

# ORIGINAL

## STATE OF CONNECTICUT

### SITING COUNCIL

\* \* \* \* \*

CONNECTICUT LIGHT & POWER COMPANY \*  
AND UNITED ILLUMINATING COMPANY \*

SEPTEMBER 28, 2004  
(10:15 A.M.)

APPLICATION FOR A CERTIFICATE OF \*  
ENVIRONMENTAL COMPATIBILITY AND \*  
PUBLIC NEED FOR THE CONSTRUCTION \*  
OF A NEW 345-kV ELECTRIC \*  
TRANSMISSION LINE AND ASSOCIATED \*  
FACILITIES BETWEEN THE SCOVILL \*  
ROCK SWITCHING STATION IN \*  
MIDDLETOWN AND THE NORWALK \*  
SUBSTATION IN NORWALK, CONN. \*

DOCKET NO. 272

RECEIVED  
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CONNECTICUT  
SITING COUNCIL

\* \* \* \* \*

BEFORE: PAMELA B. KATZ, CHAIRMAN

BOARD MEMBERS: Colin C. Tait, Vice Chairman  
Brian Emerick, DEP Designee  
Gerald J. Heffernan, DPUC Designee  
Edward S. Wilensky  
Daniel P. Lynch, Jr.  
Philip T. Ashton  
Brian O'Neill  
James J. Murphy, Jr.

STAFF MEMBERS: S. Derek Phelps, Executive Director  
Fred O. Cunliffe, Siting Analyst  
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A PARTY, THE TOWN OF HAMDEN

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AN INTERVENOR, NORWALK ASSOCIATION OF SILVERMINE  
HOMEOWNERS

A PARTY, ROBERT W. MEGNA, STATE REP. 97<sup>th</sup> DISTRICT

AN INTERVENOR, MARY G. FRITZ, STATE REP. 90<sup>th</sup>  
DISTRICT

AN INTERVENOR, AL ADINOLFI, STATE REP. 103<sup>rd</sup>  
DISTRICT

AN INTERVENOR, RAYMOND KALINOWSKI, STATE REP. 100<sup>th</sup>  
DISTRICT

AN INTERVENOR, THEMIS KLARIDES, STATE REP. 114<sup>th</sup>  
DISTRICT

AN INTERVENOR, JOHN E. STRIPP, STATE REP. 135<sup>th</sup>  
DISTRICT

AN INTERVENOR, WILLIAM ANISKOVICH, STATE REP.  
12<sup>th</sup> SEN. DISTRICT

AN INTERVENOR, JOSEPH CRISCO, JR., STATE REP.  
17<sup>th</sup> SEN. DISTRICT

AN INTERVENOR, LEONARD FASANO, STATE REP.  
34<sup>th</sup> SEN. DISTRICT

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1 . . . Verbatim proceedings of a hearing  
2 before the State of Connecticut Siting Council in the  
3 matter of an application by Connecticut Light & Power  
4 Company and United Illuminating Company, held at Central  
5 Connecticut State University Institute of Technology &  
6 Business, 185 Main Street, New Britain, Connecticut, on  
7 September 28, 2004 at 10:15 a.m., at which time the  
8 parties were represented as hereinbefore set forth . . .  
9  
10

11 CHAIRMAN PAMELA B. KATZ: I'd like to call  
12 this continuation of Docket 272 hearing to order.

13 First we have a couple of housekeeping  
14 things. The Siting Council received notice of a FERC  
15 event occurring in Hartford on October 13<sup>th</sup>. And I asked  
16 our Assistant Attorney General Bob Marconi whether Council  
17 members could attend that since we're in the middle of the  
18 docket. And Mr. Marconi, do you want to give us your  
19 opinion.

20 MR. ROBERT L. MARCONI: Yes. Just -- this  
21 has already been discussed with the attorneys in a  
22 prehearing conference. On Wednesday, October 13<sup>th</sup>, the  
23 Federal Energy Regulatory Commission is having a  
24 conference in Hartford. The subject matter of the

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1 conference would be the energy infrastructure issues in  
2 Connecticut, a subject of this hearing. The concern that  
3 I had -- since some Council members had expressed possible  
4 interest in attending, the concern I had were Council  
5 members who are suppose to decide this case entirely based  
6 upon the testimony, the exhibits, the items  
7 administratively notice, etcetera, what's in the record,  
8 hearing things that are outside of the record and possibly  
9 being prejudiced by that.

10 The other concerns I also had would be if  
11 any Council members were asked questions by anybody of the  
12 FERC staff or even had any ex parte discussions on it.

13 So, I advised Chairman Katz that in my  
14 opinion it would be unwise for members of the Council to  
15 attend this conference. But a transcript is being made of  
16 the conference -- by the way, one more thing I should  
17 mention too, is that if a majority of Council members  
18 attended the conference, then we have the question of,  
19 gee, do we have a quorum and do we have a meeting that's  
20 not been noticed of the Siting Council.

21 But at any rate, a transcript is being made  
22 of this conference and the Council could take  
23 administrative notice of that. And we've indicated to all  
24 attorneys that we were inclined to do that once the



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1 transcript is available, Madam Chair.

2 CHAIRMAN KATZ: Thank you, Mr. Marconi.  
3 That will be our plan unless we get objections in the  
4 coming days otherwise.

5 Also under housekeeping, I wanted to let  
6 you know that Dr. Ginsberg's testimony before this Council  
7 has been often quoted and once in awhile misquoted. So  
8 Council members have received copies of the transcript  
9 with Dr. Ginsberg's testimony highlighted both in regard  
10 to 300 feet and regard to three milligausses. If you'd  
11 like to see a copy of that of what Council members  
12 received, please see Mr. Cunliffe and we will provide that  
13 for you.

14 This morning we will be taking up East  
15 Shore and this afternoon we will be taking up the EMF  
16 maps, which are now decorating the room.

17 So what I'd like to do is -- I understand  
18 the First Selectman of Branford is here. Yes. Sir, if  
19 you could come up to the microphone. The First Selectman  
20 of Branford has requested -- wherever you want -- Mr.  
21 Phelps, you're in charge of the chairs on the Titanic, so  
22 you put them wherever you want.

23 MR. JOHN OPIE: Where would like --

24 MR. S. DEREK PHELPS: Right here, sir.

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1 CHAIRMAN KATZ: Sir, if you could give your  
2 name and spell your name and give your title for the court  
3 reporter.

4 MR. OPIE: Yes. My name is John Opie, O-p-  
5 i-e, First Selectman of Branford.

6 CHAIRMAN KATZ: And if you'd like to give  
7 your statement.

8 MR. OPIE: Yes. I just have a brief letter  
9 I'd like to read in that I'll give you copies of.

10 (Pause)

11 CHAIRMAN KATZ: Go ahead.

12 MR. OPIE: Okay. Dear Chairman Katz, on  
13 behalf of the Town of Branford, I'd like to go on record  
14 as opposing the recent suggestion commonly referred to as  
15 the East Shore Route discussed in conjunction with Docket  
16 272. Above and beyond all technical and practical  
17 discussion, I suggest that the legal aspects of the Siting  
18 Council being able to certify the route without the  
19 application having completed the necessary municipal  
20 consultation with the potentially impacted towns. As the  
21 Council is aware, the Town of Branford is familiar with  
22 the consultation process and welcomes the opportunity to  
23 meet with the Applicants on these very important issues.

24 As a municipality, Branford has always

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1 accepted its share of the responsibility in terms of  
2 hosting the integral energy infrastructure of Connecticut  
3 and all of New England. Of the 398 miles of 345-kilovolt  
4 overhead lines in Connecticut, 3.2 miles reside in  
5 Branford.

6 In multiple reports filed with the Siting  
7 Council and ISO the utility companies have demonstrated  
8 the use of the East Shore Route would require the  
9 installation of an additional 345-kilovolt line. The  
10 impacts of this additional line to Branford would be  
11 severe. The need to clear-cut more than a hundred acres  
12 of mature forest for the installation of this line would  
13 be environmentally devastating. Most of this cutting  
14 would be in Branford along the important ecologically  
15 sensitive Lake Saltonstall Watershed. In addition,  
16 Branford electricity customers would be asked to absorb a  
17 portion of the 150 to 200 million dollar additional cost -  
18 - project costs related to the use of the East Shore  
19 Route.

20 Additionally, having worked as a design  
21 engineer in the arena of electromagnetics for 25 years, I  
22 have monitored many of the studies relative to adverse  
23 health impact and magnetic field radiation. There seems  
24 to be little -- to be little compelling correlation to

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1 support what the opponents to the proposed route have  
2 placed into the record. Such inconclusive evidence  
3 constitutes a very poor argument to support the huge cost  
4 and environmental impact differential between the proposed  
5 route and the East Shore Route. Respectfully submitted,  
6 John Opie, First Selectman.

7 CHAIRMAN KATZ: Thank you, sir. And we  
8 will take that as a limited appearance.

9 At this point, I'd like the attorney for  
10 the City of New Haven and those witnesses to come forward.  
11 And -- Mr. Phelps, how do you want to do this?

12 MR. PHELPS: Off the record for a moment.

13 CHAIRMAN KATZ: Why don't we go off the  
14 record for a moment.

15 (Off the record)

16 MS. ELIZABETH GILSON: I'm Beth Gilson.  
17 I'm outside counsel for the City of New Haven in this  
18 matter.

19 I'd like to introduce the two witnesses  
20 from the City. Karyn Gilvarg, on the left, is the City  
21 Plan Director for the City. And on her right is Mr.  
22 Richard Miller, who is the City Engineer. They have  
23 submitted prefiled testimony. Miss Gilvarg is going to  
24 speak on the economic impact primarily of the proposed

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1 East Shore concept, as well as other effects. And Mr.  
2 Miller's testimony deals with the technical and  
3 engineering aspects of routing the East Shore line.

4 CHAIRMAN KATZ: Thank you. I'm going to  
5 interrupt you there for a moment and I'm going to ask the  
6 witnesses to give their names and spell their names, and  
7 then Mr. Marconi is going to swear you in.

8 MS. KARYN GILVARG: Okay. My name is Karyn  
9 Gilvarg. It's K-a-r-y-n. Gilvarg, G-i-l-v-a-r-g.

10 MR. RICHARD MILLER: My name is Richard  
11 Miller, R-i-c-h-a-r-d, M-i-l-l-e-r, and I'm the Director  
12 of Engineering of Public Works for the City -- of the City  
13 of New Haven.

14 MR. MARCONI: Now if both witnesses could  
15 please stand and raise your right hand.

16 (Whereupon, Karyn Gilvarg and Richard  
17 Miller were duly sworn in.)

18 MR. MARCONI: Please be seated.

19 CHAIRMAN KATZ: Thank you. Miss Gilson, if  
20 you could identify the exhibits that we will -- and have  
21 your witnesses verify those.

22 MS. GILSON: Yes. The first exhibit would  
23 be the direct testimony of Miss Gilvarg. And attached to  
24 that testimony was one exhibit, which is magnified on this

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1 easel, and so those would be -- that would be exhibit --  
2 the second exhibit that we're offering -- the City is  
3 offering. The third exhibit would be the prefiled direct  
4 testimony of Mr. Miller.

5 And then there are two photographs which  
6 are here for illustrative purposes. The two photographs  
7 have not been provided to the other attorneys. And we  
8 certainly can do that by e-mail. They just did not  
9 reproduce satisfactorily to mail them.

10 CHAIRMAN KATZ: Okay. Before we verify,  
11 Fred, let's go through the numbers and what we're giving  
12 these.

13 MR. FRED O. CUNLIFFE: I agree with  
14 Attorney --

15 CHAIRMAN KATZ: Gilson.

16 MR. CUNLIFFE: -- Attorney Gilson that No.  
17 1 could be Miss Gilvarg's testimony, that No. 2 would be  
18 the attached map, and No. 3 would be Mr. Miller's  
19 testimony.

20 CHAIRMAN KATZ: And do we want to make  
21 these other photographs 4 and 5?

22 MR. CUNLIFFE: We can do that if they're  
23 going to provide those to the Council.

24 MS. GILSON: We can do that, but --

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1 electronically it would look --

2 MR. CUNLIFFE: Okay --

3 MS. GILSON: -- it would be better for you.

4 MR. CUNLIFFE: Thank you.

5 CHAIRMAN KATZ: Okay. Why don't we make it  
6 one exhibit and we'll call it -- because they both seem to  
7 be the same --

8 MS. GILSON: Correct --

9 CHAIRMAN KATZ: -- general area.

10 MS. GILSON: They're -- they're both -- Mr.  
11 Miller can probably tell you better, but they're both  
12 photographs of the port.

13 CHAIRMAN KATZ: Okay. We're going to call  
14 the photographs of the port No. 4 then.

15 MS. GILSON: Okay.

16 CHAIRMAN KATZ: Okay, if you could have  
17 your witnesses -- if there's no objection to the  
18 identification of those exhibits, we're going to have the  
19 witnesses verify them. And hearing no objection, if you  
20 could have them --

21 (Whereupon, the City of New Haven Exhibit  
22 Nos. 1 through 4 were marked for identification purposes.)

23 MS. GILSON: I believe Miss Gilvarg can  
24 identify everything except for Mr. Miller's direct. And

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1 I'd like to ask you, Miss Gilvarg, can you please swear or  
2 affirm that the exhibits submitted by the City today are  
3 true and accurate to the best of your belief?

4 MS. GILVARG: I do affirm that.

5 MS. GILSON: Madam Chairman, I move the  
6 admission of these exhibits identified as 1, 2 and 4 as  
7 full exhibits.

8 CHAIRMAN KATZ: Miss Gilvarg, are there any  
9 changes or updates to your prefiled testimony?

10 MS. GILVARG: No.

11 CHAIRMAN KATZ: Okay. Is there any  
12 objection to making 1, 2 and 4 full exhibits? Hearing  
13 none, they're full exhibits.

14 (Whereupon, the City of New Haven Exhibit  
15 Nos. 1, 2, and 4 for identification were received into  
16 evidence as full exhibits.)

17 CHAIRMAN KATZ: And Mr. Miller is doing No.  
18 3?

19 MS. GILSON: Yes. Mr. Miller, do you swear  
20 or affirm that the exhibit submitted today by the City, by  
21 you is true and correct to the best of your belief?

22 MR. MILLER: Yes.

23 MS. GILSON: And do you have any changes or  
24 amendments to that?



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1 MR. MILLER: No.

2 MS. GILSON: And do you adopt that today as  
3 your direct testimony in this matter?

4 MR. MILLER: Yes.

5 MS. GILSON: I'd like to move his  
6 identified Exhibit 3 as a full exhibit.

7 CHAIRMAN KATZ: Thank you. Is there any  
8 objection to making No. 3 a full exhibit for the City of  
9 New Haven? Hearing none, it's a full exhibit.

10 (Whereupon, the City of New Haven Exhibit  
11 No. 3 for identification was received into evidence as a  
12 full exhibit.)

13 CHAIRMAN KATZ: Okay. Any preliminary  
14 remarks before your witnesses are crossed?

15 MS. GILSON: No. I believe we're ready for  
16 cross.

17 CHAIRMAN KATZ: Okay. Going to the hearing  
18 program, we have first the Applicants. Mr. Fitzgerald?

19 MR. ANTHONY M. FITZGERALD: Oh, no  
20 questions.

21 CHAIRMAN KATZ: No questions. Is that for  
22 both companies?

23 MR. FITZGERALD: Yes.

24 CHAIRMAN KATZ: Thank you. Next is

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1 Representative Al Adinolfi. Any questions for the  
2 witnesses?

3 REPRESENTATIVE AL ADINOLFI:

4 (Indiscernible) --

5 CHAIRMAN KATZ: Mr. Adinolfi said no  
6 questions. Next, the Town of Middlefield, Attorney Knapp.  
7 In the room? We'll pass on that. Next is the Towns of  
8 Wallingford and Durham, Mr. Boucher or Mr. Curto.

9 A VOICE: No.

10 CHAIRMAN KATZ: No questions from  
11 Wallingford/Durham. Next is Attorney Ball, Kohler, Frank,  
12 etcetera. Who will be speaking -- oh -- Mr. Stone.

13 MR. BRIAN STONE: Yes, I have a few  
14 questions.

15 CHAIRMAN KATZ: Yes.

16 MR. STONE: For the record, Brian Stone for  
17 the Town of Orange. Good morning.

18 CHAIRMAN KATZ: And are you speaking  
19 collectively, Mr. Stone?

20 MR. STONE: I'm speaking collectively,  
21 although one of the other counsel may have some questions  
22 for Mr. Miller.

23 CHAIRMAN KATZ: Okay.

24 MR. STONE: I have a reputation for

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1 brevity, which I'm loathed to lose, so I'm going to be  
2 fairly quick.

3 CHAIRMAN KATZ: Well, we like brevity.

4 MR. STONE: I know.

5 MS. GILSON: The soul of wit. (Laughter).

6 MR. STONE: On -- on page -- I'm going to --  
7 - these initial questions are all going to be directed to  
8 Miss Gilvarg. Just kind of a housekeeping question, on  
9 page 4 of your testimony -- of your prefiled testimony,  
10 Exhibit 1, you reference an exhibit number, which was  
11 provided to you by the Applicant, and it's left blank. Do  
12 you know what that exhibit number was?

13 MS. GILVARG: I do not know what the  
14 exhibit number is, but I have the item here --

15 MR. STONE: What --

16 MS. GILVARG: -- it's a color reproduction  
17 of a power point presentation --

18 MR. STONE: And --

19 MS. GILVARG: -- several pages, dated June  
20 11, 2004.

21 CHAIRMAN KATZ: Applicants, can you help  
22 here.

23 MR. FITZGERALD: I'm sorry --

24 A VOICE: We'll get it.

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1 MS. LINDA RANDELL: We'll find it.

2 CHAIRMAN KATZ: We'll get that for you.

3 MR. STONE: Okay. And were you -- were you  
4 present at that meeting on June 11<sup>th</sup> of 2004?

5 MS. GILVARG: Yes, I was.

6 MR. STONE: You indicated in your testimony  
7 that no one from -- prior to June 11<sup>th</sup> you hadn't had any  
8 contact with the Applicant relative to the proposed East  
9 Shore Route, is that correct?

10 MS. GILVARG: That is correct.

11 MR. STONE: It is true, however, that there  
12 has -- there was some communication and contact concerning  
13 the proposed East Shore Route with the municipalities who  
14 are parties to this proceeding, isn't -- isn't that  
15 correct?

16 MS. GILVARG: All I ever saw was a single  
17 e-mail.

18 MR. STONE: You did, however, attend a  
19 meeting with a group of municipal first selectmen and  
20 mayors of the 16 towns subsequent to June 11<sup>th</sup> but you were  
21 present at a meeting at which the East Shore Route was  
22 discussed, isn't that correct?

23 MS. GILVARG: I did not attend that  
24 meeting, my staff did.

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1 MR. STONE: Gee, and I thought you were  
2 there, and I was there. My mistake.

3 MS. GILVARG: Possibly --

4 MR. STONE: Oh --

5 MS. GILVARG: I think -- I think the  
6 meeting you're referring to was actually after June 11<sup>th</sup>.

7 MR. STONE: Yes, it was -- yes, it was.  
8 Arising from that meeting in conversations with your staff  
9 or otherwise, were you aware that the municipalities in  
10 their advocating of an East Shore Route have specifically  
11 advocated reconductoring and not the construction of an  
12 additional 345 line?

13 MS. GILVARG: I was generally aware of  
14 that.

15 MR. STONE: Okay. And in your testimony  
16 you cite that the line would transverse near homes,  
17 schools, parks -- the proposed 345 line would transverse  
18 near homes, schools and parks within the city and is a  
19 matter of concern that you have. Have you -- or has the  
20 Applicant provided you with any maps to identify those  
21 sensitive areas?

22 MS. GILVARG: I don't believe that they  
23 have, but New Haven is very densely populated at 7,000  
24 persons per square mile. It's very hard to go anywhere in

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1 New Haven without being near one of those types of  
2 facilities.

3 MR. STONE: So you haven't particularly  
4 done any investigation as to what -- which of those  
5 facilities, for instance schools or playgrounds or parks  
6 within the City of New Haven would be near the -- or are  
7 near the existing 345 line?

8 MS. GILSON: Excuse me, it's a  
9 clarification. Do you mean in -- they did -- did the City  
10 do an investigation on top of what the Applicants have  
11 done and already submitted?

12 MR. STONE: Yes.

13 MS. GILVARG: No, we did not.

14 MR. STONE: So when you say that it's near  
15 these things, it's just because you just assume because of  
16 the dense population of New Haven that by its very nature  
17 it would have to be?

18 MS. GILVARG: That's right. You can't be  
19 in New Haven without being within several hundred feet of  
20 one of those types of facilities.

21 MR. STONE: On page 5 of your testimony you  
22 indicate that the Applicants have advised you that they  
23 would need to acquire an additional four acres beyond  
24 their existing property in order to construct the

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1 additional facilities necessary for the East Shore Route,  
2 is that correct? And in fact, you -- I believe it's  
3 Exhibit 2, which is the map which you've attached,  
4 identifies that presumed area where that additional taking  
5 would take place, is that correct?

6 MS. GILVARG: It doesn't identify the  
7 presumed area. It identifies the port district and shows  
8 in the little black square approximately four acres, but  
9 we have no expertise to locate actually where that would  
10 be needed except that the Applicants have stated that it  
11 needs to be somewhere near the Harbor Station.

12 MR. STONE: Okay. So in your discussions  
13 with the Applicant are you aware as to whether if only one  
14 -- if there was only reductoring of the existing 387  
15 line, whether that additional four acres would still be  
16 required?

17 MS. GILSON: Well, I'm going to object. I  
18 think it's a completely hypothetical question and it has  
19 nothing to do with what she might have spoken with the  
20 Applicants about.

21 MR. STONE: Well, I mean I --

22 CHAIRMAN KATZ: Well, why don't we rephrase  
23 it this way, did the Applicants indicate to you that  
24 reductoring of the line was an option?

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1 MS. GILVARG: I don't believe so. And I  
2 don't know what reconductoring means.

3 CHAIRMAN KATZ: You should spend more time  
4 here. (Laughter).

5 MR. STONE: You are blessed not having to  
6 spend more time here.

7 CHAIRMAN KATZ: Well, Mr. Stone, I'm going  
8 to have you rephrase then.

9 MR. STONE: My question is whether the --  
10 whether you are aware or not aware as to whether four  
11 acres -- the additional four acres which the Company has  
12 represented to you that it needs in order to effect the  
13 East Shore Route would be needed since their proposal is  
14 for two lines, whether you are aware whether or not it  
15 would be needed if they could successfully reconductor or  
16 have only one line?

17 MS. GILVARG: Again, we did not have that  
18 kind of a detailed conversation. My understanding is that  
19 there was a need for a substation of four to eight acres  
20 period. And I don't know where and I don't know why.

21 MR. STONE: Now, looking at Exhibit 2 where  
22 you have marked out an area which would need to be -- just  
23 a basic area. You talked about the impact of relocation  
24 of an existing economically significant use. As I look at



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1 -- for instance your map, let's assume that that was the  
2 area, I notice it says within the area to be -- which you  
3 have highlighted is 13 point acres of land used primarily  
4 for port storage and lay-down space, is that correct?

5 MS. GILVARG: That's correct. That's East  
6 Shore Parkway.

7 MR. STONE: And is -- is my assumption that  
8 lay-down space means a place where -- just what it says,  
9 you would -- you know, when things -- when stuff comes off  
10 the ships, it would sit there until it gets put on a truck  
11 for transport, or vice-a-versa, when it's going to be  
12 loaded on to a ship, it would be brought there and put  
13 down --

14 MS. GILVARG: Yes, that's --

15 MR. STONE: -- for transport?

16 MS. GILVARG: That's a critical need in the  
17 port area. And one of the major limitations of the port  
18 is that there is not enough lay-down area.

19 MR. STONE: Okay. Now isn't there -- isn't  
20 it correct that there's still a considerable amount of  
21 unused land within the port district?

22 MS. GILVARG: No, I don't believe that  
23 there is. I believe that virtually all of the land is  
24 used. And the 13 acres that the City owns is under

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1 license to a number of the port operators. And in fact  
2 we're losing land to the I-95 project.

3 MR. STONE: And -- but that is -- that land  
4 is vacant, so there's no buildings which are -- or  
5 facilities within that area at the present time, is that  
6 correct?

7 MS. GILVARG: East Shore Parkway is vacant,  
8 that's correct.

9 MR. STONE: You -- in your prefiled  
10 testimony on page 5, you talk about the potential impacts  
11 of a submarine route. And you state that you're not able  
12 to assess the specific impact of a set of cables running  
13 under the harbor, is that correct?

14 MS. GILVARG: That's correct because no  
15 specific route was shown to us.

16 MR. STONE: Isn't that -- isn't that true  
17 with respect to any proposal that would be before the  
18 harbor; you would have, you know, possible concerns, but  
19 you really can't assess those impacts until you have an  
20 actual specific proposal before you?

21 MS. GILVARG: We can certainly outline what  
22 the concerns would be based on our knowledge of the  
23 harbor.

24 MR. STONE: Fair -- fair -- well, I'm

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1 talking in addition to the harbor and let's assume a route  
2 through city streets. Isn't it -- isn't it fair to say --  
3 and I accept that, that you can certainly identify the  
4 areas that you would address, but isn't it fair to say  
5 that you can't assess what those impacts are until you  
6 actually know what is specifically proposed?

7 MS. GILSON: I'm going to object to the  
8 degree you're talking about routes through the city. Mr.  
9 Miller is here to testify on that matter and not Miss  
10 Gilvarg.

11 CHAIRMAN KATZ: Well, it's a panel, so --

12 MS. GILSON: Okay --

13 CHAIRMAN KATZ: -- you may direct your  
14 questions, Mr. Stone, to either one.

15 MR. STONE: Well, let me -- let me withdraw  
16 that and rephrase it. You testified that the project  
17 could have a detrimental and deleterious effect on the  
18 layout, design, and schedule of near term city  
19 investments, is that correct?

20 MS. GILVARG: That's correct.

21 MR. STONE: And you have concerns that this  
22 project if it came to be, would have such effects, is that  
23 true?

24 MS. GILVARG: Yes, that's correct.

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1 MR. STONE: But isn't it also true that you  
2 can't possibly assess those effects or analyze what those  
3 effects are until you have an actual project?

4 MS. GILVARG: That's right, I couldn't tell  
5 you specifically, but I can tell you generally what areas  
6 it would impinge on city activities.

7 MR. STONE: On -- on page 5 you testify  
8 that certain permits are required from the City. You're  
9 not a lawyer by training or have legal background, is that  
10 correct?

11 MS. GILVARG: That's correct. I'm an  
12 architect.

13 MR. STONE: And -- lucky you -- and so when  
14 you draw that legal conclusion that permits are required  
15 from the City, that's based upon what others have told  
16 you?

17 MS. GILVARG: I'm not aware that that's a  
18 legal conclusion. I'm the Director of the City Plan  
19 Department and the City Planning Commission is the coastal  
20 area management authority for the City and routinely  
21 reviews any activity in the coastal zone, which is in a  
22 thousand feet of coastal waters. Given that Harbor  
23 Station is within a thousand feet of coastal waters and  
24 given the general areas that the Applicant indicated this

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1 would go, it is certainly within the CAM zone and a  
2 Coastal Area Management review would be necessary.

3 MR. STONE: You're not aware as to whether  
4 or not this commission trumps the Coastal Area Management  
5 provisions?

6 MS. GILVARG: No. That I'll leave to the  
7 lawyers.

8 MR. STONE: Okay. I have no further  
9 questions for Miss Gilvarg. I do for -- just a couple of  
10 questions for Mr. Miller.

11 Mr. Miller, I'm going to ask you the same  
12 questions -- the same question I asked Miss Gilvarg, in  
13 your analysis and concerns relative to the engineering  
14 aspects of a project, wouldn't it be fair to say that you  
15 can't really determine what those impacts are and whether  
16 a design can be successfully and reasonably achieved and  
17 coordinated with other projects until you have an actual  
18 plan?

19 MR. MILLER: I think -- I think you can --  
20 you can assess in generalities the difficulties when you  
21 deal with the City of New Haven streets and what's in  
22 there right now and the topography of the City of New  
23 Haven and some of the difficulties that you would have in  
24 facing getting from point A to point B. When you look at

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1 specific issues, you obviously need to get involved with a  
2 lot of the details.

3 I can say that the City has a unique  
4 character to it relative to its topography in that you  
5 have three rivers, you have two highways, you have major  
6 railroads, and then you have city streets for the most  
7 part that are only 50 feet wide, which a good portion of  
8 it most of the utilities are underground, which are --  
9 when they were really created, they were created to  
10 service the adjacent properties, and we have an awful lot  
11 of utilities that exist within those rights-of-way. So  
12 that the assignments that you would have to have within  
13 the City rights-of-way are very very limited. And I have  
14 extensive knowledge in digging up a lot of the streets  
15 relative to that. So from that perspective, in a general  
16 sense it would be an engineering task to overcome whatever  
17 route you choose to get from point A to point B across the  
18 east to west direction. That would be a very challenge to  
19 any engineering or any company trying to do something  
20 along those lines.

21 MR. STONE: But engineers are geared to  
22 meeting challenges, aren't they?

23 MR. MILLER: I meet them every day.

24 MR. STONE: And you -- and you deal with

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1 this issue every day, isn't that true?

2 MR. MILLER: I don't deal with electrical  
3 lines that are transmission in nature within the City of  
4 New Haven --

5 MR. STONE: That's --

6 MR. MILLER: -- I don't do that --

7 MR. STONE: That's fair --

8 MR. MILLER: -- I deal with everything  
9 else.

10 MR. STONE: But you do -- you do deal with  
11 the issue of digging up streets and the undergrounding of  
12 utilities and broken lines and repairs and connections  
13 that occur all the time and have to address many of the  
14 same issues as we have here, isn't that correct?

15 MR. MILLER: Yes, I do.

16 MR. STONE: And there are -- isn't -- is it  
17 not fair to say that there are other old cities like New  
18 Haven in the Northeast that have successfully  
19 undergrounded high voltage lines within their streets that  
20 also contain water, sewer, gas, electric, for instance New  
21 York city?

22 MR. MILLER: Well, I can't speak to New  
23 York City, I only can speak to New Haven. I'm not  
24 familiar with other cities in terms of transmission --

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1 main transmission lines through their streets. I am  
2 familiar with service lines within -- that are utility,  
3 that are electrical in nature that are under streets, and  
4 that's similar to most cites, but not -- I don't have any  
5 knowledge relative to transmission lines.

6 MR. STONE: Thank you. I have -- well, did  
7 we find that exhibit?

8 A VOICE: Yes, we did.

9 MR. STONE: If I could just take a quick  
10 look at it and see if I had any questions on it.

11 A VOICE: It's not --

12 CHAIRMAN KATZ: We'll go off the record for  
13 a moment while you take a look at that exhibit.

14 (Off the record)

15 MR. STONE: I have nothing further.

16 CHAIRMAN KATZ: Thank you, Mr. Stone.

17 MR. STONE: Thank you.

18 CHAIRMAN KATZ: The Towns of Woodbridge,  
19 Milford, any questions? Mr. Ball says no questions. The  
20 Town of Westport. The City of Meriden. Assistant  
21 Attorney General Michael Wertheimer.

22 MR. MICHAEL WERTHEIMER: No questions.

23 CHAIRMAN KATZ: Mr. Wertheimer says no  
24 questions. The City of Bridgeport. Communities for



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1 Responsible Energy. Miss Bradley says no questions. OCC,  
2 Mr. Johnson. Woodlands Coalition.

3 A VOICE: No questions.

4 CHAIRMAN KATZ: Woodlands Coalition says no  
5 questions. ISO New England, Mr. MacLeod.

6 MR. ANTHONY MACLEOD: No questions.

7 CHAIRMAN KATZ: Mr. MacLeod says no  
8 questions. DOT, Mr. Walsh, Ms. Meskill.

9 MR. CHARLES WALSH: A few questions.

10 CHAIRMAN KATZ: Mr. Walsh, come on down.

11 MR. WALSH: Good morning. Assistant  
12 Attorney General Charles Walsh for the Department of  
13 Transportation. I'd like to direct just a few questions  
14 to Mr. Miller if I might.

15 Mr. Miller, are you familiar with the size  
16 of the proposed transmission facilities for placement  
17 underground in New Haven streets?

18 MR. MILLER: Just in generalities in terms  
19 of what they described, but not specifically.

20 MR. WALSH: Are you aware of any existing  
21 underground facilities of a similar size in New Haven  
22 streets that currently exist?

23 MR. MILLER: We have a variety of utilities  
24 that are in the city streets that are particularly

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1 relative to a sanitary sewer or a storm sewer, if you  
2 will, that -- and some telephone ducts that start to  
3 consume areas that are equivalent to what they presume to  
4 consume particularly with their transmission vaults of how  
5 they've described it.

6 One of the difficulties that we have in our  
7 streets is that it's -- with underground is that it's  
8 becoming clogged. What I mean by that, we've been doing  
9 sewer separation in the city, and now you have let's say a  
10 60-inch sewer pipe and right next to it a 50-inch storm  
11 pipe and then right next to that you have, you know,  
12 telephone ducts, and then next to that you have gas lines,  
13 and so -- and water lines -- and so now you have to  
14 concern yourself with how you get through city streets in  
15 a horizontal view if you will, which almost becomes very  
16 very difficult. Now you have to look at a vertical view.  
17 And then what you really are concerned with is how the  
18 utilities can maintain their facilities without bumping  
19 into each other. And when you have large -- then you have  
20 some critical stuff.

21 So those kinds of things are the kind of  
22 issues that as you start to look at trying to add another  
23 major utility within that limited rights-of-way -- and we  
24 don't have land associated on the sidelines, which means

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1 that mostly our buildings and homes are very small and  
2 they're compacts and there isn't land that it runs  
3 parallel to the rights-of-way, so everything has to go in  
4 that 50 feet or whatever area that we have. So it's a  
5 very -- very much of a challenge to be able to do it. So  
6 now you're looking at a vertical kind of a thing or a  
7 three-dimensional and it becomes quite complex. And that  
8 would be a very very much of a challenge to be able to do  
9 that.

10 MR. WALSH: Do you have any concerns about  
11 some of the existing infrastructure, such as sewer lines,  
12 that depend upon gravity flow which may be impacted by a  
13 facility of this nature?

14 MR. MILLER: Absolutely. When I say that,  
15 is that most of our sanitary sewer lines that -- were  
16 built in the late 1800's, they're brick sewers, and  
17 they're sensitive to when you do construction, because if  
18 you start -- a lot of them are held together over these  
19 years by just the force of the -- the force of the soils  
20 around it holding that, because long since the mortar has  
21 in some cases deteriorated, so it's just held together  
22 with what you would call is the framework of the  
23 surrounding soil --

24 CHAIRMAN KATZ: And a prayer --

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1 MR. MILLER: -- and once you disturb that,  
2 sometimes you have sewer collapses. And when that happens  
3 -- and it has happened in the City of New Haven, I saw a  
4 car fall into one -- then it becomes a real problem to do  
5 the repairs and you chase that brick sewer down its line.  
6 So those would be major concerns that I would have, you  
7 know. And that -- and when you look at storm or when you  
8 look at sanitary, they're governed by gravity. And when  
9 you're governed by gravity, you don't have a lot of  
10 options to go up and over, down and around, you're pretty  
11 much fixed in alignment. And those are the things that  
12 you'd have to consider as well.

13 MR. WALSH: Would these concerns be  
14 concerns that are not just limited to New Haven, but to  
15 any municipality or any entity facing a facility such as  
16 this transmission facility within the right-of-way?

17 MR. MILLER: I suspect that would be -- if  
18 they are -- if they have the same similar types of piping  
19 within their city streets or town streets, I would say  
20 that they would have to consider those aspects as well.

21 MR. WALSH: Alright, thank you. No further  
22 questions.

23 CHAIRMAN KATZ: Thank you, Mr. Walsh. Next  
24 is the Town of Fairfield. The Town of Wilton.

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1 A VOICE: (Indiscernible) --

2 CHAIRMAN KATZ: Wilton and Weston no  
3 questions. South Central Connecticut Water Authority, Mr.  
4 Lord.

5 A VOICE: No questions.

6 CHAIRMAN KATZ: Mr. Lord says no questions.  
7 The Town of Cheshire, Mr. Burturla.

8 MR. RICHARD BURTURLA: Just a few follow-  
9 up. Mr. Miller, just to follow up on where Assistant  
10 Attorney General Walsh left off, many municipalities would  
11 have the same kinds of concerns regarding limited rights-  
12 of-way, dense populations, old sewer lines, and multiple  
13 utilities sited within the public right-of-way, right?

14 MR. MILLER: I can speak to what New Haven  
15 has because of its density. You know, other towns may  
16 have similar situations, but I can't speak to the specific  
17 what's underground --

18 MR. BURTURLA: Well --

19 MR. MILLER: -- in those -- those  
20 communities.

21 MR. BURTURLA: Are you aware that there's a  
22 proposal on the table before this Siting Council to site  
23 under ground this line, the proposed underground line  
24 within the City of Bridgeport and within the Town of

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1 Stratford underground?

2 MS. GILSON: I'm going to object to --  
3 well, I guess he can answer if whether he's aware. He --  
4 we are intervenors because of -- the City of New Haven is  
5 an intervenor because of this East Shore option. It is  
6 not a party with regard to the original application.

7 CHAIRMAN KATZ: Well, as you said, Miss  
8 Gilson, the question is are you aware. It's a yes or no  
9 question.

10 MR. MILLER: I'm aware in general, but I  
11 have no knowledge of its alignment or what the specifics  
12 are associated with it, just that -- that parts of it is  
13 going underground.

14 CHAIRMAN KATZ: We'll go with a yes.

15 MR. BURTURLA: So you're aware generally.  
16 You're not aware that the proposed line is to go through  
17 the City of Bridgeport, down Route 1 in Stratford, Barnum  
18 Avenue in Stratford to the river, you're not aware of  
19 that?

20 MR. MILLER: I'm not specifically aware of  
21 that, no.

22 MR. BURTURLA: Alright. Thank you.

23 CHAIRMAN KATZ: Thank you, Mr. Burturla.

24 Next is the Town of North Haven. Ezra Academy, B'Nai

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1 Jacob, etcetera, Attorney Schaefer.

2 Before I go to the Council, are there any  
3 other parties and intervenors I have not called who wish  
4 to cross-examine the City of New Haven? Seeing none, Mr.  
5 Cunliffe.

6 MR. CUNLIFFE: In your prefiled testimony  
7 both of you alluded to a document that the Company  
8 provided you and you weren't able to identify it. Did the  
9 Company tell you that this was a document that was  
10 submitted in this record?

11 MS. GILVARG: If you're referring to this  
12 document that I held up, my attorney indicated that it had  
13 been submitted by the companies.

14 MS. GILSON: And it turns out it -- we were  
15 incorrect. This was a municipal consult when they did  
16 report back that they had talked to the towns. I presumed  
17 that was the document, but it's -- the same cover, a  
18 different document --

19 CHAIRMAN KATZ: Okay --

20 MS. GILSON: -- so it's not part of the  
21 record. We'd be glad to supply a copy to the Council.

22 MR. CUNLIFFE: Thank you. Miss Gilvarg,  
23 did you conduct an analysis of the project's effect on the  
24 port economy?

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1 MS. GILVARG: I did not.

2 MR. CUNLIFFE: Do you have any sense of  
3 what the impact of a project like this would have on a  
4 port?

5 MS. GILVARG: Are you talking about  
6 economic impact --

7 MR. CUNLIFFE: Economic --

8 MS. GILVARG: -- physical? No, we did not  
9 conduct that kind of a detailed analysis because we do not  
10 have a specific proposal in front of us. However --  
11 again, we're generally aware of what they want to locate  
12 where in an area that's already very crowded.

13 MR. CUNLIFFE: But no sense of millions of  
14 dollars of what would be at stake?

15 MS. GILVARG: No.

16 MR. CUNLIFFE: Okay. Mr. Miller, on your  
17 testimony on page 2, you provided information about the  
18 number of vaults about every three to four hundred feet.  
19 Was this information the Company provided you?

20 MR. MILLER: That is correct.

21 MR. CUNLIFFE: Are you aware that in this  
22 record they've testified to vaults somewhere in the  
23 vicinity of 1500 feet to 2,000 feet?

24 MR. MILLER: No, I'm not.



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1 MR. CUNLIFFE: Would that change your  
2 position on the alignment of an underground facility in  
3 your city?

4 MR. MILLER: I can't speak to how -- their  
5 alignment. I would imagine that in a -- you know, if  
6 you're looking at the number of -- it would be depending  
7 on the number of turns, so it would not change -- you  
8 know, you have to really look at the specifics, because I  
9 think that my knowledge of vaults are as dependent upon a  
10 variety of things, topography is one, turning to another  
11 location is another, so -- you know, I -- it's difficult  
12 for me to answer that question.

13 MR. CUNLIFFE: Alright, thank you. And you  
14 also talked to -- you use a figure of 7-12-foot vertical  
15 profile. What do you mean by that?

16 MR. MILLER: It means that it has to be  
17 buried at that depth.

18 MR. CUNLIFFE: On page 3 you speak to  
19 separation distances. I want to make sure that I'm clear  
20 on this. You say it must be three feet. And that's just  
21 between sewer and water lines, is that correct?

22 MR. MILLER: That's a general guideline  
23 that we've all used in the engineering trade to make sure  
24 that you don't ever have a cross-contamination issue that

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1 occurs, you know, between a sanitary and a water line. If  
2 there is a slight crack or something like that, you don't  
3 any --

4 MR. CUNLIFFE: But distances could be  
5 closer for like say a gas pipeline and electric line, or -  
6 -

7 MR. MILLER: Well, I think that --

8 MR. CUNLIFFE: -- water line?

9 MR. MILLER: I think what you -- when you  
10 take a look at the -- as a general rule you try to keep  
11 three feet away, because when you are marking out  
12 utilities -- for example, if you Call Before You Dig and  
13 if you are -- they have to mark their facilities within  
14 three feet of their location, so that there is a -- there  
15 is an area that you -- when you're digging something, you  
16 want to -- there is a variable there. And -- so that if  
17 you have too many utilities located too close to each  
18 other and you're digging for let's say a telephone line  
19 and you happen to hit an electrical line, that's not good,  
20 or vice-a-versa, if you're digging for a sewer and you end  
21 up hitting a major conduit line that is a transmission  
22 line for communications, that's not good. So that the  
23 line assignments -- you really want to be able to make  
24 sure that your line assignments are well know, that there

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1 is reasonable separation distance so you don't have that  
2 conflict that occurs when you have to do maintenance on  
3 any facility.

4 MR. CUNLIFFE: Would 12 inches be a  
5 sufficient separation between any facility?

6 MR. MILLER: Well, I think that -- that's a  
7 difficult question to answer because in some cases you  
8 have -- for example, oftentimes you can get a separation  
9 of 12 inches for cable TV and a telephone line; you know,  
10 sometimes they use similar trenches in that because you're  
11 not in a hazard and they work closely together. But you  
12 do like to make sure you have better separation between a  
13 gas line and a water line or other lines, or an electrical  
14 line for example, so that you never get into a situation  
15 where you're hitting one. So a lot of these kinds of  
16 things depend on, you know, where it is underground as  
17 well --

18 MR. CUNLIFFE: Thank you --

19 MR. MILLER: -- how deep it is.

20 MR. CUNLIFFE: Thank you for those  
21 comments. And the last question, and I'm not sure if this  
22 to legal, but you did in your testimony, Mr. Miller,  
23 allude to a municipal consult filing by the Applicant for  
24 this project, is that correct?

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1 MR. MILLER: What page are you on?

2 MR. CUNLIFFE: Page 4.

3 MR. MILLER: Page 4. That would be -- I'd  
4 have to ask the attorney on that specific question, what  
5 that --

6 MR. CUNLIFFE: You did not see this filing?

7 MR. MILLER: Uh -- I'm aware of it, but I'm  
8 not -- I haven't seen the detail of the filing. I'll have  
9 to ask counsel --

10 MS. GILSON: For the record, the City of  
11 New Haven received one because they were within a certain  
12 distance from the proposed route and no hearings or other  
13 activities were held in relationship to that.

14 MR. CUNLIFFE: Alright.

15 MS. GILSON: I know that the City got a lot  
16 of copies and Mr. Miller and Miss Gilvarg I believe both  
17 may have seen it.

18 MR. CUNLIFFE: Do you find this helpful if  
19 there's a project in a -- in an adjacent municipality that  
20 you've been given notice as long as it's within a certain  
21 distance that it helps you in your plans?

22 MR. MILLER: I think that a lot of the  
23 kinds of activities that are taking place in other  
24 municipalities, because of all the types of things that

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1 happen within the city, you know, you take a look at it  
2 but you don't study it in detail. You're aware of it, but  
3 you're not aware of all the details and nuances associated  
4 with what is happening in other communities unless it  
5 starts to affect your community, and then you are taking a  
6 much more closer look at some of those kinds of questions.

7 MR. CUNLIFFE: Thank you. Those are my  
8 questions, Chairman.

9 CHAIRMAN KATZ: Thank you. Mr. Emerick.

10 MR. BRIAN EMERICK: Just to follow up on  
11 Mr. Cunliffe's question with respect to your testimony on  
12 page 2, you describe a variety of different shall we say  
13 design criteria for installing the cable. Were those  
14 given to you by the Applicant or where did you draw that  
15 from?

16 MR. MILLER: My experience. I mean it  
17 wasn't -- when you -- one of the roles of -- and if I can  
18 make sure I understand the question correctly -- one of  
19 the roles of the Director of Engineering of Public Works  
20 is that we -- we try to control the right-of-way. We have  
21 -- in terms of what goes in there, how they use them. For  
22 example, if a -- within a city right-of-way if utility  
23 lines need to be moved, we can direct them, where they can  
24 be moved, but you can't direct them as to how they would

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1 do that. So that you have control over the right-of-way  
2 as to what goes in that right-of-way. So what you try to  
3 do is to have assignments within that right-of-way so that  
4 you don't get into the conflicts that I alluded to  
5 earlier.

6 MR. EMERICK: So -- in that testimony you  
7 indicated that they would have to be buried five feet deep  
8 under city streets. Is that a minimum distance?

9 MR. MILLER: Uh --

10 MR. EMERICK: And do you know if, in fact,  
11 these cables could be buried that deep?

12 MR. MILLER: I'm not aware of -- when --  
13 when we take a look at the depth, I suspect that that  
14 would be variable in nature. And I say that because  
15 you're going to have to take a look at -- it may be five  
16 feet -- obviously, you want to make sure it's buried below  
17 the frost line, which is 42 inches in New Haven. When you  
18 get to -- that's the top of whatever it is. So when you  
19 start -- depending upon how -- if it's another foot, now  
20 you're down at least five feet. When you start to take a  
21 look at the service connections from any of the other  
22 utilities, whether they be the sanitary sewer, the water,  
23 the telephone, the electrical that's servicing if it's  
24 underground, cable TV if it's underground, now what you're

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1 looking at is they each -- each of those have different  
2 elevation controls, and in particular the sanitary sewer,  
3 which is usually somewhere -- it could be five feet to  
4 eight feet to twelve feet deep, so -- so now you're  
5 looking at how you weave around those kinds of things with  
6 any kind of utility that you're going to be doing. And so  
7 I suspect that when you say five feet, I suspect that  
8 there will be a lot of variables associated with where you  
9 would be putting this transmission line wherever it may  
10 be.

11 MR. EMERICK: Are you familiar with the  
12 extent to which they can change the profile of that line?

13 MR. MILLER: I'm not aware of how they  
14 would do that. I have not seen any specifics. I know  
15 that in most of -- I'm not associated with transmission  
16 line stuff -- when you are running down the street with  
17 something new, it translates to a lot of utility  
18 relocation work, and it doesn't make any difference  
19 whether you have to redo a storm sewer or whether it be an  
20 electrical line or a telephone -- a major  
21 telecommunication line -- you respect a lot of the other  
22 utilities. And sometimes you -- there is nothing you can  
23 do, that the other utilities have to relocate their  
24 facilities so that you can accommodate the installation of

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1 your facilities. So, I suspect that a detailed plan would  
2 yield very similar situations that normal other utilities  
3 go through with this.

4 MR. EMERICK: Thank you.

5 CHAIRMAN KATZ: Mr. Heffernan.

6 MR. GERALD J. HEFFERNAN: No questions,  
7 Madam Chairman.

8 CHAIRMAN KATZ: Mr. O'Neill.

9 MR. BRIAN O'NEILL: No questions, Madam  
10 Chairman.

11 CHAIRMAN KATZ: Mr. Tait.

12 MR. COLIN C. TAIT: No questions.

13 CHAIRMAN KATZ: Mr. Ashton.

14 MR. PHILIP T. ASHTON: A couple of  
15 questions.

16 COURT REPORTER: A microphone please.

17 MR. ASHTON: Thank you. Both of you  
18 referred to shellfish problems. Assuming the cable --  
19 assuming a cable is sought, which would run east/west  
20 north of the Wisvest plant, what type of shellfish  
21 operations are conducted in that area of the harbor, do  
22 you know?

23 MS. GILVARG: There are oyster grounds.

24 MR. ASHTON: Oyster grounds in the middle



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1 of the New Haven Harbor?

2 MS. GILVARG: Yes, there are. They're off  
3 --

4 MR. ASHTON: Are they active oyster beds or  
5 are they just designated, you know, going back centuries?

6 MS. GILVARG: Some of them are active. And  
7 there are oyster grounds on the West Haven side off the  
8 sandbar.

9 MR. ASHTON: Was the harbor dredged this  
10 year or last year?

11 MS. GILVARG: I'm -- it was dredged over  
12 the course of two seasons.

13 MR. ASHTON: Okay, recently --

14 MS. GILVARG: The channel was dredged.

15 MR. ASHTON: Right. Did that --

16 MS. GILVARG: The federal navigational  
17 channel --

18 MR. ASHTON: -- disturb the oyster beds?

19 MS. GILVARG: I don't know.

20 MR. ASHTON: I see. Does ship movement  
21 through the channel disturb oyster and clam beds?

22 MS. GILVARG: To my knowledge, no.

23 MR. ASHTON: You have no real knowledge, is  
24 that fair to say?

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1 MS. GILVARG: I have no personal  
2 experience.

3 MR. ASHTON: Did you prepare this testimony  
4 or was it prepared for you?

5 MS. GILVARG: My testimony?

6 MR. ASHTON: Yours?

7 MS. GILVARG: Was prepared by my staff and  
8 reviewed by me several times.

9 MR. ASHTON: Okay. Mr. Miller?

10 MR. MILLER: Part of it was prepared by our  
11 attorney and I prepared --

12 MR. ASHTON: I see --

13 MR. MILLER: -- I prepared most of it.

14 MR. ASHTON: Would you explain the third  
15 line of the middle question on page 2, which the sentence  
16 begins this translates into a 7-12 foot vertical profile,  
17 5-foot deep?

18 MR. MILLER: When we are --

19 MR. ASHTON: What does that -- what does  
20 that mean?

21 MR. MILLER: When we're looking at -- when  
22 we were talking with the Company when they were -- you  
23 know, in terms of generalities, and that's all we can talk  
24 about here, is that when you are looking at putting

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1 utilities in the -- in any city right-of-way or any area,  
2 it has to be looked at in terms of going below five feet,  
3 and it may -- because of the top of it -- and then going  
4 down even further than that. So it -- in other words --

5 MR. ASHTON: I understand that --

6 MR. MILLER: -- you are looking at --

7 MR. ASHTON: -- I understand the 5-foot  
8 deep part, but I don't understand the 7-12 foot vertical  
9 profile.

10 MR. MILLER: Well, as I said, that it may  
11 end up being even deeper than that because of some of  
12 these -- the sewer lines and stuff like that. So you --  
13 it's a variable, is what it is. When they are going to --  
14 if they decide to put their line through any street and  
15 you are running into the type of conflicts that are  
16 existing within the city right-of-way or any right-of-way,  
17 there are obstacles that you have to hold true, such as  
18 the sanitary sewer. And so what happens is that you not  
19 only have -- you have -- let's say you go down feet and  
20 that's the top of your transmission line and let's say you  
21 have -- and I don't -- I'm just guessing because I don't  
22 know how their -- how they would build this -- let's say  
23 they have another two or three feet of concrete with their  
24 lines going through it, or whatever it is, and then that's

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1 now -- now you're down to about seven and a half feet at  
2 that point. And then all of a sudden at seven and a half  
3 feet you start to run into a sewer line, so -- crossing  
4 that area. So now you have to -- you have to dive below  
5 that to come back up again or put in a vault that has to  
6 accommodate that vertical change. Those are the kinds of  
7 things that I think that when you're looking at any, you  
8 know, construction activity that involves vaults, involves  
9 horizontal lines, and you -- you need transitions. And  
10 sometimes you're go that deep.

11 MR. ASHTON: I'm not asking for the  
12 engineering. I'm just struggling with the English here --

13 MR. MILLER: Okay --

14 MR. ASHTON: -- what does 7-12 foot  
15 vertical profile mean --

16 MR. MILLER: Seven to twelve -- I'm sorry -  
17 - 7 to 12 feet. Seven feet to twelve feet.

18 MR. ASHTON: Are you saying that the cable  
19 which will vary in depth between 7 and 12 --

20 MR. MILLER: Cable vaults, whatever they  
21 may --

22 MR. ASHTON: Is that what you're saying?

23 MR. MILLER: Yes.

24 MR. ASHTON: Okay. Then what does the five

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1 feet deep mean? If you're saying it's between 7 and 12-  
2 foot, what does the 5-foot mean?

3 MR. MILLER: Five feet is probably the top  
4 of the -- the top of the line that they have.

5 MR. ASHTON: Okay -- okay.

6 MR. MILLER: In other words, you -- yeah.

7 MR. ASHTON: Would you -- would you agree  
8 with me that if you have brick sewers 60 inches in  
9 diameter, that on an I-and-I basis alone, they probably  
10 ought to be replaced?

11 MR. MILLER: We have -- it's a combined  
12 sewer --

13 MR. ASHTON: Yeah --

14 MR. MILLER: -- so when you have -- most of  
15 it is a combined sewer, so it already has all the I-and-I  
16 that you could possibly manage, so --

17 MR. ASHTON: Well assuming it's not a  
18 combined sewer, even an --

19 MR. MILLER: Well, most of those are  
20 combined -- 60 percent of the city is combined

21 MR. ASHTON: Do you know that transmission  
22 lines have to be buried below the frost line? That was  
23 your testimony.

24 MR. MILLER: I believe it -- I believe it

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1 would be. You'd have to ask --

2 MR. ASHTON: Does New Haven have buried  
3 transmission lines now?

4 MR. MILLER: I'm not aware of a main  
5 transmission line. I'm aware of underground utilities.

6 MR. ASHTON: Thank you. No further  
7 questions --

8 MR. MILLER: Underground service -- but not  
9 transmission lines.

10 CHAIRMAN KATZ: Thank you. Mr. Murphy.

11 MR. JAMES J. MURPHY, JR.: No questions,  
12 Madam Chairman.

13 CHAIRMAN KATZ: Okay. I believe that  
14 concludes the cross-examination of the City of New Haven  
15 witnesses unless I hear otherwise. Thank you very much.  
16 Thank you, Miss Gilson.

17 MS. GILSON: Thank you.

18 CHAIRMAN KATZ: Okay, at this point we're  
19 going to go off the record for a moment and the Applicant  
20 will come to the table and we will do the East Shore for  
21 the Applicant.

22 (Off the record)

23 CHAIRMAN KATZ: We'll resume. Next we're  
24 taking up -- Mr. Fitzgerald or Miss Randell, who will be

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1 handling this?

2 MR. FITZGERALD: I'll --

3 MS. RANDELL: Mr. Fitzgerald.

4 MR. FITZGERALD: I'll handle --

5 CHAIRMAN KATZ: Okay --

6 MR. FITZGERALD: -- the verification of the  
7 exhibits.

8 CHAIRMAN KATZ: Mr. Fitzgerald, I have  
9 listed in the hearing program three Applicants' exhibits  
10 having to do with East Shore, 152, 153, and 155. Is that  
11 correct?

12 MR. FITZGERALD: Yes, that is correct,  
13 Madam Chairman.

14 CHAIRMAN KATZ: Okay. Can I -- first, we  
15 have no new witnesses that haven't been sworn, correct?

16 MR. FITZGERALD: That's correct.

17 CHAIRMAN KATZ: Okay. Can I ask that your  
18 witnesses verify these exhibits?

19 MR. FITZGERALD: Yes. First of all, just  
20 to provide some context, Exhibit 152 is an update of an  
21 earlier exhibit, Exhibit 104. When Exhibit 104 was turned  
22 in, it's in tabular form and there were several boxes that  
23 were marked TBD for to be determined --

24 CHAIRMAN KATZ: Yeah.

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1 MR. FITZGERALD: -- this -- this table  
2 completes that. And this work was done by Mr. Cyril  
3 Welter of Burns & McDonnell and who's been previously  
4 sworn.

5 Mr. Welter, is the information in Exhibit  
6 152 true and correct to the best of your knowledge and  
7 belief?

8 MR. CYRIL WELTER: Yes, it is.

9 MR. FITZGERALD: So, I would offer 152 as a  
10 full exhibit.

11 CHAIRMAN KATZ: Is there any objection to  
12 making No. 152 a full exhibit? Hearing none, it's a full  
13 exhibit.

14 (Whereupon, Applicants' Exhibit No. 152 was  
15 received into evidence as a full exhibit.)

16 MR. FITZGERALD: Exhibit 153 is Addendum  
17 No. 5 to the supplemental filing. It consists of several  
18 thermal load flows relating to the East Shore Route that  
19 were performed by EPRO, but commissioned by the companies  
20 and --

21 MS. RANDELL: PowerGEM --

22 MR. FITZGERALD: I'm sorry, by PowerGEM --  
23 by PowerGEM, but commissioned by the companies and  
24 reviewed by them. And I'm going to ask Mr. Scarfone to



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1 sponsor this exhibit.

2 Mr. Scarfone, is the information in Exhibit  
3 153 true and correct to the best of your knowledge and  
4 belief?

5 MR. AL SCARFONE: Yes, it is.

6 MR. FITZGERALD: I offer Exhibit 153 as a  
7 full exhibit.

8 CHAIRMAN KATZ: Any objection to making 153  
9 a full exhibit? Hearing none, it's a full exhibit.

10 (Whereupon, Applicants' Exhibit No. 153 was  
11 received into evidence as a full exhibit.)

12 MR. FITZGERALD: Exhibit 155 is the  
13 supplemental direct testimony of Roger Zaklukiewicz, Anne  
14 Bartosewicz and John Prete regarding the East Shore Route,  
15 dated September 24, 2004. Do you three swear that this --  
16 the information in this testimony is true and correct to  
17 the best of your belief?

18 MR. ROGER ZAKLUKIEWICZ: Roger  
19 Zaklukiewicz. Yes, it is.

20 MR. JOHN PRETE: John Prete. Yes, it is.

21 MS. ANNE BARTOSEWICZ: Anne Bartosewicz.  
22 Yes, it is.

23 MR. FITZGERALD: I move that Exhibit 155 be  
24 accepted as a full exhibit.

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1 CHAIRMAN KATZ: Any objection to making 155  
2 a full exhibit? Hearing none, it's a full exhibit.

3 (Whereupon, Applicants' Exhibit No. 155 was  
4 received into evidence as a full exhibit.)

5 CHAIRMAN KATZ: Miss Eccleston, do you have  
6 any spellings that you need here for the witnesses? Are  
7 you all set? Okay.

8 Mr. Fitzgerald, are your witnesses ready  
9 for cross-examination?

10 MR. FITZGERALD: Yes, Madam Chairman.

11 CHAIRMAN KATZ: Okay. We'll go to the  
12 list. First is State Representative Al Adinolfi.

13 REPRESENTATIVE ADINOLFI: (Indiscernible).

14 CHAIRMAN KATZ: No questions Mr. Adinolfi  
15 said. The Town of Middlefield, Attorney Knapp. No  
16 questions. The Towns of Wallingford and Durham.

17 MR. ALAN CURTO: No questions.

18 CHAIRMAN KATZ: Mr. Curto says no  
19 questions. Woodbridge, Milford, Orange. Mr. Ball.

20 MR. DAVID BALL: Thank you. David Ball on  
21 behalf of the Town of Woodbridge. Good morning members of  
22 the panel.

23 At the last hearing that we had discussing  
24 East Shore, we talked about your conclusion that a second

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1 line was needed beside the 387 line for an East Shore  
2 Route to work. Is that right?

3 MR. SCARFONE: That's correct.

4 MR. BALL: Now, the 387 line is currently a  
5 345-kV line that runs from Scovill Rock to Black Pond  
6 Junction and then down to East Shore in New Haven, is that  
7 right?

8 MR. SCARFONE: Yes, it is.

9 MR. BALL: Alright. And you base your  
10 conclusion for the need for a second line on various load  
11 flow studies that you've commissioned PowerGEM to run, is  
12 that right?

13 MR. SCARFONE: Yes, we do.

14 MR. BALL: In those load flow studies you  
15 make various assumptions, the route of the line, proposed  
16 upgrades to the system, and the type of conductors, is  
17 that right generally?

18 MR. SCARFONE: The upgrade of the line  
19 based on the conductor size. We do not make a  
20 determination of the routing of the line.

21 MR. BALL: Alright. Now, we talked about  
22 reconductoring in June. It's fair to say that  
23 reconductoring, depending on the conductors that you use,  
24 can allow an existing transmission line to transmit more

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1 power. Is that a fair statement?

2 MR. SCARFONE: Yes, it is.

3 MR. BALL: And some conductors transmit  
4 more load than others, they have greater capacity?

5 MR. SCARFONE: Yes, they do.

6 MR. BALL: So in your studies the  
7 likelihood of overloads is reduced if you use conductors  
8 with greater capacity?

9 MR. SCARFONE: On that specific line, but  
10 not on other lines in the system, that if you had an  
11 outage of the 387 line, as the studies have indicated we  
12 overload other 115 and 345-kV lines on the system.

13 MR. BALL: Okay. Now in reaching the  
14 conclusion that a second line is needed beside the 387  
15 line, do you believe that you've exhausted all of the  
16 technological options that you could be studying?

17 MR. ZAKLUKIEWICZ: Yes.

18 MR. BALL: In your latest studies you've  
19 included some of the items that the Towns' consultants  
20 suggested that you look at, including reconductoring with  
21 Genesee conductors?

22 MR. SCARFONE: Right. That's correct.

23 MR. BALL: And we talked about the last  
24 time the fact that Genesee conductors have greater

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1 capacity than the conductors that currently exist on the  
2 387 line, right?

3 MR. SCARFONE: That's correct.

4 MR. BALL: Aren't there other types of  
5 conductors and other equipment that could be installed  
6 that might also be studied in evaluating whether a second  
7 line is needed?

8 MR. SCARFONE: We had Burns & McDonnell do a  
9 survey of the 387 line to determine what was the largest  
10 size conductor we could put on that line with the existing  
11 poles, monopole poles. Burns can speak on behalf of that  
12 study. Based on their results, we modeled a Genesee  
13 conductor that they recommended could be put on the  
14 existing line without significant upgrades to the line.

15 MR. BALL: Okay. Well, let me go back to  
16 that study, if I may. To whom should I direct those  
17 questions? Is that -- Mr. Hogan is that? There he is.

18 MR. ASHTON: Just -- (indiscernible) --  
19 just for clarification, would you -- (mic feedback) --  
20 would you identify what the Genesee conductor is? What  
21 its current carrying -- normal current carrying  
22 capability? Just so we have a reference here.

23 COURT REPORTER: Give us your name.

24 MR. JAMES HOGAN: Jim Hogan, Burns &

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1 McDonnell Engineering. The Genesee conductor is the 1158-  
2 kcmil, it's the ACSS/TW conductor --

3 MR. ASHTON: Now wait a minute, wait a  
4 minute. You're using abbreviations here, which are good  
5 for engineers but not for non-engineers. Back up --

6 MR. HOGAN: The ACSS conductor/TW, and that  
7 stands for aluminum conductor steel supported/trapezoidal  
8 wire.

9 MR. ASHTON: Okay. And this is a conductor  
10 that's not -- is it not designed for high temperature  
11 operation, higher than the normal ACSR, aluminum conductor  
12 steel reinforced conductor?

13 MR. HOGAN: Yes, that is correct.

14 MR. ASHTON: Okay. And it has a current  
15 carrying capability under a normal rating of?

16 MR. HOGAN: Two thousand seven-hundred and  
17 seventy amps.

18 MR. ASHTON: Amps.

19 MR. TAIT: As compared to?

20 MR. HOGAN: Compared to --

21 MR. ASHTON: Well, you haven't got anything  
22 yet --

23 MR. TAIT: Well, the aluminum one that is -

24 -

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1 MR. ASHTON: Well, he's going to be talking  
2 about other conductors, so this just gives a reference.

3 MR. BALL: Mr. Hogan, let me go directly to  
4 that topic that Mr. Ashton is talking about. You  
5 performed a feasibility study that was submitted May 24<sup>th</sup>  
6 in this docket, correct?

7 MR. HOGAN: Yes.

8 MR. BALL: And you recall that study?

9 MR. HOGAN: I do.

10 MR. BALL: Alright. And if I go to  
11 Appendix B of that study, you've created a chart  
12 summarizing the thermal ratings for various types of  
13 conductors, correct?

14 MR. HOGAN: Correct.

15 MR. BALL: Alright. And -- now on the 387  
16 line as it exists today, a portion of the line has a type  
17 of conductor referred to as Bluebird conductors --

18 MR. HOGAN: Correct.

19 MR. BALL: Alright. Which -- and another  
20 type of conductor elsewhere on the line has rail  
21 conductors?

22 MR. HOGAN: Yes. It's a bundle of two  
23 rails.

24 MR. BALL: And if I look at the chart,

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1 Genesee conductors show a higher rating, normal and  
2 emergency ratings, correct?

3 MR. HOGAN: That is correct.

4 MR. BALL: Than the existing conductors,  
5 right?

6 MR. HOGAN: Yes.

7 MR. BALL: Alright. Now, there is another  
8 type of conductor that you listed on your chart, which is  
9 described as Miramiche conductors?

10 MR. HOGAN: That is correct.

11 MR. BALL: Can you tell me what a Miramiche  
12 conductor is?

13 MR. HOGAN: It's similar to the Genesee,  
14 only it's a bigger conductor.

15 MR. BALL: Alright. Now, the summer normal  
16 rating in amps for Miramiche conductors is thirty-one-  
17 ninety according to your chart?

18 MR. HOGAN: Right.

19 MR. BALL: So if you were to use two  
20 Miramiche conductors in the 10 miles between Black Pond  
21 and Scovill Rock instead of the single Bluebird conductor  
22 that there's now, the emergency rating shows that the  
23 capacity to carry power would increase by 80 percent, is  
24 that right, twenty-six-eighty-five to forty-eight-twenty?



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1 MR. HOGAN: Yes, assuming that division  
2 works out.

3 MR. BALL: Alright. And the other portion  
4 of the line between Black Pond and East Shore uses two  
5 rail conductors. And the capacity to carry power in  
6 emergency conditions would increase by 50 percent if we  
7 replaced rail conductors with Miramiche conductors?

8 MR. HOGAN: That seems apparent, yes.

9 MR. BALL: So is it fair to say that the  
10 number of thermal overloads in the East Shore studies, at  
11 least sticking with the 387 line, would be reduced if you  
12 were to model in Miramiche conductors?

13 MR. SCARFONE: I think you missed the point  
14 of the analysis that indicates that if you could  
15 re-conductor the 387 line with the biggest conductor you  
16 could find, you still have to protect the system for loss  
17 of that 387 line. That's where these PowerGEM studies had  
18 indicated a significant number of other overloads on other  
19 lines in other areas. That's -- but if you could -- and I  
20 am not sure if we can take the 387 line out to re-conductor  
21 it --

22 MR. BALL: Right. And I -- I guess I was --  
23 -- putting aside the question, the construction question of  
24 whether you can use Miramiche conductors, I'm simply

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1 asking if the number of overloads would be reduced if you  
2 modeled in Miramiche conductors?

3 MR. SCARFONE: Yes.

4 MR. BALL: Alright. And to date you have  
5 not run any studies using Miramiche conductors, correct?

6 MR. SCARFONE: That's correct.

7 MR. BALL: Alright. Now, Mr. Hogan, in the  
8 feasibility study you indicated that if Miramiche  
9 conductors were to be used, that it was possible that 50  
10 percent of the structures on the 387 line and the 329 line  
11 would have to be replaced?

12 MR. HOGAN: That is correct.

13 MR. BALL: Alright. Why is that?

14 MR. HOGAN: It's a bigger wire, so it --  
15 the tensions are larger, so that requires more of the  
16 deadends, it didn't handle that large of load. Since it's  
17 larger, it catches more wind area and so more of the  
18 tangent structures failed. So using the same analysis  
19 that we use for the Genesee, we use for the Miramiche.  
20 And we had at the beginning of the report said 50 percent  
21 is -- we wanted to not have to replace more than half the  
22 structures.

23 MR. BALL: Okay. And I think what your  
24 report finds is that you're exactly at 50 percent --

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1 MR. HOGAN: Right --

2 MR. BALL: -- if you use Miramiche  
3 conductors?

4 MR. HOGAN: Yes.

5 MR. BALL: Okay. What is the composition  
6 of Miramiche conductors?

7 MR. HOGAN: It's a -- it's comparable that  
8 it's steel. It's a conductor, an aluminum conductor. I  
9 guess the two materials -- I know the steel that's used in  
10 the ACSS can handle -- I guess holds up more of the load -  
11 - I guess maybe backing up just a little bit, the ACSR  
12 conductor, the aluminum helps support part of the weight.  
13 When you use the ACSS/TW conductor, the aluminum runs  
14 hotter, it anneals and essentially doesn't support the  
15 weight, so the steel has to hold a larger portion of it --

16 MR. BALL: Okay --

17 MR. HOGAN: -- so basically steel and  
18 aluminum, but the steel is a little different of a  
19 composite.

20 MR. BALL: Alright. Now --

21 MR. ASHTON: Is the Miramiche then an ACSS  
22 conductor or an ACSR conductor?

23 MR. HOGAN: ACSS.

24 MR. ASHTON: Okay.

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1 MR. BALL: Now, you said if you have to  
2 replace more than 50 percent of the structures, that would  
3 necessitate the revaluation of all the structures on a  
4 given line? It's on page 2 of your report.

5 MR. HOGAN: Correct. That's --

6 MR. BALL: Where does that 50 percent  
7 number come from?

8 MR. HOGAN: I note at the onset of  
9 developing this report there was some discussion as to  
10 what level of acceptable structure replacement seemed like  
11 a good place. You know, we felt 50 percent certainly.  
12 You know, half the structures would have to be replaced to  
13 use the other half. And that if you had to replace any  
14 more than that, that it would be more prudent just to  
15 replace all the structures on the line.

16 MR. BALL: Okay, but from a construction  
17 point of view, it's certainly possible to replace just 50  
18 percent of the structures if you were to use Miramiche  
19 conductors, isn't that right?

20 MR. HOGAN: That is true.

21 MR. BALL: Okay.

22 CHAIRMAN KATZ: If you did like every other  
23 structure, could you keep the line in service during  
24 reconductoring?

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1 MR. HOGAN: No.

2 CHAIRMAN KATZ: Okay.

3 MR. BALL: If -- if you go back to the  
4 original proposal in this docket, which is an overhead  
5 line from East Devon to Beseck, how many new structures  
6 would have to be constructed and how many structures would  
7 have to be replaced?

8 MR. ZAKLUKIEWICZ: Please repeat that  
9 question, Mr. Ball.

10 MR. BALL: Initially your application  
11 proposes an overhead line from East Devon to Beseck,  
12 correct?

13 MR. ZAKLUKIEWICZ: Correct.

14 MR. BALL: My question is based on your  
15 initial proposal, how many structures would have to be  
16 replaced in order to do that construction and how many new  
17 structures would have to be installed?

18 MR. ZAKLUKIEWICZ: I would have to get you  
19 that answer. Off the top of my head, I'd just be  
20 guessing. Approximately 10 or 11 per mile. So you  
21 multiply that by the 33 miles between Beseck and East  
22 Devon and that would tell you in that stretch how many  
23 would have to be installed. Those would be brand new  
24 structures.

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1 MR. BALL: And how many replaced, any sense  
2 of that, or is that something you can report back to us  
3 on?

4 MR. ZAKLUKIEWICZ: That's something I'd  
5 have to report back to you on.

6 MR. BALL: Okay. Let me, Mr. Hogan, if I  
7 might ask you -- or -- are you familiar with a company  
8 called 3M?

9 MR. HOGAN: I am.

10 MR. BALL: Alright. Are you aware that  
11 they've developed a conductor that is known as a 3M  
12 composite conductor?

13 MR. HOGAN: I've heard of it.

14 MR. BALL: Alright. Now are you aware that  
15 this conductor is different from the heavier aluminum  
16 steel conductors which we've just been discussing, made of  
17 a lighter composite material?

18 MR. HOGAN: I'm not aware of the specifics,  
19 but generalities, yes, I'm aware of that.

20 MR. BALL: Alright. And that this  
21 conductor in addition to being lighter has a greater  
22 capacity to transmit power than either Miramiche or  
23 Genesee conductors, is that right?

24 MR. HOGAN: Yes.

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1 MR. BALL: Okay. And would it generally be  
2 true that if you're using a lighter conductor like the 3M  
3 composite conductor, because of its light weight it can be  
4 installed without replacing towers? Do you know?

5 MR. HOGAN: You would still have to do the  
6 analysis, but being lighter would have -- reduce the load.  
7 So the likelihood you'd have to replace fewer structures  
8 is true.

9 MR. BALL: Okay. That -- and that is a  
10 study you have not yet done?

11 MR. HOGAN: We have not.

12 MR. BALL: Okay.

13 MR. ZAKLUKIEWICZ: I'd just like to make  
14 certain we're all understanding here --

15 CHAIRMAN KATZ: Just --

16 MR. ZAKLUKIEWICZ: -- on the 3M studies --

17 CHAIRMAN KATZ: Start over please.

18 MR. ZAKLUKIEWICZ: I'd just like to make  
19 certain we're all understanding. The 3M composite  
20 conductor is still theoretical, and in this size has never  
21 been constructed. So this is 3M's anticipation of taking  
22 a much smaller composite conductor and saying we can make  
23 a much larger conductor out of it such as the 954, which  
24 is already on these structures, or the Genesee or the

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1 Miramiche conductors, and we can build it and these would  
2 be the characteristics and ability to move power from  
3 location A to location B.

4 The four or five sites for which 3M is  
5 presently testing these conductors are, No. 1, much  
6 smaller, shorter in length, basically at distribution  
7 voltages looking at SAGS, as opposed to having in real  
8 terms commercial transmission conductors which have been  
9 installed anyplace and demonstrated that we will not have  
10 problems with the equipment.

11 The main concern that we have with the  
12 conductors are the types of splices and will they  
13 withstand the extremely high temperatures these conductors  
14 are going to be operating at. That -- that is a concern  
15 that the entire industry has. It's not with the conductor  
16 itself in the respects of where do we think, but will this  
17 much larger conductor be able to be spliced in two pieces  
18 because you only can place like a mile, a mile and a  
19 quarter on a reel at a time. So when you look at a 10-  
20 mile stretch here depending on -- assuming there are no  
21 reasons where I need to break up the conductor further to  
22 pull around bends or at deadends, I would still have 10 or  
23 12 of these splices that would have to be done on the  
24 conductors, and there's a question mark in everyone's mind



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1 to demonstrate that I can operate the core at the 180  
2 degree C that they say we can operate at. Right today  
3 they're only between a few limited spans in the locations  
4 they're installed and they're a much smaller conductor in  
5 size.

6 So, I just want to make that perfectly  
7 clear, that when we're talking about 3M or any of the  
8 other manufacturers of high temperature conductors, and  
9 there are -- there are a limited number that have this,  
10 these are still in the experimental stage, they are not  
11 been demonstrated on the larger conductors. And so what  
12 we would be agreeing to install would be something that  
13 would be -- that has never been manufactured in this  
14 length before. And we would be taking a critical line,  
15 which today we cannot operate the system reliably with  
16 this line out of service, and we would now be saying,  
17 okay, we can't operate it at 2,000 amperes, we're now  
18 going to be willing to operate it at 3,700 amperes, this  
19 is a concern --

20 CHAIRMAN KATZ: Thank you --

21 MR. ZAKLUKIEWICZ: -- and you all need to  
22 be aware of that.

23 MR. BALL: Mr. Zak, do you know whether or  
24 not, in fact, the 3M composite conductor has been

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1 successfully tested at 230 kilovolts?

2 MR. ZAKLUKIEWICZ: We had a presentation a  
3 few months ago and I was only able to stay for a part of  
4 that presentation. And it's irrelevant the voltage that  
5 it's operated at. The key is what current is it operated  
6 at. Voltage does not drive temperature, it's the amperes  
7 you're pushing through the conductor.

8 MR. BALL: And according to the  
9 manufacturer, it has withstood the temperature test that  
10 it has already gone through to this point, isn't that  
11 right?

12 MR. ZAKLUKIEWICZ: My understanding is yes,  
13 and that was for a limited number of spans.

14 MR. ASHTON: And what size?

15 MR. ZAKLUKIEWICZ: My understanding it was  
16 down in the size of approximately the equivalent of a 556  
17 ACSR conductor.

18 MR. ASHTON: Thank you.

19 MR. BALL: Let me shift gears. Mr. Zak,  
20 can you tell me what a phase-shifter is?

21 MR. ZAKLUKIEWICZ: A phase-shifter is a  
22 device which controls the flow of power. It is basically  
23 an extremely large transformer and it is capable of  
24 adjusting both the voltage and the phase angle such that

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1 you on an AC system control the amount of power that can  
2 flow on a line between point A and point B.

3 MR. BALL: So if, hypothetically, a certain  
4 line was facing overloads, a phase-shifter can be used to  
5 reroute the load on a given line to lines with greater  
6 capacity, is that fair to say?

7 MR. ZAKLUKIEWICZ: That is -- that is true  
8 within the timeframe of the phase-shifter.

9 You all ought to be aware that there is a  
10 phase-shifter on the cable system between Norwalk Harbor  
11 and Northport. It is physically at Northport at this time  
12 and that device is the device which causes or controls the  
13 flow of power between Northport and Norwalk Harbor at any  
14 given minute. You do that by changing the taps on the  
15 phase-shifter and that allows then a phase angle  
16 difference and a voltage difference between the AC system  
17 on Long Island and the AC system in Connecticut.

18 CHAIRMAN KATZ: Mr. Zak, if you could wait  
19 for Mr. Ball's follow-up question.

20 MR. ZAKLUKIEWICZ: Okay.

21 MR. BALL: Thank you. It's fair to say  
22 this would be one of the advantages of constructing a loop  
23 as you've proposed, which is the ability to reroute load  
24 if you were to use a phase-shifter to other portions of

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1 the loop that might have greater capacity, is that fair?

2 MR. ZAKLUKIEWICZ: Under -- under steady  
3 state conditions, the answer to that is correct. On an AC  
4 system irrespective of whether you have a phase-shifter  
5 there or not, when you have a contingency, the flows will  
6 flow on that line irrespective of what the setting is on  
7 the phase-shifter.

8 MR. BALL: Now in your load flow studies,  
9 you have not modeled a study which includes the  
10 installation of a phase-shifter to help reroute load away  
11 from those lines which are facing overloads, have you?

12 MR. ZAKLUKIEWICZ: I believe when you look  
13 at the load flow studies that were done by PowerGEM, you  
14 will find there are overloads on the 387 line, which is  
15 the Scovill Rock to East Shore line, as well as a number  
16 of other transmission lines that are picking up the power  
17 flow for the contingency being studied. So it's -- the  
18 phase-shifter by reducing power flows on the 387 line  
19 because they are demonstrated to be overloaded for the  
20 contingency will just force additional current flow once  
21 the phase-shifter operates, which will be seconds or  
22 minutes depending on how many taps have to be moved, you  
23 will then force the power flow from the source to the  
24 load, those were not demonstrated, but by reducing flows

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1 on the Scovill to East Shore line, something has to  
2 operate to pick up that difference, and so lines in the  
3 studies that are not shown to be overloaded may be  
4 overloaded as you limit the amount of flow on the East  
5 Shore to Scovill Rock or in some of the cases back up to  
6 Beseck terminal.

7 MR. BALL: No, I understand that --

8 MR. ASHTON: If I could, Mr. Ball, just to  
9 pick up your point. Mr. Ball is postulating the use of a  
10 phase-shifting device in I believe the 387 line or another  
11 line which would force flow around the loop. Mr.  
12 Zaklukiewicz, what size of a phase-shifter would be  
13 involved in that? How big a transformer would that be  
14 roughly? Obviously this is not an engineered solution,  
15 but based on your knowledge.

16 MR. ZAKLUKIEWICZ: Probably in the range of  
17 1500-mVa, which would mean three single phase 500-mVa  
18 units.

19 MR. ASHTON: And is that a big, medium,  
20 small transformer?

21 MR. ZAKLUKIEWICZ: Probably it would end up  
22 being one of the largest phase-shifters in the country.

23 MR. BALL: And --

24 CHAIRMAN KATZ: Just -- just for the

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1 layman, what size of the bread box are we talking about  
2 here?

3 MR. ZAKLUKIEWICZ: A device which probably  
4 stands 18-foot tall, 20-foot tall, excluding the bushings.  
5 Probably -- probably three single phase units probably  
6 close to the size of this room.

7 CHAIRMAN KATZ: Thank you.

8 MR. BALL: And just --

9 MR. ZAKLUKIEWICZ: Per phase --

10 MR. BALL: And --

11 MR. ZAKLUKIEWICZ: -- that's each phase.

12 MR. BALL: And just so that the record is  
13 clear, Mr. Zak, my question was whether or not you have  
14 conducted any load flow studies to date that include the  
15 modeling of a phase-shifter as part of the loop?

16 MR. ZAKLUKIEWICZ: No, we have not.

17 MR. BALL: Okay.

18 MR. ASHTON: Mr. Zak, just to put it in  
19 relative terms, what size are the autotransformers the  
20 345,000 volt to 115-kV -- 115,000 volts that are scattered  
21 around the system, what do they generally run?

22 MR. ZAKLUKIEWICZ: The majority with the  
23 exception of Frost Bridge are 400-mVa units --

24 MR. ASHTON: Okay --

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1 MR. ZAKLUKIEWICZ: -- Frost Bridge is a  
2 600-mVa unit.

3 MR. ASHTON: Thank you.

4 MR. BALL: Just -- unless there's anything  
5 on that, I'm going to change topics. Mr. Prete, I have  
6 one question for you. You have submitted an updated  
7 homework assignment, September 20<sup>th</sup>, showing a comparison  
8 of the proposed route to -- two different configurations  
9 of an East Shore Route, looking at costs and a number of  
10 homes taken. Is that right?

11 MR. PRETE: That's correct.

12 MR. BALL: Alright. And again, just --

13 CHAIRMAN KATZ: Mr. Ball, what exhibit  
14 number is that?

15 MR. FITZGERALD: 152.

16 CHAIRMAN KATZ: 152. Thank you.

17 MR. BALL: And just so that I'm clear on  
18 this, the comparisons that you have done assume a second  
19 line in the 387 corridor, correct?

20 MR. PRETE: That is correct.

21 MR. BALL: Okay. You have not done this  
22 comparison assuming the reconductoring of the existing 387  
23 line, correct?

24 MR. PRETE: That is correct.

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1 MR. BALL: Okay. Chairman Katz, I have no  
2 further questions at this time. As the Council is aware,  
3 we were -- I don't know if bombarded is the word, but we  
4 received many many load flow studies in the last week. We  
5 obviously have not had enough time to meaningfully prepare  
6 to cross-examine on those studies. So, I would like to  
7 reserve the right to cross-examine on East Shore in the  
8 future.

9 CHAIRMAN KATZ: Understood.

10 MR. BALL: Thank you.

11 CHAIRMAN KATZ: Mr. Ball are you  
12 representing Woodbridge, Milford, and Orange on these  
13 questions?

14 MR. BALL: I believe I am, yes.

15 CHAIRMAN KATZ: Great, thank you.

16 MR. BALL: Thank you.

17 CHAIRMAN KATZ: Next is the Town of  
18 Westport. The City of Meriden. Assistant Attorney  
19 General Michael Wertheimer.

20 MR. WERTHEIMER: No questions.

21 CHAIRMAN KATZ: Mr. Wertheimer says no  
22 questions. The City of Bridgeport. The Communities for  
23 Responsible Energy. Responsible Energy says no questions.  
24 OCC, Mr. Johnson. Woodlands Coalition.



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1 A VOICE: No questions.

2 CHAIRMAN KATZ: Woodlands Coalition says no  
3 questions. ISO New England, Mr. MacLeod.

4 A VOICE: He was here and he left.

5 CHAIRMAN KATZ: Mr. MacLeod says no  
6 questions. DOT, Mr. Walsh.

7 MR. WALSH: No questions.

8 CHAIRMAN KATZ: Mr. Walsh says no  
9 questions. The Town of Fairfield. The Towns of Wilton  
10 and Weston -- I'm assuming no questions, Mr. Ball. South  
11 Central Regional Water Authority.

12 A VOICE: (Indiscernible) --

13 CHAIRMAN KATZ: Mr. Lord says no questions.  
14 The Town of Cheshire.

15 MR. BURTURLA: No questions.

16 CHAIRMAN KATZ: Mr. Burturla says no  
17 questions. The Town of North Haven. North Haven says no  
18 questions. Ezra Academy, B'Nai Jacob, Attorney Schaefer.  
19 The City of New Haven.

20 MS. GILSON: No questions.

21 CHAIRMAN KATZ: Miss Gilson says no  
22 questions. Anyone did I not call upon before I go to the  
23 Council? Mr. Cunliffe.

24 MR. CUNLIFFE: I want to follow up with Mr.

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1 Ball's question regarding that same exhibit, Mr. Prete.  
2 And I'm trying to add up -- compare the numbers that are  
3 in the tables, particularly the homes within one to 150  
4 feet don't seem to equate to the ones that are on the  
5 proposed route versus the East Shore Route table. Is  
6 there a reason for -- I'm going to give you some numbers -  
7 -

8 MR. FITZGERALD: (Indiscernible) --

9 MR. CUNLIFFE: I'm going to --

10 MR. FITZGERALD: -- the two documents  
11 you're comparing --

12 MR. CUNLIFFE: Yeah, I'm comparing the two  
13 documents. If I go to the HB5418 column where you have  
14 the red numerals 28, 32 and 21, those seem to line up with  
15 the other table that you provided. But the other red  
16 numbers that are in that table don't equate to any of the  
17 numbers in the homes to 100 to 150 feet. Is there --  
18 clarify that?

19 MR. PRETE: Yes -- if you give me a second,  
20 I will.

21 MR. CUNLIFFE: Um-hmm.

22 (Pause)

23 MR. PRETE: Mr. Cunliffe, specifically what  
24 you're asking is under the proposed -- under the one that

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1 is yellow and green, it shows 436 homes between 100, and  
2 36 on our proposed route. And the chart that is part of  
3 our testimony shows 440 homes, is that --

4 MR. CUNLIFFE: Right --

5 MR. PRETE: -- that's the clarification --

6 MR. CUNLIFFE: Yes --

7 MR. PRETE: I'll get back to you on what  
8 the difference is of those four specific homes. I don't  
9 have that right now.

10 CHAIRMAN KATZ: Okay, we'll make a note --

11 MR. CUNLIFFE: Okay, thank you --

12 CHAIRMAN KATZ: -- that we'll revisit that  
13 after lunch.

14 MR. CUNLIFFE: The City of New Haven didn't  
15 indicate that they had any knowledge of transmission lines  
16 in their streets. Does the Applicant have any knowledge  
17 of any transmission lines in the City of New Haven?

18 MR. PRETE: Yes, Mr. Cunliffe. John Prete  
19 from UI Company. In the early 90's, late 80's we had  
20 designed -- in fact the Council certified an underground  
21 115 pipe type cable installation that was labeled the  
22 Grand Golf project connecting three substations in the  
23 major area of New Haven.

24 MR. CUNLIFFE: Thank you. Were you part of

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1 that construction project at all or aware of any of the  
2 details to that construction project?

3 MR. PRETE: I was a project director and  
4 construction director.

5 MR. CUNLIFFE: What was the experience of  
6 underground utilities, dealing with other infrastructure  
7 in placing yours in a place next to it? Was there -- what  
8 were the issues and how did you overcome them?

9 MR. PRETE: We worked very very closely  
10 with the City of New Haven. And indeed it was a very  
11 congested street and streets, realizing Yale has been  
12 underground for a very long time. And during both the  
13 preliminary stage and the design stage we anticipated  
14 exactly routes between the curb lines. And to be fair, as  
15 we started construction there were surprises. And as was  
16 heard from the Director of Public Works, there's a lot of  
17 conflicts. And what you try to do is jointly resolve  
18 those conflicts. And indeed we did.

19 MR. CUNLIFFE: And how would you compare  
20 that installation at 115-kV voltage versus an installation  
21 of a 345-kV voltage?

22 MR. PRETE: I -- I would say it's very  
23 similar insofar if you talk high pressure fluid filled,  
24 which indeed we have talked -- as proposed here. The only

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1 difference I would suggest is the splicing chambers for a  
2 345 are considerably longer than that of a 115.

3 MR. CUNLIFFE: And the city -- Public Works  
4 -- Mr. Miller said he was -- quoting a figure of three to  
5 four hundred feet for vaults. Is that your testimony for  
6 --

7 MR. PRETE: No --

8 MR. CUNLIFFE: -- the City of New Haven?

9 MR. PRETE: No, absolutely not. That would  
10 be for a distribution line. Certainly the testimony in  
11 this record, the one that I stand by, 1500 to 2,000 feet  
12 is very realistic.

13 MR. CUNLIFFE: Okay. And the testimony  
14 regarding the added capacity to a Miramiche wire and also  
15 the addition of a phase-shifter, the Applicant didn't  
16 model these two factors?

17 MR. SCARFONE: That is correct.

18 MR. CUNLIFFE: But you didn't do these  
19 because you felt that they would still be a violation --  
20 even if they were less violations, they would still be  
21 violations?

22 MR. SCARFONE: That's correct. Sir, when  
23 you put a phase-shifter on the -- let's say we put a  
24 phase-shifter on the 387 line, all you're doing is forcing

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1 the problem someplace else in somebody else's backyard.  
2 We still -- for loss of the 387 line, the PowerGEM studies  
3 showed additional 345-kV and 115-kV overloads. Those have  
4 to be corrected and remedied. If you put a larger -- you  
5 could -- like I indicated earlier, you could put the  
6 largest conductor you could ever find in the world on that  
7 line, you still have to protect the system for loss of  
8 that line. And that's what the PowerGEM studies had  
9 indicated. A phase-shifter, all that does is just force  
10 the problem onto somebody else's line. And then if you  
11 take it to absurdity, I put a phase-shifter on the 387  
12 line and I'll go and put another phase-shifter on another  
13 line, it will -- every line will have a phase-shifter on  
14 it. I don't think that's where we want to go.

15 MR. CUNLIFFE: Thank you. Those are my  
16 questions.

17 CHAIRMAN KATZ: Thank you, Mr. Cunliffe.  
18 Mr. Emerick.

19 MR. EMERICK: A question for Mr. Hogan.  
20 With respect to replacing the structures on the 387 line,  
21 if you were to re-conductor it, use whatever conductor, but  
22 chose to do it in a manner that would reduce the EMF  
23 levels such as a delta configuration or split-phasing, how  
24 many structures would have to be replaced?

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1 MR. HOGAN: If your question was to  
2 reconductor that line, the East Shore line, the 387 line  
3 using a low mitigation option, you'd have to replace all  
4 of the structures along that right-of-way.

5 MR. EMERICK: Thank you.

6 CHAIRMAN KATZ: Mr. Heffernan.

7 MR. HEFFERNAN: No questions, Madam  
8 Chairman.

9 CHAIRMAN KATZ: Mr. O'Neill.

10 MR. O'NEILL: What would the relative cost  
11 factors be for a phase-shifter of the size that's being  
12 suggested as an alternative?

13 MR. ZAKLUKIEWICZ: Since it's never been  
14 built before, Mr. O'Neill, I'd be taking a guess, but I'd  
15 probably say installed, we're probably talking at a 30 --  
16 30 to 40 million dollar piece of hardware --

17 MR. O'NEILL: Thank you --

18 MR. ZAKLUKIEWICZ: -- at least.

19 MR. O'NEILL: Thank you.

20 MR. ZAKLUKIEWICZ: The issue would be is  
21 trying to move it into the State of Connecticut, even the  
22 single phase units at 500-mVa. Mr. Ashton asked before  
23 what are the reasons -- what are the sizes of the existing  
24 autotransformers. And the reason we're at 400 is because

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1 we cannot move a 600-mVa unit around.

2 CHAIRMAN KATZ: Thank you. Mr. Tait.

3 MR. TAIT: No questions.

4 CHAIRMAN KATZ: Mr. Ashton.

5 MR. ASHTON: A couple. Mr. Scarfone, you -  
6 - earlier --

7 COURT REPORTER: A microphone please.

8 MR. ASHTON: Earlier in your testimony you  
9 said that, quote, "you don't make a conclusion as to the  
10 routing of a line". That's not quite true in the sense  
11 that you have to come up with electrical characteristics,  
12 which are dependent upon the length of line, isn't that  
13 true?

14 MR. SCARFONE: That's correct.

15 MR. ASHTON: But the precise routing left  
16 to right, you don't. And presumably you would follow an  
17 existing right-of-way to determine your length, is that  
18 fair?

19 MR. SCARFONE: That's correct. What I  
20 meant was I don't set the poles on the left or the right  
21 side of the right-of-way.

22 MR. ASHTON: Right. But it is -- there's  
23 clearly a determination -- to get the electrical  
24 characteristics a determination of the length, and that



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1 means more or less the general routing?

2 MR. SCARFONE: You're absolutely correct,  
3 Mr. Ashton.

4 MR. ASHTON: I've got a question that --  
5 really it's three questions that are almost identical.  
6 With regard to the East Shore Route alternative, are  
7 there, first of all, any NEPOOL or ISO standards that come  
8 to bear and which may be violated in that routing, in the  
9 answer? I guess, Mr. Zak, I'm looking at you.

10 A VOICE: I don't know what you mean by  
11 routing --

12 MR. ASHTON: In other words, you've come up  
13 with a -- as I understand it, you require a second circuit  
14 on the East Shore alternative to make it fly. Is there  
15 anything about that solution that runs contrary to the  
16 operating procedures or rules, reliability rules  
17 established by NEPOOL?

18 MR. ZAKLUKIEWICZ: Clearly by -- by  
19 operating the line -- and the studies have demonstrated  
20 that basically in every one of the cases we have  
21 overloaded the 387 line, irrespective of the conductor we  
22 placed on that line has failed either in the normal  
23 condition or in the contingency condition. And basically,  
24 ISO New England and the requirements of NPCC, that

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1 criteria for loading of the lines under operating  
2 conditions, under contingencies which are recognized as  
3 the standards on which you design a transmission system  
4 would be in violation. And the only times we've found  
5 that we were not overloading the 387 line is when we  
6 installed two -- a second line either between Beseck and  
7 East Shore or between Scovill and East Shore. And those  
8 are cases -- eight -- (pause) -- eight and ten I believe  
9 of the twelve cases that we performed a study on. The  
10 rest of them are in clear violation of the requirements of  
11 NPCC and the ISO New England.

12 MR. ASHTON: Okay. So the long and sort of  
13 it --

14 MR. SCARFONE: (Indiscernible) -- also add  
15 to that. As the discussion that we had with Black Pond is  
16 putting all your eggs in one basket, if we put a second  
17 line in the 387 right-of-way, you're doing basically the  
18 same thing. You have your two major strong 345-kV ties  
19 into Southwest Connecticut within the same right-of-way  
20 where the proposed project doesn't have that.

21 MR. ASHTON: Okay. You've anticipated a  
22 number of my questions.

23 MR. TAIT: Good.

24 MR. ASHTON: We'll get a chance for lunch

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1 on time. So the long and short of it is -- as I  
2 understand it and you correct me if I'm wrong -- that you  
3 require a second circuit on the East Shore right-of-way in  
4 order to avoid conflict with any of the established  
5 standards in the industry. And even that, Mr. Scarfone,  
6 puts two circuits on a common right-of-way into Southwest  
7 Connecticut, which is not desirable, is that fair to say?

8 MR. SCARFONE: Yes.

9 MR. ASHTON: Thank you. No more questions.

10 CHAIRMAN KATZ: Thank you. Mr. Murphy.

11 MR. MURPHY: No questions.

12 CHAIRMAN KATZ: Mr. Wilensky.

13 MR. EDWARD S. WILENSKY: No questions,  
14 Madam Chairman.

15 CHAIRMAN KATZ: Okay. Miss Randell.

16 MS. RANDELL: We do have some redirect  
17 questions for the panel. I don't know if you would like  
18 us to finish those before lunch.

19 CHAIRMAN KATZ: About how much would you  
20 say you have?

21 MS. RANDELL: Mine are just a couple of  
22 minutes.

23 CHAIRMAN KATZ: A couple of minutes, okay -

24 -

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1 MR. FITZGERALD: Just -- just a couple of  
2 questions --

3 CHAIRMAN KATZ: Why don't we just inquire  
4 of the audience first though. ISO has made Mr. Kowalski  
5 available today to be crossed on any East Shore. Can I  
6 just have a show of hands of anybody who wishes to cross  
7 Mr. Kowalski today. You're not giving up your rights to  
8 cross him in the future. Okay, seeing none, why don't we  
9 do the redirect -- oh --

10 MR. FITZGERALD: I have a couple of  
11 questions for Mr. Kowalski.

12 CHAIRMAN KATZ: Okay. Let's do this, why  
13 don't we do the redirect of your witnesses now. And then  
14 right after the lunch break, we'll start in with Mr.  
15 Kowalski. How does that sound?

16 MR. FITZGERALD: Great.

17 CHAIRMAN KATZ: Okay.

18 MS. RANDELL: Do you want to go?

19 MR. FITZGERALD: Yeah, sure. Mr. Zak,  
20 could -- (mic feedback) -- could you briefly compare the -  
21 - (mic feedback) --

22 A VOICE: One moment please --

23 CHAIRMAN KATZ: And there's a key word in  
24 there.

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1 MR. ZAKLUKIEWICZ: I got the hint.

2 (Laughter).

3 MR. FITZGERALD: There was a question that  
4 had --

5 A VOICE: You have to wait --

6 A VOICE: He'll tell you when.

7 (Pause)

8 MR. FITZGERALD: There was a question that  
9 had to do with building new structures and replacing  
10 structures on the existing right-of-way under the proposed  
11 project. And one of the -- one of the criticisms that has  
12 been made of the reconductoring an East Shore one-line  
13 solution if it were otherwise possible is the difficulties  
14 presented by having to take the line out of service to do  
15 the construction. Could you compare the construction  
16 efforts for the proposed line versus a reconductoring of  
17 the East Shore line that required substantial numbers of  
18 structures to be replaced and the resulting outage  
19 requirements?

20 MR. ZAKLUKIEWICZ: Virtually building a  
21 brand new transmission line between Beseck and East Shore  
22 -- and East Devon -- excuse me, East Devon -- would  
23 basically -- the majority of that work -- virtually all of  
24 it for the transmission line could be performed without

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1 taking any outages.

2 The outages would occur in the construction  
3 of the Beseck Substation for which we are interconnecting  
4 the line terminals into a station. But the station itself  
5 would be pre-built without any outages and it would just  
6 be the outage time of swinging -- of bringing the  
7 transmission lines that are in close proximity to the  
8 station into Beseck Sub and making that tie. You'd have  
9 the same issues at East Devon. And those would be rather  
10 minor relative to the months it will take us to rebuild  
11 the existing structures and reconductor the 387 line  
12 irrespective of the conductors that are proposed or  
13 planned to be used. Those are in terms of months at a  
14 time, and would probably have to be limited to the periods  
15 of light load because this work could not be done and we  
16 could not operate the transmission system without having  
17 the 387 line in place. And those would be during the  
18 heavy load periods, which would mean you would exclude the  
19 months of May through September, which are your heavy load  
20 periods and probably the better construction periods as  
21 well. Most of that work could not be done unless we build  
22 a second line adjacent to the existing line, put up the  
23 new line and then take down the existing 387 line.

24 MR. FITZGERALD: That's all that I have.

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1 CHAIRMAN KATZ: Thank you. Miss Randell,  
2 did you have anything else?

3 MS. RANDELL: Yes.

4 CHAIRMAN KATZ: Okay.

5 MS. RANDELL: Mr. Prete, in the Company's  
6 May 2004 testimony, you cite a study in which it talks  
7 about what happens if you reconductor the 387 line. Is it  
8 correct that even a reconstructed -- or a reconducted  
9 387 line if it's out of service, that there are overloads  
10 elsewhere on the system?

11 MR. PRETE: Yes. In the testimony of May  
12 25<sup>th</sup>, specifically on page 7, it talks about regardless how  
13 large a size you would reconductor the 387 line, if it was  
14 infinite, you have wholesale overloads on the 115 system  
15 that are enumerated on page 7. There are seven in total,  
16 well over 50 miles, and that is at a low level of 27.7.  
17 To the extent the load grows beyond that, which of course  
18 it will, there will be further deterioration of that.

19 MS. RANDELL: So am I correct that you have  
20 problems on other corridors serving Southwest Connecticut  
21 as well as the 345 system across the State?

22 MR. PRETE: Correct.

23 MS. RANDELL: Earlier today Mr. Ball asked  
24 the City of New Haven witness about whether if the 387

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1 line were reconductored as opposed to adding a second  
2 line, whether there would be a requirement for additional  
3 property in the City of New Haven. I think you were here  
4 for that testimony?

5 MR. PRETE: Yes, I was.

6 MS. RANDELL: Can you answer that question?

7 MR. PRETE: The land requirement would be  
8 essentially the same regardless if there's one or two  
9 lines into East Shore.

10 MS. RANDELL: And why is that?

11 MR. PRETE: You need a substation of sorts  
12 to terminate the line that would eventually need to go to  
13 East Devon.

14 MS. RANDELL: Thank you.

15 (Pause)

16 CHAIRMAN KATZ: Are you set?

17 MS. RANDELL: Yes.

18 CHAIRMAN KATZ: Okay, we will resume  
19 promptly at 1:00 o'clock with Mr. Kowalski.

20 (Whereupon, a luncheon recess was taken.  
21 Hearing reconvened at 1:10 p.m.)

22 CHAIRMAN KATZ: Let's begin.

23 MR. MARCONI: Has Mr. Kowalski been sworn  
24 before?



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1 CHAIRMAN KATZ: Yes.

2 MR. MARCONI: Okay.

3 CHAIRMAN KATZ: We are back on the record.  
4 Before we do Mr. Kowalski, Mr. Fitzgerald, do you want to  
5 do the reports on the two homework assignments now or do  
6 you want to wait?

7 MR. FITZGERALD: Why don't we -- since  
8 they've just left the table, why don't we wait until they  
9 come back.

10 CHAIRMAN KATZ: We'll wait then. Okay.  
11 Mr. Kowalski, you've been sworn, correct?

12 MR. RICHARD KOWALSKI: Yes, I have.

13 CHAIRMAN KATZ: Okay. And we have the  
14 spelling of your name? The court reporter has that?  
15 Okay.

16 MR. KOWALSKI: Yes, ma'am.

17 CHAIRMAN KATZ: Okay. Mr. MacLeod, did you  
18 have any preliminary remarks before we provide Mr.  
19 Kowalski for cross?

20 MR. MACLEOD: I have none. Mr. Kowalski is  
21 -- while ISO's testimony had been filed on March 9<sup>th</sup>,  
22 that's already been adopted, so we have nothing further.

23 CHAIRMAN KATZ: Okay. Okay, Mr.  
24 Fitzgerald, Mr. Kowalski is available for cross-

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1 examination.

2 MR. FITZGERALD: Thank you. Mr. Kowalski,  
3 in your March 9<sup>th</sup> -- or in the ISO March 9<sup>th</sup> testimony it is  
4 said that the East Shore alternative as studied was found  
5 to be an unacceptable substitute to the Middletown/Norwalk  
6 line because it does not meet NERC, NPCC, or NEPOOL  
7 criteria. Now, that configuration that was studied did  
8 not include any phase-shifter, I assume. Is that right?

9 MR. KOWALSKI: That's correct.

10 MR. FITZGERALD: Well, you heard the  
11 questioning this morning about adding a phase-shifter for  
12 the purpose of redirecting flow in the event of a  
13 contingency so that the lines that would otherwise  
14 overload when the 387 line were to have an unplanned  
15 outage would not. Would the inclusion of that type of  
16 system element succeed in qualifying a one-line East Shore  
17 alternative to these various reliability criteria?

18 MR. KOWALSKI: Based on the problems that  
19 are showing up in the study, it's unlikely.

20 MR. FITZGERALD: Okay. What are the  
21 considerations about using a phase-shifter for the purpose  
22 of redirecting power flow in the event of contingencies?

23 MR. KOWALSKI: Okay. It's important to  
24 keep in mind that phase-shifters really cannot and should

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1 not be operated to relieve contingencies that relieve  
2 overloads that have already happened. That's not their  
3 purpose. It's not practical to operate them that way,  
4 they are not operated for relief. They're operated to  
5 preposition the system in a certain way and to nominally  
6 just be left there and not moved around frequently.

7 CHAIRMAN KATZ: Mr. Kowalski, before you  
8 continue -- Joe, can we -- how can we reduce that --

9 MR. ASHTON: Turn down the volume on these  
10 I think --

11 (Pause)

12 MR. KOWALSKI: Okay? Is that better?

13 CHAIRMAN KATZ: Yes.

14 MR. FITZGERALD: Thank you. I'd like to  
15 ask you a question that relates to the statement in the  
16 prefiled testimony that the East Shore alternative does  
17 not strengthen the power supply into Southwest Connecticut  
18 by introducing a new source. And assuming,  
19 hypothetically, that you could reconfigure the 387 line --  
20 or I should say reconductor the 387 line with a conductor  
21 of sufficient size so that that line would not overload  
22 and that you could protect the rest of the system against  
23 overloads in the event of a failure of the 387 line by  
24 using one of these phase-shifters or in some other way,

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1 would there still be an advantage to the proposed project  
2 over a reconductored 387 line?

3 MR. KOWALSKI: Absolutely. A considerable  
4 advantage to the point of saying that I'm not sure that a  
5 single 387 reconductoring project would be of any value at  
6 all.

7 The normal operation of the system -- if  
8 you take it from the perspective of not putting all your  
9 eggs in one basket, that's what the single 387  
10 reconductoring plan does. And the practical manifestation  
11 of that little adage shows up in both planning and  
12 operating criteria, and that is the system has to be  
13 planned such that if you lose a big line or big facility,  
14 you still need to be able to operate the system securely  
15 with that condition having already occurred. That's --  
16 and operation has to consider that the same way. So day  
17 in, day out, all the time we have to assume the worse  
18 thing is going to happen and the system has the right --  
19 enough resources both in transmission and generation so  
20 that it can operate around that particular type of  
21 problem.

22 Currently, the loss of the East  
23 Shore/Scovill line today is one of the worst problems of  
24 that nature, that is we need to operate the system

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1 anticipating that line might fail, we have to operate  
2 around it. So just making it bigger doesn't really do  
3 anything because we'll never be able to operate it up to  
4 an enhanced capability.

5 MR. FITZGERALD: Okay. I have -- that's  
6 all that I have. Thank you.

7 CHAIRMAN KATZ: Miss Randell, did you have  
8 any?

9 MS. RANDELL: No.

10 CHAIRMAN KATZ: Is there any other party  
11 and intervenor who has cross-examination of Mr. Kowalski  
12 today? Mr. Cunliffe, do you have anything?

13 MR. CUNLIFFE: No.

14 CHAIRMAN KATZ: Any Council members?

15 MR. ASHTON: One question.

16 CHAIRMAN KATZ: Mr. Ashton.

17 MR. ASHTON: Mr. Kowalski, are you -- you  
18 are aware of the proposal of -- the concept of proposing a  
19 phase-shifter on this 387 line? Did you hear the  
20 testimony this morning?

21 MR. KOWALSKI: I heard the testimony in the  
22 context of suggesting phase-shifters --

23 MR. ASHTON: Okay --

24 MR. KOWALSKI: -- as potential solutions.

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1 MR. ASHTON: Are you aware of any facility  
2 anywhere that involves a phase-shifter of the magnitude  
3 which I believe Mr. Zak indicated would be about 1,000-mVa  
4 or bigger?

5 MR. KOWALSKI: The only phase-shifter that  
6 I'm aware of that approaches that is a 500-kV phase-  
7 shifter at Ramapo (phonetic), and I think it's --

8 MR. ASHTON: That's in New York State?

9 MR. KOWALSKI: In New York State. And I  
10 believe it's 1,000-mVa --

11 MR. ASHTON: Um-hmm.

12 MR. KOWALSKI: -- and I don't think it  
13 would have to work as hard as this phase-shifter would  
14 have to. So the capability of this type of phase-shifter  
15 from an angular control perspective would have to be  
16 substantial.

17 MR. ASHTON: Are you -- you're a system  
18 planner and engineer I believe, aren't you?

19 MR. KOWALSKI: Yes, sir.

20 MR. ASHTON: Do you feel that phase-  
21 shifters in general are something that should be promoted  
22 or avoided wherever possible?

23 MR. KOWALSKI: I -- I think phase-shifters  
24 are very useful tools. And like many other tools that are

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1 available, the question is putting them in the right place  
2 considering how they have to be operated, how they can be  
3 operated, and prudent placement. For example, we have  
4 phase-shifters in the Boston area and they are very  
5 important in controlling flows across a limited set of  
6 lines and they do a good job of that. And the way they're  
7 normally operated is they're set where they need to be and  
8 they're left there with the anticipation of maybe moving  
9 them one or two tap positions if something happens because  
10 that's the practical range of how they can be operated.

11 MR. ASHTON: Would you recommend avoiding  
12 the phase-shifter if it reasonably could be done or do you  
13 find them acceptable --

14 MR. KOWALSKI: I --

15 MR. ASHTON: -- if given a choice?

16 MR. KOWALSKI: I would -- my first thought  
17 to that and reaction to that is to avoid a phase-shifter.  
18 Now why do I say that? Because a phase-shifter like so  
19 many other solutions is a double-edge sword. A phase-  
20 shifter functions by adjusting phase angle. Well, there  
21 is -- a downside to that is there are additional reactive  
22 currents that are required in order to facilitate the  
23 phase shift. You have losses -- the transformers  
24 themselves have losses. It's another maintenance item.

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1 It's another big item that if it fails, it's going to be  
2 out for a long time. And phase-shifters tend to be  
3 limited, produced in probably the same volume as voltage  
4 controlling transformers, so the likelihood of things  
5 getting out of date is higher, although perhaps not as  
6 much as other equipment. So, I guess my -- in a nutshell  
7 I'd say it's a useful tool, but if it could be avoided, I  
8 would suggest avoiding it.

9 MR. ASHTON: What kind of losses internal  
10 to the phase-shifter for a -- let's say -- let's assume a  
11 1,000-mVa phase-shifter, what kind of internal losses are  
12 there?

13 MR. KOWALSKI: I -- I really couldn't say,  
14 I'd be guessing.

15 MR. ASHTON: Would a megawatt be surprising  
16 --

17 MR. KOWALSKI: Oh, easily for something  
18 that big.

19 MR. ASHTON: Thank you. Nothing further.

20 CHAIRMAN KATZ: Do any other Council  
21 members have questions of Mr. Kowalski? Hearing none,  
22 thank you, you're excused.

23 At this point, I want to go off the record  
24 and have the Applicant come up to the table and get --



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1 what I thought we could do is before the presentation we  
2 could take in the exhibits and report on the homework  
3 assignments and then the Council will sit in the audience  
4 for the presentation.

5 (Off the record)

6 CHAIRMAN KATZ: At this point, we had two  
7 homework -- two delayed assignments that we were going to  
8 report on. Mr. Prete, you had one on the number of homes  
9 I think. And Mr. Zak, you had one on -- you had a  
10 question on the number of --

11 MR. ZAKLUKIEWICZ: The number of structures  
12 --

13 CHAIRMAN KATZ: Yes --

14 MR. ZAKLUKIEWICZ: -- for which I'm still  
15 waiting for a response --

16 CHAIRMAN KATZ: Okay, we'll hold --

17 MR. ZAKLUKIEWICZ: -- I will enter that  
18 after the 3:00 o'clock break --

19 CHAIRMAN KATZ: That's fine --

20 MR. ZAKLUKIEWICZ: -- if we get it.

21 CHAIRMAN KATZ: Okay. Mr. Prete, are you  
22 ready to report?

23 MR. PRETE: I am.

24 CHAIRMAN KATZ: Okay. Why don't you repeat

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1 the question for us.

2 MR. PRETE: The question I believe by Mr.  
3 Cunliffe -- there's two tables that were attached to a  
4 submittal, one entitled Comparative Analysis Proposed  
5 Route, East Shore Route, and then one that is just  
6 entitled Segment 2, Beseck to East Devon. And the  
7 specific question was that the homes, the number of homes  
8 in those two charts were different. And the chart  
9 entitled Segment 2, Beseck to East Devon, those home  
10 numbers were not updated to reflect the correct number  
11 that is indeed on the other table. So if I was to read  
12 down that particular chart, the 436 under the proposed is  
13 actually 440. The 454 is 462. And then lastly the 226  
14 would be 234. And those numbers are indeed on the other  
15 attachment that is the Comparable Analysis Proposed Route,  
16 East Shore Route.

17 CHAIRMAN KATZ: Mr. Cunliffe, does that  
18 clarify?

19 MR. CUNLIFFE: Yes, it does.

20 CHAIRMAN KATZ: Okay. Let's go back to  
21 page 20 then of the hearing program and put in what new  
22 exhibits we need to put in. Mr. Fitzgerald.

23 MR. FITZGERALD: Thank you. Exhibit 141  
24 are responses to the OCC involving costs. Miss

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1 Bartosewicz, does that document contain information that  
2 is true and correct to the best of your knowledge and  
3 belief?

4 MS. BARTOSEWICZ: Yes, it does.

5 MR. FITZGERALD: I offer that as a full  
6 exhibit.

7 CHAIRMAN KATZ: Any objection to making 141  
8 a full exhibit? Seeing none, it's a full exhibit.

9 (Whereupon, Applicants' Exhibit No. 141 was  
10 received into evidence as a full exhibit.)

11 MR. FITZGERALD: 142 are July 28<sup>th</sup> responses  
12 to the Attorney General's Interrogatories, Set 3. And 143  
13 are further responses to that set of interrogatories.  
14 These are EMF measurement questions.

15 Dr. Bailey, is the information in those  
16 interrogatory responses true and correct to the best of  
17 your knowledge and belief?

18 DR. WILLIAM BAILEY: Yes.

19 MR. FITZGERALD: I offer those as a full  
20 exhibit.

21 CHAIRMAN KATZ: Any objection to making 142  
22 and 143 full exhibits? Seeing none, they're full  
23 exhibits.

24 (Whereupon, Applicants' Exhibit No. 142 and

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1 No. 143 were received into evidence as full exhibits.)

2 MR. FITZGERALD: Exhibit 144 is the second  
3 biweekly report of the Reliability and Operability  
4 Committee. This is actually a joint ISO/NU/UI document,  
5 but I'll ask Mr. Zak to sponsor it for the purpose of this  
6 hearing. Mr. Zak, is the information in there true and  
7 correct to the best of your knowledge and belief?

8 MR. ZAKLUKIEWICZ: Yes, it is.

9 MR. FITZGERALD: I offer that as a full  
10 exhibit.

11 CHAIRMAN KATZ: Any objection to making 144  
12 a full exhibit? Seeing none, it's a full exhibit.

13 (Whereupon, Applicants' Exhibit No. 144 was  
14 received into evidence as a full exhibit.)

15 MR. FITZGERALD: Exhibit 145 is an updated  
16 homework assignment that provides in tabular form some  
17 information regarding the optimized magnetic field  
18 reductions summary. Miss Bartosewicz, I believe you are  
19 the sponsoring witness for that. Is the information in  
20 there true and correct to the best of your knowledge and  
21 belief?

22 MS. BARTOSEWICZ: I'm sorry, you're going  
23 to have to repeat the item number.

24 MR. FITZGERALD: Exhibit 145 is the updated

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1 homework assignment. It's the --

2 MS. BARTOSEWICZ: Yes --

3 MR. FITZGERALD: -- optimized magnetic  
4 field reductions summary, dated July 30<sup>th</sup>.

5 MS. BARTOSEWICZ: Yes, that's correct.

6 MR. FITZGERALD: And is the information in  
7 there true and correct to the best of your knowledge and  
8 belief?

9 MS. BARTOSEWICZ: Yes.

10 MR. FITZGERALD: I offer it as a full  
11 exhibit.

12 CHAIRMAN KATZ: Any objection to making 145  
13 a full exhibit? Seeing none, it's a full exhibit.

14 (Whereupon, Applicants' Exhibit No. 145 was  
15 received into evidence as a full exhibit.)

16 MR. FITZGERALD: I'm going to skip 146,  
17 that's a GE document and we'll --

18 CHAIRMAN KATZ: We'll take that in at a  
19 later date?

20 MR. FITZGERALD: Yes.

21 CHAIRMAN KATZ: Okay.

22 MR. FITZGERALD: 147 is the Reliability and  
23 Operability Committee Report dated August 16<sup>th</sup>. Mr. Zak,  
24 will you sponsor that as true and correct to the best of

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1 your knowledge and belief?

2 MR. ZAKLUKIEWICZ: Yes, it is.

3 MR. FITZGERALD: I offer it as a full  
4 exhibit.

5 CHAIRMAN KATZ: Any objection to making 147  
6 a full exhibit? Seeing none, it's a full exhibit.

7 (Whereupon, Applicants' Exhibit No. 147 was  
8 received into evidence as a full exhibit.)

9 MR. FITZGERALD: Exhibit 148 is a  
10 supplement to previous Exhibits 79 and 92. And it is a  
11 summary of structures within designated fields and  
12 distances. Mr. Prete, do you sponsor that exhibit as true  
13 and correct to the best of your knowledge and belief?

14 MR. PRETE: Yes, I do.

15 MR. FITZGERALD: Alright, 149 through 151,  
16 152, 153 were admitted earlier today. That brings us to  
17 154 --

18 CHAIRMAN KATZ: I -- just to correct you, I  
19 have that we started at 152 this morning.

20 MR. FITZGERALD: Oh, I'm sorry -- I'm sorry  
21 --

22 MS. RANDELL: (Indiscernible) --

23 MR. FITZGERALD: Oh, oh -- okay -- okay,  
24 I'm sorry. 149 through 151 are -- oh -- I'm reminded that

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1 I have not asked you to admit 148 as a full --

2 CHAIRMAN KATZ: Any objection to making 148  
3 a full exhibit? Seeing none, 148 is a full exhibit.

4 (Whereupon, Applicants' Exhibit No. 148 was  
5 received into evidence as a full exhibit.)

6 MR. FITZGERALD: Is Mr. Scarfone here?

7 A VOICE: Yes.

8 MR. FITZGERALD: Okay. We might as well  
9 take care of this -- they're not relevant to this  
10 afternoon's testimony, but since he's here, let's get them  
11 in. Mr. Scarfone, Exhibits 149, 150, and 151 are  
12 interrogatory responses to the CSC and to the Towns which  
13 you are -- on which you are listed as the responsible  
14 witness. Do you verify that those documents are true and  
15 correct to the best of your knowledge and belief?

16 MR. SCARFONE: Yes, I do.

17 MR. FITZGERALD: And while I have you,  
18 Exhibit 157 are a set of responses to the Towns of  
19 Woodbridge, Milford, and Orange on which you are listed as  
20 the responsible witness. Is the information in there true  
21 and correct to the best of your knowledge and belief?

22 MR. SCARFONE: Yes.

23 MR. FITZGERALD: Thank you. That brings me

24 --

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1 CHAIRMAN KATZ: I -- while we're at that  
2 point then --

3 MR. FITZGERALD: Oh, yes --

4 CHAIRMAN KATZ: -- is there any objection  
5 to making 149, 150, 151 and 157 full exhibits? Hearing  
6 none, they're full exhibits.

7 (Whereupon, Applicants' Exhibit Nos. 149,  
8 150, 151 and 157 were received into evidence as full  
9 exhibits.)

10 MR. FITZGERALD: Thank you.

11 CHAIRMAN KATZ: Mr. Fitzgerald, that takes  
12 us up to 154 and 156.

13 MR. FITZGERALD: Right. 154 are the buffer  
14 zone -- so-called buffer zone maps. They were prepared  
15 under the joint supervision of Mr. Prete and Miss  
16 Bartosewicz. Mr. Prete and Miss Bartosewicz, do you  
17 verify that the information contained in those exhibits  
18 are true and correct -- or is true and correct to the best  
19 of your knowledge and belief?

20 MR. PRETE: John Prete. Yes, it is.

21 MS. BARTOSEWICZ: Anne Bartosewicz. Yes,  
22 it is.

23 MR. FITZGERALD: I offer them as a full  
24 exhibit.



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1 CHAIRMAN KATZ: And these are the big  
2 boards that we are seeing around the room?

3 MR. PRETE: That is correct.

4 CHAIRMAN KATZ: Okay. Any objection to  
5 making 154 full exhibits? Seeing none, they're full  
6 exhibits.

7 (Whereupon, Applicants' Exhibit No. 154 was  
8 received into evidence as a full exhibit.)

9 CHAIRMAN KATZ: Okay, 156, Mr. Prete --

10 MR. FITZGERALD: Before we leave 154, that  
11 information was actually filed also --

12 CHAIRMAN KATZ: On CD --

13 MR. FITZGERALD: -- on a CD --

14 CHAIRMAN KATZ: Yes. We will note that for  
15 the record.

16 MR. FITZGERALD: Okay.

17 CHAIRMAN KATZ: Don't try to download it,  
18 it will chew up your hard-drive.

19 MR. FITZGERALD: Mr. Prete, Exhibit 156 is  
20 your testimony concerning magnetic field modeling. Do you  
21 verify that the information in there is true and correct  
22 to the best of your knowledge and belief?

23 MR. PRETE: Yes, I do.

24 MR. FITZGERALD: Okay. I offer 156 as a

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1 full exhibit.

2 CHAIRMAN KATZ: Any objection to making 156  
3 a full exhibit? Hearing none, it's a full exhibit.

4 (Whereupon, Applicants' Exhibit No. 156 was  
5 received into evidence as a full exhibit.)

6 CHAIRMAN KATZ: Any other --

7 MR. FITZGERALD: Yes. I just have one --  
8 one supplement to make. Coming back to the Woodbridge,  
9 Milford, Orange interrogatory responses that have actually  
10 already been admitted, Mr. Scarfone was only -- was listed  
11 as the sponsoring witness only for --

12 MR. SCARFONE: Five --

13 MR. FITZGERALD: -- 5 through 8. Questions  
14 1 through 4 Dr. Bailey was the sponsoring witness. So  
15 I'll just ask him to verify that those responses are true  
16 and correct to the best of his knowledge and belief?

17 DR. BAILEY: What was the number again?

18 MR. ZAKLUKIEWICZ: 157 --

19 CHAIRMAN KATZ: 157, responses to  
20 Woodbridge, Milford, Orange.

21 DR. BAILEY: Yes.

22 CHAIRMAN KATZ: So we will note then for  
23 the record that Dr. Bailey is co-sponsoring Exhibit No.  
24 157.

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1 MR. FITZGERALD: Yes.

2 CHAIRMAN KATZ: So noted. Anything else?  
3 As if we haven't killed enough trees.

4 MS. RANDELL: We're getting there --

5 CHAIRMAN KATZ: Yes --

6 MS. RANDELL: -- and contributing even  
7 more. For Mr. Prete and Miss Bartosewicz's presentation,  
8 we have two pages entitled Connecticut Siting Council  
9 Mapping Homework Assignment --

10 CHAIRMAN KATZ: Okay.

11 MS. RANDELL: We have provided copies to  
12 the Council --

13 CHAIRMAN KATZ: Yes --

14 MS. RANDELL: -- through Mr. Cunliffe. We  
15 do have copies for members of the audience, I believe --

16 MR. PRETE: Correct.

17 MS. RANDELL: Would it make sense -- they  
18 will be using this for the presentation they're about to  
19 make --

20 CHAIRMAN KATZ: Okay --

21 MS. RANDELL: -- it's up to you whether  
22 you'd like to have them --

23 CHAIRMAN KATZ: Yeah, let's pass those out.  
24 And we'll call that 158, Mr. Cunliffe?

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1 MR. CUNLIFFE: That's accurate.

2 CHAIRMAN KATZ: Okay. And if they could  
3 just verify 158 for us.

4 MS. RANDELL: Sure. Mr. Prete and Miss  
5 Bartosewicz, do you confirm that Exhibit 158, the two-page  
6 document, Connecticut Siting Council Mapping Homework  
7 Assignment, is true and correct?

8 MR. PRETE: John Prete. Yes, I do.

9 MS. BARTOSEWICZ: Anne Bartosewicz. Yes, I  
10 do.

11 MS. RANDELL: Then we would offer it as a  
12 full exhibit.

13 CHAIRMAN KATZ: Okay. Any objection to  
14 making 158 a full exhibit? Hearing none, it's a full  
15 exhibit.

16 (Whereupon, Applicants' Exhibit No. 158 was  
17 received into evidence as a full exhibit.)

18 CHAIRMAN KATZ: Okay. Are we -- yeah, Mr.  
19 Fitzgerald.

20 MR. FITZGERALD: Just to note, the exhibit  
21 that Mr. Tait asked about this morning is being  
22 reproduced, it will be here shortly.

23 CHAIRMAN KATZ: Oh, good, okay. And we'll  
24 take that in later, maybe after the break. Okay, are you

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1 ready for us to stand down to do your audio visual  
2 presentation?

3 MS. BARTOSEWICZ: Yes. And we need a  
4 minute to set up our screen.

5 CHAIRMAN KATZ: Okay. We're off the record  
6 for a minute.

7 (Off the record)

8 MR. PRETE: Do you want to give it a few  
9 more minutes --

10 CHAIRMAN KATZ: Just say on the record.

11 MR. PRETE: We're on the record. Just to  
12 begin the presentation, what I want to do is kind of frame  
13 what you're going to see today. It was a homework  
14 assignment, and the assignment was very specific, it  
15 talked about mapping. And the specific things that were  
16 asked to be mapped was, No. 1, the right-of-way. No. 2,  
17 lines that were both sides of the right-of-way. Those  
18 lines would be defined as that which is associated with a  
19 3-milligauss, a 15-gigawatt loading; a 3-milligauss at  
20 27.7-gigawatt loading. And then a 300-foot line again  
21 adjacent to each side of the right-of-way. And that 300-  
22 foot was taking out the conductor closest to the edge of  
23 the right-of-way, which is what we were able to do.

24 The basis for the map set not only that you

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1 see around the room but for this presentation was first  
2 say an aerial photography that was taken in the 2002  
3 timeframe, so that's important to take note. And we were  
4 asked really to plot the lines that were associated with  
5 the lowest reasonable practical EMF mitigation in concert  
6 with towns, and they gave a preference. So we had to  
7 balance that out. And the options that we have, we'll  
8 define for you. So what we have obviously is the hard  
9 copies that are around the room. We also have the  
10 presentation before you.

11 We have also submitted a sheet that has the  
12 table noting the statutory facilities other than the  
13 residential. Obviously, the residentials are on the map  
14 as well. And then the handout today, which is the  
15 spreadsheet that you have in front of you. Now, just a  
16 little bit about the spreadsheet. We were last week, late  
17 last week to come up with a structure count most notably  
18 of residential that fell within the various bandwidth --

19 MR. ASHTON: Mr. Prete, that's 158, is it  
20 not?

21 A VOICE: Yes --

22 MR. PRETE: Yes, this would be Exhibit 158.  
23 And we provided the data that is exactly the same in two  
24 ways. The front sheet has it by map, which we thought

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1 would be helpful as you would follow us along. The second  
2 sheet the same data, we just sorted it by town in the  
3 event that you wanted to see it that way. So as a little  
4 point of reference. So, Miss Bartosewicz and myself will  
5 be going through these maps and Anne will take the first  
6 couple as we go forward.

7 MS. BARTOSEWICZ: Thanks, John. I'm just  
8 going to point out first some of the colors on the maps so  
9 we can get our bearings. The darker yellow line in the  
10 center of the colors is the existing right-of-way. The  
11 shaded area, which looks a little whitish but a little  
12 yellowish on this map, that's wider than the darker yellow  
13 -- I should do this for you -- that goes out here --

14 A VOICE: Zoom in --

15 MS. BARTOSEWICZ: There you go -- that's  
16 the -- (pause) -- oh, that's better -- so the yellow in  
17 the center is the existing right-of-way. The white shade  
18 is the 300-foot from the conductor on either side. The  
19 light blue line is the 3-milligauss at 15-gigawatt New  
20 England load. And the dark blue line is the 3-milligauss  
21 at the 27.7 New England load.

22 The red dotted lines there, I believe that  
23 indicates Northeast Utilities or CL&P owned property. And  
24 you'll see a couple of other lines. The yellow hatched

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1 line, this happens to be Cross-Section 1, which is in  
2 Middletown, which is an expanded right-of-way at this  
3 portion, so that cross-hatches the expansion of the right-  
4 of-way. The only -- the green lines, you see these light  
5 green lines around, those are property borders. And the  
6 only other lines that you might see are the town lines,  
7 they're a dotted line as well.

8 So why don't we go back to the full view.  
9 This is the first map. It includes the right-of-way in  
10 Middletown, which is the top line here. There are no  
11 statutory facilities adjacent to that right-of-way. And  
12 then below it starts with Cross-Section 2, you see this  
13 starts in Haddam, and as we start to proceed in Durham  
14 here. I'll tell you some totals. The -- the 300-foot on  
15 either side for this map, there are 10 structures. At the  
16 15-gigawatt case, there are eight. At the 27.7-gigawatt  
17 case, there are nine. So these are structures on this map  
18 whether they're in this section or this section. And  
19 that's how we're going to proceed through the maps. And  
20 again -- Council has a question?

21 MR. TAIT: What is your definition of  
22 structure, a residence or a garage, or what is your  
23 definition of a structure?

24 MR. PRETE: The definition of structure is



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1 -- the majority -- a far majority is residential from  
2 aerial photography. To the extent it was something other  
3 than that, we counted it, but more than likely there's no  
4 -- there's no, quote/unquote, houses in the right-of-way  
5 itself. So, I would primarily structures are residential.

6 MR. TAIT: Anything commercial?

7 MR. PRETE: No.

8 MR. EMERICK: What kind of structures are  
9 anticipated when you drew the blue lines? Like the  
10 Middletown --

11 MS. BARTOSEWICZ: The blue -- the dark blue  
12 line? The dark blue line is the 3-milligauss at 27.7 --

13 MR. EMERICK: No --

14 MS. BARTOSEWICZ: No?

15 MR. EMERICK: Let me try again.

16 MS. BARTOSEWICZ: Okay.

17 MR. EMERICK: What kind of structures are  
18 in place for you to be able to calculate those lines? Is  
19 this an H-frame structure?

20 MS. BARTOSEWICZ: Oh, the configuration on  
21 the line --

22 MR. EMERICK: Right.

23 MS. BARTOSEWICZ: In this portion of the  
24 right-of-way these are H-frame structures. There are

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1 several H-frame structures existing on this right-of-way.  
2 The proposal has another H-frame structure to be added to  
3 this right-of-way. So --

4 MR. PRETE: Anne, can I interrupt just for  
5 a second. The column on our spreadsheet actually defines  
6 what's going to be put in place there. So for Cross-  
7 Section 1, it will be a delta configuration as noted in  
8 Cross-Section 1.

9 MR. EMERICK: So in this stuff we're  
10 looking at right now would be a reconfigured delta  
11 configuration?

12 MR. PRETE: In this right-of-way here on  
13 Cross-Section 1, that's correct.

14 MR. EMERICK: I think it would be -- it's  
15 hard to go back and forth and actually read this as we're  
16 sitting here. Just mention as we look at a specific  
17 section --

18 MS. BARTOSEWICZ: What the structure --

19 MR. EMERICK: -- what the typical structure  
20 is that you envision.

21 MS. BARTOSEWICZ: Okay. But on this right-  
22 of-way, this one has some existing structures, they're H-  
23 frame. The proposed structure for here would be the 345  
24 delta design. Now if we move down to the bottom of this

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1 map, we start --

2 CHAIRMAN KATZ: If I could interrupt.

3 MS. BARTOSEWICZ: Yes.

4 CHAIRMAN KATZ: For the purposes of this  
5 discussion, why don't we call -- make a differentiation  
6 between poles and structures, poles being those things in  
7 the right-of-way, structures being residences, etcetera.  
8 I think that will be less confusing.

9 MS. BARTOSEWICZ: I agree. When we start  
10 down in Haddam, the -- as proposed, the poles -- I have to  
11 start using that correctly now and not use structures --  
12 is the composite 345, 115 design. And that would be along  
13 this portion of the right-of-way from Haddam into Durham.

14 Why don't we go to the next -- now, Map No.  
15 2 on your chart includes the Towns of Durham, Middletown  
16 and Middlefield. It would be this line going through  
17 here. There are -- there are no statutory facilities  
18 adjacent to the right-of-way here. What you do see -- and  
19 I think John might have talked earlier -- is we had a lot  
20 of choices to put on what these maps are. We did try to  
21 look for the low magnetic field design particularly  
22 through Durham and Middlefield. We have spoke with the  
23 Town. We provided them some more detailed information  
24 than what we're showing here. So this is just one option

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1 we picked, but I wanted to make it clear that there are  
2 other options out there. And certainly with Durham and  
3 Middlefield we've had additional discussions and they're  
4 just not shown on this map, but that's just -- just know  
5 that there are other options out there.

6 This piece around here is what we call the  
7 Durham bypass. What the bypass -- the bypass shows  
8 something different here. This shows -- the proposal on  
9 the bypass is a 345 split-phase that goes around the Royal  
10 Oak neighborhood in Middletown and Middlefield. The --  
11 for this section right here, the 115 would be split-phase  
12 is what this is showing. So you've got the 345 going  
13 around and the 115 split-phase going down the existing  
14 right-of-way. In all other portions of the right-of-way  
15 we're showing here is just what was proposed, and that was  
16 the proposed 345, 115 on the same structure, except for  
17 this small area.

18 MR. O'NEILL: Yes. At anytime did you  
19 consider taking the 115 split-phase along the new right-  
20 of-way?

21 MS. BARTOSEWICZ: Yes, we did. And we  
22 provided that information to Durham. It's another option.  
23 What that -- what that does do is it increases the  
24 magnetic fields along this portion. When you do both

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1 individually split-phase, it happens to provide the lowest  
2 magnetic field on this edge of the border. So it was just  
3 a choice.

4 MR. O'NEILL: But given that  
5 reconfiguration, how many structures would be affected?  
6 Significantly fewer, wouldn't it?

7 MS. BARTOSEWICZ: For -- I'm not sure I  
8 understand your question.

9 MR. O'NEILL: If you were to follow the  
10 deviation with the split-phase 115 as opposed to  
11 continuing along its present right-of-way, it would impact  
12 fewer homes, would it not?

13 MS. BARTOSEWICZ: It would impact -- by  
14 moving the 115 from the existing right-of-way to the  
15 bypass, you would -- you would be removing the impact from  
16 the homes along this existing right-of-way, that's  
17 correct.

18 MR. O'NEILL: Thank you.

19 CHAIRMAN KATZ: Okay. I'm -- I'm trying to  
20 compare this with the table. And all my questions assume  
21 that the Council is going to do a 300-foot buffer, so keep  
22 that in mind as I ask these. If you look at the 300 --  
23 at this table -- if we do the 300-foot buffer, where are  
24 the 34 houses in Durham that we have to take?

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1 MS. BARTOSEWICZ: Well, you -- you're --

2 CHAIRMAN KATZ: Is it down -- that would  
3 assume that we don't do the Royal Oaks bypass?

4 MS. BARTOSEWICZ: No. You need to go back  
5 to the full Durham view --

6 A VOICE: Where the dots are right there.

7 MS. BARTOSEWICZ: There you go, where the  
8 dots are. These -- these dots are within the 300-foot  
9 buffer.

10 CHAIRMAN KATZ: Okay. So if we do the 300-  
11 foot buffer and the Royal Oaks Bypass, how many houses are  
12 we taking in Durham? Two?

13 MS. BARTOSEWICZ: Two -- excuse me -- two  
14 on this -- on this one. I need to go -- you would need to  
15 go back, I need to see --

16 CHAIRMAN KATZ: Oh, which are in  
17 Middletown?

18 MS. BARTOSEWICZ: Correct --

19 CHAIRMAN KATZ: Okay --

20 MS. BARTOSEWICZ: I would need to see the  
21 rest of Durham -- (pause) -- so in Durham you had 34 homes  
22 -- 34 structures impacted by the 300 feet. So these are  
23 showing you in Durham where those 34 are.

24 CHAIRMAN KATZ: Okay.

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1 MS. BARTOSEWICZ: If you were to remove the  
2 115 off the Durham bypass, the existing right-of-way, then  
3 you could subtract those number of dots from the total 34.

4 CHAIRMAN KATZ: Okay, thank you.

5 MS. BARTOSEWICZ: Could we go back to the  
6 full picture, Rich, please. Oh, that's -- there you go,  
7 that's -- I know it's a little busy with the dots on  
8 there, but that does show you your question, Chairman.

9 The total in this section for the -- for  
10 Durham, Middletown, and Middlefield on this chart in front  
11 of you for the 300 feet line there is 59 structures. At  
12 the 27.7-gigawatt case there are 23 structures. At the  
13 15-gigawatt case there are 17 structures. Okay.

14 Move to Map 3. Map 3 is fully in Meriden  
15 starting at Black Pond and moving down toward Wallingford  
16 toward Beseck Substation. There are 59 structures at the  
17 300-foot line, 20 --

18 A VOICE: Fifty-four --

19 MS. BARTOSEWICZ: -- I'm sorry -- 54.  
20 There are 8 at the 27.7 and 19 at the 15-gigawatt case.  
21 There is one statutory facility, a day care -- let's see -  
22 -

23 MR. ASHTON: And it's a house on --

24 MS. BARTOSEWICZ: Correct, it is a house

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1 because it is a home day care facility. There we go,  
2 right there. And that would be --

3 MR. FITZGERALD: That's Meriden --  
4 (laughter) --

5 MS. BARTOSEWICZ: And that is the only  
6 statutory facility on Map 3. Any questions on Map 3?

7 Why don't we move to Map 4. Map 4 comes in  
8 -- has a little piece of Durham. This is Beseck Mountain  
9 right here. This is the Beseck Substation. And then the  
10 345 line would come south into Wallingford. Map 4 has a  
11 total of 56 structures in the 300-foot -- within the 300-  
12 foot line. It has 30 structures at the 27.7 case and 24  
13 at the 15-gigawatt case. There are no statutory  
14 facilities adjacent to the right-of-way here. I'll tell  
15 you that the line coming over Beseck Mountain is the  
16 composite 345, 115. It has to come over the ridgeline.  
17 Once you get to Beseck Substation South, that's the  
18 existing 387 line and H-frame there. And the -- I'm  
19 looking at the proposed design for the low magnetic field  
20 option would be -- again it would be the -- it would be  
21 the H-frame plus 10 feet -- 20 -- I'm sorry --

22 A VOICE: Twin verticals.

23 MS. BARTOSEWICZ: Twin verticals, okay. So  
24 to lower the magnetic fields here we put -- we removed the



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1 existing H-frame, replaced it with a vertical, and instead  
2 of putting in the proposed H-frame, we put another  
3 vertical in. So you've got the vertical lines which give  
4 you the conductors, one above each other, reduce the  
5 magnetic fields as opposed to the H-frames which are  
6 farther apart.

7 A VOICE: And that would be the H-frame 387  
8 --

9 MS. BARTOSEWICZ: You would have to --  
10 correct, in order to do this, you would have to replace --  
11 you would have to remove the H-frames on the 387 line and  
12 put them -- and put monopoles -- put monopoles in its  
13 place. So you would have to essentially take off that  
14 circuit and rebuild it.

15 Map 5. Map 5 is -- again is in -- totally  
16 in Wallingford. You come down -- this is Traditions Golf  
17 Course down here. This is 91, the highway. We've got no  
18 statutory facilities adjacent to the right-of-way. You  
19 have 81 structures at the 300-foot. You have 19 at the  
20 27.7 case and 5 at the 15-gigawatt case. There are two  
21 pieces to this. The design changes halfway through. So  
22 for the first portion you've got the vertical 345 design,  
23 which is coming down here. Again you've got the 387 line  
24 that you need to make vertical from the H-frame that's

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1 there. And then going west along the right-of-way it's  
2 split-phase 345. And then you've got the vertical 115  
3 because you've got the second -- you've got an existing  
4 115 on this right-of-way. So you have the vertical 115  
5 and you've got the vertical 345.

6 Map 6 takes you from Wallingford into  
7 Cheshire and through the -- through Cheshire into Hamden.  
8 We have one statutory facility. There are ballfields  
9 right there. These are the ballfields that we believe are  
10 going to be -- their use is being terminated, but it's  
11 still identified as the ballfields right there. Let's see  
12 -- our totals for this section, there are 57 structures in  
13 the 300-foot and there are 15 at the 27.7 and zero at the  
14 15-gigawatt case.

15 Before you -- wait -- I just want to talk  
16 about what's there today and what we're going to be  
17 replacing it with. So in Wallingford, in the first  
18 section we've got many -- this right-of-way changes as you  
19 go -- as you go from east to west, so there are many  
20 configurations on this right-of-way. You start with -- in  
21 Wallingford with a split-phase at 345 and the 115. Then  
22 you move in this area where the ballfields are, is -- it  
23 remains proposed. I think this is mostly an industrial  
24 area in through here. We move into Wallingford with

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1 split-phase, going back to the 345 split-phase and the  
2 existing 115 remains as it is.

3 Then you move into Cheshire, these -- this  
4 area of Cheshire here. You have the split-phase of the  
5 345. And you put the -- and you put both of the 115 lines  
6 underground.

7 MR. EMERICK: Pam, can I -- I have a  
8 question --

9 MS. BARTOSEWICZ: And that's this section  
10 in here. Yes?

11 MR. EMERICK: In calculating the number of  
12 structures, if you had a situation where you were just  
13 away from a structure say 10 feet or some minimal  
14 distance, did that structure get added or not included in  
15 the --

16 MS. BARTOSEWICZ: You had to be -- you had  
17 to be in -- and you can see where the dots are, they tried  
18 to put the dots on where you could visually see the  
19 structures on the map. So if -- for example, if the  
20 structure was right outside the line, it was not included  
21 --

22 MR. EMERICK: Okay --

23 MS. BARTOSEWICZ: -- it was -- these are  
24 all --

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1 MR. PRETE: Mr. Emerick, if it was close,  
2 we added it.

3 MS. BARTOSEWICZ: Like this one is half and  
4 half, and that's in.

5 MR. EMERICK: But let's say the structure  
6 was completely out but right adjacent to it, it would get  
7 added?

8 MS. BARTOSEWICZ: No.

9 MR. PRETE: No, it would not.

10 MR. EMERICK: It would not. So you didn't  
11 consider whether it ends up being a nonconforming use or  
12 whatever, you just -- so in terms of practicalness, the  
13 numbers and structures is -- it would likely grow?

14 MS. BARTOSEWICZ: And to figure out if it  
15 was a nonconforming property, you'd have to do a property-  
16 by-property investigation.

17 MR. EMERICK: Okay. Thank you.

18 CHAIRMAN KATZ: Just to -- just to clarify  
19 that. So if the backyard was in but the house wasn't, you  
20 included it or not included it?

21 MR. PRETE: We did not.

22 CHAIRMAN KATZ: Okay.

23 MR. ASHTON: Is this -- is the bypass in  
24 this area where the Wallingford line joins the Southington

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1 line shown? I thought there was a municipally agreed upon  
2 bypass in this area?

3 MS. BARTOSEWICZ: We -- we originally in  
4 our proposal -- this portion of the right-of-way we had  
5 looked -- we had put the 115 underground along this  
6 Cheshire loop because of clearing issues. Essentially  
7 this part of the right-of-way, the homes as you can see  
8 they were right here. This is a treed area in their front  
9 yards. And we put the 115 underground in our original  
10 proposal so that we didn't have to clear all that extra  
11 trees from their front lawns. So that was in the original  
12 proposal.

13 MR. ASHTON: I thought there was a bypass  
14 though --

15 MS. BARTOSEWICZ: No. Not -- we called it  
16 a supported change.

17 MR. ASHTON: Okay.

18 MS. BARTOSEWICZ: Once you turn the corner  
19 here, the 345 is still split-phase, however it's at 135  
20 feet. The -- one of the 115's is overhead and the second  
21 115 is underground through here. Okay, John, go ahead.

22 MR. PRETE: This is Map 7 and, obviously,  
23 it's primarily of Hamden. And as Anne said, the right-of-  
24 way from this point on to East Devon is essentially the

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1 same in width, 165 feet. As you recall, there's three  
2 structures today on the right-of-way, two H-frames and a  
3 lattice structures at 115. Yes?

4 MR. WILENSKY: Going back to Cheshire where  
5 the two 115 lines are going underground, why couldn't the  
6 -- can the 345 go underground in the same area?

7 MR. PRETE: The issue about undergrounding  
8 345 is indeed what the ROC group is working on at this  
9 point in time.

10 MR. WILENSKY: Okay. Thank you.

11 MR. PRETE: So again as we talked about  
12 this, again there's three structures on the existing  
13 right-of-way between this area of Cheshire all the way  
14 down to Milford, the East Devon Substation. It will be  
15 rebuilt with one 345 split-phase at 135 feet and one  
16 monopole, 115, with a double circuit on each side at 105  
17 feet. So at this point here at Map 7, you see the numbers  
18 are 32 for the 306 and then zero at the 15-gigawatt. And  
19 there is no statutory facilities on this particular map.

20 And this is Map 8 here. I originally  
21 offered to Anne just to do this map, but she told me I had  
22 to do more -- (laughter) -- Map 8 basically goes through  
23 the watershed area of Bethany and Woodbridge. And as you  
24 can see, there isn't any facilities, statutory or

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1 residential in nature.

2 And I would like to clarify a question that  
3 I believe was asked about is there any commercial  
4 structures. And the engineers did their best on the  
5 aerial photography to look at houses. To the extent a  
6 house looked like a house but indeed is a commercial  
7 building, it was counted. Is -- there may be one or two  
8 in there. So just to be, you know, true in advertising,  
9 okay.

10 So we'll go on to Map 9. The upper portion  
11 of Map 9 as we enter into Woodbridge, as you can see, is  
12 primarily the watershed area. And as we get down to this  
13 area -- and maybe we could zoom in a little bit, please  
14 Rich -- and again what the engineers had done --  
15 Chairwoman, you had asked the dots so to speak to show up,  
16 what was counted for the 300, we can turn those on and  
17 off, you can see what's at 3 independently, or what was at  
18 the 3-milligauss at 15 or 27. So right now we left it on  
19 as you wanted, okay.

20 And again as we go down here, Anne had said  
21 these are two large areas that are owned by CL&P.

22 And as we get to this area here -- and  
23 maybe we could zoom in a little bit, Rich, please -- these  
24 indeed are two statutory facilities that are listed in our

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1 attachment. This area here, P-19 is a public playground,  
2 it is indeed the ballfield area of the JCC complex. And  
3 this DC-47 is the JCC complex in total. A couple of  
4 things that are here and what is showing up on the  
5 particular chart that was handed out, this area here in  
6 yellow is the existing right-of-way, and this area here as  
7 is noted is the right-of-way deviation. And as you can  
8 see, roughly it deviates still on the JCC property but a  
9 great deal further from what is noted there as DC-47. And  
10 if my memory serves me correct, I believe that particular  
11 distance was in and around 65 feet, and now it's upwards  
12 of 300 -- now Rich is going to show me up, watch this.

13 A VOICE: Two-ninety-five --

14 MR. PRETE: Okay, 295. So that's what it -  
15 - it essentially moves the right-of-way. And in this  
16 deviation here, the same type of construction is being  
17 proposed, that being a split-phase 345 at 135-foot and the  
18 twin monopole 115 at 105.

19 CHAIRMAN KATZ: So if you relocate the  
20 right-of-way around the JCC, again I'm taking my 300-foot  
21 buffer assumption --

22 MR. PRETE: Yes --

23 CHAIRMAN KATZ: -- you lose three houses  
24 and one ballfield, but if you leave it in the original



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1 position, you don't lose any structures?

2 MR. PRETE: If I could take that question.  
3 As you had pointed out, that's correct. As you move it,  
4 you then interfere with that house, that house and that  
5 house there.

6 CHAIRMAN KATZ: Okay.

7 MR. PRETE: Okay. And you do indeed get  
8 away from the JCC proper.

9 CHAIRMAN KATZ: Okay.

10 MR. PRETE: To what extent you can split  
11 the difference -- I think it would be highly doubtful to  
12 split the difference and not interfere with the JCC or  
13 those three residents.

14 CHAIRMAN KATZ: Okay.

15 MR. PRETE: But if that's something you  
16 want us to take a look at, I could do that.

17 Okay, this -- this is Map 10, Rich? Okay,  
18 so this is Map 10 and again primarily in Woodbridge. You  
19 can see some more of the residential area. If we could  
20 zoom into this area here, this would be yet another  
21 statutory facility that's showing up here noted as SO-9,  
22 that is the Ezra Academy facility. And again a very  
23 similar deviation that took place. Again just for  
24 illustration we left the yellow, which is identified here

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1 as the existing right-of-way. And remember from the  
2 proceedings the right-of-way itself is about 15 feet away  
3 from the Ezra Academy at this point in time. And again,  
4 Anne pointed out -- if you can just see this green area  
5 here, that's indeed the Ezra property. So what we did is  
6 tried to locate the right-of-way. And again in this area  
7 here locate the right-of-way as far away from the Ezra  
8 Academy but yet still on their property. And that's  
9 exactly the outcome there of doing that. And again the  
10 construction there is very similar. So again, this entire  
11 -- the entire map that we just saw, again the structure is  
12 taking away three, we would put back split-phase at -- at  
13 345 135-feet and a monopole 115 double circuit.

14 Now as we get into the next map, we enter  
15 from the West Haven area and Woodbridge into Orange  
16 proper. There are, obviously, a numerous amount of houses  
17 in this area. Rich, if we can go down to the lower part  
18 here. DC-81 here is the Orange Community Center, and you  
19 can see that by the red notation there at that location.  
20 And down here this P-49 is the Fred Wolff Park. So again  
21 as you can see here, the existing right-of-way is in  
22 yellow. And you can see the two light blue lines are  
23 indeed the 3-milligauss associated with the 15-gigawatts  
24 loading at that location.

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1 CHAIRMAN KATZ: Just to clarify, you said  
2 you used the height of the poles as requested by the  
3 various towns that they had you use?

4 MR. PRETE: Yes. That -- in this area  
5 particularly they had chose these specific options --

6 CHAIRMAN KATZ: Okay. Well, for example,  
7 at Orange, if you had chosen higher poles, could we lose  
8 less than 222 houses in Orange?

9 MR. PRETE: Yes. What we tried to do -- in  
10 the options actually that were presented to them, the  
11 highest pole typical was 135 --

12 CHAIRMAN KATZ: Yeah --

13 MR. PRETE: -- as you start to breach above  
14 that, in prior proceedings it became non-practical. But  
15 indeed your analysis is correct, if we went higher, we  
16 would certainly move both the lines for the 27.7 and the  
17 15-gigwatt lines in.

18 CHAIRMAN KATZ: Okay.

19 MR. PRETE: This map here shows very  
20 quickly exiting Orange up on the top and then entering  
21 into the Milford area. And if we can zoom into this area  
22 here, this is the last statutory facility on the overhead  
23 right-of-way. This happens to be in proper the Eisenhower  
24 Park area. This area here I believe is the ballfield

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1 bleacher area, right, Rich? And again as you can see, the  
2 various -- as you can see the various lines, again the  
3 light blue lines falling roughly at the edge of the right-  
4 of-way are within the right-of-way on the 15 gigawatts.  
5 Can you go to full view there, Rich, please. This -- if  
6 you can zoom in here -- that's the Lexington Greens area.  
7 The Lexington Greens as a whole is a very large complex.  
8 This is the area of the right-of-way that affects that.  
9 And again, Rich, if you were to take off the yellow dots  
10 and show what it looks like at 27.7 and 15 just to get a  
11 bird's eye view. (Pause) So that's both at 27.7 and 15-  
12 gig, alright. And I probably was in error when I didn't  
13 calculate all these -- but in this area here, this being  
14 the last map, there's 26 that was at the buffer and then  
15 five and zero at the 15 respectively. Okay, if you could  
16 zoom out. Okay.

17 So can you go to the full view. Okay. And  
18 you have the last map? Why don't we just zoom into here,  
19 this area here. So this is Map 13, the last map. And  
20 again this toward the bottom is obviously the East Devon  
21 proposed substation area. And again this is the area in  
22 Milford. Again reiterating that the construction -- it  
23 would take down three structures, rebuilding a 345 split-  
24 phase and a 115 monopole double circuit.

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1 CHAIRMAN KATZ: Can you use your scale to  
2 show the distance from East Devon to the Lexington  
3 Gardens?

4 MR. PRETE: Absolutely. (Pause).

5 A VOICE: Sixty-nine --

6 MR. PRETE: Approximately, 7,000 feet.

7 CHAIRMAN KATZ: Okay, a little over a mile.  
8 Okay.

9 MR. PRETE: About a mile and a half,  
10 correct.

11 MR. TAIT: What height do you max out? You  
12 said you don't go above 135 when you do it?

13 MR. PRETE: Mr. Tait -- the question was  
14 what height do we max out? The whole right-of-way from  
15 East Devon to the Cheshire area, the typical height of the  
16 345 is 135 feet. There are areas where those poles will  
17 be over 135, there will be some areas where they're under  
18 --

19 MR. TAIT: Do --

20 MR. PRETE: -- but that's typical.

21 MR. TAIT: Do you ever go above 135 to  
22 narrow the right-of-way or do the Towns not want to go  
23 higher than 135?

24 MR. PRETE: In the preference -- especially

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1 in these areas we were told Option 5 is the one that --  
2 and again all the qualifiers that I'm sure they'll elicit  
3 to you, wanted the -- as far as the EMF mitigation option.  
4 So it would be at 135 typically.

5 MR. TAIT: Yes. But if you went to 150,  
6 would you mitigate even further and have a narrower band  
7 on either side of the right-of-way?

8 MR. PRETE: On the 3-milligauss both with  
9 the 15 and the 27, absolutely.

10 MR. TAIT: And have the Towns expressed  
11 dissatisfaction with going higher?

12 MR. PRETE: I'm not sure dissatisfaction is  
13 what they expressed to me. I know they're concerned about  
14 the balance of aesthetics as well as EMF.

15 MR. TAIT: And they came down basing it --  
16 maxing it at 135?

17 MR. PRETE: They chose this option. So  
18 this is the last map. And just in numbers, as you can see  
19 on the bottom of the page, I won't go through those. But  
20 if there's any questions or any areas that you'd like us  
21 to go back into, we'd be more than happy to do that.

22 CHAIRMAN KATZ: Okay, why don't we go off  
23 the record and the Council will go back up, and then we're  
24 going to let the parties and intervenors cross, okay.

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1 MR. PRETE: Do you want us to leave this  
2 presentation up?

3 MR. O'NEILL: Well, it might be helpful if  
4 there are questions.

5 A VOICE: How about if we turn it a corner.

6 MS. BARTOSEWICZ: We can put it to the  
7 side.

8 CHAIRMAN KATZ: What we could do is put --  
9 if the parties and intervenors are going to ask questions  
10 about specific maps, what we could do is put the screen to  
11 the side and you could ask for a specific map number.  
12 Would that be helpful?

13 A VOICE: Yes.

14 CHAIRMAN KATZ: Yes? I'm hearing yes.  
15 Okay, let's go off the record. Let's reset up the room --

16 MR. PRETE: Set it behind you --

17 CHAIRMAN KATZ: Talk to Mr. Phelps,  
18 wherever he wants it.

19 MR. PRETE: Okay.

20 CHAIRMAN KATZ: And then what we'll do is -  
21 - hopefully you made a note of the map number that you  
22 want to ask about and then we'll go and -- what we're  
23 going to do is we'll go through the list of towns and you  
24 can ask questions.

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1 (Off the record)

2 CHAIRMAN KATZ: The way I'd like to do this  
3 is I'm going to go through the cross-examination list.  
4 When I call on you, if there's a specific map that you  
5 want to ask questions about, please say that first so that  
6 they can get that up on the screen. We're going to have --  
7 -- I guess probably have the person who's crossing up here  
8 --

9 MR. TAIT: Could I make one suggestion.

10 CHAIRMAN KATZ: Yeah.

11 MR. TAIT: Maybe we should go through map  
12 by map rather than party by party.

13 CHAIRMAN KATZ: Oh --

14 MR. TAIT: Leave --

15 CHAIRMAN KATZ: Yeah, that's a good  
16 question. A suggestion was made that we go through map by  
17 map and then anybody who has a question on that map, we'll  
18 do that.

19 MR. TAIT: Otherwise you're going to be  
20 flipping --

21 CHAIRMAN KATZ: Right, we'll be flipping  
22 around. So what we'll do is we'll do that. We'll go  
23 north to south and if the Applicant can just indicate  
24 again what towns are shown on that map, we'll let the



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1 parties who have questions on that map come up and we'll  
2 handle -- then we'll handle that, okay.

3 AUDIO TECHNICIAN: Madam Chairman, give me  
4 just a second --

5 CHAIRMAN KATZ: Okay.

6 (Pause)

7 CHAIRMAN KATZ: Okay, so we're up to Map 1.  
8 You know I have to say as a former selectman -- when we  
9 had all the testimony about 300 feet, my first reaction  
10 was the grand list. You see when you're a selectman they  
11 sort of train you to think that way, but I'm sure the  
12 Towns were five steps ahead of me when they wanted the 300  
13 feet.

14 Okay, what I'm going to do is go through  
15 Map No. 1 and then I'm going to ask you to just -- if you  
16 want to cross on Map No. 1, raise your hand and we'll have  
17 you come to the microphone. And then we'll go on to Map  
18 No. 2. So Map No. 1 is what towns?

19 MS. BARTOSEWICZ: Map No. 1 is Middletown,  
20 Haddam and a small portion of Durham.

21 CHAIRMAN KATZ: Okay. Is there anyone who  
22 wishes to cross on this map? Seeing none, we'll go to Map  
23 No. 2.

24 MS. BARTOSEWICZ: Map No. 2 is Durham,

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1 Middletown and Middlefield.

2 CHAIRMAN KATZ: Anyone on this map? Mr.  
3 Knapp.

4 MR. MONTE FRANK: Madam Chairman, if I  
5 could be heard --

6 CHAIRMAN KATZ: Yes --

7 MR. FRANK: -- on the maps just generally?

8 CHAIRMAN KATZ: Sure.

9 MR. FRANK: On behalf of the Town of  
10 Woodbridge, I have a problem with what we're doing today  
11 and I don't think it's fair. The maps that are being  
12 shown through the power point presentation are not the  
13 same maps that were provided to the Towns -- some of us  
14 got on Friday, some of us got over the weekend. And I'll  
15 give you a couple of example. These are the first maps  
16 that we've seen that show any sort of identified  
17 residential structures as they've been identified by CL&P.

18 Secondly, we've learned through the  
19 presentation that the definition that is being used for  
20 these houses does not take into account backyards or  
21 playgrounds. With respect to the JCC and Ezra, I think  
22 it's pretty clear that the way the facilities are being  
23 defined is fairly narrow -- is fairly narrowly in that  
24 they've accounted for the buffer from the building when

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1 it's very clear from the statute that the definition of  
2 the facility goes well beyond the building but includes  
3 the entire campus.

4 You know, I -- I'm happy to cross-examine  
5 on the prefiled testimony that was submitted on Friday  
6 afternoon. I'm not prepared to cross-examine on the maps  
7 that are presented today. I don't think it's fair to be  
8 asked to do it. And frankly, I think that -- in all  
9 fairness to all the Towns, I think hard copies of these  
10 maps should be provided and we should have the opportunity  
11 to study them and come back to the Council prepared to  
12 analyze them in a way that's not duplicative and is fair  
13 to all parties.

14 CHAIRMAN KATZ: Okay -- Mr. Frank, I also  
15 noted that there are going to be more residences that have  
16 to be taken than shown because of the question we had  
17 about backyards. And I think the Council members all  
18 realize that, that instead of taking 700 and something,  
19 we're probably taking a higher number of residences, so I  
20 think we realize that.

21 Secondly, you know, we all just got these  
22 Friday or Saturday, etcetera. So, I would allow the Towns  
23 to cross-examine at a future date on these, but I do want  
24 to start the process today. So you know, you have

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1 reserved the right to ask further questions.

2 Secondly, I understand the CD has all this  
3 information on it, correct?

4 MS. BARTOSEWICZ: That's correct.

5 CHAIRMAN KATZ: So you can use the CD to  
6 print out anything -- any combination of dots, whatever  
7 you wish.

8 MS. BARTOSEWICZ: It's -- I'm sorry, not  
9 the dots. The dots were -- helped us to do house counts -  
10 -

11 CHAIRMAN KATZ: Yeah --

12 MS. BARTOSEWICZ: -- I do not believe --  
13 when we showed them to you today for ease of viewing --

14 CHAIRMAN KATZ: Yeah --

15 MS. BARTOSEWICZ: -- those are not on the  
16 maps that we provided, those dots. You can easily -- you  
17 can see the structures --

18 CHAIRMAN KATZ: Yeah --

19 MS. BARTOSEWICZ: -- from the maps. And it  
20 just verified our count is what it did.

21 CHAIRMAN KATZ: Okay.

22 MR. FRANK: But I think that the dots and  
23 the counts that are provided in the homework assignment  
24 are illustrative of the problem, which is there are --

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1 representations being made today which we are seeing for  
2 the first time and learning about the assumptions for the  
3 first time today and expected to cross-examine on it, and  
4 I just don't think that's fair.

5 CHAIRMAN KATZ: Okay. What we're going to  
6 do is we're going to start this process today and I'm  
7 going to let you return to it if more questions develop.

8 MR. FRANK: Okay, just as long as my  
9 objection is noted for the record.

10 CHAIRMAN KATZ: So noted.

11 MR. PRETE: As far as the -- could you put  
12 my mic on --

13 CHAIRMAN KATZ: Mr. Prete, is it possible  
14 to get the dots to people?

15 MR. PRETE: I will be more than happy to  
16 supply the dots to whoever would like those.

17 CHAIRMAN KATZ: Okay.

18 MR. PRETE: And just to make sure that the  
19 record is clear. We got a homework assignment in addition  
20 to the mapping last week to supply a structure count --

21 CHAIRMAN KATZ: Yes --

22 MR. PRETE: -- and over the weekend a lot  
23 of people put a lot of time in to put dots on the houses -  
24 -

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1 CHAIRMAN KATZ: Right --

2 MR. PRETE: -- but they are on the maps  
3 behind the various buffer lines and faded out areas, so --

4 CHAIRMAN KATZ: Yes. Okay, so I'm going to  
5 go through the list. We are at Map No. 2, which is  
6 Durham, Middletown, etcetera. And Attorney Knapp, did you  
7 have any questions on this map?

8 MR. ERIC KNAPP: Thank you, Madam Chairman.  
9 Not -- I can't see anything specifically on the map that  
10 addresses the question. It goes back to I guess a  
11 homework assignment we had been given. And I'm not even  
12 sure it specifically applies to this map, but I figured I  
13 will put it out there and maybe the Applicant can assist  
14 me. Where the Towns were asked to provide information  
15 going from aboveground to underground, if we had proposals  
16 that went from one to the other, we had to show where we  
17 would do that. They are now showing 115's that go from  
18 above to under. They don't show anywhere on the map where  
19 that happens. And I don't know -- again, I'm not even  
20 sure it happens in Middlefield particularly, but it would  
21 be I guess helpful to my town and other towns to see again  
22 if they are proposing to go from above to under where that  
23 would occur or what areas would be used for those  
24 purposes?

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1 CHAIRMAN KATZ: I thought Cheshire was the  
2 only town that had the 115 under. Am I --

3 MS. BARTOSEWICZ: You are correct.

4 CHAIRMAN KATZ: Okay.

5 MR. KNAPP: Okay. That addresses that  
6 issue.

7 CHAIRMAN KATZ: And when we get to the  
8 Cheshire map, they'll point that out.

9 MR. KNAPP: Okay. The existing 115 areas  
10 are not shown as far as what those milligauss levels are.  
11 And I don't know if those are going to be more or less  
12 than what we are seeing on these maps. And that would be  
13 of interest to Middlefield to see whether we're getting an  
14 improvement or a detriment by the new towers going in. Is  
15 there some way to compare -- I know we do have the raw  
16 figures because those were previously provided, but  
17 obviously it's a lot easier to see looking at it at this  
18 scale than it is to try and create your own map of it.

19 CHAIRMAN KATZ: I see. But isn't -- if we  
20 go to -- if we go to 300 feet and background, aren't we  
21 automatically less than --

22 MR. KNAPP: Yes. But I -- I agree  
23 entirely, Madam Chairman, but you also had them provide 15  
24 and 27.7 -- 15 and 27.7 at 115 is different than 15 and

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1 27.7 at 345 --

2 CHAIRMAN KATZ: Right --

3 MR. KNAPP: -- they've also done mitigation  
4 efforts and other things. I don't know again whether  
5 we're getting an improvement or not getting improvement.  
6 The 300-foot is never going to change, that's -- that's a  
7 -- that's a figure which we're never going to change. And  
8 if the Council is taking it as a given that's the figure  
9 they're going to use, then I guess I don't have an  
10 objection to that. That -- that hasn't been -- that  
11 determination has not been clearly finalized I guess. And  
12 therefore, I am sort of asking for these other figures on  
13 the assumption that the 300 feet is not set in stone.

14 CHAIRMAN KATZ: Is this an exhibit that you  
15 can point Middlefield to that --

16 MS. BARTOSEWICZ: Well first, I really  
17 don't understand his question, so --

18 CHAIRMAN KATZ: Okay --

19 MR. KNAPP: Okay. Well, let's try again.

20 MR. FITZGERALD: (Indiscernible) --  
21 question?

22 (Multiple voices overlapping,  
23 indiscernible)

24 MS. BARTOSEWICZ: Yes, very --



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1 CHAIRMAN KATZ: Okay --

2 MR. KNAPP: Okay, let's --

3 MS. BARTOSEWICZ: And maybe in parts --

4 CHAIRMAN KATZ: One at a time --

5 (Multiple voices)

6 MR. KNAPP: Let's try this again. There is  
7 an existing 115 there --

8 MS. BARTOSEWICZ: I'm sorry? There's --

9 MR. KNAPP: There is an existing 115 cable  
10 running along those towers, yes?

11 A VOICE: Where?

12 MS. BARTOSEWICZ: I'd like to know where  
13 you're speaking because that's -- there's an existing 115  
14 line that runs on the existing right-of-way from here all  
15 the way --

16 MR. KNAPP: That's --

17 MS. BARTOSEWICZ: -- through.

18 MR. KNAPP: Absolutely -- yes.

19 MS. BARTOSEWICZ: Now once you get to this  
20 location that I'm pointing to where we deviate to the  
21 Durham bypass --

22 MR. KNAPP: Leaving aside the Durham bypass  
23 --

24 MS. BARTOSEWICZ: Okay --

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1 MR. KNAPP: -- I understand the Durham  
2 bypass has nothing on it right now. And depending on what  
3 happens, may or may not have a 345 and a 115, or may just  
4 have a 345. The Durham bypass is sort of an exception to  
5 the rule here.

6 MS. BARTOSEWICZ: So your question is -- if  
7 I understand your question, on this existing right-of-way  
8 you've got both the 345 and the 115 --

9 MR. KNAPP: Yes --

10 MS. BARTOSEWICZ: -- on the right-of-way  
11 shown here --

12 MR. KNAPP: That's correct --

13 MS. BARTOSEWICZ: -- and these -- and these  
14 levels are based on a 345 and 115 on the right-of-way  
15 shown --

16 MR. KNAPP: That's correct.

17 MS. BARTOSEWICZ: -- that's correct.

18 MR. KNAPP: Therefore, given no mitigation  
19 levels, given what we have there today, the 115 and no  
20 mitigation, are we looking at those blue lines being  
21 significantly wider or narrower given your 15 and your  
22 27.7 calculations?

23 MR. ASHTON: Wider than what?

24 MS. BARTOSEWICZ: So you're asking me if --

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1 if -- let's take -- let's take a line, let's take the dark  
2 blue line, which is the 27.7-gigawatt case --

3 MR. KNAPP: Um-hmm.

4 MS. BARTOSEWICZ: -- you want to know if  
5 that dark blue line would change from today, which only  
6 has the 115 line on it, and tomorrow which might have a  
7 345 line on it?

8 MR. KNAPP: With mitigation efforts?

9 MS. BARTOSEWICZ: This is showing you what  
10 the mitigation efforts provide.

11 MR. KNAPP: That's right. But right now  
12 there's no mitigation?

13 MS. BARTOSEWICZ: This map is showing you  
14 mitigation.

15 MR. KNAPP: Yes, I understand --

16 A VOICE: (Indiscernible) -- today --

17 MR. KNAPP: -- but today before you build  
18 anything -- as of right now if I went out and measured --

19 MS. BARTOSEWICZ: Correct, you have  
20 existing 115 lines -- they're actually -- they're actually  
21 115 lines on two structures. So there's -- by default  
22 there is some level of mitigation because you have the one  
23 115 circuit on two structures, so that -- as an example of  
24 what a split-phase might look like --

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1 MR. KNAPP: I understand. Looking at  
2 exactly what I'm looking at on the screen right now --

3 MS. BARTOSEWICZ: Correct --

4 MR. KNAPP: -- how much presumably narrower  
5 would those two lines be under existing measurements today  
6 if you went out and measured today?

7 MS. BARTOSEWICZ: A) That wasn't the  
8 homework assignment, so these maps aren't showing that  
9 information --

10 MR. KNAPP: I -- I --

11 MS. BARTOSEWICZ: -- and B) if you look on  
12 Exhibit 96, you could get the magnetic field numbers for  
13 today calculated and mitigated.

14 MR. KNAPP: Okay. I understand it was not  
15 the homework assignment and I'm not complaining that it  
16 was not the homework assignment. I am merely suggesting  
17 that --

18 MR. ASHTON: (Indiscernible) --

19 CHAIRMAN KATZ: Yeah. Mr. Knapp, you sound  
20 like you're referring to my no net increase in EMF concept  
21 which fell with a thud and I resolved not to bring it up  
22 again.

23 MR. KNAPP: Okay. I guess I am referring  
24 to that concept --

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1 CHAIRMAN KATZ: Yes --

2 MR. KNAPP: -- and that --

3 CHAIRMAN KATZ: That went with a resounding  
4 --

5 MS. BARTOSEWICZ: Exhibit 96 provides --  
6 not the mapping, but it does provide magnetic fields  
7 calculations for comparison purposes.

8 MR. PRETE: I would -- I would also add  
9 that Exhibit No. 121 by Dr. Bailey not only shows what  
10 Anne had referred to, but it shows the profile in 15-foot  
11 increments of existing configurations, 15-gigawatt  
12 loading, 27-gigawatt loading, and the mitigating options.  
13 So if Mr. Knapp is looking for information regarding  
14 existing and what is at those load levels in comparison to  
15 mitigation, he can find them there.

16 MR. KNAPP: Okay.

17 CHAIRMAN KATZ: Mr. Knapp, what I'm going  
18 to let you do is after you look through those exhibits, if  
19 you want to revisit this on cleanup day, we'll allow you  
20 to do that.

21 MR. KNAPP: I appreciate that, Madam  
22 Chairman. Okay. At this point -- again sort of taking  
23 into consideration what Mr. -- or Attorney Frank said, I  
24 will also sort of reserve future questions based on my

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1 opportunity to go back and take another look.

2 CHAIRMAN KATZ: Okay.

3 MR. KNAPP: Thank you, Madam Chairman.

4 CHAIRMAN KATZ: Yes. Anybody else for Map  
5 No. 2. Mr. Curto, if you want to come down to the mic.

6 MR. CURTO: This one? Good afternoon,  
7 Madam Chairman and members of the Council. Alan Curto,  
8 the Town of Durham and Wallingford.

9 Could I ask that you take Map 2 and blow up  
10 the section --

11 A VOICE: We'll hold it up -- (laughter) --

12 MR. CURTO: Or focus in on I should say.

13 CHAIRMAN KATZ: It's called razing houses  
14 and not blowing them up.

15 MR. CURTO: Yeah. Yeah, we are talking  
16 about houses and not dots. Could you please focus in on  
17 the area of the Royal Oak bypass. Okay, now as I  
18 understand that illustration, that shows the 345-kV lines  
19 in the proposed Durham bypass and the 115-kV's in the  
20 existing right-of-way, correct?

21 MS. BARTOSEWICZ: That's correct.

22 MR. CURTO: Okay. The fact that the 115-  
23 kV's are shown in the existing right-of-way does not  
24 reflect a decision by the companies that if a Durham

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1 bypass is constructed that the 115's will in fact remain  
2 in the current right-of-way, is that correct?

3 MS. BARTOSEWICZ: It does not. This  
4 Council will most likely decide that configuration.

5 MR. CURTO: Very good. Understood. Now,  
6 the light blue line -- focusing now on the 115-kV's in the  
7 existing right-of-way -- and this may be what Mr. Knapp  
8 was getting at -- the light blue line is the 3-milligauss  
9 level for the 15-gigawatt case, is that correct?

10 MS. BARTOSEWICZ: That's correct.

11 MR. CURTO: Okay. So at that blue line  
12 both on the northerly and southerly sides of the right-of-  
13 way, that is where the companies calculate that the 3-  
14 milligauss level will be?

15 MS. BARTOSEWICZ: The 3-milligauss when New  
16 England is at 15-gigawatts, yes.

17 MR. CURTO: Right. For just the 115-kV  
18 lines?

19 MS. BARTOSEWICZ: That's correct, 115  
20 split-phase.

21 MR. CURTO: Now is it fair to say that that  
22 light blue line is just about on the existing right-of-way  
23 or, if anything, slightly inside the bounds of the  
24 existing right-of-way illustrated by the light yellow

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1 band?

2 MS. BARTOSEWICZ: That is correct.

3 MR. CURTO: Okay.

4 CHAIRMAN KATZ: I just want to say for the  
5 record the legislation Public Act 04-246 says the buffer  
6 zone should be no smaller than the right-of-way.

7 MR. CURTO: Yes, Madam Chairman, that's  
8 correct. Thank you.

9 Alright, if I could draw your attention  
10 then to Exhibit 96, if you look at page 2 of Exhibit 96 --  
11 and let me know when you have it.

12 MS. BARTOSEWICZ: Yes.

13 MR. CURTO: Okay. On page 2 of Exhibit 96,  
14 line 6, that illustrates -- or that describes I should  
15 say, a new right-of-way, which I assume is for the 345-kV  
16 lines, and the 115 lines are remaining in the existing  
17 right-of-way, is that correct?

18 MS. BARTOSEWICZ: On Exhibit 96, No. 6 is  
19 for the 115 lines that are there today and would remain,  
20 not for a split-phase 115.

21 MR. CURTO: Okay. So you're saying then  
22 that the EMF readings of 8.3 at the southerly edge and  
23 12.4 at the northerly edge, that is not for a split-phase  
24 configuration?



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1 MS. BARTOSEWICZ: That's correct. And the  
2 calculated number for the split-phase for this diagram  
3 would be 1.5 milligauss at the edge of the right-of-way.

4 MR. CURTO: Okay. Could I ask then if you  
5 look at the very first line of page 2 of Exhibit 96, the  
6 existing lines at 15-gig -- I should have said this is all  
7 at 15 gigawatts for Exhibit 96, I apologize -- if you look  
8 at the very first line of page 2, the existing line, the  
9 milligauss levels are given at 9.2 on the southern side  
10 and 13.9 on the northern side. So, I assume then that  
11 something is happening between line 1 and line -- not line  
12 1, excuse me -- the top line and line 6, to reduce those  
13 levels from 9.2 to 8.3 and 13.9 to 12.4 --

14 MS. BARTOSEWICZ: Correct --

15 MR. CURTO: -- could you --

16 MS. BARTOSEWICZ: -- correct. And on the  
17 very top line that's just with the existing 115 system.  
18 And when you get to Item No. 6, you now have the 345-  
19 kilovolt circuit in place, so that the flow on the 115  
20 line does change. That's why you see a change in those  
21 numbers.

22 MR. CURTO: Let me just think about that  
23 for a minute. (Pause). So you're saying that the  
24 addition of the 345-kV line will lower the EMF on the

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1 115's?

2 MS. BARTOSEWICZ: It lowers the -- it  
3 changes the flow on the 115 lines --

4 A VOICE: All lines --

5 MS. BARTOSEWICZ: -- or all lines.

6 MR. CURTO: So then line 6 does not  
7 represent any sort of EMF mitigation on Exhibit 96, page  
8 2?

9 MS. BARTOSEWICZ: On page 2, No. 6, that is  
10 not the most mitigation one could do. And in our  
11 discussions with the Town of Durham, we looked at split-  
12 phasing the 115 on the existing right-of-way. And this  
13 map shows that reduced mitigation case.

14 MR. CURTO: Okay, so -- so -- just so I  
15 understand, Exhibit 96, line 6 shows some mitigation but  
16 not all the mitigation that you could do?

17 MS. BARTOSEWICZ: And I think maybe to help  
18 clarify is I believe what the Applicants need to now do is  
19 update Exhibit 96 to be complete with -- in a few areas  
20 where we have tried to mitigate magnetic fields further.  
21 And this would be one of those cases.

22 MR. CURTO: Okay. Turning to Exhibit 158,  
23 the document that was just passed out -- let me know when  
24 you have it.

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1 MS. BARTOSEWICZ: Yes.

2 MR. CURTO: Okay. On the third line for  
3 Durham, if you go all the way over to the right where it  
4 says low magnetic field mitigation description?

5 MS. BARTOSEWICZ: Yes.

6 MR. CURTO: That talks about the split-  
7 phase 115-kV on the existing right-of-way with a typical  
8 height of 90 feet. Do you know what range of heights that  
9 you're considering for those towers that would result in a  
10 typical height of 90 feet? Is there a range that you  
11 could give me?

12 MS. BARTOSEWICZ: At this time no. It  
13 would depend on topography. It would be -- some  
14 structures would be higher, some would be lower.

15 MR. CURTO: Okay. And given the fact that  
16 the existing towers today are significantly lower than 90  
17 feet, I'm assuming that if you were to keep the 115-kV's  
18 in the existing right-of-way, you would have to  
19 essentially construct a new section of 115-kV line, it  
20 would not simply be a matter of leaving what's there, is  
21 that correct?

22 MS. BARTOSEWICZ: For this low mitigation  
23 option, you would have to reconstruct that right-of-way,  
24 that is correct.

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1 MR. CURTO: Okay. So whether you construct  
2 115's in the bypass or keep 115's in the existing right-  
3 of-way, there would be new construction of new 115-kV  
4 facilities, is that correct?

5 MS. BARTOSEWICZ: If you were to -- I'm  
6 sorry, can you repeat that?

7 MR. CURTO: If I can. In either case,  
8 either case being if you were to construct new 115 -- if  
9 you were to move the existing 115's into the bypass along  
10 with the 345-kV's or if you were to simply leave 115's in  
11 the existing right-of-way, in either case that would  
12 entail the construction of new 115-kV facilities, is that  
13 correct?

14 MS. BARTOSEWICZ: Well, it would depend on  
15 what the ultimate outcome of this Council would be. If  
16 they chose to leave the structures in place on the 115 on  
17 the existing right-of-way at the existing levels, that  
18 would be one choice. If --

19 CHAIRMAN KATZ: Poles.

20 MS. BARTOSEWICZ: Poles, excuse me. If you  
21 would -- if the Council chooses to go with this particular  
22 low magnetic field mitigation, then you would have to  
23 reconstruct the existing poles on that 115 right-of-way.

24 MR. CURTO: But of course if you were to

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1 leave what's existing there, that would negate the 3-  
2 milligauss lines that are shown on this map, correct?  
3 Those lines would have to be expanded? I would assume  
4 based on what you said about Exhibit 96, you would have to  
5 expand the right-of -- you would have to expand the 3-  
6 milligauss line considerably, correct?

7 MS. BARTOSEWICZ: I --

8 MR. FITZGERALD: Just a minute. It's not  
9 clear to me whether that question is asking her for a  
10 legal conclusion or if he's just asking her --

11 MR. CURTO: No, it's not -- it's not a --

12 MR. FITZGERALD: -- a factual question  
13 about where the line --

14 MR. CURTO: -- it's not a legal question at  
15 all. She --

16 MR. FITZGERALD: Okay --

17 CHAIRMAN KATZ: But --

18 MR. FITZGERALD: Well, it sounded -- it  
19 began to sound like one.

20 CHAIRMAN KATZ: Let -- let me interrupt.  
21 My understanding was this Council was looking at the 300-  
22 foot buffer and the 3 milligausses for the 345-kV right-  
23 of-ways only. And is your question for a right-of-way  
24 that only is going to have 115-kV?

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1 MR. CURTO: Well, Madam Chairman, this is  
2 somewhat of a unique situation in that we're looking at a  
3 section of the line where the 345's may go one place and  
4 the 115's may stay somewhere else.

5 CHAIRMAN KATZ: Right. But to get back to  
6 my question to you, is your question asking about the  
7 milligausses on a right-of-way that is only going to have  
8 115-kV?

9 MR. CURTO: Yes.

10 MR. TAIT: Aren't you interested in whether  
11 what's left there is going to be less or more than they  
12 have now? If they leave it there and don't put it on the  
13 115, the bypass, and they try to mitigate, you're going to  
14 be on this map. If you don't mitigate, you're going to be  
15 -- your 8 or 9 milligauss is going to be wider than that  
16 line, Alan. They aren't proposing to do that one. Those  
17 are just the options before the Council.

18 A VOICE: Right.

19 MS. BARTOSEWICZ: That's right. That's  
20 correct. And if -- that's correct.

21 MR. CURTO: Okay. And --

22 MR. TAIT: One way or the other there's  
23 going to be construction on both ends.

24 MR. CURTO: Alright.

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1 MS. BARTOSEWICZ: Unless you leave --  
2 unless you leave the 115 lines intact.

3 MR. TAIT: But that will be over 3  
4 milligauss.

5 CHAIRMAN KATZ: Alright.

6 MR. PRETE: From an electrical point of  
7 view --

8 MR. TAIT: If you --

9 MR. PRETE: -- if we draw the bypass in 345  
10 here, there's no need electrically to do anything with the  
11 115 there.

12 CHAIRMAN KATZ: Okay.

13 MR. TAIT: Yeah, but at that point you're  
14 over 3 milligauss.

15 MR. CURTO: That's my question.

16 MR. TAIT: So to get it down to three  
17 milligauss, you're going to have to do split-phasing and  
18 other things --

19 MS. BARTOSEWICZ: Well, I --

20 MR. FITZGERALD: Mr. Tait --

21 MS. BARTOSEWICZ: -- I think it depends on

22 --

23 MR. TAIT: Which is going to require --

24 (Gavel)

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1 MR. TAIT: -- reconstruction of the  
2 existing 115 line.

3 MR. CURTO: Exactly.

4 CHAIRMAN KATZ: One at a time.

5 MR. CURTO: Yes.

6 CHAIRMAN KATZ: Okay.

7 MR. FITZGERALD: If -- if there is no new  
8 construction on the right-of-way, if it's just -- if you  
9 just route around it and don't touch what's there, such as  
10 by split-phasing, then there is no finding that is  
11 required with respect to any buffer zone --

12 CHAIRMAN KATZ: Yes --

13 MR. FITZGERALD: -- or underground --

14 CHAIRMAN KATZ: -- that's what --

15 A VOICE: That's correct --

16 (Multiple voices overlapping,  
17 indiscernible)

18 MR. TAIT: Is the Applicant suggesting that  
19 where we can reduce it down to 3 milligauss background we  
20 should not do so but leave it higher than what we think is  
21 good for other areas?

22 MS. BARTOSEWICZ: I believe the issue  
23 becomes now you're affecting a 115 right-of-way and  
24 existing poles that are not being modified. And does the



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1 Council plan on doing that to all other 115 --

2 CHAIRMAN KATZ: Yeah, that's where --

3 MS. BARTOSEWICZ: -- right-of-ways?

4 CHAIRMAN KATZ: That is where I was coming  
5 from. And a 115 line that's not being modified, I did not  
6 think this Council was going to do one buffer zones on  
7 115's. I thought we were only doing buffer zones on  
8 345's.

9 MR. TAIT: Well, I'd like the thought that  
10 when we can do something with a 115 because we're in there  
11 digging things up, might not we consider doing for them  
12 what we've done for other -- we have four -- three --  
13 what, 400 miles of other places in the State that we can't  
14 do anything about that already have 345 lines and we can't  
15 touch EMFs.

16 CHAIRMAN KATZ: Yes. Well, let's get back  
17 to Wallingford, Durham --

18 (Multiple voices, indiscernible)

19 MR. TAIT: Well, I'd like this briefed --

20 CHAIRMAN KATZ: Oh, okay --

21 MR. TAIT: -- on whether we have any  
22 jurisdiction to effect that line where we can bring it  
23 down to -- if we pick a 3-milligauss level, and we're  
24 messing around in that area, whether we have any

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1 jurisdiction to say while you're at it -- while you're at  
2 it, bring it down to 3 milligauss.

3 MR. CURTO: My esteemed evidence professor  
4 makes a good point.

5 CHAIRMAN KATZ: Okay.

6 MR. DANIEL P. LYNCH, JR.: But --

7 CHAIRMAN KATZ: We will include that in  
8 your list -- your litany for the post-hearing briefs.

9 A VOICE: Right --

10 MR. LYNCH: Well, I'm --

11 CHAIRMAN KATZ: Mr. Lynch.

12 MR. LYNCH: I'm going to disagree with my  
13 colleague here. I think Mr. Fitzgerald made a very good  
14 point, it's not subject to legislation and we should not  
15 have to go back and look at it.

16 MR. TAIT: We're not talking just about  
17 this legislation. We're talking about our entire  
18 authority and I'd like to know whether we have it or not.

19 A VOICE: I don't think we do.

20 MR. TAIT: Well, that's --

21 CHAIRMAN KATZ: Right -- right now our  
22 charge is to protect the public health and safety. The  
23 Towns have told us what they think -- what they think that  
24 means in the way of protecting children, etcetera. So --

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1 MR. ASHTON: That's fine. I don't disagree  
2 with that, but I have a great problem going out of bounds  
3 of the proposed new construction. Insofar as we are  
4 talking about the bypass, that applies. Insofar as the  
5 facilities existing are unchanged, I have serious  
6 questions whether we have any jurisdiction over it --

7 MR. TAIT: That's a legal question --

8 MR. ASHTON: Excuse me --

9 CHAIRMAN KATZ: It's a legal question --

10 MR. ASHTON: Excuse me. Any more than we  
11 have jurisdiction over the 115-kV line that goes from  
12 Manchester to Barber Hill. We're -- we just -- it's not  
13 part of our -- not part of the docket that's before us,  
14 leave it alone, otherwise you bring in every line  
15 literally.

16 MR. CURTO: How about if I rephrase the  
17 question?

18 CHAIRMAN KATZ: Sounds good. (Laughter).

19 MR. CURTO: In order for this picture to  
20 reflect reality after construction, there would have to be  
21 split-phase construction done of the 115's in the existing  
22 right-of-way?

23 MS. BARTOSEWICZ: That is not correct.

24 MR. CURTO: That's not correct. Why not?

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1 MS. BARTOSEWICZ: Because -- if I'm going  
2 to go around -- if I'm going to put the 345-kV line on the  
3 bypass, I don't have to do anything on the existing right-  
4 of-way between --

5 MR. CURTO: I'm not -- I'm not asking  
6 whether you have to do anything.

7 MS. BARTOSEWICZ: Between that point --

8 MR. CURTO: This -- this map, if I  
9 understand it, shows a 3-milligauss line, which in turn  
10 assumes a 115-kV split-phase line?

11 MS. BARTOSEWICZ: That is correct. And --

12 MR. CURTO: And there's not a -- and  
13 there's not at present a 115 split-phase line there,  
14 correct?

15 MS. BARTOSEWICZ: There is --

16 A VOICE: That's correct --

17 A VOICE: That's right.

18 MS. BARTOSEWICZ: That's -- that's correct.

19 MR. CURTO: Okay, that's it. That's all.

20 CHAIRMAN KATZ: Thank you --

21 MR. CURTO: I have one more question though  
22 -- (laughter) -- actually, two. When -- what is the date  
23 of the photographs of these maps?

24 MS. BARTOSEWICZ: They are aerial

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1 photographs from SNET from 2002, which is the last time  
2 that they did aerial photographs of this part of the  
3 State.

4 MR. CURTO: So that any residences  
5 constructed in the last two years or so are not reflected  
6 on these maps, is that correct?

7 MS. BARTOSEWICZ: That's correct.

8 MR. CURTO: Thank you. No more questions.

9 CHAIRMAN KATZ: Thank you. Anybody else on  
10 this map? Seeing none, let's go to the next map. And if  
11 you could just mention what towns?

12 MS. BARTOSEWICZ: This is Meriden.

13 CHAIRMAN KATZ: Okay. Anyone on Map 3 of  
14 Meriden?

15 MS. DEBORAH MOORE: Good afternoon, Madam  
16 Chairman.

17 CHAIRMAN KATZ: Introduce yourself.

18 A VOICE: And use the microphone.

19 CHAIRMAN KATZ: Are you Attorney Moore?

20 MS. MOORE: Yes, I am.

21 CHAIRMAN KATZ: Okay.

22 MS. MOORE: Attorney Moore from the City of  
23 Meriden. I just have a few quick questions. For the  
24 record, the map that was delivered to the City of Meriden

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1 on Friday afternoon was not Map 3 but Map 4 --

2 MS. BARTOSEWICZ: We apologize for that.

3 We can correct that for you.

4 MS. MOORE: I would appreciate that. It  
5 was -- just now I was rather taken aback to see that there  
6 was a statutory facility within this area and -- that took  
7 me by surprise and I think that will take the City by  
8 surprise as well.

9 MR. O'NEILL: Would you add the dots to --  
10 (indiscernible) --

11 A VOICE: Which ones?

12 MR. O'NEILL: Yeah -- thank you.

13 (Pause)

14 MS. MOORE: So this is -- this is the first  
15 time that I've seen this map when I came in this morning,  
16 and the dots when the utility put on their presentation.  
17 And it is rather significant that there are 54 residences  
18 in the City of Meriden that are affected here, included  
19 the statutory facility.

20 It's my understanding that there's an  
21 existing line at this point through this?

22 MS. BARTOSEWICZ: There are actually two  
23 lines on this right-of-way at 345, monopoles existing.

24 MR. ASHTON: I think that's in part from

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1 High Hill Road Substation South. There are two monopoles  
2 from High Hill Road Substation North that single line.

3 MS. BARTOSEWICZ: From -- from Cook Hill --  
4 from Pond -- from Black Pond Junction looking south there  
5 are --

6 MR. ASHTON: One --

7 MS. BARTOSEWICZ: I'm sorry, you're  
8 correct, there is one 345 pole --

9 MR. ASHTON: That's right --

10 MS. BARTOSEWICZ: -- and the proposal is to  
11 add two --

12 MR. ASHTON: A second one.

13 MS. BARTOSEWICZ: To add two more --

14 MR. ASHTON: Two more?

15 MS. BARTOSEWICZ: -- poles -- 345 poles to  
16 this line, to this part of the right-of-way.

17 MS. MOORE: To make a total of three?

18 MS. BARTOSEWICZ: That is correct. That  
19 was the original proposal.

20 MR. ASHTON: Okay.

21 MS. BARTOSEWICZ: And part way down, the  
22 configuration on the right-of-way changes because there is  
23 an additional 115 line that -- that comes in --

24 A VOICE: Right here.

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1 MS. BARTOSEWICZ: -- right where that --  
2 where those white arrows are.

3 MR. ASHTON: It comes in at -- from Beseck  
4 Mountain right near where Beseck Substation would be and  
5 goes north as far as High Hill Road Substation?

6 MS. BARTOSEWICZ: Yes, that's correct.

7 MS. MOORE: Could you zoom in on that  
8 please.

9 MR. ASHTON: The High Hill Road Substation  
10 would be just north of where that statutory facility was,  
11 about two houses north?

12 MS. BARTOSEWICZ: Correct. They're between  
13 the 3 and the 4, that's where the configuration of the  
14 right-of-way changes.

15 MS. MOORE: And that brings a total of how  
16 many poles going to the south, three or four?

17 MS. BARTOSEWICZ: It's still -- it's still  
18 three structures. What we do here is the 115 goes on one  
19 side of the proposed 345, so you still have three  
20 structures.

21 MS. MOORE: Poles?

22 MS. BARTOSEWICZ: Poles. I'm sorry.

23 MS. MOORE: It's a hard habit to break I'm  
24 sure.



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1 MS. BARTOSEWICZ: It's very hard.

2 MR. O'NEILL: If you could keep --  
3 (indiscernible) --

4 AUDIO TECHNICIAN: Hold on a second --  
5 (pause) -- go ahead, Mr. O'Neill.

6 MR. O'NEILL: Yes. It appears that on this  
7 particular section if the right-of-way was shifted a  
8 little bit to the right or to the left -- I know we're  
9 talking in probably a hundred-foot increments because of  
10 the scale -- but it appears that to the left, for example,  
11 there's largely farmland or unoccupied land, where to the  
12 right there's houses. Did you explore slight shifting to  
13 compensate for the residential areas that are there?

14 MS. BARTOSEWICZ: We did. Actually, there  
15 is significant waterbodies in this part of the right-of-  
16 way. And for environmental reasons the poles are where  
17 they are, otherwise you would be putting poles into --  
18 essentially, Black Pond is there as many -- there are  
19 several ponds all in a row there. So it was an  
20 environmental issue.

21 CHAIRMAN KATZ: Put little buoys around.  
22 Okay. Miss Moore, I just want to tell you since you did  
23 not get Map 3, and 44 out of your 54 houses are on Map 3,  
24 we'll definitely give you the chance to come back and ask

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1 about --

2 MS. MOORE: I appreciate it.

3 MS. BARTOSEWICZ: Excuse me. We do have an  
4 extra set and I can pull your map at the break for you.

5 MS. MOORE: Oh, thank you.

6 MS. BARTOSEWICZ: You're welcome.

7 CHAIRMAN KATZ: Mr. Emerick, you had a  
8 question?

9 MR. EMERICK: Yeah. On this particular  
10 map, the lines -- the blue line on the left-hand side is  
11 outside of the dark blue line, which I would think would  
12 be reversed. Is there some explanation? Given the light  
13 blue is the 3-milligauss and the dark blue is the 6-  
14 milligauss, one would expect that the light blue would  
15 always be -- (mic feedback) --

16 CHAIRMAN KATZ: No, the -- (mic feedback) -  
17 -

18 AUDIO TECHNICIAN: Hang on a second, Madam  
19 Chairman.

20 (Pause)

21 CHAIRMAN KATZ: The lines are 3-milligauss  
22 at two different loadings, 15 gigawatts and 27.7  
23 gigawatts.

24 MS. BARTOSEWICZ: That's correct. And in

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1 this particular area when you change the flow on the  
2 lines, you change where those boundaries are because the  
3 flows are now very different.

4 CHAIRMAN KATZ: As Mr. Ashton explained to  
5 us once, yes. Any -- Mr. Emerick, does that --

6 MR. EMERICK: Yeah.

7 CHAIRMAN KATZ: Okay.

8 MR. PRETE: Mr. Emerick, if you -- again  
9 Exhibit 71, actually in those two charts you can see  
10 exactly the change that you note in there.

11 CHAIRMAN KATZ: Other questions, Miss  
12 Moore?

13 MS. MOORE: This might be repeating what  
14 you've said in the past, but I note that the proposed  
15 poles are a hundred -- are at a height of 140 feet.  
16 That's correct?

17 MS. BARTOSEWICZ: That's correct.

18 MS. MOORE: Is that what is existing now or  
19 would that be replacing what's there?

20 MS. BARTOSEWICZ: The poles -- the poles  
21 that are existing are actually 130 feet. So this is a 10-  
22 foot higher pole.

23 MS. MOORE: Would that be replacing --  
24 removing the existing poles and replacing them with new

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1 poles of this height?

2 MS. BARTOSEWICZ: The existing structure  
3 that's there today will remain.

4 A VOICE: Pole.

5 MS. BARTOSEWICZ: Pole. It will remain  
6 where it is. The -- when you get to the break between 3  
7 and 4 there, the 115 pole, which is at 57 feet, that is  
8 removed.

9 MS. MOORE: I'm sorry, at 57 feet?

10 MS. BARTOSEWICZ: There's a 115 H-frame  
11 pole on the right-of-way today. That one is removed when  
12 you get to that break between 3 and 4. From 4 south, that  
13 115 pole is removed.

14 MR. ASHTON: And that -- that pole, is it  
15 not, is just to allow for the transmission line to swing  
16 into High Hill Road? It's a tap structure, isn't it?

17 A VOICE: I don't know --

18 A VOICE: I don't know --

19 (Pause)

20 CHAIRMAN KATZ: We'll wait on that answer  
21 if we need to. Okay. Other questions?

22 MS. BARTOSEWICZ: It's -- Mr. Ashton,  
23 that's the 1466 line.

24 MR. ASHTON: That may be, but it's still --

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1 that's the line -- the line designation, but it's a tap  
2 structure I believe at that point, the line swings into  
3 High Hill Road.

4 MS. BARTOSEWICZ: It --

5 MR. PRETE: We'll get that at the break.

6 MR. ASHTON: Yeah.

7 CHAIRMAN KATZ: Okay.

8 MS. MOORE: The final question I have is  
9 more general in nature. That inasmuch as there are 54  
10 houses that are affected here, if you looked at putting  
11 the line in a little further south, further into Meriden  
12 say going down Thorpe Avenue or Research Parkway, which is  
13 a commercial area of the City of Meriden, was any  
14 consideration given to those areas given the reduced  
15 number of residential houses that would be affected?

16 MS. BARTOSEWICZ: Well, I don't believe --  
17 well (a) we don't have any right-of-way in that area. And  
18 because it is already commercial and populated, there  
19 would be no place for the Applicants to actually build a  
20 new right-of-way.

21 MS. MOORE: If -- if you could enlarge Map  
22 No. 3 please and go all the way out. On Map No. 3 that  
23 you have displayed you can see Thorpe Avenue and I don't  
24 know if you can identify it -- (pause) -- I'm not good at

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1 -- I can't even see it from here, I'm getting old --

2 MS. BARTOSEWICZ: I believe Thorpe Avenue  
3 is a commercial street.

4 MR. ASHTON: Debbie, do you want me to move  
5 --

6 MS. MOORE: There we go.

7 MR. ASHTON: That's the right-of-way --  
8 (indiscernible) -- Thorpe Avenue --

9 AUDIO TECHNICIAN: Mr. Ashton, you need to  
10 get to a microphone.

11 MS. BARTOSEWICZ: That's Thorpe Avenue?

12 MS. MOORE: That's Thorpe. And then -- and  
13 Research Parkway, which is a little further to your --  
14 left, Mr. Ashton, yes.

15 MS. BARTOSEWICZ: That's correct.

16 CHAIRMAN KATZ: Do you have a right-of-way  
17 there?

18 MS. BARTOSEWICZ: We do not.

19 CHAIRMAN KATZ: Would you need a right-of-  
20 way for a 345-kV line?

21 MS. BARTOSEWICZ: Yes, we would. And we  
22 would need about 320 feet width.

23 CHAIRMAN KATZ: Thank you.

24 MS. MOORE: Madam Chairman, I reserve my

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1 rights to --

2 CHAIRMAN KATZ: You've got them.

3 MS. MOORE: Thank you.

4 CHAIRMAN KATZ: Let me just say this to all  
5 the Towns, we've all just gotten these maps. I think  
6 they're very valuable. We're all going to be studying  
7 them. We're going to give you a chance to ask further  
8 questions on them. In fact, I'm talking with Mr. Phelps  
9 of a possible date in October where we might come back and  
10 take another look at these maps. But you know, I wanted  
11 to start the process today even though we only got them so  
12 that you would have a chance to think about this.

13 Okay, are we ready to go to Map 4? Yes.  
14 And that is the towns of?

15 MS. BARTOSEWICZ: It's a piece of Durham  
16 over Beseck Mountain and Wallingford.

17 CHAIRMAN KATZ: Okay. Who would like to  
18 cross on Map 4? Seeing none, we will -- and any Council  
19 member just -- we'll go to Map 5.

20 MS. BARTOSEWICZ: Map 5 is Wallingford.

21 CHAIRMAN KATZ: Okay. Any cross-  
22 examination of Map 5? Map -- oh -- Mr. Walsh.

23 MR. WALSH: Just a couple of quick  
24 questions. I notice on Map 5 that the right-of-way is

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1 being realigned and part of the buffer zone would be  
2 within the Interstate 91 corridor, is that correct?

3 MS. BARTOSEWICZ: Right here?

4 MR. WALSH: Yes.

5 MS. BARTOSEWICZ: Can you zoom in there,  
6 Rich? That's correct. That's actually -- the existing  
7 right-of-way is on Traditions Golf Course. The golf  
8 course owns the property up until the 91 highway. And as  
9 you can see, we veered off of the existing right-of-way to  
10 property owned by Traditions Golf Course, which would be  
11 this piece right here.

12 A VOICE: Show the existing right-of-way --

13 MS. BARTOSEWICZ: The existing right-of-way  
14 is this -- further east. And that -- that remains. There  
15 is a 345 H-frame along this existing right-of-way. This  
16 goes -- this is the 387 line to East Shore and that  
17 remains. We deviate right up here onto this parcel of  
18 land, which is undeveloped, to put in the proposed 345  
19 circuit.

20 MR. WALSH: Could I ask what software was  
21 used to develop these overlays?

22 A VOICE: Arch --

23 MR. PRETE: It's Archinfo (phonetic).

24 MR. WALSH: Archinfo. Correct me if I'm



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1 wrong, but the CDs that were sent to the various parties  
2 were in portable document format, PDF, is that correct?

3 A VOICE: Yes.

4 MS. BARTOSEWICZ: Yes, that's correct.

5 MR. WALSH: And the presentation that the  
6 Council saw today did not have all of the -- excuse me --  
7 had data sets on it that were not on the PDF disks that  
8 were provided to the parties, is that correct?

9 MS. BARTOSEWICZ: You saw today some dots  
10 to help us do -- when we did our house counts. So that  
11 would be yes.

12 CHAIRMAN KATZ: Is that the only thing that  
13 was missing from the CDs was the dots?

14 MS. BARTOSEWICZ: Yes.

15 MR. WALSH: Okay, thank you.

16 CHAIRMAN KATZ: Thank you, Mr. Walsh.  
17 Anybody else on this map? Mr. Emerick.

18 MR. EMERICK: (Indiscernible) -- go back  
19 look at the spot where the lines in terms of light blue  
20 and dark blue transition or reverse themselves.

21 CHAIRMAN KATZ: While they're finding the  
22 spot, one of the dates the Council was holding in reserve,  
23 and I've learned to hold things in reserve, was the  
24 possibility of October 14<sup>th</sup> as a continuation, allowing the

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1 Towns to further cross-examine on these maps. So please  
2 start thinking about that and maybe talk to Mr. Phelps by  
3 tomorrow on whether October 14<sup>th</sup> works for the Applicants  
4 and the for the Towns to come back after you've had a  
5 chance to study these maps and ask further questions. And  
6 we'll discuss the schedule tomorrow.

7 Okay, I'm sorry, we're at the transition  
8 point where we switch out because of the loadings on the  
9 line?

10 MR. ASHTON: That's High Hill --  
11 (indiscernible) --

12 MR. EMERICK: If we could now move south  
13 because I think that blue line eventually transitions --  
14 I'm interested to see where that happens?

15 MS. BARTOSEWICZ: That would be probably at  
16 Beseck, but we'll move south.

17 CHAIRMAN KATZ: We're going to take our  
18 break after this map.

19 MR. EMERICK: You past Beseck --  
20 (Pause)

21 CHAIRMAN KATZ: There it is.

22 MS. BARTOSEWICZ: And that's Beseck  
23 Substation.

24 CHAIRMAN KATZ: Okay.

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1 MR. EMERICK: That is --

2 CHAIRMAN KATZ: So because of the loadings  
3 on the line, at the Beseck Substation, south of there is  
4 where the 27.7-gigawatt case the affected area for 3-  
5 milligauss is smaller?

6 MS. BARTOSEWICZ: Correct --

7 CHAIRMAN KATZ: Got it.

8 MS. BARTOSEWICZ: -- no --

9 CHAIRMAN KATZ: I said that correctly?

10 MS. BARTOSEWICZ: No backwards.

11 CHAIRMAN KATZ: Backwards.

12 MS. BARTOSEWICZ: At -- between Cross-  
13 Sections 4 and 5, which is Beseck Substation to Cross-  
14 Section 5, the -- well, I can see on the west side --

15 A VOICE: Northwest.

16 MR. EMERICK: It switches from the west  
17 side --

18 MS. BARTOSEWICZ: It switches --

19 MR. EMERICK: -- to the east side. It's  
20 now on the east side. And what line is coming in to our -  
21 - to your right? What --

22 MR. PRETE: That would be the new 345.

23 MR. EMERICK: Okay.

24 MR. PRETE: Section 4 has three 345's that

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1 do a great deal of cancellation at those high load levels,  
2 which would be Cross-Section 4 up. Cross-Section 5 down  
3 there isn't that many 345's and the cancellation therefore  
4 doesn't occur.

5 MR. EMERICK: Okay.

6 CHAIRMAN KATZ: Any other questions on this  
7 map? We have a 10-minute recess.

8 (Whereupon, a short recess was taken.)

9 MS. RANDELL: Madam Chairman, Mr. Prete has  
10 a correction that he would like to make to Map 10. Would  
11 you like to do that now or would you like to wait --

12 CHAIRMAN KATZ: We'll wait --

13 MS. RANDELL: -- until we get to Map 10?

14 CHAIRMAN KATZ: Yes. Okay --

15 MR. FITZGERALD: Oh -- and Mr. Zak has your  
16 answer --

17 CHAIRMAN KATZ: Oh, yes, from the --

18 MR. ZAKLUKIEWICZ: Earlier this morning you  
19 asked for the number of structures on the 387 line that  
20 would have to be --

21 CHAIRMAN KATZ: Poles.

22 MR. ZAKLUKIEWICZ: Poles, excuse me. I  
23 apologize. That was my first turn. I notice it's been 12  
24 or 15 for someone else. (Laughter). The number of poles

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1 that would have to be modified --

2 CHAIRMAN KATZ: Yes --

3 MR. ZAKLUKIEWICZ: -- or new poles that  
4 would have to be built on the 387 line with the proposed  
5 project, our count is that there would be 13 poles on the  
6 387 line that would have to be modified, replaced, with  
7 the proposed project. And that's just strictly on the 387  
8 line. Relative to the number of poles in Appendix C that  
9 would have to be replaced, modified, depending on the  
10 conductor -- and there's 187 poles all together on the 387  
11 line -- depending on the conductors listed, which are the  
12 bundled 954, the bundled Genesee or the bundled Miramiche,  
13 the numbers are 29 poles for the bundled 954, 47 poles  
14 would have to be replaced for the bundled Genesee and 116  
15 poles for the bundled Miramiche.

16 CHAIRMAN KATZ: Okay, thank you. At this  
17 point, we are ready to go to Map 6. Just to clarify, a  
18 question came up after the break. I think we agreed that  
19 anyone who wanted the maps with yellow dots was going to  
20 get them. Is that --

21 MS. BARTOSEWICZ: On CD.

22 CHAIRMAN KATZ: On CD, okay. Therefore --  
23 and if you could just include in that the assumptions who  
24 got a yellow dot and who didn't because my understanding

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1 was if the backyard was in the 300-foot buffer zone but  
2 the house wasn't, you didn't get a yellow dot. Correct?

3 MR. PRETE: That's correct.

4 CHAIRMAN KATZ: Okay. Because probably  
5 some of the Towns are going to want to expand that 300-  
6 foot to include those backyards, and this way they know if  
7 it's in or out.

8 MS. BARTOSEWICZ: They should be able to  
9 see it from the green lines as well that a yard is not in  
10 or out.

11 CHAIRMAN KATZ: Yes. Okay, good. Okay, we  
12 are on Map 6, correct? And what towns are we --

13 MS. BARTOSEWICZ: Map 6, Wallingford and  
14 Cheshire.

15 CHAIRMAN KATZ: Okay. Anybody that would  
16 like to cross on Map 6? Mr. Burturla.

17 A VOICE: (Indiscernible) -- the dots on --

18 CHAIRMAN KATZ: Can we have the dots on  
19 please.

20 MR. BURTURLA: Yes. Thank you.

21 CHAIRMAN KATZ: And for the rest of the  
22 maps we'd appreciate the dots.

23 MR. BURTURLA: If you would be so kind as  
24 to zoom in, if you will, on the Old Farm Lane neighborhood

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1 for me. I guess first I'd like to start off by requesting  
2 a copy of I guess a disk with the dots on it, so that I  
3 have the capability of showing this to others.

4 And secondly, I'd like to ask if it's  
5 possible -- while this is helpful and this is in fact as  
6 many have noted the first time that we're seeing this in  
7 this particular format, would it be possible to provide --  
8 well, I would ask on behalf of myself, but I know there  
9 are other municipal attorneys who feel the same way, a  
10 list of property addresses that are affected.

11 A VOICE: Oh gee -- (indiscernible) --

12 MR. BURTURLA: You know, it's going to have  
13 to be done sooner or later, folks, so --

14 A VOICE: You get them --

15 A VOICE: What's the difference --

16 MR. BURTURLA: Well, the difference is  
17 because we're not quite sure -- I guess I'm addressing Mr.  
18 Ashton's remark --

19 MR. FITZGERALD: (Indiscernible) --

20 MR. BURTURLA: -- the difference is we're  
21 not quite sure of all of the properties that are affected  
22 by looking at just the map. And --

23 CHAIRMAN KATZ: Yeah, but can't you tell  
24 from the dots what the --

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1 MR. BURTURLA: I -- you know, for starters  
2 the dots don't take into account all of the affected  
3 properties. The dots, if I understand it, are homes,  
4 structures.

5 (Multiple voices overlapping,  
6 indiscernible)

7 MR. TAIT: (Indiscernible) -- tax  
8 assessor's map would have all that information for you --

9 A VOICE: They have better information than  
10 we do --

11 MR. BURTURLA: Well --

12 CHAIRMAN KATZ: Hold it, one at a time.  
13 Mr. Tait --

14 MR. TAIT: The tax assessor knows all this.

15 MR. BURTURLA: I don't think I'm out of  
16 bounds asking for a list of addresses.

17 CHAIRMAN KATZ: I don't think the Applicant  
18 did it by addresses, correct?

19 A VOICE: That's correct.

20 CHAIRMAN KATZ: Okay. So this is not  
21 information they have. They just have dots.

22 MR. BURTURLA: And you're telling me you  
23 can't compile it?

24 MR. PRETE: I believe you could compile it



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1 easier than we could.

2 MR. TAIT: Yes.

3 MR. BURTURLA: Maybe for Cheshire. But for  
4 some of these communities, I doubt it.

5 CHAIRMAN KATZ: We'll take your request  
6 under advisement.

7 (Voices in background, indiscernible)

8 MR. BURTURLA: In looking at Old Farms Lane  
9 --

10 CHAIRMAN KATZ: Hold it. Just -- can we  
11 just have one conversation.

12 A VOICE: Yes.

13 CHAIRMAN KATZ: Okay. Can you start your  
14 question over again.

15 MR. BURTURLA: Yes. In looking at Old  
16 Farms Lane, I just want to make sure I understand based  
17 upon the information that has been handed out today, the  
18 mitigation techniques that have been utilized with respect  
19 -- or at least a portion, that would be Cross-Section 7-B,  
20 you have a split-phase of the 345 line at a typical height  
21 of 130 feet with both 115-kV lines underground, is that  
22 correct?

23 MS. BARTOSEWICZ: That's correct.

24 MR. BURTURLA: And then proceeding further

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1 down, one of those 115-kV lines then comes out of the  
2 ground?

3 MS. BARTOSEWICZ: That's correct.

4 MR. BURTURLA: And why was that -- I mean  
5 why was that particular -- why didn't that kV line -- that  
6 115 line stay in the ground?

7 MS. BARTOSEWICZ: Because one of those 115  
8 lines actually goes north.

9 MR. BURTURLA: At that point. So it -- it  
10 would bear no effect -- it would have no impact, if you  
11 will, in terms of EMF mitigation?

12 MS. BARTOSEWICZ: What you have to remember  
13 is right here is Cook Hill Junction --

14 MR. BURTURLA: Right --

15 MS. BARTOSEWICZ: -- and the transmission  
16 lines also go north into Cheshire. So that's a -- that's  
17 where lines meet at a junction point --

18 MR. BURTURLA: Right --

19 MS. BARTOSEWICZ: -- so one of these lines  
20 goes north while this other one --

21 MR. BURTURLA: So the one that remains  
22 going down Old Farm Lane would stay buried?

23 MS. BARTOSEWICZ: Correct.

24 MR. BURTURLA: Alright. Just following up

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1 on Mr. Ashton's comment when he was asking about a bypass,  
2 given the way that this particular right-of-way literally  
3 goes down one side of Old Farm Lane and then crosses over  
4 and goes to the other side of Old Farm Lane, have you  
5 considered in any way -- and given the amount of open  
6 space in that area, have you considered a bypass at all to  
7 avoid the bulk of Old Farm Lane?

8 CHAIRMAN KATZ: Can you just describe to  
9 the Council where you visualize this bypass?

10 MR. BURTURLA: Well, I'm -- literally I'm  
11 not sure. I heard Mr. Ashton ask about a bypass and I  
12 went up and I started looking at the map. And I know --  
13 for example, there's a 185-acre parcel -- there's a 185-  
14 acre parcel of property that the Town of Cheshire acquired  
15 last year known as the DeDominicis property, which is all  
16 open space, that literally abuts the Old Farm Lane  
17 neighborhood. And I'm trying to orient myself -- and I  
18 guess my boy scout days are long gone -- but in any event,  
19 I know there's 185 acres of raw land in that particular  
20 vicinity --

21 MS. BARTOSEWICZ: Here?

22 MR. BURTURLA: -- I think somewhat adjacent  
23 to Cook Hill Junction. There's also -- yeah, I think on  
24 that side there is. And I also note just by looking at

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1 the map that there is a considerable amount of open space,  
2 if you will -- who had the -- yes, in that -- in that area  
3 there --

4 MS. BARTOSEWICZ: And --

5 MR. BURTURLA: -- a considerable amount.

6 CHAIRMAN KATZ: Right outside the town  
7 line?

8 MR. BURTURLA: Well, I don't know if it's  
9 all outside the town line -- (laughter) -- that would be  
10 brilliant if -- no, but I actually think it is outside the  
11 town line. I think it is just inside the -- just inside  
12 the Cheshire line heading over towards Hamden if I'm  
13 reading that correct.

14 MS. BARTOSEWICZ: Actually, we did look at  
15 a bypass, but if you remember these are homes here. So to  
16 come off here didn't work. We actually looked at a bypass  
17 coming here, down here and around, but you are in state  
18 park property in which we have no authority.

19 MR. BURTURLA: That is state park property  
20 there?

21 MS. BARTOSEWICZ: That's correct.

22 CHAIRMAN KATZ: And we've already made that  
23 inquiry in other dockets and --

24 MR. BURTURLA: And been turned down I take

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1 it.

2 CHAIRMAN KATZ: No way, yeah.

3 MR. BURTURLA: Alright. Thank you very  
4 much. I'd like to reserve --

5 CHAIRMAN KATZ: Of course.

6 MR. BURTURLA: Thank you.

7 MR. ASHTON: May I just pick up that  
8 question, Miss Bartosewicz --

9 MS. BARTOSEWICZ: Sure --

10 MR. ASHTON: -- the property I was -- the  
11 bypass I was thinking of went from about where the F in  
12 Wallingford is due west to somewhere around where the D in  
13 Hamden is. And you're saying that would cross State  
14 property?

15 MS. BARTOSEWICZ: I believe Sleepy Giant  
16 State Park has property down in Wallingford and in Hamden  
17 --

18 CHAIRMAN KATZ: So what part of the giant  
19 are we on there?

20 MR. ASHTON: That's the feet --

21 CHAIRMAN KATZ: The toes?

22 (Multiple voices overlapping)

23 MS. BARTOSEWICZ: This -- this -- it's this  
24 portion that's state park right here.

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1 MR. ASHTON: Okay. And the portion  
2 underneath the word Wallingford is not?

3 MR. PRETE: I don't believe so --

4 MR. ASHTON: Okay.

5 MS. BARTOSEWICZ: This apparently is not.  
6 It's this part here that's the state park problem.

7 MR. ASHTON: Okay.

8 MS. BARTOSEWICZ: There are homes along  
9 this road here --

10 MR. ASHTON: Yeah. It looked like there  
11 was a gap right to the west of the word W in Wallingford -  
12 -

13 MS. BARTOSEWICZ: Right there?

14 MR. ASHTON: Right there.

15 MR. PRETE: Right there.

16 MR. ASHTON: And it looked like there was a  
17 gap also a little -- well if you went straight from that  
18 point, right above the C in Cheshire it looked like there  
19 might be a gap. I can see a house -- right there  
20 somewhere --

21 A VOICE: There's a house right on the C --

22 MR. ASHTON: Yeah.

23 MS. BARTOSEWICZ: So these are all parcels

24 --

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1 MR. ASHTON: Okay, yeah, I see it.

2 CHAIRMAN KATZ: Yeah.

3 MR. ASHTON: Yeah, it shows up on the  
4 greater scale.

5 MR. WILENSKY: Isn't there a golf course in  
6 there? Isn't there Sleeping Giant Golf Course through  
7 there too or Sleeping Giant Park in the Hamden part of it  
8 just as -- the Hamden border, the Cheshire line?

9 MS. BARTOSEWICZ: Further south --

10 MR. PRETE: That's further down on Route 10  
11 I believe.

12 MR. WILENSKY: Oh, okay.

13 CHAIRMAN KATZ: Okay. Any other questions  
14 on this map? Representative Adinolfi.

15 REPRESENTATIVE ADINOLFI: Al Adinolfi.  
16 Thank you. Just a few brief questions.

17 On the buffer zone -- or the proposed  
18 various buffer zones that are shown, we're using  
19 mitigation to come up with the numbers for the milligauss  
20 levels. Have the -- and I'm assuming that that's the  
21 split-phasing we're using as mitigation, am I correct?  
22 Have we finished our modeling on that and have determined  
23 that that, in fact, will work?

24 CHAIRMAN KATZ: Your question is whether

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1 split-phasing will work?

2 REPRESENTATIVE ADINOLFI: Well, we're  
3 talking about modeling it, and they did some modeling --

4 CHAIRMAN KATZ: Okay --

5 REPRESENTATIVE ADINOLFI: -- but are we  
6 ready to cast that in cement --

7 CHAIRMAN KATZ: Can you give --

8 REPRESENTATIVE ADINOLFI: -- that split-  
9 phasing will mitigate the EMF --

10 CHAIRMAN KATZ: Can you --

11 REPRESENTATIVE ADINOLFI: -- to the levels  
12 that we're using?

13 CHAIRMAN KATZ: Can you update the  
14 Representative on where you stand on that?

15 MR. PRETE: In July we gave a great deal of  
16 detail on the science of and art of and practical modeling  
17 of split-phasing and have proved that that is indeed the  
18 case.

19 CHAIRMAN KATZ: So, I guess we'd refer you  
20 to the July transcript.

21 MR. PRETE: Correct.

22 REPRESENTATIVE ADINOLFI: Thank you. In  
23 your showing of the dots in the various residences, I know  
24 for a fact there are a lot of pre -- already approved



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1 subdivisions that have not even been started building on.  
2 Have these been considered, because these are already  
3 approved subdivisions? And if you wind up establishing  
4 buffer zones that are running into these subdivisions, are  
5 these properties that you might have to also take? I  
6 don't think anyone has looked at that. I don't see them  
7 there. I know for a fact right on the other side of  
8 Tuttle Avenue up there, there's already another  
9 development going in.

10 MR. PRETE: We mapped specifically the  
11 structures, residences, buildings as we saw in the aerial  
12 photography.

13 CHAIRMAN KATZ: Which was dated 2002 I  
14 believe you testified?

15 MR. PRETE: That's correct.

16 REPRESENTATIVE ADINOLFI: I know that  
17 there's houses going in --

18 CHAIRMAN KATZ: Yeah --

19 REPRESENTATIVE ADINOLFI: -- right now on  
20 the other side of Tuttle Avenue, which Old Farms crosses -  
21 -

22 CHAIRMAN KATZ: Yeah --

23 REPRESENTATIVE ADINOLFI: -- there's a  
24 whole development going in there. And I also know through

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1 my own involvement in the town that there are some  
2 approved subdivisions up there that I think are good for  
3 five years on the approvals. And I think that's something  
4 that perhaps we have to consider and we might have to add  
5 some more dots.

6 CHAIRMAN KATZ: Right. I think we envision  
7 that the Towns would -- after they've had a chance to  
8 study these maps, take the existing yellow dots and their  
9 300-foot buffer zone and then tell us what additional dots  
10 they think should be there because of backyards and new  
11 subdivisions and new houses.

12 REPRESENTATIVE ADINOLFI: I understand that  
13 and I agree and I think you agree with that, but -- but  
14 how will they go about determining if there's already --  
15 would they have to go to planning and zoning in each town  
16 --

17 CHAIRMAN KATZ: I think --

18 REPRESENTATIVE ADINOLFI: -- and find out  
19 which pre-approved subdivisions have not even been started  
20 to be built yet.

21 CHAIRMAN KATZ: I think each town will  
22 handle that as they see fit.

23 REPRESENTATIVE ADINOLFI: Okay. The other  
24 question I have is that we're using average -- average

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1 loads in determining the milligauss levels. I don't  
2 believe, and correct me if I'm wrong, that the Applicants  
3 or anyone when determining structural integrity in a  
4 hurricane or such will use average wind speeds and not use  
5 the maximum wind speeds. I think we're all together off  
6 base using an average load. We should always consider the  
7 worse case. My 35 years working with electromagnetic  
8 interference and testing that the government has done for  
9 telecommunications work, we've always used maximum loads,  
10 we've never used average loads. It's just -- it's just  
11 not done in engineering 101. You don't do that. You  
12 always figure for the worse case. So what I would  
13 recommend and like to see and the Council to consider is  
14 eliminating the average and let's just work with the  
15 maximum.

16 MR. FITZGERALD: Excuse me. Is this -- is  
17 this the question and answer part of the session or are we  
18 into a public statement?

19 CHAIRMAN KATZ: No -- because he's a State  
20 Representative, I'm giving him a little latitude and I'm  
21 going to ask the Applicants to comment on what the maximum  
22 load is.

23 MR. FITZGERALD: Well, we have -- we have  
24 filed today testimony that supports -- that is directly

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1 responsive to this point and it supports the 15 -- the use  
2 of the 15-gigawatt case is the appropriate case for  
3 referring to to estimate fields for buffer zone purposes.  
4 And if -- and there are people here who are ready to be  
5 cross-examined on it if -- if we're into that part of the  
6 program.

7 CHAIRMAN KATZ: Well, Mr. Fitzgerald, I'm  
8 going to ask that your witnesses comment on what the  
9 maximum load would be in gigawatts under some type of --

10 MR. ASHTON: (Indiscernible) --

11 CHAIRMAN KATZ: Right -- just -- (pause) --

12 MR. ASHTON: (Indiscernible) -- the map was  
13 generated at our request --

14 CHAIRMAN KATZ: Right, yes. Good point. I  
15 will indicate that we gave two gigawatt loadings to the  
16 Applicants that we wanted them to map, a 15-gigawatt  
17 loading, which they testified represents certain  
18 circumstances on the grid, and a 27.7-gigawatt loading  
19 which represents other circumstances.

20 REPRESENTATIVE ADINOLFI: I understand.

21 CHAIRMAN KATZ: Yes.

22 REPRESENTATIVE ADINOLFI: And -- well,  
23 basically, I inappropriately made a comment, which I  
24 shouldn't have done, but that was my concern, I think that

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1 we should work with the maximum loads --

2 CHAIRMAN KATZ: Okay --

3 REPRESENTATIVE ADINOLFI: -- and not the  
4 average loads --

5 CHAIRMAN KATZ: Okay --

6 REPRESENTATIVE ADINOLFI: -- and I'm  
7 finished.

8 MR. ASHTON: Mr. Adinolfi, I think that the  
9 time will come where the testimony that Mr. Fitzgerald  
10 referred to is going to be subject to cross-examination,  
11 and that would be a very appropriate time to raise that.  
12 What we're seeking now is input on these maps which were  
13 prepared at explicit directions of the Council. And you  
14 know, we're taking them for what they are. We're not  
15 adopting anything. They're simply providing three  
16 different views of the right-of-way, one with a 300-foot  
17 buffer, one with a 3-milligauss limit operating under a  
18 15-gigawatt load, one with a -- and a third with a 3-  
19 milligauss limit operating under a 27-gigawatt system  
20 load. Okay.

21 CHAIRMAN KATZ: Okay. Let's move on --

22 MR. ASHTON: And I think it was --

23 REPRESENTATIVE ADINOLFI: I understand --

24 MR. ASHTON: -- nothing more than that. So

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1 that which one is appropriate would be subject to later  
2 discussion as the testimony comes up.

3 REPRESENTATIVE ADINOLFI: Thank you.

4 CHAIRMAN KATZ: Okay.

5 REPRESENTATIVE ADINOLFI: One other quick  
6 question. On the two lines going underground down Old  
7 Farms, the 115 volts underground, if we did not put those  
8 underground in the existing right-of-way, would we be able  
9 to put up the 345-kV with those 115-volt lines where they  
10 are right now?

11 CHAIRMAN KATZ: Do you need the question  
12 clarified?

13 MS. BARTOSEWICZ: Yes, please.

14 REPRESENTATIVE ADINOLFI: We have -- we  
15 have moved two 115-volt lines from the existing right-of-  
16 way and put them underground on Old Farms --

17 MS. BARTOSEWICZ: Correct --

18 REPRESENTATIVE ADINOLFI: -- and we are  
19 putting the 345-kV up on that -- running through that  
20 existing right-of-way --

21 MS. BARTOSEWICZ: Correct --

22 REPRESENTATIVE ADINOLFI: -- had we not  
23 removed -- left the 115-volt lines where they were, would  
24 we still be able to put up the 345-kV line there and how

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1 high would that tower be?

2 MS. BARTOSEWICZ: Yes, you could -- you  
3 could still put the 345 overhead on that right-of-way.  
4 Our proposed -- the companies -- the Applicants' proposal  
5 has a configuration for that. I would have to go back and  
6 check the height of the pole. The pole could vary  
7 depending on what kind of magnetic field mitigation you're  
8 looking for.

9 MR. ASHTON: Miss Bartosewicz, the line  
10 just to the east of Old Farms is the double-circuit 115-kV  
11 overhead and a 345 overhead?

12 MS. BARTOSEWICZ: Yes.

13 MR. ASHTON: At that point what is the pole  
14 height? Because that, I suspect, would be similar to what  
15 would go through Old Farms allowing for variations in  
16 terrain and so forth. Let -- why don't we just try and  
17 clean this question up.

18 MS. BARTOSEWICZ: It would be 108 feet for  
19 the 115 --

20 MR. ASHTON: Yeah --

21 MS. BARTOSEWICZ: -- and -- (pause) -- so  
22 we put up -- I'm sorry -- the 345 would be at 108 feet and  
23 the 115 would be existing at --

24 MR. ASHTON: The existing lattice tower?

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1 MS. BARTOSEWICZ: -- 90 feet.

2 MR. ASHTON: Okay. So it's the existing  
3 lattice tower plus another monopole -- a monopole --

4 MS. BARTOSEWICZ: Yes --

5 MR. ASHTON: -- at 108 feet. I think --

6 REPRESENTATIVE ADINOLFI: Thank you --

7 MR. ASHTON: -- that's probably the answer  
8 you're --

9 REPRESENTATIVE ADINOLFI: -- that's all my  
10 questions.

11 CHAIRMAN KATZ: Okay, thank you.

12 REPRESENTATIVE ADINOLFI: Thank you.

13 CHAIRMAN KATZ: Any other questions on this  
14 map? This was Map 6, correct? Correct?

15 MS. BARTOSEWICZ: Correct.

16 CHAIRMAN KATZ: Okay. Let's go to Map 7,  
17 which is Bethany, Hamden, correct?

18 MR. PRETE: That is correct.

19 CHAIRMAN KATZ: Is there any cross-  
20 examination on Map 7? Seeing none, let's go to Map 8.  
21 Map 8 is what towns?

22 MR. PRETE: Map 8 is Bethany and a small  
23 amount of Woodbridge.

24 CHAIRMAN KATZ: And northern Woodbridge.



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1 MR. PRETE: Correct.

2 CHAIRMAN KATZ: Okay. Anything on Map 8,  
3 which is mainly watershed land, correct?

4 MR. PRETE: Correct.

5 CHAIRMAN KATZ: Okay. Map 9.

6 MR. PRETE: Map 9 is primarily Woodbridge  
7 entirely.

8 CHAIRMAN KATZ: Okay. Mr. Frank and Mr.  
9 Ball.

10 MR. FRANK: For the record, Monte Frank for  
11 the Town of Woodbridge.

12 I just have a couple of questions to try to  
13 clarify the map so that when we study them and come back  
14 for cross, which I presume will be maybe on the 14<sup>th</sup>, that  
15 we're prepared to do so.

16 Just to clarify the record, with respect to  
17 a question that was asked earlier in the program about EMF  
18 mitigation options, I think there was a question asked  
19 about whether the Towns would accept 150-foot towers. And  
20 just to be clear for the record -- and I'm not sure who  
21 should answer this -- but that was not one of the EMF  
22 mitigation options that was presented to the Towns,  
23 correct?

24 MR. PRETE: That's correct.

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1 MR. FRANK: And the mitigation that is  
2 shown in the maps for the 15-gigawatt case and the 27.7-  
3 gigawatt case is based on split-phasing and a 135-foot  
4 pole for the 345-kV, is that correct?

5 MR. PRETE: A typical height, correct.

6 MR. FRANK: And that compares to the 85-  
7 foot H-frames that were presented in the application, is  
8 that right?

9 MR. PRETE: Are you -- could you again ask  
10 that question.

11 MR. FRANK: In the application 85-foot H-  
12 frames were presented, correct?

13 MR. PRETE: No, they were not.

14 MR. FRANK: Okay.

15 CHAIRMAN KATZ: What height was in the  
16 application, Mr. Prete --

17 MR. FRANK: Thank you --

18 CHAIRMAN KATZ: -- don't make us yank it  
19 out here.

20 MR. PRETE: They're 85-foot deltas --

21 CHAIRMAN KATZ: Deltas, thank you --

22 MR. PRETE: -- not H-frames.

23 MR. FRANK: Thank you for that  
24 clarification.

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1 MR. PRETE: You're welcome.

2 MR. FRANK: And the mitigation for the 115-  
3 kilovolt poles is split-phasing and 110-foot, is that  
4 correct?

5 MR. PRETE: A hundred and ten foot, they're  
6 double-circuit.

7 MR. FRANK: Okay. And that compares to an  
8 80-foot structure of some type in the application?

9 MR. PRETE: Yeah, a very similar type.

10 MR. FRANK: Thank you. Alright, now just  
11 to clarify, there are 56 structures in Woodbridge within  
12 300 feet of the outermost conductor, is that correct?

13 MR. PRETE: That is correct.

14 MR. FRANK: Okay. There's 18 in Map 9 and  
15 38 in Map 10?

16 MR. PRETE: Right. And that would be  
17 consistent with the 300-foot from the closest conductor,  
18 right.

19 MR. FRANK: Okay. And just to make sure  
20 that we're on the same page, that does not include  
21 properties with backyards within the buffer, correct?

22 MR. PRETE: That's correct.

23 MR. FRANK: And that does not include  
24 properties with playgrounds within the buffer, is that

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1 correct?

2 MR. PRETE: That would be correct.

3 MR. FITZGERALD: Excuse me --

4 MR. PRETE: If it's residential, that would  
5 be correct.

6 MR. FITZGERALD: Unless it's a public  
7 playground.

8 MR. FRANK: Correct.

9 CHAIRMAN KATZ: Yes.

10 MR. FRANK: Yeah. So just for purposes of  
11 clarity, if there is a residential property with a home  
12 that is outside the buffer but a private playground in the  
13 backyard that is within the buffer, that would not be  
14 marked with a yellow dot on the map?

15 MR. PRETE: Right.

16 MS. RANDELL: Could we have a clarification  
17 on the question? I assume --

18 AUDIO TECHNICIAN: Hang on --

19 CHAIRMAN KATZ: Just a second. Start over.

20 MS. RANDELL: Yes. I'd like clarification  
21 on the question. I assume when Mr. Frank said within the  
22 buffer, he means within 300 feet of the outermost  
23 conductor. And if he would accept that change to his  
24 question in two places, then I have no objection.

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1 MR. FRANK: Well, I won't because -- I mean  
2 I assume that the same assumptions were made with respect  
3 to any of the buffers that are shown, whether it's the  
4 27.7-gigawatt case, the 15-gigawatt case, or the 300-foot  
5 buffer.

6 MS. RANDELL: Perhaps I'm just a little too  
7 subtle. What the calculations and the mapping show are  
8 structures within 300 feet of outermost conductors.  
9 There's no assumption that that is an appropriate buffer.

10 CHAIRMAN KATZ: First -- everybody, it's  
11 been a long day --

12 MR. FRANK: I think we're on the same page.

13 CHAIRMAN KATZ: Okay. So just --

14 MR. FRANK: And just so I understand what  
15 we are doing at the next hearing, Woodbridge is more than  
16 happy to take a look at the maps and to identify  
17 properties which it believes ought to be included based on  
18 what we think is the appropriate definition of a  
19 residential area and structure --

20 CHAIRMAN KATZ: Good --

21 MR. FRANK: -- and property.

22 CHAIRMAN KATZ: Good.

23 MR. FRANK: What would help is if we would  
24 -- if we were provided with the actual blowup of the maps

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1 rather than just a CD, because as I sit here today, I have  
2 no idea whether a CD ROM with the information on it is  
3 going to enable us to prepare and present the information  
4 I think we would like to do.

5 CHAIRMAN KATZ: Let's -- let's ask the  
6 Applicants who do know how this CD works --

7 MR. PRETE: It's a PDF file, so if you're -  
8 - if you're able to produce prints off of PDF, you should  
9 be able to produce these.

10 CHAIRMAN KATZ: Now let's just take the  
11 typical municipal engineering department that has the big  
12 plotter --

13 MR. PRETE: Right --

14 CHAIRMAN KATZ: -- okay, would they be able  
15 to take this CD and make prints that size that we see on  
16 those boards?

17 MR. PRETE: I see no reason why that  
18 shouldn't occur.

19 CHAIRMAN KATZ: Does that answer your  
20 question, Mr. Frank.

21 MR. FRANK: It answers my question. I  
22 still --

23 MR. PRETE: If it -- if it doesn't and they  
24 get back to us, we'll give them the maps.

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1 CHAIRMAN KATZ: Yeah.

2 MR. FRANK: We'll work -- we'll work with  
3 them on that.

4 CHAIRMAN KATZ: Okay. We appreciate that  
5 spirit.

6 MR. FRANK: Okay. Uh --

7 CHAIRMAN KATZ: Just a second. Mr. Lynch.

8 MR. LYNCH: Mr. Frank, could you just  
9 explain to me what the difference between a backyard and a  
10 private play area would be?

11 MR. FRANK: Not much.

12 MR. LYNCH: I just don't understand the  
13 distinction you're trying to make there. I guess --

14 MR. FRANK: I'm not trying to draw a  
15 distinction. I don't think there is a difference.

16 CHAIRMAN KATZ: Okay. One has a swing set  
17 and one doesn't.

18 MR. FRANK: Can you -- can you please draw  
19 up the blowup -- bring up the blowup of the JCC. (Pause).  
20 Okay. Now, the map that's being presented shows a right-  
21 of-way deviation, is that right?

22 MR. PRETE: Correct.

23 MR. FRANK: Okay. And that deviation goes  
24 directly over?

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1 MR. PRETE: P-19.

2 MR. FRANK: Which is a statutory facility,  
3 right?

4 MR. PRETE: P-19 I think is defined as the  
5 ballfield.

6 MR. FRANK: Okay. And that's the JCC -- it  
7 includes the JCC day camp, right?

8 MR. PRETE: That's correct.

9 MR. FRANK: Okay. And is -- are the  
10 companies advocating this right-of-way deviation?

11 MR. PRETE: In the meetings that we had  
12 with the JCC and indeed the JCC testimony I believe that  
13 was in July showed this particular relocation.

14 MR. FRANK: That wasn't my question. Are  
15 the companies advocating this change?

16 MR. PRETE: We're just presenting the  
17 information associated with the homework assignment --

18 MR. FRANK: Okay --

19 MR. PRETE: -- associated with these lines.

20 MR. FRANK: And is there any reason why the  
21 same buffers or lines were not shown with respect to the  
22 existing right-of-way?

23 MR. PRETE: Yes, there is. We did try to  
24 show all of them and it became so confusing that we



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1 thought we'd pick one or the other. And the instructions  
2 the Siting Council gave us was to minimize the EMF levels  
3 from statutory facilities, so we elected to show that  
4 deviation.

5 CHAIRMAN KATZ: So you're saying there's  
6 dots that you didn't show from the original right-of-way?

7 MR. PRETE: I think the question was if --  
8 where that hand is stretching up and down --

9 CHAIRMAN KATZ: Yes.

10 MR. PRETE: -- the question was why the  
11 lines were not shown on either side of the right-of-way --

12 MR. FRANK: Precisely --

13 CHAIRMAN KATZ: Okay --

14 MR. PRETE: -- of the existing right-of-way  
15 assuming low mitigation on that right-of-way --

16 CHAIRMAN KATZ: Right, but you did show the  
17 300 feet?

18 MR. PRETE: Yes.

19 CHAIRMAN KATZ: Yes.

20 MR. PRETE: Three hundred feet is only  
21 shown on the deviation.

22 CHAIRMAN KATZ: No, I'm seeing --

23 A VOICE: No --

24 A VOICE: No, that's the right-of-way --

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1 CHAIRMAN KATZ: Right -- yeah -- aren't I  
2 seeing a lighter color right there?

3 MR. PRETE: That lighter color is actually  
4 associated with the deviation of the right-of-way.

5 CHAIRMAN KATZ: Oh, I'm sorry. Okay.

6 MR. PRETE: And to try to plot both of  
7 them, it became so, so cumbersome, it just -- we would  
8 probably be here explaining that for a length of time.

9 MR. FRANK: Mr. Prete, would --

10 CHAIRMAN KATZ: So -- can I ask a question  
11 first, Mr. Frank -- so if this was a supported change,  
12 this deviation, it was because you believed the JCC wanted  
13 the deviation?

14 MR. PRETE: It is our belief that they --  
15 their desire was to get EMF levels away from the JCC  
16 building --

17 CHAIRMAN KATZ: Okay --

18 MR. PRETE: -- correct.

19 CHAIRMAN KATZ: Understood. Mr. Frank.

20 MR. FRANK: Mr. Prete, you understand that  
21 the JCC consists of more than just a building, right?

22 MR. PRETE: Sure.

23 MR. FRANK: Okay. And would it be  
24 possible to provide the Council with a map which shows the

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1 buffer zones along the existing right-of-way for purposes  
2 of comparison?

3 MR. PRETE: If the Council wants us to do  
4 that, we'll provide an 8 and a half by 11. We're not  
5 trying to hide anything here whatsoever.

6 CHAIRMAN KATZ: Well, Mr. Prete, if we  
7 could -- if you could provide us this section which would  
8 show the 300-foot at the original right-of-way as well as  
9 the 300-foot on the deviation, would that be possible?

10 MR. PRETE: Do you want that on the same  
11 map? We'll be happy to do that. If you want it on a  
12 separate, we'll do that as well. I don't --

13 MR. TAIT: Do separate maps so we don't  
14 have the confusion.

15 MR. PRETE: Sure.

16 MR. TAIT: Would that be adequate, Mr.  
17 Frank?

18 MR. FRANK: Yes, it would be, Professor  
19 Tait.

20 CHAIRMAN KATZ: Or as an overlay if that's  
21 easier.

22 MR. TAIT: Yeah.

23 MR. FITZGERALD: We can't -- if we do an  
24 overlay --

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1 MR. TAIT: It will be --

2 CHAIRMAN KATZ: Whatever is easiest.

3 MR. FITZGERALD: Everybody is going to want  
4 to have their own copy --

5 CHAIRMAN KATZ: Whatever is --

6 MR. TAIT: It's clear to us is what --

7 CHAIRMAN KATZ: Yes --

8 MR. PRETE: We'll give -- we'll give you  
9 two sheets --

10 MR. TAIT: Yes --

11 CHAIRMAN KATZ: Yes --

12 MR. TAIT: -- thank you.

13 MR. PRETE: -- to the Council. Hard copies  
14 --

15 MR. TAIT: Of that area -- hard copies of  
16 that area.

17 MR. PRETE: Hard copies of that area.

18 CHAIRMAN KATZ: Yes.

19 MR. PRETE: That's fine.

20 MR. FRANK: I don't have any further  
21 questions on Map 9. I do have some questions on -- or a  
22 brief question on Map 10.

23 CHAIRMAN KATZ: We'll hold that thought.

24 MR. TAIT: Could I have -- I noticed you

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1 mentioned 150 feet was not asked to be modeled. And I  
2 remember -- is there some reason the Towns were not given  
3 that option of going higher than 135? Suppose --

4 CHAIRMAN KATZ: A technical reason --

5 MR. TAIT: -- suppose they want less EMFs  
6 and more height rather than less height and more EMFs. I  
7 mean --

8 MR. PRETE: I believe that in the  
9 transcripts, and I won't paraphrase, way back when, when  
10 we first were given the homework assignment to come up  
11 with EMF mitigation, I'm not sure if it was Mr. Lynch or  
12 Mr. Emerick asked what were the highest poles on the  
13 Bethel to Norwalk, and I think the answer was 140. And  
14 the inference I got from that is keep it at about 140, so  
15 --

16 MR. TAIT: Okay. Is there any technical  
17 reason why it couldn't go higher?

18 MR. PRETE: No, not at all.

19 MR. TAIT: How high could they go  
20 technically and still carry the line?

21 MR. ASHTON: (Indiscernible) --

22 MR. TAIT: Well -- Mr. -- I want to know  
23 how we can get minimum EMFs within existing rights-of-way  
24 and how high do we have to go. Then the Towns have a

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1 choice to say do they want to look at it or do they want  
2 to field it.

3 MR. PRETE: Subject to check, 200.

4 MR. TAIT: Okay. I mean -- about 200 would  
5 still be operational for you guys and --

6 MR. PRETE: Oh, very operational for us.

7 MR. TAIT: Yeah.

8 CHAIRMAN KATZ: Okay.

9 MR. TAIT: And --

10 CHAIRMAN KATZ: Any other questions on --

11 MR. TAIT: Just one comparison -- if they  
12 went that high -- give me a sample section that if you  
13 went that high, what would the EMFs do compared to what  
14 you'd do at 135, just sort of what are we doing with  
15 height?

16 MR. PRETE: You want a representative  
17 sample --

18 MR. TAIT: A representative sample. Not  
19 the whole line, just show me if for this area we went up  
20 to 200, what would happen to the EMFs --

21 MR. PRETE: Okay --

22 MR. TAIT: -- and what would happen to the  
23 right-of-way.

24 CHAIRMAN KATZ: Plus --

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1 MR. ASHTON: And Mr. Prete, doesn't that  
2 also imply that you have to make a decision as to what the  
3 minimum clearance is? In other words, you could use 200-  
4 foot poles and open the spans up to 1200 feet, but still  
5 using minimum clearance. On the other hand, if you use  
6 200-foot poles with a 600-foot span, you could pull the  
7 conductor up to a hundred foot above ground. So to my  
8 mind, it's -- we've got to have a little clarity here as  
9 to what we're shooting for.

10 MR. TAIT: I want --

11 MR. PRETE: I believe what was asked is  
12 given the ruling spans that we have in the present design  
13 --

14 MR. ASHTON: Okay --

15 MR. PRETE: -- just simply go up higher  
16 with the pole --

17 MR. ASHTON: A nominal 600-foot span --

18 MR. TAIT: I want to give the Towns some  
19 feeling of what their options are when they come back and  
20 say we want this height, we want this sort of stuff, and  
21 to know what we're playing with.

22 MR. ZAKLUKIEWICZ: Mr. Ashton, that was my  
23 interpretation here, we were going to stay with the same  
24 span lengths, pull the conductor up such that the minimum

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1 -- the minimum conductor is over a hundred foot above  
2 ground level at any location.

3 MR. ASHTON: Well, let's make sure Mr.  
4 Frank agrees -- let's make sure Mr. Frank agrees with  
5 that, because, you know, the number of exhibits is  
6 becoming burdensome and --

7 MR. FRANK: I mean I'd have to talk to my  
8 client about that, but certainly there are other issues  
9 that would be associated with that, including what that  
10 would do to the right-of-way width, how big the caissons  
11 would be --

12 MR. ASHTON: Well, the --

13 MR. FRANK: -- whether the FAA might have  
14 some issues --

15 MR. ASHTON: If it was a hundred and ninety  
16 --

17 MR. FRANK: -- and I think it might cancel  
18 --

19 CHAIRMAN KATZ: One at a time --

20 MR. FRANK: -- (indiscernible) -- Docket  
21 284 --

22 MR. ASHTON: If it's 199 feet, it doesn't  
23 have to be lit by FAA insofar as it's --

24 CHAIRMAN KATZ: Yeah, we'll say -- we'll



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1 say 199 is your maximum.

2 MR. ASHTON: -- insofar as the -- well,  
3 I've lost my train of thought -- I'll leave it at that --

4 CHAIRMAN KATZ: Just --

5 MR. TAIT: Maybe we should do 150 and 175 -  
6 -

7 CHAIRMAN KATZ: Well --

8 MR. TAIT: -- I don't -- I don't know --  
9 what I'm saying is that these are the fungibles.

10 CHAIRMAN KATZ: Let me -- let's put it this  
11 way, the Towns have indicated an interest in background  
12 which they have identified as 0.6 milligauss or 300 feet.  
13 If you went height to get to 0.6 milligausses at the edge  
14 of the right-of-way, how high on a typical Cross-Section 8  
15 -- Cross-Section 8, am I correct --

16 MR. PRETE: That's correct.

17 CHAIRMAN KATZ: -- how high on a typical  
18 Cross-Section 8 would you need to get to point 6 at the  
19 edge of the right-of-way.

20 MR. PRETE: That of course will be  
21 dependent on the loading as you're well aware.

22 CHAIRMAN KATZ: Exactly.

23 MR. ASHTON: The same loading as you've  
24 got.

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1 CHAIRMAN KATZ: The same scenarios. Okay,  
2 any other questions on Map 9? Seeing none, let's go to  
3 Map 10. And Mr. Frank, we'll give you the floor.

4 MR. FRANK: Thank you.

5 CHAIRMAN KATZ: And Mr. Prete, before --  
6 before we do that, Mr. Prete is going to give us a  
7 clarification or a correction.

8 MR. PRETE: Yes. Rich, could you please  
9 zoom in to the Ezra Academy location. Notice during the  
10 presentation as well -- (pause) -- give the colors -- this  
11 exhibit was suppose to or this particular relocated right-  
12 of-way was suppose to mimic the exhibit that is identified  
13 as Exhibit 73. Rich, could you -- could you go through  
14 the right-of-way that is being relocated -- it's falling  
15 outside the property line at JCC. And quite frankly, we  
16 don't know why. It's incorrectly displayed here.

17 CHAIRMAN KATZ: Okay, so you're --

18 MR. PRETE: Exhibit 73 has the right  
19 relocated right-of-way, which we certainly will correct on  
20 the new dot versions of the CDs that go out.

21 CHAIRMAN KATZ: Okay. We appreciate that.  
22 So let me just make sure I'm clear. If we -- if you did  
23 not relocation the right-of-way and kept the original  
24 right-of-way and had a 300-foot buffer, would you lose the

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1 school?

2 MR. PRETE: Well, most -- I would say most  
3 definitely because this -- where this dot is here is about  
4 15 feet from the right-of-way to the school itself --

5 CHAIRMAN KATZ: Okay --

6 MR. PRETE: -- so I mean -- Rich, you can  
7 measure out to here --

8 CHAIRMAN KATZ: Okay, so -- if you lose the  
9 school, do you also lose the synagogue if you don't  
10 relocate the right-of-way?

11 A VOICE: Yes.

12 MR. PRETE: I would say yes.

13 CHAIRMAN KATZ: Okay. Okay, so you will  
14 get out that correction to everyone --

15 MR. PRETE: Yes --

16 CHAIRMAN KATZ: -- for that small section -  
17 -

18 MR. PRETE: Yes, absolutely.

19 CHAIRMAN KATZ: Okay. Back to you, Mr.  
20 Frank.

21 MR. FRANK: The same question that I had  
22 for JCC, is the right-of-way deviation not as being  
23 presented but being -- as will be corrected, is that a  
24 deviation that the companies support or are advocating?

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1 MR. PRETE: It is one of the mitigation  
2 techniques that we have talked to the Ezra and B'Nai Jacob  
3 folks about. And again, it's there to illustrate what  
4 could happen indeed if you relocated the right-of-way.

5 MR. FRANK: Okay. And Madam Chairman  
6 through you, I would just request that -- in the same  
7 manner that they're providing two maps for the JCC, that  
8 we also be provided two maps for Ezra Academy so we can  
9 compare the relocated right-of-way versus the existing.

10 CHAIRMAN KATZ: Is that doable?

11 MR. PRETE: Sure.

12 CHAIRMAN KATZ: Okay.

13 MR. FRANK: Nothing else. Thank you. Just  
14 for -- I do have questions about the prefiled testimony.  
15 I assume that the Council would like to take that up at  
16 some other date, either tomorrow or when we reconvene at  
17 some point.

18 CHAIRMAN KATZ: Which prefiled testimony do  
19 you --

20 MR. FRANK: Concerning whether the 15-  
21 gigawatt or 27-gigawatt case are appropriate or whether  
22 some other case ought to be considered.

23 CHAIRMAN KATZ: Yeah, probably tomorrow.

24 MR. FRANK: Okay, very well.

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1 CHAIRMAN KATZ: Remind me. Okay, anything  
2 else on Map 10? Are we ready to go to Map 11?

3 MR. PRETE: Map 11 is Orange and --

4 CHAIRMAN KATZ: Orange and Milford -- or  
5 just Orange?

6 MR. PRETE: Orange and West Haven.

7 CHAIRMAN KATZ: Orange and West Haven. Mr.  
8 Stone. And please --

9 MR. STONE: Good afternoon. Brian Stone,  
10 Orange. You can --

11 CHAIRMAN KATZ: You get the price on dots.

12 MR. STONE: You can move in anywhere in  
13 Orange --

14 CHAIRMAN KATZ: Yes. And show the dots.

15 MR. STONE: Yes with the dots please.

16 MS. BARTOSEWICZ: He had the dots.

17 CHAIRMAN KATZ: Oh.

18 (Pause)

19 CHAIRMAN KATZ: Well, that's why, Mr.  
20 Stone, we thought these maps were very valuable.

21 MR. STONE: I -- if I could be allowed a  
22 comment. The thud that followed the suggestion of no  
23 increase in EMF will sound sweet next to the sound --

24 CHAIRMAN KATZ: I --

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1 MR. STONE: -- of a suggestion of taking  
2 741 homes, particularly 222 in the Town of Orange --

3 CHAIRMAN KATZ: I sent that arrow out twice  
4 and it came back and stuck me.

5 MR. STONE: I want to try to understand --  
6 I understand what the dots mean. I want to try to  
7 understand what the lines are. I think based on the most  
8 immediate past discussion that the outside edge of the  
9 300-foot is from the nearest conductor or the most outside  
10 conductor on each side. So if you have -- the one -- if  
11 the 115 line is on one side of the right-of-way, then the  
12 300 feet would be measured from the 115 on that side,  
13 that's accurate?

14 MR. PRETE: That's accurate.

15 MR. STONE: With respect to the EMF lines,  
16 the 3-milligauss lines, do those take into account the EMF  
17 levels attributable to both the 345 and 115 line?

18 MR. PRETE: Yes, they do.

19 MR. STONE: So let's assume that it was  
20 logical to underground the 115 line, would that not (1)  
21 result in -- well, I'll ask that question first -- would  
22 that not result in a reduction in or a narrowing of those  
23 EMFs at least on one side of the right-of-way?

24 MR. PRETE: Not necessarily --

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1 MR. STONE: Why --

2 MR. PRETE: -- it depends on where you put  
3 the pole.

4 MR. STONE: Okay. Well, that gets to my  
5 next question. Wouldn't that create flexibility to locate  
6 the pole in the most favorable area within the right-of-  
7 way so that in this case it wouldn't make much difference  
8 because you have houses on both sides, but I'm sure  
9 there's a lot of areas where that's not the case and that  
10 you could locate the pole on the side of the right-of-way  
11 that would reduce the impact from EMF on the side where it  
12 would affect houses and statutory structures, is that  
13 correct?

14 MR. PRETE: Well, Exhibit 96 actually gives  
15 the right-of-way edge milligauss for all the options,  
16 including the one that you have just mentioned, which is  
17 to underground the 115 and place a 345. So we do have  
18 those numbers. If you want, we might be able to bring  
19 them up on the screen if that would be helpful --

20 MR. STONE: Yeah, that would be --

21 MR. PRETE: -- to talk about.

22 MR. STONE: Sure.

23 (Pause)

24 MR. STONE: I'm so glad it's taking you a

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1 second to get to that last one, you were doing that much  
2 too quickly.

3 MR. PRETE: Rich, I think we'll have to go  
4 to the Cross-Section 8 south segment.

5 (Pause)

6 MR. PRETE: Okay. So for a frame of  
7 reference, obviously you can read the table, I believe  
8 Option 5 which you see, midway down to the bottom is  
9 indeed the option that is reflected on the lines that are  
10 displayed on the maps. And this is for the 15-gig case.  
11 So if that's more helpful, perhaps you could ask you  
12 question.

13 MR. STONE: Well -- I'm lost now -- Option  
14 5 is what we had requested of you with respect to the Town  
15 of Orange, which was the additional 30 foot in height on  
16 the split-phase.

17 MR. PRETE: Actually, yes. Option 5 if we  
18 go all the way to the right where that cursor is, we see  
19 that the height of the split-phase 345 is 135 and the  
20 height of the 115 monopole double-circuit is 110.

21 MR. STONE: Correct. But I thought you  
22 were going to bring up what it would be with the 115 line  
23 buried, so --

24 MR. PRETE: Yes, that's actually No. 6.



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1 That split-phase is a 345. And we opted to center it,  
2 although it could be one side or the other of the center,  
3 and you'll see that the EMF levels are exactly the same,  
4 which makes sense because that split-phase does work --

5 A VOICE: No --

6 MR. FITZGERALD: I think the question is  
7 how -- how does Option 6 compare with Option 5 with  
8 respect to the edge of the right-of-way and magnetic field  
9 levels.

10 MR. PRETE: As I was stating, Option 6, if  
11 you look at either side of the right-of-way, the  
12 milligauss reading is exactly the same, the 3.6 --

13 A VOICE: No, but compared to --

14 MR. PRETE: -- now compare that to 5, you  
15 can see that those are higher than either side of the  
16 right-of-way because of the cancellation effects that  
17 occur with the 115.

18 MR. STONE: So -- so what you're saying is  
19 that in fact there is a lower milligauss level with the  
20 115 above line -- aboveground -- because there's some  
21 cancellation effect that emanates from the 115 line?

22 MR. PRETE: Correct.

23 A VOICE: Yes.

24 MR. STONE: Okay.

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1 MR. PRETE: I also should note that Option  
2 6 has the height of the 345 at 105 instead of 135.  
3 There's indeed some reduction as well to the height,  
4 although smaller.

5 MR. STONE: Okay. Well, I guess that  
6 answers my question with regard to that. Just -- just  
7 briefly, when -- with respect to that height of 135, in  
8 your testimony earlier when being questioned by Mr. Tait,  
9 you indicated that the Towns had -- this is what the Towns  
10 had requested. In fact, isn't it true that you provided  
11 us with the options and we merely picked the option that  
12 you provided us --

13 MR. PRETE: Yes --

14 MR. STONE: -- we weren't -- we weren't  
15 making up options. The 135 was the maximum height which  
16 you had proposed to investigate and we chose that maximum  
17 height, at least for the Town of Orange?

18 MR. PRETE: That's correct.

19 MR. STONE: Alright.

20 MR. PRETE: Mr. Tait, could I answer part  
21 of your question that you asked by way of this screen  
22 here? If you look at Option 4, and that's the 345 split-  
23 phase has defined, go all the way to the right, that of  
24 course is the split-phase 345 at 105 --

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1 MR. TAIT: Um-hmm --

2 MR. PRETE: -- and that's an 80-foot  
3 monopole at 115. If we could focus on the EMF  
4 measurements associated with that, the 1.7 and 5.9 --

5 MR. TAIT: 1.7 --

6 MR. PRETE: -- if you go to the next line  
7 below that, you can see what happens to height. In other  
8 words, if you add 30 feet to both sides --

9 MR. ASHTON: Compare the first --

10 MR. PRETE: -- the 1.7 goes down to .6 --

11 MR. TAIT: I guess I'm lost on the --

12 MR. ASHTON: Compare the first --

13 MR. PRETE: Okay, if -- if we take -- if we  
14 take this line here --

15 MR. TAIT: Yeah, 1.7 --

16 MR. PRETE: -- the 1.7 and the 5 --

17 MR. TAIT: -- at 105 --

18 MR. PRETE: 1.7 and 5.9 --

19 MR. TAIT: Yeah --

20 MR. PRETE: -- are associated with these  
21 heights --

22 CHAIRMAN KATZ: Um-hmm.

23 MR. TAIT: Yeah --

24 MR. PRETE: -- 105 and 80.

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1 MR. TAIT: Yeah.

2 MR. PRETE: If you go up now 30 feet on  
3 both --

4 MR. TAIT: Yeah --

5 MR. PRETE: -- this 1.7 goes to .6, this  
6 5.9 goes to 3 -- 2.9.

7 MR. TAIT: Okay.

8 MR. PRETE: So -- I mean you were asking  
9 for relative --

10 MR. TAIT: Yes, and if you --

11 MR. PRETE: -- actually, there's a lot of -  
12 -

13 MR. TAIT: -- yeah, if you go up another 30  
14 feet, it would be --

15 A VOICE: It would be less.

16 MR. TAIT: -- it would be even less. But  
17 would it drop so much? That's --

18 MR. PRETE: I'm not sure it's linear, but  
19 I'm just saying --

20 MR. TAIT: You're going to provide that  
21 sort of --

22 MR. ZAKLUKIEWICZ: Correct --

23 CHAIRMAN KATZ: Yeah --

24 MR. TAIT: So give me --

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1 MR. PRETE: I was hoping to provide some  
2 right now, but apparently it's not working -- (laughter) -  
3 -  
4 MR. TAIT: I want to see a figure that says  
5 199 on there --  
6 MR. PRETE: Alright --  
7 MR. TAIT: -- and maybe 170 to show it's  
8 not linear.  
9 MR. PRETE: Yeah, we've got a starting  
10 point so that's --  
11 MR. TAIT: That's right --  
12 MR. PRETE: -- absolutely --  
13 MR. TAIT: -- that's what I did want.  
14 MR. PRETE: Good.  
15 MR. TAIT: And I want the Towns to see that  
16 so they can start making choices for us --  
17 MR. PRETE: Good.  
18 MR. TAIT: -- whether they want to see it  
19 or not.  
20 MR. PRETE: We'll give you that sample.  
21 MR. TAIT: Thank you.  
22 MR. PRETE: Sorry.  
23 CHAIRMAN KATZ: Mr. Stone, back to you.  
24 MR. STONE: I don't think I have any

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1 further questions, but just a couple of comments. I -- I  
2 would join in Attorney Burturla's request for addresses.  
3 I -- I've been sitting there looking at those maps and I  
4 would tell you that I'd be hard pressed to be able to put  
5 that together.

6 Also, my First Selectman whispered in my  
7 ear that at least in our engineering department we don't  
8 have the ability to take that CD and convert it into full  
9 size maps. And while I appreciate the CD to look at them  
10 on my computer, to be able to convert that into a full  
11 scale map, we can't do it. So, I'll make that request now  
12 if we could -- if we could get those maps for -- at least  
13 for the Town of Orange.

14 And with respect to the October 14<sup>th</sup> date, I  
15 think that may have been mentioned to you that's the CCM  
16 convention --

17 CHAIRMAN KATZ: Right --

18 MR. STONE: I -- I -- my First Selectman  
19 isn't always here, but I specifically requested him to be  
20 here today because I thought that this was an important  
21 subject matter for him to be here for. And I would say  
22 the continuation of that hearing would be equally as  
23 important. In addition, although many of the counsel are  
24 outside counsel, there are a number of us who are town

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1 counsel who also attend that convention. So, I leave that  
2 up to you. I won't go to the convention if you hold the  
3 hearing, obviously I'll be here, but I just wanted to  
4 mention it.

5 CHAIRMAN KATZ: Okay.

6 MR. STONE: Thank you.

7 CHAIRMAN KATZ: And I'm just asking  
8 everyone to get back to Mr. Phelps by tomorrow on the  
9 October 14<sup>th</sup> date.

10 Okay, any other questions on this map?  
11 Hearing none -- uh -- oh, okay, we'll move on to the next  
12 map, Map 12, which is probably Orange/Milford.

13 MR. PRETE: That is correct.

14 CHAIRMAN KATZ: Okay. Miss Kohler.

15 MS. JULIE DONALDSON KOHLER: I think I have  
16 a pretty good understanding of the map based upon some of  
17 the questions my colleagues have asked, so Milford will  
18 just reserve its right to ask questions on these materials  
19 to a future date.

20 CHAIRMAN KATZ: Great. Anyone else on map  
21 -- what are we on, 11?

22 MR. PRETE: That's 12.

23 CHAIRMAN KATZ: 12. Any -- okay, anyone on  
24 Map 13?

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1 MR. PRETE: Map 13 is Milford.

2 CHAIRMAN KATZ: Milford. Mr. Wertheimer.

3 MR. WERTHEIMER: There's no one else -- not  
4 -- sorry -- Michael Wertheimer for the Attorney General's  
5 Office.

6 This is not a question about Map 13, but  
7 there's no one else. I do have one question about Exhibit  
8 158 that I think would be appropriate. Like Attorney  
9 Frank, I have some questions on the prefiled testimony for  
10 Mr. Prete about the 15 and I'm going to hold that for  
11 tomorrow --

12 CHAIRMAN KATZ: Okay --

13 MR. WERTHEIMER: -- but I want to get this  
14 in.

15 CHAIRMAN KATZ: And if we could have the  
16 appropriate person here to -- we'll do that tomorrow  
17 afternoon.

18 MR. FITZGERALD: Oh, yes. On the prefiled  
19 testimony?

20 CHAIRMAN KATZ: Right.

21 MR. FITZGERALD: Oh, yes, certainly.

22 CHAIRMAN KATZ: Okay.

23 MR. WERTHEIMER: Looking at the bottom  
24 line, the total number at the bottom of 158, I take it



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1 that these -- the number for the -- the total number of  
2 structures within 300 feet of the outermost conductor is  
3 inclusive of the column just to the right of it, which is  
4 structures at 3-milligauss or greater at the 27.7 case, is  
5 that right?

6 MR. PRETE: That is correct.

7 MR. WERTHEIMER: Okay. And then in that  
8 column at 27.7, it's inclusive of the column to the right  
9 of it, the 15-gigawatt case, is that right?

10 MS. BARTOSEWICZ: Not necessarily. And  
11 these -- these are truly all independent counts.

12 MR. WERTHEIMER: Okay.

13 MS. BARTOSEWICZ: And we saw earlier -- and  
14 I'd have to go back and look at the map where there are  
15 some cases where the 27.7-gigawatt 3-milligauss line is  
16 outside the 15-gigawatt line --

17 MR. WERTHEIMER: Right. I'd like to turn  
18 your attention to that just because I don't understand it.  
19 Go up to the line for Meriden --

20 MS. BARTOSEWICZ: Yes.

21 MR. WERTHEIMER: -- the 27.7 total is 8,  
22 whereas the 15 is 19 --

23 MS. BARTOSEWICZ: Yes --

24 MR. WERTHEIMER: -- I didn't understand the

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1 last time your -- you were explaining how that could be.

2 MS. BARTOSEWICZ: We're going to put the  
3 map back up here.

4 CHAIRMAN KATZ: Mr. Wertheimer must have  
5 been absent when we had that tutorial.

6 MR. WERTHEIMER: No, I think the scary  
7 thing is I was here. (Laughter).

8 MR. ASHTON: Go south --

9 MS. BARTOSEWICZ: Go to the 3 and the 4 --

10 MR. ASHTON: Go south of that --

11 (Pause)

12 CHAIRMAN KATZ: Okay, we're there.

13 MS. BARTOSEWICZ: Let's see -- (pause) --

14 CHAIRMAN KATZ: Aren't you moving south?

15 MR. TAIT: Before 4 and 5, isn't it?

16 CHAIRMAN KATZ: Don't you want to move  
17 south -- (pause) --

18 MR. ASHTON: The Beseck Substation is where

19 --

20 MR. TAIT: This was Brian's question --

21 MR. ASHTON: That's it --

22 MR. TAIT: There it switches, so the count  
23 switches --

24 MS. BARTOSEWICZ: That's Beseck right there

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1 --

2 CHAIRMAN KATZ: Just a second --

3 MR. EMERICK: Do we know when that  
4 condition -- how long it persists to the north? Where it  
5 changes? I assume somewhere along the line --

6 MR. TAIT: It changes back --

7 MR. EMERICK: -- it reverses back to what I  
8 consider what I might anticipate, so --

9 CHAIRMAN KATZ: Is that Scovill Rock where  
10 it switches back or --

11 MS. BARTOSEWICZ: At Black Pond.

12 CHAIRMAN KATZ: Black Pond.

13 MR. EMERICK: Black Pond.

14 MS. BARTOSEWICZ: So what you have between  
15 Black Pond and Beseck is you have flows going in different  
16 directions.

17 CHAIRMAN KATZ: Yeah.

18 MR. EMERICK: Got it.

19 MR. WERTHEIMER: That's enough --

20 CHAIRMAN KATZ: Yeah --

21 MR. WERTHEIMER: -- I remember.

22 CHAIRMAN KATZ: From Beseck south we have  
23 different flows and therefore -- right, okay.

24 MR. WERTHEIMER: Right. That's all I have.

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1 CHAIRMAN KATZ: Do you have anything else,  
2 Mr. Wertheimer?

3 MR. WERTHEIMER: No.

4 CHAIRMAN KATZ: Okay. Is there anybody  
5 else who has questions today on the maps? Mr. Fitzgerald,  
6 did you have some --

7 MR. FITZGERALD: No questions on the maps,  
8 but in case you were thinking of taking out your gavel, I  
9 want to --

10 CHAIRMAN KATZ: It did cross my mind.

11 MR. FITZGERALD: Yeah. I wanted to come  
12 back to that issue that Mr. Tait raised about what's in  
13 the record and what should be in the record about EMF and  
14 underground.

15 CHAIRMAN KATZ: Yes.

16 MR. FITZGERALD: And we have some things  
17 that we can pass out. I thought that we would formally  
18 file them tomorrow, but --

19 CHAIRMAN KATZ: Why don't we give them out  
20 today, verify it today, and we'll ask -- let people ask  
21 questions about it tomorrow.

22 MR. FITZGERALD: Right. Okay, good, fine.

23 CHAIRMAN KATZ: Okay.

24 MR. FITZGERALD: Fine. First of all, if I

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1 -- if --

2 CHAIRMAN KATZ: Do you want to pass it out  
3 before you talk?

4 MR. FITZGERALD: Well -- yeah, why don't  
5 you pass that out --

6 CHAIRMAN KATZ: Why don't we go off the  
7 record for a moment and we'll pass it out.

8 (Off the record)

9 CHAIRMAN KATZ: On the record. Mr.  
10 Fitzgerald, do you want to introduce this --

11 AUDIO TECHNICIAN: Hang on just a second.

12 CHAIRMAN KATZ: Oh.

13 (Pause)

14 MR. FITZGERALD: Okay. In terms of --

15 CHAIRMAN KATZ: Okay, on the record.

16 MR. FITZGERALD: Okay. With respect to  
17 what's in the record so far on this underground issue,  
18 Volume 6 of the application, the EMF assessment, has  
19 information in it with respect to magnetic fields from  
20 HPFF cables and one limited application or circumstance  
21 XLPE. And that information is found at pages -- for HPFF  
22 pages 9 to 11 and 52 to 54. And in particular at page --  
23 at pages 53 and 54 there are curves that show the fields  
24 from the proposed HPFF cables, and there are three

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1 different profiles for the three segments. Now, I noted  
2 that this is one of those instances where we just gave you  
3 a curve and there's no table with the actual numbers for  
4 where the -- what the values are at various feet. So I  
5 asked Mr. Johnson to go back to his work papers and pull  
6 that data and put it in a tabular form. And those are  
7 three of the documents that you've just been given. And  
8 if we go to page 53 in the application -- were you able to  
9 do that, Rich -- we see figure -- at the top of the page  
10 is Figure 46, which is the magnetic profile for the  
11 section from East Devon to Singer. And one of the things  
12 that was just handed out to says East Devon to Singer 15-  
13 gigawatt case, what I would suggest and what I should have  
14 done previously is just write on the top of that Figure  
15 46, that's the numerical values that are in the graph --  
16 that are represented by the graph in Figure 46.

17 MR. TAIT: On page 53 is that --

18 CHAIRMAN KATZ: Okay, so --

19 MR. FITZGERALD: On page 53.

20 CHAIRMAN KATZ: Before I get totally  
21 confused here, some of the things you are handing us are  
22 parts of exhibits that have already been entered into the  
23 record?

24 MR. FITZGERALD: What I'm -- what I'm

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1 handing you -- I mean I'll have -- this will be verified  
2 by Mr. Johnson.

3 CHAIRMAN KATZ: Okay.

4 MR. FITZGERALD: What I've handed you is  
5 not in the record.

6 CHAIRMAN KATZ: Okay.

7 MR. FITZGERALD: What is in the record are  
8 the graphs --

9 CHAIRMAN KATZ: Okay --

10 MR. FITZGERALD: -- that I'm referring to  
11 but have not handed to you --

12 CHAIRMAN KATZ: I --

13 MR. FITZGERALD: -- and I've asked Mr.  
14 Pinto to display them.

15 CHAIRMAN KATZ: Okay.

16 MR. FITZGERALD: Figure 47 on page 53 is  
17 the magnetic field profile from Singer to Norwalk. And  
18 we've given you a separate set of figures for that. And  
19 then Figure 48 is the profile for Singer to Hawthorne,  
20 which is only Alternative A, and that's the third set of  
21 papers captioned Singer to Hawthorne. So you can -- you  
22 can relate each of these sets of numbers to the  
23 corresponding graph.

24 Now, Mr. Johnson -- could I have -- Mr.

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1 Cunliffe, could you give me some exhibit -- where are we  
2 in exhibit numbers?

3 MR. CUNLIFFE: (Indiscernible) --

4 AUDIO TECHNICIAN: I'm sorry, Mr. Cunliffe  
5 --

6 MR. CUNLIFFE: 159.

7 MR. FITZGERALD: Alright. Then -- let us  
8 make 159 East Devon to Singer, 160 Singer to Norwalk, 161  
9 Singer to Hawthorne.

10 Mr. Johnson, are each of the three exhibits  
11 that have just been assigned those numbers exhibits that  
12 you prepared?

13 MR. GARY JOHNSON: Yes, they are.

14 MR. FITZGERALD: Are the numerical values  
15 listed in these exhibits the values that are represented  
16 respectively in the graphs that appear as Figure 46, 47  
17 and 48 in Volume 6 of the application?

18 MR. JOHNSON: Yes, they are.

19 MR. FITZGERALD: Alright. And these --  
20 both the figures, which are now displayed on the screen  
21 and the numbers that they represented, the milligauss  
22 values that they represent, these are the values that  
23 would be associated with the proposed HPFF cable described  
24 in Volume 6 of the application under the 15-gigawatt case



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1 assumptions that were described there, is that right?

2 MR. JOHNSON: Yes. These are the  
3 calculated field levels for the HPFF cable described in  
4 Volume 6 and these were the values used to plot Figures  
5 46, Figure 47 and Figure 48 in Volume 6.

6 MR. FITZGERALD: Alright. And -- now  
7 before moving on to the next exhibit, I would also just  
8 like to call to the Council's attention that at page 26 of  
9 the application there is a Table 5 that has values for all  
10 edge of right-of-way milligauss values for all sections of  
11 the line, including the proposed underground sections --

12 MR. ASHTON: That's Volume 6, Mr.  
13 Fitzgerald?

14 MR. FITZGERALD: That's Volume 6, yes. And  
15 then there was a corrected -- or an updated Table 5 that  
16 was filed as Exhibit 35 in this case. There were -- there  
17 were not -- these HPFF values were very low to begin with  
18 and the changes are very small, but those are the current  
19 -- that's the current information for HPFF in Exhibit 35.  
20 Now --

21 CHAIRMAN KATZ: Can we have the witnesses  
22 verify these now or are you ready for that part?

23 MR. FITZGERALD: That's already -- that's  
24 already there.

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1 CHAIRMAN KATZ: The new stuff, 159, 160 --

2 MR. FITZGERALD: Mr. Johnson just did  
3 verify it --

4 CHAIRMAN KATZ: I'm sorry --

5 MR. FITZGERALD: -- but I -- I'm sorry, but  
6 I didn't offer them as full exhibits if that's what you're  
7 -- if that's what you're thinking of. I offer 159, 160 --

8 CHAIRMAN KATZ: I knew I had a dead moment,  
9 but I didn't think it was that big of a moment.

10 MR. FITZGERALD: -- and 161 as full  
11 exhibits.

12 CHAIRMAN KATZ: Is there any objection to  
13 making 159, 160, and 161 full exhibits? Hearing none,  
14 they're full exhibits. And we will have cross on them  
15 tomorrow.

16 (Whereupon, Applicants' Exhibit Nos. 159,  
17 160, and 161 were received into evidence as full  
18 exhibits.)

19 MR. FITZGERALD: Alright, now --

20 CHAIRMAN KATZ: I'm just -- can I just ask  
21 a simple question because I'm reading this and thinking  
22 that we can't win. I show at 0 horizontal distance 1.9  
23 milligausses in one section?

24 MR. ASHTON: Which section? Singer to

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1 Norwalk --

2 CHAIRMAN KATZ: Which means in some cases  
3 we have more milligausses underground than in some areas  
4 that we have overhead --

5 MR. FITZGERALD: Well just -- just wait for  
6 the exhibit.

7 CHAIRMAN KATZ: I'm getting very depressed  
8 very quickly.

9 MR. FITZGERALD: That was the -- those were  
10 the H -- what we -- what we have just marked relate to the  
11 HPFF proposal that's in the application.

12 Now, there's another exhibit that's been  
13 passed out, which I guess would be 162, it -- it is a --  
14 in the form of a report and it's captioned Magnetic Field  
15 Calculations for Middletown/Norwalk 345-kV XLPE  
16 Transmission Cable. Does everybody have that?

17 Mr. Johnson, Exhibit 162 is a report with  
18 the imprint of PDC, the underground cable consultant that  
19 the companies are using in this case, are you familiar  
20 with Exhibit 162?

21 MR. JOHNSON: Yes. I've read through  
22 Exhibit 162.

23 MR. FITZGERALD: And are you familiar with  
24 the methodology for the calculations that have been used

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1 in it?

2 MR. JOHNSON: Yeah, the methodology used to  
3 perform the magnetic field calculations use the standard  
4 principles of which I'm familiar with. The levels that  
5 have been calculated are consistent with what I would  
6 expect for this configuration and loading.

7 MR. FITZGERALD: And is -- would -- is the  
8 information in Exhibit 162 accurate to the best of your  
9 knowledge and belief?

10 MR. JOHNSON: To the best of my knowledge  
11 after reviewing this document, the calculations look  
12 appropriate.

13 MR. FITZGERALD: And do they appropriately  
14 represent the EMF levels that would be associated with the  
15 use of XLPE cable of the -- under the assumptions  
16 presented in the application and the same loading used for  
17 the HPFF cables in the Exponent report?

18 MR. JOHNSON: Yes.

19 MR. FITZGERALD: Okay.

20 CHAIRMAN KATZ: So now you're offering it  
21 for a full exhibit?

22 MR. FITZGERALD: And now I offer it for a  
23 full exhibit.

24 CHAIRMAN KATZ: And this is 162?

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1 MR. FITZGERALD: 162.

2 CHAIRMAN KATZ: Is there any objection to  
3 162 being a full exhibit? Hearing none, it's a full  
4 exhibit.

5 (Whereupon, Applicants' Exhibit No. 162 was  
6 received into evidence as a full exhibit.)

7 MR. FITZGERALD: And just by way of context  
8 before we leave, the reason that we -- I think that Mr.  
9 Tait asked for it and the reason that we asked for XLPE  
10 information is that although we have proposed HPPF in the  
11 application, as we all know the capacitance associated  
12 with it is giving fits to the project designers. And  
13 although there's been no proposal made yet to substitute  
14 XLPE, that is one of the things that's being examined by  
15 the ROC group. So -- so the purpose of Exhibit 162 is to  
16 get before you what the values associated with XLPE would  
17 be, and they are different.

18 CHAIRMAN KATZ: I -- I have to ask, did the  
19 companies offer this information to the Legislature before  
20 they passed Public Act 04-246?

21 MR. TAIT: It looks like undergrounding to  
22 avoid EMFs is going to have higher EMFs than overheading  
23 which they are dictating we put underground.

24 MR. FITZGERALD: Well it depends on where

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1 you are, but --

2 MR. TAIT: Yes, yes -- yes --

3 MR. FITZGERALD: Yeah, but -- but that's  
4 right.

5 MR. TAIT: In the streets, not on right-of-  
6 ways that are 160 wide --

7 CHAIRMAN KATZ: Right, we're talking about  
8 sidewalks that people walk on --

9 MR. TAIT: -- you're talking about Route 1.

10 MR. FITZGERALD: Right.

11 MR. TAIT: All this information that comes  
12 out so late in our process is very disconcerting of what  
13 we're suppose to do --

14 MR. FITZGERALD: And so --

15 MR. TAIT: -- to solve the public health  
16 problem.

17 MR. FITZGERALD: And so is having the rules  
18 change when you're in the middle of the proceeding.

19 CHAIRMAN KATZ: Okay. Enough commentary.  
20 We will cross on this tomorrow. Mr. O'Neill, can you hold  
21 your questions until tomorrow?

22 MR. O'NEILL: I'd like to, however this  
23 document brings something forward that came up in earlier  
24 testimony --

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1 CHAIRMAN KATZ: Okay --

2 MR. O'NEILL: -- that I'd like to have  
3 clarification on as a homework assignment.

4 CHAIRMAN KATZ: Let's do that then.

5 MR. O'NEILL: Several months ago when we  
6 started discussing EMFs, the concept of architectural  
7 shielding to mitigate EMFs was brought before the  
8 Applicant. We were told there was no such thing as  
9 architectural shielding to eliminate EMFs. Now we see  
10 before us a document which refers to architectural  
11 shielding so to speak or shielding to mitigate EMF  
12 exposure by dividing it half by putting a plate on top of  
13 the duct bank. It seems to be a contradiction.

14 MR. FITZGERALD: Well, I -- I think that by  
15 architectural shielding -- I remember that -- and I think  
16 the witnesses understood you to mean can we do something -  
17 - can we put something up around a building or in front of  
18 a building that will -- that will fend it off from the  
19 building rather than --

20 MR. O'NEILL: Well, it was my understanding  
21 --

22 MR. FITZGERALD: -- rather than building in  
23 something in the trench --

24 MR. O'NEILL: Well as I understood it,

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1 there was mitigation measures used in urban environments  
2 where architectural shielding, for example, was used  
3 around elevator banks to limit EMF exposure within  
4 buildings and hallways. It seems either it exists as a  
5 reality or it doesn't and I'd just like some clarification  
6 on that.

7 MR. EMERICK: I think -- Pam --

8 CHAIRMAN KATZ: Yes, Mr. Emerick.

9 MR. EMERICK: I think -- my recollection of  
10 the discussion in terms of shielding as it related to  
11 buried cables was -- and I can't remember who made it --  
12 but there was -- it at least raised the possibility of  
13 shielding of cables if you used a very high quality  
14 aluminum, as I remember it being described, of  
15 considerable width, probably larger than the trench itself  
16 --

17 MR. FITZGERALD: Yes --

18 MR. EMERICK: -- but my recollection of the  
19 upshot of that is given the expense of the quality of that  
20 aluminum, it would kind of render it impractical.

21 MR. FITZGERALD: Well, I -- that's  
22 different testimony and I recall that as well. And in  
23 fact, I was looking at it last night as we were  
24 commissioning this work to be done and the kind of -- and



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1 that kind of plating, the non-ferrous metal plating -- it  
2 was actually Mr. Johnson who was discussing it -- is  
3 addressed in the exhibit that we just gave you. And there  
4 are assumptions -- I mean we'll get into them on cross --  
5 but it is addressed. And it's sort of interesting because  
6 it shows that it reduces the fields right over the line  
7 but the falloff is slower, so that when you get away from  
8 the line, the fields are actually higher than they would  
9 be without the -- you know, without the shielding.

10 MR. EMERICK: Madam Chair --

11 CHAIRMAN KATZ: Yes.

12 MR. EMERICK: -- I would just make one  
13 comment on this new submission, 162 -- and again not  
14 proposed, but eventually the ROC group comes along and  
15 says XLPE is what we have to go with, I mean I think the  
16 same questions about EMF levels, right-of-way, statutory  
17 structures emerges for the underground portion.

18 MR. FITZGERALD: I -- I think -- I --

19 MR. EMERICK: I realize that you think --

20 MR. FITZGERALD: Looking at the statute, I  
21 would agree with you to a large extent. I mean it's  
22 interesting. The statute contains an undergrounding  
23 presumption that applies to overhead lines. It does -- it  
24 does -- and it contains a buffer zone requirement that

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1 applies to overhead lines. The statute does not require  
2 any buffer zone for underground lines. It seems to assume  
3 that it goes away --

4 MR. EMERICK: Yeah, I read your argument --  
5 I've already read your argument --

6 MR. FITZGERALD: Okay --

7 MR. EMERICK: -- on the buffer zone and it  
8 doesn't apply to undergrounding. But we could select to  
9 have some kind of separation distance on undergrounding  
10 just for public health reasons.

11 MR. FITZGERALD: Well -- well -- indeed you  
12 could. And --

13 MR. EMERICK: So --

14 MR. FITZGERALD: -- apart from the new  
15 legislation, you've always been required --

16 A VOICE: That's right --

17 MR. FITZGERALD: -- to find that the  
18 location of the line does not pose a hazard to people or  
19 persons along the line --

20 CHAIRMAN KATZ: Right --

21 MR. FITZGERALD: -- and you've always found  
22 that it didn't because you made certain findings about  
23 EMF, but -- and that's unchanged.

24 CHAIRMAN KATZ: But before Fairfield County

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1 marches in here because we now have high EMFs from  
2 underground, we're going to need more information on  
3 shielding these between the line.

4 MR. FITZGERALD: Yeah, I think -- this --  
5 this document gives you some information on what it would  
6 do to the values, the milligauss values in a given  
7 instance. It does not tell you anything about whether  
8 it's practical, where has it been done, how -- what does  
9 it cost, all that sort of stuff --

10 MR. TAIT: Can you imagine trying to do a  
11 map of this like we just did for the other map. I mean  
12 can you imagine trying to do lines on a map through  
13 Fairfield County and Route 1 as to the same buffer zones  
14 for overhead.

15 MR. FITZGERALD: Which of course would  
16 require us to have a proposal first -- yeah, right.

17 CHAIRMAN KATZ: So what we will do is we  
18 will start cross-examination on this tomorrow and we will  
19 continue cross-examination on this on map date, wherever  
20 map day ends up being, October 14<sup>th</sup> or whatever. Thanks,  
21 Mr. Fitzgerald.

22 MR. FITZGERALD: You're welcome.

23 CHAIRMAN KATZ: Just when you think you can  
24 see the light.

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1 A VOICE: And it's an oncoming train.

2 CHAIRMAN KATZ: And it's an oncoming train.

3 Okay. Do we have any other business to do today? And we

4 all know what that appropriate answer is -- (laughter) --

5 okay, we will resume at 10:00 o'clock tomorrow morning.

6 And out of the box, Mr. Phelps, we're doing DOT, correct?

7 MR. PHELPS: That's correct.

8 CHAIRMAN KATZ: 10:00 o'clock tomorrow

9 morning, DOT.

10

11 (Whereupon, the hearing adjourned at 4:50

12 p.m.)

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Graph, Re: EMF Levels, East Devon to Singer	159	250
Graph, Re: EMF Levels, Singer to Norwalk	160	250
Graph, Re: EMF Levels, Singer to Hawthorne	161	250
Report, Re: Middletown/Norwalk 345-kV XLPE Transmission Cable	162	253

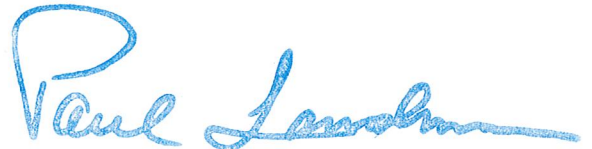


## CERTIFICATE

I, Paul Landman, a Notary Public in and for the State of Connecticut, and President of Post Reporting Service, Inc., do hereby certify that, to the best of my knowledge, the foregoing record is a correct and verbatim transcription of the audio recording made of the proceeding hereinbefore set forth.

I further certify that neither the audio operator nor I are attorney or counsel for, nor directly related to or employed by any of the parties to the action and/or proceeding in which this action is taken; and further, that neither the audio operator nor I are a relative or employee of any attorney or counsel employed by the parties, thereto, or financially interested in any way in the outcome of this action or proceeding.

In witness whereof I have hereunto set my hand and do so attest to the above, this 4th day of October, 2004.



Paul Landman  
President

**Post Reporting Service**  
**1-800-262-4102**