In The Matter Of:

Application of Eversource Energy for a Certificate of Environmental Compatibility

> Hearing Docket No. 461 December 1, 2015

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1	STATE OF CONNECTICUT
2	CONNECTICUT SITING COUNCIL
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4	Docket No. 461
5	Application of Eversource Energy for a
6	Certificate of Environmental Compatibility and
7	Public Need for the Construction, Maintenance and
8	Operation of a 115-kilovolt (kV) Bulk Substation
9	Located at 290 Railroad Avenue, Greenwich,
10	Connecticut, and Two 115-kV Underground
11	Transmission Circuits Extending Approximately 2.3
12	Miles Between the Proposed Substation and the
13	Existing Cos Cob Substation, Greenwich,
14	Connecticut, and Related Substation Improvements
15	
16	Continued Hearing held at the Connecticut
17	Siting Council, 10 Franklin Square, New Britain,
18	Connecticut, Tuesday, December 1, 2015, at 11:06
19	a.m.
20	
21	Held Before:
22	ROBERT STEIN, Chairman
23	
24	
25	

1	Appearances:
2	Council Members:
3	SENATOR JAMES J. MURPHY, JR., Vice
4	Chairman
5	PHILIP T. ASHTON
6	COMM. MICHAEL A. CARON,
7	PURA Designee
8	ROBERT HANNON, DEEP Designee
9	DR. MICHAEL W. KLEMENS
10	
11	Council Staff:
12	MELANIE BACHMAN, ESQ.
13	Executive Director and
14	Staff Attorney
15	ROBERT MERCIER
16	Siting Analyst
17	
18	For Connecticut Light and Power Company d/b/a
19	Eversource Energy:
20	CARMODY TORRANCE SANDAK HENNESSEY LLP
21	50 Leavenworth Street
22	P.O. Box 1110
23	Waterbury, Connecticut 06721-1110
24	BY: MARIANNE BARBINO DUBUQUE, ESQ.
25	

1	Appearances (Cont'd):
2	
3	For the Office of Consumer Counsel:
4	LAUREN HENAULT BIDRA, ESQ.
5	MARGARET BAIN
6	
7	For Pet Pantry Super Discount Stores LLC:
8	THE MARCUS LAW FIRM
9	275 Branford Road
LO	North Branford, Connecticut 06471
L1	BY: MARK L. BERGAMO, ESQ.
L2	EDWARD L. MARCUS, ESQ.
L3	
L 4	Intervenor:
L5	DWIGHT UEDA
L6	Field Point Estate Townhouses
L7	172 Field Point Road, #10
L8	Greenwich, Connecticut 06830
L9	
20	Intervenor:
21	CHRISTINE EDWARDS
22	111 Bible Street
23	Cos Cob, Connecticut 06807
24	
25	

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4
    Appearances (Cont'd):
1
 2
 3
         Intervenor:
 4
              RICHARD GRANOFF
              Granoff Architects
 5
 6
               30 West Putnam Avenue
 7
              Greenwich, Connecticut 06830
8
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THE CHAIRMAN: Ladies and gentlemen,

I'd like to call to order this hearing of the

Connecticut Siting Council today, Tuesday,

December 1, 2015, at approximately 11 a.m. My

name is Robin Stein, Chairman of the Siting

Council.

This hearing is held pursuant to the provisions of Title 16 of the Connecticut General Statutes and of the Uniform Administrative

Procedure Act upon an 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 underground transmission circuits extending approximately 2.3 miles between the proposed substation and the existing Cos Cob substation, Greenwich, Connecticut, and related substation improvements. This application was received by the Council on June 26, 2015.

A verbatim transcript will be made of the hearing and deposited with the Town Clerk's office in the Greenwich Town Hall for the convenience of the public. We will proceed in accordance with the prepared agenda, copies of which are available there on the table.

The Council received a motion for an additional hearing from the Office of Consumer Counsel, dated November 24, 2015. Attorney Bachman may wish to comment.

MS. BACHMAN: Thank you, Mr. Chairman.
On November 24th the Office of Consumer Counsel submitted a request for an additional hearing on the basis that --

A VOICE: Louder, please.

MS. BACHMAN: -- on the basis that we gave an additional extension to Eversource to respond to their interrogatories and that today was not enough time to review all the material. We clearly have several parties and intervenors who still have to appear and be cross-examined, and we're not done cross-examining the applicant, so certainly there will be one or two or maybe three additional hearings. So I would just recommend, Mr. Chairman, that the motion be granted.

THE CHAIRMAN: The Chair will entertain a motion.

1 DR. KLEMENS: So moved. MR. HANNON: Second. 2 The motion is seconded. 3 THE CHAIRMAN: All those in favor signify by saying 4 5 aye. THE COUNCIL: Aye. 6 7 THE CHAIRMAN: Opposed? 8 (No response.) 9 THE CHAIRMAN: Abstention? 10 (No response.) 11 THE CHAIRMAN: The motion carries. The Council received a request for 12 administrative notice from Eversource Energy, 13 dated November 24, 2015. These items are listed 14 15 on the hearing program as Roman numeral II, Item 16 A, 33 through 38. 17 Attorney Bachman may wish to comment. 18 MS. BACHMAN: Thank you, Mr. Chairman. 19 On November 24th Eversource had filed a request for additional administrative notice items, Items 20 33 through 38 on the hearing program. One note, 21 the Connecticut Siting Council review of the 22 23 ten-year forecast of loads and resources is a 24 draft document at this point. So you'll see under 25 Item 38 we noted that it is the "draft" forecast,

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    dated November 12th. And then I would recommend
    that this be granted.
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               SENATOR MURPHY: So moved, Mr.
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4
    Chairman.
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               DR. KLEMENS:
                              Second.
                THE CHAIRMAN: All those in favor,
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7
    signify by saying aye.
8
               THE COUNCIL: Aye.
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               THE CHAIRMAN: Opposed? Abstention?
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                (No response.)
               THE CHAIRMAN: The motion carries.
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               We'll now begin with the appearance of
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    the applicant, Eversource Energy, to verify new
    exhibits marked as Roman Numeral II, Item B, 30
14
15
    through 37 on the hearing program.
16
               Attorney Dubuque, would you please
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    begin by identifying the new exhibits you filed
18
    and verify the exhibits by the appropriate
    witnesses?
19
               MS. BARBINO DUBUQUE:
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                                      Good morning,
    Mr. Chairman. Good morning, Council members and
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22
    staff.
            I'm Marianne Barbino Dubuque of Carmody
    Torrance Sandak and Hennessey, representing
23
24
    Connecticut Light and Power Company doing business
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as Eversource Energy, the applicant in this

proceeding. And I am here this morning with our 1 witness panel that's previously been sworn in, 2 3 Mr. Kenneth Bowes, Mr. Raymond Gagnon, Ms. Jackie Gardell, and Mr. Mike Libertine. 4 5 And we have eight exhibits we'd like admitted into evidence. And I'd like to start 6 with item -- I'm sorry, Exhibit 30, Eversource 7 Energy Late-Filed Exhibits 4 to 7, 11/24/15. 8 A VOICE: Could you please speak with 9 10 the mike because it's very difficult to hear you? MS. BARBINO DUBUQUE: Certainly. 11 12 A VOICE: Thank you. 13 MS. BARBINO DUBUQUE: Exhibit 31, Eversource Energy responses to OCC 14 15 Interrogatories, Set III, Questions 29, 32 to 40, 16 and Set IV, Question 43, dated 11/24/15. 17 Exhibit 32, Eversource Energy second supplemental direct testimony of Kenneth Bowes, 18 Raymond Gagnon and Jacqueline Gardell with 19 attachments, dated 11/24/15. 20 Exhibit 33, Eversource Energy 21 Late-Filed Exhibits 1 to 2, dated 11/24/15. 22 23 Exhibit 34, Eversource Energy Late-Filed Exhibit 3, and responses to OCC 24

Interrogatories, Set III, Questions 30 and 31,

- 1 dated 11/25/15.
- 2 Exhibit 35, Eversource Energy responses
- 3 to OCC Interrogatories, Set IV, Questions 41, 42,
- 4 44 to 63, dated 11/30/15.
- 5 Exhibit 36, Eversource Energy responses
- 6 to Pet Pantry Interrogatories, Set II, dated
- 7 11/30/15.
- 8 Exhibit 37, Eversource Energy responses
- 9 to Field Point Estate Townhouses' interrogatories,
- 10 Set III, dated 11/30/15.
- 11 KENNETH B. BOWES,
- 12 RAYMOND L. GAGNON,
- 13 JACQUELINE A. GARDELL,
- 14 MICHAEL P. LIBERTINE,
- 15 called as witnesses, being previously duly
- 16 sworn, were examined and continued to testify
- on their oaths as follows:
- MS. BARBINO DUBUQUE: So referring to
- 19 these exhibits that I just mentioned, I'll ask Mr.
- 20 Bowes, Mr. Gagnon and Ms. Gardell, did you prepare
- 21 or oversee the preparation of these exhibits?
- THE WITNESS (Bowes): Yes, I did.
- 23 THE WITNESS (Gagnon): Yes, I did.
- 24 THE WITNESS (Gardell): Yes, I did.
- MS. BARBINO DUBUQUE: And I understand,

Mr. Gagnon, that you have a few corrections.

green. And it was map number 4A.

THE WITNESS (Gagnon): Yes, there are four corrections that I'd like to point out. The four corrections are all on Late-File Q-LF-003. There's three corrections on the maps. Map 4A, there's a section of line shown on that map that is shown in red which signifies being underground. That should be -- a portion of that should be in

Map number 3A and 3B have a road on there that was called Indian Harbor Drive. As it goes east toward the park, that should be called Davis Avenue on that section of map.

And then on the Late-File narrative that we have on page 3 of 4, the second to last paragraph talks about the number of easements that are required for that segment, and there are -- in the document it says zero or it actually says "no easements" required. It should be "two easements" required in that section.

MS. BARBINO DUBUQUE: Are there any other corrections, clarifications or additions?

THE WITNESS (Bowes): There are not.

THE WITNESS (Gagnon): No, there are

25 not.

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               THE WITNESS (Gardell): No, there are
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    not.
               THE CHAIRMAN: Excuse me, could I ask
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    if we could at some point have a revised corrected
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    map to put into the record and also hopefully make
    it as legible as possible because trying to find
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7
    those red and green lines require serious eyesight
8
    adjustments?
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               MS. BARBINO DUBUQUE:
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               THE CHAIRMAN:
                               Thank you.
               MS. BARBINO DUBUQUE: We will take care
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    of that and make it a little bolder.
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                To the best of your knowledge, is the
    information in the exhibits that I mentioned true
14
15
    and accurate?
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               THE WITNESS (Bowes): Yes, it is.
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               THE WITNESS (Gagnon): Yes, it is.
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               THE WITNESS (Gardell): Yes, it is.
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               MS. BARBINO DUBUQUE: And do you adopt
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    the written testimony in Exhibit 32 as your sworn
    testimony, and do you adopt the other documents,
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    documents 30 to 31, and 33 to 37, as full
23
    exhibits?
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               THE WITNESS (Bowes): Yes, I do.
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               THE WITNESS (Gagnon): Yes, I do.
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THE WITNESS (Gardell): Yes, I do.
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               MS. BARBINO DUBUQUE: I would just like
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    to add as to Exhibit 33 I'd like to ask
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    Mr. Libertine if he prepared the photo simulations
4
    or if he was the person who oversaw their
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    preparation?
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               THE WITNESS (Libertine): Yes.
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               MS. BARBINO DUBUQUE: Are they true and
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    accurate?
               THE WITNESS (Libertine): Yes, they
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11
    are.
               MS. BARBINO DUBUQUE: And do you have
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    any corrections or clarifications?
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               THE WITNESS (Libertine): No, not at
14
    this time.
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               MS. BARBINO DUBUQUE: Thank you.
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               Mr. Chairman, I respectfully request
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    that the Council admit into evidence Exhibits 30
    to 37 as full exhibits.
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               THE CHAIRMAN:
                               Thank you.
               Does any party or intervenor object to
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    the admission of the applicant's new exhibits?
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                (No response.)
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                THE CHAIRMAN: Hearing and seeing none,
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    the exhibits are admitted.
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(Applicant Exhibits II-B-30 through 1 Received in evidence - described in 2 II-B-37: index.) 3 MS. BARBINO DUBUQUE: Thank you. 4 THE CHAIRMAN: And we'll now resume 5 with cross-examination by the representatives of 6 the intervenor, Pet Pantry Super Discount Stores. 7 8 Good morning. 9 MR. BERGAMO: Good morning. 10 MR. MARCUS: Good morning. 11 Chairman, one -- well, actually several housekeeping matters. I'd like to point out to 12 the Chair and the other members of the Council 13 that our office did not receive a response to the 14 15 interrogatories, our second set, until 3:45 p.m. yesterday. At that time I was with a client. I 16 didn't get to even know that the responses had 17 18 come in until about 6 o'clock. 19 We also received a copy of a letter and all of the attachments relating thereto from the 20 Town of Greenwich. That did not come into the 21 22 office until subsequent to receiving the interrogatories. Once again, I was unaware of 23 24 their receipt until about 6 p.m.

Certainly on behalf of Pet Pantry we

weren't happy about the November 30th date, but we would have expected to receive the responses in the morning to give us a reasonable period of time to review. We did not have a reasonable period of time for review. So I would respectfully ask that our cross-exam be delayed until some other date relative to the response to our second set of interrogatories and review of the letter from the

THE CHAIRMAN: I will ask Attorney
Bachman to comment.

Town of Greenwich.

MS. BACHMAN: Thank you, Mr. Chairman. Clearly this was anticipated that we would have additional information come into the record after the last hearing. And certainly you will have an additional opportunity to cross-examine the applicant at a subsequent hearing date on the materials that probably no one was able to review thoroughly since last night.

MR. MARCUS: Thank you. Could we include within that all materials received after November 23rd? Our office shut down around 2 o'clock on Wednesday for Thanksgiving.

MS. BACHMAN: That would be fine.

MR. MARCUS: Thank you.

I'd also, if I may, like to go back to the previous hearing and an opinion that was provided by Attorney Bachman to the Council relative to the General Statute 16-50p. I have to confess that at the time the opinion was offered I had not read the statute and was vaguely aware of its contents but took what Attorney Bachman said at that time at full face value. And I'm in no way -- this is not about any disrespect to Attorney Bachman at all. We all read statutes differently, but we did look at the statute. also took a look at the citation which is at the end of the statute. I don't know whether Attorney Bachman is familiar with that or not, but Section (g) is relatively clear, but the citation is totally clear.

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And what Section (g) says is that "In deciding whether to issue a certificate, the council shall in no way be limited by the applicant already having acquired land or an interest therein for the purpose of constructing the facility that is the subject of its application."

You then look at the citation. The citation says the phrase "in no way be limited"

- implies that the legislature did not want Council
 to be bound by applicants alleged acquisition of
 an interest in land. But Council was not
 prohibited from considering such an interest in
 determining whether a certificate should be
 issued. The language is an enlargement of
 Council's discretion, not a limitation, permitting
- Council's discretion, not a limitation, permitting but not obligating Council to consider likelihood of the applicant securing the proposed site.

I think the opinion provided by

Attorney Bachman was that "the Council may not -and I'm quoting -- "take into account whether or
not they actually own a property or have rights to
the property because it's really outside of our
charge to balance the need for the project as it
relates to the environmental impact."

so the statute does not say that you may not permit such testimony. It says that you may, at your discretion, but it is not mandatory that you do not permit such testimony.

THE CHAIRMAN: Attorney Dubuque, do you want to respond?

MS. BARBINO DUBUQUE: Yes. I think that certainly reading a footnote at the end of a statute that refers to a Connecticut supplement

case is not the authority on the issue. So we
would certainly ask that this issue be deferred
until the next hearing so that we could provide
additional research on the subject because I would
want to be sure there isn't a more authoritative
opinion out there other than just this particular

footnote at the end of the statute.

THE CHAIRMAN: I also ask Attorney Bachman to comment.

MS. BACHMAN: Thank you, Mr. Chairman. Certainly, Attorney Dubuque, we could defer the question to the next hearing, but the case of Corcoran versus Connecticut Siting Council speaks directly on that point, and we can take that up at the next hearing, or we can have the parties brief the issue in writing rather than have the debate here.

MR. MARCUS: Is that instruction to brief the issue? We have no objection to doing so, and I have read the case that you referred to.

THE CHAIRMAN: It's up to you, if you want to brief it, if you feel that that's critical. From what I've heard from you, I don't

- quite understand other than we, the Council, has some additional discretion, but it's up to you if you want to brief it.
- MR. MARCUS: I certainly have no

 interest in preparing briefs. I think the issue

 is -- and I think the reading of Section (g) is

 pretty clear. And I'm not suggesting that anyone

 is bound by any citation, but that seems pretty

 clear too, but if you would like, we'll be happy

 to brief it.
- 11 THE CHAIRMAN: You raised the issue, so
 12 I guess it's --
 - MR. MARCUS: I see the issue as being clear that you do have discretion to entertain testimony relative to ownership of the property.

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- THE CHAIRMAN: But if I remember correctly, your initial statement was even attorneys can read citations and laws and interpret them differently.
- MR. MARCUS: I'm not suggesting that
 Attorney Bachman in any way intentionally intended
 to mislead anyone with her opinion. I just
 disagree with her opinion, and I think that the
 reading of the statute supports that disagreement.

25 THE CHAIRMAN: I understand that. If

you're prepared -- as I said, we're not going to
decide that today. If you're prepared -- and we
will have a subsequent meeting -- to back up or
document your statement in any way you want,
that's up to you. I'm not going to tell you you
have to prepare a brief.

MR. MARCUS: Well, why don't we do
this. Let me suggest the following: A, we will
prepare a brief; B, let's discuss the brief and
the brief that I'm sure that Eversource will file
at the next hearing or whatever hearing you
believe is appropriate. And if indeed you agree
that you can entertain testimony, then we would
like to cross-examine based on ownership issues of
both 330 Railroad Avenue and 290.

THE CHAIRMAN: I'll agree to the first part. I'm going to save making the determination on the second part of your request until we have a chance at the subsequent meeting to review whatever material, whether it's briefs or not, but I'm not going to say yes or no on the other one.

MR. MARCUS: I'm just making it clear that we're not waiving any rights as of today to seek that cross-examination. I think we're on the same --

1 THE CHAIRMAN: I think we're on the 2 same page. MR. MARCUS: Same page. 3 THE CHAIRMAN: If you remember 4 correctly, the last meeting your cross-examination 5 went on quite some time, so I'd like to get on 6 7 with it, if we can. So I think we are in 8 agreement. But can we move on, sir? 9 MR. MARCUS: Absolutely. 10 MR. BERGAMO: Mr. Chairman, may I make one further suggestion? If there's a -- it's I 11 12 guess assumed that there's going to be probably 13 another hearing that will come up -- that the brief should be filed pretty much at the same time 14 15 that additional interrogatories are filed, 16 whatever that period of time, that way you have a 17 time period that you can get to see and review any 18 materials. Is that --19 MS. BARBINO DUBUQUE: We have no 20 objection. THE CHAIRMAN: Okay. If the parties 21 22 intend to file a brief, let's try to get them in a 23 week before the next hearing which we'll give you

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the date --

MR. BERGAMO:

That's wonderful.

1 you. THE CHAIRMAN: -- at the end of this 2 3 hearing. Okay. MS. BIDRA: Excuse me, not to belabor 4 5 the point further -- this is Lauren Bidra with the Office of Consumer Counsel. 6 7 THE CHAIRMAN: If you're going to 8 speak, you're going to have to come up and speak 9 to a mike, please. MS. BIDRA: Thank you. Briefly, and 10 not to belabor the point -- this is Lauren Bidra 11 with the Office of Consumer Counsel -- so all 12 13 parties are on an even playing field, if there could just be a summation of the issue to brief, 14 15 that would be very helpful. 16 THE CHAIRMAN: As in the interpretation of a statute and the citation, that's not enough? 17 18 MS. BIDRA: What statute specifically? 19 MS. BACHMAN: 16-50p, Subsection (g). MS. BIDRA: And so the issue to brief 20 would be the parties' interpretation of the 21 22 statute? 23 (Whereupon, Commissioner Caron entered 24 the hearing room.)

SENATOR MURPHY:

I think basically your

1 issue is whether or not the applicant is entitled to file this application without having title or 2 3 the right to acquire title to this property. MR. MARCUS: No, Senator, that really 4 5 isn't the issue. SENATOR MURPHY: 6 Okay. Well, then 7 you --The issue is whether or 8 MR. MARCUS: 9 not it is mandatory that you not hear any 10 testimony relative to ownership or lack thereof by the applicant. Our position is that we have the 11 right to inquire relative to the ownership of the 12 13 property or lack thereof. Attorney Bachman's opinion was that you may not do so. We're saying 14 15 the statute gives you discretion to do so. But you're saying it 16 THE CHAIRMAN: gives the Council discretion --17 18 MR. MARCUS: That's correct. 19 THE CHAIRMAN: -- not the parties? 20 MR. MARCUS: Absolutely. Dr. Klemens. 21 THE CHAIRMAN: 22 DR. KLEMENS: I hate to weigh in on And as I say, lawyers give opinions; 23 this. 24 scientists deal with the facts. I have to say

But I don't understand where this is going

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that.

because there is ample testimony throughout that the place where the proposed transmission wires or pipes are going to go are not yet owned or negotiated by the applicants.

So I don't understand why this actually matters and why you're pursuing this and why we're going to get yet more and more paper on this, which is really, I find, quite burdensome as a member of the Council the amount of paper that's being generated and having to be read.

MR. MARCUS: We have generated very limited amount of that paper, and I would agree with you that it is burdensome to read the paper, but they keep coming. Sometimes I wonder if our e-mail system can handle it all, but so far so good. But I think it's very important to know whether or not an applicant in a project of this nature has control of the site. The Council may or may not think that that is important, but the point is you have the right to hear evidence on that, if you wish to. This statute does not say you may not hear such evidence. I think it is vital. If I were sitting on the Council, I would certainly want to know whether Eversource has control of 290 Railroad, whether or not they own

- 330 Railroad, whether or not they have a contract to sell 330 Railroad. These are all important issues.
- DR. KLEMENS: How is that different
 than whether Eversource or not has negotiated the
 rights on any of these right-of-ways, proposed
 right-of-ways, how is that fundamentally
 different, and all these different proposed
 routings, some of them which Eversource is quite
 clear they have to still negotiate?

MR. MARCUS: One reason it makes it fundamentally different is that our client is sitting in the path of a hurricane. Our client who has been in the property for 40 years is subject to an eviction action. And I think it is important. I think it's important that the Council understand all of the background and understand completely before they make a decision.

DR. KLEMENS: Okay. Thank you.

Thank you, Mr. Chairman.

THE CHAIRMAN: Thank you. Let's go on.

MR. MARCUS: I have one typo, and I'll give you the page. I can't find the page, but the word was -- I had asked about a "traffic" study, and the word used was "terrific" study. And I

will find the page for you before we leave. 1 THE CHAIRMAN: Maybe you're looking for 2 a "terrific" traffic study, but let's go on. 3 MR. MARCUS: Well, there is none. 4 5 CONTINUED CROSS-EXAMINATION MR. MARCUS: Mr. Bowes, one thing I'd 6 7 like to understand because in reading the 8 transcript I read any number of different answers. 9 Mr. Gagnon, at page 237 said "we put a 10 couple of alternative routes as part of our application." 11 12 And page 240 --13 MS. BARBINO DUBUQUE: Excuse me. MR. MARCUS: -- you said you submitted 14 15 three alternative routes. THE CHAIRMAN: Excuse me, sir. 16 MS. BARBINO DUBUQUE: Excuse me. 17 I'm sorry to interrupt, but if you can just tell us 18 which transcript because there's been two hearings 19 20 now. MR. MARCUS: Well, it would be the 21 22 hearing where we had cross-examined. 23 SENATOR MURPHY: And Attorney Marcus, 24 could you move the microphone a little closer? 25 MR. MARCUS: Sure.

1 SENATOR MURPHY: Thank you very much.

MR. MARCUS: I'm coming off of a cold, so my voice is kind of hoarse.

I think I have the page citations properly. One is at page 237. There's another answer at 240 that said "three alternative routes and a couple variations."

Then Mr. Bowes on page 260 said there are two sites that have existing buildings and two that don't. And my question is are we talking about four potential sites?

THE WITNESS (Bowes): There were four sites evaluated for the substation, if that's your question.

MR. MARCUS: Right. And information was submitted on all of those sites to the Council?

THE WITNESS (Bowes): Correct. There's a data table in the application that summarizes the evaluation Eversource performed and also some written documentation for each one of the sites.

MR. MARCUS: So if hypothetically there were found to be a need for the substation, you could have your substation using any one of the four sites; is that correct?

1 THE WITNESS (Bowes): I don't believe It's probably better for the attorney to 2 cover that. My understanding is is there's a 3 proposed and an alternate site included in the 4 5 application, but I'll defer to our attorney. MR. MARCUS: So there are only two 6 7 sites within the application from which the 8 Council can pick or are there four? 9 THE WITNESS (Bowes): My underwriting 10 is two. MS. BARBINO DUBUQUE: That's correct. 11 12 The application does spell out a preferred site for the substation and an alternate site. 13 MR. MARCUS: Okay. That's what I was 14 15 trying to determine because the talk of four is just talk at the moment. 16 17 THE WITNESS (Bowes): We evaluated many 18 parcels of land that were in the local area, and that's an evaluation of the four. It was narrowed 19 20 to two, and then we have proposed one and there's 21 an alternate. MR. MARCUS: Mr. Bowes, I had asked you 22 23 a question and it related to the question, Pet 24 Pantry's Question 14, that out of the potential

substations submitted by you, the original

- 1 proposal and the alternatives, which have the
- 2 largest land area, and you answered you don't have
- 3 anything to add to that. And reading the
- 4 transcript, I realized that it was not an answer.
- 5 That's on page 260.
- 6 MS. BARBINO DUBUQUE: I think that was
- 7 a statement. Is there a question?
- MR. MARCUS: That was a question as to
- 9 which site has the largest land mass.
- 10 THE WITNESS (Bowes): So the response
- 11 to Pet Pantry 014 is very clear with what the
- 12 response to that is, and my statement was I really
- don't have anything to add other than what's
- 14 already in the record. And whether it's on this
- 15 piece of paper as an interrogatory accepted into
- 16 evidence or whether I state it explicitly to you,
- 17 it carries the same weight because that's my
- 18 understanding.
- 19 MR. MARCUS: It seems like a simple
- 20 answer.
- 21 THE WITNESS (Bowes): I can read it to
- 22 you.
- MR. MARCUS: Which has the largest land
- 24 mass? Just tell me.
- 25 THE WITNESS (Bowes): The response

says, "See Section H.2.3 of the application. 1 Old Track site is more than twice the size of the 2 other sites. However, this site has significant 3 challenges listed in Section H.2.2.4 of the 4 5 application." MR. MARCUS: The Old Track site is 330 6 7 Railroad? 8 THE WITNESS (Bowes): It is not. 9 MR. MARCUS: That's a different site? THE WITNESS (Bowes): Correct. 10 MR. MARCUS: So that would be the third 11 12 site? THE WITNESS (Bowes): It's one of the 13 I don't know how your classification of the 14 15 third would be. 16 MR. MARCUS: Okay. It's one of the four. 17 18 I had asked Mr. Gagnon, page 270, about a market study, and you responded that you had a 19 20 site survey. Is that site survey in evidence? That's on page 270. 21 22 MS. BARBINO DUBUQUE: Mr. Chairman, I'm 23 not finding this particular discussion on the

pages that are being cited, so it's very hard to

follow the question when we can't find what was

24

said.

THE CHAIRMAN: Can you just rephrase the question? Is there a site survey for such and such a property?

MR. MARCUS: Was there a site survey report that's been submitted in evidence?

THE WITNESS (Gagnon): No, we did not submit a site survey. I believe the site survey you're talking about is when we talked about CB Ellis Richards and the market study. No, we did not submit it.

MR. MARCUS: So that's not in evidence.

THE WITNESS (Gagnon): (Shaking head in the negative.)

MR. MARCUS: Let's go back to the Pet
Pantry first set of interrogatories. And this
would be Interrogatory Number 29. Okay. My
question would be: How does the drill -- what
kind of drill do you use? How do you not affect
the wetlands in performing the drilling exercise?

THE WITNESS (Gagnon): The drilling exercise, it's going underneath the harbor that we talked about. And let's see if I can pull up the drawings. And the depth of the drill bit below the harbor itself is quite a distance. Off the

- 1 top of my head, I think it's like 30 or 40 feet.
- 2 But I do have the drawings in here that I can
- 3 check if you give me a couple of seconds to look
- 4 through.
- 5 About 47 feet below the water line. So
- 6 it's far enough in the bedrock underneath the
- 7 water.
- MR. MARCUS: And the wetland areas are
- 9 above it?
- 10 THE WITNESS (Gagnon): Yes, wetland
- 11 areas are on the surface.
- 12 MR. MARCUS: And has this been reviewed
- 13 by any wetlands commission, the process that you
- 14 | intend to use? Have you gone to wetlands with
- 15 this?
- 16 MS. BARBINO DUBUQUE: I would like to
- 17 point out that the Council has exclusive
- 18 jurisdiction, so we are not required to go to any
- 19 local wetlands agencies.
- 20 THE CHAIRMAN: Dr. Klemens.
- 21 DR. KLEMENS: I'd just like a point of
- 22 clarification. When you say "water line," I think
- 23 you're meaning the bottom, the depth, not what we
- 24 traditionally call a water line in a wetland,
- 25 correct?

THE WITNESS (Gagnon): I was actually referring to the top level.

DR. KLEMENS: You were referring to the actual top of water, not on the base of the water, which fluctuates, so how do you have a water line in a tidal -- maybe that's a Mike Libertine question.

THE WITNESS (Gagnon): We're about 37 feet below the bottom of the water, the base of the pond area.

DR. KLEMENS: I think that's the more relevant. You're 37 feet below the bottom of the pond or the harbor?

14 THE WITNESS (Gagnon): Correct.

DR. KLEMENS: Thank you.

MR. MARCUS: Okay. On Question Number

31 -- and we are moving along, Mr. Chairman.

18 There are only, I believe, a hundred left.

THE CHAIRMAN: So you skipped Question 30. I was really curious what you got on Question 28, but maybe we don't have any residents from Rye here, so we could save that for another day.

MR. MARCUS: The question was, "What are the alternatives to another substation?" And we had suggested Eversource could supply low-cost

- loans for people to use solar power or more modern
 self-contained generation systems, windmill power,
 but certainly there are any number of alternatives
 to what you're seeking; isn't that true?
 - THE WITNESS (Bowes): Yes. And we highlighted those in Section F of the application, which included both the types of alternatives, as well as the required capacity or output of those alternatives.
- MR. MARCUS: Have you utilized any of those alternatives elsewhere?
- 12 THE WITNESS (Bowes): Yes, we have.
- MR. MARCUS: Have you had experience
- 14 with them?

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- THE WITNESS (Bowes): Yes, we've also had experience in Greenwich with them.
- 17 MR. MARCUS: Are you unequivocally
 18 testifying under oath that there are no
 19 alternatives other than another substation that
 20 would be viable?
- 21 THE WITNESS (Bowes): We are
 22 testifying, or I am testifying, as is in the
 23 application, Section F, highlights several
 24 alternatives. We believe that the proposed
 25 substation and interconnecting transmission lines

- 1 are the best available option today.
- MR. MARCUS: Okay. So what you're
- 3 really saying is that the substation is not the
- 4 only option?
- 5 THE WITNESS (Bowes): The application
- 6 has several other options contained --
- 7 MR. MARCUS: No, I've asked you a
- 8 question. Are you saying that the substation is
- 9 not the only viable option to provide the
- 10 electricity needed by the Town of Greenwich?
- 11 THE WITNESS (Bowes): That is correct.
- MR. MARCUS: Now, let's move to
- 13 Question 33. Have you ever embarked on a project
- 14 of this size without a substantial cost overrun?
- 15 MS. BARBINO DUBUQUE: Mr. Chairman, I
- 16 think the answers are already -- they've been
- 17 sworn to.
- 18 THE CHAIRMAN: I don't understand, sir.
- 19 The answer is very clear, and I don't think they
- 20 have to --
- MR. MARCUS: Well, there's a difference
- 22 between an answer being prepared sitting with your
- 23 counsel and an answer provided as a live body
- 24 under cross-examination. That's what cross is all
- 25 about.

1 THE CHAIRMAN: I'm sorry, I find that very bizarre that you would make a comment like 2 that. Well, "bizarre" was not the right term. 3 But if I understand what you're saying correctly, 4 all of this written material is useless unless we 5 can go over every sentence or every "t" that's 6 7 crossed and every "i" that's dotted. 8 MR. MARCUS: I haven't done that. 9 THE CHAIRMAN: Yes, you have, sir. 10 MR. MARCUS: I've stayed to the 11 questions that --12 THE CHAIRMAN: Well, I will then answer 13 the question. It just says -- and all I'm doing 14 is quoting from the response. Is that what you 15 wanted them to do? 16 MR. MARCUS: I want them to give me an 17 answer to the question sitting there without 18 looking at the response and tell me what the 19 answer is. This is not --20 THE CHAIRMAN: MS. BARBINO DUBUQUE: Mr. Chairman --21 22 THE CHAIRMAN: This is not a "got-you" game, this is not a game of "got-you." They can 23 24 certainly look at the response.

MR. MARCUS: Cross-examination is of

- course a game of "got-you." There is no other
 basis for cross but to try to elicit information
 that's not favorable to the party that you're
 questioning.
- 5 THE CHAIRMAN: This is not a court.
- 6 MR. MARCUS: This is not a court, I
- 7 understand that. If it were a court, we wouldn't
- 8 have a gang response. So it's completely
- 9 different. It's an administrative hearing.
- 10 There's a lot of leeway, but that leeway works
- 11 both ways. It doesn't work only for Eversource.
- 12 It works for the intervenors as well.
- 13 THE CHAIRMAN: Absolutely, one thing
- 14 I'm in total agreement with what you said. And
- 15 that's why they have prepared this list and
- 16 they've answered the questions.
- 17 Now, if you have a question about their
- 18 response or wish to ask some in addition to what
- 19 they call Stamford and Greater Springfield
- 20 Reliability, if you have another case, I'm not
- 21 sure what the point would be.
- MR. MARCUS: The response --
- THE CHAIRMAN: Excuse me, sir, I'm
- 24 talking. Am I allowed to do that?
- MR. MARCUS: You have the chair.

THE CHAIRMAN: Well, thank you. I was about to suggest maybe we should change, you know, switch chairs, but I won't do that.

If you wanted them to elaborate on the answer, that's perfectly acceptable, but if you just want them to repeat the answer and somehow by memory remember the answer to everything and the Chair is supposed to not allow them to look at the mountains of paper, I mean, is beyond me.

MR. MARCUS: Let's do this a different way then. We'll get to what I'm trying to get at.

How much was the job that you referred to in Stamford, the underground cable project?

How much was the bid, and what did you actually come in at?

THE WITNESS (Gagnon): Originally we put an estimate in at 47 million. The project came in at 36.6 million.

MR. MARCUS: Do you have any projects that you can point me to that are in the \$140, \$150 million range that came in without a cost overrun?

THE WITNESS (Gagnon): Without a cost overrun? Yes, the Greater Springfield Reliability Project. I don't remember the exact number, but

- 1 it was a \$700 million project. That came in on
- 2 budget. We just finished the IRP, Interstate
- 3 Reliability Project. The estimate was 217
- 4 million. We are at 216 right now, and the project
- 5 is just going into service.
- 6 MR. MARCUS: And over the past five
- 7 years what projects over 100 million have come in
- 8 over cost where there have been cost overruns?
- 9 THE WITNESS (Gagnon): In the past five
- 10 years, I would have to do some research on that.
- 11 I don't know off the top of my head.
- MR. MARCUS: Well, that's what the
- 13 question really asked for. I thought the question
- 14 was clear. I don't think the answer was.
- 15 MR. ASHTON: Mr. Marcus, what's the
- 16 relevance of this?
- 17 MR. MARCUS: The relevance is that
- 18 there is a likelihood, in our opinion, of a cost
- 19 overrun; and if there is, the ratepayers of the
- 20 state are stuck with additional costs. So if
- 21 there's a likelihood that the overrun will take
- 22 place, then it is something which is negative
- 23 and --
- MR. ASHTON: Are you testifying now?
- 25 MR. MARCUS: I'm not testifying. I'm

- responding to a question.
- MR. ASHTON: Well, you said there's a
- 3 likelihood of it coming in over. That to me
- 4 sounds like testimony.
- 5 MR. MARCUS: I'm responding to a
- 6 question.

- 7 Moving to Question 37, is it true that
- 8 in Greenwich the load values were reduced in 2014?
- 9 THE WITNESS (Bowes): The peak load in
- 10 Greenwich went down in 2014 versus 2013, yes.
- 11 MR. MARCUS: Well, if your position is
- 12 that you need the substation because Greenwich is
- 13 growing and there's an additional need, what's the
- 14 explanation for it going down?
- THE WITNESS (Bowes): We have addressed
- 16 that in several of the other interrogatories, but
- 17 I'll restate it as simply as I can. 2013 had a
- 18 long period of high heat, high humidity days,
- 19 which led to a high heat index, and that's when
- 20 the peak demand was set in Greenwich. In 2014 and
- 21 also in 2015 we have not seen that same type of
- 22 prolonged heat wave during those summer months.
- MR. MARCUS: So this is something that
- 24 can go up, can go down, to some extent contingent
- 25 on the weather?

1 THE WITNESS (Bowes): Very contingent upon the weather. And yes, over the last ten 2 years there have been year-to-year variations in 3 the peak demand in Greenwich. 4 5 MR. MARCUS: Is it true that the design of the substation building has not met with the 6 7 approval of the Town of Greenwich? It's just a 8 yes or no. 9 MS. BARBINO DUBUQUE: I'm going to object to that because we are before the Siting 10 Council, and the town's approval is not required. 11 12 THE CHAIRMAN: I guess the answer to 13 your question is no. 14 MR. MARCUS: Okay. 15 One issue I'd like to come back to to further understand it, we had agreed, or you had 16 testified to the fact that 330 Railroad is within 17 18 a 500-year floodplain; is that correct? 19 THE WITNESS (Bowes): Yes, it is. MR. MARCUS: And somewhere along the 20 way you had allocated the chance of a flood at .2 21 22 percent? 23 THE WITNESS (Bowes): 24 MR. MARCUS: Is that correct? 25 THE WITNESS (Bowes): That is correct.

1 MR. MARCUS: And am I correct in thinking that .2 percent is one out of 500? 2 THE WITNESS (Bowes): Correct. 3 MR. MARCUS: So that property has a one 4 5 out of 500 chance of a flood. Incidentally, there isn't any record of any flooding on that property, 6 7 is there? 8 THE WITNESS (Bowes): I'm not aware of 9 any. MR. MARCUS: Is it possible if you're 10 afraid of -- concerned about a flood to put the 11 substation somewhat higher on that property to 12 13 avoid the .2 percent risk? 14 THE WITNESS (Bowes): 15 MR. MARCUS: Now, if you look at 16 Interrogatory Number 45, we asked whether or not 290 Railroad was only several feet away from 330 17 18 Railroad. And if you look at your answer, you said the edge of the 500 floodplain is located 10 19 feet from the southwest corner of 290 Railroad. 20 So they're pretty close together. So would that 21 22 .2 risk also apply to 290 Railroad? 23 THE WITNESS (Bowes): The risk would be 24 lower than that for 290 Railroad Avenue because

it's outside the delineated 500-year floodplain.

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               MR. MARCUS: So what would you
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    calculate that risk as?
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               THE WITNESS (Bowes): I have no --
               MR. MARCUS: Well, you're really
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    guessing on the .2. Give us an educated guess on
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    290.
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               THE WITNESS (Bowes): I'm not guessing
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    on the .2 percent. That's an established criteria
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    of what a 500-year floodplain is.
               MR. MARCUS: So if you're within 10
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    feet of a 500-year floodplain, there's some
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    exposure at that point?
               THE WITNESS (Bowes): It would be a
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    reduced exposure as you go on higher ground
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15
    from --
               MR. MARCUS: But can we agree that if
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    you're 10 feet away, there is exposure, some
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    exposure?
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               THE WITNESS (Bowes): There is limited
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    exposure, yes.
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               MR. MARCUS: Okay.
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               DR. KLEMENS: Can we have Mr. Libertine
23
    answer that question?
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               THE WITNESS (Libertine): Well, similar
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    to Mr. Bowes's response, I think it's almost
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impossible to give you a finite answer in terms of 1 the probability, but the flood zone is associated 2 with the stream that actually bisects 330 Railroad 3 Avenue; and yes, it does flow from north to south 4 5 and exits through that portion of the property. So the entire intersection and that whole area is 6 7 close in proximity to the 500-year floodplain. 8 there a likelihood that we're going to have that type of an event outside the 500-year floodplain 9 that's been delineated? You can never say never 10 certainly, but it's a fairly low likelihood. 11 12 The other thing I would point out is in

The other thing I would point out is in terms of any critical infrastructure that's proposed for the 290 Railroad site, that's really well outside of that area. We're talking about a fairly small corner of the property that is in close proximity to that. So we don't really have that exposure potential that we have at 330, and that's really the difference.

MR. MARCUS: It would be a lower exposure; isn't that correct?

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THE WITNESS (Libertine): That's correct.

MR. MARCUS: I mean, all the calculations you're using, Mr. Bowes, are based

- upon flood maps, correct? I mean, this event hasn't happened, there hasn't been a 100-year flood, there hasn't been a 500-year flood; is that correct? THE WITNESS (Bowes): Not that I'm aware of at this location. MR. MARCUS: And that's true of both 330 and 290? THE WITNESS (Bowes): Yes, I believe it is.
 - MR. MARCUS: Okay. Let's move on to Interrogatory 46. Within the last ten years, to the best of your knowledge, have there been any blackouts in Greenwich other than Storm Sandy, October 30, 2012, and a tree-related event on August 6, 2012?

THE WITNESS (Bowes): If you're defining a blackout as a complete loss of supply and all the residents being out of service, then those are the only two that I'm aware of.

MR. MARCUS: So that Greenwich is not an area where it totally blacks out as a matter of regularity?

24 THE WITNESS (Bowes): Two in ten years 25 is certainly abnormal. The planning criteria from

1 ISO New England usually assumes a one-in-ten-year probability, and that's just a probability. So to 2 3 have it actually happen twice in that time frame I would say is highly unusual. 4 5 MR. MARCUS: It actually happened twice over the period of six months. It is unusual. 6 7 THE WITNESS (Bowes): It is unusual. 8 MR. MARCUS: And it's also true of 9 lightening strikes as well; isn't that true? THE WITNESS (Bowes): I'm sorry, what 10 is true of lighting strikes? 11 12 MR. MARCUS: Well, let's look at 13 Question 47. 14 THE WITNESS (Bowes): To have 15 lightening strikes occur is fairly commonplace in 16 Connecticut. For example, in Greenwich in the last five years there have been more than 2,500 17 18 lightening strikes in the town proximity. 19 MR. MARCUS: But it's rare for a lightening strike to actually hit a substation? 20 THE WITNESS (Bowes): I would say in 21 the scheme of the total number of lightening 22 23 strikes, yes. 24 Now, Eversource through MR. MARCUS:

its sworn testimony has indicated that there is

increased demand in Greenwich for which you need 1 to meet; is that correct? 2 THE WITNESS (Bowes): Yes. 3 MR. MARCUS: Yet, has the size of the 4 5 town grown appreciably in the last several years? THE WITNESS (Bowes): You mean the 6 7 population? 8 MR. MARCUS: Population. 9 THE WITNESS (Bowes): The population, I believe, has remained relatively stable. 10 11 MR. MARCUS: Then what is it that has 12 grown within the town? THE WITNESS (Bowes): Based on my 13 experience, over the last few years there's been a 14 15 number of reconstruction projects done in 16 Greenwich where existing older homes are either significantly renovated and increased in size or 17 18 the homes are removed and then a new home is added with a sizeable increase in size and demand. 19 20 MR. MARCUS: So are you suggesting the need is based on your visual observations as to --21 22 THE WITNESS (Bowes): Well, as to the reason why, I mean, the numbers are very clear in 23 24 both the peak demand changes and the actual usage,

so the electric usage. Those numbers have been

1 provided in the application.

MR. MARCUS: We'll reserve further questions on that subject matter based on the --

THE WITNESS (Bowes): The reason that I have seen based on the number of new service applications that we have coming in is not abnormally high for new construction. What we do see is a lot of reconstruction activity where the service upgrades are requested. It might be an existing 200 or 400 amp service, and we're seeing a number of requests for three-phase power versus the normal single-phase, and it's not uncommon to have 1,000 or 1,200 amp services being requested.

MR. MARCUS: And these are on residential homes?

THE WITNESS (Bowes): They are residential, yes. So in another area or other parts of the state those would typically be medium-sized commercial buildings that would require a service of that size.

MR. MARCUS: You're talking about having increased service to handle the big mansions?

24 THE WITNESS (Bowes): I think larger 25 facilities, larger residential dwellings, yes.

MR. MARCUS: I'm going to move to and reserve the right to ask other questions based on the town submission, as previously granted by the Council.

But let's move to Interrogatory 61.

Just explain to me in plain English why the culvert that goes through the middle of 330 Railroad would be an issue or a detriment to use of that property for a substation?

THE WITNESS (Bowes): As Mr. Libertine commented on previously, it bisects the property. It has the potential for a 500-year flood. It would make construction of the new facility either more costly or more complicated based upon having to either bridge this culvert or ultimately replace this culvert. So the length of construction, the complexity of construction, and the cost of the substation would rise because of it.

MR. MARCUS: How high is the culvert?

I mean, if this is a flat surface, or your desk is a flat surface, does the culvert protrude above the land or is it underneath?

THE WITNESS (Bowes): My understanding it's underneath for the entire segment across the

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    parcel.
               MR. MARCUS: So there's land above the
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    culvert?
               THE WITNESS (Bowes): Yes.
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               MR. MARCUS: And you don't see it if
    you look at the property; is that true?
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               THE WITNESS (Bowes): That is correct,
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    as far as I know.
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               MR. MARCUS: Okay. I had thought from
    your previous testimony it was actually elevated
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    and up, but it's not, it's actually covered by
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    dirt?
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               THE WITNESS (Bowes): Yes.
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               MR. MARCUS: So your only reason for
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    talking about the culvert is that it ties in with
    the one out of 500 and 500-year flood issue?
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               THE WITNESS (Bowes):
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                                     No.
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               MR. MARCUS:
                            No. Okay.
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               THE WITNESS (Bowes): I just gave you
    three other reasons.
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               MR. MARCUS: So there are multiple
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    reasons. But it certainly is nothing that could
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    not be handled in a construction manner, you could
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    certainly construct above the culvert, and you can
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protect against the culvert?

1 THE WITNESS (Bowes): We couldn't build over the culvert, if that's what you're saying. 2 Could we work around it with mitigation measures? 3 It's possible, or we'd have to replace the 4 5 culvert. MR. MARCUS: And replacing the culvert 6 7 is a possibility; is that correct? 8 THE WITNESS (Gagnon): I just want to 9 add, this culvert was built in 1934. It's very 10 The structure design itself can't support the heavy weight. So if you were going to do it, 11 you would have to rebuild the culvert area 12 13 completely in a live substation area. 14 MR. MARCUS: But you could do that? 15 THE WITNESS (Gagnon): As engineers we 16 believe you can do a lot of things, correct. MR. MARCUS: No. Just answer my 17 18 question. You could replace the culvert? 19 MS. BARBINO DUBUQUE: I think Mr. 20 Gagnon did say the answer. 21 MR. MARCUS: Was the answer yes or no? 22 MS. BARBINO DUBUQUE: He said 23 "Correct." 24 MR. MARCUS: Okay. Then it's a "yes."

All right. I just have one last

question for today.

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be.

Going over all of the testimony that's 2 been given on my cross -- and I realize that your 3 position is that there's a second phase to this, 4 5 give the certificate, and then we'll do the rest of it -- but there's no study on the impact of 6 7 parking due to trenching, there's no study on 8 construction noise, there's no traffic study, no 9 study on impact of construction excavation and 10 demolition, no study on impact of town services, emergencies, no study on cost, ability to perform, 11 12 no completion of what is impervious, no market 13 study of any kind, no market study on market value of real estate during construction, no study of 14 15 use of chemicals used to --16 MS. BARBINO DUBUQUE: Excuse me, is 17 there a question, Mr. Chairman --18 MR. MARCUS: There will be. There will

MS. BARBINO DUBUQUE: -- because it's getting very long, so we're going to have a hard time keeping track of it.

MR. MARCUS: I'm going to give you the pages that these issues were raised.

THE CHAIRMAN: We'd like a question.

1 MR. MARCUS: There's going to be one. THE CHAIRMAN: 2 Okay. 3 MR. MARCUS: -- no study where use of 4 chemicals used to break on rocks. Given that, how can you in all fairness expect the Council to 5 provide you with a certificate? 6 7 MS. BARBINO DUBUQUE: Mr. Chairman, I 8 think that's more of a rhetorical question. It's 9 not --10 MR. MARCUS: No, it's a real question. 11 MS. BARBINO DUBUQUE: Eversource has 12 submitted many many documents in support of its 13 application. MR. MARCUS: The issue is --14 15 MS. BARBINO DUBUQUE: Is there any other answer that we need to provide other than 16 the record speaks for itself? 17 18 THE CHAIRMAN: I think that obviously he's entitled to ask the question and you're 19 20 entitled to answer the question. And it doesn't require that the intervenor like your answer, but 21 you're entitled to answer it. If that's your 22 23 answer, that's your answer. 24 MS. BARBINO DUBUQUE: Well, then go

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ahead and try, Mr. Bowes.

THE WITNESS (Bowes): So we provided an application to the Council that meets all of the legal requirements. Along with that, we've also performed this type of project work in many other parts of our service territory and done it successfully.

I'll point out the latest project we did, which is similar in type, in downtown Stamford. It went through a very congested area. It was an underground transmission line connecting two substations. And we worked through the issues with the City of Stamford in what I would call a partnership, including through different administrations, if there was a political issue or not. We were successful with the City of Stamford on a project that is similar in the underground construction components, at least. And we've had ongoing projects at both of the end substations, both Glenbrook and Southend.

So in the scope of the entirety of the project it's probably actually larger than this project in impacts on the city and city services. They commended us for the work on that project, and you saw just recently Mr. Gagnon indicated that it came in significantly below the cost

estimate we had. And the reason it came in -- or one of the reasons it came in below cost was because we were able to work so well with the City of Stamford.

We fully intend to do the same thing with the Town of Greenwich. We've demonstrated that in past projects in the Town of Greenwich. We've been able to work through complicated underground issues between the town sewer and our electric facilities. We've proven that we can work well with Metro-North. So a lot of the same entities that we deal with in this proposed project we have done so successfully in past projects, including this very same service area.

MR. MARCUS: But would you agree that for the intervenors and the general public the lack of these studies gives them insufficient material to review to really say that this project is viable or not?

THE WITNESS (Bowes): I cannot speak for all the intervenors, but it clearly did not satisfy you.

MR. MARCUS: One last question. Why do you not do these studies now? Why do you wait until you get the certificate? Is it a matter of

1 money?

THE WITNESS (Bowes): No, it's a matter of the endless possibilities of which studies to do. We need to have a preferred or a set route and a set location then all of these other studies can be performed, if needed. But until you have that, the amount of variations are really overwhelming.

MR. MARCUS: I don't have any further questions at this time subject to the understanding reached previously about continuing cross-exam on the answers to the second set of interrogatories and on any materials received after November 23rd.

THE CHAIRMAN: Thank you.

The next entity, intervenors for cross, is Field Point Estate Townhouses.

DWIGHT UEDA: Okay. What I'd like to do is start, believe it or not, this is maybe an ironic request --

21 THE CHAIRMAN: You might start by 22 stating your name.

MR. UEDA: Okay. My name is Dwight Ueda, and I'm representing Field Point Estate Townhouses as an intervenor.

1 THE CHAIRMAN: Okay. MR. UEDA: Thank you. 2 3 Keep your Pet Pantry questions open. I'd like to refer to the first set of 4 5 interrogatories. It's Question Number 22. So the question reads as follows: "Who are the 6 7 commercial users in Stamford and how much do they 8 Is this the reason for putting a substation 9 in Greenwich and expanding Cos Cob?" 10 And Eversource provided the response, "The proposed new substation will only serve 11 customers in Greenwich." 12 So my cross examination is can the same 13 be said about the Cos Cob station once a new 14 15 substation in Greenwich is placed into service? THE WITNESS (Bowes): That it will 16 serve only customers in Greenwich? 17 18 MR. UEDA: Correct. This is the Cos Cob facility. 19 THE WITNESS (Bowes): I believe the 20 answer is yes. The hesitation was is one of the 21 largest customers out of Cos Cob is Metro-North, 22 23 so it would certainly serve customers along the

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railroad corridor.

MR. UEDA:

Okay.

I'm a little confused

- 1 by that answer, but I'll get to that next time.
- 2 Because my understanding is that Metro-North is
- 3 not serviced by Eversource, but they're taking
- 4 directly off the 115-kV line, therefore they take
- 5 no capacity from the Cos Cob station?
- 6 THE WITNESS (Bowes): Again, it may be
- 7 a matter of semantics, but the general facility
- 8 there at Cos Cob, I was including both the
- 9 Metro-North and Eversource substations and the NRG
- 10 facility.
- MR. UEDA: All right. So why don't we
- 12 go to the interrogatories that I had last
- 13 submitted, the third set of interrogatories. And
- 14 the problem is I, like Pet Pantry Warehouse, need
- 15 more time to go over the responses, but let me ask
- 16 a few questions that are kind of ones that -- you
- 17 know, clarification ones.
- 18 So the first question I'd like to go to
- 19 which is a quick clarification -- it just requires
- 20 a yes or no answer -- is Question 11 where I asked
- 21 whether the \$140 million substation proposal will
- 22 still be deemed an accurate and a good faith
- 23 estimate under ISO-NE PP-4 if the substation were
- 24 completed for an actual cost of 210 million. You
- 25 gave a rather elaborate answer. I presumed you

- were just trying to say "yes"; is that correct?
- 2 I'm just asking just is that indeed correct? I'm
- 3 not asking whether you'll come in at that, but
- 4 will you be legally okay?
- 5 THE WITNESS (Gagnon): For a conceptual
- 6 level estimate it would be okay.
- 7 MR. UEDA: Okay. All right. So let's
- 8 talk about Ouestion 5 where I asked about the ad
- 9 hoc solutions such as emergency generators being
- 10 brought to bear to meet peak demand.
- Now, in your answer -- and I think this
- 12 is sort of the crux of the whole argument -- is
- 13 that what you're saying is that the changes in
- 14 peak demand are a result of permanent load
- 15 additions. And that was your response.
- 16 And when I look at the historical peak
- 17 usage, which happened to be in Question Number 2,
- 18 I don't see where those permanent load additions
- 19 are. If you can show me how I can identify them
- 20 based on the historical usage in Question 2? I'd
- 21 like to see some kind of trend line that shows
- 22 some degree of that increase in permanent load.
- THE WITNESS (Bowes): Okay. So I think
- 24 that's the only question that I'll address. I
- 25 know there were several other, beginning with the

- 1 other interrogatory. The permanent load additions
- 2 would be included and there were several
- 3 interrogatories around the amount of megawatt
- 4 hours actually served. So it's not a question of
- 5 capacity, it's a question of usage, and that usage
- 6 has been consistent across many of the years even
- 7 when the peak demand was not.
- 8 MR. UEDA: Right. But isn't the issue
- 9 about addressing peak demand?
- 10 THE WITNESS (Bowes): The issue is
- 11 about addressing peak demand, right.
- MR. UEDA: Right. And so in some ways
- 13 we're sort of mixing what was a permanent load
- 14 usage with peak demand. So far with peak demand
- we have not seen a strong, clear, upward trend.
- 16 THE WITNESS (Bowes): And the issue is
- if the underlying customer loads are there, as
- 18 measured by their usage, then in the high heat,
- 19 high humidity days there's every expectation that
- 20 the demand will also go up.
- MR. UEDA: Right.
- THE WITNESS (Bowes): There's been no
- 23 curtailment of actual usage by customers in
- 24 Greenwich, so that base load or base usage is
- 25 still there.

MR. UEDA: Okay. I guess my point is that when I look at this historical usage rather than using these trends, to me what you're talking about, even though the permanent load has increased, you know, weather is highly variable, it's not something you can count on or we can expect this trend line to just go continually upward. Instead, what we have is something that's highly variable. And usually when you have situations that are highly variable, you don't use permanent solutions to solve them.

THE WITNESS (Bowes): When the alternative is disconnecting customers, there is an obligation to serve so --

MR. UEDA: Okay. You said
"disconnecting customers." You basically provided
only 140 mega -- was it a new substation to serve
that or to resolve that issue?

THE WITNESS (Bowes): Maybe I wasn't clear before. Eversource has an obligation to serve all of the customers on the hottest summer day, the coldest winter night. So we have to respond in a planning forecast to loads that will be achievable in a certain period of time. So without that obligation to serve, if customers are

willing to exit the system at our will -- and I

don't think that's the case here -- then other

solutions could be adopted, load curtailment, for

example.

MR. UEDA: Okay.

THE WITNESS (Bowes): Emergency generation, for example. It's not part of our base planning criteria to run emergency generators to satisfy customer load. It's only during emergencies, thus the name, emergency generation.

MR. UEDA: Right. But it seems like when you have some things that are fluctuating, you don't need to have a permanent solution because they're not fluctuating upwards, they're more cyclical.

THE WITNESS (Bowes): We've seen a base load increase over the years.

MR. UEDA: Right.

THE WITNESS (Bowes): We've seen a peak demand that has spiked in 2013. If you look at the ISO New England planning criteria, they look at a probability that that will occur, and then put that on an annualized basis. They use a 1.2 percent growth rate. We use something a little bit more conservative than that, 1 percent, based

- on actual metered data from both the Cos Cob substation as well as many other surrounding substations.
- So we think we have a valid process to project what the future loads could be, and with the obligation to serve those loads, we have to provide a permanent solution.
 - MR. UEDA: Okay. But when I look at this, I don't see a 1 percent growth rate in the historical data. You know, if I look at the actual data, I don't see it.

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- 12 THE WITNESS (Gagnon): Some of that is,
 13 you talked about it, it's being masked by the
 14 temperatures.
 - MR. UEDA: Right, but temperatures will always vary too. The temperature is not permanently rising.
- 18 THE WITNESS (Gagnon): Temperatures, dew point, all that comes into effect. And what's 19 20 happening is you're masking a trend of power delivery. When you look at how ISO does their 21 22 analysis, they do a very detailed analysis. 23 normalize the weather. They take that out of the 24 equation. And they begin to look at what is the 25 economy, so they can look at the underlying trends

- that are happening that the actual data masks all that because weather is so unpredictable.
- MR. UEDA: Okay. But you can look at it historically. If you look at 2006, we had a peak energy usage of 125 megavolt amperes, and it wasn't until 2012 where that was eclipsed. That was a long time.
- 8 THE WITNESS (Bowes): That is correct.
- 9 MR. UEDA: And so my point is is that
 10 this doesn't show an urgent imminent need which is
 11 I think how you're trying to portray the
 12 substation.
- 13 THE WITNESS (Bowes): What we're trying
 14 to portray is the need, and we're trying to
 15 project out for future years when that need will
 16 occur. And it could occur next summer. It could
 17 occur --
- MR. UEDA: It could, but does that mean it's going to fall in subsequent summers?
- 20 THE WITNESS (Bowes): It could. It 21 could occur in several summers beyond that.
- MR. UEDA: But we don't know. If we look at history, we can't say that definitively, nor can we say that probabilistically.
- THE WITNESS (Bowes): Well, yes, we can

1 probabilistically, and that's what ISO New England They look at a forecast. 2 does. There's two different types. One is a 50/50, which means 3 there's a 50 percent chance it will occur. One is 4 5 a 90/10, which means there's a 10 percent chance it will occur. 6 7 MR. UEDA: Okay. So but basically what 8 you're using is trend lines? 9 THE WITNESS (Bowes): We're using 10 projections based upon actual metered values we have at Cos Cob and neighboring substations and 11 12 comparing that, contrasting it with what ISO New 13 England does on a much broader or a much more holistic view, including weather normalization, 14 15 including degree days. MR. UEDA: Okay. But I guess the point 16 17 is is that that projection was based on 2013. 18 THE WITNESS (Bowes): Our projection is based on a peak demand in the last five years, 19 20 which was 2013. MR. UEDA: And basically we went up 21 22 from there, from 1 percent. So basically the 23 clock has started from 2013, and yet when I look

THE WITNESS (Bowes): Peak demand

at 2014 and 2015, the usage actually declined.

24

actually declined. The usage, it only declined by 1 1 percent in 2014, and 2015 it may actually be 2 higher. 3 MR. UEDA: So what you're saying is 4 5 that the underlying usage has increased by 1 percent? 6 7 THE WITNESS (Bowes): What I'm saying 8 is the underlying usage is still there. 9 MR. UEDA: But has it increased by 1 10 percent because that's what we're assuming? 11 THE WITNESS (Bowes): The usage this 12 year to date, again, it's more general across 13 Connecticut, is up about 1.5 percent, so more than our projection of 1 percent. 14 15 MR. UEDA: Okay. But what was it in Greenwich? 16 THE WITNESS (Bowes): I don't have the 17 18 specific data for Greenwich. We filed it a year to date, but until the end of the year, I won't 19 20 have the actual usage. Year to date it was trending at or above previous years. Whether it 21 22 will be at one percent, one-and-a-half percent, I 23 can't answer that.

MR. UEDA:

Okay.

THE WITNESS (Bowes): So the point is

24

- 1 is the underlying customer loads are still there.
- 2 If we get into a condition of high heat, high
- 3 humidity, then there's every expectation the
- 4 demand will increase as well. And -- let me
- 5 finish. In every projection we have of across,
- 6 you know, certainly the country, the region,
- 7 possibly more globally, is is that the summer
- 8 heating will increase over time. And the climate
- 9 is changing to be both hotter in the northeast and
- 10 bring more severe weather into the northeast. And
- 11 Connecticut has recognized that, and now we have
- 12 to accommodate climate change in our
- 13 infrastructure improvements.
- 14 So it's measure data, ISO New England
- 15 forecasting, the under base load is still there,
- 16 and the future tells us that it's going to be
- 17 hotter and more severe in the future.
- 18 MR. UEDA: Again, these are
- 19 projections. When I look at the history, I don't
- 20 see it reflected in the history.
- DR. KLEMENS: Do you believe in global
- 22 warming?
- MR. UEDA: Yes, I do. But what I'm
- 24 saying is I also believe in what I see here. I'm
- 25 just basically looking at the evidence. And

again, you know, if we're basing everything off of an anomaly, is that necessarily wise?

THE WITNESS (Bowes): Well, the anomaly was the five-day heat wave in 2013.

MR. UEDA: Right. And if it is indeed an anomaly. This is something that you always plan as being a permanent condition as opposed to an intermittent one.

THE WITNESS (Bowes): Well, every indication is is that it will happen again, and it could happen --

MR. UEDA: Right. But the issue is even if it happens again, the question is whether it happens in successive years and continuously because that's what a permanent substation is assuming.

THE WITNESS (Bowes): Well, the permanent substation addresses the capacity issue for Cos Cob. It also addresses the distribution reliability issues for the 27-kV system. It also allows a lot more flexibility in how we operate the system in Greenwich. With the new 13.2 system we will be able to provide automatic backups to essentially all of the customers in Greenwich. So that's not part of this application, but it allows

us the flexibility in the future to operate very differently than we do today.

MR. UEDA: All right. Now let's go to Question 13. This is, again, I think is -- and here in your response it seems like the metric that you're focused on is the cost of adding additional capacity on a per megavolt ampere basis. And in my opinion, it really should just be cost of taking care of any future increase in energy demand. And I don't think the two are synonymous.

So if it costs us \$50 million to add another 20 megavolt amps to existing facilities, even though it might cost more on a per megavolt amp basis, I think that's a better deal.

MS. BARBINO DUBUQUE: Mr. Chairman, I think this is testimony and not a question.

THE CHAIRMAN: Yes. Put it in the form of a question.

MR. UEDA: Okay. So I guess my question is my belief is that really the correct metric to evaluate the best project -- to evaluate the proposal really should not be on a per, what was the cost of the per megavolt amps, but rather the cost of the proposal itself, the whole cost.

1 MS. BARBINO DUBUQUE: And the question

2 again?

3 MR. UEDA: So would you agree with

4 that?

THE WITNESS (Bowes): No.

MR. UEDA: Because the example I'm providing is that if it costs less to add less capacity, in my opinion that would be a better deal, but I'm just asking you if you would agree with that perspective?

THE WITNESS (Bowes): So over the past several years we've done several incremental projects for about \$35 million to address immediate reliability or overload needs. We're at a point now where cost-effective solutions, even incremental ones, are much more difficult to come by based on a variety of issues.

We're also dealing with a situation which is both a capacity issue as well as a reliability issue, capacity on the substation, reliability on the distribution feeders. We experienced several interruptions this year in July on the distribution circuits even though we didn't hit a peak load in the substation. So there are multiple needs here beyond just the one

of the substation capacity.

know, there are probably several other measures that are equally as good as a dollar per MVA. It's the reliability improvement that we would get for the customers of Greenwich. It's the operational flexibility of being able to provide a primary distribution circuit, as well as an alternate distribution circuit on a 13.2 system, and ultimately begin to retire the 27-kV system which is a -- it's not a system that we expand anymore in Connecticut. We're retiring it as we go forward. So I think there's an obsolescence infrastructure improvement as well. The Prospect Street substation is now 80 years old.

So there are many other benefits here that they could be included in this statement beyond just the dollars per MVA. And some of them may not have a direct financial impact but would clearly have a significant reliability, positive reliability impact to the customers of Greenwich.

MR. UEDA: All right. So I guess my question then is that why like, for instance, you had mentioned the transmission line issue. Is that -- why did it fail, the transmission lines in

Cos Cob that I guess you had issues with in July?

THE WITNESS (Bowes): So there were three distribution circuits that actually failed coming from Cos Cob to Prospect. It's in one of the interrogatories. I think it was from the OCC who asked that question. In each case in July there were cable failures. So it's an underground system. They did not appear to be overloaded, so it's a question probably more of on the age of the assets, as well as the previous operating conditions.

Over the years we've had several emergency overloads of those cables, and in fact with each one of those failures, each one of the three we had in July, the remaining cables did go into their emergency rating, which means they see a much higher load than is normally acceptable on those cables, increased temperatures, and then as the cables cooled down is when we saw the failures. The subsequent two failures were actually under light load conditions, probably indicated by some latent damage it had caused during the emergency ratings.

MR. UEDA: So what has happened to those cables since?

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1
               THE WITNESS (Bowes): What is their
2
    operating --
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               MR. UEDA: No. What has happened?
4
    Have they been replaced?
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               THE WITNESS (Bowes): So the sections
    that failed, yes, they have been replaced.
6
7
    entire asset length of two-plus miles has not been
8
    replaced, only the damaged section.
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               MR. UEDA: So it should perform up to
    specification at this point, despite the fact that
10
    it's been repaired partially?
11
               THE WITNESS (Bowes): That's our
12
13
    planning assumption, yes, is that once we install
    an asset it has a rating over its lifetime.
14
15
               MR. UEDA: Okay.
16
               THE WITNESS (Bowes): So the operating
    characteristics may be very different than the
17
18
    planning assumption.
19
               MR. UEDA: Right. But it should meet
    its specifications or perform under
20
21
    specifications?
22
               THE WITNESS (Bowes): Correct.
23
               MR. UEDA: All right. That will be all
24
    for now.
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THE CHAIRMAN:

Thank you.

1 MR. UEDA: Thank you. THE CHAIRMAN: Let's see who else. 2 Christine Edwards? 3 CHRISTINE EDWARDS: Thank you all for 4 5 the opportunity to come before you as an intervenor today. I'm Christine Edwards. 6 7 27, almost 28-year, realtor in the Greenwich and 8 Stamford area. Good to see you again, Mr. Stein. I just want to bring out a number of 9 10 things. And if you'll bear with me one moment? 11 (Pause.) 12 MS. EDWARDS: I find it very 13 interesting that we're looking at the issue of the 500-year floodplain, and we have a mention that 14 15 the edge of the property being considered, 10 feet of it, is in that floodplain, and so it's 16 17 perceived as insignificant. At the same time, had 18 it been required for Eversource to appear, as every other builder would appear before 19 Greenwich's zoning and building --20 THE CHAIRMAN: I think it was 10 feet 21 22 from the corner, not 10 feet -- I think you --23 MS. EDWARDS: I thought it was 10 feet 24 of the edge of the corner is in the floodplain; is

that not correct? That's what I heard.

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1
               THE WITNESS (Bowes): That is not
2
    correct.
               MS. EDWARDS: So it is 10 feet from
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4
    that area?
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               THE WITNESS (Bowes): Correct.
               MS. EDWARDS: So it's a very
6
    insignificant amount. I mean, that's like this
7
    table --
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9
               THE CHAIRMAN: Well, I just wanted
    to correct that --
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11
               MS. EDWARDS: Thank you for that
    because I heard it a little differently.
12
               Had any other builder gone before
13
    planning and zoning, inlands wetlands, they would
14
15
    have had to be looked at very substantially with
    what are much more stringent requirements under
16
    Greenwich building, which are far above what most
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18
    towns would require. One of those is that the
19
    height to build is greater and requirements
20
    greater than even FEMA maps require. That's in
21
    the information for the planning and zoning and
22
    such.
23
               THE CHAIRMAN:
                               Do you --
24
               MS. EDWARDS: I'm setting up for a
25
    question.
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1 THE CHAIRMAN: Please do. MS. EDWARDS: Okay. Because this is 2 3 important to give the background. So the question falls within that, which is have you looked at 4 5 Denise Savageau, who is the conservation director's information on the not just flooding 6 7 but the drainage issues due to impervious surfaces and such that have been looked at and a big 8 9 concern of the downward drainage from the upper levels of Greenwich coming from not only Greenwich 10 but Ridgefield and all north counties as it 11 12 impacts the water flowing toward the coast and 13 causing flooding itself beyond the 500-year flood? So this is a big issue for Greenwich is the 14 15 drainage issues. 16 THE CHAIRMAN: Why don't you let him 17 answer the question. 18 MS. EDWARDS: Well, I'm asking. I'm saying that, and now I'd like their answer. 19 20 Have you looked at Denise Savageau's information on that? 21 22 THE WITNESS (Libertine): I have not

MS. EDWARDS: Okay. You're talking
about the different levels of growth. And one of

23

personally, no.

the things that's so surprising here is are you
aware that some of the biggest employers that were
in Greenwich are gone, such as Nestle, such as
Blyth, such as United Rentals, American Tobacco,
Chesebrough-Ponds and such that were very big
employers in the town that are no longer there and
we have a very high vacancy rate in Greenwich; are

you aware of that?

THE WITNESS (Bowes): I'm not aware of the specific customers, but I did note that the industrial load in Greenwich, as in much of Connecticut, is either flat or possibly even declining.

MS. EDWARDS: And are you aware that as the new construction goes in, you're having highly populated multi-family homes torn down replaced by often just single-family homes that may be 3,000 square feet but only have three or four residents, and sometimes only two residents; are you aware of that?

THE WITNESS (Bowes): I am not.

MS. EDWARDS: That's a very significant issue on the population having actually decreased in Greenwich. We are losing the amount of houses that we previously had due to gentrification of

- 1 neighborhoods, particularly in the downtown area.
- 2 So you're not aware of that, particularly in the
- 3 downtown area, Milbank Avenue, Mason Avenue, where
- 4 large multi-families have been torn down and
- 5 they're just single-family townhouses now?
- 6 THE WITNESS (Bowes): I am aware that
- 7 there's been a lot of reconstruction in downtown
- 8 Greenwich, yes.
- 9 MS. EDWARDS: But that the population
- 10 because of that has not really increased but gone
- 11 down?
- 12 THE WITNESS (Bowes): I am also aware
- that the population has remained approximately
- 14 stagnant.
- 15 MS. EDWARDS: It's actually gone down a
- 16 number of thousands in Greenwich, and that has
- 17 been in one of the interrogatories that I can pull
- 18 up. It is actually down.
- 19 THE WITNESS (Bowes): Our customer base
- 20 has not declined in Greenwich.
- 21 MS. EDWARDS: The number of households
- 22 has actually decreased. I will submit that during
- 23 our next meeting. But it has actually gone down
- 24 because where you previously had ten people living
- 25 in three apartments, there's only one to two

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apartments there and much less population.
1
    have a movement of people who are uptown in the
2
    suburban area, north area of Greenwich, who want
3
    to stay in Greenwich and want the comfort of being
4
5
    in a condominium-style gated community often in
    the center of town, and so there are fewer people
6
7
    who are living there, but they're bigger houses.
8
    But they also have, as I would think you'd know --
9
    or I should say, are you aware that the newer
10
    construction has much more energy efficient
    electrics, all the wiring and such is much more
11
12
    energy efficient; would that not be correct?
13
                THE WITNESS (Bowes): So certainly the
    building codes in Connecticut are much improved
14
    over the decades-old construction methods.
15
16
               MS. EDWARDS: But even looking at
    Greenwich --
17
18
               THE CHAIRMAN: Could you let him finish
    the answer?
19
20
               MS. EDWARDS: I am letting him.
             I'm sorry.
21
    paused.
22
                THE WITNESS (Bowes): Just to get a
23
    breath.
24
               MS. EDWARDS:
                              Good.
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THE WITNESS (Bowes): And also the

appliances now are much more energy efficient than they were in the past.

MS. EDWARDS: Correct. So we're having a drop of pull to many of the houses, even if they have a newer refrigerator, dishwasher, they're actually greener and using less energy than the previous multi-family with the older dishwashers, refrigerators, particularly stoves and such, are pulling much less on the grid?

THE WITNESS (Bowes): That we have not seen, no. So a variety of new appliances and new options available for customers that use much more electricity than the predecessors. I talked about the appliances that were more efficient, but there are far more appliances today. Look at the television screens in this room that stay on all the time at some level. There are many other information technology, computer technologies, server firms in residential homes in Greenwich that run a much higher energy density than older construction single-family or multi-family homes.

MS. EDWARDS: And yet we're seeing the opposite when we're doing some of the studies on that for real estate that in fact because of the energy efficiency, even with the things that are

1 servers, they are going off line to conserve 2 energy. 3 THE CHAIRMAN: Are you testifying? MS. EDWARDS: No, I'm making a comment 4 5 to his question. I'm answering his question. THE CHAIRMAN: That's not what --6 7 MS. EDWARDS: Thank you very much. 8 Okay. Now going back, so you have not 9 read any of Denise Savageau's discussions on 10 drainage? Because you're talking about the floods, but have you looked at any of the drainage 11 information for flooding issues? 12 13 THE WITNESS (Bowes): I'm sorry, I have I don't know who you're speaking --14 MS. EDWARDS: She is the head of 15 16 conservation for Greenwich. THE WITNESS (Bowes): I'm sorry --17 18 MS. EDWARDS: The conservation 19 director. The storm water management is one of the biggest concerns, so I would think that that 20 would be of great concern to you. 21 THE WITNESS (Libertine): And it is. 22 23 And we have looked at that. And one of the things 24 I would comment on is that the proposal would 25 actually lessen the amount of impervious surfaces

- that are at the site today. So our proposal would

 actually -
 MS. EDWARDS: But that's a small slice
- of all of the impervious services. For instance,
 they just put a CVS up only blocks away that has
 huge impervious surfaces. So it's not just your
 site, it's the impact of what's going on in
 Greenwich generally.
- 9 THE WITNESS (Libertine): Right, but 10 our specific impact --
- MS. EDWARDS: It's very small in concern for the other things.
- THE WITNESS (Libertine): From our perspective --
- MS. BARBINO DUBUQUE: I'd like to

 16 object. Could we allow the witness to finish the

 17 answer?
- THE CHAIRMAN: And then I'd like to ask a question.
- 20 THE WITNESS (Libertine): The relevance 21 here, from our perspective, is that we did look at 22 storm water management. It is a concern, not only 23 for Greenwich as a whole, but obviously for the 24 site and the infrastructure that's going there.
- 25 And my only point is, again, that one of the

considerations we've had was to reduce the amount
of impervious surfaces so that we would not be
increasing the condition as it existed.

THE CHAIRMAN: Excuse me, Dr. Klemens of the Council would like to ask a question.

DR. KLEMENS: I have a question. You have described the situation down at Milbank, but I think the 900-pound gorilla that's sitting in the room in Greenwich is what's happening in the back country. And I think I'd like someone to comment on the drivers of some of this consumption, which when you have a house, 2,000 or 3,000 square foot simple house that is demolished and houses that are built 10,000, 15,000, 20,000 square feet, I'd like to understand how that energy consumption is figured into it.

Because as I've heard the testimony today, I've started to wonder, we're putting a substation in one part of Greenwich, but do you have data of actually what's happening in the back country and how much of this is coming out of these major development that has continued unabated in Greenwich for decades in the back country, the replacement of modest houses with monstrous houses? And I cannot tell you, no

matter how energy efficient those houses are, they
must be drawing a huge amount of energy.

Do you have any data that has parsed out between we've talked about downtown Greenwich, which I'm very familiar with, Pemberwick, Byram, Milbank, Mason Street, that's whole one world, but how much of this is being driven by what's happening in what they call mid and back country Greenwich, and do you have data, Eversource, that actually has divided up the sectors and what's contributing to this demand?

And I certainly don't buy into the arguments -- and maybe you want to comment on that -- that it's not absolute population growth, but it's consumption, and where are the consumption pressure points within Greenwich?

THE WITNESS (Bowes): So a lot of questions there.

DR. KLEMENS: I'm sorry, I'm following the rest of the other people asking large and complex questions all chained together.

MS. EDWARDS: And you actually anticipated my next question, so I'm happy that you've asked it.

DR. KLEMENS: Well, I'd like to hear

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THE WITNESS (Bowes): So we'll find the citation at the break. In one of the interrogatories we talk about the load at North Greenwich, which is I think responsive to the first part of your question. We've seen certainly some reliability issues in that area and have done several things to make it a more robust design there both for the substation transformation and also for the supply to it at the 27-kV system. I think the growth rates we can talk about that when I come back from lunch, maybe have the interrogatory, and we can go through that. DR. KLEMENS: Thank you. Because I'm really getting to a point where putting a substation in a densely populated, certainly not by any means the most affluent sections of Greenwich, and it comes to sort of an environmental justice issue from my perspective. Are we asking one part of town to be taking all of this infrastructure where really the beneficiaries are really a whole nother part of town? THE WITNESS (Bowes): So the response

It's kind of a color-coded representation of where

in the application is Figure E-2 on page E-10.

the load density is. And the load density is still in the general area where we're proposing the substation. That's the highest energy density, highest energy usage.

And a second part of this, as we build the new 13.2-kV substation at the proposed site for the new Greenwich substation, it will then have the capability to interconnect with the 13-kV system of North Greenwich, as well as several other substations, including Cos Cob.

So there's another interrogatory -
I'll get it at the break as well -- that does a

very nice job of showing how the distribution

infrastructure would support itself and the number

of ties that we have between the circuits of North

Greenwich, the new Greenwich substation, and Cos

Cob and ultimately other 13-kV sources inside

Greenwich.

So this proposal provides kind of the basis for operating very differently in Greenwich for decades to come where we give a much more reliable service at 13 kV than the residents have today. And we can then accommodate the load variations because it's hard to project 30 years from now whether the load density will be in North

- Greenwich or whether it will be where the
 Greenwich site is to allow us that flexibility in
 future decades to accommodate that.
- DR. KLEMENS: I'm looking at E-2, and it's very helpful.
- THE WITNESS (Bowes): There's another 6 7 diagram that I'll find at the break. I'm sorry, 8 Mr. Gagnon has it. It's the response to OCC-058 9 in the fourth set. And it's a representation of the Greenwich system and shows that the five 10 circuits out of North Greenwich now interconnect 11 with the nine circuits out of the proposed 12 13 Greenwich substation to provide that primary and alternate source that I was talking about, but 14 15 also that will allow automatic load transfers.
 - MR. BERGAMO: Could you please recite that citation again?

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- THE WITNESS (Bowes): It's OCC-058, and it's actually the attachment that goes with that.

 It's a schematic diagram of the 13.2-kV system that would be the future for Greenwich.
- DR. KLEMENS: So it's your professional opinion -- and this is actually -- the benefits of this are amortized over the entire community, this isn't just one section of the community that's

- being asked to bear the effects of consumption of
 another?
- THE WITNESS (Bowes): Yes. I won't

 acknowledge the other comment you made about

 social justice again because we got into that at

 the last hearing, but this really benefits all of

 the customers in Greenwich, and you'll see that

 very graphically on this that it's really thinking

 about the reliability needs for everyone, not just
- DR. KLEMENS: Or the population in the back country?

the population around the proposed Greenwich

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substation.

- 14 THE WITNESS (Bowes): Or the population
 15 in the back country.
- DR. KLEMENS: Thank you. This has been actually very helpful. I've been trying to sort this out in my mind with all the different testimony and the relationship between consumption versus, you know, raw population growth. So this helped me greatly. Thank you.
 - THE CHAIRMAN: With that, we're going to break for lunch. We'll resume at 1:45.
- 24 (Whereupon, the witnesses were excused 25 and a recess for lunch was taken at 12:58 p.m.)

AFTERNOON SESSION 1 1:48 P.M. 2 3 KENNETH в. BOWES, RAYMOND L. GAGNON, 4 5 JACQUELINE Α. GARDELL, MICHAEL P. LIBERTINE, 6 7 having been previously duly sworn, were examined and testified further on their oaths 8 9 as follows: THE CHAIRMAN: We'd like to resume this 10 11 hearing. Ms. Edwards. 12 CONTINUED CROSS-EXAMINATION 13 MS. EDWARDS: Thank you. 14 15 Everyone set? And you can hear me 16 okay? Thank you. Going back, and again, I thank you so 17 18 much for bringing up the issue with Northern 19 Greenwich, which was the next step to my 20 discussion, because we have homes in the Central 21 Greenwich area, maybe 3,000 square feet is a new 22 townhouse, but what we're seeing up north can be 23 20,000 square feet or 40,000 square feet. And I'm 24 sure that the thousand amps that we're talking 25 about are not being used for 3,000 square foot as

- much as something with 14 bathrooms and the facilities that are being built up around North Street, Simmons Lane and such.
- So we see as a realtor much more

 building that's going up in a grand scale. And as

 you said, you're having the people who are selling

 their smaller homes, which may be 3,000 or 4,000

 square feet, moving down to Milbrook and maybe

 summering or wintering in Florida. Then they have

 a safe place to go.
 - But one of the questions that I have is are you aware of the back country expansion of employment and businesses?

- the standpoint of customer load and customer demand, and responsive to Mr. Klemens's question, it's OCC-050. There's a data table in there that shows the load increases at North Greenwich substation. In 2007 there was a peak demand of 27.2 MVA. In 2015, the peak year, was 36 MVA.

 MS. EDWARDS: Is this on the Northern
- Greenwich?

 THE WITNESS (Bowes): Yes, this would
 be the area that serves Northern Greenwich.
- MS. EDWARDS: And there's only 5

- capacity at this point, 5 kil something, what is it, 5?
- 3 THE WITNESS (Bowes): No, I was just
 4 saying what the load increase has been. It's been
 5 a 33 percent increase since 2010.
- MS. EDWARDS: And since that we've had
 now Brunswick School has been expanded up there.

 And are you aware of Blue Sky Productions which
 has almost doubled its employment up there?
- 10 THE WITNESS (Bowes): I was not aware
 11 of the employment change.
- MS. EDWARDS: And Tudor Industries
 which is a big user as well?
- THE WITNESS (Bowes): Very familiar
 with Brunswick and Tudor.
- MS. EDWARDS: Now, in order to share
 capacity are you looking to put an underground
 cable up to the north station?
- an underground cable now. Two circuits tied
 together feed North Greenwich. There's a new
 aerial cable that was installed post 2011, the
 issues we had, and there's a 27-kV overhead feeder
 as well, traditional overhead feeder. So there
 are three sources into North Greenwich. There are

- 1 now three transformers at North Greenwich, each rated at 25 MVA. 2
- So we have a situation where we're 3 certainly prepared for future load increases at 4 5 North Greenwich provided the 27-kV system is relieved at Cos Cob. It's still all sources from 6 7 Cos Cob.
- 8 MR. ASHTON: There's no 115 kV up in 9 North Greenwich, is there?
- 10 THE WITNESS (Bowes): There is not at this time. 11
- MS. EDWARDS: Well, that's interesting 12 that you say "at this time." What about having 13 this done in effect opposite and increasing the 14 15 size of that facility and feeding that down to the Central Greenwich area if the cable is already 16 there? 17

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THE WITNESS (Bowes): That is an alternative. The cable is not there. It's a distribution cable. It's not a transmission cable. That is an alternative to this. It's not the preferred alternative because -- and nor was 23 it studied as part of this. A future -- and 24 future we're now talking 20 to 30 years from 25 now -- that is a possibility. There was always a

- 1 plan. And I think Mr. Ashton knows this as well.
- 2 There was always a plan to bring transmission into
- 3 North Greenwich, but that has never materialized
- 4 based on the amount of load there.
- 5 MS. EDWARDS: Given the fact that the
- 6 load change can be coming due to much more quickly
- 7 north, have you looked at the possibility of doing
- 8 that? We're only talking 25 years and we're
- 9 having actually decrease of energy for central in
- 10 many respects due to the lessening population, the
- 11 lessening demand really that's going on. And what
- 12 we see, it's not going 135, it's going 115, from a
- 13 lot of the research that I've looked at that, in
- 14 effect, you're anticipating going up, particularly
- 15 in Central Greenwich while, in fact, it's really
- 16 having gone down in the last year, not up.
- 17 THE WITNESS (Bowes): It clearly has
- 18 gone up in North Greenwich by 2 MVA in the last
- 19 year.
- MS. EDWARDS: That's substantial.
- 21 THE WITNESS (Bowes): It's significant.
- 22 And even since 2013, a peak at Cos Cob, it's gone
- 23 up 5 MVA. I'm not sure that there won't be
- 24 redevelopment in the central and southern part of
- 25 Greenwich as well in years to come. So I'm not

- prepared to say that that load is decreasing. I

 think it's much more weather-adjusted issues in

 Greenwich as a whole than it is a load decrease in

 those areas.
- 5 MS. EDWARDS: When we look at available land, number one, we don't have that much 6 7 available land to put in housing like they've done 8 in Stamford and south of I-95, and we don't have 9 really all that much land to even build in Central Greenwich. It's more available in Northern 10 Greenwich around that King Street nexus which is 11 Tudor Industries. 12
 - THE CHAIRMAN: I'm getting confused as to who's asking the question and who's --
 - MS. EDWARDS: Well, I'm coming to the question now because I have to lay it out before I then ask the question.
 - If you're seeing that kind of building availability in the northern part of Greenwich, wouldn't it be wise to prepare for that now?
 - THE WITNESS (Bowes): We have.

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- MS. EDWARDS: No, by building the Greenwich northern area rather than downtown.
- 24 THE WITNESS (Bowes): That's not where 25 today's load pocket is, nor does it alleviate the

27-kV feeder issues we have in Central and
Southern Greenwich. We have prepared well I think
in North Greenwich by adding a third circuit there
and adding the third transformer there. So we are
prepared for certainly the next decade even at
this relatively accelerated load growth of 33

percent in five and a half years.

- MS. EDWARDS: I live in Cos Cob. I remember just a few years ago you were really building and expanding Cos Cob as a center. What was there before, before you did the expansion in Cos Cob? That was how many years ago, three, four years?
- THE WITNESS (Bowes): We've made a series of additions at Cos Cob, but the last transformer capacity addition was 1991.
- MS. EDWARDS: No, this was just recently because it went up by about 25 feet, the whole front edge where it meets the building.

 That was all created in just a matter of the last maybe five years.
- THE WITNESS (Bowes): That's actually the NRG generating facilities.
- MS. EDWARDS: And so that's generating.

 Before that was it a generating plant or just a

transmission plant? 1 THE WITNESS (Bowes): It's been a 2 generating facility for as long as I remember, 3 which is more than 30 years. 4 5 MR. ASHTON: To clarify that, that wasn't there. There was a railroad power plant 6 7 there at one time, which is gone, long gone, but 8 there was also gas turbines at the Cos Cob 9 substation. You're familiar --10 THE WITNESS (Bowes): Yes, I am aware 11 of that. 12 MR. ASHTON: And they were installed somewhere around 1967? 13 THE WITNESS (Bowes): Before my time 14 15 but --16 MR. ASHTON: You were a kid then, but 17 that's okay. 18 (Laughter.) 19 MS. EDWARDS: But yet they've recently installed over the last five or six years --20 MR. ASHTON: Excuse me. Excuse me. 21 22 There have been additions subsequent to 23 that? 24 THE WITNESS (Bowes): Yes, there has. 25 MR. ASHTON: And it's the ladder that

1 you're referring to; is that correct?

THE WITNESS (Bowes): Yes, and I believe a sound wall as well.

So there's many uses of the Cos Cob site. There's the railroad substation, there's a shared substation with Metro-North and Eversource, there's the Eversource substation, and there's the NRG generating station. So there's multiple uses at that one property, and there had been lots of changes over the years. In fact, I think probably the last capacity addition was actually for Metro-North substation in January of 2014.

MS. EDWARDS: Since it's serving
Metro-North, couldn't that be put anywhere along
the line, including Stamford, and pull that and
give us 25 percent more usage to go downtown?

THE WITNESS (Bowes): So the issue is

Metro-North -- and the property is owned by the

State of Connecticut -- they view the Cos Cob

location as very critical to their infrastructure
as the last station between Connecticut and the

New York border. And I don't believe they have
any plans to relocate the Cos Cob substation, but
that should be redirected or directed CDOT, not to

Eversource.

1 MS. EDWARDS: I'm just asking this as a question for practicality. If 25 percent of the 2 usage of the Cos Cob is being directed toward 3 Metro-North, if that moves to the previous one, if 4 it goes to Stamford where you also have capacity, 5 then you allow for 25 percent more usage pretty 6 7 much now than what you use for downtown Greenwich; would it not? 8 9 THE WITNESS (Bowes): It's a little bit 10 different. It's about 10 percent, and it's off the transmission system. It's not actually out of 11 the Cos Cob substation. 12 13 MS. EDWARDS: But yet I remember 25 percent in the Greenwich Library was the number 14 15 that was given to the public. I'll pull that up 16 for our next meeting. THE WITNESS (Bowes): I don't recall 17 18 that. 19 MS. EDWARDS: Because that was very clear that 25 percent. And then we were not told 20 who else was using that power generation, just 21 22 that there were, quote, some companies, unquote. 23 Can you tell us what those companies are? 24 THE WITNESS (Bowes): So again, I think

you're mixing terms. So the generation there is

- owned by NRG, and it's available for peak load conditions. It's not normally operating, so no one is really using that generation.
- 4 MS. EDWARDS: So NRG is not part of your company?
- 6 THE WITNESS (Bowes): They are not.
- MS. EDWARDS: They're not part, but yet
 you use, and therefore you're pulling in effect
 power from them, and you're paying for that; is
 that correct?
- 11 THE WITNESS (Bowes): They are a

 12 generator interconnected to our system. The

 13 payment would probably not be directly to CL&P.

 14 It would be through the ISO markets.
 - MS. EDWARDS: What does that mean? I don't understand.

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- THE WITNESS (Bowes): ISO has gone to a competitive energy market where generators are not regulated in the same way they used to be. They bid into the market, and people buy on the spot market, if needed, or they buy long-term contracts. I do not believe Eversource has a long-term contract with NRG for use of that generating facility.
- MS. EDWARDS: Do they pay you a rental

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    fee for that space because they're obviously
    taking up a footprint?
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               THE CHAIRMAN: Is there relevance to
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    this?
               MS. EDWARDS: Well, yes, because we're
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    looking at if he has energy and it's being used.
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    And it would seem to me to be cheaper to use
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    something and buy into that market than to try and
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    buy a spot market because it's already there, and
    therefore the cost could be less and the service
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    for Greenwich downtown would be better.
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               THE WITNESS (Bowes): I'm told that --
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               MS. EDWARDS: It's a reasonableness.
               THE WITNESS (Bowes): I'm told that we
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    do not own the property that NRG has their
    generating facility on, so there would be no
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    reason for a rental agreement.
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               MS. EDWARDS: So the Cos Cob plant,
    that footprint, is not owned by Eversource?
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               THE WITNESS (Bowes): That is correct,
    it is not.
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               MS. EDWARDS: It's interesting.
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    question I have is: Where is Connecticut in terms
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of the expense of electricity as compared to the

rest of the country, the cost for our electricity

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1 here, where do we tag in? THE WITNESS (Bowes): The all-in cost, 2 I believe, is one of the highest in the country. 3 MS. EDWARDS: Isn't it something like 4 probably the second highest in the whole country? 5 I think only Hawaii is maybe more. 6 7 THE WITNESS (Bowes): No, I think 8 that's probably somewhat dated, but I think we're 9 in clearly the top 10 percent of the states. 10 MS. EDWARDS: And how does Eversource make its money? 11 12 THE CHAIRMAN: Excuse me --13 MS. BARBINO DUBUQUE: I --MS. EDWARDS: I have a very strong 14 15 question for this. MS. BARBINO DUBUQUE: I don't think 16 17 that this is -- I'm going to object about this 18 line of questioning. The application is about a very specific project. And to the extent we're 19 20 talking about the project, that's fine, but I think now it's becoming very irrelevant to our 21 22 application. THE CHAIRMAN: 23 I'm going to sustain the 24 objection. And we're talking about a specific 25 project. Please have your questions targeted to

- 1 the specific project.
- MS. EDWARDS: Well, this was actually
- 3 leading to a secondary issue.
- 4 THE CHAIRMAN: None of the leading.
- 5 Just ask the question now.
- 6 MS. EDWARDS: Is it true that you make
- 7 money at Eversource by selling the transmission of
- 8 energy?
- 9 MS. BARBINO DUBUQUE: I'm going to
- 10 object again as to how relevant this is to our
- 11 project.
- 12 MS. EDWARDS: It's the cost of the
- 13 energy to the public. That's a very important
- 14 question when we're looking to spend \$140 million
- 15 that is going to be paid for by ratepayers. It's
- 16 a very reasonable question.
- 17 MS. BARBINO DUBUQUE: Mr. Chairman, I
- 18 would submit that that would probably be properly
- 19 in the realm of PURA and the rate cases and those
- 20 kinds of things and not here when we're talking
- 21 about a specific project.
- 22 THE CHAIRMAN: I'm going to sustain
- 23 that objection. There are other venues where you
- 24 can ask that question.
- 25 MS. EDWARDS: I'm just asking that

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1 because it goes to the question of the $140
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- 2 million cost, and that's something that has to be
- 3 borne by the ratepayers. And I really feel that
- 4 that's an important issue when we're looking at
- 5 spending that money to increase capacity that may
- 6 be there at another venue at less money.
- THE CHAIRMAN: Well, you've asked
- 8 questions about how we can develop the project in
- 9 a more economical way are legitimate questions,
- 10 but questions relating to the overall pricing and
- 11 revenue of Eversource are not germane.
- MS. EDWARDS: Then I'll find another
- 13 | way to ask that at a future time that I think
- 14 might have some relevance there.
- 15 When you looked at developing this
- 16 particular project, did you look to what the
- 17 neighborhood and the values of the neighborhood
- 18 were?
- 19 THE WITNESS (Bowes): Property values,
- 20 no; but usage, yes.
- MS. EDWARDS: And did you note that
- 22 this was a gentrification area, upscale
- 23 restaurants going in, million-dollar condos within
- 24 a block?
- 25 THE WITNESS (Bowes): I guess I'm not

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that familiar with the terminology you're using
around "upscale" and other adjectives. I mean,
it's Greenwich, so there's a lot of very affluent
people and a lot of very affluent businesses in
Greenwich. I clearly recognize that.

MS. EDWARDS: But we've also had that
situation where what was formerly a concrete
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MS. EDWARDS: But we've also had that situation where what was formerly a concrete mixing plant is now a \$100 million building as an example. Down the street from here are you aware that a building just a block and a half away sold for over 30 million?

THE WITNESS (Bowes): It wouldn't surprise me, but I'm not specifically aware of it.

MS. EDWARDS: So you're in a situation where the particular location you want is bound, if you will, on the eastern side by quite upscale restaurants and businesses, so your potential to do any expansion there after you would build this is really very very limited?

THE WITNESS (Bowes): Is that a question?

MS. EDWARDS: That's a question, yes.

Because often you're looking to have a place which
you could expand from.

THE WITNESS (Bowes): Yes, I think the

proposal we have allows us some flexibility in the
future for an interconnection of a third
transmission line, which would clearly allow
expansion in the Greenwich area if the load were

ever to materialize.

MS. EDWARDS: I'm looking in expansion from size of your original place that you're at now would you look to expand the footprint?

THE WITNESS (Bowes): Probably not.

And I think we could probably also look at increased transformer capacity in the future, again, we're talking decades from now, if needed.

MS. EDWARDS: Have you looked at the shift in what the technology is to things like Bloom Boxes and other battery-like self stand-alone facilities that are beginning to enter the market for commercial and then residential where you could replace your whole connection with something the size of an air conditioner?

THE WITNESS (Bowes): Yes, I'm very familiar with that technology. In fact, Bloom Energy is one of the -- has targeted Connecticut, and we have several installations of fuel cells from Bloom. There are many other manufacturers, some local to the state as well, that we've

encouraged over the years, both with research and development, as well as with certainly with the interconnection of customers. So we routinely interconnect distributed generation systems,

5 including the fuel cell technology you're talking

6 about.

MS. EDWARDS: So when you have houses that can be 20,000 square feet and with one of the highest costs of electricity in the whole United States, can you see that that could mean a shift away from your traditional grid-style electricity to people having independent Bloom Boxes for their houses just off the grid, have you looked at that as your model moves forward in time?

THE WITNESS (Bowes): We've certainly looked at the loss of demand, loss of kilowatt-hour sales to distributed generation like the Bloom Box. In fact, in our last rate case we now have what's called lost space revenues so that every customer that exits the system there's an estimate made of their usage, and that's collected from the remaining customers.

MS. EDWARDS: So increasing the cost to everybody else; is that correct?

THE WITNESS (Bowes): That is correct.

MS. EDWARDS: Boy.

of the State of Connecticut is to promote distributed generation, and we are an advocate for that public policy. There's approximately \$1 billion in solar incentives that are presently being expanded through use of the Green Bank, and Eversource is an active partner with that. We have actually worked with the Green Bank to target certain towns in the state. Greenwich was a town in 2013 that was targeted by the Green Bank, and the participation rate was very modest. I don't know the totality of the reasons, but probably because of the application and the size of solar units that would be needed for supporting the size of the customer load.

So we're very much an advocate for distributed generation as long as the revenue requirements are met. And we support the public policy of the State of Connecticut in that regard.

MS. EDWARDS: So as the panel-style solar can get replaced by the thin -- I'm trying to remember what it's called -- the thin-set solar, which is like roll-out roofs and solar cells, the cost will go down for both installation

and the cost of the facility. So you, as time
goes on, if prices for our electricity in

Connecticut continue to increase, then do you see
more people going to solar, in particularly the
thin set, which is just like a shingle? It's not
like a big panel which requires a much different

look.

THE WITNESS (Bowes): I certainly see
the expansion of various types of distributed
generation in the future. The particular
technology you're talking about may or may not be
a viable one in the future, but others certainly
will be.

The one thing I'll note for all of the customers that have distributed generation now in Connecticut, they're all still interconnected to our system, and they all still take delivery of service from Eversource. The solar customers typically sell back to us --

MS. EDWARDS: That's my question.

THE WITNESS (Bowes): -- for a few hours a day and receive service from us 18 to 20 hours per day. So it's a give-and-take that is a balance. No customers have actually said that we no longer want service from Eversource.

in their facility and capabilities, then there could be a natural drop off. And again, as you have more solar and maybe more wind come in and self system, you will find it hard, I think, to be able to sustain one of the most expensive electrical systems on a ratepayer basis making Connecticut even more unlikely to develop businesses coming in. This is what we're seeing with GE and other companies, we're getting too expensive. And do you see this as a problem for our businesses, your price goes up as solar and other energies come into the system?

THE WITNESS (Bowes): Clearly the cost of energy is one of the factors, especially for industrial customers, in the State of Connecticut. There will be increased pressure on rates going forward driven by many things. You indicated there was the delivery portion of the bill that is the driver of this. It is not. The delivery portion of the bill, especially distribution rates, are very competitive across the country. We're not the lowest cost provider for many reasons, but we're clearly not the highest cost provider on the delivery portion of the bill.

There are many other portions or many other things that the State of Connecticut chooses to do with the electric bill, gross receipts, gross earnings tax, for example. There are property taxes included in that, again, some of the highest in the country as well. Some of our public policies around energy efficiency, around distributed generation also contribute to the customer's bill.

So there's many facets to that. And probably the number one issue is is the ability of generation at certain periods of the day and certain periods of the year. So we are very dependent upon natural gas and the changes in natural gas pricing for the largest portion of the bill, which is the energy component, not the delivery component.

MS. EDWARDS: And yet those prices have gone down, as oil prices have gone down, and I don't see my bill going down, so how do we justify that?

THE WITNESS (Bowes): Well, I know

certainly I can speak for the standard offer for

Eversource Connecticut is it did go down

dramatically, as compared to last winter. I think

it's down in the 9.6-cent range versus well over 12-and-a-half cents last year. So there's a significant reduction year over year, and a lot of it's based upon the natural gas supply and also on other factors that will continue to evolve over the next few years. But natural gas supply and its use for generation is probably a much more important issue to deal with as far as maintaining

customer bills.

MS. EDWARDS: Going back to a question brought up by -- I'm sorry, I can't see your name to the far end -- I think when you were here at the last meeting you mentioned that it was frequently one of the responsibilities for electric, as an example, to encourage people perhaps who are in an all-electric home but maybe in a gas provided area to look at savings that can be generated by going to gas. And I'm wondering if you've done anything in the recent time to encourage because gas prices are so reasonable as against my clients who are dealing with all electric houses, are you doing anymore substantial advertising or public service announcements to go to gas?

THE WITNESS (Bowes): We are. Both

- 1 Eversource, as well as UIL, have active gas
- 2 expansion programs in the state to bring
- 3 distribution of natural gas to more and more
- 4 customers. As a response to one of the
- 5 interrogatories -- it's a supplemental prefile
- 6 testimony, I'm sorry -- is that it was asked in
- 7 the last hearing around what Eversource and the
- 8 gas company in Greenwich do.
- 9 MS. EDWARDS: Yes, that was I think the
- 10 question.
- 11 THE WITNESS (Bowes): Connecticut
- 12 Natural Gas, and it serves Greenwich, and
- 13 Eversource serves the electric. So we have done
- 14 some joint marketing to customers in Greenwich to
- 15 talk about the various programs that we can offer
- 16 together under the Energize Connecticut kind of
- 17 marketing and banner program. We're an advocate
- 18 of that. We support that. And our energy
- 19 efficiency programs are well known by customers
- and used by some.
- MS. EDWARDS: Thank you. But that
- 22 comes back to my previous question which is as
- 23 people move to gas, and as my customers find,
- 24 they'll gladly go into the gas furnace versus
- 25 their electric cost, dig up the street, put the

connection in to save. That means you're losing customers on the electric. And as I'm seeing this roll forward, I can't see any growth necessary when we're seeing a shift in all the technology regarding the heating of our homes, our self-sufficiency increasing and where solar has not necessarily been to the results that you had hoped it to be. It's still moving forward with people that I know buying houses today, they're looking straight for that.

such an expense of spending 140 million in a town where we're having less usage and a town that's upscale enough to be able to go entirely off the grid and buy individual Bloom Boxes, as they become available in the residential market, that maybe what you're looking forward to is based on old information and old technology and not really living what the new technology is bringing us; have you really had a think tank on this?

THE WITNESS (Bowes): So as I said before, we clearly see the changing environment out there. ISO New England factors both the energy efficiency, as well as the solar forecast into their compounded growth rates, and they're

still projecting a 1.2 percent increase. We are a
little bit more modest than that at 1 percent.

And we've seen, again, the issues in Greenwich are
really driven by the amount of new houses going
in, the subdivisions going in, and the changeover
from or to much larger homes. So I'm not sure
that energy efficiency or solar will mitigate

those impacts going forward.

MS. EDWARDS: But that's still going to the northern. We're not having enough land in the central part to have developments. It's not like Stamford that has more land than we do and at a much more reasonable rate. So you're seeing that in the higher space houses, which as a realtor, just to let you know, if somebody comes in looking for a \$6 million house, they're buying it, and they're buying it cash, and the less expensive houses are going to, again, cash bidders for 400,000 with 20 people putting their bid in. And there's a section in the middle that isn't moving, which is generally what our market has been, like a 1.8 to 2.5, in that range, is more static.

MS. EDWARDS: There is a question which is that, again, we're coming back to the area

MR. ASHTON: Is there a question?

where this development is is north, and it seems
like that would be a more appropriate place to put
it, which is my question. Why would you not make
more of a space available and build your expansion
in the north of Greenwich given the bigger houses?

THE CHAIRMAN: You've asked that before
and you --

MS. EDWARDS: I've asked it, but I don't think it's fully answered.

THE CHAIRMAN: You didn't like the answer, maybe, but they have answered. I mean, I don't know, unless you want to elaborate on your answer; otherwise, I think we should go on.

MS. EDWARDS: Well, going on,
particularly is when you're looking at putting in
what is a very industrial-style building and
industrial usage right in the middle of a
gentrified area, gentrified meaning going from
what was 80 years ago, 50 years ago, just raw land
and commercial usage, to beautiful restaurants,
million-dollar condos, all within a block or two.

Can you see the impact that this could have on the price value and the ability for people to even sell their houses when down the street is something that really is an eyesore?

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MS. BARBINO DUBUQUE: I would like to
1
    just object because I do not think our witness is
2
    qualified to assess what the market values are,
3
    someone selling their home, and so forth.
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5
    think, once again, that we have filed an
    application for a project with supporting
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7
    information, and that is not within the realm of
8
    proper cross-examination.
9
               THE CHAIRMAN: I mean, the question --
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               MS. EDWARDS: I --
11
               THE CHAIRMAN: Excuse me.
                                           The question
12
    is okay, but if your witnesses don't have the
13
    expertise to answer, why don't you just say that,
    and that's not a problem. If you don't feel
14
15
    qualified to answer, you have a right to say
16
    you're not qualified.
17
               THE WITNESS (Bowes): I think I'll pass
18
    on the response. I'm not really qualified to talk
19
    about property values.
               MS. EDWARDS: And I can understand that
20
    because you're not a realtor, I am, but I would
21
22
    think that when you do due diligence to do a
23
    project of this scope and this impact on this --
24
                               I think they --
               THE CHAIRMAN:
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               MS. EDWARDS: This is my question --
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would you not seek out that expertise to be able to see how you're impacting as a neighbor in that community? I think that's a very viable question to ask to have due diligence.

THE CHAIRMAN: They've answered that in other -- but you can certainly answer it again.

THE WITNESS (Bowes): I have nothing further to add. Thank you.

MS. EDWARDS: One more question I have, only one more. This is just a question with regard to the 500-year floodplain, again, which I was asking just when we were breaking. A lot of the maps that have been done and are assessing what a 500-year floodplain is going to be are being perceived as not accurate, that indeed everything from sea rise to land shrinkage as water is taken out and the lands are actually collapsing.

The big question I have is if you rely on the fact that this is outside of the 500-year floodplain, and we've spoken or mentioned the fact that we have drainage issues, particularly in that area with a hill running right down Field Point Road right to this area, and just a block and a half away coastal areas where we have water

intrusion right where the Boys and Girls Club is
and the Greenwich Harbor and the wastewater
treatment center, just a matter of two blocks
away, would it not be prudent to very much
consider that maybe this isn't the right place to
put it, even on this issue of water intrusion?

THE WITNESS (Bowes): Mike, do you have

THE WITNESS (Bowes): Mike, do you have any comments on that?

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THE WITNESS (Libertine): I guess I might question the premise that these are not accurate. These are designated areas that have been studied and they're updated on a regular basis. And granted, the zones can change over time; but again, we're talking about an area that, to the best of our knowledge, is outside of any of these what we'll call sensitive areas. It's one of the reasons we chose this particular site. know, the fact is that there's going to be shifting lines over time. This has not changed significantly over time in terms of the edge of the flood zone, and it's just -- it is an appropriate place for a number of reasons.

The 500-year floodplain is one of the considerations. We look at several environmental, technical, real estate, a myriad of potential

characteristics on the site. So this is just one 1 of them. We're confident that this particular 2 site for what we know today is fine. There are 3 several facilities that I'm aware of that are in 4 areas that are susceptible to flooding, and rather 5 than move them because they can't, they've had to 6 7 do substantial infrastructure improvements to make 8 sure that those threats are abated to the best of 9 their abilities. But in this case we're fairly 10 confident that there is not going to be that type of a catastrophic issue. And again, we can't 11 predict the future, but for what we know today, 12 we're above the base flood elevations of those 13 known flood hazards. 14

MS. EDWARDS: And this is again my question. Have you sought to speak to Denise Savageau who really has a handle on this and how the flooding impact is inaccurate, according to what the FEMA maps are, even right now, have you spoken to her at all?

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MS. BARBINO DUBUQUE: Mr. Chairman, I believe we answered the question before.

THE CHAIRMAN: That has been asked and answered.

25 MS. EDWARDS: Thank you. Okay. Then

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right now I'm finished, but I reserve the right to
1
   come back for the next meeting because I have some
2
   things that I've been looking at.
3
              THE CHAIRMAN:
4
                              We have our own
5
   schedule.
              MS. EDWARDS: I understand.
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7
              THE CHAIRMAN: Dr. Klemens.
8
              MR. KLEMENS: One question about the
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flood, the 500-year flood, what's the 500-year flood elevation there, elevation? Do you have a topographic?

THE WITNESS (Libertine): I'm going to have to dig that out. We do have that. I don't have it with me, but I can get you that.

MR. KLEMENS: Great. And the other thing is I'd like to know, there's a 500-year flood topographic benchmark elevation. I'd also like to know the actual topographic benchmark elevation of actually the sensitive infrastructure in that proposed building because I imagine that is going to be higher. So those are two different things.

THE WITNESS (Libertine): Absolutely.

MR. KLEMENS: Thank you.

MS. EDWARDS: Thank you very much for

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your time.
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2
               THE CHAIRMAN: Thank you.
               The next would be Richard Granoff.
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4
                (No response.)
5
               THE CHAIRMAN: And we have the group
    intervenors, which include Bella Nonna Restaurant
6
7
    & Pizzeria, the Greenwich Chiropractic &
8
    Nutrition, Joel Paul Berger and Meg Glass. Do you
9
    have a representative of that group?
10
                (No response.)
11
               THE CHAIRMAN: Cecilia Morgan?
12
                (No response.)
13
               THE CHAIRMAN: I guess now we'll go
    back to the Council and start with the Council
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15
    staff, Mr. Mercier.
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               MR. MERCIER: Thank you. Give me a
17
    moment.
18
                (Pause.)
19
               RICHARD GRANOFF: Excuse me, I'm with
20
    Granoff Architects. I'd like to say a few words.
21
               THE CHAIRMAN:
                               Excuse me?
               MR. GRANOFF: I'm one of the
22
23
    intervenors, Rich Granoff. I'd like to speak for
24
    a second.
25
               THE CHAIRMAN:
                               This is
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- cross-examination. So you're here to --
- 2 MR. GRANOFF: Ask a couple of
- 3 questions.
- THE CHAIRMAN: Okay. That's why I
- 5 asked you to come up.
- 6 MR. GRANOFF: Good afternoon, Rich
- 7 Granoff. I'm the proprietor of Granoff
- 8 Architects, and I am also the contract entity for
- 9 330 Railroad Avenue from Eversource Energy.
- Just a few questions related to the
- 11 proposed architecture of the substation at 330
- 12 Railroad Avenue and what the applicant proposes to
- do about improving the quality of the architecture
- 14 based on the strong objection of the Greenwich
- 15 Architectural Review Board and Planning
- 16 Commission.
- 17 MR. ASHTON: What's the question?
- 18 MR. GRANOFF: The question is what does
- 19 Eversource plan on doing to improve the quality of
- 20 their design of the proposed substation at the
- 21 site, if anything?
- THE WITNESS (Gagnon): Well, we've
- 23 worked with the town. We took some of their input
- 24 into the town, and what we put in the application
- is pretty much what we are proposing to move

forward with.

MR. GRANOFF: So no further provisions or improvements to that design at this time?

THE WITNESS (Gagnon): At this time.

MR. GRANOFF: Okay. And even if the Greenwich Architectural Review Board strongly opposes it at the next go-around, at that point will you consider improving the quality of the architecture and design?

MS. BARBINO DUBUQUE: Mr. Chairman, I would just like to make note here that there is no next go-around. The project is before the Siting Council now.

MR. GRANOFF: So you plan on ignoring the strong opposition from the residents of the Town of Greenwich on the proposed aesthetics of the substation?

THE WITNESS (Gagnon): We're working through the Siting Council process. If you have comments, we would like to listen to those comments, we would consider those comments in our design, but at the moment the proposed design is what we're moving forward.

MR. GRANOFF: Okay. Thank you.

25 There's been a lot of discussion about

1 the proposed new substation at 290 Railroad I have not heard anything or read 2 Avenue. 3 anything about what is proposed to happen to the existing substation at Prospect Place, at 330 4 5 Railroad Avenue after the new substation is commissioned. So what are the plans for the 6 7 existing substation at 330 Railroad or Prospect 8 Place? 9 THE WITNESS (Bowes): We have actually discussed it. I think it was at the previous 10 hearing, but I can at least summarize it. 11 12 MR. GRANOFF: I'd appreciate that. 13 Thank you. THE WITNESS (Bowes): We plan to remove 14 15 the substation transformers -- I think there's four of them -- the switch gear, and most of the 16 17 other equipment. There would remain a small 18 switching area where we would interconnect the 27 kV that feeds the underground network. 19 20 MR. GRANOFF: Is there a plan of that, a schematic plan of that proposal anywhere? 21 THE WITNESS (Bowes): Not that I'm 22 aware of, but we could certainly provide one or a 23 24 future rendition of what it would look like.

MR. GRANOFF:

Great.

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1
               MR. ASHTON: Wasn't there direct
    testimony on that?
2
               THE WITNESS (Bowes): There was.
3
               MR. ASHTON: So that is in the record
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              And if my understanding of the law is
5
    already.
    correct, you don't have to go before the Siting
6
7
    Council to implement that; is that correct?
8
               THE WITNESS (Bowes): That is correct.
9
               MR. ASHTON: Thank you.
               THE WITNESS (Bowes): Below 69 kV, and
10
    there's no jurisdiction, that I'm aware of, of the
11
    Siting Council. But we could still provide it.
12
    don't think it would be very difficult to do.
13
               MR. GRANOFF: Thank you. I have no
14
15
    further questions.
               THE CHAIRMAN:
16
                               Thank you.
17
               Okay. We'll start again with staff of
18
    the Council, Mr. Mercier.
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               MR. MERCIER: I just have a quick
20
    question regarding a Pet Pantry response that was
    in the November 30th filing. It's Number 9.
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22
    Basically it just talks about inconsistent soils
23
    that could be encountered. I just want to know
24
    what would be an inconsistent soil you may
25
    encounter during excavation?
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THE WITNESS (Gagnon): I think where this question was going is just that it's pretty much inconsistent like you do your original borings, you expect what you find, and then when you start digging you discover something else that is a little different than what your engineering plan called for, so that would be the inconsistent soil type thing.

MR. MERCIER: So essentially it's an engineering change in the field based on conditions that you encounter?

THE WITNESS (Gagnon): Yes.

MR. MERCIER: Thank you.

I'll spend the rest of my questions on Exhibit 34. That is the November 25th submission, Late-Filed Exhibit LF-003. This has to do with the overhead preliminary design that was developed based on questions at the previous hearing.

On page 1 of the response in the third paragraph it talks about different conductor sizes. It says the overhead will use a 556 ACSS conductor rather than the larger and heavier 1590 ACSS conductor that was proposed for underground. Could you please describe the differences between the two?

THE WITNESS (Gagnon): Yes. This third paragraph here it says "556 ACSS." What they're missing is kcmil. That's the actual conductor diameter size, and that is a smaller conductor than the referenced 1590 ACSS here kcmil. both of those conductors are overhead conductors. What this paragraph is describing is our typical standard is to use 1590 on 115 overhead kV lines, and we were using a much smaller conductor to do a lighter less-costly construction.

MR. MERCIER: How would using the smaller conductor affect the actual delivery of electricity to the proposed substation?

THE WITNESS (Gagnon): The smaller size conductor does limit the amount of power that can be transmitted across the line. I believe a single circuit of 556 would be 267 MVA.

And Mr. Bowes pointed out that for the substation need we just at this point need 134 MVA is the requirement for the substation. So one circuit handles the capacity for the substation.

MR. MERCIER: Thank you.

Farther down that paragraph the term "conductor blow out" is used. Can you please describe what that is?

THE WITNESS (Gagnon): Yes. The conductor blow out is kind of deceiving, but what it really is is you have two structures with a span of wire in between. And as the wind blows on the wire as it's in the looping, that loop will tend to go out of the center line, and we call that blow out. So the distance it goes from the center line out is what we call a blow out.

MR. MERCIER: Thank you.

Farther along in this first page
there's a mention that a license will be required
from Metro-North Railroad to do any of these
potential options. What actually is the license?

THE WITNESS (Gagnon): It's basically
like a permit, a paid permit that you get from the
railroad.

MR. MERCIER: Is there any case where a license or a permit for that matter would be denied by the railroad?

THE WITNESS (Gagnon): It could be. I mean, it could be. But we have talked to CDOT, CDOT Rails on this, and the designs that we have incorporated here, they gave us design criteria to work with. And we showed them a couple of our alternatives, and they have supported what we're

1 trying to do.

MR. MERCIER: So there would be no -potentially at this point no problem obtaining a
license?

5 THE WITNESS (Gagnon): We don't believe 6 so.

MR. MERCIER: Thank you.

Regarding the Segment 1 description on page 2 of the response, in the fourth paragraph it talks about a transition from underground to overhead. I believe that's from leaving the existing substation and transitioning to overhead line. What amount of space is necessary for such a transition? Is it simply running a pole, or is there some kind of a structure or anything of that nature, a building?

THE WITNESS (Gagnon): Any scenarios here that we did along the railroad we had changed the underground technology to an XLPE cable. In doing so, when we transition to underground to overhead or overhead to underground, we can use a much smaller transitional structure. We will call it a riser structure in this case. Basically it's a stronger structure on a foundation which it has a large skirt that will protect the lines as they

come up to the potheads to transition to an overhead line.

MR. MERCIER: So it comes along on an exterior pole which has some kind of I'll just call it a covering on it?

THE WITNESS (Gagnon): Correct.

MR. MERCIER: So underground at that point there's no -- any type of vaults or anything you need, it's just going to come directly out of the ground and up the pole?

THE WITNESS (Gagnon): That is correct.

And just to be clear, we have two risers because
we have two circuits.

MR. MERCIER: Thank you.

In the last paragraph of that Segment 1 it talks about the potential costs associated with railroad parking and outages, railroad outages. Were those two factors or other things factored into the cost estimate presented in the paragraphs above? Were the parking issues and potential outages factored into that cost estimate?

THE WITNESS (Gagnon): Yes. Yes, they were.

MR. MERCIER: Now using your segment maps and description, it basically says that

- 1 Segment 1 ends at Indian Point Road, which leads
- 2 into Segment 2 which, according to your material,
- 3 has three options.
- MS. BARBINO DUBUQUE: Mr. Mercier,
- 5 could I just ask the Chairman, would you like this
- 6 put on the board? Would it be more helpful? We
- 7 do have that capability.
- THE CHAIRMAN: Yes, please.
- 9 MR. MERCIER: You might as well put
- 10 Segment 2A on the board, if you have that. This
- 11 is the first time I've seen this.
- 12 If you go to the next page, you have a
- 13 Segment 2A, which is right there. Now, looking at
- 14 the yellow shading on your diagram, according to
- 15 your legend, that's the easement. Those are
- 16 properties affected by easement rights to build an
- 17 overhead line along the north side of the
- 18 railroad?
- 19 THE WITNESS (Gagnon): Yes. When we
- 20 put the alignment of the line on here, those are
- 21 the properties that we believe we would have to
- 22 acquire easements.
- MR. MERCIER: Okay. Now I notice
- 24 within some of those properties and within the
- 25 blue line there's some outbuildings. Would those

have to be removed, or can they remain within your easement rights? There's a few.

THE WITNESS (Gagnon): I think we'd have to look at them closely on how close they are to line and where we're actually putting our structures. There is a certain distance safety requirement that we do have to have, but we would be able to look at that on an individual basis.

MR. MERCIER: Now, looking at the detail of that blue easement line, and I notice that it kind of over -- it's along the route of an existing some type of maybe distribution line or something of that nature, do we have information as to what that line is that runs through those backyards?

THE WITNESS (Bowes): Those are two of the circuits at 27 kV that go from Cos Cob to Prospect.

MR. MERCIER: If this configuration was constructed with new overhead transmission poles, could those circuits be relocated onto the new poles, or would they have to have their own utility poles that exist there now?

THE WITNESS (Bowes): So kind of a two-part answer. With the proposed design we

would not have to relocate the existing distribution circuits. And also with the proposed design we could not place the distribution circuits onto those structures because we're using the smaller conductor, which also means a direct embedment for the structures. So without the foundations to support, they could not accept the two distribution circuits.

MR. MERCIER: Okay. Thank you.

Now, looking at the maps for Segments 2A and 2B, you know, Segment 2A, as shown here, is adjacent to residential properties, whereas 2B runs between the railroad and Interstate 95. For maintenance purposes, which one would be more difficult to access or get in to do this ongoing activity, they both present their own challenges, or there's one preferred over the other?

THE WITNESS (Gagnon): Well, they definitely present their own challenges. Both are difficult. One, you're working next to homes, and you have to get in behind the homes. The other one you've got between the rail and the highway, which confines your working areas, and now you have to keep an eye on two sides of the work zones. So unique challenges.

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1
               MR. ASHTON:
                             If I may, if the option of
    overhead was pursued and you've got roughly half
2
    the properties to the left of the center of this
3
    drawing, would the company be able to go in and
4
5
    negotiate land rights to expand what they have
    already in that area?
6
7
               THE WITNESS (Gagnon):
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               MR. ASHTON:
                             Okay. So access is
9
    constrained by present limitations; is that fair
10
    to say?
11
               THE WITNESS (Gagnon): That is fair to
12
    say.
               MR. ASHTON: And insofar as we chose
13
    aggregately in the future that might change?
14
15
                THE WITNESS (Gagnon): That is correct.
    On that note, for the pricing that we put in here,
16
17
    we didn't look at expanding the work zone area for
    more easement rights. We just kind of identified
18
    what we highlighted in yellow as where we need
19
20
    easements.
                             Right. Are there 28-kV
21
               MR. ASHTON:
22
    circuits on that right-of-way that would have to
    be replaced if you go to 115?
23
24
                THE WITNESS (Bowes): No, we would not
25
    have to replace them.
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MR. ASHTON: No conflict between the subtransmission and the transmission?

THE WITNESS (Gagnon): That is correct.

MR. ASHTON: Thank you.

MR. MERCIER: How are the lower voltage lines accessed now? Is it through people's backyard on the north side of the railroad?

THE WITNESS (Bowes): Again, I would say they have their unique challenges. When we have to go in there, we usually try to do it in an off season if there's any wet areas and then go in along the right-of-way itself. It's probably much easier to do for distribution work than it would be for the transmission work.

So we'd look for access points and prenegotiate those for the transmission line in the future. But it is certainly a challenge today, even with the distribution, trying to do any vegetation management or any right-of-way maintenance along there.

MR. MERCIER: For the north side of the rail line behind the homes there's not like an existing dirt road used by Metro-North or anything of that nature, it's just tracks and then the private property?

THE WITNESS (Bowes): Yes, there's not,
I would say, a maintained roadway there. There's
probably a few feet of margin outside the tracks.
It might be accessible, but it's probably within
the encroachment distance of the railroad.

MR. MERCIER: Thank you.

Just flip to Segment 2C. Now on this segment there's a property, a designated parcel, 1104. It's marked in red. Can you just explain why that has that designation?

THE WITNESS (Gagnon): We're assuming in our evaluation that we would be acquiring that entire piece of property. And the reason why we're trying do that is we would use that as the easement for the line to go along that piece of property to get to Circle Drive.

MR. MERCIER: For this underground segment would this segment need a splice vault?

THE WITNESS (Gagnon): No, this would be using XLPE for that little section.

MR. MERCIER: Okay. Now, looking at the segment, I notice you had overhead going into just past Indian Field Road and then transitioning to underground going through that Parcel 1104 we just spoke about. Is it possible to run an

```
underground line north down Indian Field Road?
1
               THE WITNESS (Gagnon): Just to be
2
    clear, I'm not sure I follow that. But you're
3
    asking if we can run underground along Segment 1
4
5
    along the --
               MR. MERCIER: No, right where
6
7
    Segment -- right at Indian Field Road there's a
8
    bridge, and it's marked as green right there, then
9
    it transitions underground to 1104. I'm saying
10
    can you just run underground north on Indian Field
    Road and then running it west on Morningside Drive
11
12
    and then north on Circle Drive, picking up the
13
    route in front of 1104, potentially making a box?
               MS. BARBINO DUBUQUE: Mr. Chairman, can
14
15
    we go off the record for one moment?
               THE WITNESS (Gagnon): I'm just trying
16
    to understand.
17
18
               THE CHAIRMAN:
                                      Go ahead.
                               Sure.
               (Off the record discussion.)
19
               MS. BARBINO DUBUQUE: Mr. Chairman,
20
    we're ready to go back on the record, please.
21
22
               THE WITNESS (Gagnon): Now I think I
    follow the question. I apologize.
23
24
               So if you're asking if we can go up
25
    north on Indian Head Road, find another
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1 alternative to get in, and then turn back south? MR. MERCIER: Yes, there's a cross 2 street called Morningside Drive which --3 THE WITNESS (Gagnon): Yes. 4 5 MR. MERCIER: Right here. So I'm saying going like this. 6 7 THE WITNESS (Gagnon): Correct. The 8 trick with that, you're putting multiple bends in the route, and also now you're getting to a point 9 10 where it could become harder to pull the cable through the underground route. So we'd have to 11 look at that and see if that is possible. 12 would have to do a lot of -- an evaluation on that 13 to see what the pulling tensions are. We're 14 15 probably adding another third of that length to do 16 I think our estimates were, to give you an 17 idea, I think they were at one point \$5,000 a 18 linear foot. So as you start adding that up, it gives you an idea of what that cost would be. 19 MR. MERCIER: Is there a loss of power 20 as it goes through the bends? Is that a concern? 21 22 I understand the pulling aspect. 23 THE WITNESS (Gagnon): Well,

theoretically you would have to look at how tight

the turns are, but no, in all practicality, no.

24

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1
               MR. MERCIER: Now, looking at again
    Segment 2C, it ends behind the parcel at 1073.
2
                                                     I
    think 1073 is just left of the parcel marked in
3
    yellow where it transitions to overhead for
4
5
    Segment 3; is that correct?
                THE WITNESS (Gagnon): Yes, that is
6
7
    correct.
8
               MR. MERCIER: So rather than
9
    transitioning overhead at that point and
    continuing due west, is it possible to bore the
10
    line under the railroad between I-95 and the south
11
12
    side of the Metro-North tracks and then pick up
13
    Segment 3B there?
                THE WITNESS (Gagnon): Just looking at
14
15
    that now, we would have to think about putting a
    jacking pit, a jacking pit itself and the
16
17
    receiving pit, and is there enough space.
18
    the aerial photograph it looks extremely tight.
    would say it would be difficult. But if there was
19
20
    a real interest, we'd have to really look at it.
    And again, a jacking bore going underneath the
21
22
    highway we were talking it would probably add
23
    another million dollars to go underneath with a
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25

jacking bore.

MR. MERCIER:

There is one leaving the

- existing Cos Cob substation, is that correct,
 going under the -- you're jacking under the
- 3 Metro-North Railroad?
- THE WITNESS (Gagnon): Well, in our original preferred design, yes, but when you look at Segment 1 that's shown here, that's an aerial
- 7 cable crossing.
- 8 MR. MERCIER: I thought that was 9 underground. I'm sorry.
- THE WITNESS (Gagnon): Yes. If you

 want to go back to Segment 1, there is a section

 of underground. Those are just within the

 substation yard itself. Once we're outside the

 substation yard, we're transitioning overhead.
 - MR. MERCIER: Okay. Thank you.
- Now for Segment 3A the transmission
 line splits at Parcel 1068. What kind of
 structure is needed to carry the southern circuit
- over the railroad? Is it a heavy duty, those
- 20 angled structures?
- 21 THE WITNESS (Gagnon): You're talking
- 22 the angled structure, yes, that would be an
- 23 engineered heavy-duty structure with a foundation
- 24 with guys.

25 MR. MERCIER: What's the railroad's

- view on that type of installation, do you have any comments regarding conductors over the tracks?

 THE WITNESS (Gardell): The answer to
- that would be as long as it would be perpendicular to the tracks.
- MR. MERCIER: Now for this Segment 3A

 where you carry one circuit over the tracks, why

 couldn't you just carry both?
 - THE WITNESS (Gardell): It's going to show you the blue variation, the next one, would be just both circuits on the other side of the track.
- MR. MERCIER: I understand that. I

 understand that. I'm just saying for this

 particular segment you can go to this point and

 carry both over the tracks, if you wanted to; is

 that correct?
- THE WITNESS (Gardell): Yes, you could,
 and it would be similar more to the blue route,
 yes.
- MR. MERCIER: Understood.

10

11

- THE WITNESS (Gardell): We're showing
 we carry it over to avoid some condos that we have
 to acquire.
- MR. MERCIER: Can you repeat that,

1 please? THE WITNESS (Gardell): We have the 2 split route where it goes across the tracks. 3 we have two pictures. It would be page 12 of 14. 4 5 MR. MERCIER: Yes. THE WITNESS (Gardell): It would be 6 7 that -- it would save us an additional 10 feet, 8 and therefore we wouldn't have to acquire two 9 condos on the north side of the tracks. MR. MERCIER: I guess I don't see those 10 properties on this map. That's all. 11 THE WITNESS (Gardell): They're in this 12 13 area here, but because we've done the split route, if we kept the route and we submitted the original 14 15 route that stayed on that side, then those two 16 would be acquisitions and they'd be red. We chose to get more creative and save those. 17 18 MR. MERCIER: Okay. Thank you. 19 THE WITNESS (Gagnon): The actual two properties, 1058 and 1062, would be those two 20 properties that we have to acquire. 21 22 MR. MERCIER: Okay. Thank you. 23 I guess from a feasibility point I was

thinking of the underground variation I presented

going north on Indian Field Road, then taking a

24

- westward turn on Morningside, and then down Circle
 Drive, as we discussed, coming out to the railroad
 overhead across that Indian Harbor, and then both
 lines going across picking up 3B there. It's just
 another variation. That's why I was asking those
 questions.
 - So I think what you're saying is if you had one circuit on the north side of this particular Segment 3A, you would not have to acquire --

- THE WITNESS (Gardell): If we had -the green circuit stayed with both circuits on the
 north side, we'd have to acquire two condo
 buildings.
- MR. MERCIER: Okay. So with the one circuit alternative, you don't have to do that?
- THE WITNESS (Gardell): Right. And that's what we presented here because it was cheaper. And it is worth noting that in Section 2B there is an access road between the railroad and the highway that Metro-North uses.
- MR. MERCIER: Okay. Just going back to the segment map -- or I'll just ask the question.

 Is there an estimate of the number of transmission towers that would be needed for the overhead

1 segment, has that been provided? THE WITNESS (Gagnon): In any one 2 segment or in the whole thing? 3 MR. MERCIER: Any one because there's 4 5 different variations. I wasn't sure if you had any rough numbers on the --6 7 THE WITNESS (Gagnon): We're looking at 8 for the northern route we looking at spans of 425 9 feet. Southern route we could do longer spans, 10 probably 500 to 600-foot spans on average. 11 There's a couple of longer ones. 12 MR. MERCIER: When you say the 13 "southern route," that's between the railroad and the highway? 14 15 THE WITNESS (Gagnon): Yes. MR. MERCIER: Thank you. Thank you 16 17 very much. 18 THE WITNESS (Gardell): We do have the number of structures, if you would like that? 19 20 MR. MERCIER: Sure. THE WITNESS (Gardell): Segment 1A 21 would be five structures. Segment 2A would be six 22 23 structures. Segment 2B would be five structures. 24 Segment 3A would be 19 structures because it's on

both sides of the rail. Segment 3B would be nine

- 1 structures. And Segment 4A would be seven
- 2 structures.
- 3 MR. MERCIER: Thank you. That's all
- 4 the questions I have for now. Thank you.
- 5 THE CHAIRMAN: Thank you.
- 6 SENATOR MURPHY: I have no questions,
- 7 Mr. Chairman. I just received this.
- 8 THE CHAIRMAN: Mr. Ashton?
- 9 MR. ASHTON: Bear with me. I've got a
- 10 little physical problem, and I may be repeating
- 11 myself.
- 12 The substation location in North
- 13 Greenwich, is that the one that's immediately
- 14 north of the parkway on -- I can't think of it --
- 15 North Street or something like that?
- 16 THE WITNESS (Bowes): It's immediate
- 17 north of the parkway. I'm not sure if it's North
- 18 Street.
- 19 MR. ASHTON: Okay. You can see it from
- 20 the parkway?
- THE WITNESS (Bowes): Yes.
- MR. ASHTON: And would that be the site
- 23 of a bulk substation in the future?
- 24 THE WITNESS (Bowes): There's no plans
- 25 at this point for that.

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1
               MR. ASHTON: What plans, if any, are
    there for 115 kV into North Greenwich?
2
               THE WITNESS (Bowes): There are none at
3
4
    this time.
               MR. ASHTON: No plans, no
5
    considerations of any nature?
6
7
               THE WITNESS (Bowes): Not at this
8
    point, no. We have proposed with the new
9
    Greenwich substation an interconnection for a
    third transmission line.
10
               MR. ASHTON: I'm having trouble hearing
11
12
    you.
13
                THE WITNESS (Bowes): We have proposed
    with a new Greenwich substation the
14
15
    interconnection for a third transmission line, but
    there's no plans at this point to extend from a
16
    Stamford substation to that location.
17
               MR. ASHTON: And the third transmission
18
    line, where would that -- that would terminate at
19
    Greenwich substation and where else?
20
               THE WITNESS (Bowes): That hasn't even
21
22
    been discussed at this point, but potentially
    Southend, potentially Cedar Heights, potentially
23
24
    Glenbrook.
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MR. ASHTON: Cedar Heights, from my

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1
    recollection, is at the north end of Stamford; is
    that right?
2
               THE WITNESS (Bowes): Correct.
3
               MR. ASHTON: And that's currently
4
5
    served by 215 pipe cables?
6
               THE WITNESS (Bowes): Correct.
7
               MR. ASHTON: And there's nothing
8
    between Cedar Heights and Greenwich unless you go
9
    along the railroad; is that fair to say?
               THE WITNESS (Bowes): I believe so.
10
    I'm not that familiar between Cedar Heights and
11
    Greenwich.
12
13
               MR. ASHTON: Why wouldn't it be prudent
    to do a little bit of blue sky planning on North
14
15
    Greenwich at 115 kV?
               THE WITNESS (Bowes): I think I'll
16
    certainly provide that to our transmission
17
18
    planning group. I think it's just the quantity of
    work they have in front of them right now, but I
19
    think --
20
               MR. ASHTON: Wouldn't you agree that
21
22
    Greenwich is a nightmare as far as planning goes
23
    and has been for 50 years?
24
               THE WITNESS (Bowes): It's certainly at
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the end of the Eversource system, and it makes it

- 1 very difficult to operate.
- 2 MR. ASHTON: Voila. That's my point.
- 3 So why wouldn't it be prudent to try to take a
- 4 crack at something in the future to make sure
- 5 you've got reasonable options?
- THE WITNESS (Bowes): Again, we're
- 7 trying to satisfy the need today at the lowest
- 8 possible cost.
- 9 MR. ASHTON: I hear you. I hear you.
- 10 But you know and I know as professionals in the
- 11 planning business that you have to go beyond
- 12 today?
- THE WITNESS (Bowes): We do.
- 14 MR. ASHTON: And that's my question.
- THE WITNESS (Bowes): And I think as we
- 16 study Southwest Connecticut in the future, we'll
- 17 certainly take that into consideration.
- 18 MR. ASHTON: In that regard -- I have
- 19 to apologize, I may have asked the question. If I
- 20 have, forgive me and remind me -- was there any
- 21 discussion between Eversource and CL&P, if you
- 22 will, and ConEd as to what capabilities, if any,
- 23 existed in New York State that could be utilized
- 24 for Greenwich?
- 25 THE WITNESS (Bowes): We did not have

- any discussions with ConEdison around sharing
 resources. Certainly at the transmission level
 there are some significant limitations to doing
- 5 Chore are bome brightricane rimitations to doing
- 4 that.
- 5 MR. ASHTON: I understand, but you're
- 6 not talking transmission level, bulk level, you're
- 7 talking relatively small numbers where 50
- 8 megawatts would buy you an awful lot.
- 9 THE WITNESS (Bowes): We have not had
- 10 any discussions.
- MR. ASHTON: Wouldn't that be something
- 12 that would be worthwhile?
- 13 THE WITNESS (Bowes): We can certainly
- 14 ask the question of ConEd.
- MR. ASHTON: My observation -- and I'm
- 16 testifying here, Mr. Chairman. Forgive me -- is
- 17 that from driving down 95, there have been a huge
- 18 amount of major construction along 95 in the area
- 19 just west of Connecticut, which means that there
- 20 has to be some significant additions to the
- 21 transmission capability. And whether or not that
- 22 would have any bearing or not, I don't know, but
- 23 to my mind it's a question worthwhile answering --
- 24 asking and answering.
- 25 THE WITNESS (Bowes): So we'll take

that as a Late-File then?

MR. ASHTON: I'll defer to the Chair.

THE CHAIRMAN: Since we're going to be apparently around for at least one meeting, I guess the answer is yes.

MR. ASHTON: In the Eversource organization briefly, briefly describe what the project approval process is for something like 140 million substation expansion at Greenwich? Who does what to whom, how intensive are the questioning?

THE WITNESS (Gagnon): It's really a two-step process -- or not two -- it's two steps but really two different organizations. We are in the midst of a reorganization, so what I say today might change tomorrow. But in the past how things went, you had a transmission group that looked at the transmission facilities, you had a substation group that looked at the substation facilities. They went up different chains for approvals. Both groups used a technical review committee to look at the initial technical proposals, and then if it passes that committee, which is usually made up of engineers, operational people, people that are from the control centers, then it goes to a

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financial committee to validate the -- verify the
1
    cost and verify the cost as a prudent expenditure.
2
               MR. ASHTON: Who is on that financial
3
4
    committee?
5
                THE WITNESS (Gagnon):
                                       That financial
    committee is made up of in the transmission side
6
7
    of the house several directors, a director of
8
    engineering, planning, projects, system operations
9
    group, and then anything over actually it's
10
    $100,000 has to be approved by the vice president.
    Anything over --
11
12
               MR. ASHTON:
                             You've got to change that.
13
                THE WITNESS (Gagnon): It's pretty low.
    A million dollars goes to the president.
14
15
    president of transmission, I think, is up to five,
16
    and then it goes up to the operational president,
17
    7.5, and then it goes to the board.
18
               MR. ASHTON: Is there anybody that
    says, wait a minute, we've got a problem here,
19
20
    let's fall back and regroup?
               THE WITNESS (Bowes): I can speak to
21
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MR. ASHTON: You're reading my direction.

approved. That's probably more --

how the Greenwich substation specifically was

22

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1
               THE WITNESS (Bowes): So before I made
    the public announcement in June of 2011, I had the
2
    approval of our chief operating officer and our
3
    CEO to make that announcement because I was going
4
5
    to commit the company to several hundred million
    dollars worth of investment in Southwest
6
7
    Connecticut, including Stamford and Greenwich
8
    infrastructure. Since that time our merger took
9
    place and a presentation was made to the senior
10
    executives, including the chief financial officer,
    the chief operating officer, and the CEO of
11
12
    Eversource for approval of this project.
13
               MR. ASHTON: Okay. Thank you very
    much.
14
15
               That's it, Mr. Chairman.
16
               THE CHAIRMAN:
                               Thank you.
               Mr. Hannon?
17
               MR. HANNON: Thank you, Mr. Chairman.
18
    I haven't really had a chance to go over the
19
    latest material that came in, but it was part of
20
    the dialogue earlier today, and I believe I read
21
    it somewhere. For the 290 Railroad Avenue there
22
    is an option for the property, correct?
23
24
                THE WITNESS (Gagnon): Yes, that's
25
    correct.
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1
               MR. HANNON: And I thought that what I
    had read said that you can close on the option in
2
    2021. So my question is can you close before
3
    that, or do you have to wait until 2021?
4
5
               THE WITNESS (Gagnon):
                                       There's a
    mechanism in the contract, but it would be a
6
7
    negotiated buyout at that point.
8
               MR. HANNON: So right now the language
9
    that I read was for 2021?
               THE WITNESS (Gagnon): That is correct.
10
               MR. HANNON: So the option is good
11
12
    through then. If you purchase it earlier then you
13
    have to go through some type of negotiation to
    actually be able to close on it earlier?
14
15
               THE WITNESS (Gagnon): The mechanism
16
    would be outside a buyout agreement, but yes.
               MR. HANNON: I just wanted to make sure
17
18
    that I read what I thought I read. Because it
    seems like now you're talking six years out, which
19
    is what the current option calls for, so I wasn't
20
    sure if there was something in place to possibly
21
22
    close earlier.
               Thank you. That's all I have.
23
24
               THE CHAIRMAN:
                               Dr. Klemens.
25
               DR. KLEMENS:
                             I have a bunch of
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questions on different issues. First, I'd like to
1
    go to the map that you referred to earlier on E-10
2
3
    of the application. I'm trying to sort some
    things out in my mind. We had earlier in response
4
5
    to questions that there was a 33 percent increase
    in use in North Greenwich. Looking at this map,
6
7
    and I see that you have the downtown sort of
8
    excerpted out. And I'm looking at the back
9
    country of Greenwich, and I'm seeing right along
10
    the New York border an orange and a yellow cell.
    I assume that's roughly near the airport where 120
11
12
    King Street crosses into New York State; is that
13
    roughly where that is? It looks like it to me.
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THE WITNESS (Bowes): I believe so, yes.

I'm somewhat familiar.

14

17

18

19

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23

DR. KLEMENS: So I don't quite understand. You have a 33 percent increase in demand or use in North Greenwich, and yet the North Greenwich I see here is largely green which means very low demand. So could you reconcile the statement earlier and this map because I'm confused?

THE WITNESS (Bowes): I cannot reconcile it, but I'll be glad to take that as a

Late-File. 1 DR. KLEMENS: 2 Okay. THE WITNESS (Bowes): It does seem 3 4 inconsistent with the two data sources. 5 DR. KLEMENS: Thank you. Is that okay, Mr. Chairman, another 6 7 Late-File on that? 8 THE CHAIRMAN: Yes. Sure. 9 DR. KLEMENS: All right. Because that 10 doesn't make any sense to me. Because I'm trying to grapple with this whole issue of where the need 11 12 is and demonstrating the need. 13 Next I'd like to go to the submission, if I can dig it out. Can you explain? I saw all 14 15 those poles, the simulation. I think you did the simulation, Mr. Libertine --16 THE WITNESS (Libertine): Yes, sir. 17 18 DR. KLEMENS: -- of all those incredibly ugly poles in Bruce Park. That didn't 19 relate at all to what we just saw there? 20 THE WITNESS (Libertine): No, sir. 21 Just as a clarification, the simulations that were 22 23 presented through Bruce Park were a direct result 24 of your inquiry at the last hearing asking if

there could be a transition to overhead through

the park to avoid going with the direct drilling.

So we prepared those to show actually two different scenarios, one being basically coming in, all overhead coming from both the northeast and then exiting to the west. And then we also had at the back we showed transition stations that would be necessary using the original line technology. And having the transition from the underground crossings at both ends and then going to overhead, they're at the end of this particular, but this is the submission that you're referring to.

DR. KLEMENS: Right.

THE WITNESS (Libertine): So we did not have time after we went through the analysis of some of these other overhead options to do any of those. There were some technical issues with trying to attempt those as well.

DR. KLEMENS: Can we look at the pole on that particular wetland?

THE WITNESS (Libertine): That's at the west end.

DR. KLEMENS: Right. I've got to ask you a question. If you don't want a particular outcome, do you make it look as really ugly as

humanly possible, or is that really what it's
going to look like? I've got to ask the question.

absolutely. As with any of these simulations we've ever presented in front of the Council, these are accurate. They're three-dimensional models that are based on engineering input and design that we received from Eversource. You will note that there are not foundations associated with these poles. These are again to be direct driven or to be augered in using the lighter conductor.

And so, again, trying to be as least impactful as possible, but we wanted to present the reality, which is in the northern portion of the park there would be some fairly substantial structures to be able to support the overhead run.

DR. KLEMENS: How far is that? Is that just outside the highway right-of-way or further in the park? Because I was sort of wanted to push it right out as close to the highway as we could get.

THE WITNESS (Libertine): Yes. It's probably offset from the highway maybe a hundred and change, a hundred feet and change. One of the

- things we tried to balance was the park versus

 what was CONNDOT right-of-way, not knowing if we'd

 be able to do anything within that. So we said

 let's look at it from the standpoint of being

 within the park proper. So we're essentially up
- within the park proper. So we're essentially up against the CONNDOT right-of-way line.

- DR. KLEMENS: But not in the -- because

 I notice there was quite a broad strip of CONNDOT

 right-of-way, and my hope was, well, if we did

 this that we could push it right in there and get

 it as far -- as you look up through Indian Harbor,

 you see the bridge, you see the highway, and my

 hope was it was going to be very close to that.

 You don't think that's possible?
 - THE WITNESS (Libertine): CONNDOT won't support that. We have to do some type of a 90-degree perpendicular crossing, as opposed to paralleling the actual highway.
- DR. KLEMENS: They're not going to let you use that area?
 - THE WITNESS (Libertine): Correct. And so, again, we wanted to show something that was at least based on what could be done as opposed to something that, boy, wouldn't it be nice. But that's been -- that's a plan that has been

presented to them on at least two occasions, the question being posed, and in both cases they came back and said that they would not support that.

DR. KLEMENS: Let's look at the simulations in Indian Harbor again, please.

THE WITNESS (Libertine): Sure.

DR. KLEMENS: Because I think that's the -- do you have that?

THE WITNESS (Libertine): That's the existing conditions. Now this is what would be required to create a structure at both ends to span. And of course it opens up -- it's a 50-foot right-of-way, 25 feet from the center on each side of those poles.

DR. KLEMENS: But didn't we have a discussion that we didn't have to make as big a right-of-way, there was a way to sort of -- I don't know the term -- girdle them so they wouldn't swing as much?

THE WITNESS (Libertine): My understanding was that this was the minimum. I think at first they were hoping that the standard would be 70 to 100 feet right-of-way, and so that was condensed to try to make it as, again, the least amount of impact in terms of vegetation

1 clearing. MR. ASHTON: Those are in fact 2 3 constrained conductors on that structure, are they 4 not? 5 THE WITNESS (Libertine): I'm sorry. 6 Excuse me. 7 MR. ASHTON: Those are in fact constrained conductors? 8 9 THE WITNESS (Gagnon): Yes. On this 10 design that they used here was rigid constrained conductors using the standoff insulators. We also 11 12 put it on the center of the pole to minimize the 13 reach. So it's compact design. MR. ASHTON: It's impossible to climb 14 15 those? 16 THE WITNESS (Gagnon): That is correct. DR. KLEMENS: Thank you for providing 17 18 me the correct terminology, Phil. That's what I was getting at. 19 20 MR. ASHTON: Constrained. That's okay. 21 DR. KLEMENS: Girdled, constrained. Okay. So that's what it would look 22 23 like to avoid drilling under the wetlands if you 24 went through Bruce Park to avoid --

THE WITNESS (Libertine): That's

correct.

DR. KLEMENS: -- going into the wetlands, this is what we'd have. Could you explain what that big thing at the end of Davis Avenue is? You've got a picture of sort of a strange elevated structure.

THE WITNESS (Libertine): Yes. There is a sun -- well, actually if -- oh, the transition station, I'm sorry. I thought it was the existing.

At each end of the overhead line to transition back to underground, again, this is using the original technology. I know there's a little bit of confusion potentially because we talked about XLPE options and using just this kind of single riser pole. With this particular technology -- and I'm not an expect -- my understanding is that there has to be what we're calling a transition station, and there are a few of these around the state. But that is about a 75-foot by 75-foot footprint to support going into that transition zone of overhead to underground and at the east end the opposite going from underground to overhead.

DR. KLEMENS: So suffice it to say,

this idea of going through Bruce Park in this way
as a visual expert you would find this a quite
strong visual impact on the park?

THE WITNESS (Libertine): I would say, yes, I think the results unfortunately speak for themselves. And I understand why we wanted to go through that exercise. I think certainly the underground option from a future standpoint in terms of long-term aesthetics once the construction is done you wouldn't even know it was there, but obviously that would be a permanent impact.

DR. KLEMENS: And as was testified earlier, the drilling will be 37 feet below the actual floor of the wetland in Indian Harbor?

THE WITNESS (Gagnon): Yes, that is correct.

DR. KLEMENS: So I want to go to a letter that we received from Edith Meli or Meli who says does anyone read the e-mails that the Siting Council gets, and I think here we have proved that we have. And she asked the question -- this is one of the many public e-mails we get. And she asked if the e-mails are ever being read, does it really matter.

But she raises one question that I'd 1 like you to address. Where does the EPA stand on 2 the ecological disasters that can occur in Bruce 3 Park, Long Island Sound, the Greenwich wetlands. 4 5 And I'm going to rephrase that as what type of higher agency approvals do you need or what kind 6 7 of reviews have you done with federal agencies? 8 Is that covered by your NEPA review or how have 9 you dealt with the EPA or do you have to? THE WITNESS (Libertine): Correct me if 10 I'm wrong, I don't believe there's any trigger 11 from a federal standpoint here. What we would 12 13 have to do and what we have had conversations at this point is with the Office of Long Island 14 15 Sound. So they're aware of the project's 16 potential. We've gotten some feedback from them, 17 and I believe we're in the process of developing 18 the permit application that would be required to go through Bruce Park and go underneath the tidal 19 20 wetlands. The Long Island Sound. 21 DR. KLEMENS: 22 THE WITNESS (Libertine): I'm sorry, 23 the tidal wetlands associated with Bruce Park. 24 So that is being DR. KLEMENS:

regulated at the state level?

THE WITNESS (Libertine): It would be regulated at the state level under the DEP's

Office of Long Island Sound.

DR. KLEMENS: And do they coordinate

often are.

DR. KLEMENS: And do they coordinate with DEP, or is there some coordinated -- I just want to answer this lady's question. I mean, are we taking all the necessary environmental protections necessary?

that question I would say yes, but again, I just don't believe that there would be any -- there is no -- I will take that back. The only approval process through the Federal Government would be triggered through the U.S. Army Corps of Engineers. If we were to do the cable crossing and do cofferdams and impact directly the wetlands, we would get into an Army Corps permit jurisdiction. At that point there would be outreach to U.S. Fish and Wildlife and Historic Advisory Committee. I don't believe EPA is part of that particular process as well so -
DR. KLEMENS: In my experience they

THE WITNESS (Libertine): Well, they'll certainly be a commenting party.

1 DR. KLEMENS: Right. THE WITNESS (Libertine): Whether or 2 3 not they actually have -- so yes, they could have input, right. 4 5 DR. KLEMENS: So in answer to Edith Meli or Meli's question, this is all being done in 6 7 a manner with the correct permits and the correct 8 agencies? 9 THE WITNESS (Libertine): Absolutely. 10 Once we know the final routing, then certainly those agencies will have to be consulted. 11 DR. KLEMENS: And if there's going to 12 13 be wetlands, as you said, it's going to -- wetland impact is going to go to the Army Corps, and the 14 15 Army Corps triggers the other federal regulatory 16 agencies? THE WITNESS (Libertine): That's 17 18 correct. DR. KLEMENS: No more questions, 19 20 Mr. Chairman. Thank you. 21 THE CHAIRMAN: Mr. Mercier. 22 THE WITNESS (Libertine): Dr. Klemens, 23 just to follow up, we do have this in the 24 application in Section O under O-1. There is 25 actually a table of the anticipated permit

approvals and consultations that we went through and vetted as part of this process.

DR. KLEMENS: Right. This was a

- 4 letter. I just wanted to have you address this
 5 letter because we get a lot of form letters and a
- lot of things. This actually had a question that

 I thought was worth at least answering in the
- 8 record.

- 9 THE WITNESS (Libertine): Absolutely.
- MR. MERCIER: Thank you.
- 11 Mr. Libertine, you just brought up cofferdams. I
- 12 believe at the last hearing I asked what the
- 13 maximum length of a cofferdam could be, and I
- 14 don't recall that being answered in any of the
- 15 materials I have. So does anybody recall that?
- 16 THE WITNESS (Libertine): I do recall
- 17 the question, and I think the answer was I'm sure
- 18 we didn't give you a linear foot dimension.
- 19 MR. MERCIER: That's what I was looking
- 20 for.
- 21 THE WITNESS (Libertine): And I don't
- 22 know that. I don't know what the limitations are
- 23 in terms of how far you can go. I know that the
- 24 plan in terms of if we were to cross Indian Harbor
- 25 would be to work from both sides, work halfway and

- 1 then do the other side to match it, but
- 2 unfortunately I just don't know that, the
- 3 limitation.
- 4 MR. MERCIER: Thank you.
- DR. KLEMENS: Just a follow-up. Wasn't
- 6 there also a discussion, but I think that was
- 7 answered, but correct me if I'm wrong, about how
- 8 you do a cofferdam in a tidal wetland, was that
- 9 actually answered?
- MR. ASHTON: Yes.
- DR. KLEMENS: No, it was not answered?
- MR. ASHTON: It was.
- DR. KLEMENS: It was answered. Okay.
- 14 Thank you.
- 15 THE WITNESS (Gagnon): The only thing I
- 16 just want to clarify, I mean, the distance really
- 17 has to do with the type of water flow, the type of
- 18 depth that you have to do. So I think you have to
- 19 look at it holistically what are you traversing
- 20 there than just a linear distance.
- MR. MERCIER: Yes. Yes, now I recall
- 22 the going from both ends. Thank you.
- I do have a couple of follow-ups on the
- 24 previous questions I asked regarding the potential
- 25 overhead segments that you developed. This has to

do with Segment 2. In Segment 2 you had three options, 2A and 2B were overhead, and 2C was underground. Just from a constructability point of view, would underground be easier than the overhead between say than along the railroad?

THE WITNESS (Gagnon): In this
particular case we believe the railroad south
would provide, I think, probably an easier
construction area for us to be in. Although the
roadway is nice and convenient, you do have the
public access that you're dealing with on a daily
basis between the highway and the railroad. Other
than the action of the railroad and the highway,
we'd be limited to a protected work area.

MR. MERCIER: I guess that's what I'm getting at. I mean, would there be cumbersome work rules and times that it would just be easier to go underground along the roads, but I guess what you're saying is, no, it would be --

THE WITNESS (Gagnon): Yes, I think we also weighed in the cost of going underground versus overhead too.

MR. MERCIER: Now just in general for maintenance purposes if you had an overhead line, how often do you have to go in and maintain the

tower or certain segments of line, is it every ten
years or if problems arise?

THE WITNESS (Gagnon): They do foot patrols, I believe, subject to verification, I think it's every two years we do a foot patrol on each of the lines. Overhead is definitely a lot easier to look, I mean, because you can visually see what's going on with binoculars than something that's underground.

MR. MERCIER: For the XLPE cables, once you put them in, if it's done right, is the incidence of problems extremely minimal?

THE WITNESS (Gagnon): Yes, if it's done right. Usually what we've seen, if there's a failure, it's someone digging into it. It's not the cable itself. If there is a cable problem, it's usually at the splice point.

MR. MERCIER: Thank you.

MR. ASHTON: Has CL&P -- pardon me -Eversource acquired rights along the railroad in
this section? Let me preface it by the comment
that back 50 years ago, more or less, there was a
major purchase of the railroad rights by CL&P, and
the payment was used to rebuild the signal system.
And I'm not quite sure how far along that went.

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1
    This is all preceding you guys, I guess.
    would be a de novo type of acquisition if you had
2
    to acquire rights in this area?
3
               THE WITNESS (Gagnon):
4
                                       I'm not sure
5
    exactly what that meant but --
               MR. ASHTON:
                            I'm sorry?
6
7
               THE WITNESS (Gagnon): Yes.
                                             Correct.
8
               MR. ASHTON:
                            Okay. And is it fair to
9
    say that usually the railroad is not too kindly
    towards bargain rates for acquisition of
10
    rights-of-way?
11
12
               THE WITNESS (Gagnon): They know we're
13
    a trapped customer basically, yes.
               MR. ASHTON: Okay. I see Mr. Bowes
14
15
    over there. He's nodding his head.
16
               THE CHAIRMAN:
                              I have just one
    question. On your question for LF-003, page 4, we
17
18
    have "Estimated Cost of Transmission Line Routes."
    The last sentence where you say that the estimated
19
    cost for this hybrid overhead/underground
20
    transmission line route would be approximately 50
21
    million, which is 22 million less than the
22
23
    estimated cost along the preferred route, so does
24
    that mean that of your total cost of whatever it
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is, 140 million, it will be 22 million less if

this route was chosen?

THE WITNESS (Gagnon): I think it works out to be 117 million for the whole project.

THE CHAIRMAN: So it would be about a 15 percent or whatever reduction in cost.

THE WITNESS (Gagnon): (Nodding head in the affirmative.)

THE CHAIRMAN: I probably know the answer, but I think a lot of people ask questions knowing the answer. But why in your original application did you not show as alternative of overhead for the hybrid route?

THE WITNESS (Gagnon): It really has to do with when we had discussions with the railroad and with the towns, the open houses, from all that data that we put together using some of our standard designs, our initial approach with CDOT, the railroad wanted us to verify and validate that there's absolutely no other routes before they came in and they allowed us to go and look at some of these other hybrid routes within the railroad and highway corridor. So our preferred route was based on the information and any permissions that we had during that time.

THE WITNESS (Gardell): In our

- application we do have a letter from CDOT, and it says it was undesirable for us to be located in their rights-of-way. That was part of our application.
- MR. ASHTON: Is that in part premised
 on the fact that Amtrack is considering major
 rebuild of the northeast so this would be one of
 the key routes?
 - THE WITNESS (Gardell): They've shared with us the intent to widen the highway here, and that's their biggest concern.
- MR. ASHTON: To widen the highway?

 THE WITNESS (Gardell): Yes.

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- MR. ASHTON: Not the railroad? My
 15 question was for the railroad.
 - THE WITNESS (Bowes): There's also a lot of rail outages coming up for both the United Illuminating work, as well as the railroad work itself over the next year to two years. It would be a coordination issue certainly.
 - MR. ASHTON: You're going to have a coordination issue with Greenwich for UI work?
- 23 THE WITNESS (Bowes): No, with
 24 Metro-North around the outages they need for both
 25 the UI work, as well as this work, if we go

- 1 forward with an overhead route.
- 2 MR. ASHTON: Okay. Thank you.
- DR. KLEMENS: I actually had one more
- 4 question to ask.
- 5 THE CHAIRMAN: Go ahead.
- DR. KLEMENS: I have one more that I
- 7 meant to ask, and that goes back to Mr. Granoff
- 8 came and asked you about the design of the
- 9 building and the response that you have received
- 10 from Greenwich, and he asked if there were other
- 11 ideas, you would consider them. I believe
- 12 Mr. Granoff submitted some conceptual ideas. If
- 13 the sort of eyesore concept, which we heard
- 14 articulated by the realtor -- and I forget your
- 15 name, I'm sorry.
- MS. EDWARDS: Christine.
- 17 DR. KLEMENS: -- if the eyesore concept
- 18 is the thing that is driving part of it -- I don't
- 19 believe it's driving the whole thing -- but would
- 20 Eversource be amenable to trying to work with the
- 21 community to try to get something that the
- 22 community might find less of an eyesore as part of
- 23 an approval?
- 24 I mean, I realize that there's a whole
- 25 bunch of questions floating around. That

particular one seems to be resolvable?

THE WITNESS (Bowes): Yes. As we've said before, in fact, we've been directed by the Council to come up with some variations with more brick veneer, but we're certainly open to a more pleasing appearance of the facility. And the real question is is who makes that ultimate call. I believe it's the Siting Council. So we can clearly work through the D&M process and come up with some alternatives that the Council can ultimately approve.

DR. KLEMENS: Thank you.

THE CHAIRMAN: This is probably a good point to close this hearing which will be continued.

Do we have a date?

Because I think the next appearance or group that would -- or agency would be the Office of Consumer Counsel since they've already expressed, as have others, the fact that they just got information. Rather than have them start now and then have to go on with the review of the new information, the best place probably is to stop now.

So the Council announces that we will

continue this evidentiary portion of the hearing 1 again at this same location, 10 Franklin Square, 2 on Tuesday, January 12, 2016, again, at 11 a.m. 3 and again in this hearing room. 4 5 I can note that anyone who has not become a party or intervenor, but who desires to 6 7 make his or her views known to the Council, may file written statements with the Council until the 8 9 record closes. Copies of the transcript of this 10 11 hearing will be filed with the Greenwich Town Clerk's office. 12 And I declare this portion of the 13 hearing adjourned, and thank you for your 14 15 participation. (Whereupon, the witnesses were excused, 16 and the above proceedings were adjourned at 3:31 17 18 p.m.) 19 20 21 22

25

23

CERTIFICATE

2	I hereby certify that the foregoing 175 pages
3	are a complete and accurate computer-aided
4	transcription of my original stenotype notes taken
5	of the Council Meeting in Re: DOCKET NO. 461,
6	APPLICATION OF EVERSOURCE ENERGY FOR A CERTIFICATE
7	OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR
8	THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A
9	115-KILOVOLT (kV) BULK SUBSTATION LOCATED AT 290
10	RAILROAD AVENUE, GREENWICH, CONNECTICUT, AND TWO
11	115-kV UNDERGROUND TRANSMISSION CIRCUITS EXTENDING
12	APPROXIMATELY 2.3 MILES BETWEEN THE PROPOSED
13	SUBSTATION AND THE EXISTING COS COB SUBSTATION,
14	GREENWICH, CONNECTICUT, AND RELATED SUBSTATION
15	IMPROVEMENTS, which was held before ROBERT STEIN,
16	Chairman, at the Connecticut Siting Council, 10
17	Franklin Square, New Britain, Connecticut, on
18	December 1, 2015.

Lisa Wally

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

Court Reporter

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