts that may
14 help, figure 2 on page 5, and then figure 3 and
15 figure 4 on page 6. They go through the actual
16 load flows that are done that account for the
17 other connections besides the Prospect Substation,
18 which includes the network load, as well as the
19 Byram load.

20 MR. BALL: Okay.

21 THE WITNESS (Bowes): If we look at
22 Prospect, it feeds through to Byram as well. If
23 you want to put that chart back up we can --

24 MR. BALL: There's a problem with the
25 connection apparently.

1 THE WITNESS (Bowes): So those feeders,
2 those four feeders also feed the underground
3 network in Stamford, as well as the Byram
4 Substation, so if you want to consider it like a
5 pass-through for those connected loads. And then
6 from Byram that circuit also feeds some of the 11
7 customers that we previously talked about.

8 MR. BALL: The normal ratings that you
9 gave us for the cables are the ratings even after
10 the load, some amount of load is served at the
11 network. Isn't that true?

12 THE WITNESS (Bowes): Well, the ratings
13 don't change by what the load served is.

14 MR. BALL: Okay.

15 THE WITNESS (Bowes): So if you look at
16 page 5 of that chart, it kind of goes through it
17 very nicely. And it goes through loss of any one
18 of the circuits what the percentage overload is on
19 the others.

20 MR. BALL: So let me make sure I
21 understand what your testimony is. The way the
22 system was designed was flawed to begin with. Is
23 that your testimony?

24 THE WITNESS (Bowes): So flawed, let's
25 put this -- it's a unique design which would not

1 be replicated again. So I think it certainly has
2 some limitations, the fact you have to have all
3 four circuits in operation at any one time is not
4 a good design. The fact that you mix both
5 substation load, customer load and network load on
6 the same feeders is not a good design. I would
7 say it was done out of necessity to defer
8 investments in the Town of Greenwich over the last
9 40 years.

10 The original Pet Pantry location was
11 acquired, or the rights were acquired, in 1971 to
12 build a new bulk substation. That never
13 transpired. We have made incremental changes in
14 additions to the system in that time period. For
15 example, in 1990s, early 1990s, we added the Tomac
16 Substation to try to relieve Cos Cob. And it was
17 meant to be a temporary installation. It wasn't a
18 standard installation either. So I would say that
19 we are beyond the point where we can reliably
20 serve the customers in Greenwich.

21 MR. BALL: All right. If I'm to
22 understand your testimony, you're saying
23 notwithstanding the normal rating of the four
24 feeders that go from Cos Cob to Prospect, that
25 there is something about the distribution of the

1 load on those feeders that you are contending
2 causes overloads. Is that a fair statement?

3 THE WITNESS (Bowes): Well, I'm not
4 contending it. It does cause overloads. These
5 are the projections based on load flow analysis.
6 And we've also seen with metered data the
7 overloads occur also. So it's not just an
8 analysis done. We have the physical proof or the
9 physical result to show that as well.

10 MR. BALL: Can you take a look at the
11 town's interrogatory question 077? In Question
12 77, which we're not going to put up, we asked you
13 to quantify the distribution of the actual peak
14 load among those feeders. Do you see that? And
15 you objected saying it's not relevant or material.
16 And yet, if I'm understanding your testimony right
17 now, this is your explanation for why there are
18 overloads.

19 So I will ask, Chairman Stein, I'll ask
20 that Eversource be directed to provide us the
21 response to Town 77, which is apparently directly
22 relevant.

23 THE CHAIRMAN: Does Eversource --

24 MR. FITZGERALD: I may have been
25 somewhere else, but I didn't hear anything in any

1 of Mr. Bowes' responses that related to the
2 distribution of the load on the individual
3 feeders.

4 MR. BALL: Well, I mean, if I may, the
5 explanation that I just heard was, well, you can't
6 go by the normal ratings because there are other
7 loads being served by these feeders, other loads.
8 And all we asked for was for a breakdown as to the
9 actual loads, and we're not being provided, which
10 makes it awfully hard, since this is now their
11 basis for alleged need.

12 MR. FITZGERALD: The issue of what is
13 the total load being served by the feeders and the
14 distribution of that load among the individual
15 feeders at any given time is not the same thing.

16 MR. BALL: With all due respect, I
17 think this is directly relevant to what their
18 claim is. It's very hard to challenge their
19 contentions in this docket if we're not provided
20 the information. I'm at a loss as to why there
21 was an objection, but I will still ask that
22 Eversource be ordered to provide the information.

23 THE WITNESS (Bowes): So the reason, or
24 at least a partial reason it was objected to is
25 it's not available in all cases.

1 MR. BALL: Okay. So, again, I'm going
2 to ask --

3 THE CHAIRMAN: Is there any reason why
4 you can't get that?

5 THE WITNESS (Bowes): It's not metered
6 information the way the -- if you go back to that
7 chart revision 1, the taps off to the network and
8 the individual locations to the 11 customers are
9 not individually metered. So the four feeders at
10 Cos Cob, the information is available, but beyond
11 that, which is what this question asked for, we
12 can't comply because it's just not a physical
13 measurement that we record.

14 THE CHAIRMAN: You can't require them
15 to comply if they don't have the information.

16 MR. BALL: Let me ask a question, if I
17 may, Chairman Stein? Were there outages based on
18 any of these overloads? There were no outages
19 caused by any of the overloads on those four
20 feeders, were there?

21 THE WITNESS (Bowes): Maybe you could
22 be a little more specific. In 2011 that's what
23 prompted this entire project.

24 MR. BALL: Well, if you have an
25 overload on one of the feeders, you shift load,

1 don't you, is that what you do?

2 THE WITNESS (Bowes): So can I finish
3 answering your question?

4 MR. BALL: Yes.

5 THE WITNESS (Bowes): So in 2011 we had
6 multiple outages on those feeders, and we lost
7 about 5,300 customers in Greenwich.

8 MR. BALL: So, again, my question is,
9 in general if you have an overload, which you're
10 telling me you do on any of those feeders, you
11 switch load to address the overload so that the
12 lights stay on, you shift. Right?

13 THE WITNESS (Bowes): If you want to
14 put the diagram back up, we can go through it.

15 MR. BALL: My only point is, you must
16 have data that allows you to make the
17 determination as to when to switch. I can't
18 believe the company wouldn't have that
19 information.

20 THE WITNESS (Bowes): So, again, for
21 the Cos Cob 11R, we have information on each one
22 of the feeders that come out. We don't have
23 information on the amount of load served
24 specifically to the network.

25 MR. BALL: Okay. Other than the load

1 specifically served to the network, are you able
2 to answer the question we asked?

3 THE WITNESS (Bowes): So for the four
4 feeders out of Cos Cob, we do have that
5 information.

6 MR. BALL: Okay. And do you have the
7 information for line 22E35 from Prospect to Byram?

8 THE WITNESS (Bowes): We do not.

9 MR. BALL: You don't have that
10 information? Okay.

11 Chairman Stein, I would simply ask the
12 company to provide to us the information that they
13 have. I mean, it's clear they have some
14 information. I don't understand why it wasn't
15 provided at the beginning.

16 THE CHAIRMAN: Can we get that
17 information that you do have?

18 THE WITNESS (Bowes): We can provide
19 the information for the four feeders from Cos Cob
20 to Prospect.

21 MR. BALL: If I may? I have one
22 question, if I may?

23 MR. FITZGERALD: What is the period of
24 time?

25 THE WITNESS (Bowes): So we have three

1 years worth of data currently available for those
2 four feeders.

3 MR. BALL: Okay. You just told me you
4 don't have load data for some reason for 22E35.
5 Do you have load data for the other feeders on the
6 system?

7 THE WITNESS (Bowes): For each one from
8 Cos Cob, yes.

9 MR. BALL: Okay. So we would
10 request -- I understand if your attorney is saying
11 you only have three years of information. We
12 would request the three years of information for
13 the feeders coming out of Cos Cob be provided.

14 THE WITNESS (Bowes): Yes, we can do
15 that.

16 MR. BALL: Thank you. Mr. Bowes, if I
17 can continue. In the July hearing that we had you
18 said there were outages on the 27.6-kV feeders
19 that were part of your claim for the need for this
20 project and, in particular, you testified in July
21 about a fault on a 27.6-kV feeder to Byram a week
22 before the hearing. Do you recall that?

23 THE WITNESS (Bowes): Yes, on July
24 20th.

25 MR. BALL: Okay. You didn't identify

1 which feeder failed. Do you have that
2 information?

3 THE WITNESS (Bowes): It's the 11R56.

4 MR. BALL: 11R56. Now, if I could
5 direct your attention to the normal and alternate
6 feeders for Byram which you were good enough to
7 provide to us.

8 THE WITNESS (Bowes): I know there was
9 an interrogatory on that.

10 MR. BALL: There was, and I'm looking
11 for it. I knew I had a consultant for a reason.
12 Exhibit 76. Thank you. Mr. Dobin will put that
13 up real quick. It's a little hard to see on the
14 screen. But do you have it in front of you, Mr.
15 Bowes?

16 THE WITNESS (Bowes): Yes, I do.

17 MR. BALL: So here are the 27.6-kV
18 feeder supplies for the substations and the 11
19 customers that you provided in response to our
20 questions. Right?

21 THE WITNESS (Bowes): Yes.

22 MR. BALL: Let's just look at Byram
23 because that was the incident you cited in the
24 first hearing. The normal feeders to Byram are
25 11R56 and 22E35. Have I got that right?

1 THE WITNESS (Bowes): Yes.

2 MR. BALL: And the alternate feeders to
3 Byram are those same two feeders in addition
4 22E36?

5 THE WITNESS (Bowes): Yes.

6 MR. BALL: Go back to the chart showing
7 the system. Thanks.

8 All right. So I want to make sure I
9 know what the ratings are for those three feeders
10 because you just told me 11R56 went down, and that
11 caused an outage. Right?

12 THE WITNESS (Bowes): (Nodding head in
13 the affirmative.)

14 MR. BALL: Okay. 11R56 has a normal
15 rating of 15.9 MVA?

16 THE WITNESS (Bowes): You're onto
17 another interrogatory. Right?

18 MR. BALL: Yes, I am. Thank you.
19 CSC-13. I'm sorry, it's actually Town 1. We'll
20 look at CSC-13 also. Town 1, pull it up.

21 Sorry. It's a little tough with the
22 mobile charts, Mr. Bowes, but I appreciate your
23 patience.

24 THE WITNESS (Bowes): So you're onto
25 which feeder again was it?

1 MR. BALL: So I want to look at the
2 three feeders to Byram one at a time. So 11R56,
3 which is the one that went down, from Cos Cob to
4 Byram, the normal rating is 15.9?

5 THE WITNESS (Bowes): That is correct.

6 MR. BALL: So we know from the chart
7 showing the alternate feeders is you still have
8 two other feeders to Byram, 22E35 and 22E36.
9 Right?

10 THE WITNESS (Bowes): Yes.

11 MR. BALL: And if I have my math right,
12 22E35, which is Prospect to Byram, is 11.4 MVA,
13 that's the rating?

14 THE WITNESS (Bowes): Yes.

15 MR. BALL: And 22E36, which has a tap
16 to Byram, is 23.4 MVA. Right?

17 THE WITNESS (Bowes): I'm just trying
18 to find that one.

19 MR. BALL: It says 22E36 tap to Byram.

20 THE WITNESS (Bowes): Yes, I have that,
21 23.4 MVA.

22 MR. BALL: Okay. So I understand 11R56
23 went down, but we have these other two alternate
24 feeders that designed to feed Byram when one of
25 the other feeders goes down. Right?

1 THE WITNESS (Bowes): That is correct.

2 MR. BALL: And those two feeders, 22E35
3 and 22E36, have a combined rating that would allow
4 for 34.8 MVA of capacity. Is my math right?

5 THE WITNESS (Bowes): Subject to check,
6 yes, I'll agree with you.

7 MR. BALL: Now, the peak load last year
8 at Byram was significantly less than 34.8 MVA. If
9 I look at CSC-13, right, I see that the number is
10 14.4 MVA.

11 THE WITNESS (Bowes): In 2016 Byram's
12 actual peak was 14.4 MVA, yes.

13 MR. BALL: The actual recorded peak
14 load at Byram has never been as high as 34.8?

15 THE WITNESS (Bowes): Right.

16 MR. BALL: Ever?

17 THE WITNESS (Bowes): At least in this
18 time period I would agree, that's right.

19 MR. BALL: So you would agree, as the
20 system was designed, getting back to that event on
21 July 20th when 11R56 went down, the system was
22 designed to allow sufficient capacity from 22E35
23 and 22E36 to serve whatever the peak load was
24 going to be at Byram? You would agree that's how
25 the system was designed?

1 THE WITNESS (Bowes): I would agree
2 with that, yes.

3 MR. BALL: Okay.

4 THE WITNESS (Bowes): The overload
5 occurred on the Prospect 2X transformers. I think
6 I said that in the testimony.

7 MR. BALL: But you would agree the
8 cause of the outage was a fault in the cable in
9 11R56?

10 THE WITNESS (Bowes): That is correct.

11 MR. BALL: So it's not that there was
12 an overload on the transformer at Prospect that
13 caused the outage, it was the cable that failed,
14 11R56, that then caused the transformer overload.
15 Right?

16 THE WITNESS (Bowes): Yes.

17 MR. BALL: All right. So there's
18 something going on here with the cables, you would
19 agree, I mean, there was a fault in the cable.
20 Right?

21 THE WITNESS (Bowes): Yes.

22 MR. BALL: Are these old cables, do you
23 know?

24 MR. FITZGERALD: Which --

25 MR. BALL: 11R56.

1 THE WITNESS (Bowes): So most of it is
2 paper and lead cable, so it gets back to vintage
3 1950, 1960.

4 MR. BALL: These are older cables,
5 right?

6 THE WITNESS (Bowes): The 11R56 is,
7 yes.

8 MR. BALL: It's an older cable. Older
9 cables fail. They have a life span. Wouldn't you
10 agree with that?

11 THE WITNESS (Bowes): So, in general, I
12 would agree with that. There are many other
13 factors that also impact a cable's longevity.

14 MR. BALL: Of course. But there's no
15 question that -- let me ask it this way: If a
16 cable is older, and it's no longer operating the
17 way it was initially designed to operate, that can
18 cause the cable to fail even when it's not
19 overloaded. You would agree with that?

20 THE WITNESS (Bowes): Yes. And a new
21 cable can fail when it's not overloaded.

22 MR. BALL: And in what instances can a
23 new cable fail when it's not overloaded?

24 THE WITNESS (Bowes): So I would say
25 it's probably the same type of reasons that an

1 older cable would. It's based upon a fault
2 history that it's seen. It's based on how it's
3 been operated. Mostly temperature related. And
4 in the case of, I would say our Connecticut
5 operations, lightning activity has a large impact
6 on cable performance as well.

7 MR. BALL: Right. Also, isn't it true
8 that if a cable is not installed properly, that
9 can affect its operation, it could cause it not to
10 function the way it's designed?

11 THE WITNESS (Bowes): So installed
12 properly, there's probably many things there as
13 well. It would probably be hard to pin down for a
14 1950s cable if installation were the culprit. It
15 probably is not.

16 MR. BALL: Have you done cable
17 forensics to explain what happened with 11R56 on
18 July 20th?

19 THE WITNESS (Bowes): We have not.

20 MR. BALL: So as you sit here today,
21 you can't really -- you know there was a cable
22 fault, but you don't know exactly what happened
23 with that cable with that incident. Right?

24 THE WITNESS (Bowes): I would say
25 that's accurate. It was a fairly heavily loaded

1 day on the system, so it was a -- in fact, I think
2 it may have even set the ISO peak for the summer.
3 So there was some indication of loading, but
4 clearly not to its cable rating.

5 MR. BALL: Right. I mean, if it had
6 been functioning properly -- I don't have the
7 data. But if it had been functioning properly, I
8 assume, because there was still capacity according
9 to its normal rating, 11R56 should not have
10 failed. Right?

11 THE WITNESS (Bowes): That and based on
12 the time of occurrence too. At 4:30 in the
13 morning it's unlikely it was directly load
14 related.

15 MR. BALL: Thank you for that
16 explanation.

17 I want to take a look at some of the
18 other failures of cables that you are contending
19 is part of the need for this project, if I may?
20 All right?

21 THE WITNESS (Bowes): Uh-huh.

22 MR. BALL: And I'll try to do this in a
23 somewhat efficient way, but it's going to require
24 us to take a look at a couple different
25 interrogatory responses, one from the last docket,

1 one from this one. Okay?

2 Take a look at OCC-42. It was a
3 response in Docket 461. Do you have that
4 available?

5 MR. FITZGERALD: We don't have the
6 discovery from the last docket in front of us.
7 Why don't you give us a copy.

8 MR. BALL: I'll put it up. And I'm
9 going to ask you to take a look at that, Mr.
10 Bowes, since that's part of this record, together
11 with the response to Town 17 in this docket.
12 They're related to the same failures in July of
13 2015.

14 THE WITNESS (Bowes): You said it was
15 Town 17?

16 MR. BALL: I did. Thank you.

17 Mr. Bowes, if it helps, I can get you a
18 copy of OCC-42 in hard copy.

19 THE WITNESS (Bowes): I have one.

20 MR. BALL: We're good. Okay.

21 So in OCC -- hard to see -- but OCC-42,
22 you highlighted that in July 2015 there were these
23 feeder failures. Okay. And you made the point,
24 did you not, that those particular failures were
25 on 40-year-old cable segments. Do you see that?

1 THE WITNESS (Bowes): Yes, I did.

2 MR. BALL: These are 27.6-kV feeders.
3 Right?

4 THE WITNESS (Bowes): Yes, they are.

5 MR. BALL: Let's take a look at the
6 first one. In OCC-42 you highlight that the load
7 was 25 MVA at the time of the failure. Do you see
8 that in your response to OCC-42 in Roman numeral
9 1?

10 THE WITNESS (Bowes): I do.

11 MR. BALL: Let's take a look at Town
12 17. The second page -- sorry, I should make this
13 easier for you. If you can turn to page 2, you
14 see you provided us information about these same
15 outages, including which cables are at issue. It
16 makes it easier. Do you see that?

17 THE WITNESS (Bowes): Yes, I do.

18 MR. BALL: So the first one is 11R52?

19 THE WITNESS (Bowes): Correct.

20 MR. BALL: And that's the one that I
21 just looked at where the actual load was 25 MVA on
22 July 2015. Do you see that?

23 THE WITNESS (Bowes): Yes, I do.

24 MR. BALL: If we now look at the normal
25 rating of 11R52, the normal rating according to

1 your response to Town 1, is 33.5 MVA for that
2 cable.

3 THE WITNESS (Bowes): Subject to check,
4 I would agree.

5 MR. BALL: Okay. And the point -- it's
6 not a complicated point. The point I'm making is,
7 whatever failure happened on that day was not a
8 function of the cable being overloaded, it had
9 capacity according to its normal rating?

10 THE WITNESS (Bowes): Correct.

11 MR. BALL: So something else was going
12 on at the time, just like whatever happened at
13 Byram on July 20th. Right?

14 THE WITNESS (Bowes): Yes.

15 MR. BALL: It was not a load issue?

16 THE WITNESS (Bowes): Not directly a
17 load issue at that time.

18 MR. BALL: Fair enough. That cable was
19 not overloaded at the time of the failure? I
20 should be more specific.

21 THE WITNESS (Bowes): That is correct.

22 MR. BALL: And if I go through this
23 exercise, it will be quick. On the second and
24 third outages in July of 2015, I think we're going
25 to see the same phenomenon. In OCC-42, Mr.

1 Bowes -- I just want to make sure you're -- okay.

2 THE WITNESS (Bowes): I'm getting lots
3 of help.

4 MR. BALL: A lot of help, a lot of
5 cooks in the kitchen. That's okay.

6 In OCC-42 you identified a second
7 feeder failure on July 27th where the load was 7.5
8 MVA at that time?

9 THE WITNESS (Bowes): That is correct.

10 MR. BALL: Not to make you confused,
11 but I am quite certain that in Town-17 that second
12 feeder failure is actually identified as 11R56.
13 It's actually C. Take your time.

14 THE WITNESS (Bowes): So yes, it
15 appears on Town 17 under Section C, 11R56, there
16 is a typo there. It should be July 27th, not July
17 7th.

18 MR. BALL: Understood. I understand
19 that. Putting aside your typo, I just want to
20 make sure I got the numbers and the cables right.
21 So the failure that you identified in OCC-42 where
22 the load was 7.5 MVA is 11R56 in Town 17, in other
23 words, the second feeder failure?

24 THE WITNESS (Bowes): That is correct.

25 MR. BALL: Okay. I got it right. So

1 7.5 MVA. Now if I look at 11R56, the normal
2 rating for 11R56 is 15.9 MVA?

3 THE WITNESS (Bowes): Yes.

4 MR. BALL: So, once again, just like
5 the other incidents we've talked about, you have
6 more capacity on the normal rating of that feeder
7 than the actual load at the time the cable failed.
8 Right?

9 THE WITNESS (Bowes): Yes.

10 MR. BALL: So again --

11 THE WITNESS (Bowes): However, as soon
12 as one of the cables fails, the other three are
13 subject to overload.

14 MR. BALL: I understand there's an
15 effect. I'm trying to get to cause. And my
16 question is, when the 11R56 failed in July 2015,
17 it was not overloaded at the time it failed?

18 THE WITNESS (Bowes): Correct.

19 MR. BALL: And finally we'll make this
20 quick. The third incident you cited in OCC-42 is
21 a failure on July 28th?

22 THE WITNESS (Bowes): Yes.

23 MR. BALL: Where the load was 14 MVA.
24 Do you see that?

25 THE WITNESS (Bowes): I do.

1 MR. BALL: And in Town 17, that
2 correlates to 11R55 in B?

3 THE WITNESS (Bowes): Yes, it does.

4 MR. BALL: And 11R55 has 32.5 MVA as
5 its normal rating?

6 THE WITNESS (Bowes): Subject to check,
7 I'll agree, yes.

8 MR. BALL: So you have the load of 14
9 MVA, and a cable that has a capacity of 32.5 MVA?

10 THE WITNESS (Bowes): Correct.

11 MR. BALL: Same thing. You would agree
12 that the cause of 11R55, the cause of the failure
13 was not because it was overloaded at the time it
14 failed?

15 THE WITNESS (Bowes): At the time it
16 failed, I would agree, yes.

17 MR. BALL: All right. By the way, a
18 couple of these cables were installed fairly
19 recently, 11R55, 2009; 11R52, 2012.

20 THE WITNESS (Bowes): So some portions
21 were, that's correct, not the entire lengths.

22 MR. BALL: Stick with me. Okay. Thank
23 you. And I think this is consistent with your
24 prior testimony. It's not only older cables that
25 sometimes fail, sometimes even cables where

1 segments have been installed as recently as 2009
2 and 2012 fail?

3 THE WITNESS (Bowes): Or recently
4 installed as soon as the week before.

5 MR. BALL: So cables don't always work
6 the way they're designed to work?

7 THE WITNESS (Bowes): Correct.

8 MR. BALL: Now, let's talk about older
9 cables, if I can, Mr. Bowes. I'm not going to ask
10 you about anymore stats, for the moment, you'll be
11 delighted to know.

12 When cables reach their useful life,
13 the end of their useful life, and let's just say
14 the cable too old, it's not operating the way it
15 should operate, you can replace the cable. Right?

16 THE WITNESS (Bowes): Yes, you can.

17 MR. BALL: And, in fact, you do that,
18 Eversource does that, I would assume?

19 THE WITNESS (Bowes): It's a daily
20 occurrence, yes.

21 MR. BALL: Is it fair to say that
22 modern cables have greater ampacity than older
23 ones, assuming the same size conductors?

24 THE WITNESS (Bowes): Maybe you could
25 be a little more specific?

1 MR. BALL: Modern cables have the
2 ability, have more capacity, more ampacity than
3 older ones, they're just designed better, even if
4 it's the same size conductor. Isn't that true?

5 THE WITNESS (Bowes): So you can
6 operate modern cables at higher temperatures which
7 oftentimes give you a higher rating.

8 MR. BALL: The normal ratings you gave
9 me in Town 001, what temperature were you
10 assuming?

11 THE WITNESS (Bowes): 90 degrees C.

12 MR. BALL: So because -- I think I
13 understood modern cables can be rated at a higher
14 temperature. If you would, one more explanation
15 on that?

16 THE WITNESS (Bowes): So you can get a
17 higher rated, higher temperature rating off
18 cables, which would allow larger ampacities.

19 MR. BALL: All right. Correct me if
20 I'm wrong, replacing a cable, that process is
21 called reconductoring. Right?

22 THE WITNESS (Bowes): So we typically
23 use that terminology for overhead work. For cable
24 replacement, we typically just say it's a
25 replacement.

1 MR. BALL: Okay. Same concept though?

2 THE WITNESS (Bowes): Same concept.

3 MR. BALL: So one way -- let's say if I
4 have an older cable that is not performing the way
5 it should be performing, it's failing even when
6 it's not overloaded, one way to deal with that
7 would be replacing the cable. You agree?

8 THE WITNESS (Bowes): Yes.

9 MR. BALL: And let's talk about
10 underground cables. Isn't it possible to replace
11 an older cable in the same duct, in the same
12 underground duct, so you don't have to incur the
13 costs of constructing a new conduit or a new
14 trench?

15 THE WITNESS (Bowes): Yes, that is the
16 typical way conductors are replaced.

17 MR. BALL: And actually there is an
18 efficiency cost wise to that process because
19 you're not building new conduits, new trenches.
20 You'd agree with that?

21 THE WITNESS (Bowes): Yes, I would.

22 MR. BALL: And that's something I
23 assume Eversource does all the time?

24 THE WITNESS (Bowes): That is correct.

25 MR. BALL: You are proposing a \$100

1 million transmission line in this case. Correct?

2 THE WITNESS (Bowes): So the project
3 overall cost is \$100 million. The transmission
4 line is not.

5 MR. BALL: You've got a transmission
6 solution here, and the total cost is 100 million.
7 You'll agree with that?

8 THE WITNESS (Bowes): Yes, I do.

9 MR. BALL: You are not proposing, as
10 you sit here today, to replace cables that simply
11 may not be functioning the way they should, that
12 is not your proposal?

13 THE WITNESS (Bowes): That is correct.

14 MR. BALL: Now, after this project --
15 let's assume you got your project approved and
16 it's being built. The 27.6-kV system is still
17 there, right, Greenwich is still distributing at a
18 27.6-kV system?

19 THE WITNESS (Bowes): That is correct.

20 MR. BALL: The 11 commercial customers
21 that we talked about who are fed at 27.6 kV will
22 continue to be supplied power at 27.6 kV even
23 after this project is built?

24 THE WITNESS (Bowes): Yes.

25 MR. BALL: Those 11 commercial

1 customers are some of the significant energy users
2 in the town?

3 THE WITNESS (Bowes): I would say yes.

4 MR. BALL: It includes Greenwich
5 Hospital?

6 THE WITNESS (Bowes): We typically
7 don't identify individual customers but --

8 MR. BALL: Okay. Well, all right. I
9 guess the town has information. But we know that
10 there are significant commercial and industrial
11 users of electricity in the town who will continue
12 to use electricity at 27.6 even after your project
13 is built?

14 THE WITNESS (Bowes): That is true.

15 MR. BALL: And even after the project
16 is built, the Greenwich secondary network will
17 continue to be fed at 27.6 kV.

18 THE WITNESS (Bowes): Yes, it will.

19 MR. BALL: North Greenwich Substation
20 continue to be fed at 27.6?

21 THE WITNESS (Bowes): That is correct.

22 MR. BALL: Byram, 27.6 still?

23 THE WITNESS (Bowes): Yes.

24 MR. BALL: Okay.

25 THE WITNESS (Bowes): The only

1 substation on that original diagram route one was
2 Prospect would be removed.

3 MR. BALL: Right. Okay. So the
4 dependence on the 27.6 system and its cables will
5 remain even after this project is built. Isn't
6 that true?

7 THE WITNESS (Bowes): So the new
8 Greenwich Substation would allow for transfers at
9 the 13.2-kV system that we presently don't have in
10 an automated fashion. So there would be some
11 redundancy with the new substation that's not
12 present today.

13 MR. BALL: Understood. I wasn't
14 necessarily asking you about the benefits of that
15 added redundancy, and I think you've made that
16 point before. I'm just trying to establish that
17 the 27.6-kV cables, which are still essential in
18 the distribution system, remain intact after the
19 project is built?

20 THE WITNESS (Bowes): That is correct.

21 MR. BALL: And you are not proposing
22 upgrades to those cables as part of this project?

23 THE WITNESS (Bowes): No. As part of
24 this project the load levels would be reduced on
25 them, so upgrades would not be necessary.

1 MR. BALL: The load levels. And to be
2 clear, because I think I understood it very
3 clearly, many of those cables you've seen failures
4 even when they're not overloaded. Right?

5 THE WITNESS (Bowes): That is true.

6 MR. BALL: All right. I'm going to
7 shift gears. If Mr. Dobin would be good enough to
8 put up figure 5 from your prefile testimony?
9 Sorry, we're just trying to pull it up on the
10 screen to make it a little easier.

11 Oh, good. Mr. Bowes, there's figure 5,
12 and you were good enough to do a revised chart for
13 us. Do you see it?

14 THE WITNESS (Bowes): Yes, I do.

15 MR. BALL: And this depiction shows the
16 system assuming you have the new Greenwich
17 Substation constructed. Does it not?

18 THE WITNESS (Bowes): Yes, it does.

19 MR. BALL: Again, just for clarity, it
20 is missing a couple things. It's not depicting
21 the Greenwich network right in the middle there
22 that's fed by Cos Cob. Right?

23 THE WITNESS (Bowes): Correct, it's not
24 a duplicate of the figure 1 revision.

25 MR. BALL: Understood. The 11

1 commercial customers are not on there either?

2 THE WITNESS (Bowes): That is correct.

3 MR. BALL: That's okay. I'm going to
4 focus on a different segment of this chart which
5 is the 1740 and 1750 lines coming from Stamford in
6 the lower right-hand corner. Do you see it?

7 THE WITNESS (Bowes): Yes, I see it.

8 MR. BALL: When I began asking you
9 questions today, that was the first thing I asked
10 you which is the origination of energy that is
11 transmitted to the Cos Cob Substation comes from
12 two 115-kilovolt lines that are in Stamford.
13 Right?

14 THE WITNESS (Bowes): That is correct.

15 MR. BALL: That's the 1740 line and the
16 1750 line?

17 THE WITNESS (Bowes): Correct.

18 MR. BALL: And this is a pretty good
19 chart because I can see exactly where those lines
20 go in the lower right-hand corner. So the 1740
21 line which comes from Waterside in Stamford?

22 THE WITNESS (Bowes): Yes.

23 MR. BALL: That's 115 kilovolts. It
24 goes directly to the Cos Cob substation. Right?

25 THE WITNESS (Bowes): Correct.

1 MR. BALL: And the 1750 line from
2 Southend, the also 115-kilovolt line that goes to
3 the Cos Cob Substation, and it also feeds Tomac.
4 Right?

5 THE WITNESS (Bowes): Yes.

6 MR. BALL: And that's by design that
7 Tomac is going to getting its source of energy in
8 normal operating conditions from that 1750 line.
9 Right?

10 THE WITNESS (Bowes): Yes.

11 MR. BALL: Now, the 1740 and 1750
12 circuits, before you get to this point, before you
13 get right to the taps to Tomac and Cos Cob, those
14 two circuits exist on the same overhead structures
15 coming out of Stamford and going to Cos Cob; do
16 they not?

17 THE WITNESS (Bowes): Yes, they do.

18 MR. BALL: Is that an optimal design?

19 THE WITNESS (Bowes): So double circuit
20 towers are less reliable than two independent
21 lines.

22 MR. BALL: And I think I can highlight
23 a point here -- you probably know where I'm
24 going -- which is because the 1740 and 1750 lines
25 share the same overhead poles, the same

1 structures, if one of those structures goes down,
2 it could cause both the 1740 and 1750 lines to go
3 out?

4 THE WITNESS (Bowes): That is correct.

5 MR. BALL: And if that were to happen,
6 Greenwich goes black. Do you agree with that?

7 THE WITNESS (Bowes): Certainly
8 everything on this map that we're showing, yes.
9 There are still some customers fed directly from
10 Stamford.

11 MR. BALL: Would you agree 99 and a
12 half percent of Greenwich goes black?

13 THE WITNESS (Bowes): Subject to check,
14 it's the large majority, yes.

15 MR. BALL: No question that is a
16 significant concern. That would be a major event
17 if that were to happen?

18 THE WITNESS (Bowes): It has happened.

19 MR. BALL: It has, and that's what I
20 want to go to, and you gave it to us in response
21 to Town 17. But on August 5, 2012, a tree fell
22 down across the 1740 and 1750 lines between
23 Stamford and Cos Cob. Right?

24 THE WITNESS (Bowes): So just to be
25 clear, it didn't come across both lines initially.

1 MR. BALL: Okay. What happened?

2 THE WITNESS (Bowes): It came across
3 one, and then prior to its removal it took out the
4 second circuit.

5 MR. BALL: So both circuits tripped as
6 a result of that event?

7 THE WITNESS (Bowes): Ultimately, yes.

8 MR. BALL: It's true, when I reference
9 99.5 percent of Greenwich going black, that's
10 actually what happened in this event in August
11 2012 when the 1740 and 1750 lines went out?

12 THE WITNESS (Bowes): That is correct.

13 MR. BALL: And that lasted almost the
14 entire day, did it not, the outage? I think if
15 you look at Town 17, that may orient you.

16 THE WITNESS (Bowes): Yes, I would say
17 it looks like it happened at 10 at night.

18 MR. BALL: And then was that up until 4
19 p.m. the following day?

20 THE WITNESS (Bowes): I don't think the
21 outage for the entire town was for that duration
22 though.

23 MR. BALL: Beside the hours, the
24 minutes, you would agree that there was a
25 significant duration of time when Greenwich went

1 black?

2 THE WITNESS (Bowes): It looks like
3 about six hours, yes.

4 MR. BALL: By the way, because the 1740
5 and 1750 lines are on the same structures, doesn't
6 that hamper your ability to maintain both lines if
7 maintenance work is needed?

8 THE WITNESS (Bowes): I would say yes.

9 MR. BALL: Mr. Bowes, even if the
10 Siting Council were to approve this project that
11 you characterize as a reliability project, if the
12 exact same event were to happen after the approval
13 of the project, you would have the exact same
14 problem with an outage in Greenwich. Right?

15 THE WITNESS (Bowes): In general, I
16 would say yes.

17 MR. BALL: The extension, the 2.3 mile
18 extension of the 115-kV line to the new Greenwich
19 Substation, is still dependent on the flow of
20 electricity from 1740 and 1750?

21 THE WITNESS (Bowes): That is clearly
22 accurate.

23 MR. BALL: So if you have the exact
24 same event after you've spent \$100 million, the
25 exact same event happens where something trips

1 those lines between Stamford and Cos Cob, even
2 after the investment in this project, you would
3 have the same reliability problem in Greenwich?

4 THE WITNESS (Bowes): Yes.

5 MR. BALL: And it's also fair to say
6 you are not proposing in this docket anything to
7 address that risk?

8 THE WITNESS (Bowes): That is correct.

9 MR. BALL: Let's stick with this
10 figure. I want to ask you about a different issue
11 which is the Tomac Substation. Do you see in the
12 lower right-hand corner -- I think we just looked
13 at it -- that Tomac is fed, normal operations, it
14 is fed by the 1750 115-kilovolt line coming from
15 Stamford?

16 THE WITNESS (Bowes): Yes.

17 MR. BALL: The one from Southend. And
18 the tap is pretty clear to see on the chart.
19 Right?

20 THE WITNESS (Bowes): Yes, it is.

21 MR. BALL: And then, in normal
22 operations, Tomac feeds Mianus through that 12H59
23 line that I'm looking at?

24 THE WITNESS (Bowes): That is correct.

25 MR. BALL: When Tomac gets its energy

1 from that 115-kV line, it distributes energy to
2 customers in Old Greenwich. Is that right?

3 THE WITNESS (Bowes): Yes.

4 MR. BALL: And unlike the 27.6-kV
5 system, and unlike the 13.2-kV distribution
6 systems, Tomac is the one substation in Greenwich
7 that distributes electricity to its customers at
8 4.8 kV?

9 THE WITNESS (Bowes): Correct.

10 MR. BALL: How many customers are
11 served energy from Tomac at 4.8 kV?

12 THE WITNESS (Bowes): I think between
13 1,100 and 1,200.

14 MR. BALL: And those customers are in
15 Old Greenwich?

16 THE WITNESS (Bowes): Yes.

17 MR. BALL: Because those customers are
18 not fed through the 13.2 kV distribution system,
19 you refer to Tomac as an island substation. Is
20 that something you've referred to before?

21 THE WITNESS (Bowes): No, that's not
22 the reason it's islanded.

23 MR. BALL: What's the reason it's
24 islanded?

25 THE WITNESS (Bowes): Because there's a

1 single contingency or a single point of failure.

2 MR. BALL: All right. I'll get there.

3 THE WITNESS (Bowes): It's not the
4 voltage level.

5 MR. BALL: Fair enough. Well, let's
6 talk about that. So I think what we just
7 established is that unlike the rest of the
8 distribution system in Greenwich, Tomac is the one
9 substation serving more than 1,000 customers at
10 4.8 kV. Right?

11 THE WITNESS (Bowes): Yes.

12 MR. BALL: You just identified a
13 different issue which is that it's not single
14 contingency. Let me see if I can put that into
15 words that a lawyer can understand. Tomac has one
16 transformer, right, at 4.8 kV?

17 THE WITNESS (Bowes): Yes.

18 MR. BALL: There's no back-up
19 transformer at Tomac, isn't that right, at 4.8 kV?

20 THE WITNESS (Bowes): That is correct.

21 MR. BALL: So if something were to
22 happen to the 4.8 kV transformer at Tomac, those
23 customers who are served electricity at 4.8 kV in
24 Old Greenwich are going to lose their power?

25 THE WITNESS (Bowes): Yes.

1 MR. BALL: There's no back-up.

2 THE WITNESS (Bowes): Yes.

3 MR. BALL: And that happened; did it
4 not?

5 THE WITNESS (Bowes): It did.

6 MR. BALL: So in April 2016 -- and you
7 gave us this in Town 17. In April 2016 a
8 lightning arrester failed at the Tomac Substation?

9 THE WITNESS (Bowes): Yes.

10 MR. BALL: And that caused an outage on
11 the one 4.8-kilovolt transformer at Tomac. Right?

12 THE WITNESS (Bowes): Yes, it did.

13 MR. BALL: For most of the day Old
14 Greenwich was black?

15 THE WITNESS (Bowes): I think about
16 nine hours.

17 MR. BALL: A significant amount.
18 Right?

19 THE WITNESS (Bowes): Yes.

20 MR. BALL: Mr. Bowes, isn't it true
21 that this project before the Siting Council does
22 nothing to address the problem of Tomac having a
23 single 4.8-kV transformer?

24 THE WITNESS (Bowes): That is correct.

25 MR. BALL: And nor does this project do

1 anything to address the fact that 1,100 -- I think
2 that was the number you gave me -- Old Greenwich
3 customers received power from Tomac at 4.8 kV, and
4 are not part of the 13.2 system, you're not
5 addressing that in this project?

6 THE WITNESS (Bowes): That is correct.

7 MR. BALL: So, if the event that just
8 happened in 2016 were to happen again after this
9 project is built where a lightning arrester takes
10 out the 4.8-kV transformer at Tomac, the same
11 thing is going to happen which is Old Greenwich
12 customers are going to lose power?

13 THE WITNESS (Bowes): No.

14 MR. BALL: If the 4.8-kV transformer
15 goes down, those customers are not going to
16 receive power, there's no other source to provide
17 power at 4.8 kV. Right?

18 THE WITNESS (Bowes): So since April of
19 2016, we've installed step transformers that would
20 allow us to refeed those customers at 13 kV.

21 MR. BALL: And how many of those
22 customers have you addressed at 13.2, all of them?

23 THE WITNESS (Bowes): About half of
24 them at peak load.

25 MR. BALL: Okay. So as we sit here

1 today, the other half, even after this project is
2 built, lose power. Right?

3 THE WITNESS (Bowes): Well, at peak
4 load, yes. So most of the year we've picked them
5 all up.

6 MR. BALL: This is a reliability
7 project. I'm just trying to understand what this
8 solves and what it doesn't. Okay? This project
9 does nothing to address the issues with Tomac?

10 THE WITNESS (Bowes): So let me talk
11 about island substations for a minute, especially
12 since we have a PURA representative here. We have
13 a system resiliency program that looks at islanded
14 substations across our system. We have about 44
15 of them remaining. And over the next five years
16 we plan to address two or three of those per year.
17 Tomac, because of a variety of criteria, is number
18 15 on the list. We agreed with the Town of
19 Greenwich after this event in April of 2016, to
20 move that up on the list. And we will be
21 reconverting, or converting the 4.8 customers in
22 the 2018/2019 time frame.

23 So there is an active program on the
24 distribution side, not subject to Siting Council
25 approvals. And PURA has endorsed that program.

1 And we have prioritized the customers, and
2 Greenwich is now included in that list in the
3 five-year program.

4 MR. BALL: Thank you. Thank you for
5 that clarification. How long has Tomac been
6 operating with a single 4.8 kV transformer?

7 THE WITNESS (Bowes): Since it was
8 installed in 1991 or 2.

9 MR. BALL: And it's fair to say this
10 single contingency problem of Tomac has existed
11 since that time?

12 THE WITNESS (Bowes): So I would say
13 Tomac is the earliest or newest substation that
14 has this issue.

15 MR. BALL: So you have it in many
16 substations. Right?

17 THE WITNESS (Bowes): So the other 43
18 have had it for much longer.

19 MR. BALL: Okay. And I'm just focused
20 on Greenwich. You can understand. That's why
21 we're here.

22 THE CHAIRMAN: The Chairman, excuse me,
23 is focused on we're going to break for lunch right
24 now.

25 MR. BALL: That's a good focus.

1 THE CHAIRMAN: We'll resume at about
2 1:15.

3 MR. BALL: Thank you.

4 (Whereupon, the witnesses were excused,
5 and the hearing adjourned for lunch at 12:32 p.m.)

6 AFTERNOON SESSION

7 1:19 P.M.

8 R O N A L D J. A R A U J O ,

9 F A R A H S. O M O K A R O ,

10 K E N N E T H B O W E S ,

11 J A S O N C A B R A L ,

12 J O H N C. C A S E ,

13 C H R I S T O P H E R P. S O D E R M A N ,

14 M I C H A E L L I B E R T I N E ,

15 called as witnesses, being previously duly
16 sworn, continued to testify on their oaths as
17 follows:

18 THE CHAIRMAN: Okay. Attorney Ball,
19 ready to continue?

20 MR. BALL: Thank you, Chairman Stein.

21 THE CHAIRMAN: If we have to continue
22 this hearing beyond midnight, we are doing it on
23 the 5th, so just so you know.

24 MR. BALL: Thank you.

25 Mr. Bowes, when you're ready.

1 THE WITNESS (Bowes): Yes, I'm ready.

2 MR. BALL: We'll go to a new topic
3 since we just had lunch. In 2015 when you filed
4 your initial application in Docket 461, you were
5 contemplating building a new 134 MVA substation on
6 Railroad Avenue, right, that was the initial
7 proposal?

8 THE WITNESS (Bowes): Yes.

9 MR. BALL: Three transformers?

10 THE WITNESS (Bowes): Yes.

11 MR. BALL: And you were initially
12 planning to retire both the Prospect Substation
13 and the Byram Substation?

14 THE WITNESS (Bowes): Yes.

15 MR. BALL: And one of the reasons in
16 that initial proposal that you were proposing to
17 retire Byram was because the Byram transformers
18 were vintage and obsolete. Do you recall that?

19 THE WITNESS (Bowes): Yes.

20 MR. BALL: And one of your arguments in
21 Docket 461 as to the need for the project was the
22 need to replace that obsolete equipment at Byram.
23 You recall that?

24 THE WITNESS (Bowes): Correct.

25 MR. BALL: Now, in this docket it's

1 clear you've tried to reduce costs at the behest
2 of the Siting Council, no question about that.
3 Right?

4 THE WITNESS (Bowes): That is true.

5 MR. BALL: But as a result, the new
6 proposal does not address the obsolete equipment
7 in the Byram Substation. Am I right?

8 THE WITNESS (Bowes): That is correct.

9 MR. BALL: So in this project you're
10 not saying that the need requires replacement of
11 obsolete Byram transformers in this docket.
12 Right?

13 THE WITNESS (Bowes): Yes.

14 MR. BALL: So isn't it true that
15 irrespective of what happens here, at Byram you're
16 still going to need to replace switches, circuit
17 breakers, switchgear lineup. Do I have that
18 right?

19 THE WITNESS (Bowes): Yeah, I think it
20 was just the transformers we were considering at
21 the time. We were going to remove the switchgear
22 because it was no longer needed.

23 MR. BALL: Okay. But you still have
24 the same outdated equipment in place at Byram
25 after this project is built. Is that accurate?

1 THE WITNESS (Bowes): Yes. And we
2 would continue to monitor its condition. And this
3 spring we replaced a transformer at Mianus. We
4 would consider that just a normal course of
5 business to replace equipment at any of our
6 substations in Greenwich or on our system.

7 MR. BALL: Understood. But one of the
8 grounds that you argued for the need for the first
9 project was the need to get rid of the obsolete
10 equipment at Byram. Right?

11 THE WITNESS (Bowes): I would say that
12 was one of the benefits of that project.

13 MR. BALL: And that is not a part of
14 this project?

15 THE WITNESS (Bowes): It is not.

16 MR. BALL: So this project doesn't do
17 anything to address that obsolete equipment at
18 Byram. Right?

19 THE WITNESS (Bowes): That is correct.

20 MR. BALL: And unless I misunderstood
21 your testimony on the first day, I think what you
22 said, in July at this hearing, was that you're
23 going to ideally revisit the potential issue of
24 retiring the Byram Substation altogether in three
25 to five years?

1 THE WITNESS (Bowes): Correct.

2 MR. BALL: And the reason that you want
3 to sit tight for three to five years is because of
4 the town's energy efficiency, demand response and
5 distributed generation programs which may be
6 effective enough to enable you to retire Byram.
7 Isn't that what you testified to?

8 THE WITNESS (Bowes): It is.

9 MR. BALL: The Byram Substation has 30
10 MVA of capacity?

11 THE WITNESS (Bowes): I think it's 25
12 MVA.

13 MR. BALL: Okay, 25 MVA. And, again,
14 the reason you want to sit tight for three to five
15 years is to see if the energy efficiency programs
16 will allow you to retire that 25 MVA of capacity
17 at Byram. Is that correct?

18 THE WITNESS (Bowes): That is correct.

19 MR. BALL: If I can, I want to ask
20 about the 13.2 kV system, which is part of the
21 distribution system in Greenwich. Right?

22 THE WITNESS (Bowes): The bulk of it,
23 yes.

24 MR. BALL: The majority of Greenwich
25 customers receive electricity at 13.2 kV. Right?

1 THE WITNESS (Bowes): Yes.

2 MR. BALL: It's fair to say that a
3 significant cause of outages in Greenwich are
4 weather-related events on those overhead wood
5 poles on the 13.2-kV system?

6 THE WITNESS (Bowes): So I would say
7 the storm weather related are certainly a portion.

8 MR. BALL: Okay.

9 THE WITNESS (Bowes): I think about,
10 you know, the storm versus non-storm reliability
11 data, it's probably half of the causes.

12 MR. BALL: So with respect to, you
13 know, that cause of outages in Greenwich, this
14 project doesn't do anything to help prevent those
15 outages. Right?

16 THE WITNESS (Bowes): It doesn't
17 prevent the outage, but it provides redundancy and
18 automation to pick up customers on the faulted
19 portion of the circuits.

20 MR. BALL: Are you proposing any
21 storm-hardening measures as a part of this project
22 on the 13.2-kV lines?

23 THE WITNESS (Bowes): There are many
24 storm-hardening programs already in place in
25 Greenwich. They are not part of a Siting Council

1 application. They're ongoing PURA projects.

2 MR. BALL: Okay. On the first day --
3 let's put aside the storm issues. On the first
4 day of testimony in this docket you testified that
5 Greenwich actually has more outages than most
6 communities in Connecticut. Is that right?

7 THE WITNESS (Bowes): So we looked at
8 it about a year ago, and at that point in time the
9 reliability data for the last couple of years, and
10 specifically in 2016, was more frequent and longer
11 duration outages than the system averages.

12 MR. BALL: And so we, the town, were
13 listening, and I served an interrogatory, and I'm
14 going to refer you to Town 80 where we asked you
15 to identify the 13.2-kV circuits that were the
16 worst-performing circuits in Connecticut, and you
17 responded with a couple appendices, Town 80.

18 THE WITNESS (Bowes): Yes, we did.

19 MR. BALL: You gave us a list of the
20 100 worst-performing 13.2-kV circuits in the
21 state. Right?

22 THE WITNESS (Bowes): So it includes
23 all nine distribution voltages, not just 13.2.

24 MR. BALL: How many of the
25 worst-performing circuits were 13.2-kV circuits in

1 Greenwich? If you look at your appendix, it looks
2 like you may have highlighted them for us.

3 THE WITNESS (Bowes): Yeah, the
4 highlights are just Greenwich fed, or Greenwich
5 supplied circuits. They're not 13.2 kV.

6 MR. BALL: How many of them are 13.2,
7 please?

8 THE WITNESS (Bowes): I don't know.

9 MR. BALL: So, as you sit here today,
10 you don't know, if I were to identify for you what
11 we believe to be about nine 13.2-kV circuits, you
12 can't answer that?

13 THE WITNESS (Bowes): I would accept
14 that, if you've done the correlation.

15 MR. BALL: We did.

16 Do you know how many customers are
17 impacted by the deficient 13.2-kV circuits in
18 Greenwich?

19 THE WITNESS (Bowes): I don't know how
20 many customers are served from those circuits.

21 MR. BALL: By our math, it was 8,752
22 customers directly affected by those circuits.
23 Would you accept that, subject to check?

24 THE WITNESS (Bowes): I would say no,
25 because I'm not sure what information we provided

1 that would indicate that.

2 MR. BALL: So, Mr. Bowes, I'll very
3 quickly for the record identify for you what we
4 believe those circuits are, and if I'm wrong, I'm
5 sure you'll correct it at a later date. Circuit
6 16Q2, 22E12, 27K9, 13C2, 27K5, 22E6, 13C4, 16Q1,
7 and 22E10. Those are the 13.2-kV circuits that we
8 identified and, by our math, it's about 8,700
9 customers. And again, if I'm wrong, I'd ask you
10 to correct me.

11 THE WITNESS (Bowes): I'm sorry I
12 wasn't clear. I don't think in these appendices
13 there's any data that says the number of
14 customers.

15 MR. BALL: But you have that data
16 available, I assume, the company has that data
17 available through its own maps. Am I right?

18 THE WITNESS (Bowes): Through its
19 records, yes, but I don't think we were provided
20 that in this docket.

21 MR. BALL: Okay. So I'm simply asking
22 you, this is our math, and ask you to correct it
23 if I have anything wrong, since you do have the
24 information.

25 THE WITNESS (Bowes): I guess I'm not

1 going to accept it.

2 MR. BALL: So you think I might have
3 the numbers wrong?

4 THE WITNESS (Bowes): I think there's a
5 very good chance you have the numbers wrong.

6 MR. BALL: What?

7 THE WITNESS (Bowes): How would you
8 know?

9 MR. BALL: Because you have the data,
10 and it's been provided in other contexts.

11 THE WITNESS (Bowes): I don't believe
12 we ever have.

13 MR. BALL: Okay. Let me ask you a
14 question: Are you planning any upgrades to the
15 13.2-kV circuits?

16 THE WITNESS (Bowes): Yes.

17 MR. BALL: In this docket?

18 THE WITNESS (Bowes): No, other than
19 the connections to the feeders from the new
20 Greenwich substation.

21 MR. BALL: Other than those connections
22 in this docket, you are not planning any upgrades
23 the 13.2-kV circuits. Right?

24 THE WITNESS (Bowes): That is correct,
25 but nor would we. This is not the forum to do

1 that. PURA is the forum to do that.

2 MR. BALL: Okay.

3 THE WITNESS (Bowes): There's no
4 jurisdictional responsibility of the Siting
5 Council for distribution.

6 MR. BALL: Well, I mean, I've seen a
7 number of distribution issues that seem to be
8 overlapping here. So I'm just trying to get a
9 clear understanding as to whether in this project
10 you're proposing any upgrades to the deficient
11 13.2-kV circuits, and I believe you said the
12 answer is no. Right?

13 THE WITNESS (Bowes): No. But the
14 forum for that is, as I said, is the TDRP report
15 where each one of those circuits has an action
16 plan associated with it that's a requirement of
17 that docket, and we file that annually with PURA.
18 There are projects or fixes for each one of the
19 circuits on the top 100 list.

20 MR. BALL: The transmission line that
21 you are proposing to construct is not one of those
22 fixes as to the deficient 13.2-kV circuits.
23 Right?

24 THE WITNESS (Bowes): So again, this is
25 a PURA document, and they don't have jurisdiction

1 for the underlying or supporting transmission.

2 MR. BALL: I know. I'm not trying to
3 get into a jurisdictional argument with you. I'm
4 asking what I think is a simple question. Your
5 transmission solution in this docket does not
6 address the 13.2-kV deficient circuits. Right?

7 THE WITNESS (Bowes): It does not.

8 MR. BALL: Thank you.

9 Now, in the initial Docket 461 that was
10 a different project, that was a bigger project.
11 Right?

12 THE WITNESS (Bowes): It had a larger
13 capacity, as you mentioned, three transformers
14 versus two. It had a different routing for the
15 transmission lines. So yes, it was a different --

16 MR. BALL: More expensive?

17 THE WITNESS (Bowes): It was about \$40
18 million more expensive, yes.

19 MR. BALL: In gross dollars?

20 THE WITNESS (Bowes): In a comparative
21 basis, yes.

22 MR. BALL: However, you would agree
23 that the 134 MVA that you were proposing in the
24 initial docket for \$140 million, correlated to
25 approximately a million dollars per MVA, you made

1 that argument in the initial docket. Do you
2 recall that?

3 THE WITNESS (Bowes): I think that was
4 a calculation done. I don't know if it was an
5 argument but --

6 MR. BALL: You made that point.

7 THE WITNESS (Bowes): Yes.

8 MR. BALL: I didn't mean to
9 characterize it as an argument. You made the
10 point that that was about a million dollars per
11 MVA, the initial docket. Right?

12 THE WITNESS (Bowes): That is correct.

13 MR. BALL: The new docket, the proposed
14 substation will have 60 MVA capacity at a price of
15 \$100 million. Right?

16 THE WITNESS (Bowes): So again, there's
17 two transformers at the new substation for 120
18 MVA.

19 MR. BALL: Right. But for your
20 planning purposes there is 60 MVA, it's a 60 MVA
21 substation. Right?

22 THE WITNESS (Bowes): No, it's 120 MVA
23 substation, as filed with the Siting Council.

24 MR. BALL: The permissible load level
25 at the new substation is what, 60 MVA?

1 THE WITNESS (Bowes): I believe 83 MVA.

2 MR. BALL: On a per MVA basis, compared
3 to the initial docket, this is more expensive,
4 just on a per MVA basis in terms of what you're
5 adding. You agree with that?

6 THE WITNESS (Bowes): I haven't done
7 the calculations. It was 140 for 130 MVA. This
8 is \$100 million for 83 MVA.

9 MR. BALL: In the 2015 hearing -- and
10 I'm going back to Docket 461 -- you testified that
11 Eversource's proposal was designed to satisfy the
12 need today at the lowest possible cost. Do you
13 recall that testimony?

14 THE WITNESS (Bowes): Subject to check,
15 I'll accept that, yes.

16 MR. BALL: That you'll accept. So at
17 that point was that an accurate statement?

18 THE WITNESS (Bowes): I believe so at
19 the time, yes.

20 MR. BALL: So the new proposal is, as
21 we just talked about, it's less expensive, but
22 it's also going to provide less capacity, there's
23 no question about that?

24 THE WITNESS (Bowes): We spent quite a
25 bit of time this morning talking about there was

1 no need for capacity, so I think it meets the need
2 as it's been revised.

3 MR. BALL: So your statement in the
4 initial docket was a function of your -- again, at
5 that time -- of your projections of continuous
6 load growth in Greenwich. Is that fair?

7 THE WITNESS (Bowes): I think that's
8 probably the context it was made in, yes.

9 MR. BALL: And as you sit here today,
10 it's fair to say that the smaller, less
11 expensive -- somewhat less expensive project from
12 140 to 100 million was done intentionally to try
13 and reduce costs to meet with Siting Council
14 approval. Isn't that true?

15 THE WITNESS (Bowes): That was one of
16 the factors, yes. The other was to actually
17 reduce the size and scope of the project.

18 MR. BALL: So just if I can briefly
19 recap, let me just ask you one other question.
20 Attorney Dobin is going to have some questions for
21 you as well.

22 MR. FITZGERALD: Excuse me. You're
23 going to have two questioners?

24 MR. BALL: I said please let me ask a
25 question, and then I'm sure Attorney Dobin will

1 ask, when I'm complete, a different question. But
2 let me finish my examination.

3 Mr. Bowes, you're building a new
4 transmission line as part of this. This is a 2.3
5 mile extension of the 115-kV transmission line.
6 Right?

7 THE WITNESS (Bowes): Actually two
8 transmission lines, yes.

9 MR. BALL: To feed that line, you are
10 now proposing XLPE cable, solid cables?

11 THE WITNESS (Bowes): Solid dielectric
12 cable, yes.

13 MR. BALL: And the size, not to get
14 hypertechanical, is 3500 kcmil?

15 THE WITNESS (Bowes): It is.

16 MR. BALL: You would agree, I am sure,
17 that those size cables are greater in size than
18 you actually need to feed this substation, right,
19 the new substation?

20 THE WITNESS (Bowes): If you were just
21 looking at the load at the new Greenwich
22 substation, that would be accurate, yes.

23 MR. BALL: And if you are looking at
24 the load of the new Greenwich substation, in fact,
25 you could have smaller copper conductors, 2000

1 kcmil would be sufficient to feed the new
2 substation. Right?

3 THE WITNESS (Bowes): I don't believe
4 2000 would, but certainly a smaller size would.
5 Unfortunately that would not allow us to loop feed
6 the existing Cos Cob Substation nor Tomac
7 Substation.

8 MR. BALL: If you use smaller
9 conductors, correct me if I'm wrong, the cables
10 are smaller, right, cables will be smaller?

11 THE WITNESS (Bowes): Yes, they would.

12 MR. BALL: And the ducts would be
13 smaller?

14 THE WITNESS (Bowes): Probably not, no.

15 MR. BALL: No, the ducts wouldn't be
16 smaller if you used smaller cable?

17 THE WITNESS (Bowes): So we would
18 probably standardize on potentially a 3000 kcmil
19 conductor rather than the 3500. That wouldn't
20 provide us the future capability for feeding Cos
21 Cob and Tomac around this loop. And, you know,
22 the cost difference, for example, in that case
23 between the 3500 kcmil and the 3000 kcmil I think
24 is around \$60,000. So it's a nominal cost
25 difference for 12,000 feet, about \$5 a foot.

1 And if you remember -- or the Siting
2 Council remembers last week, we had a question on
3 would we prebuild structures to take the next size
4 conductor, and we agreed to do that in Docket 474.
5 So this is in keeping with how the company has
6 proposed projects in the past. I don't have your
7 limiting element, of your expensive element that
8 you'd have to change at some future date.

9 THE WITNESS (Case): If I can just add
10 one other thing. You mentioned a 2000 kcmil
11 conductor. The diameter on that is about 4
12 inches. I actually have an example here of 2000
13 kcmil. This is the 3500 kcmil XLPE. So very
14 similar. You would not be able to reduce the duct
15 bank size.

16 MR. BALL: So that's your testimony
17 that the 2000 kcmil, if you were to go with that,
18 which theoretically --

19 THE WITNESS (Case): And the other part
20 of it --

21 MR. BALL: I'm sorry, Mr. Case. Just
22 so I'm clear, the testimony you're saying is that
23 you would not be able to use smaller ducts?

24 THE WITNESS (Case): No. And one more
25 point on the 2000 kcmil. While it does meet the

1 range requirement, it only has a 4 percent margin
2 above what is required. So we would not want to
3 go through this much of a project to have only 4
4 percent margin before we've done all of our
5 engineering on it.

6 MR. BALL: Okay. I understand that you
7 want to try to identify what you contend are the
8 benefits, Mr. Bowes, of this project, but I just
9 want to make sure, since it's a reliability
10 project, that I've got my understanding straight
11 based on this morning. If there is a potential
12 outage on the 1740, 1750 115-kV lines going into
13 Cos Cob, the project is not going to be able to
14 deal with that?

15 THE WITNESS (Bowes): A double circuit
16 contingency it would not.

17 MR. BALL: Especially because they're
18 on the same structure. So if a tree falls on that
19 same structure and knocks out both lines, this
20 project doesn't solve that problem. Right?

21 THE WITNESS (Bowes): That is correct.

22 MR. BALL: This project doesn't deal
23 with the single contingency problem of the Tomac
24 4.8-kV transformer. Right?

25 THE WITNESS (Bowes): As I testified

1 this morning, we already have another project that
2 will deal with that. And about half of the
3 customers have already been mitigated at peak
4 load.

5 MR. BALL: And, again, but the other
6 half are still susceptible to the same problems
7 today as we sit here today. Right?

8 THE WITNESS (Bowes): Yes, as are about
9 70,000 other customers on the CL&P system.

10 MR. BALL: Just talking about
11 Greenwich.

12 The Byram Substation, you've got
13 obsolete equipment. You testified about absolute
14 transformers. This project isn't going to do
15 anything to address the obsolescence of the Byram
16 transformers?

17 THE WITNESS (Bowes): So for Byram we
18 talked a little bit about that. We will continue
19 to monitor the condition of those transformers.
20 We'll limit the load to the 12 and a half MVA.
21 That's where we've had the history of failures is
22 when they've been overloaded. And as we just did
23 this spring in Mianus, we will change out those
24 transformers when needed.

25 MR. BALL: And I appreciate that. My

1 question is, you would agree that this project
2 does not deal with the obsolescence of the Byram
3 transformers?

4 THE WITNESS (Bowes): I think I've
5 answered that four times now.

6 MR. BALL: Okay. I just want to make
7 sure it's clear.

8 THE WITNESS (Bowes): To you or to
9 everyone else?

10 MR. BALL: All right.

11 THE CHAIRMAN: It's at least clear to
12 the Council.

13 MR. BALL: That's like far more
14 important than me.

15 And then just a couple other. The
16 27.6-kV cables that are failing even when they're
17 not overloaded, this proposal does nothing to deal
18 with the potential replacement of those cables.
19 Right?

20 THE WITNESS (Bowes): Not the
21 replacement. It will significantly reduce the
22 loading on them.

23 MR. BALL: And as we looked at, those
24 cables are not failing, at least in certain
25 instances because they're overloaded, they're

1 failing because they're failing?

2 THE WITNESS (Bowes): No, but when we
3 reduce load, we'll pick up the added benefit of
4 having an N minus 2 system, which means we'll be
5 able to sustain a second contingency on those
6 cables where we cannot today.

7 MR. BALL: So the cables themselves are
8 not proposed to be addressed in this docket.
9 Isn't that right?

10 THE WITNESS (Bowes): We're not
11 replacing the cables, but the loading and impact
12 of this project will be positive on those cables.

13 MR. BALL: What was the, by the way,
14 the load at Byram on July 20th when that cable
15 failed?

16 THE WITNESS (Bowes): I don't know.

17 MR. BALL: After this project is built,
18 11R56 is still going to feed Byram. Right?

19 THE WITNESS (Bowes): Yes, it is.
20 Figure 1 revision is accurate.

21 MR. BALL: And whatever issues there
22 are with the 13.2-kV cables that are listed as
23 among the 100 worst in the state, those problems
24 are not going to be addressed by this particular
25 project. Agree with that?

1 THE WITNESS (Bowes): So just a
2 clarification on the question. I don't believe
3 they're cables. They're all overhead circuits.

4 MR. BALL: Fair enough. Thank you for
5 the clarification.

6 THE WITNESS (Bowes): Because of a
7 requirement from PURA, all of those circuits will
8 have projects associated with them.

9 MR. BALL: All that is outside this
10 project, nothing in this project addresses those
11 overhead lines. Right?

12 THE WITNESS (Bowes): That is correct.

13 MR. BALL: Thank you.

14 All right. Chairman Stein, we have
15 just a few other questions that should not be too
16 extensive dealing with the cost of the project and
17 with the substation. And, with your permission,
18 I'd ask that Attorney Dobin be allowed to ask
19 those questions.

20 MR. FITZGERALD: I object to multiple
21 questioners of a single panel -- I mean that is
22 multiple attorneys representing one party.

23 MR. BALL: I can help Attorney
24 Fitzgerald, Docket 461.

25 THE CHAIRMAN: No, you don't have to.

1 Overruled. Let's continue.

2 MR. BALL: Thank you.

3 THE CHAIRMAN: We've done that before.
4 I want to get this thing done.

5 MR. BALL: Thank you, Chairman Stein.

6 THE CHAIRMAN: Of course, that's
7 assuming that your associate will be brief.

8 MR. DOBIN: Yes, I will be brief.

9 MR. BALL: And effective.

10 MR. DOBIN: Good afternoon, Mr. Bowes.

11 THE WITNESS (Bowes): Good afternoon.

12 MR. DOBIN: Can you hear me?

13 THE WITNESS (Bowes): Yes, I can.

14 MR. DOBIN: So you estimate that the
15 cost of the project is about \$100 million. You've
16 testified about that. Right?

17 THE WITNESS (Bowes): Yes.

18 MR. DOBIN: And the underground line
19 you've estimated to be approximately \$57 million?

20 THE WITNESS (Bowes): I think that's
21 accurate. Mr. Case.

22 THE WITNESS (Case): That's not
23 correct. That's 52 million for the transmission
24 line.

25 MR. DOBIN: Okay. But for the

1 combination between -- I'm sorry, I will point you
2 out to Exhibit B to the prefiled, which is page
3 A-17 of Exhibit B, which is the description of the
4 alternate project.

5 So the cable system you've estimated to
6 be approximately \$57 million. Correct?

7 THE WITNESS (Case): Which cable
8 system? Again, if I can refer to a recently filed
9 Interrogatory 069, the cost for the transmission
10 lines is \$52.5 million. If you're lumping the
11 distribution work into that --

12 MR. DOBIN: Okay. So you're talking
13 about 69, correct?

14 THE WITNESS (Case): Correct.

15 MR. DOBIN: So I'm looking at -- so I
16 put the response to 69 up on the screen. Now, if
17 you look at the component on the table A, you have
18 the transmission line, \$53.4 million. Right?

19 THE WITNESS (Case): This was in
20 response to a question from the Council where they
21 wanted to know the difference between terminating
22 at 281 Railroad and 290 Railroad Ave. The current
23 \$99.7 million project terminates at 281 Railroad
24 Ave., which is that first column on that table.

25 MR. DOBIN: Well, the computer stopped

1 working, so I will -- just generally speaking, if
2 that -- you're aware that the town asked you to
3 provide a specific basis, a detailed basis for the
4 estimates that you've made to date with respect to
5 the cable system, which is the underground line
6 with respect to this project generally, right,
7 you're aware that request was made by the town?

8 THE WITNESS (Case): Yes.

9 MR. DOBIN: And in response to three of
10 those interrogatories, you provided a general
11 breakdown for those costs, and that was
12 Interrogatory 42, 43 and 46. Those are town
13 interrogatories. Do you recall that?

14 THE WITNESS (Case): Yes.

15 MR. DOBIN: Now you see that Eversource
16 also objected to any more granular breakdown of
17 the cost estimates. Right?

18 THE WITNESS (Case): That's correct.

19 MR. DOBIN: And in response to Town
20 Interrogatories 44, 45 and 54, no breakdown was
21 provided. There was an objection to those
22 requests. I'm talking about 44, 45 and 54.

23 THE WITNESS (Case): Correct. We
24 provide the breakdowns as part of 43, which is the
25 sufficient level that we thought for a

1 determination to be made what costs were
2 reasonable, but without sacrificing any of the
3 competitive nature of the bids that we will be
4 entering into soon.

5 MR. DOBIN: But you haven't provided
6 anymore detail other than those general estimates
7 you provided in response to the interrogatories I
8 mentioned. Right?

9 THE WITNESS (Case): What we've
10 provided -- yes.

11 MR. DOBIN: And you're objecting to
12 anymore granular breakdown of those numbers.
13 Right?

14 THE WITNESS (Case): Correct.

15 MR. DOBIN: And on July 18th, the town
16 filed testimony in which it listed specific
17 criticisms of the cost estimates. Do you recall
18 that?

19 THE WITNESS (Case): Yes.

20 MR. DOBIN: And at the last hearing you
21 were asked about those criticisms. Do you
22 remember that?

23 THE WITNESS (Case): Yes.

24 MR. DOBIN: And do you remember
25 identifying some of the reasons why you don't

1 completely agree with the town's estimates. Do
2 you remember that?

3 THE WITNESS (Case): Yes, I remember
4 stating the fact that the town had picked out some
5 areas where the costs for HPFF would be more
6 expensive than an XLPE. And we don't dispute the
7 fact that our current XLPE project is cheaper than
8 the HPFF project from Docket 461.

9 MR. DOBIN: And you also, when you
10 responded to those concerns, you admit that it's
11 cheaper to use XLPE cable, and you also said that
12 you think that some of the numbers are accurate,
13 like you said, but they don't create a bottoms up
14 that gives you the full picture. Do you remember
15 saying that?

16 THE WITNESS (Case): Yes.

17 MR. DOBIN: But as of today, other than
18 the general breakdowns that you provided in those
19 responses, a more granular breakdown of cost has
20 not been provided?

21 MR. FITZGERALD: Objection. Asked and
22 answered.

23 MR. DOBIN: Okay. And invoices and
24 historical data that led you to those cost
25 estimates also has not been provided. Right?

1 THE WITNESS (Case): No, we haven't
2 gone out to bid on any of this work. We don't
3 have any actuals to share with you.

4 MR. DOBIN: Okay. But you didn't
5 provide any documents, or any explanation other
6 than what -- you believe it's reasonable, but you
7 haven't provided anymore details in response to
8 the interrogatories explaining why that's
9 reasonable?

10 THE WITNESS (Case): I would have to
11 point to our extensive experience with
12 installation of cross-linked polyethylene duct
13 banks and cable systems over the past 10, 15 years
14 between Glenbrook cables, Stamford cables,
15 Middletown-Norwalk, Bethel-Norwalk.

16 MR. DOBIN: But you haven't provided
17 the detailed information, the invoices, the actual
18 costs of those projects --

19 THE CHAIRMAN: I think that question
20 has been answered.

21 MR. DOBIN: Okay. And so at this point
22 the town and the Siting Council don't have that
23 information. And I'll move on.

24 Now, with respect to the information
25 that we've asked for, the town requests that

1 Eversource be ordered to provide that information.
2 The town would be willing to enter into a
3 protective order, if necessary, but I think that
4 information is needed in order to create a
5 bottoms-up full picture.

6 THE CHAIRMAN: I think -- go ahead.
7 You go first.

8 MR. FITZGERALD: Our objection was
9 grounded on the competitive commercial sensitivity
10 of information of greater granularity which would
11 be of assistance to bidders who will be bidding on
12 actually building this project, we hope and
13 believe. And it is really not relevant in that
14 detail to any issue in this case.

15 At this point there is only one project
16 before the Council. At one point there were two,
17 and there was a legitimate -- there might have
18 been a legitimate inquiry as to whether the
19 differential cost of the two projects that we were
20 presenting was well grounded. Here the basic
21 proposition is that we are underestimating the
22 cost of the one project that's left. I don't know
23 how that, if there were anything to it, were a
24 sufficient reason to support this detailed
25 discovery. Because it's not a reason to deny a

1 certificate, the fact that the project will
2 actually end up costing less than we are
3 estimating.

4 Moreover, we have provided a very
5 reasonable breakdown of the components of the
6 estimate, and the desire of the opposition here to
7 have greater and greater specificity and detail
8 may be a burden, is a burden, is a nuisance, but
9 it doesn't translate into anything useful for the
10 Siting Council in deciding this case. So we
11 object.

12 THE CHAIRMAN: The Chairman will not
13 require this additional information. Please go
14 on.

15 MR. DOBIN: One final question on the
16 cost issue. You do agree that cost is a factor in
17 terms of the Siting Council's decision to approve
18 this project, right, that is a factor either way,
19 good or bad?

20 THE WITNESS (Case): Yes.

21 MR. DOBIN: Now, with respect to the
22 actual -- getting back to what the costs are of
23 the project, one of the issues with any lengthy
24 underground line is installing splice vaults and
25 manholes. Right?

1 THE WITNESS (Case): Yes.

2 MR. DOBIN: And as we sit here today,
3 you don't know how many splice vaults are going to
4 be installed as part of the project, you have an
5 estimate, but you haven't done a final
6 calculation. Is that correct?

7 THE WITNESS (Case): We believe that we
8 have provided a reasonable location for each of
9 the splice vaults that is proposed.

10 MR. DOBIN: Right. And in response to
11 the -- so in order to determine how many splice
12 vaults should be installed, right, you have to do
13 certain testing, pole tension calculations, to
14 determine the number of cable segments, right,
15 that gives you the number of splice vaults which
16 connect the cable segments that aren't on the end
17 right, in between the cable splices. Right?

18 THE WITNESS (Case): Correct.

19 MR. DOBIN: So you need to be able to
20 do pole tension calculations in order to determine
21 how many segments there are?

22 THE WITNESS (Case): Yes.

23 MR. DOBIN: And as we sit here today,
24 you still have not done those pole tension
25 calculations. Right?

1 THE WITNESS (Case): We've done some
2 sample checks on what we've proposed for current
3 splice locations, and we feel very confident that
4 the lengths right now are sufficiently short,
5 sufficiently straight enough to allow where the
6 splice vaults are currently located. If what
7 you're getting at is can we reduce splices, you
8 know, that would probably come out during final
9 details and during the D&M phase.

10 MR. DOBIN: And based on your
11 testimony, you said seven, there's about seven
12 splice vaults?

13 THE WITNESS (Case): There are eight
14 vault locations where we have double vaults
15 located. Yes, there are eight vault locations.

16 MR. DOBIN: In response to
17 Interrogatory 24, you said that preliminary pole
18 tensions have not been calculated.

19 THE WITNESS (Case): Subsequent to
20 that, we have done a quick check on some of the
21 lengths that we're looking at.

22 MR. DOBIN: And have you updated your
23 response to Interrogatory 24, or will you be doing
24 that?

25 THE WITNESS (Case): To show that it

1 works, we could --

2 MR. DOBIN: Well, to provide that
3 additional information that's inconsistent with
4 24.

5 THE WITNESS (Case): Can I ask, we
6 could provide that, but I'm not sure what the
7 benefit to the town or the Council is.

8 MR. DOBIN: But you understand that the
9 number of splice vaults between the cable
10 segments, right, that affects the ultimate cost of
11 the project?

12 THE WITNESS (Case): Correct. We hope
13 to reduce that number during final design.

14 MR. DOBIN: And cost is a factor in
15 this matter. Right?

16 THE WITNESS (Case): Correct.

17 MR. DOBIN: We'd ask the Council to
18 order Eversource to provide that updated
19 information that we've asked for in our previous
20 interrogatory.

21 THE CHAIRMAN: That information will be
22 provided if this application were to be approved
23 as part of D&M. There's no need to continue at
24 this point. And I think you should know the
25 procedure. That's why we have a D&M for this kind

1 of detailed information, and we're not there yet.
2 And we may never get there.

3 MR. DOBIN: Moving to the substation, I
4 want to make sure everyone is on the same page
5 about the difference between an open air versus a
6 fully enclosed substation. Just to be clear, an
7 indoor substation at either location would be
8 sufficient. Correct? And this could go to
9 whoever the --

10 MR. FITZGERALD: Objection. I don't
11 understand the question. It's unintelligible.

12 MR. DOBIN: You have stated that an
13 indoor substation at either location would be
14 sufficient to meet your needs. Is that correct?
15 Is that an accurate statement?

16 THE WITNESS (Bowes): The word
17 "sufficient" that I'm struggling with is, could
18 either one of them be built, it could be built at
19 either location, an all indoor substation, or an
20 open air substation?

21 MR. DOBIN: It would be feasible to do
22 that.

23 THE WITNESS (Bowes): It's feasible at
24 either location to do that, yes.

25 MR. DOBIN: And a fully enclosed indoor

1 substation means that it is covered by a roof
2 except for a roof opening above the transformers
3 and the circuit switcher. Right?

4 THE WITNESS (Bowes): I would say in
5 general that's accurate, yes.

6 MR. DOBIN: And an open air substation,
7 it does not have a roof like that. Is that
8 correct?

9 THE WITNESS (Bowes): That is correct.

10 MR. DOBIN: It's open air, literally
11 it's open air?

12 THE WITNESS (Bowes): It's like every
13 other substation on the CL&P system.

14 MR. DOBIN: Right. So in an indoor
15 substation all of the substation equipment and the
16 switch gear, they're all inside, but in an outdoor
17 substation there's open air, so it's open to the
18 elements?

19 THE WITNESS (Bowes): Like I said, it's
20 like every other substation we have on our system.

21 MR. DOBIN: And you testified that it
22 will also -- you know, this indoor substation
23 would have a significant impact on the noise
24 effect compared to an outdoor substation. Right?

25 THE WITNESS (Bowes): So I said, I

1 think the question was from one of the Council
2 members around what would the impact of an indoor
3 enclosure versus a wall be, and the indoor
4 enclosure would have superior sound level
5 mitigation than just the wall.

6 MR. DOBIN: Right. But there is a
7 major difference in those areas that you're
8 talking about with respect to the differences
9 between an indoor substation and an open air
10 substation?

11 THE WITNESS (Bowes): For sound levels?
12 Yes.

13 MR. DOBIN: For sound levels, right,
14 and for exposure to the elements from above?

15 MR. FITZGERALD: Objection.
16 Unintelligible.

17 MR. DOBIN: Your Honor -- "your Honor"
18 I'm so used to being in court -- the fact is
19 that --

20 THE CHAIRMAN: I've been called worse
21 things.

22 (Laughter.)

23 THE CHAIRMAN: I think we know that if
24 there's not a roof, that if it does rain,
25 hopefully not the way it's raining some other

1 places, that it will be exposed, or snow.

2 MR. DOBIN: So you also said that this
3 is -- it's like the open air substation will be
4 like every other one you've built, every other
5 open air substation that you've built, that's what
6 you just said?

7 THE WITNESS (Bowes): Yes, trying to
8 imply that it's very commonplace.

9 MR. DOBIN: It's very commonplace,
10 right. And for either 281 or 290 Railroad Avenue,
11 the two proposed sites, right, these are close to
12 residential and commercial buildings. Right?

13 THE WITNESS (Bowes): Yes, I would say
14 residential more for 281; commercial/industrial
15 for 290.

16 MR. DOBIN: Right. And in the last ten
17 years you haven't proposed a new substation at the
18 Siting Council that has the same physical property
19 constraints as this one. Right?

20 THE WITNESS (Bowes): That is correct.

21 MR. DOBIN: And you don't typically
22 locate substations within cities that have similar
23 physical property attributes at this location?

24 THE WITNESS (Bowes): So we have lots
25 of substations in cities, and we are expanding

1 several of them. So I would say the new
2 substations at least in the last ten years have
3 been in fairly rural areas with a much larger
4 acreage to deal with.

5 MR. DOBIN: Right. And so these
6 physical property constraints that you were
7 talking about, it drives you to do unique things
8 with respect to substations. Right? That's what
9 you said in the last hearing.

10 THE WITNESS (Bowes): So I think the
11 sound level issue is the one that's of concern for
12 281. Even though we may meet the state
13 requirements for acoustic emissions from the
14 substation from the transformers, we still have
15 some concerns that we'll still get complaints at
16 that location without an all-enclosed substation.

17 MR. DOBIN: And are there increased
18 benefits, security benefits of having the fully
19 enclosed versus --

20 THE WITNESS (Bowes): I noted two other
21 things in the interrogatory response, the physical
22 security benefits of an all indoor substation, and
23 I believe there was one other as well.

24 MR. DOBIN: Mr. Chairman, I only have a
25 few more questions, and I will be done. I

1 promise.

2 Mr. Bowes, you are aware that the town
3 opposed the project in Docket 461 that proposed a
4 line through Bruce Park. You were there. You
5 were aware of that. Right? Just a few more
6 questions.

7 MR. FITZGERALD: Multiple questions.

8 MR. DOBIN: You're aware the town
9 opposed the project in Docket 61. Right?

10 THE WITNESS (Bowes): In 461, yes.

11 MR. DOBIN: And you're aware that one
12 of the reasons was because that project involved
13 the use of high pressure fluid filled cables.
14 Right?

15 THE WITNESS (Bowes): Yes.

16 MR. DOBIN: Now you're proposing solid
17 dielectric XLPE cables. Right?

18 THE WITNESS (Bowes): Correct. Yes.

19 MR. DOBIN: Those don't contain
20 dielectric liquid. Right?

21 THE WITNESS (Bowes): They are not
22 fluid filled, that's correct. It's a solid
23 dielectric.

24 MR. DOBIN: And you were also aware
25 that one of the reasons for the opposition of the

1 town was because it went outside of roads and
2 would impact other areas of the park. Right?

3 MR. FITZGERALD: I'm sorry. I didn't
4 hear that question at the end.

5 MR. DOBIN: Okay.

6 MR. FITZGERALD: Could it be read back
7 or reasked?

8 MR. DOBIN: I can just reask the
9 question.

10 You're also aware that one of the
11 reasons the town opposed the original route
12 through the park was because of its concern about
13 the environmental impact on trees, wooded areas,
14 ball fields, and the tidal basins. Is that
15 correct?

16 THE WITNESS (Bowes): Yes.

17 MR. DOBIN: Now, except for I-95 and
18 the Harbor Crossings, all the underground
19 installation work associated with the new
20 transmission line would be conducted within the
21 roadways. Right?

22 THE WITNESS (Bowes): So I think we're
23 on DOT property for a portion right outside the
24 Cos Cob Substation. I believe we'll be outside of
25 the roadway on the DOT property at that point.

1 MR. DOBIN: But other than that, not
2 within the park?

3 THE WITNESS (Bowes): Not within the
4 park.

5 MR. FITZGERALD: Objection. The
6 question is ambiguous. "Other than that" what?

7 MR. DOBIN: Well, other than what you
8 just testified to, and the Harbor Crossing, and
9 the I-95 crossing, this project will stay within
10 the roads?

11 MR. FITZGERALD: Objection, because
12 it's ambiguous. If we're talking about -- the
13 statement "within the road" is ambiguous because
14 it could be referring either to the fact that the
15 line would be installed within a roadway, or to
16 the fact that there will be absolutely no activity
17 in connection with the construction of the project
18 that would be anywhere other than inside the
19 roadway.

20 MR. DOBIN: I'll restate my question to
21 try to get this clarified. The cables for the new
22 underground transmission line of the extension
23 would be constructed within the roadways, that's
24 where they will be installed, right, that's your
25 testimony at Exhibit B at page B-1 of your

1 prefiled?

2 THE WITNESS (Bowes): So what we've
3 proposed to date, again, subject to DOT approvals,
4 would be for using the use of town and state
5 roadways to locate the cable duct bank system.
6 There are some variations, as you pointed out, to
7 get under or attach to the bridge at the I-95
8 crossing, and there is a location in Bruce Park
9 where we will either use a cofferdam or a
10 pedestrian bridge where we would exit the roadway.
11 Those are the locations that I'm aware we would
12 not be within the roadway.

13 There is one issue that I mentioned
14 briefly around the use of state roads. In past
15 agreements we have not been allowed to locate
16 faults within state roads. That is likely to be
17 the case for this docket as well.

18 MR. DOBIN: Okay. And finally, you're
19 also aware that one of the reasons the town
20 opposed the project through the route in the first
21 docket was because of the use of horizontal
22 directional drilling. Right?

23 THE WITNESS (Bowes): That is correct.

24 MR. DOBIN: And now you're not
25 proposing horizontal directional drilling. Right?

1 THE WITNESS (Bowes): So we're not
2 proposing HDD, but we are proposing a trenchless
3 crossing of I-95.

4 MR. DOBIN: And you believe that the
5 current proposed route through the park addresses
6 the main concerns that the town had with the
7 construction and the original route in Docket 461?

8 THE WITNESS (Bowes): I believe so.
9 It's probably a better question for the town, the
10 town witnesses. I think we've addressed the
11 issues that they had, but I've been mistaken
12 before.

13 MR. DOBIN: I have no further
14 questions, Mr. Chairman.

15 THE CHAIRMAN: Thank you.

16 Okay. Now we'll go to
17 cross-examination of the Town of Greenwich. So
18 you're going to have to switch.

19 MR. BALL: Yes. We'll move.

20 (Witnesses excused.)

21 MR. FITZGERALD: Are there other
22 intervenors to cross this panel?

23 MS. BACHMAN: Mr. Stacy would like to
24 do that on September 5th.

25 THE CHAIRMAN: Attorney Ball, can we

1 have your witnesses be sworn in and verify
2 whatever exhibits?

3 MR. BALL: Thank you, Chairman Stein.
4 So I'll ask each of the witnesses to stand up. If
5 you would like me to identify them, I certainly
6 can.

7 THE CHAIRMAN: That probably will be
8 helpful.

9 MR. BALL: Why don't each of you, as
10 you stand up, provide your name for the record.

11 JAMES MICHEL: James Michel,
12 M-I-C-H-E-L.

13 AMY SIEBERT: Amy Siebert.

14 BRUCE SPAMAN: Bruce Spaman.

15 MITCHELL MAILMAN: Mitchell Mailman.

16 KATHARINE DELUCA: Katie DeLuca.

17 DENISE SAVAGEAU: Denise Savageau.

18 J A M E S W. M I C H E L,

19 A M Y J. S I E B E R T,

20 B R U C E S P A M A N,

21 M I T C H E L L E. M A I L M A N,

22 K A T H A R I N E A. D E L U C A,

23 D E N I S E M. S A V A G E A U,

24 called as witnesses, being first duly sworn

25 by Ms. Bachman, were examined and testified

1 on their oaths as follows:

2 MR. BALL: Chairman Stein, if I may,
3 I'll ask the witnesses to adopt the testimony?

4 DIRECT EXAMINATION

5 MR. BALL: All right. There are three
6 exhibits on the hearing program. So the prefile
7 testimony is Exhibit 1 with various attachments.
8 And I will ask each of the witnesses, since we
9 presented this as a panel, to adopt that testimony
10 and to answer whether or not the testimony is true
11 and accurate to the best of your knowledge. And
12 we can go right down the row.

13 Mr. Michel.

14 THE WITNESS (Michel): Yes, it is.

15 THE WITNESS (Siebert): Yes.

16 THE WITNESS (Spaman): Yes.

17 THE WITNESS (Mailman): Yes.

18 THE WITNESS (DeLuca): Yes.

19 THE WITNESS (Savageau): Yes.

20 MR. BALL: And the same question for
21 our Exhibit 2, which is responses that the town
22 provided to interrogatories, Siting Council
23 interrogatories, presented as a panel.

24 Once again, if each of you would
25 indicate whether you adopt those responses and

1 whether they're true and accurate to the best of
2 your knowledge?

3 THE WITNESS (Michel): Yes.

4 THE WITNESS (Siebert): Yes.

5 THE WITNESS (Spaman): Yes.

6 THE WITNESS (Mailman): Yes.

7 THE WITNESS (DeLuca): Yes.

8 THE WITNESS (Savageau): Yes.

9 MR. BALL: And lastly, we did some
10 supplemental prefile testimony with attachments.
11 And I'm not sure, the attachments are referenced
12 in the hearing program, but that is what we
13 submitted. So I will just ask, I believe the
14 supplemental prefiled was Ms. Savageau and Mr.
15 Mailman. So I will just, Ms. Savageau and
16 Mr. Mailman, the supplemental prefile, together
17 with the attachments, do you adopt as your
18 testimony, and is it true and accurate to the best
19 of your knowledge?

20 THE WITNESS (Mailman): Yes.

21 THE WITNESS (Savageau): Yes.

22 MR. BALL: And with that, I would offer
23 all those exhibits, and the panel is yours.

24 THE CHAIRMAN: Okay. Is there any
25 objection by any party or intervenor to the

1 admission of these exhibits?

2 MR. FITZGERALD: No objection.

3 THE CHAIRMAN: Hearing and seeing none,
4 they will be admitted.

5 (Town's Exhibits X-B-1 through X-B-3:
6 Received in evidence.)

7 THE CHAIRMAN: And we'll now begin with
8 cross-examination by the applicant.

9 CROSS-EXAMINATION

10 MR. FITZGERALD: Thank you
11 Mr. Chairman.

12 Ms. Siebert, I'd like to start with a
13 few questions for you. You are the commissioner
14 of public works for the Town of Greenwich?

15 THE WITNESS (Siebert): Yes, sir.

16 MR. FITZGERALD: And do you recall
17 participating together with other town
18 representatives in the series of meetings with
19 Eversource representatives concerning potential
20 solutions to the Greenwich electric reliability
21 issues after the Council's initial decision in
22 this matter?

23 THE WITNESS (Siebert): Yes, I do.

24 MR. FITZGERALD: And did those meetings
25 take place basically from June of 2016 through

1 April of 2017?

2 THE WITNESS (Siebert): Yes, to the
3 best of my recollection.

4 MR. FITZGERALD: And did most of them
5 take place in Greenwich?

6 THE WITNESS (Siebert): I'm sorry, you
7 were asking me if most of the meetings were in
8 Greenwich?

9 MR. FITZGERALD: Yes.

10 THE WITNESS (Siebert): Many of the
11 meetings were in Greenwich, yes.

12 MR. FITZGERALD: And do you recall at
13 those meetings that the Eversource representatives
14 reviewed with you and the other Greenwich
15 representatives who participated several potential
16 distribution solutions to the Greenwich electric
17 reliability issues?

18 THE WITNESS (Siebert): I do recall
19 some discussions of distribution, yes.

20 MR. FITZGERALD: Have you looked at
21 Eversource's response to Council Interrogatory
22 Number 26?

23 THE WITNESS (Siebert): I can't
24 specifically say I remember that number 26.

25 MR. FITZGERALD: I'm sure your counsel

1 can pass a copy of it to you. If not, I've got
2 one.

3 MR. BALL: If you don't mind. Thank
4 you.

5 MR. FITZGERALD: Actually what I'm
6 passing up to you is a table that was attached as
7 an exhibit to the response to Council
8 Interrogatory Number 26. And in that table
9 Eversource summarizes eight potential distribution
10 projects that had been considered, and the reasons
11 why each of them were not adopted.

12 So if you would take a look at that
13 table, and then tell us if you recall that, in
14 fact, those distribution potential projects were
15 discussed in the course of this series of
16 meetings?

17 THE WITNESS (Siebert): I think I can
18 honestly say I don't recall if all of these were
19 specifically discussed. Obviously, there's a
20 great deal of detail in here regarding these.

21 MR. FITZGERALD: And do you recall that
22 at least some distribution projects were
23 discussed?

24 THE WITNESS (Siebert): Yes.

25 MR. FITZGERALD: And do you recall that

1 for each of those projects that was discussed,
2 there was detail presented in Powerpoint
3 presentations that were, in fact, a lot more
4 detailed than the summaries in those tables?

5 THE WITNESS (Siebert): There may have
6 been. And, again, unfortunately I was not at
7 every single meeting.

8 MR. FITZGERALD: Do you recall that
9 Eversource presented, in addition to the
10 presentations concerning the eight distribution
11 projects, a presentation concerning
12 nontransmission alternatives which the town has
13 included as Exhibit D to its supplemental prefile
14 testimony?

15 THE WITNESS (Siebert): So you were
16 asking if I was familiar with this presentation.
17 Is that correct?

18 MR. FITZGERALD: Yes. I was asking you
19 whether it was the case that in addition to its
20 presentations concerning distribution
21 alternatives, Eversource made a presentation
22 concerning nontransmission alternatives generally
23 which the town has included as Exhibit D to its
24 supplemental prefile testimony.

25 THE WITNESS (Siebert): Yes, I see that

1 presentation as included here. They did make that
2 presentation.

3 MR. FITZGERALD: And isn't it the case
4 that, although Eversource did not adopt the town's
5 suggestions concerning distribution projects, that
6 it did provide the town with detailed explanations
7 for its position?

8 THE WITNESS (Siebert): I think that
9 when we met, certainly there was a great deal of
10 explanation by Eversource trying to explain some
11 of their issues to us.

12 MR. FITZGERALD: And the reason I ask
13 that is that at page 4 of the town's prefile
14 testimony the question is asked, "Has Eversource
15 ever provided any explanation for its position?"
16 "Position" is being referenced there as the
17 position that a transmission solution was
18 required. And that question is answered in the
19 negative.

20 But it's a fact, isn't it, that
21 although Eversource didn't agree with the town, it
22 provided painstaking explanations to the town for
23 its position?

24 THE WITNESS (Siebert): So you're
25 referring -- oh, I'm sorry. Were you finished?

1 MR. FITZGERALD: Yes, I am.

2 THE WITNESS (Siebert): I see on page 4
3 you're referring to the first question on the
4 page?

5 MR. FITZGERALD: Yes. Yes. The
6 question, "Has Eversource ever provided any
7 explanation for its position?"

8 THE WITNESS (Siebert): Well, I think I
9 need to look at the question behind the question
10 there. Which position is that question referring
11 to? "Does the town support a transmission-based
12 solution to the town's energy needs."

13 MR. FITZGERALD: Go right ahead.

14 (Pause.)

15 THE WITNESS (Mailman): Excuse me. I
16 realize the question is directed to Ms. Siebert,
17 but I can address the answer to that question in
18 the spirit of saving time, if that's okay with the
19 opposing counsel?

20 MR. FITZGERALD: No, it actually isn't.
21 I asked Ms. Siebert for a reason.

22 THE WITNESS (Siebert): Well, I think
23 that when we're addressing this, we have had in
24 many of those meetings we had many lively
25 discussions regarding the information presented by

1 Eversource and the need for transmission, and the
2 information that we discussed with our person with
3 great technical experience in these matters. And
4 we felt that while certainly a great deal of
5 information was provided, we still had significant
6 questions and concerns.

7 MR. FITZGERALD: Okay. Now I'd like to
8 move on to the question that the prefile testimony
9 spends a lot of time on and that Mr. Dobin
10 finished up with --

11 MR. DOBIN: Dobin.

12 MR. FITZGERALD: Dobin. Okay. Excuse
13 me.

14 -- and that is the position taken by
15 the town in the initial Docket 461 proceeding.
16 Now, I don't have these materials ready to
17 project, but perhaps, Marianne, you could give a
18 copy of that to counsel and to Ms. DeLuca and
19 we'll direct these questions about the town's
20 previous positions to them.

21 You were the town's principal
22 representative in Docket 461 until Attorney Ball
23 got involved. Isn't that right, Ms. DeLuca?

24 THE WITNESS (DeLuca): No, we were part
25 of a panel. I agree, I did a lot of the speaking,

1 but I wouldn't say I was the primary
2 representative.

3 MR. FITZGERALD: Okay. You were one of
4 them?

5 THE WITNESS (DeLuca): One of them.

6 MR. FITZGERALD: And the prefiled
7 testimony at pages 4 to 9 concerns the positions
8 taken by the town in the initial Docket 461
9 proceeding. Did you contribute to writing that
10 testimony?

11 THE WITNESS (DeLuca): That was in the
12 original 461?

13 MR. FITZGERALD: No, no, the prefile
14 testimony in this docket.

15 THE WITNESS (DeLuca): In 461A.

16 MR. FITZGERALD: Page 4 to 9. It
17 concerns the positions taken by the town in the
18 Docket 461 proceeding.

19 THE WITNESS (DeLuca): Yes.

20 MR. FITZGERALD: Now, I just asked my
21 colleague to hand to you something that's on the
22 record in this proceeding because it was part of
23 Docket 461, and that is the intervenor status
24 request form that the Town of Greenwich filed in
25 Docket 461, dated January 11, 2016. And I want to

1 direct your attention to the last sentence there.
2 And that is, "Consistent with the town's
3 environmental policy, it does not want any high
4 pressure fluid filled lines through the town and
5 no transmission lines at all through Bruce Park."

6 That was the town's position at the
7 outset of Docket 461. Correct?

8 THE WITNESS (DeLuca): Yes.

9 MR. FITZGERALD: Now, after many, many
10 hearings and the entry of counsel into that
11 matter, the town explained its revised position in
12 a post-hearing brief. Do you remember that?

13 THE WITNESS (DeLuca): Yes.

14 MR. FITZGERALD: Marianne, would you
15 give the witness and counsel a copy of that, of
16 the excerpts in that brief?

17 THE WITNESS (DeLuca): While you're
18 gathering that material, I would just comment on
19 this last sentence that I think it's important to
20 note that when we drafted this, it was in
21 relationship to the Docket 461, as you noted, and
22 that docket included the horizontal directional
23 drilling which would be required at that time in
24 order to put transmission lines through the park.
25 And conversely, the high pressure fluid filled

1 lines is another part of that original proposal.
2 And when you put that in combination with the
3 directional drilling, I think it was stated back
4 then and stated now that that is unacceptable to
5 the town from an environmental standpoint. I just
6 note that. I don't think that's changed.

7 MR. FITZGERALD: Well, I don't have
8 copies, so I will just have to depend on my voice.
9 I'm going to read you some excerpts from the
10 town's post-hearing brief filed in Docket 461 and
11 then ask you a question about it. And this begins
12 under the caption of .3 on page 10.

13 THE WITNESS (DeLuca): This is the --

14 MR. FITZGERALD: The post-hearing
15 brief.

16 THE WITNESS (DeLuca): April --

17 MR. BALL: What's the date of that?

18 A VOICE: I don't think they can hear
19 you. Can you use the mike?

20 THE WITNESS (DeLuca): I'm sorry. Are
21 we talking about the --

22 MR. FITZGERALD: We're talking about --

23 THE WITNESS (DeLuca): -- the May 6,
24 2016?

25 MR. FITZGERALD: The post-hearing brief

1 in 2016, yes. It would be May. That paragraph
2 begins, to set the scene, "If the Council
3 determines that Eversource has proven the need for
4 the project, the town supports the siting of the
5 line along the MNRR hybrid route, as depicted in
6 LFE-003. Indeed, from the beginning the town
7 requested that Eversource consider siting any
8 potential transmission line along the MNRR
9 corridor, yet Eversource flatly rejected the
10 town's suggestion, responding that it could not
11 possibly construct the line in this location, and
12 that the concept was off the table. Only after
13 prodding from the Siting Council, did Eversource
14 backtrack, now acknowledging the construction
15 along the MNRR corridor is technically feasible.
16 Not only can the line be built along the MNRR
17 corridor, but the MNRR hybrid route depicted in
18 LFE-003 would result in far fewer environmental
19 impacts than the proposed route, would preserve
20 Bruce Park, and would cost less to implement."

21 Now, was that the town's position at
22 the conclusion of Docket 461?

23 THE WITNESS (DeLuca): It was. And it
24 continues further on two paragraphs later. It
25 says, "Any siting of the line in that location

1 must ensure that the town will continue to have
2 access to the force main to perform work that may
3 be needed now and into the future."

4 MR. FITZGERALD: I see that.

5 THE WITNESS (DeLuca): So what had
6 happened originally, as was referred to here, was
7 that before the application was even submitted to
8 the Council, we had asked the question could it go
9 down the railroad, and we were told no, we're not
10 going to discuss that, it's not a viable solution.
11 And that was also noted in their original
12 application.

13 And through these discussions this was
14 the end result when we found out what the
15 alternative was with the, again, directional
16 drilling, environmental impacts, putting, you
17 know, big pieces of equipment through the ball
18 fields, the disruption to the town, to the
19 environment, et cetera.

20 So I think we always contended during
21 this -- and note it here in the brief, that the
22 concern was on that route that the sewer main
23 would be in jeopardy for the obvious environmental
24 impacts that would have.

25 MR. FITZGERALD: And did you discuss

1 with Eversource in the course of their many, many
2 meetings with you whether Eversource had a
3 solution to avoid impact on the town's sewer main?

4 THE WITNESS (DeLuca): In which
5 meetings are you referring to, before they
6 submitted --

7 MR. FITZGERALD: The meetings that
8 occurred after the denial of the application in
9 461, and before this motion was filed.

10 THE WITNESS (DeLuca): May I defer to
11 Ms. Siebert as the commissioner? I can answer it,
12 but I think Ms. Siebert can do it better than I
13 can.

14 MR. FITZGERALD: Sure.

15 THE WITNESS (Siebert): I think we
16 tried to be as clear as we could in those
17 meetings. We always had a concern about that
18 force main. I recall some discussions where we
19 were looking at -- actually I think when we looked
20 back on it, it was maybe a potential distribution
21 system approach. There was some discussion of how
22 would poles be put in in such a way to bridge or
23 handle the force main. And those discussions, my
24 feeling from the room from both sides was that
25 none of us liked the solution that was on the

1 table in front of us. I remember one drawing
2 bridging a force main, which certainly seemed to
3 have issues, you know, sustainability, maintenance
4 wise, replacement wise, emergency service wise
5 moving forward. So we certainly had discussed a
6 force main throughout our meetings and expressed
7 our concerns about that.

8 MR. FITZGERALD: Okay. I'd like --
9 Marianne, would you hand Ms. DeLuca the towns's
10 annual report that was noticed earlier today for
11 the year 2015 to 2016? And this covers the period
12 of July 1, 2015 to June 30, 2016. Correct?

13 THE WITNESS (DeLuca): Yes.

14 MR. FITZGERALD: And at page 9 I've
15 just handed you some excerpts from the long report
16 that was referred to. Page 9 list the major areas
17 in which the first selectman focused during the
18 fiscal year. Correct?

19 THE WITNESS (DeLuca): Yes.

20 MR. FITZGERALD: And I direct your
21 attention to number 8, which is stated as "Working
22 with Eversource Energy to reinforce the importance
23 of reliable energy to Greenwich residents and
24 businesses and having conversations concerning the
25 aggressive five-year Eversource Energy capital

1 improvement plan, as well as a new substation for
2 the town." Do you see that?

3 THE WITNESS (DeLuca): Yes.

4 MR. FITZGERALD: Is that an accurate
5 characterization of the town's participation in
6 Siting Council Docket 461?

7 THE WITNESS (DeLuca): Absolutely. We
8 wanted to work with Eversource on a agreed-upon
9 solution here, no disagreement.

10 MR. FITZGERALD: You would consider
11 that's what you were doing in Docket 461?

12 THE WITNESS (DeLuca): I'd say we've
13 been doing that even prior to 461 leading up to
14 and through.

15 MR. FITZGERALD: Now, let's look at
16 page 61, directions for the next fiscal year,
17 which would be the current year 2016 to 2017, are
18 listed. And if we move over to the last bullet
19 point on page 62, we find "Continue to work with
20 Eversource Energy to ensure they can meet the
21 energy demands of the town in a mutually agreeable
22 fashion."

23 Is that how you would characterize what
24 the Town of Greenwich has done with respect to the
25 Eversource proposals since the beginning of this

1 fiscal year?

2 THE WITNESS (DeLuca): Absolutely. I
3 mean --

4 MR. FITZGERALD: Thank you. That's the
5 question.

6 THE WITNESS (DeLuca): -- very strongly
7 believe that we were following the Council's
8 directive to work together with Eversource.

9 MR. FITZGERALD: You are? Okay.

10 THE WITNESS (DeLuca): Absolutely.

11 MR. FITZGERALD: Now, I've got a few
12 questions for you on another subject about
13 restrictions that the town wants to be placed on
14 the now proposed route through Bruce Park if, as
15 you say, a need is established. And are these
16 restrictions stated at pages 9 and 10 of the
17 town's initial prefile testimony?

18 THE WITNESS (DeLuca): Can you repeat
19 question?

20 MR. FITZGERALD: Yes. Are the
21 restrictions that the town wants to be placed on
22 the construction of the proposed route through
23 Bruce Park stated at pages 9 and 10 of the town's
24 initial prefiled testimony?

25 THE WITNESS (DeLuca): I wouldn't say

1 that -- I think we've in our discussions posed a
2 decision in our efforts to be helpful and to work
3 with Eversource. We've tried to accommodate to
4 the best we can what we would find to be the least
5 damaging to the park. So from that standpoint, we
6 did discuss alternatives to the original 461
7 proposal that would involve disturbing
8 predisturbed areas and maintaining the
9 construction of the new project within the already
10 disturbed areas again so as to minimize all
11 environmental impacts as best we could.

12 MR. FITZGERALD: Now, I'm referring in
13 particular to the question on page 9 that begins,
14 "Does the town favor any restrictions on
15 construction of the alternate modified route in
16 order to limit environmental impact?" Okay?

17 THE WITNESS (DeLuca): Yes.

18 MR. FITZGERALD: And then there's an
19 answer. And my question to you is simply, does
20 that answer state the restrictions on construction
21 that the town favors in order to limit
22 environmental impact of the route through Bruce
23 Park?

24 THE WITNESS (DeLuca): Yes.

25 MR. FITZGERALD: Now, and just for the

1 Council's benefit, can I fairly summarize those
2 restrictions as confine all construction to
3 roadways within the park?

4 THE WITNESS (DeLuca): Yes.

5 MR. FITZGERALD: Follow town standards
6 for tree trimming. Although not stated there,
7 that standard is that there's no trimming of
8 branches overhanging roadways that are lower than
9 13 feet 8 inches. Right?

10 MR. BALL: Is there a question?

11 MR. FITZGERALD: Yes.

12 MR. BALL: Mr. Spaman can answer that.

13 MR. FITZGERALD: There's a reference
14 here to follow town standards for tree trimming.

15 THE WITNESS (Spaman): What I'd like to
16 state is that this major electrical transmission
17 line upgrade project must be accomplished in a way
18 that is safe and not detrimental to the aesthetics
19 or the overall use and enjoyment of the park for
20 the public. So that being said, we want to
21 preserve the landscape. And these points that are
22 in here, we did discuss in the field and on site.
23 And if those are followed and there's no, you
24 know, no impact on the power transmission line
25 after it's constructed, then we feel we can live

1 with that.

2 MR. FITZGERALD: Thank you, sir.

3 Next --

4 THE WITNESS (Spaman): Speaking for the
5 parks.

6 MR. FITZGERALD: I'm sorry? Speaking
7 for who?

8 THE WITNESS (Spaman): Speaking for the
9 parks.

10 MR. FITZGERALD: The park. Okay.
11 Good.

12 The next bullet is avoid vegetation
13 removal within the park.

14 THE WITNESS (DeLuca): Yes.

15 MR. FITZGERALD: And then pave curb to
16 curb post-construction?

17 THE WITNESS (DeLuca): Yes.

18 MR. FITZGERALD: And lastly, except for
19 Woods Road, no more than one traffic lane at a
20 time is to be closed during construction.

21 THE WITNESS (DeLuca): Right. Well --

22 THE WITNESS (Siebert): That's what he
23 said, "except for Woods Road."

24 THE WITNESS (DeLuca): Except for Woods
25 Road. Sorry.

1 MR. FITZGERALD: Now, here's what
2 causes me some questions. The same day that this
3 prefile testimony was filed, the town filed a
4 response to the Siting Council's Question 13
5 addressed to the town. And I'm sure somebody up
6 there has a copy of it. In this response the town
7 said, "The town objects to any splice vaults
8 located anywhere within the confines of Bruce Park
9 whether within or outside of the travel surface of
10 Bruce Park Drive."

11 Now, that restriction was not mentioned
12 in the list of restrictions in the prefile
13 testimony. And, as we will soon see, if we need
14 to, it was never mentioned before. So I'm asking
15 if that perhaps was a mistake?

16 THE WITNESS (Mailman): Excuse me. Am
17 I allowed to offer testimony here, or is the
18 testimony strictly to Ms. DeLuca?

19 MR. FITZGERALD: No. You can --

20 THE WITNESS (Mailman): There's several
21 correspondence. This all emerged from a January
22 meeting that was actually held in Hartford. The
23 utility had made it clear that in their mind they
24 could not go ahead, and they could not affect a
25 distribution solution. We asked what would be

1 involved if you had to do a transmission solution,
2 and the utility was extremely concerned. They
3 said, quote, You will not let us in the park,
4 therefore we have no choice but to go north to the
5 Post Road to hook all the way around to get to
6 Prospect Street at huge cost. At which point we
7 said, as the town, we will go ahead, and we will
8 reevaluate the ability to use Bruce Park in an
9 effort to greatly reduce the costs of what was
10 portrayed as a transmission-only possible
11 solution.

12 It was as a result of that prompting
13 that we developed certain criteria for the use of
14 Bruce Park, which criteria was transmitted to the
15 utility in a letter from the first selectman, as
16 well as a letter from the utility to the first
17 selectman that predates the date of this prefile
18 testimony, and was offered well before April of
19 this year.

20 So to go ahead and to insinuate that
21 the utility had no clue of what the town was
22 proposing would be erroneous.

23 MR. FITZGERALD: My question was, was
24 the answer to the interrogatory that the town is
25 opposed to any splice vaults in Bruce Park a

1 mistake. I'll take a yes or no answer to that
2 from anyone.

3 THE WITNESS (Mailman): The preference
4 is not to have a splice vault, but during the
5 walk-through Mr. Case said that they might have no
6 alternative. It's not the town's position to be
7 an obstructionist. It's not the town's position
8 to cost ratepayers more money. If workable
9 solutions exist, the town is clearly on board to
10 implement those. But at the same time, it cannot
11 be open season on what's clearly an
12 environmentally pristine area.

13 MR. FITZGERALD: Let me hand this out.
14 I'm asking my colleague to hand you two letters
15 which I believe you will find to be the letters
16 that you just mentioned that Mr. Bowes wrote to
17 the first selectman, and the first selectman wrote
18 to Mr. Bowes. Would you take a look at them? Are
19 those the letters you were referring to?

20 THE WITNESS (Mailman): Yes, indeed.

21 MR. FITZGERALD: In the letter from Mr.
22 Bowes to Mr. Tesei, dated February 1, 2017, Mr.
23 Bowes states his understanding of the composition
24 of what he refers to as the town's recommended
25 project. Correct?

1 THE WITNESS (Mailman): Yes.

2 MR. FITZGERALD: And if you turn to
3 page 2?

4 THE WITNESS (Mailman): By the way,
5 it's not necessarily the town's recommended
6 project. It's the town's recommended solution in
7 the event there was no alternative but to engage
8 in a transmission project. To go ahead and label
9 this --

10 MR. FITZGERALD: Sir, I gave you that
11 point by saying what Mr. Bowes refers to as the
12 town's recommended project. I didn't ask for a
13 speech in response.

14 THE WITNESS (Mailman): I'd just like
15 the record to be clear. I'd prefer not to have
16 words put in my mouth. All right. I did not say
17 that a discussion of the transmission project
18 represents the town's idea of what the ideal
19 solution should be for what was presented by the
20 utility, and I'd prefer that the record not show
21 that.

22 MR. FITZGERALD: The record does not
23 show that. The record shows what it shows. And I
24 would ask that the record be -- that the last
25 response be stricken as nonresponsive.

1 MR. BALL: I assume if it's going to be
2 stricken, then we'll go along with the speeches
3 coming from counsel. I think we can probably move
4 on with questions and answers.

5 MR. FITZGERALD: Getting back to the
6 splice vaults, in this letter stating his
7 understanding of what the town's requirements
8 would be, Mr. Bowes says at page 2, "In addition,
9 splice vaults in road outside the park would be
10 located by Eversource in consultation with the
11 town." And up above that, three bullet points
12 above that, he says, "Only a single set of splice
13 vaults would be installed at an agreed location
14 that would mitigate access restrictions to Kinsman
15 Lane." That's what the letter says. Right?

16 THE WITNESS (Mailman): That is
17 correct.

18 MR. FITZGERALD: All right. That's the
19 question.

20 Now, you also referred to a letter from
21 Mr. Tesei to Mr. Bowes which is dated March 1,
22 2017, and you have that in front of you.

23 And if we look at condition four, Mr.
24 Tesei states, he says, "Any duct bank within the
25 confines of Bruce Park shall be open cut and only

1 located in the center of asphalted roadways. No
2 facility shall be permitted in nonroadway areas.
3 And then the number of vaults in the park should
4 be determined by working with town technical staff
5 on the route and be done in such a way as to avoid
6 other underground infrastructure and minimize
7 impacts to the park, and permanent roadway
8 restoration of the trench route through the Bruce
9 Park shall extend curb to curb."

10 And that's the discussion of splice
11 vaults in Mr. Tesei's statement of conditions.
12 Right?

13 THE WITNESS (Mailman): That's what it
14 says in the letter, yes.

15 MR. FITZGERALD: Okay.

16 THE WITNESS (Siebert): Am I permitted
17 to add something to clarify that point?

18 MR. FITZGERALD: Sure. If you're going
19 to do something other than to clarify it, you're
20 welcome to speak.

21 THE WITNESS (Siebert): Well, I just
22 would like to add, you certainly read the content
23 there in that letter. And it goes on to say that
24 we would expect that prior to any submittal of an
25 application to the Council, the town would be

1 presented with a detailed depiction of the overall
2 design, including a route map with all the splice
3 vaults indicated.

4 Having been through some of these
5 meetings, again, our goal was to really get at the
6 point that if these vaults could be elsewhere,
7 that's where they should be because the park is a
8 very valued resource. And we didn't have any
9 calculations or any detailed design information at
10 that point. So we were trying to make the point
11 we'd really rather see some more detail. We do
12 understand that if a project goes forward, you go
13 through that D&M phase that you all have kindly
14 explained to us, but we wanted to be very clear
15 about trying to say, hey, we want that design to
16 try to keep those vaults on the outside of the
17 park, if possible.

18 THE WITNESS (Mailman): And to be
19 consistent with that, what motivated us, as you
20 may recall in the original scheme, the hybrid
21 scheme, there was an underground section, and
22 there was a length of cable that was going to run
23 underground for over 2,500 feet without an interim
24 splice. So what we did is we defined very
25 narrowly the boundaries of Bruce Park as being

1 Indian Field Road and Orchard. And that
2 measurement is less than 2,000 feet. So in our
3 mind if the utility was in a position -- and
4 understand, we're fully cognizant about full
5 intention calculations, horizontal bends, vertical
6 bends, and the rest, that impact what it takes to
7 pull a cable.

8 And I probably can address that better
9 than most in the room because I've done it for 45
10 years. But at the same time, we fully expected
11 there to be the plausibility, if not likelihood,
12 that you could traverse the entire park without a
13 vault. We said we would entertain the thought of
14 a vault if someone could show us why it was
15 needed, and that's our position today.

16 MR. FITZGERALD: Mr. Mailman, I know
17 there is some desire to finish this day because
18 you can't come back next time, and honestly,
19 speeches are not going to promote that objective.

20 THE WITNESS (Mailman): I would also
21 hope that the Council needs all available
22 information to make their decision. As your
23 client was offered to offer information, I feel
24 the town should be similarly afforded that
25 courtesy.

1 THE CHAIRMAN: The town, excuse me, was
2 afforded that. That's the purpose of your various
3 filings of which, if I would include them all, you
4 wouldn't even see me from the rest of the room.
5 So right now it's cross-examination, and please
6 restrict to answering the questions. Thank you.

7 MR. FITZGERALD: Ms. DeLuca, I just
8 handed you a document. Do you recognize it as a
9 copy of an email that you sent to Jason Cabral who
10 was the project manager for this project, dated
11 March 2, 2017?

12 THE WITNESS (DeLuca): Yes.

13 MR. FITZGERALD: And in it, among other
14 things, you state the requirements for what you
15 described as the sole solution that the town would
16 endorse. Correct?

17 THE WITNESS (DeLuca): Correct.

18 MR. FITZGERALD: And those requirements
19 are stated in the middle paragraph that begins,
20 "Now that I have that off my chest." Correct?

21 THE WITNESS (DeLuca): Yes.

22 MR. FITZGERALD: And without getting
23 into what is there and what's in the rest of the
24 email, it's accurate to say, isn't it, that list
25 of requirements does not include no vaults in

1 Bruce Park?

2 THE WITNESS (DeLuca): It does not say
3 no vaults. It says open cut and all associated
4 construction activities be limited to asphalt
5 paved areas, as it relates to that topic.

6 MR. FITZGERALD: Okay. Thank you.

7 Ms. Siebert, I'm back to you now. And
8 in the 2015 to 2016 annual report that has been
9 administratively noticed, there is a reference at
10 page 123 to a project that's designated Bruce Park
11 Avenue area, large diameter sanitary sewer
12 rehabilitation, and it's briefly described as
13 "This project included rehabilitation of sections
14 of a critical 39-inch diameter reinforced concrete
15 pipe RCP sewer line that showed significant signs
16 of deterioration. The project included a complex
17 temporary bypass system in order to perform the
18 work."

19 And my first question is, was that
20 complex temporary bypass system installed in Bruce
21 Park?

22 THE WITNESS (Siebert): It was
23 installed on Davis Avenue there. Right? Is that
24 still Davis? It's still Davis Avenue. Well,
25 between the Bruce Museum and the park area, I

1 think it's technically still park area, but it's
2 not the bulk of the main park from up at Indian
3 Field to the Davis Bridge, Davis Avenue Bridge.

4 MR. FITZGERALD: And did that
5 installation and the operation of the temporary
6 system take place over several months in 2015 and
7 2016?

8 THE WITNESS (Siebert): It certainly
9 took several months, yes.

10 MR. FITZGERALD: And did the town
11 impose on its contractors who did this work the
12 same restrictions it is proposing to place on
13 Eversource's work in Bruce Park?

14 THE WITNESS (Siebert): Well, it's a
15 different project, so you have to replace a
16 39-inch line where the 39-inch line is. As a
17 matter of fact, I think we lined -- we had to put
18 in a temporary pump station, and we had to do some
19 lining of that line. So we were not moving it or
20 putting it somewhere else since that would be very
21 difficult to do.

22 MR. FITZGERALD: Let me be more
23 specific. That's a fair point. Were all of the
24 vehicles and equipment involved in the bypass
25 project restricted to the paved surface of the

1 roads?

2 THE WITNESS (Siebert): They could not
3 be for the nature of that project because the 39
4 inch force main is in a grassed area. So you do
5 the best you can to keep things -- to minimize the
6 impact to the infrastructure that you have in the
7 area, your pavement or your sidewalks, and so
8 forth. But it's a different project. So, again,
9 when you're working with existing infrastructure,
10 you have to do sometimes some things to address it
11 where it is.

12 MR. FITZGERALD: Right. Although, I'm
13 talking about the temporary bypass, not the
14 existing infrastructure.

15 THE WITNESS (Siebert): Yes. So when
16 you have to design a bypass for a sewer, you have
17 to look at where you move the sewerage from and
18 where you're moving it to. And so you cannot
19 always put your infrastructure in a roadway, for
20 example. It would be pretty difficult to build a
21 pump station in a roadway, but it's temporary in
22 nature.

23 MR. FITZGERALD: The pump station.
24 What do you mean by that?

25 THE WITNESS (Siebert): Well, for that

1 project when they did a temporary bypass, they
2 actually had to build a small pump, temporary pump
3 station. Because when you're addressing a segment
4 of sewer, and you have to take it out of service,
5 and it's 39 inches in diameter, it's taking a lot
6 of flow, so you can't just handle it by having
7 septic receiving trucks haul it. You have to pump
8 it out and around the area you're working on.
9 Again, that's temporary, and you restore
10 afterwards.

11 MR. FITZGERALD: And these pumps were
12 about the size of dumpsters?

13 THE WITNESS (Siebert): I couldn't tell
14 you. They were probably pretty good size for a
15 39-inch sewer bypass.

16 MR. FITZGERALD: And so the temporary
17 sewer lines and the associated pumping stations
18 were constructed off the roadway surface in the
19 grassy area of Bruce Park. Right?

20 THE WITNESS (Siebert): Well,
21 technically I believe it's still categorized as
22 Bruce Park there in that section, but it is an
23 area mainly at the sidewalk, a grassed area to
24 I-95. So it's almost like a grassy lane between
25 I-95 and the sidewalk. And yes, we had to

1 construct things in that area given the nature of
2 that existing infrastructure, and then we had to
3 restore the area.

4 MR. FITZGERALD: And was the area
5 satisfactorily restored?

6 THE WITNESS (Siebert): Well, we would
7 like to think so. I'm sure there's still more
8 work to do. We're guessing to see how the grass
9 has grown and --

10 MR. FITZGERALD: I'm sorry, I didn't
11 hear what you said after following "I'd like to
12 think so."

13 THE WITNESS (Siebert): I would always
14 like to think so as public works, but we have to
15 make sure that our parks folks are happy with our
16 restoration.

17 MR. FITZGERALD: So the off road work
18 that was done in connection with that project did
19 not result in a permanent impairment of the park?

20 THE WITNESS (Siebert): To the best of
21 my knowledge it did not. Again, it's existing
22 infrastructure.

23 MR. FITZGERALD: I understand.

24 Ms. DeLuca, back to you. In its
25 communications with Eversource before Eversource

1 filed its motion to reopen, did the town advise
2 Eversource that it would contest the need for any
3 project and the justification for a transmission
4 solution unless Eversource agreed to propose an
5 all underground project exactly as specified by
6 the town?

7 THE WITNESS (DeLuca): No.

8 MR. FITZGERALD: And did the town
9 advise Eversource at any point that Eversource
10 could submit a transmission project to the Council
11 that included an overhead segment along the
12 railroad as long as Eversource designated the all
13 underground project specified by the town as its
14 proposed project?

15 THE WITNESS (DeLuca): No.

16 MR. FITZGERALD: And did the town ever
17 inform Eversource that in order to proceed
18 cooperatively with the town, Eversource would have
19 to designate the hydrant project as an inferior
20 alternative?

21 THE WITNESS (DeLuca): What we
22 discussed was in the beginning prior to any filing
23 at all was we had sat down and had lovely pizza
24 lunches for years on end with Eversource. Then
25 the municipal consultation filing was had. We had

1 many questions that were not answered, and we were
2 told that would not be answered and that was
3 something that the Siting Council would deal with.

4 As you recall, at our first meetings we
5 were very taken aback by the relationship at that
6 point because everything that we thought to be
7 true in terms of how we were working together
8 turned out not to be true, and we were chastised
9 for saying why don't you have attorney, expert.
10 Frankly it's because we thought we had been
11 working together all these years. Then the
12 decision was made, which stated yet again, go and
13 work with Eversource.

14 At that point, understandably we're
15 nervous about the relationship between the two.
16 We had many meetings, as you pointed out. We've
17 always questioned the need issue. We always
18 wanted a better explanation as to why this is not
19 a distribution project. We continued along that
20 line of questioning with them. And we thought we
21 had come to an agreement as late as April when all
22 of a sudden Eversource stated that now we're going
23 to go with a railroad solution, where all long
24 Ms. Siebert is saying we need to see the plans for
25 these poles, as we stated time and time again, we

1 have this force main during that railroad
2 right-of-way. We're extremely concerned about the
3 town's infrastructure and how that's all going to
4 work together in an extremely tight space. If we
5 don't understand what you're doing, we can't
6 determine whether or not this is going to work or
7 not.

8 So when you asked the question as to
9 what we demanded, we're not demanding anything.
10 We're trying to work together to figure out how
11 best to find a solution that works for us and
12 works for them. And we thought we had been doing
13 that all along. So to characterize it as trying
14 to demand something, or require something, or what
15 have you, we're just trying to put our desires out
16 there so that we can work together. So that's a
17 better way to characterize it.

18 MR. FITZGERALD: Could you look again
19 at the email that you sent to Jason Cabral on
20 March 2nd?

21 THE WITNESS (DeLuca): Yes.

22 MR. FITZGERALD: And looking at the
23 first sentence there, first two sentences, you
24 say, "I have deliberately allowed several days to
25 pass before responding to this email with the

1 hopes my disappointment and worry with that
2 correspondence would fade. Your continuance to
3 threaten that Eversource may put forth a hybrid
4 solution, one that features both overhead and
5 underground feeders to the Council, is doing
6 little to rebuild the trust and curry favor with
7 us."

8 Now, is that how you looked upon the
9 relationship between the town and Eversource with
10 respect to, as you describe it, cooperating and
11 finding a solution is one in which Eversource had
12 to "curry favor" with the town?

13 THE WITNESS (DeLuca): Again, we're
14 trying to work together. We had been delightfully
15 working together post a decision for months on
16 end, thinking we're coming up with something that
17 works for the town, something that works for
18 Eversource. All of a sudden out of no where yet
19 again we felt bamboozled and so that is the reason
20 for this email. Things just changed. We asked
21 for things, and we're not given things. We think
22 we're working on a solution together. We felt
23 confident. They felt confident, it seemed. All
24 of a sudden things change, and we're yet again
25 feeling like we're left being manipulated and had,

1 frankly. So I was upset at the time of this
2 email, and I think you can see that in the tone of
3 this email.

4 MR. FITZGERALD: Yes. In terms of
5 coming out of no where, I'll have another line of
6 questions about that. But before we leave this
7 email, let me call your attention to the part that
8 is just above the final paragraph that begins, "It
9 has been confirmed on at least two occasions,
10 because I double checked through Melanie Bachman,
11 Acting Director of the Siting Council, that Docket
12 461 is closed. Any action from here on out is
13 stand alone, new and distinct. We need to focus
14 on the solution, and we have made great headway
15 thus far on the above. There is no reason to
16 derail that, no pun intended. Any reference to
17 the hybrid route, however, does just that."

18 And then I'll -- well, I'll read it
19 rather than be excused of leaving something out.
20 "We understand that vast sums have been spent on
21 your side too with very little to show as a
22 return, so I appreciate there is pressure being
23 brought to bear on your contention to show some
24 fruitful results. This will require forthright
25 discussion in order for the town to be your ally,

1 which we want to be. I would like you to confirm
2 that all efforts being expended at this stage are
3 going into the above and not into the hybrid
4 route."

5 That was your position as of March 2,
6 2017. Right?

7 THE WITNESS (DeLuca): Right. Because
8 what had happened up until that point is we were
9 saying Give us information, give us information.

10 No, we're going to go with this park
11 route. Here's all the information on the park
12 route. What do you think? Here's some details.
13 Is this okay? Is this suitable to you?

14 And, again, at the last minute the
15 hybrid route comes up, something that we had not
16 been working on together. We've said it, the
17 record shows, there's so much concern about that
18 sewer pipe. So that all of a sudden you come at
19 the eleventh hour after months of working together
20 and say this is our preferred route, the hybrid
21 route. It's not fair to DPW, or to the town. We
22 have a major sewer force main that runs down that
23 line, and it really -- it flew in the face of
24 everything we had been doing together that at that
25 moment new information was being put forth.

1 And so the point about the docket being
2 closed is that we believe that a new application
3 should have been filed. That's what we
4 understood. I mean, it's just in layman's terms,
5 when something is closed, that's what it seems.

6 And they were saying, No, no, we need
7 to reopen. And that's what they said, and that's
8 what happened. So that's -- you know, it is what
9 it is. That's a procedural point. But it was the
10 moment of just this different direction, like I
11 said, where we had no chance to look at the level
12 of detailed plans that we had on the other route
13 that caused such cause for concern.

14 THE CHAIRMAN: Excuse me --

15 MR. FITZGERALD: Could whoever has the
16 copy of Mr. Bowes' February 1st letter to Mr.
17 Tesei give it to the witness? I'd like to go to
18 page 3, and call your attention to what Mr. Bowes
19 is saying to Mr. Tesei about the way in which
20 Eversource is proposing to proceed.

21 And I'll start with the first -- I'm
22 sorry, the second complete sentence on page 3.

23 "Eversource will work to optimize the new
24 underground project in order to reduce its
25 estimated cost, and to get that cost as close as

1 possible to the cost of the hybrid alternative
2 that the Siting Council identified during the last
3 proceeding, and which it stated in its opinion
4 needed to be explored and fully vetted.

5 "Eversource will also perform an
6 environmental effects analysis that will seek to
7 distinguish the new underground project from the
8 initial proposal that the Council found
9 unacceptable. Eversource will then evaluate the
10 new underground project in comparison to the
11 hybrid alternative in order to determine if the
12 new underground project has a reasonable chance,
13 with the support of the town, of being found to be
14 consistent with the requirements of the Siting
15 Council's enabling legislation.

16 "Depending on the outcome of that
17 evaluation, Eversource will present either the new
18 underground project route, or the hybrid
19 alternative route to the Siting Council as its
20 preferred route, and the other as an alternative.
21 Eversource understands that the town will support
22 its petition only if the new underground project
23 is proposed as the preferred solution."

24 So that was the position that
25 Eversource communicated on February 1, 2017.

1 Right?

2 THE WITNESS (DeLuca): Yes.

3 MR. FITZGERALD: And it never changed,
4 did it?

5 THE WITNESS (DeLuca): That's the one
6 that they wanted us to countersign, so to speak,
7 which we never did.

8 MR. FITZGERALD: I'm not interested in
9 what the town did. The point is that Eversource
10 communicated to the town that it had an obligation
11 to assess the two potential routes under the
12 statutory requirements that the Siting Council
13 administers, and to propose the one that more
14 nearly met those requirements. Right?

15 THE WITNESS (DeLuca): So you're
16 interested in what Eversource said, and that's
17 what Eversource said, We want you to countersign.
18 This is our opinion. Please review it. And they
19 stated to us unequivocally --

20 THE CHAIRMAN: Ms. DeLuca, some of this
21 can be just a yes or no. He asked whether that
22 was what Eversource -- also, Mr. Hannon has a
23 follow-up question. And then I think we're going
24 to take a five-minute break after that because
25 this back and forth about answering, I don't know,

1 I'm not sure how productive it is.

2 MR. FITZGERALD: Okay.

3 THE CHAIRMAN: Mr. Hannon.

4 MR. HANNON: If I might, I'm a little
5 confused, and I'd like some clarification on this
6 from the town's perspective. In the original
7 Docket 461, finding of fact 379 states, "If the
8 need for GSLP has been demonstrated, the town
9 would prefer the hybrid alternative. The town is
10 opposed to any transmission line option that
11 includes Bruce Park."

12 Right now we're 180 degrees from what
13 the proposal was or the position was back in 2015,
14 so I'm kind of confused.

15 THE WITNESS (Mailman): It's really not
16 the case. This is not a case of flip-flopping.
17 This is a case where there was one specific type
18 of construction proposed in 461. That type of
19 construction, pipe type fluid filled cable, that
20 features 60,000 gallons of dielectric fluid
21 petroleum based pumped at 200 psi 24/7 through a
22 park within 10 feet of the most crowded playground
23 in Greenwich is no longer on the table. That's
24 what mandated a change of posture.

25 The utility offered up a new solution.

1 Had that solution been offered in 461, the town's
2 position would be the same, as it was today.
3 You're not disturbing the park. In 461 you were
4 going ahead and directional drilling, you were
5 clear cutting a full acre in front of the people's
6 houses who live on Kinsman Lane. Those are no
7 longer requirements. The town has adjusted to a
8 different proposal. It's not like for like.

9 THE CHAIRMAN: That's not -- I don't
10 want to get into it because we're going to take a
11 five-minute break. That is not my understanding
12 of how it ended, but we can all --

13 MR. HANNON: I don't think your comment
14 is accurate either because there were other
15 alternatives that did not include some of those
16 things you just stated.

17 THE CHAIRMAN: Okay. But we're taking
18 a five-minute break.

19 (Whereupon, a recess was taken from
20 3:19 p.m. until 3:27 p.m.)

21 THE CHAIRMAN: Thank you. Let's try to
22 move on.

23 MR. FITZGERALD: Thank you.

24 Mr. Mailman, your turn.

25 THE WITNESS (Mailman): Thank you.

1 MR. FITZGERALD: You have some
2 testimony at pages 29 through 35 of the initial
3 prefile testimony in which you assert that the
4 costs of the project that Eversource is now
5 proposing are overstated. So is it your opinion
6 that if the Council approves this project, it will
7 end up costing less than Eversource is estimating
8 in its submissions in this docket?

9 THE WITNESS (Mailman): Yes.

10 MR. FITZGERALD: Okay. At page 34
11 there is the beginning of a section of your
12 testimony about -- I'm sorry, I take that back.

13 Let me direct your attention to table 4
14 at page 35, which represents cost savings that
15 should be achieved by the alternative modified
16 project. And what's referred to in that prefile
17 testimony is the alternative modified project is
18 the project that's the only project that's left
19 now. Right?

20 THE WITNESS (Mailman): I believe so,
21 yes.

22 MR. FITZGERALD: And here you estimate
23 what the cost of the transmission line proposed in
24 this project should be in reference to that that
25 was proposed in the preceding proceeding. Right?

1 THE WITNESS (Mailman): That's correct.

2 MR. FITZGERALD: So you start with the
3 line that was proposed in Docket 461 and take
4 deductions from that cost to estimate what the
5 cost of the project now proposed should be?

6 THE WITNESS (Mailman): That's correct.

7 MR. FITZGERALD: Now, the last item in
8 the table before you get to the total is cost
9 saved by use of cofferdam in lieu of pedestrian
10 bridge, \$1,800,000. Do you see that?

11 THE WITNESS (Mailman): Yes, I do.

12 MR. FITZGERALD: There wasn't any
13 pedestrian bridge in the original proposal, was
14 there?

15 THE WITNESS (Mailman): I'm under the
16 impression that the original proposal did in fact
17 offer a pedestrian bridge, and the utility offered
18 up that a way to reduce the overall cost of the
19 project was in fact to go to a cofferdam.

20 MR. FITZGERALD: Really? Didn't the
21 original project propose to cross Indian Harbor --

22 THE WITNESS (Mailman): I see where
23 you're going, counselor, and you are correct.

24 MR. FITZGERALD: Good. So we can move
25 on.

1 In the supplemental testimony you
2 contend that CL&P's estimate for the project now
3 proposed is overstated because it does not reflect
4 that the cost to construct 115 XLPE cable is less
5 than the cost to construct 115-kV HPFF cable,
6 which was proposed in the original docket. Is
7 that right?

8 THE WITNESS (Mailman): That is
9 correct. There's several times, even in Docket
10 461, where the utility contends that the
11 installation of XLPE is costlier than HPFF. That
12 is true indeed at 345,000 volts. It is not true
13 at 138,000 volts or 115,000 volts, and that was
14 the point we tried to prove.

15 MR. FITZGERALD: Okay. Now, in the
16 table provided in response to Siting Council
17 Question 69, the applicant, Eversource, lists the
18 transmission line costs in the original project as
19 \$72 million, and the costs for the line now
20 proposed between the same terminal points is \$53.5
21 million. So there's no question that the cost of
22 the line that is now proposed is approximately \$20
23 million less than the line that was proposed in
24 the original proceeding. Right?

25 THE WITNESS (Mailman): That is

1 correct. However, we still don't believe that the
2 52.5 number is indicative of what the market is
3 for this type of installation.

4 MR. FITZGERALD: And that's because you
5 believe that the installation costs for XLPE cable
6 are going to be less than those for HPFF cable,
7 all other things being equal?

8 THE WITNESS (Mailman): I do believe
9 that. Others share my belief. But there is
10 another thing that tempers that statement on my
11 part, and forgive me if I'm making a speech.

12 In 2014 my firm did a job in Carlisle,
13 Pennsylvania. It was 138-kV cable run, two
14 circuits, almost identical to this. From a degree
15 of difficulty, I'd actually say that job was
16 harder. Our costs of doing that -- and, by the
17 way, the wages, the material costs are about
18 commensurate between the State of Connecticut and
19 Eastern Pennsylvania. That job was a little
20 longer than this one. It had an overhead
21 component. It had jack and bore. Our
22 responsibility was to install all the material,
23 provide all the material, with the exception of
24 the cables, the splices, and the plastic pipe.
25 Our final cost on that job in 2015 was \$15

1 million. That was what we were paid by PPL.

2 If you want to presume today that
3 there's inflation, maybe that's worth \$18 million
4 today. You could even round it up, we could say
5 20 million. So to go ahead and create like for
6 like, you'd have to add the cost of the cable, the
7 cost of the pipe, the cost of the splices. The
8 cable at 3500 kcmil is worth about \$5.5 million.
9 The pipe and the other stuff is worth about
10 650,000. So if you add another \$6.5 million to
11 what we've already rounded up to 20 million,
12 you're still far less than 52.5.

13 The truth is, try as I might, I could
14 not reconcile that number, which is precisely why
15 we asked for what was quote/unquote a granular
16 estimate so that we could see if there's something
17 in the utility's number that we're not focused on.
18 It just seems to me that the number at 52.5 is
19 well, well in excess of what this job is worth.
20 And frankly, if I knew what was involved in the
21 utility's estimate, I would be more than glad to
22 do a granular estimate to compare with it. I just
23 don't have that ability --

24 MR. FITZGERALD: You're right --

25 THE WITNESS (Mailman): -- based on

1 that information.

2 MR. FITZGERALD: -- that was a speech,
3 and it was not a response to a question. But
4 let's move on and see if we can get through this.

5 Are you aware that the Council is
6 required by statute to prepare and publish every
7 five years a report in which the life cycle costs
8 of different types of transmission lines are
9 estimated?

10 THE WITNESS (Mailman): Yes.

11 MR. FITZGERALD: And that's called a
12 life cycle cost report?

13 THE WITNESS (Mailman): Yes.

14 MR. FITZGERALD: Have you ever reviewed
15 it?

16 THE WITNESS (Mailman): I never had
17 occasion to. My apologies.

18 MR. FITZGERALD: Well, as it happens,
19 the most recent one is part of this docket as CSC
20 administrative notice item 30. And I'm going to
21 ask my colleague to hand you some excerpts from
22 it.

23 Now, the cover the document says
24 prepared for the Connecticut Siting Council by
25 KEMA Inc. Does that name mean anything to you?

1 THE WITNESS (Mailman): No, it does
2 not.

3 MR. FITZGERALD: You don't recognize
4 KEMA as a global electrical engineering and
5 consulting firm that's headquartered in the
6 Netherlands?

7 THE WITNESS (Mailman): Quite frankly,
8 no. Having worked in this business for 45 years
9 for 50 utilities in 20 states, I've never come
10 across their name before.

11 MR. FITZGERALD: Okay. The first page
12 after the cover in the sheet of excerpts is page
13 ES-1. There's a table there of ranking of
14 transmission line first costs, and with the costs
15 stated in dollars per circuit mile. And the cost
16 of underground 115-kV HPFF is stated as
17 \$14,970,677 per circuit mile, and the cost of
18 115-kV XLPE is stated as \$18,780,600 per circuit
19 mile.

20 So you would disagree with that
21 relationship, you think the relationship is
22 inverse?

23 THE WITNESS (Mailman): I absolutely
24 would.

25 MR. FITZGERALD: Thank you. That's the

1 question.

2 Let's move to the next page in the
3 excerpt, ES-4. And there we see table ES-3. It
4 provides the net present value of underground
5 transmission and the life cycle cost comparison,
6 again, on the basis of dollars per circuit mile.
7 And this table has a somewhat granular estimate of
8 the components of the cost. So looking just at
9 the construction costs, we find a figure for
10 115-kV XLPE of \$631,543, and for 115-kV HPFF of
11 \$503,426. And so, again, in your opinion, that
12 relationship should be the other way around, the
13 reverse of what KEMA estimates. Right?

14 THE WITNESS (Mailman): It's correct,
15 and I believe your client would agree. Your
16 client built a --

17 MR. FITZGERALD: I didn't ask you about
18 whether my client --

19 THE WITNESS (Mailman): I indeed
20 disagree with the findings of someone located in
21 the Netherlands, someone who has zero experience
22 building these in the United States, zero
23 experience working with the International
24 Brotherhood of Electrical Workers. And by the
25 way --

1 THE CHAIRMAN: Excuse me, sir, that's
2 enough. You answered the question. I don't need
3 you to -- come on, let's keep going.

4 MR. FITZGERALD: How do you know that
5 KEMA has no experience working in the United
6 States?

7 THE WITNESS (Mailman): I would find it
8 very hard to believe that they have -- I have
9 looked at virtually every high pressure fluid
10 filled job bid in the last 20 years. There are
11 five contractors in the United States who do this
12 work. I run one of them. I have never seen their
13 name on the bottom of a drawing. I've seen POWER
14 Engineers, I've seen Burns & McDonnell, I've seen
15 Sargent & Lundy. I also know that I was called
16 upon by Con Edison to do this very same analysis.
17 KEMA is available to Con Edison. There obviously
18 was a reason why they came to me to ask me to do
19 it.

20 MR. FITZGERALD: And if we continue on
21 to page ES-5, we find in the numbered paragraphs,
22 number 3, the total life cycle cost of underground
23 XLPE cables is 25 to 32 percent higher than for
24 HPFF cable systems. Would you disagree with that?

25 THE WITNESS (Mailman): I absolutely

1 would.

2 MR. FITZGERALD: Okay. Fine. And then
3 the last piece of this document that I want to
4 direct your attention to is table 2-5 which
5 presents first costs for single circuit 115-kV
6 underground transmission lines. And again, this
7 has a granular breakdown in which construction is
8 listed separately from other components. And for
9 the example 3000 kcmil, one cable per phase for
10 HPFF, the construction cost is \$299,414 per phase.
11 And for XLPE, \$375,612.

12 So, again, XLPE is listed here as
13 costing more to construct, but you disagree with
14 KEMA, and you disagree with the Council's life
15 cycle cost report on this relationship?

16 THE WITNESS (Mailman): That is
17 correct. A report that was done in 2012. I
18 testified that we built the line after 2012 for
19 way less than these numbers.

20 MR. FITZGERALD: And are you familiar
21 with the ongoing proceeding for the life cycle
22 cost report in 2017?

23 THE WITNESS (Mailman): No, I'm not.

24 MR. FITZGERALD: I want to ask you a
25 few questions about your distribution solution

1 that you put forth starting at page 23 of the
2 initial prefiled testimony. First of all, the
3 solution that you propose here is a new one, in
4 addition to those you suggested during the
5 ten-month period during which the town and
6 Eversource were exchanging technical information.
7 Correct?

8 THE WITNESS (Mailman): That is
9 correct. Would you like the rationale as to why?

10 MR. FITZGERALD: No.

11 Most of the work you recommend is on
12 the distribution system 27.6-kV system and the
13 4.8-kV system. Correct?

14 THE WITNESS (Mailman): That is
15 correct.

16 MR. FITZGERALD: And it's fair to say
17 that the scope of this work is larger than that
18 for which Eversource is seeking approval in this
19 proceeding?

20 THE WITNESS (Mailman): It may well be.

21 MR. FITZGERALD: And a hundred percent
22 of the cost of the distribution improvements you
23 recommend would be recovered from Connecticut
24 ratepayers through local rates. Correct?

25 THE WITNESS (Mailman): If that's the

1 way the tariff works, yes.

2 MR. FITZGERALD: So let's take a look
3 at the elements of your solution. The first
4 one -- and they're helpfully set out in bullet
5 points starting on page 23. And the first
6 component is construct new indoor substation at
7 281 Railroad Avenue in place of the aged equipment
8 at the Prospect Substation.

9 Now, you are talking here not about a
10 115-kV substation as Eversource is proposing, but
11 a distribution substation that would be 27.6 kV to
12 13.2 kV. Right?

13 THE WITNESS (Mailman): That is
14 correct.

15 MR. FITZGERALD: And then your next
16 bullet point is reconductor and reconfigure all
17 four 27.6-kV feeders, and you list four feeders.
18 These are all feeders between Cos Cob and
19 Prospect?

20 THE WITNESS (Mailman): That is
21 correct.

22 MR. FITZGERALD: And as reconfigured,
23 would they be between Cos Cob and the new
24 substation on Railroad Avenue?

25 THE WITNESS (Mailman): The current

1 feeders feed Prospect and the network. There's no
2 ability to segregate the network from Prospect.
3 Even though there's a tap, you have to shut down
4 the network. If you have to shut down the
5 network, you have to shut down the same feeder to
6 Prospect. So when we say "reconfigure," that
7 means to include a mechanism by which, should you
8 need to service the Greenwich secondary network,
9 you do not need to disable the feeders that feed
10 Prospect, something that's not available now that
11 is standard industry practice.

12 MR. FITZGERALD: My question was, what
13 would the terminal points of these four 27.6-kV
14 feeders be after your reconfiguration?

15 THE WITNESS (Mailman): It would feed
16 both Prospect and the secondary network.

17 MR. FITZGERALD: And they would not
18 feed the new Railroad Avenue site?

19 THE WITNESS (Mailman): They would feed
20 the new Railroad Avenue.

21 MR. FITZGERALD: Okay. That's my
22 question.

23 And would there be additional --

24 THE WITNESS (Mailman): And, by the
25 way, that's stated in the third bullet. It said

1 there would be feeders that would be express. Two
2 of them would be express and not feed the network.
3 We elaborated that.

4 MR. FITZGERALD: And are you proposing
5 that this reconductoring be done with the type of
6 cable that you describe at pages 18 and 19 of your
7 testimony as being a higher ampacity cable that
8 allows for greater ampacity with a greater
9 diameter that Eversource is using in Boston?

10 THE WITNESS (Mailman): Yes. And it
11 also reflects what Mr. Bowes testified earlier
12 today. There's cable that's known as MV-90, and
13 there's cable that's known as MV-105. That refers
14 to the degree Celsius that the conductors can be
15 subjected to. Mr. Bowes stated correctly that a
16 higher temperature conductor can take more
17 ampacity. By the testimony we heard this morning,
18 a lot of these feeders do not have MV-105, which
19 is state of the art. I firmly believe that you
20 can increase the ampacity of these distribution
21 feeders merely by pulling out the old wire and
22 putting in new wire.

23 MR. FITZGERALD: Now, you didn't answer
24 my question. Does your design presume that the
25 new wire would be the type you describe at pages

1 18 and 19 of your testimony.

2 THE WITNESS (Mailman): We described
3 modern cable, correct.

4 MR. FITZGERALD: Aren't you describing
5 there something called reduced diameter extruded
6 dielectric shielded power cable?

7 THE WITNESS (Mailman): Yes, there is.
8 That's part of their many ways to go ahead and
9 increase ampacity in existing duct banks. NSTAR
10 was a pioneer in this, Con Edison was a pioneer in
11 this. The cable companies out there have figured
12 out -- because this situation is not unique. In
13 major cities they can't just dig up the streets.
14 The cable manufacturers have developed new cables
15 that fit in the same space as the old cables and
16 all the while deliver more ampacity, higher MVA.

17 MR. FITZGERALD: Now, please just
18 answer my question. Are you assuming in this
19 design that the new cable, or as you say the new
20 wire, would be the reduced diameter extruded
21 dielectric shielded power cable type you describe
22 at pages 18 and 19 of your testimony?

23 THE WITNESS (Mailman): Yes.

24 MR. FITZGERALD: Yes. Okay.

25 THE WITNESS (Mailman): Reduced wall

1 thickness, flat strap cable, MV-105 cable, to
2 incorporate all the newest technology in cable
3 design.

4 MR. FITZGERALD: And to be functional
5 in this application, that cable would have to be
6 capable of being operated at 27.6 kV. Correct?

7 THE WITNESS (Mailman): That's correct.

8 MR. FITZGERALD: What is the diameter
9 of the smallest reduced diameter 115-kV XLPE cable
10 that can be safely operated at 27.6 kV?

11 THE WITNESS (Mailman): Based on the
12 information you just gave me, that's a question
13 that cannot be answered. I need more information
14 than that. I need to know what loads it's
15 carrying. I need to know what the duct bank
16 configuration is. I need to know what the load
17 factor is. There are many ingredients that go
18 into this recipe. You're telling me bake a cake,
19 and you're not telling me what flavor cake you
20 want, or anything like that.

21 MR. FITZGERALD: Tell me what you
22 assumed the diameter of the cables that you were
23 prescribing in your proposed solution would be.

24 THE WITNESS (Mailman): I did want
25 that. Because I asked for information in an

1 interrogatory that I didn't, that I was denied.
2 So I went ahead and I worked backwards, right. We
3 were given a chart, and Mr. Dobin showed it today,
4 that describes what every feeder is. You show
5 feeders that are 500 kcmil feeders. There are
6 tables in every cable manufacturer's catalog that
7 says how many amps can be driven through 500 MCM
8 cable. We did the analysis. We took the most
9 severe duct configuration that we could come up
10 with. And no matter how hard we tried, we could
11 not come anywhere near the permissible ratings
12 that were offered in that chart. Every number
13 that we ran showed significantly more ampacity
14 available in those cables than Eversource offered
15 us. So that's without changing cables.

16 MR. FITZGERALD: Now you can answer my
17 question perhaps? What diameter cable did you
18 assume would be installed as the replacement cable
19 in --

20 THE WITNESS (Mailman): 750 kcmil per a
21 document we received from Eversource. What
22 Eversource said, they could put 750 kcmil in the
23 existing duct banks.

24 MR. FITZGERALD: 750 kcmil, that's the
25 diameter of the metal of the cable?

1 THE WITNESS (Mailman): The copper,
2 that is correct.

3 MR. FITZGERALD: And what was your
4 assumed outside diameter of the --

5 THE WITNESS (Mailman): In fact, I
6 didn't assume any because the utility said they
7 could fit 750 kcmil in there, so I went ahead and
8 I took them at their word. I did not second guess
9 them.

10 MR. FITZGERALD: Okay. Thank you.

11 The next item is rebuild the Tomac
12 Substation as follows, and there are some
13 subsections underneath that. Sub A is, the Tomac
14 Substation is currently tied to only one of the
15 two 115-kV transmission lines originating in
16 Stamford, and a second tied to the other 115-kV
17 overhead line which provides a second 115-kV
18 feeder source.

19 I read that correctly. Right?

20 THE WITNESS (Mailman): Yes.

21 MR. FITZGERALD: So your scheme would
22 convert an existing two-terminal line to a
23 three-terminal line. Right?

24 THE WITNESS (Mailman): My impetus, I'm
25 not concerned what the origin is. I just feel

1 that Tomac, being so critical, should have more
2 than one feeder. Right now, as we showed this
3 morning, it's only fed by 1750. Whether it's
4 two-terminal line, four-terminal line. I'm not
5 here to design the utility's property.

6 MR. FITZGERALD: But you are.

7 THE WITNESS (Mailman): What I'm
8 suggesting is --

9 MR. FITZGERALD: Isn't that what you
10 did in your testimony?

11 THE WITNESS (Mailman): I offered a
12 suggestion. I said it seems --

13 MR. FITZGERALD: I'm asking questions
14 about your suggestion.

15 THE WITNESS (Mailman): It seems
16 incongruous to me that such a vital substation is
17 fed buy only one feeder when in fact the second
18 feeder, 1750, runs within 10 feet of that very
19 substation.

20 MR. FITZGERALD: Now let me ask you the
21 question again. Perhaps you can answer it. What
22 you're recommending would convert an existing
23 two-terminal line to a three-terminal line, yes or
24 no?

25 THE WITNESS (Mailman): If you wish to

1 draw what the utility calls three-terminal,
2 nomenclature varies from utility to utility. All
3 right. Basically the way I look at it is, I would
4 look at it as a second contingency situation where
5 you lost your first feeder, you have a second
6 back-up. Right now you do not have that. If it
7 takes a three-terminal line, Mr. Fitzgerald, I
8 agree, it's a three-terminal substation, if that's
9 what the utility chooses to call it.

10 MR. FITZGERALD: And the existing feed
11 to Tomac is also a three-terminal line. Correct?

12 THE WITNESS (Mailman): All I know is
13 the existing feed to Tomac, if you say it is, I'll
14 take your word for it.

15 MR. FITZGERALD: Okay. So that, if
16 you'll continue to take my word for it, the
17 resulting configuration would be Tomac being
18 served by two three-terminal lines?

19 THE WITNESS (Mailman): That is totally
20 incorrect. Because if there's a loss of 1750,
21 you'd have to explain to me, all right, how you're
22 going to go ahead. You're saying that you're
23 going to feed 1740 to Cos Cob, you're going to
24 jump it over to Cos Cob, and then you're going to
25 bring it back on 1750. That may be plausible if

1 you lost 1750 between Tomac and Stamford. If you
2 lost 1750 between Tomac and Cos Cob, you would not
3 have that ability. And if you want to bring it up
4 on the board, I can take you through that. Maybe
5 I don't understand where you're going. Maybe if
6 you can explain it to me.

7 MR. FITZGERALD: Maybe you don't. It's
8 a fairly simple point. The resulting
9 configuration would involve create a second
10 three-terminal line with one leg serving Tomac?

11 THE WITNESS (Mailman): The resulting
12 from --

13 MR. FITZGERALD: From your proposal.

14 THE WITNESS (Mailman): My proposal --
15 if it's misstated forgive me -- my thought was I
16 wanted there to be two sources to Tomac that could
17 sustain an interruption of either one of them at
18 either location, from Tomac back to Stamford, or
19 from Tomac back to Cos Cob. That was my intent.
20 Forgive me if the wording is wrong here.

21 MR. FITZGERALD: No, I'm not saying
22 anything about the wording. I'm talking about the
23 facts. What you are proposing would result in two
24 three-terminal lines which had a leg feeding
25 Tomac. That's all.

1 THE WITNESS (Mailman): If that's how
2 it had to be implemented, fine. My goal is to
3 ensure reliable service to Tomac beyond what is
4 available today.

5 MR. FITZGERALD: Okay.

6 THE WITNESS (Mailman): If it's
7 three-terminal, four-terminal, so be it.

8 MR. FITZGERALD: So one of the things
9 that the Council has taken notice of in this
10 docket is its proceedings in Docket 370-MR. And
11 in that docket the Council found in Finding of
12 Fact 22, generally system planners and operators
13 prefer two-terminal lines to three-terminal lines
14 because it is more difficult to design system
15 protection, and it isn't as reliable under fault
16 conditions for a three-terminal line and because a
17 fault on a three-terminal line would result in the
18 loss of circuit connection at three terminals
19 rather than two.

20 Do you agree with that?

21 THE WITNESS (Mailman): I'd have to
22 know more than just what you're reading. You're
23 excerpting something. Right. And if we really
24 want to get into relay protection, at one point
25 Eversource proposed a combination

1 overhead/underground cable system, a hybrid
2 system, just for the record, and it's extraneous,
3 and I may be making a speech, but the relay
4 protection for a hybrid system is way less
5 effective than a relay protection system for a
6 totally underground system. If we're going to sit
7 here and talk about relay protection, it cuts both
8 ways.

9 MR. FITZGERALD: You do know that
10 Eversource is engaged in a program to phase out
11 three-terminal lines on its system? Do you know
12 that?

13 THE WITNESS (Mailman): There is a
14 way -- that may be. I don't know that. But there
15 is a way to feed Tomac without a three-terminal
16 line.

17 MR. FITZGERALD: And do you think
18 that's a reasonable policy, phasing out
19 three-terminal lines?

20 THE WITNESS (Mailman): I wouldn't
21 know. I don't know where they exist in other
22 places in the state. I don't know what critical
23 loads are served. I do know this, that Tomac is
24 susceptible to going dark if 1750 is lost.

25 MR. FITZGERALD: Now, if we go down on

1 your solution to subparagraph C under the last
2 bullet point you say, "Build a second 27.6-kV
3 feeder line between Tomac and Mianus. Currently
4 there's only one feeder, 12H59. This would allow
5 Mianus to be fed from Tomac and not from the
6 27.6-kV transformers at Cos Cob, thereby reducing
7 load on the Cos Cob transformers." That's what
8 you said. Right?

9 THE WITNESS (Mailman): That statement
10 was correct at the time. It was amended when we
11 received an interrogatory response from the
12 utility. When this was written, this was before
13 the utility responded to our response. We asked
14 how is Mianus fed, and the answer we got was the
15 normal feed is from Tomac. So, in fact, the
16 Mianus load is always off the Cos Cob Substation
17 provided Tomac is powered by 1750.

18 So this was stated sooner than that.
19 We will amend it to say, all right, if you wish,
20 that we recognize that Mianus is solely fed by
21 Tomac, and the only time it's fed by Cos Cob is in
22 a non-normal operating mode. I agree with you
23 there, sir.

24 MR. FITZGERALD: Okay. Your scheme
25 would expand the existing 4.6-kV and 27.6-kV

1 systems in Greenwich. Correct?

2 THE WITNESS (Mailman): That's correct.

3 MR. FITZGERALD: And do you know that
4 Eversource is pursuing a policy to phase out those
5 voltages from its system?

6 THE WITNESS (Mailman): I know based on
7 testimony today that their intent is to get away
8 with 4.8. All right. I have heard that in the
9 future they'd like to convert 13.2 to 13.8. I
10 know from experience there's significant 13.2 in
11 the State of Connecticut well beyond what's
12 available in Greenwich, and converting either of
13 those at the distribution level is a very costly
14 event.

15 MR. FITZGERALD: Do you acknowledge any
16 reasonable basis for the policy of phasing out 4.8
17 and 27.6 facilities?

18 THE WITNESS (Mailman): I'd find it
19 hard to agree that it makes sense to get rid of
20 27.6 based on the fact that there are many
21 customers loads, we heard today, that require 27.6
22 kV to feed it. I'm also very, very familiar with
23 the Con Edison distribution system. And the Con
24 Edison distribution system, as it exists today, in
25 Queens, Brooklyn, the Bronx, exactly mirrors what

1 is in existence today in Greenwich. So it might
2 be Eversource's desire to retire 27.6, but I've
3 yet to see any of the other major municipal
4 utilities share that same attitude.

5 MR. FITZGERALD: Okay. A couple of
6 questions about supplemental testimony that the
7 Greenwich reliability issues can be solved by
8 energy efficiency and distributed energy projects.
9 Page 4 of that testimony. Are you the author of
10 this testimony?

11 THE WITNESS (Mailman): Not all of it.

12 MR. FITZGERALD: Who else contributed
13 to it?

14 THE WITNESS (Savageau): I did.

15 MR. FITZGERALD: Ms. Savageau. Okay.

16 On page 4 you say the town does not
17 agree with the conclusions reached by Eversource's
18 NTA analysis attached as Attachment D to the
19 supplemental testimony.

20 This provokes the question in today's
21 climate whether or not you agree with the facts
22 stated in that presentation, but draw a different
23 conclusion from it.

24 THE WITNESS (Savageau): I think that
25 it's the conclusion that we disagree with. We do

1 have some questions about the facts that were
2 stated as well. So, you know, I think we need --
3 there's a lot of discussion to be had around that.

4 MR. FITZGERALD: Looking at the
5 Powerpoint on page 2, there is a statement that
6 approximately 30 MVA of load reduction is required
7 to address the substation project need. Is that a
8 fact that you accept?

9 THE WITNESS (Mailman): We don't know
10 where the 3 MVA came from and what they were using
11 in terms to determine that. So that was something
12 that, you know, like, okay, if we're going to
13 reduce peak, do we need to reduce it by 30 MVA?
14 You know, we have a permissible load of 135, we
15 have a peak of 130.5 that you're looking to
16 address. Is 30 where we need to go? And then
17 we're also looking at, you know, the 2013, 2014,
18 2015, 2016 loads when we're looking at all those
19 loads, and now we're talking in 2016, we're not
20 talking the docket before, and we're saying like,
21 okay, do we really need to go there. So one of
22 the questions was, is this the load we needed to
23 address.

24 MR. FITZGERALD: So --

25 THE WITNESS (Mailman): Once you're

1 done, I don't want to cut you off. I can hold my
2 thought, if you want.

3 MR. FITZGERALD: Yes, hold your
4 thought.

5 So, you do not accept that a load
6 reduction of 30 MVA is required to address the
7 substation project need, you don't know what
8 amount of reduction is required. Is that right?

9 THE WITNESS (Savageau): That's right.
10 That was part of the discussion and --

11 MR. FITZGERALD: That's enough. Now
12 we'll go to Mr. Mailman.

13 THE WITNESS (Mailman): Thank you, sir.
14 Did you presume I couldn't hold it in for much
15 longer? Thank you for your diligence.

16 We wanted to evaluate that. And in
17 truth, that's one of the reasons why we asked for
18 the distribution among the various feeders under
19 peak loads. We understand all of what Mr. Bowes
20 offered today in testimony about 11R51, 52, 55,
21 58, and that was why we asked what precisely are
22 the situations on those feeders under load. This
23 indeed may be right, and we could indeed confirm
24 it if we were given the data that we asked for.

25 MR. FITZGERALD: Fine. Now, on page 9

1 there is a statement that 1 to 2 megawatts of
2 nontransmission alternatives would be needed each
3 year going forward to maintain the NTA as a
4 solution. Is that something that you agree with,
5 disagree with or --

6 THE WITNESS (Savageau): On page 9 of
7 the Powerpoint?

8 MR. FITZGERALD: Yes.

9 THE WITNESS (Savageau): I'm looking at
10 the Powerpoint. I'm not seeing where that is.

11 MR. BALL: It's in page 8, Mr.
12 Fitzgerald.

13 MR. FITZGERALD: Page 8. Thank you.
14 Page 8.

15 THE WITNESS (Savageau): I don't have a
16 concern about that, per se. I think it's
17 something we wanted to discuss more fully.

18 MR. FITZGERALD: Okay. Thank you.

19 And, let's see, if you just give me a
20 moment here. Page 2 under energy efficiency, last
21 bullet on the page. It says --

22 THE WITNESS (Savageau): Under the
23 Powerpoint or --

24 MR. FITZGERALD: Page 2 of the
25 Powerpoint, yes. It says, "Previously agreed that

1 EE alone" -- EE meaning energy efficiency alone --
2 "does not solve the project need." Was that a
3 true statement? Was there such an agreement
4 between Eversource and town representatives?

5 THE WITNESS (Savageau): That was
6 represented to the town by Eversource. I'm not
7 sure there was complete agreement on it, but I
8 will say that it was stated by Eversource. I
9 think the town was saying that we're not sure if
10 we could reach that just with environmental
11 efficiency, but looking at -- we kept asking for
12 information on a distributed grid, we kept asking
13 for information on what else we needed to do. We
14 asked for information on could we look it -- if
15 we're going to do energy efficiency, do we a have
16 list of targeted customers we could go after.

17 It's interesting because we were saying
18 no, and there's 11 customers that are unique to
19 this whole grid that possibly could have been the
20 targeted customers to look at an EE response.
21 When I asked for that, which I've done multiple
22 times, I was not given that information.

23 MR. FITZGERALD: You have before you
24 the excerpts, I think, from the current annual
25 report?

1 THE WITNESS (Savageau): Yes.

2 MR. FITZGERALD: So we find at page
3 120, which I think is included in the exhibits,
4 that during the last fiscal year there were
5 building permits issued for a construction value
6 of \$400,266,423 in construction cost. Right?

7 THE WITNESS (Savageau): Yes.

8 MR. FITZGERALD: And let me turn the
9 page, page 121, we find for the fourth year in a
10 row more than 2,000 building permits were issued.
11 Is that right?

12 THE WITNESS (Savageau): That's
13 correct.

14 MR. FITZGERALD: So has the commitment
15 of the town to energy efficiency actually produced
16 any results to date in terms of lowering energy
17 consumption in Greenwich?

18 THE WITNESS (Savageau): I think the
19 town embarked in 2008 looking at energy
20 efficiency. We started working on promoting that.
21 We've been working with several builders. I think
22 that testimony this morning by Mr. Bowes when he
23 looked at the peaks, and what we were looking at
24 in terms of peaks, he referenced and admitted that
25 energy efficiency is probably the reason that

1 we're seeing in 2014, 2015 and 2016 that energy
2 efficiency is happening. I think that's probably
3 a combination of building codes that have changed
4 and new construction.

5 Greenwich has a high turnover, as you
6 can imagine, of housing stock. We don't
7 necessarily -- not that we don't have some older
8 housing stock in some parts of town, but we have a
9 lot of teardown rebuilds, so there's a lot of
10 energy efficiency that comes along with those
11 types of projects with the type of housing stock
12 we have. So not only that, with the new building
13 codes where, when someone rebuilds a house, now
14 they're doing energy efficiency in terms of, you
15 know, just having insulation upgrades in heating
16 and cooling systems, or whatever. So I think
17 you're seeing a combination of all those building
18 codes as well.

19 It's interesting that the change was
20 from 2014. We did a major campaign on solar in
21 2013. Those were implemented in 2014.

22 MR. FITZGERALD: I'm sorry, what was
23 implemented? The solarized program. And although
24 that program itself resulted in 40 new homes
25 getting solar on their houses, one of the things

1 that happened, we had a lot of other businesses
2 coming into town saying we can match the solarized
3 program, think about people who want to do
4 business in Greenwich. So unlike other towns
5 where with a solarized program you were
6 guaranteeing a rate, so it was a really good deal
7 for people to look at the program that -- you
8 know, we did this with the State of Connecticut to
9 do the solarized program. But what we found was,
10 not only were we offering very good rates for
11 solar, but people were coming into Greenwich and
12 saying we can offer the same rates.

13 So even though the program itself had
14 40, there was actually more solar put in at that
15 time. So we really started seeing people putting
16 solar on their properties at that time.

17 MR. FITZGERALD: And what is the total
18 effective capacity of the solar?

19 THE WITNESS (Savageau): I don't have
20 that number.

21 MR. FITZGERALD: You don't know. Okay.

22 THE WITNESS (Savageau): But I do think
23 that it's something we need to investigate more.
24 And I think that's where most of the discussion
25 here is, we didn't have enough of a discussion on

1 where we need to go with this.

2 MR. FITZGERALD: And have you prepared
3 an estimate of the cost to Greenwich and its
4 residents of a -- well, I guess not. You haven't
5 figured out what level of load reduction would be
6 required to displace the substation?

7 THE WITNESS (Savageau): That's right.

8 MR. FITZGERALD: So you don't know what
9 the cost of it would be?

10 THE WITNESS (Savageau): We don't. We
11 would like to investigate that further, and that's
12 one of the discussions we'd like to have with
13 Eversource.

14 MR. FITZGERALD: And similarly, you
15 don't know what the time would be that would be
16 required for implementing the program?

17 THE WITNESS (Savageau): I don't -- it
18 would already depend -- or I should say it would
19 depend on what kind of solutions we came up with,
20 but there are lots of alternatives, and there's
21 lots of opportunities. There's some opportunities
22 that the town can apply for, and there's some
23 opportunities that the utilities can apply for.

24 So, for example, under Public Act 15-5,
25 the utility has the opportunity to bring to the

1 town some type of a pilot grid program. And that
2 would be something we would be interested in
3 working with the utility on.

4 MR. FITZGERALD: All right. Thank you.
5 Let me go onto another topic.

6 Back to you, Mr. Mailman. Sir, you
7 hold a bachelor's in architecture?

8 THE WITNESS (Mailman): That's correct.

9 MR. FITZGERALD: And do you have any
10 other academic degrees?

11 THE WITNESS (Mailman): I went to the
12 Columbia School of Engineering, Columbia College,
13 and the Columbia Graduate School of Architecture
14 and Planning.

15 MR. FITZGERALD: So from Columbia
16 College you got a BA?

17 THE WITNESS (Mailman): In
18 architecture, that is correct.

19 MR. FITZGERALD: And what further
20 degree did you get?

21 THE WITNESS (Mailman): Did not.

22 MR. FITZGERALD: You have significant
23 experience in electrical construction, fair to
24 say. Right?

25 THE WITNESS (Mailman): Are you asking

1 me that, or are you acknowledging that? You say
2 that, you know, with a question mark at the end.
3 I'd like to think after doing this for 45 years,
4 working for 50 utilities in 20 states, the answer
5 to that is yes.

6 MR. FITZGERALD: Okay. However, you
7 have no formal qualifications in electrical
8 engineering. Right?

9 THE WITNESS (Mailman): Nor do I
10 believe I need one. To quote Potter Stewart, "I
11 can't define pornography, but I'll know it when I
12 see it." I may not be able to go ahead and tell
13 you how the various equations were derived that
14 one uses to come up with loads, to come up with
15 feeder ratings, but I certainly know if the answer
16 is in the right world.

17 And just something to think about, Mr.
18 Fitzgerald, that you may not be aware of. I was
19 asked to be the expert witness by Public Service
20 New Hampshire, which was part of Northeast
21 Utilities when the State of New Hampshire was
22 going to force them to run a 345 merchant line
23 underground. And I testified that the best
24 solution for that feeder was to run overhead. I
25 would like to think that there's great confidence

1 on the side of your client in my capabilities.
2 And if you have questions relative to my
3 capabilities, it would be with pleasure. I'll
4 give you 20 names right now. You can call any one
5 of those people.

6 MR. FITZGERALD: Let's continue with my
7 questions.

8 THE WITNESS (Mailman): No. I'd like
9 to know if your intent is to discredit me, Mr.
10 Fitzgerald.

11 MR. FITZGERALD: It is.

12 THE WITNESS (Mailman): Then why not
13 just ask me why do I feel capable of weighing in
14 on this?

15 MR. FITZGERALD: No. I'm going to do
16 it my way, Mr. Mailman.

17 THE WITNESS (Mailman): Okay.

18 MR. FITZGERALD: You have no formal
19 qualifications in electric system planning.
20 Correct?

21 THE WITNESS (Mailman): I have no
22 degree in such, that is correct.

23 MR. FITZGERALD: Well, have you ever
24 worked as a system planner for a utility or a
25 reliability organization such as ISO New England?

1 THE WITNESS (Mailman): No, I have not.

2 MR. FITZGERALD: Okay.

3 THE WITNESS (Mailman): Nor did I ever
4 purport to.

5 MR. FITZGERALD: Right. And you don't
6 hold yourself out in your resume as an expert in
7 electric system planning, do you?

8 THE WITNESS (Mailman): That is
9 correct.

10 MR. FITZGERALD: And you don't hold
11 yourself out in your resume as an expert in the
12 design and implementation of energy efficiency
13 projects?

14 THE WITNESS (Mailman): That is
15 correct.

16 MR. FITZGERALD: From 1972 to 1990, you
17 were the owner of an electric construction company
18 that specialized in pole line and substation
19 construction?

20 THE WITNESS (Mailman): That's correct.

21 MR. FITZGERALD: And for much of that
22 time you were also a partner in a company that
23 built high-rise residential and office buildings.

24 THE WITNESS (Mailman): There was a
25 period that I left the day-to-day runnings of the

1 company that I owned. The company stayed in
2 place. There was a hiatus that I took from the
3 electrical industry to be able to regroup after a
4 personal tragedy. I needed a change of venue.

5 MR. FITZGERALD: And I think it's fair
6 to say that you consider that as a result of your
7 experience, you know more about electric
8 transmission and distribution systems than most
9 utility engineers and planners?

10 THE WITNESS (Mailman): I will look you
11 right in the eye and I will say absolutely. I
12 have seen movies put on by 50 utilities. I know
13 how they end. It's very rare that I'm looking at
14 a solution for the first time. The people who
15 work for your client work for one utility. I deal
16 with the likes of Florida Power and Light. I deal
17 with the likes of Entergy, America Electric Power,
18 the New York Power Authority. I see what they do.
19 All right. I'm a major, major underground
20 transmission contractor for Con Edison, maybe the
21 single largest one they have. I have access to
22 engineers. I see what they do every day.

23 Yes, I believe personally that I am
24 every bit the equal of any one of your witnesses
25 today, and furthermore, I believe that I have more

1 practical construction experience than any one of
2 your witnesses today. Not that I'm intending to
3 demean them, or slight them. It's just the nature
4 of the world. An all-star second baseman doesn't
5 make an all-star left fielder.

6 MR. FITZGERALD: Would you say that you
7 know more about evaluating the reliability, the
8 cost, and environmental impacts of proposed
9 improvements to the electric system than the
10 members of the Siting Council do?

11 THE WITNESS (Mailman): I have
12 tremendous respect for the Siting Council. What
13 they're asked to do is unlike what other people in
14 their position are asked to do in other states.
15 I'm really not -- until these proceedings, I was
16 never familiar with the Siting Council, but I was
17 very familiar with the New York State Public
18 Service Commission.

19 Now, I don't know what motivates the
20 State of Connecticut and how they fund the Siting
21 Council, but I do know that the Public Service
22 Commission in New York has staff, 50 people or
23 more, that are engineers. And any docket, such as
24 this, has to go through technical muster by those
25 professionals before it ever gets to the level of

1 the Siting Council. And in all due respect to the
2 Siting Council, the present people that are there,
3 they unfortunately lost a member who had
4 tremendous, tremendous practical and engineering
5 capabilities. So they are at a loss from what
6 they were previously.

7 MR. FITZGERALD: Well, how about an
8 answer to the question?

9 THE WITNESS (Mailman): I think I
10 answered the question. You asked me if I thought
11 the Siting Council was suitable to do this.

12 MR. FITZGERALD: No. I asked you if
13 you thought that you were better qualified to
14 evaluate the balance of reliability, cost, and
15 environmental impacts of electrical upgrade
16 projects than the Siting Council.

17 THE WITNESS (Mailman): Mr. Fitzgerald,
18 it would be easier for me to answer that question
19 if you asked it singularly rather than ensemble.

20 Do I believe that I have better
21 knowledge on to the cost of these projects?
22 Absolutely, again, meaning no disrespect to the
23 Council.

24 Do I believe that I can assess the
25 environmental issues as to what's involved with

1 physically doing this? Yes. All right. We've
2 done this. We've done this in numerous states in
3 numerous places. It's not to say that the Council
4 is unaware of the consequences. But, for example,
5 when there are five contractors in the United
6 States who go ahead and install HPFF cable, I
7 don't expect the Council to understand what it's
8 like to go ahead and make a weld of one of those
9 pipes in a trench that's 2 foot, 6 inches wide. I
10 think that's well outside their purview, no more
11 so that I can comment on some of the technical
12 issues or the governmental issues that the Council
13 understands.

14 So in specific areas, yes, I believe
15 that I have more expertise, through no fault of
16 the Council, than members of the Council.

17 MR. FITZGERALD: Okay. Who is Swapen
18 Dey?

19 THE WITNESS (Mailman): Swapen Dey is
20 somebody that used to work for the Long Island
21 Lighting Company that I met in 1990. He left the
22 Long Island Lighting Company to go to NSTAR
23 Utilities.

24 MR. FITZGERALD: And did you have
25 occasion to meet with him in Greenwich on March

1 27th of this year?

2 THE WITNESS (Mailman): I'll take your
3 word for it it was March 27th, but it was in
4 response to a call I had received from Mr. Dey
5 from whom I hadn't heard in a number of years.
6 And Swapan said, "What's going on in Greenwich?
7 I'd like to come down and look at the route."

8 And I agreed to meet with him, if for
9 no other reason than I've known him for 27 years.

10 MR. FITZGERALD: And you mentioned that
11 he went to NSTAR. NSTAR is now part of
12 Eversource. Right?

13 THE WITNESS (Mailman): That is
14 correct.

15 MR. FITZGERALD: And what happened on
16 that day of March 27th, or whenever it was that he
17 came to Greenwich?

18 THE WITNESS (Mailman): If someone
19 could check. I remember the meeting was on a
20 Friday. If March 27th was indeed a Friday, it was
21 March 27th. He came down with one of his
22 associates. And in concert with Mr. Michel and
23 Ms. Siebert, we drove the line in its entirety,
24 the proposed route at that time for the
25 underground job, all right, as well as looked

1 briefly at the components of the hybrid scheme.

2 MR. FITZGERALD: And do you recall that
3 after Mr. Dey returned to Boston, you sent him an
4 email?

5 THE WITNESS (Mailman): I think I sent
6 him more than one actually.

7 MR. FITZGERALD: Well, okay. So you
8 sent him email. And my colleague is handing you a
9 document which I believe to be a printout of an
10 email that you sent to Mr. Dey. And I have
11 actually redacted it to --

12 THE WITNESS (Mailman): Excuse me.
13 Your colleague may have offered us a different
14 email, because the email that I received is to
15 Mr. Cabral.

16 MS. DUBUQUE: I'm sorry.

17 MR. FITZGERALD: There were a couple of
18 personal statements in here that I redacted. And
19 I can give you the nonredacted version, if you
20 want, but I'm not proposing to put this in as an
21 exhibit anyway, as long as we can agree that it is
22 a communication that you wrote to Mr. Dey. And
23 I'll ask you a few questions about it.

24 THE WITNESS (Mailman): I definitely
25 wrote it.

1 MR. FITZGERALD: And I want to read you
2 the last two paragraphs from the first page. You
3 say, "Right now, try as I might, I cannot accept
4 that the enthusiasm some on your side have for the
5 hybrid scheme is borne out of a complete
6 understanding of what is involved in implementing
7 such a design in the very narrow right-of-way
8 adjacent to active train tracks. The same goes
9 for building a totally exposed transmission
10 voltage substation within a 20-foot radius of a
11 30,000 gallon propane storage tank.

12 "At the same time, we recognize that
13 your people feel they have an obligation to the
14 Connecticut Siting Council to present such a
15 hybrid scheme, and in the end let the Council
16 decide whether it is preferable to an all
17 underground scheme.

18 "What I find most troubling is the
19 willingness of your team to simply allow a
20 decision that will have impacts on the town and
21 Eversource for untold years to be made by a group
22 of laymen with no technical expertise, no vested
23 interest in the outcome, and whose sole
24 qualification to being on that governing body may
25 well be their political party affiliation."

1 Those are your words, right?

2 THE WITNESS (Mailman): That's correct.

3 MR. FITZGERALD: And you believed them
4 to be true when you wrote them?

5 THE WITNESS (Mailman): I would not
6 have written them otherwise.

7 MR. FITZGERALD: And do you still
8 believe them to be true?

9 THE WITNESS (Mailman): Correct. I
10 believe that the Siting Council, as it's composed,
11 both of its staff and it's members, does not have
12 the technical expertise that someone like the New
13 York State Public Service Commission has, someone
14 like the Utility Council in New Jersey has.

15 MR. FITZGERALD: Mr. Mailman, did you
16 meet earlier this year with the deputy
17 commissioner of the Connecticut Department of
18 Transportation for rails to discuss Eversource's
19 proposal variously referred to as the hybrid
20 route, or at one time as a proposed modified
21 project which involved the installation of
22 overhead transmission structures in the
23 Metro-North right-of-way?

24 THE WITNESS (Mailman): I'll presume
25 that's with whom I met. I did meet with someone.

1 I was always under the impression it was someone
2 who was more in general with DOT. I didn't
3 realize that's the sufficient title. But I'll
4 acknowledge that I went to New Britain to the
5 offices of Connecticut DOT to meet with somebody
6 in upper management, yes.

7 MR. FITZGERALD: And who else was
8 present at that meeting?

9 MR. BALL: I'm sorry, Mr. Fitzgerald.
10 Go ahead.

11 THE WITNESS (Siebert): We were just
12 wondering what is the title of the individual
13 you're referring? I mean the name. Sorry, the
14 name.

15 MR. FITZGERALD: I didn't mention the
16 name.

17 THE WITNESS (Siebert): That's why I
18 was asking are you able to --

19 MR. FITZGERALD: The position I
20 mentioned was the deputy commissioner of
21 transportation for rails.

22 THE WITNESS (Siebert): Do you have a
23 name for that person?

24 MR. FITZGERALD: No.

25 But I don't need it because we've just

1 established that there was a meeting with some
2 high official at the Department of Transportation.
3 So perhaps you could just describe, as best you
4 can, whether by name, or position, or number who
5 was there from the Department of Transportation,
6 and who was there from Greenwich?

7 THE WITNESS (Mailman): There was a
8 gentleman there who I believe was -- Mr. Michel
9 was with me. I believe it was the commissioner of
10 DOT.

11 THE WITNESS (Michel): Right.

12 THE WITNESS (Mailman): And that person
13 had a subordinate with him, a female subordinate.

14 MR. FITZGERALD: And who was there for
15 the Town of Greenwich besides you?

16 THE WITNESS (Mailman): Mr. Michel.

17 MR. FITZGERALD: Just the two of you?

18 THE WITNESS (Mailman): Yes, from the
19 Town of Greenwich.

20 MR. FITZGERALD: And did you convey to
21 the Department of Transportation representatives
22 the opinions you expressed in your email to Swapan
23 Dey?

24 THE WITNESS (Mailman): That was not
25 the subject of the meeting.

1 MR. FITZGERALD: Was the subject of the
2 meeting the installation of transmission structure
3 within the ConnDOT right-of-way?

4 THE WITNESS (Mailman): That played
5 into the subject, but that was not the subject of
6 the meeting either.

7 MR. FITZGERALD: And did you share with
8 the DOT representatives your opinion that if the
9 Siting Council were given the opportunity to
10 choose between a route along the railroad
11 right-of-way and the underground route that was
12 somewhere else, that they might make the wrong
13 decision and choose the route along the
14 right-of-way?

15 THE WITNESS (Mailman): I did not.
16 That was not the subject of the meeting. It never
17 came up.

18 MR. FITZGERALD: Ms. DeLuca, is it the
19 case that First Selectman Tesei, together with
20 Senator Blumenthal and Greenwich legislators,
21 worked to convince the Department of
22 Transportation not to issue the license that
23 Eversource required to install overhead
24 transmission structures in the Metro-North
25 right-of-way?

1 THE WITNESS (DeLuca): No.

2 MR. FITZGERALD: So press reports to
3 that effect were wrong?

4 THE WITNESS (DeLuca): Yes, I suppose.
5 I'm not familiar with the newspaper article that
6 you're referring to, but I know --

7 MR. FITZGERALD: Okay. That's all I
8 have.

9 THE WITNESS (Mailman): I was hoping
10 you'd ask me what was the subject of the meeting.

11 THE CHAIRMAN: Okay. That's the end of
12 your cross?

13 MR. FITZGERALD: That's the end.

14 THE CHAIRMAN: Okay. Now we'll go to
15 cross-examination by the Council starting with
16 Mr. Mercier, staff.

17 I guess I won't describe the competence
18 of the staff, or the Council, since that's
19 apparently been already cited. So we won't
20 comment on Mr. Mailman's email.

21 Go ahead.

22 MR. MERCIER: Thank you.

23 Mr. Mailman, regarding your prefile
24 testimony on page 23 that was the July 18th
25 submittal, Attorney Fitzgerald went over some of

1 these bulleted items for a potential distribution
2 solution. Do you have a cost estimate for each of
3 these bulleted items you have presented in this
4 prefile testimony?

5 THE WITNESS (Mailman): I do not,
6 however, I do for some.

7 MR. MERCIER: Okay. Whatever ones you
8 have, please provide them.

9 THE WITNESS (Mailman): Okay. The
10 utility actually testified, or the utility gave
11 documentation of costs --

12 MR. MERCIER: Let me step back. Just
13 start with number one if you have a cost estimate
14 for that, the first bullet.

15 THE WITNESS (Mailman): We know what
16 that is. I mean, there's no reason to dispute.
17 That's part of the docket. I'll take their
18 numbers as correct.

19 MR. MERCIER: Okay. How about number
20 two?

21 THE WITNESS (Mailman): Yes. Yes, I
22 do.

23 MR. MERCIER: Okay.

24 THE WITNESS (Mailman): Okay. The
25 utility -- just give me one second. I'll give you

1 the exact citation. The utility talked about a
2 scheme, I forget exactly what it was, but it was
3 in response to an interrogatory. And the question
4 was regarding distribution solutions. And it
5 talked about going ahead and reconductoring five
6 feeders, 11R51, 52, 58, and 56, and going ahead
7 and making adjustments to the ring bus in the
8 existing Prospect Substation. That is on the
9 record. Forgive me. At the moment, I will find
10 it for you.

11 MR. MERCIER: I can look it up myself.

12 THE WITNESS (Mailman): What they
13 offered was they offered a \$33 to \$37 million
14 estimate for that work. And if you think about
15 it, with the building of a new substation, there
16 would be no need to go ahead and reconfigure the
17 ring bus in Prospect. So in reality, the \$33 to
18 \$37 million today two years later would be a very,
19 I think, realistic number. So if you took that
20 with the number that's being held out there for a
21 new substation on Railroad Avenue, I would think
22 the combines of those two would represent the cost
23 of the distribution solution.

24 MR. MERCIER: And how about your item
25 number 3?

1 THE WITNESS (Mailman): Is that Tomac?

2 MR. MERCIER: No, that was the express
3 feeders. Are you just looping that in with the
4 previous cost?

5 THE WITNESS (Mailman): Yes.

6 MR. MERCIER: Thank you.

7 THE WITNESS (Mailman): I mean, the
8 other solution would be in lieu of the express
9 feeders, if you wanted to go ahead and circuit
10 breaker out just the tap so that the two are not
11 codependent, I think you can do that at less than
12 a million dollars a tap, probably in the vicinity
13 of \$600,000 a tap.

14 MR. MERCIER: And how about number 4,
15 the Tomac Substation rebuild. I guess item C
16 would no longer be valid since there was a
17 correction to the way it was already laid out?

18 THE WITNESS (Mailman): I mean, going
19 back to the testimony of three terminals and four
20 terminals, all right, I believe if you spent \$3
21 million, you could add the necessary circuit
22 breakers and go ahead and create at Tomac that's
23 fed uniformly by 1750 and 1740 under all
24 conditions, but for the loss of both of those
25 feeders in concert.

1 MR. MERCIER: Now, bullet 6 which
2 examined shifting load to underutilized North
3 Greenwich Substation. Is that actually -- it says
4 "examined," so you're not really proposing this as
5 part of your solution, just take a look at it.
6 What really are you trying to get at?

7 THE WITNESS (Mailman): There are three
8 transformers at North Greenwich. All right. We
9 know from the data that was given to us in the
10 past the capacity of those transformers, and we
11 know what the load is. One of the major problems
12 is that the proximity of North Greenwich
13 Substation to Prospect is not close. So there may
14 be voltage loss issues that would have to be
15 addressed. But it seems to me if the issue that
16 we're toying with here, not toying with as in
17 inconsequential, but the issues that are at hand
18 here are the fact that you need to feed a load at
19 Prospect. One solution is develop more ampacity
20 in the cables to do it. But the other solution is
21 if you have less load at Prospect via conservation
22 load shifting or the rest, you might be able to
23 affect that.

24 What I'm trying to propose here,
25 Mr. Mercier, is if you're a physician and someone

1 comes to you with an infected leg, your first
2 impetus should not be cut off the person's leg.
3 It should be let's go ahead, and let's see what we
4 can do, let's try every remedy. I mean, I firmly
5 believe, without getting into technical detail,
6 there are many, many equations that go into to
7 going ahead and rating feeders for feeder
8 capacity, one of which is load factor. All right.
9 And I believe every possible iteration should be
10 undertaken before the ratepayers of the State of
11 Connecticut, of which I'm one, should be asked to
12 spend \$100 million.

13 MR. MERCIER: Just going back to the
14 bullet, number 6, examine shifting load. You're
15 not really proposing anything, just look at it.
16 Is that correct?

17 THE WITNESS (Mailman): Yeah, in other
18 words, see if the -- there are many situations.
19 We know this from documentation given to us with
20 the 13-kV circuits that come out of North
21 Greenwich are backed up against the 13-kV circuits
22 that are coming out of Prospect. And maybe some
23 load could be shifted from Prospect to North
24 Greenwich through the 13-kV system. I just think
25 it's worth a shot.

1 MR. MERCIER: Okay.

2 THE WITNESS (Mailman): Maybe it's been
3 done already, but that information was never given
4 to us. And when we asked that question -- there
5 were numerous questions in asked in our
6 negotiations, and they kept saying, we did it, we
7 did it.

8 MR. MERCIER: I just want to know what
9 you meant by this.

10 THE WITNESS (Mailman): Okay. That's
11 what I meant. I meant that it should be just
12 another area of exploration.

13 MR. MERCIER: There was earlier
14 testimony today about storm hardening. We'll just
15 start with that. I didn't really see any of that
16 in your proposed solution here on page 23 and 24,
17 although you did spend some time cross-examining
18 the applicant regarding storm hardening, but I
19 don't really see anything in here as a proposed
20 solution. Is there any reason why it was
21 excluded?

22 THE WITNESS (Mailman): We had way more
23 information out of the last hearing. I was
24 shocked to find out that the outage rate for the
25 Town of Greenwich was as high as it was. And I

1 was also shocked that more than 10 percent of the
2 100 worst circuits are in Greenwich. And frankly,
3 once we had that information in hand, that gave
4 rise to the storm hardening question.

5 MR. MERCIER: I mean, you did mention
6 earlier in your prefile that there should be some
7 storm hardening, but it wasn't part of your actual
8 summary of solutions, so I'm just curious why it
9 was left out?

10 THE WITNESS (Mailman): Because I
11 believe it's just so terribly obvious, and it's,
12 again, not tied in to what's going before the
13 Council.

14 MR. MERCIER: So your proposed solution
15 would not really address storm hardening?

16 THE WITNESS (Mailman): No, it would in
17 the sense that, if nothing else, my proposed
18 solution, I'd like to think, would be dramatically
19 cheaper, ergo there would be more money available
20 for storm hardening.

21 MR. MERCIER: That's fair.

22 Give me a second. The other item we
23 talked about was the double circuit transmission
24 line from Stamford feeding Cos Cob. So I assume
25 your solution here would not remedy that situation

1 also since you questioned the applicant about
2 that, so obviously it can't?

3 THE WITNESS (Mailman): Without
4 expending huge sums of money. I mean, I don't see
5 how that gets rectified, but I just think,
6 frankly, it's a very, very -- I've never seen a
7 similar solution -- a situation with as large a
8 load as this.

9 MR. MERCIER: Understood. Thank you.

10 THE WITNESS (Mailman): Thank you.

11 MR. MERCIER: Now, there was a little
12 discussion earlier regarding construction of Bruce
13 Park roads, and I have the maps here that were
14 handed out by Eversource in the field review, the
15 large scale, so I can actually read them. They're
16 also in Volume 2. I'm going to refer to a couple
17 of maps, if you have this information. Actually,
18 I'm looking at sheet 4. All I really want to know
19 is what are the actual roads that are considered
20 part of Bruce Park. Okay. Because there's some
21 roads that have residential use on one side, the
22 park on the other. So I'd like to know what
23 exactly are the Bruce Park roads.

24 MR. BALL: Would it be okay if Ms.
25 Siebert --

1 MR. MERCIER: Sure. Absolutely.

2 MS. BALL: Thank you.

3 THE WITNESS (Siebert): Let's see if we
4 can get on the same maps for a moment.

5 MR. MERCIER: Just tell me what map you
6 have. We can start with Indian Field Road, the
7 east side of the area of the park.

8 THE WITNESS (Siebert): So we enter the
9 park -- and Bruce will help me as well here. We
10 enter the park. When we come down Indian Field
11 Road, we enter the park on Bruce Park Drive.

12 MR. MERCIER: Okay. Hold on for a
13 second.

14 THE WITNESS (Siebert): Sorry. Map 4?

15 MR. MERCIER: I just have a question on
16 that, because there's residential use on the north
17 side of that, of that street.

18 THE WITNESS (Siebert): Right.

19 MR. MERCIER: Where is the actual park?

20 THE WITNESS (Siebert): The park is --
21 I wish I could point. It starts at the
22 intersection of Indian Field and Bruce Park.

23 MR. MERCIER: What the property to the
24 south of Bruce Park Drive, is that a town
25 property? It seems to be some kind of garage.

1 There's piles of debris.

2 THE WITNESS (Siebert): That's the
3 park. And then when you're looking much further
4 south --

5 MR. MERCIER: Yeah, directly south
6 where it says Bruce Park Drive -- south of Bruce
7 Park Drive and west of Indian Field there's a
8 large parcel.

9 THE WITNESS (Siebert): Okay. There is
10 a facility there that is a parks maintenance
11 facility.

12 MR. MERCIER: So that's considered part
13 of Bruce Park?

14 THE WITNESS (Siebert): Correct, that's
15 in the park.

16 MR. MERCIER: Thank you. So the north
17 side of the street is not Bruce Park, it's
18 residential where Indian Field and Bruce Park
19 meet?

20 THE WITNESS (Siebert): Yes, that's
21 residential. We're looking at map 4. And we're
22 looking on Bruce Park Drive, and we see houses on
23 the north side, correct, in this area as well, and
24 coming around the curve, but the area south of
25 Bruce Park Drive. Woods Road is in the park.

1 MR. MERCIER: I understood that. So,
2 again, Bruce Park Drive where it abuts the
3 residential dwellings is considered part of the
4 park?

5 THE WITNESS (Spaman): Bruce Park Drive
6 is considered --

7 MR. MERCIER: Bruce Park itself.

8 THE WITNESS (Spaman): Yes, is
9 considered part of the park. One side of it is
10 private. It's obviously a public road.

11 MR. MERCIER: Again, I'll go to sheet 5
12 where it's near Davis Avenue, just south of
13 there's some kind of pond in the park. Again,
14 there's Indian Crossing and Mead Point Drive.
15 Again, there's a lot of residential to the south
16 of Davis Drive?

17 THE WITNESS (Siebert): South of Davis
18 Avenue.

19 MR. MERCIER: Excuse me. So is that
20 part of Davis Avenue considered within the park?

21 THE WITNESS (Spaman): Yes. Again,
22 it's a public road also.

23 MR. MERCIER: And just flipping over to
24 sheet 6 where at some point the park ends. I just
25 want to be clear where you're calling the park

1 perimeter.

2 THE WITNESS (Spaman): The park
3 continues. It gets very narrow right there at
4 Indian Harbor Drive where the line is. It gets
5 rather narrow there. And that goes back to when
6 the Department of Transportation took 40 acres out
7 of the park for I-95. So there was more park land
8 to the north. But that is still considered a
9 small isthmus of parkland there, and it goes all
10 the way down to Steamboat Road.

11 MR. MERCIER: So you're considering
12 part of the park Steamboat Road?

13 THE WITNESS (Siebert): The area to the
14 east with the Bruce Museum on it.

15 THE WITNESS (Spaman): The Bruce Museum
16 is actually on park land.

17 THE WITNESS (Siebert): So if you
18 follow Museum Drive around.

19 MR. MERCIER: There's Steamboat. Okay.
20 Thank you.

21 So just looking at this route, there's
22 three potential splice vault areas within the
23 park. So I'm assuming that since there's three
24 proposed splice vaults within the park area on the
25 road, just to be clear, the town is not opposed to

1 the splice vaults within the park roads if they
2 are necessary. Is that correct?

3 THE WITNESS (Mailman): That's correct.

4 THE WITNESS (Siebert): That's correct.

5 MR. MERCIER: Thank you. But the town
6 is opposed to putting them on the grass, is that
7 correct, adjacent to the road, either north or
8 south?

9 THE WITNESS (Mailman): Yes.

10 MR. MERCIER: And why is that?

11 THE WITNESS (Mailman): The trees are
12 there for one. You're saying in the park or
13 outside the park?

14 MR. MERCIER: Within a lawn area in the
15 park.

16 THE WITNESS (Mailman): I think that
17 would be a very unwise choice.

18 MR. MERCIER: Why is that?

19 THE WITNESS (Mailman): The amount of
20 work that's needed. The hole has to be so large.
21 If you think about this --

22 MR. MERCIER: Could the area be
23 restored once they're done?

24 THE WITNESS (Mailman): Not really.

25 MR. MERCIER: Why?

1 THE WITNESS (Mailman): You have the
2 manhole cover, you have the depth, the walls of
3 the manhole, which prevent tree roots from going
4 in and growing.

5 MR. MERCIER: I'm talking just about
6 the grassy area. I'm not talking about trees.

7 THE WITNESS (Mailman): In all truth,
8 knowing the park as well as I do, Mr. Mercier, I
9 cannot envision one, but I'm sure if there was
10 one, you know, I'm sure a collective effort. But
11 I cannot think in all truth, the park -- and the
12 town can address it -- is very heavily treed.

13 MR. MERCIER: I understand that. I've
14 been through the park. I looked at these aerials.
15 I can see where trees are.

16 THE WITNESS (Mailman): Right.

17 THE CHAIRMAN: Mr. Silvestri has a
18 follow-up.

19 MR. SILVESTRI: Thank you,
20 Mr. Chairman.

21 Mr. Mailman, if I heard correctly and
22 took notes correctly before, I believe it was your
23 opinion that none of the splice vaults are needed
24 through the park. Did I hear that correctly?

25 THE WITNESS (Mailman): I believe you

1 quite possibly could make it without putting
2 vaults in the park, yes. Based on the fact that
3 the utility was going to pull this cable 2,500
4 feet into a substation from their transition
5 structure in the hybrid scheme, I believe they're
6 being very conservative with their cable
7 allocation and their cable distances for this
8 particular route, yes.

9 MR. SILVESTRI: So, again, looking at
10 Woods Road, Davis Avenue, Museum Drive, in your
11 opinion, they probably wouldn't need splice
12 vaults?

13 THE WITNESS (Mailman): It depends
14 where it started. We had always thought that the
15 first manhole would be to the immediate west of
16 Indian Field Road. Then you would be able to
17 traverse the entire park past Orchard Place and
18 come out with a second vault there which,
19 although, per the earlier testimony, is literally
20 in the confines of the park, it's not in the
21 confines that most residents perceive as the park.
22 It's not where the croquet field is. It's not
23 where the tidal flats are. And then you'd be
24 fine. Then you'd be able to go past Bruce Museum
25 out to that parking area. You may have seen it.

1 It's across from the hotel. So, in essence,
2 between the commuter parking lot and Indian Field
3 Road, we believe you should be able to do that
4 with two vaults, at least I do.

5 MR. SILVESTRI: Thank you.

6 THE CHAIRMAN: Dr. Klemens also has a
7 follow-up.

8 DR. KLEMENS: Right. I actually had
9 something, Mr. Mailman, that I wrote earlier down
10 when we were discussing Bruce Park, and you said,
11 and I quote, that Bruce Park is an environmentally
12 pristine area. That's a direct quote of what you
13 said today. And I would like to know how you base
14 that assessment that it's environmentally
15 pristine. Commissioner Siebert called it a valued
16 resource, and I certainly agree with that. But I
17 would like to know how you, sir, can determine
18 that this is an environmentally pristine area.

19 THE WITNESS (Mailman): For one, other
20 than motor vehicles, and whatever fuel oil tanks
21 people have in their houses, there's no source of
22 petroleum distillate. So to me that's what I
23 consider an environmentally pristine, and it's
24 what we're used to in the utility world.

25 DR. KLEMENS: I see but --

1 THE WITNESS (Mailman): I understand
2 you're an environmentalist. My apologies if my
3 nomenclature is incorrect.

4 DR. KLEMENS: I don't need an apology.
5 I want answers, and I want answers from you on
6 this. Okay? Do you consider an area that has
7 lawn down to the edge of the water, manicured
8 lawn, environmentally pristine?

9 THE WITNESS (Mailman): Not if somebody
10 uses all kinds of chemical fertilizers and all
11 that can leach their way into the sound.

12 DR. KLEMENS: Do you consider an area
13 that's mowed in arboretum like fashion with ball
14 fields environmentally pristine?

15 THE WITNESS (Mailman): Provided there
16 are no utilities running under the ball field yes.

17 MR. KLEMENS: So environmentally
18 pristine in your viewpoint really has to do with
19 the fact that there's no activity or no vaults,
20 nothing to do with the ecology of the area, the
21 condition of the wetlands, the fragmentation of
22 the area, the tree composition, and the
23 biodiversity, that has nothing to do with --

24 THE WITNESS (Mailman): That has
25 everything to do with it, yes.

1 MR. KLEMENS: Well, then how do you
2 call Bruce Park environmentally pristine?

3 THE WITNESS (Mailman): There are trees
4 that have not been compromised, they're left to
5 grow in their natural state. They've been trimmed
6 only where there are dead branches. It's not like
7 trees that are growing in sidewalks where we're
8 used to where half the root ball under the drip
9 line is nonexistent. When I say environmentally
10 pristine, to me as an environmental land, and
11 that's how I perceive it.

12 MR. KLEMENS: But I thought you were an
13 expert that knew more than anyone sitting here on
14 the Council?

15 THE WITNESS (Mailman): I don't think I
16 ever said that. I said from an electrical
17 standpoint, Mr. Klemens. And if I recall, I said
18 several times, I commended the Council
19 individually and collectively on their efforts,
20 considering how hampered they are by the budget in
21 the State of Connecticut. So I really don't have
22 the opinion that I don't like you.

23 DR. KLEMENS: I don't really care
24 whether you like me or not. This is not a
25 popularity contest. What I want to find out is,

1 we're talking about -- Mr. Mercier asked about
2 digging up, putting splice vaults in what's
3 effectively a manicured park lawn. And I would
4 like to know what the real environmental impacts
5 of that are. Maybe Ms. Savageau could respond to
6 that. Maybe the gentleman -- I don't know --

7 THE WITNESS (Spaman): Spaman.

8 DR. KLEMENS: Because I think we have
9 to have a reality check here what this park is and
10 what this park isn't, because I think you need to
11 understand can you do things in this park, and can
12 they, as Mr. Mercier has said, be restored to what
13 it was before. And I think we heard earlier that
14 some of it has been done on another project. So
15 I'd like to understand that, because he's asking
16 questions that talk to basically restoring an area
17 in a manicured, mature, very beautiful urban park.
18 It is certainly a gem. I don't dispute that. But
19 I think it's not like you're in a pristine, in my
20 opinion, I can't testify, forest, a pristine
21 natural area. It is a beautiful park.

22 So could someone address that because I
23 think that would help Mr. Mercier?

24 THE WITNESS (Spaman): Yes. This is
25 what I consider a developed formal park in the

1 Town of Greenwich. This was planned for. It was
2 developed as a park to be an aesthetic, you know,
3 like an Olmsted Park might be, a Central Park, and
4 places like that. So it is what we call -- we
5 have four formal parks in Greenwich, and this is
6 one of them, and we consider one of our gems. And
7 it is being developed as an arboretum at this
8 time. So that digging a large hole in a lawn area
9 can be repaired, but the trees are very valuable,
10 and every effort should be made not to disturb the
11 trees on the natural landscape.

12 DR. KLEMENS: As you say, "the natural
13 landscape," do you mean the naturally human
14 created landscape, ala Olmsted?

15 THE WITNESS (Spaman): Yes, a developed
16 landscape, a naturalistic landscape, yes.

17 DR. KLEMENS: I wanted to get that in
18 the record. And I'll turn it back to Mr. Mercier
19 because I think it's important that we understand
20 what Bruce Park is, and what Bruce Park isn't,
21 because I think that's what I was trying to get
22 into the record.

23 Thank you, Mr. Chairman.

24 MR. MERCIER: Thank you.

25 THE WITNESS (Savageau): I just wanted

1 to add one thing. And I agree with Mr. Klemens.
2 From an environmental perspective, we would never
3 classify this as a pristine park. We did not do
4 that in Docket 461 where Mr. Spaman and myself did
5 the environmental review of this. What I can say
6 is that a lot of that lower lawn area is looked at
7 as a tidal marsh migration area. So it was one of
8 the areas where, you know, Bruce is looking at the
9 trees, what we're doing now with an arboretum.
10 From a long-term environmental perspective, we are
11 really looking at, you know, the roads are going
12 to be what the roads are, and we'll see what's
13 going to happen to them as we have sea level rise,
14 but definitely those lawn areas, I don't want to
15 just dismiss them, because those are going to be
16 marsh migration areas, and we're going to be
17 seeing that happening within the park.

18 THE CHAIRMAN: Mr. Mercier.

19 MR. MERCIER: Thank you. Regarding the
20 trees, impact to tree vegetation along the
21 roadway, has there been any assessment between the
22 town and Eversource out in the field during this
23 proceeding just to go over how many branches
24 you're going to cut off certain trees, or trees
25 that need to be removed, and what were the results

1 of that survey? Is there a consensus that
2 everything is going to be fine?

3 THE WITNESS (Spaman): We had a
4 walk-through. And I'm the tree warden for the
5 town and superintendent of parks. And we did a
6 walk-through, and we kind of concurred -- or I
7 concurred that digging in the road, the root
8 systems generally don't go out into the sterile
9 base of a well-built, well-engineered road. So
10 that going down through the center of the road
11 will probably do the least amount of damage to
12 trees on the roadside.

13 There was an issue of some lower
14 hanging branches. I have a specification for that
15 where the branches need to be removed at least the
16 14 feet overhead height, because that's actually
17 just, you know, trucks are 13 foot, 6, so we need
18 to get them out of the travel way anyway. So that
19 anything in that zone we would remove, or we would
20 have the contractor remove them. And we do have a
21 whole specification for how we like to do work,
22 you know, construction work near trees, and we've
23 had it for 15 years now. And we plan to stick
24 with those specifications.

25 MR. MERCIER: Were any trees identified

1 to be removed?

2 THE WITNESS (Spaman): No.

3 MR. MERCIER: Okay. Thank you.

4 THE WITNESS (Siebert): As a matter of
5 fact, we also, when we did our walk-through as a
6 group in July, noticed that -- or we thought we
7 understood that when we were looking, for example,
8 on Woods Road, if a vault had to go there, if all
9 the calculations were determined it would go there
10 and the need for the project was determined, bla,
11 bla, bla, that came to fruition, that actually the
12 roadway was the better place for the vaults,
13 again, having a lot to do with the fact that the
14 trees are alongside the roadway there, so you want
15 to be away from their roots, so you want to go
16 under the road.

17 THE WITNESS (Mailman): Ms. Siebert, I
18 don't want to cut you off. But as one who has to
19 go ahead and splice in these vaults, it's
20 preferable to go ahead and have a vault in an
21 asphalted area than it is to have a vault in dirt.
22 You have to go ahead to maintain the integrity of
23 the joint, you have to go ahead, you have to
24 prevent dirt from migrating in there. The last
25 thing you want is people walking around on dirt as

1 opposed to pavement. In many cases you have to
2 build shelters over this. It works out better for
3 you, the installer, to have the manhole.

4 By the way, I owe you a citation. I
5 promised I'd give it to you. I have. And I don't
6 want to cut you off to your next question but --

7 MR. MERCIER: Go ahead.

8 THE WITNESS (Mailman): Okay. Late
9 Exhibit Filed HD-01 from 10/06/2015, Q-LF-001,
10 item 2. This was in response. The question was,
11 "As discussed at the 10/6 hearing, provide
12 analysis of available distribution system
13 alternatives to address the need for the project
14 such as the alternative of expanding Cos Cob
15 Substation with potential property acquisition to
16 expand substation.

17 "Side item. Two, reducing loading and
18 increase reliability of the five 27.6-kV feeders
19 that supply the network and Prospect Substation
20 and a 27.6-kV feeder from Cos Cob Substation and
21 Prospect Substation, and replace the Prospect
22 Substation 27.6-kV ring bus with switchgear,
23 estimated cost \$33 to \$37 million."

24 MR. MERCIER: Thank you. Back to the
25 park issues. Is the town opposed to the cofferdam

1 installation?

2 THE WITNESS (Siebert): No, we are not
3 opposed to a cofferdam.

4 MR. MERCIER: Just out of curiosity --

5 THE WITNESS (Mailman): We'll stipulate
6 our approval of the cofferdam. There's two ways
7 to build it. One involves having large cranes on
8 the shore. Another one involved floating barges.
9 The utility has testified their intent is to use a
10 floating barge system, in which case we have no
11 opposition. If the intent is to use major cranes
12 on the shore, yes, I think we'd have to look very
13 closely before we could acquiesce to that.

14 THE WITNESS (Siebert): That's true.

15 MR. MERCIER: Just out of curiosity,
16 and I'm looking at map sheet 5, there is that
17 little utility building along Indian Harbor. It's
18 on the west side. Is that something associated
19 with the sewer department?

20 THE WITNESS (Siebert): I believe
21 you're looking at our Bruce Park pump station.

22 MR. MERCIER: Is that where the new
23 force main has to go to that you're proposing?

24 THE WITNESS (Siebert): No.

25 MR. MERCIER: Does the new force main

1 have to go across Indian Harbor?

2 THE WITNESS (Siebert): The new force
3 main has to go across Indian Harbor. It is north
4 of that.

5 MR. MERCIER: How would that be done?

6 THE WITNESS (Siebert): The new force
7 main is proposed to go on an aerial utility bridge
8 across the water body.

9 MR. MERCIER: Is that near the railroad
10 area?

11 THE WITNESS (Siebert): Yes.

12 MR. MERCIER: Thank you.

13 Just to be clear, now you basically
14 said that the park extension of Steamboat Road all
15 the way to Indian Harbor, the park roads that are
16 affected, that is, so you're requesting Eversource
17 repave all those roads curb to curb?

18 THE WITNESS (Siebert): Yes. Well,
19 that was what was proposed. Yes, Bruce told me
20 that is what we would propose. We run into this
21 frequently with utility trenching. We usually
22 look at the condition of the road, when we most
23 recently paved it, we look at the disruption of
24 the road. When you think about what needs to be
25 done to install this infrastructure, it's highly

1 likely we would need curb to curb repaving.

2 THE WITNESS (Mailman): Just one second
3 there. As someone who does this work, I don't bid
4 a job even if the requirement is not to go curb to
5 curb, once I'm close to that middle striped lane,
6 I'm presuming that I have to pave curb to curb
7 because it's very hard not to wreck the other
8 lane.

9 THE WITNESS (Siebert): We have a
10 standing policy that when our roads have been
11 paved within the last five years or so, that we
12 require any utilities that do work in the road to
13 do curb to curb repaving. So it's not something
14 that we don't ask other utilities to do.

15 MR. MERCIER: Do you know how old these
16 roads are, the affected portions?

17 THE WITNESS (Siebert): We think these
18 have been paved within the last five years. We'd
19 have to make double extra sure, but the roads are
20 in very good condition in that area along that
21 length.

22 MR. MERCIER: Regarding the 290
23 Railroad Avenue Substation location, the open air
24 substation, the Pet Pantry site, the proposed
25 location there, obviously the town brought up some

1 concerns regarding potential safety due to an
2 abutting Air Gas facility. Now, are there any
3 codes, or standards, or any type of regulations
4 that prevents Eversource from locating a
5 substation next to a facility such as that?

6 THE WITNESS (Mailman): In preparation,
7 I was certain someone was going to ask that
8 question. And I called up the NFPA, National Fire
9 Prevention Association, and I asked them. I said,
10 Do you have any specific prohibition? And I
11 understand I'm under oath here. I'll quote
12 verbatim what they said. "Who would ever think of
13 doing that?"

14 MR. MERCIER: So are there any codes,
15 written codes?

16 THE WITNESS (Mailman): None that I
17 know. I also don't know of any other situation.

18 MR. MERCIER: Thank you. I don't have
19 any other questions.

20 THE CHAIRMAN: Okay. Question from the
21 Council, Mr. Levesque.

22 MR. LEVESQUE: A question for the
23 directors of public works. At David Avenue Bridge
24 that crosses the Indian Harbor inlet, does that
25 have a pedestrian walkway on it?

1 THE WITNESS (Michel): There's
2 currently a sidewalk on both sides of the road
3 there.

4 MR. LEVESQUE: Thank you. That's all
5 the questions I have.

6 THE CHAIRMAN: Mr. Harder.

7 MR. HARDER: Just one question for Ms.
8 Siebert also. You had mentioned a minute ago that
9 you have a standing policy of, if the road has
10 been paved within five years, if there's any work
11 done on the road that the repaving be curb to
12 curb. Why is that?

13 THE WITNESS (Siebert): Why is that?
14 That's because when you've gone to the expense of
15 paving the roads, which you do to extend their
16 service life, when you get utility cuts and
17 trenches through a roadway surface, it shortens
18 the life of that road so that you have to go back
19 in there earlier than you would anticipate to do
20 your roadway maintenance. So it's shortening up
21 and lessening that investment that we've just made
22 in extending the life of that road.

23 THE WITNESS (Mailman): If I may, we
24 did an installation in Long Island and we did not
25 bid it curb to curb. We adhered to the municipal

1 requirements, the cutbacks, the milling, et
2 cetera. And when we put the patch down through
3 the center of the road, we created a seam, a
4 natural seam between the existing pavement and the
5 new payment. Some child road his bicycle and hit
6 the seam. It cost my insurance company \$10
7 million. It's just not a safe situation to go
8 ahead, if you can avoid it, to have a patch, a
9 ribbon down the middle of the road. You cannot do
10 that in New York City.

11 THE WITNESS (Siebert): What I can also
12 add to that is from experience on a large sewer
13 installation where we were installing new sewers.
14 So we were inflicting this requirement upon
15 ourselves, because we had a trench that we had
16 installed a new sewer line in through various
17 neighborhoods in a portion of Greenwich. We found
18 that the cost of doing a mill and overlay curb to
19 curb was actually less expensive for us than
20 cutting out the trench, squaring all the sides,
21 doing all the steps that are necessary to try to
22 come up with a utility trench repair that would be
23 ideally as save and give you as much longevity as
24 possible. We found that in that case it was cost
25 effective for us to mill and overlay. So that's

1 something that we ourselves have had to do on
2 projects. So those are all reasons why we have
3 that requirement.

4 MR. HARDER: Do you think that's
5 generally the case, comparing that situation to
6 this situation where you're running any utility,
7 whether it's sewer, electrical, or whatever, in
8 the existing roadway comparing curb to curb to
9 just paving where the cut was made? You can
10 generalize.

11 THE WITNESS (Siebert): Again, when you
12 look at any kind of project, you always want to
13 look at the size of the trench, the condition of
14 the road. You look at all those factors to
15 determine how you should restore the road. When
16 you have roads that are in very good condition,
17 you just spent town money on to mill and overlay
18 to put them into a very high pavement condition
19 index rating, which is how we rate their longevity
20 and their maintenance needs, and so forth, you
21 know, whenever you get a utility trench on there,
22 now you can get water in there. No matter how
23 good it is, you can get water in there, you can
24 get freezing and thawing and cracking of pavement.

25 Again, it can shorten the longevity of

1 your road. So that's why we look at that curb to
2 curb restoration when we have trenching,
3 particularly longitudinal trenching down long
4 stretches of road. The safety and liability
5 issues are certainly a concern. I think every
6 town faces those sorts of issues from potholes to
7 trench repairs. Unfortunately that's a reality as
8 well.

9 THE CHAIRMAN: It make a lot of sense.

10 MR. HARDER: Thank you.

11 THE CHAIRMAN: Mr. Silvestri.

12 MR. SILVESTRI: Thank you, Mr.

13 Chairman.

14 Mr. Mailman, one follow-up question on
15 the splice vaults. If one were to be eliminated,
16 so you'd have two of them, if you will, before and
17 after the park, what's your estimate on cost
18 savings by eliminating a vault?

19 THE WITNESS (Mailman): About \$80,000
20 per vault. There are two vaults for every vault
21 location because each circuit requires its own
22 manhole. Depending on where it is, if there's
23 rock, that number can easily escalate to 120,000.

24 MR. SILVESTRI: Thank you.

25 THE WITNESS (Mailman): And it's not

1 only the manhole cost. When you eliminate a
2 manhole, you eliminate cable poles. You should
3 have a pole to each one, you have to splice in
4 each one. So the savings are more than just the
5 civil construction savings. There's an electrical
6 savings.

7 MR. SILVESTRI: So like --

8 THE WITNESS (Mailman): Yes, it's
9 substantial.

10 MR. SILVESTRI: Thank you. Going back
11 to the topic of solar installations in town. If I
12 heard correctly and read correctly, there's about
13 41 new installations that came about through
14 Solarize Connecticut in 2013/2014?

15 THE WITNESS (Savageau): Yes, that's
16 correct.

17 MR. SILVESTRI: Were they new houses
18 that were being built, or were they existing
19 residences that were being upgraded, if you will?

20 THE WITNESS (Savageau): No, this is
21 old residences that were being upgraded. The
22 Connecticut Green Bank, which had a different name
23 back at the time -- I can't think of it now -- but
24 has a program in Connecticut called Solarize
25 Connecticut. So a municipality has to apply to be

1 in that. Once you apply to be in that, you work
2 with the Green Bank to identify an installer. An
3 RFP goes out basically from the Green Bank for the
4 installers. And then the residents are able to
5 get a really good discount because basically the
6 installer is saying like, hey, we're going to do a
7 lot of houses very quickly.

8 So we did a good job. I would have
9 liked to have a little bit more. We did have a
10 little bit of a problem with our installer, so we
11 weren't as successful as a few other towns on
12 that. But we did get 41, which doubled the amount
13 of solar installation in Greenwich in terms of
14 what we had on roofs at that time. We know that
15 we've got a lot more, like I said, that have come
16 on board since that time because people are
17 saying, you know, look what this has been able to
18 do. There's still a lot of people think like
19 northeast you can't do solar, and you can do much
20 more solar than they think.

21 MR. SILVESTRI: I have solar.

22 THE WITNESS (Savageau): I do too.
23 Just quickly, the personal anecdote is, I
24 convinced my husband who I thought was going to be
25 all on board with this as an environmentalist.

1 And Michael, Mr. Klemens knows who I'm talking
2 about. And he was like, "Are you sure?" Because
3 it's like, okay, so we did it, and we don't have
4 an electric bill anymore.

5 MR. SILVESTRI: You mentioned again
6 2013/2014. What's happened with solar since 2014?

7 THE WITNESS (Savageau): So we keep
8 seeing more and more homes being more energy
9 efficient and putting solar on where it's
10 appropriate. So we've actually -- and there are
11 statistics on the Green Bank site out of the Clean
12 Energy Community Program that talk about
13 alternative installations, whether it be solar, or
14 you could also do like the geothermal or something
15 like that, but a lot of it is solar. And
16 Greenwich has got a very good record, and has had
17 a couple of very good years with alternative
18 energy sources being installed. I can provide
19 those to you if you're interested in those
20 numbers.

21 MR. SILVESTRI: But no estimate on
22 total say kilowatts or megawatts from all the
23 installation?

24 THE WITNESS (Savageau): No, that's
25 what's on the Connecticut Green Bank site is the

1 amount of wattages has been put on. So I can
2 provide that to you.

3 THE CHAIRMAN: Can I just -- so I was
4 going to ask when and if it got to my turn, but we
5 may run out of time before that, this report, it
6 really would have helped to have a lot more
7 metrics. I mean, your building department must
8 know how many people have installed solar, so you
9 certainly could have come up with a much more
10 updated -- and there was, again, too much about
11 how many lightbulbs and how many solar and how
12 many flyers we've sent out and not -- and what you
13 plan to do, but it didn't give me a real sense of
14 how far you've come. And that I think is critical
15 because I think -- I think, and that will be a
16 question if I get to it, if you want to go that
17 route. I call it conservation energy efficiency.
18 You really have to show us that you have a track
19 record, and it's not just something because
20 Vermont has done it, or Hartford is doing it. So
21 really to make this a valuable piece of
22 information, you have to provide numbers so we
23 really, you know, it's not just you may do it, and
24 I assume everything voluntary, which I don't think
25 will get you very far.

1 THE WITNESS (Savageau): Well, I guess
2 my comment on that is that when you're looking at
3 distributed energy generation or solutions and
4 you're looking at energy efficiency, we're working
5 on the energy efficiency, but we really talk about
6 solar and those types of things, to look at a
7 grid, you know, towns are just starting to come on
8 board with this. As you know, there's RFPs out
9 there for microgrids, but there's also the project
10 I was talking about, the pilot project under 15-5.
11 And the reason that those are is that we only have
12 a certain number of towns that have really
13 embraced the grid.

14 So to suggest that it can't be done as
15 a solution because the town doesn't already have a
16 proven track record in terms of all of the
17 metrics, it's a matter of here we are, we've done
18 certain things, and we want to take the next step.
19 And I really think -- and this is one of the
20 things with information I provided to you from
21 Vermont is that Vermont requires that when any
22 energy company, utility company, is proposing the
23 type of capital improvement they're planning, that
24 there has to be a detailed analysis of some type
25 of distributed energy or alternative energy

1 program.

2 I don't think that's been done. I
3 think the Powerpoint that was provided to us
4 looked at a few things, but I really think it
5 needs to be a detailed analysis. And to be honest
6 with you, I'm not sure the people in the room --
7 it needs to be a third-party such as what I
8 provided you with Vermont Energy Corporation. So
9 the VEIC is the nonprofit in Vermont that is
10 providing that third-party review.

11 And I will plead guilty as charged. We
12 probably should have had Green Bank at the table
13 during some of these discussions with distributed
14 energy, because we needed to go further than that.
15 We now are having those discussions with Green
16 Bank, because I started saying like I don't like
17 these answers, I don't think it's right. You are
18 asking the town and all the towns have energy
19 boards that, you know, go to all the meetings with
20 the Green Bank, the Connecticut Energize Program,
21 or whatever. When we go to those meetings, we now
22 have towns looking at net zero. So Greenwich
23 said, Can we do that, can we look at net zero, can
24 we start looking at that.

25 So are we number one in terms of the

1 towns leading Connecticut? No, but we're also not
2 169. We have a good track record. I think one of
3 the things you're seeing, it's like look at what
4 has been accomplished right now without
5 necessarily having as structured a program as some
6 of the other municipalities, just look at those
7 years where we're already gaining. So now if we
8 put that into a more structured program with
9 Eversource as our partner, because although in
10 your letter you challenge the town to look at
11 microgrids, we can't do a grid without Eversource.
12 And we were looking at how do we target this. So
13 I'm putting that out there that I think that if --
14 that there are alternatives, that we need to look
15 at them, and the town is basically saying we're
16 willing to do this. We started the dialogue. We
17 don't think the dialogue has been as effective and
18 gone where it needs to go. And the next step
19 would be, you know, we really need to be in the
20 room with Eversource, the Green Bank, or
21 Connecticut DEEP, which is looking for pilot
22 projects under Public Act 15-5, which was never
23 brought up to us by Eversource in terms of where
24 we needed to go in the grid.

25 THE CHAIRMAN: I know I opened the

1 door, but we are -- just so everybody knows, if
2 anybody is still here at 6:30, you're going to
3 have to wait until tomorrow to get your car. At
4 6:30 the garage closes. So that's why I'm trying
5 to -- and I'm sorry, I opened the door, and I
6 appreciate everything you said, but we've got to
7 move on.

8 MR. SILVESTRI: I've got a little one,
9 and then one other question after that. Going
10 back when we were talking about the data, the
11 total megawatts, or whatever the number might be.
12 I was just trying to put that into perspective
13 with attachment D that listed the initial target
14 for solar was 30 megawatts. So that's what I was
15 looking at just to see how that compared.

16 Let me move on with my last question.
17 I'm not sure who it's directed to, so feel free
18 for the right person to jump in. The Federal
19 Railroad Administration is recommending a new rail
20 segment for high speed trains between New
21 Rochelle, New York and Greens Farm in Westport.
22 And I guess the objective appears to be to speed
23 up service between New York and Boston. And while
24 we've heard a lot about the southeastern part of
25 Connecticut, this to me, at least, just came to

1 light that they want to call this the Fairfield
2 County Bypass.

3 Has the town had any communication
4 regarding the recommendations from the Federal
5 Railroad Administration and/or have any specific
6 routing location or design elements that they
7 might be talking about?

8 THE WITNESS (Siebert): I don't think
9 we've seen anything that speaks to what you're
10 talking about in public works. I can only speak
11 for public works.

12 THE WITNESS (DeLuca): I've attended
13 many of the public hearing sessions on that. And
14 one thing I have learned is that the concept plans
15 that have been put forth are just that, they're
16 concepts. So it's very difficult to gauge whether
17 it's going to go right through the center of our
18 historic district as it appears on the map, as
19 it's shown now. And obviously that's a concern to
20 the community whether it's going to be elevated or
21 not, or whether it's going to be up as high as
22 North Castle, which is the northern part of
23 Greenwich. So it's very difficult to gauge
24 exactly where it's going to be. And they've noted
25 that this is going to be a subsequent phase down

1 the road where they're going to get into much more
2 detail about where the route may be.

3 It's also a 40-year project depending
4 on the amount of finances they can get. So that's
5 another thing to take into consideration as to the
6 viability of how this would work.

7 MR. SILVESTRI: I didn't know how long
8 it might be, where the money is coming from, et
9 cetera. My concern was if they're going to use
10 the existing rail bed, were they going to go
11 north, expand that north, and in which case what
12 happens to say Air Gas or the other buildings that
13 might be there, or if they expand it south, what
14 would be the impact on the different things in the
15 area as well.

16 THE WITNESS (DeLuca): The concept map
17 shows a lot of aerial lines through the town. So
18 some of it is over the existing railway. And like
19 I said, it kind of goes through the historic
20 district where the Bush-Holley House is also. So
21 that's just the concept though. And they've noted
22 that, you know, don't look too much into it
23 because they need to determine where the money is
24 coming from, where the route will actually be,
25 what it will really mean.

1 MR. SILVESTRI: Any time frame as to
2 when everybody would regroup to talk further?

3 THE WITNESS (DeLuca): We haven't met
4 with anyone from the actual project. This is
5 people that are the historic district people, and
6 people from the regional planning agency that have
7 put together these public meetings. So we
8 actually, the town, as far as I know, at least,
9 has not had an opportunity to have a sit-down with
10 the people that are designing this, but I've
11 understood that it's at a later phase where they
12 get into that.

13 This first phase was really all about
14 whether it would go through, you know, basically
15 southern portions of Connecticut or northern
16 portions. So they've now decided that it will go
17 through the southern area. So that was the big
18 first move was to decide that, and now the second
19 part is more of the details.

20 MR. SILVESTRI: Thank you.

21 Thank you, Mr. Chairman.

22 THE CHAIRMAN: Mr. Hannon.

23 MR. HANNON: Thank you, Mr. Chairman.

24 I do have a few. I was kind of surprised when I
25 read some of the recent information that came

1 about the number of solar projects that had been
2 completed in Greenwich. And the only reason I say
3 that is because there was an article out a couple
4 of weeks ago that referenced something like 3,200
5 completed solar projects in Fairfield County from
6 2011 to the present, and Greenwich wasn't even
7 listed on that article. So I'm kind of curious as
8 to how come Greenwich didn't tout some of these
9 solar projects that are being completed in the
10 town. I'm just curious on that.

11 THE WITNESS (Savageau): I guess it
12 would be depending on where the reporter is. What
13 I found is a kind of bisect, you know, the
14 Fairfield County in terms of reporting. So that's
15 the only thing I can talk about. I don't know if
16 it was an official report. If you look at the
17 official reports on alternative energy solutions
18 and you go to the Green Bank web site, and they're
19 the ones who have all of that data.

20 MR. HANNON: Well, they identified ten
21 other towns in the county as to what they had. So
22 I was just curious.

23 Going to this is the July 18, 2017
24 testimony that was provided by the town. I do
25 have a couple of questions. On page 10 there's a

1 question, "Does the town believe that Eversource's
2 transmission-based proposal will sufficiently
3 improve the reliability of the electrical system
4 within the Town of Greenwich?" And the answer is
5 "No." And my question is sort of is that based on
6 expert testimony, or is it just based on a
7 feeling? I'm just --

8 THE WITNESS (Mailman): Based on the
9 fact that, as we described this morning, there are
10 many facets of this project that are unaddressed,
11 specifically the fact that you can lose 1740 and
12 1750 and black out 99.5 percent of Greenwich. In
13 fact, until Tomac Substation is completely
14 renovated, you have no ability to back up what we
15 believe is a much higher customer count than what
16 the utility offered today based on the utility's
17 own documents.

18 We also go ahead and we believe that
19 maybe the most salient fact is that at the end of
20 the day, you heard testimony today, that the
21 condition of these 27-kV feeders is marginal, at
22 best, and you're going to have customers that
23 after \$100 million are spent are going to be fed
24 by the same marginal feeders, feeders that failed
25 with a fraction of their capacity of load on it.

1 That problem doesn't go away. It can't be that
2 you reduce the load -- think about it this way.
3 Think about your vehicle. You have a truck, and
4 the truck's capacity is diminished because you
5 have a nail in the tire. Surely if you drive that
6 tire with the nail in it by not putting load in
7 the back, but you still have the nail in the tire,
8 and one day the air is going to come out of that
9 tire.

10 As explained to us, the nature of this
11 problem with the 27-kV feeders -- and we asked for
12 this. We asked for this in a chart. We asked for
13 the utility to show us what the configuration was,
14 what's the normal feeder, what's the alternate
15 feeder before this project, and what the normal
16 and what the alternate is after the project. And
17 it has not changed. The same configuration, 11R56
18 that the utility testified failed that fed Byram,
19 it's going to feed Byram after \$100 million is
20 spent. That's the essence of that statement in
21 our mind.

22 MR. HANNON: On page 26 the question
23 is, "Does the town have a particular concern with
24 Eversource's proposal to build the new substation
25 at 290 Railroad Avenue?"

1 The answer is, "Yes. As real as the
2 risk of fire is for a typical 115-kV open air
3 substation," what is the risk?

4 THE WITNESS (Mailman): It's pretty
5 substantial.

6 MR. HANNON: What do you mean by
7 "substantial"? That's a very subjective answer.
8 So is it 10 percent, is it a half a percent? I
9 mean, I'm just curious as to what the number is
10 that you're saying.

11 THE WITNESS (Mailman): Mr. Bowes
12 testified that in his 35 years he only knows of
13 one fire. Con Edison had three fires in an
14 18-month period. You can't go ahead and you can't
15 project that. These happened.

16 MR. HANNON: I'm not disputing the fact
17 that they happened.

18 THE WITNESS (Mailman): I don't know,
19 but I know this --

20 MR. HANNON: I'm just trying to get an
21 idea of what is the potential of that actually
22 happening. That's all I'm trying to get at.

23 THE WITNESS (Mailman): Real. Real.
24 Which is why, by the way, Con Edison mans their
25 115-kV substations 24/7 365. There's no Con Ed

1 115 station that's unmanned like this one is being
2 proposed to be.

3 MR. HANNON: Okay. On attachment I
4 think it's I-9. I mean, it's sort of a general
5 question, so you may not need the specifics on it,
6 but it talks about the Clean Energy Communities
7 municipal pledge. It talks about the Town of
8 Greenwich will seek to reduce its municipal energy
9 building consumption for municipal facilities by
10 20 percent by 2018, and it also talks about the
11 Town of Greenwich pledging to purchase 20 percent
12 of its municipal building electricity from clean
13 renewable energy sources by 2018. Do you know
14 what those percentages are today?

15 THE WITNESS (Savageau): I don't have
16 them off the top of my head. Well, look at the
17 benchmarking, if we did that in the benchmarking.
18 So working with Eversource, we completed the
19 benchmarking. It's interesting. We did a
20 benchmarking. I don't have it all in one --

21 MR. HANNON: That's fine. If you can
22 get the information --

23 THE WITNESS (Savageau): I can provide
24 that to you.

25 MR. HANNON: I'm just curious to see

1 where you are based on what the town was proposing
2 to do several years ago.

3 THE WITNESS (Savageau): We can provide
4 that.

5 MR. HANNON: Okay. Thank you.

6 On attachment I-10 I think there's a
7 little bit of an error on here on question 6. As
8 part of the answer, you're talking about your
9 public works department is slowing upgrading on
10 all lighting systems. That's what's in there. I
11 don't think that's what you mean.

12 THE WITNESS (Siebert): Thank you for
13 catching that. I think they mean we're upgrading.
14 We're slowly upgrading.

15 MR. HANNON: That may be.

16 THE WITNESS (Siebert): So as we
17 upgrade our facilities, we upgrade lighting among
18 other systems.

19 MR. HANNON: It just didn't sound
20 right.

21 THE WITNESS (Siebert): Thank you.

22 THE WITNESS (Mailman): That was a
23 great catch, Mr. Hannon. I just want you to
24 realize that streetlights in Greenwich are not the
25 property of the Town of Greenwich, which you may

1 be used to in other places.

2 MR. HANNON: No, it's typically the
3 power company that deals with it.

4 THE WITNESS (Siebert): Yes. We're
5 looking forward to seeing their changeover to LED.

6 MR. HANNON: This is kind of a general
7 question in the sense that whether it be at 281
8 Railroad or 290 Railroad, you're talking about a
9 substation that is enclosed. I recently read an
10 article that Greenwich is also looking at using
11 aesthetics to approve docks. So my questions is,
12 based on some of the information that you provided
13 in attachment G, when you're actually showing the
14 Parkville MicroGrid, would the Town of Greenwich
15 be requiring some type of aesthetics around the
16 fuel cells that were established at this
17 microgrid? I mean, I've walked the site. I know
18 what's there. The City of Hartford was not
19 requiring any type of fencing or walls or anything
20 to put in. I'm just curious what the town's
21 position is on something along those lines and
22 whether or not aesthetics would be involved in a
23 decision with microgrids too.

24 THE WITNESS (Mailman): Well, Katie is
25 the town planner, but I'll talk because of energy

1 efficiency. I would expect that we would be
2 looking at the aesthetics. And there's a couple
3 of reasons why. I think that when you're doing
4 these types of projects, we want people to embrace
5 distributed energy so that you don't want all of
6 us in the neighborhood saying we don't want that.
7 So you do what you need to do to get people to
8 embrace it.

9 The other thing that I'm looking at is
10 an environmental justice issue, and the
11 environmental justice issue has to do with a lot
12 of times it's the more densely populated areas and
13 the lower income areas where you're doing projects
14 like microgrids, so for example a downtown area.
15 And so that's where your lower income folks live
16 and whatever. And you don't say just because it's
17 downtown, just because it's in the city area, that
18 you don't do the aesthetics. I think you should
19 be required to do the aesthetics because it
20 becomes an environmental justice area. Just
21 because if people who are not going to make as
22 much noise in those neighborhoods, does not mean
23 you don't ask for the aesthetics.

24 So from a town perspective in terms of
25 Greenwich, we ask the same requirement in every

1 neighborhood, whether it be a city neighborhood,
2 or whether it be what we would consider back
3 country, which is the more affluent part of town.
4 We're always looking to make sure that we're doing
5 something that's going to work for that
6 neighborhood.

7 MR. HANNON: As far as I remember, I
8 think there's only maybe two census tract areas in
9 Greenwich that are considered to be subject to the
10 Environmental Justice Law. And based on typically
11 what you're trying to get with the microgrid
12 systems, it would be unlikely that this type of a
13 system would be put in a residential area. And
14 I'm only aware of, I think, two industrial or
15 commercial census tracts in the State of
16 Connecticut that are nonresidential. I thought
17 everything in Greenwich was strictly residential,
18 so I don't really see what that has to do with
19 this issue, but that's just my point.

20 THE WITNESS (Savageau): We have a lot
21 of mixed-use areas.

22 MR. HANNON: But that's not what you
23 said. You brought up environmental justice.

24 THE WITNESS (Savageau): It is
25 environmental justice.

1 MR. HANNON: Environmental justice, by
2 definition with state statutes, and looking at the
3 maps, I believe there may be two census tract
4 areas in Greenwich that you can define as
5 environmental justice communities.

6 THE WITNESS (Savageau): Well, it's
7 interesting because we are actually -- our human
8 services department actually has come out with two
9 new papers. And one of the challenges is that
10 they're looking at one of the problems with
11 defining poverty in a town like Greenwich.
12 Because using the national poverty level to define
13 your environmental justice areas is not. We have
14 20 percent of our population in the Town of
15 Greenwich is what they call working poor. And if
16 you use that definition of ALICE, it's like 20
17 percent. Interestingly enough, it impacts three
18 school areas, Julian Curtiss, Hamilton Ave. and
19 New Leb Schools. Those three schools surround
20 where we're going to be putting, you know, where
21 the substation is proposed. It also surrounds the
22 downtown area of Greenwich. So those are all
23 our -- what are considered our schools where we
24 have a definite population of folks who are on
25 free lunch programs and definitely have an

1 achievement gap.

2 So although you don't necessarily --
3 you know, people don't necessarily define it that
4 way, in terms of Greenwich when we're looking at
5 the working poor and the definition of ALICE,
6 we're looking at those neighborhoods you're
7 talking about.

8 MR. HANNON: And I appreciate that.
9 Believe me, I do. I'm just going by 22A, 20A in
10 the state statutes as to what it involves. That's
11 what my comment is based on.

12 THE WITNESS (Mailman): Mr. Hannon,
13 we're not suggesting that an indoor substation be
14 built out of stats; we're suggesting it be built
15 really out of safety.

16 DR. KLEMENS: Could I say something?
17 Could the witnesses please limit their responses
18 so all the Council members can get through this
19 examination before we're locked out of the garage?

20 MR. HANNON: I have three questions
21 left. One of them deals with the town's question
22 number 56 to Eversource. If I understand
23 correctly, regardless of the size of the cables
24 that are being used, those cables go inside a
25 certain diameter pipe. Is that correct?

1 THE WITNESS (Mailman): That's correct.

2 MR. HANNON: So who cares whether it's
3 a 4.5 inch diameter cable, or a 4.6 inch diameter
4 cable? I mean, I don't know how --

5 THE WITNESS (Mailman): You're right.
6 It just goes to accuracy, Mr. Hannon. There's
7 other documentation. And for the purpose of
8 brevity, we're trying to understand what the
9 utility is putting out. There's other
10 documentation they've offered up that's had
11 anomalies in it. We just ask here -- and by the
12 way, there is a huge difference here because
13 4.6-inch cable requires 8-inch pipe. 4.5 is the
14 cutoff for 6-inch pipe.

15 MR. HANNON: Okay.

16 THE WITNESS (Mailman): And then --

17 MR. HANNON: You answered my question.

18 THE WITNESS (Mailman): Thank you.

19 Sorry.

20 MR. HANNON: And then the other one was
21 dealing with the width, I believe, of the
22 trenches. It's 3 feet, 6 inches versus 3 feet, 7
23 and an 8. I'm not sure what that's all about.

24 THE WITNESS (Mailman): One-inch trench
25 width over the entire run of the underground, you

1 save one inch, you save \$200,000 in cost by just
2 minimizing the trench width by one inch.

3 MR. HANNON: That's an answer. I'm
4 just asking for an answer.

5 THE WITNESS (Mailman): You can ask me
6 anything you want.

7 MR. HANNON: The last question I have
8 specifically goes to Ms. DeLuca. This is based on
9 your testimony here in Docket Number 461, February
10 23, 2016. On page 33 at the bottom you're stating
11 for the town, "I think our official statement on
12 this is that we don't want anything through the
13 park, particularly when there's a seemingly viable
14 alternative down Metro-North. We feel very
15 strongly about that."

16 I understand that being the position,
17 but I'm still having a hard time wrapping my hands
18 around how the town can have such a totally
19 different position this time versus the last time
20 because there were options that did not deal with
21 the directional drilling. It did not deal with
22 any oil field pipes, things of that nature. So
23 I'm just trying to figure out how something that
24 you were so adamantly opposed to on 461 is now a
25 viable option in 461A.

1 THE WITNESS (DeLuca): I have to admit,
2 I don't know of any of those alternatives. As far
3 as I know, 461A was about the directional drilling
4 and about the HPFF.

5 MR. HANNON: 461 is --

6 THE WITNESS (DeLuca): I apologize.
7 461. Thank you. And so I would just note that.
8 That's my answer.

9 MR. HANNON: So you're basically saying
10 that your position was based on sort of those
11 three specific criteria?

12 THE WITNESS (DeLuca): Correct.

13 MR. HANNON: Okay. That's fine. That
14 answers my question. Thank you.

15 DR. KLEMENS: I will be quick. So I'm
16 going to ask for yes and no answers, if at all
17 possible. On page 35 of the prefile testimony,
18 this is the table we looked at earlier. There is
19 \$1,800,000 savings cofferdam in lieu of pedestrian
20 bridge. I believe that is the difference of
21 savings now if Eversource used a cofferdam and
22 didn't build the pedestrian bridge, as requested
23 by Greenwich. Yes or no?

24 THE WITNESS (Mailman): We testified to
25 that. That is correct, it does not belong.

1 DR. KLEMENS: Thank you. That's all I
2 need to know.

3 All right. Let me move on to Bruce
4 Park. Do we consider -- is Bruce Park dedicated
5 park land?

6 THE WITNESS (Spaman): Yes.

7 DR. KLEMENS: Are the roads in Bruce
8 Park considered part and parcel of the park or
9 separate from the park?

10 THE WITNESS (Spaman): Bruce Park Drive
11 and the roads around the ponds are park roads.

12 DR. KLEMENS: Are part of the dedicated
13 park land?

14 THE WITNESS (Spaman): Yes.

15 DR. KLEMENS: And the Town of Greenwich
16 sees no problem with entering into that portion of
17 dedicated park land for the purpose of this
18 project?

19 THE WITNESS (Spaman): No. We don't
20 have a problem.

21 DR. KLEMENS: And that is congruent
22 also -- I'm sorry, Ms. DeLuca.

23 THE WITNESS (DeLuca): I'm sorry. I do
24 want to say there is a deed.

25 DR. KLEMENS: I was about to go there.

1 THE WITNESS (DeLuca): So I would just
2 say it's our understanding that you have the
3 authority to go beyond that deed, but I think we
4 need to recognize it's a deed. So I would say
5 subject to your authority.

6 DR. KLEMENS: So the gift of Bruce
7 Park -- you think this is in conflict with the
8 deed of the gift to Bruce Park?

9 THE WITNESS (DeLuca): Well, it says
10 for park purposes only. I would leave it there.

11 DR. KLEMENS: Okay. That's very
12 responsive. Thank you.

13 So certainly if those roads that are
14 constructed in a part of the park, they're part of
15 the park landscape, are they not?

16 THE WITNESS (Spaman): Yes.

17 DR. KLEMENS: And the bridges and the
18 curving roads. So that's certainly -- I mean, if
19 they're going to be dug up, you're going to want
20 to have them looking as part of the landscape
21 again?

22 THE WITNESS (Spaman): Yes.

23 DR. KLEMENS: Because if I understand
24 park management, particularly in an Olmsted type
25 park like this, these structures are part and

1 parcel of the overall park?

2 THE WITNESS (Spaman): Yes.

3 DR. KLEMENS: Thank you.

4 Sea level rise. The whole issue of
5 resiliency is so very important. And my question
6 on this is basically do you see -- you know the
7 park better than I do, but I do know the park. Do
8 you find that that route is going to be out of the
9 path of most of the rise where the marshes are
10 going to migrate inland? Do you think that is a
11 safe location to put this in terms of sea level
12 rise?

13 THE WITNESS (Savageau): Well, from a
14 sea level rise perspective -- well, there's two
15 questions going on. One is that is it safe in
16 terms of, you know, the equipment itself being
17 safe because there's going to be sea level rise.
18 It's going to be in salt water. So we're assuming
19 that because they can go under Long Island Sound,
20 or whatever, that they will take that into
21 consideration. But it's one of the reasons we
22 were concerned with the fluid fills is that we
23 didn't want them to fail. But because they will
24 be in salt water, that's a given.

25 The bigger issue why we want to make

1 sure it stays in the roads is the roads have
2 already been impacted, and they actually have a
3 different subsurface than we're seeing in other
4 parts of the park. So again, where we have the
5 ponds, those are actually dredged tidal marshes
6 from way back when. In the early 1900s they
7 dredged those. So we've got, you know, salt marsh
8 going down fairly deep in some of those areas.
9 That's where we expect the marsh migration. And
10 if you look at the elevations in the park, we're
11 expecting it to spread out from those areas.

12 DR. KLEMENS: Indian Harbor toward
13 95 --

14 THE WITNESS (Mailman): Well, yeah, the
15 ponds, and then the pond that loops around, so the
16 second pond. That's the lower elevations in the
17 park, and that's where we're going to see the sea
18 level spread from a surface perspective.

19 DR. KLEMENS: That makes sense. Thank
20 you very much.

21 So can I just ask a simple yes or no
22 question of the four people who represent
23 Greenwich departments. Ms. Savageau, do you
24 believe that this project is needed for the Town
25 of Greenwich as proposed, yes or no?

1 THE WITNESS (Savageau): I do not
2 believe, no.

3 DR. KLEMENS: Ms. DeLuca?

4 THE WITNESS (DeLuca): No.

5 DR. KLEMENS: Ms. Siebert?

6 THE WITNESS (Siebert): No.

7 DR. KLEMENS: Mr. Spaman, do you
8 believe this is needed for the town?

9 THE WITNESS (Spaman): I'm not
10 convinced, no.

11 DR. KLEMENS: Great. I have no further
12 questions.

13 THE CHAIRMAN: You actually stole my
14 question.

15 DR. KLEMENS: I'm sorry.

16 THE CHAIRMAN: Well, no, you stole my
17 question. I was going to ask it in a different
18 way. The Council has basically two options. We
19 can either approve, and approve can be with
20 modification, and then there's a D&M plan where
21 some of these specific issues, details
22 construction get, or we can deny, and I won't get
23 into the denial without prejudice other than if we
24 do whatever we do, I want to be off the Council
25 before this comes back. She doesn't want me back.

1 (Laughter.)

2 THE CHAIRMAN: So the question, and
3 this is since we have to continue this anyway,
4 because, in my opinion, despite your attempts, if
5 you look at the record, the Greenwich viewpoint
6 has changed, and over -- just look at the record
7 and the transcript of what it is you want. But my
8 question which you can answer will be what do you
9 want the Council to do, which is sort of the same
10 question. I don't want an answer now because I'm
11 just going to take the opportunity before somebody
12 tries to grab the microphone to say the counsel
13 announces that it will continue the evidentiary
14 hearing at its office at Ten Franklin Square, New
15 Britain, on Tuesday, September 5, 2017 at 1 p.m.
16 in this same hearing room.

17 Please note that anyone who has not
18 become a party or intervenor, but who desires to
19 make his or her views known to the Council, may
20 file a written statement with the Council until
21 the record closes.

22 Copies of the transcript of this
23 hearing will be filed at the Greenwich Town
24 Clerk's Office. And I hereby declare this portion
25 of the hearing closed. Thank you all for your

1 participation. Drive home safely.

2 (Whereupon, the witnesses were excused,
3 and the above proceedings were adjourned at 5:47
4 p.m.)

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CERTIFICATE

I hereby certify that the foregoing 281 pages are a complete and accurate computer-aided transcription of my original stenotype notes taken of the Council Meeting in Re: DOCKET NO. 461A, Application from Eversource Energy for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a 115-kilovolt bulk substation located at 290 Railroad Avenue, Greenwich, Connecticut, and two 115-kilovolt transmission circuits extending approximately 2.3 miles between the proposed substation and the existing Cos Cob Substation, Greenwich, Connecticut, and related substation improvements, which was held before ROBERT STEIN, Chairman, at the Connecticut Siting Council, 10 Franklin Square, New Britain, Connecticut, on August 29, 2017.



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

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I N D E X

WITNESSES KENNETH B. BOWES PAGE 6

FARAH S. OMOKARO

JASON CABRAL

MICHAEL LIBERTINE

CHRISTOPHER PAUL SODERMAN

RONALD J. ARAUJO

JOHN C. CASE

EXAMINERS:

Mr. Fitzgerald

Mr. Ball

Mr. Dobin

WITNESSES KATHARINE DELUCA PAGE 121

MITCHELL E. MAILMAN

JAMES W. MICHEL

DENISE M. SAVAGEAU

AMY J. SIEBERT

BRUCE SPAMAN

EXAMINERS:

Mr. Ball

Mr. Fitzgerald

Mr. Mercier

Mr. Silvestri

Dr. Klemens

Mr. Levesque, Mr. Harder, Mr. Hannon

1 I n d e x (Cont'd):

2 APPLICANT'S EXHIBITS (Received in evidence)

3	EXHIBIT	DESCRIPTION	PAGE
4	II-B-10	Eversource Energy's substitute	9
5		pages, dated 8/4/17	
6		a. Pages D-4 and D-5 of	
7		Exhibit B to motion to reopen	
8		b. Page 4 of Eversource	
9		Energy's initial prefiled testimony	
10		(revised figure 1)	
11		c. Page 10 of Eversource	
12		Energy's initial prefiled testimony	
13		(revised figure 5)	
14	II-B-11	Eversource Energy's revised	9
15		response to Council Interrogatory 61,	
16		dated 8/11/17	
17	II-B-12	Eversource Energy's responses	9
18		to CSC Set Two and Three interrogatories,	
19		dated 8/22/17	
20	II-B-13	Eversource Energy's responses	9
21		to Parker Stacy Set Two interrogatories,	
22		dated 8/22/17	
23	II-B-14	Eversource Energy's responses to	9
24		Town of Greenwich Set Two interrogatories,	
25		dated 8/22/17	

1 I n d e x (Cont'd):

2

3 TOWN OF GREENWICH EXHIBITS

4 (Received in evidence)

5 EXHIBIT DESCRIPTION PAGE

6 X-B-1 Town of Greenwich prefiled

7 testimony with attachments, dated

8 7/18/17

9 a. Katharine A. DeLuca

10 b. Mitchell E. Mailman

11 c. James W. Michel

12 d. Denise M. Savageau

13 e. Amy J. Siebert

14 f. Bruce Spaman

15 X-B-2 Town of Greenwich responses

16 to CSC interrogatories, dated

17 7/18/17

18 X-B-3 Town of Greenwich supplemental

19 prefiled testimony, dated 8/22/17

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21

22

23

24

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