

STATE OF CONNECTICUT

SITING COUNCIL

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THE CONNECTICUT LIGHT AND POWER COMPANY \* MARCH 28, 2013  
 \* (3:00 p.m.)  
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APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE STAMFORD RELIABILITY CABLE PROJECT, WHICH CONSISTS OF CONSTRUCTION, MAINTENANCE, AND OPERATION OF A NEW 115-kV UNDERGROUND TRANSMISSION CIRCUIT EXTENDING APPROXIMATELY 1.5 MILES BETWEEN GLENBROOK AND SOUTH END SUBSTATIONS, STAMFORD, CONNECTICUT AND RELATED SUBSTATION IMPROVEMENTS \* DOCKET NO. 435  
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\* \* \* \* \*

BEFORE: JAMES J. MURPHY, JR., ACTING CHAIRMAN

BOARD MEMBERS: Robert Hannon, DEEP Designee  
 Michael Caron, PURA Designee  
 Edward S. Wilensky  
 Philip T. Ashton  
 Dr. Barbara Bell

STAFF MEMBERS: Linda Roberts, Executive Director  
 David Martin, Siting Analyst  
 Melanie Bachman, Staff Attorney

APPEARANCES:

FOR THE APPLICANT, THE CONNECTICUT LIGHT AND POWER COMPANY:

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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 The Connecticut Light and  
4 Power Company, held at the NEON Stamford Gymnasium, 34  
5 Woodland Avenue, Stamford, Connecticut, on March 28, 2013  
6 at 3:00 p.m., at which time the parties were represented  
7 as hereinbefore set forth . . .

8

9

10                   ACTING CHAIRMAN JAMES J. MURPHY, JR.:  
11 Ladies and gentlemen, this hearing is called to order  
12 this Thursday, March 28, 2013 at 3:00 p.m.

13                   My name is James J. Murphy, and I'm a  
14 member of the Siting Council. Our Chairman has recused  
15 himself from participating in this docket and has asked  
16 that I chair the proceedings in this matter.

17                   Other members of the Council here today  
18 are Robert Hannon, the designee for Commissioner Dan  
19 Estey of the Department of Energy and Environmental  
20 Protection; Director Michael Caron, the designee for  
21 Chairman Arthur House of the Public Utilities Regulatory  
22 Authority; Philip T. Ashton; Dr. Barbara C. Bell; and  
23 Edward S. Wilensky.

24                   Members of the staff with us today are

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1 Linda Roberts, our Executive Director; Melanie Bachman,  
2 Staff Attorney; and David Martin, the Siting Analyst.

3 Our court reporter is Gail Gregoriades and  
4 our audio technician, excuse me, is Aaron DeMarest.

5 This hearing is held pursuant to the  
6 provisions of Title 16 of the Connecticut General  
7 Statutes and of the Uniform Administrative Procedures Act  
8 upon an application of Connecticut Light and Power  
9 Company for a Certificate of Environmental Compatibility  
10 and Public Need for the Stamford Reliability Cable  
11 Project, which consists of construction, maintenance, and  
12 operation of a new 115-kV underground transmission  
13 circuit extending approximately one and a half miles  
14 between Glenbrook and South End Substations, Stamford,  
15 Connecticut and related substation improvements. This  
16 application was received by the Council on January 18,  
17 2013.

18 A reminder to all, off-the-record  
19 communications with members of the Council or members of  
20 the Council's staff upon the merits of this application  
21 is prohibited by law.

22 The parties and intervenors to the  
23 proceedings are as follows: The Applicant is The  
24 Connecticut Light and Power Company, represented today by

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1 Attorney Marianne Barbino Dubuque of the law firm of  
2 Carmody and Torrance. Also as a party is the Office of  
3 Consumer Counsel, represented today by Attorney Lauren A.  
4 Henault.

5 We will proceed with -- in accordance with  
6 the prepared agenda, copies of which are available -- and  
7 I think everyone has them -- and they're on the desk  
8 someplace. Also available are copies of the Council's  
9 Citizen's Guide to Siting Council Procedures.

10 At the end of this afternoon's session, we  
11 will recess and we will resume again at 7:00 p.m. The  
12 7:00 p.m. hearing will be reserved for the public to make  
13 brief oral statements into the record. I wish to note  
14 that parties and intervenors, including their  
15 representatives or witnesses, are not allowed to  
16 participate in the public session and comments.

17 I also wish to note for those who are here  
18 and for the benefit of your friends and neighbors, who  
19 are unable to join us for the public comment session,  
20 that you or they may send written statements to the  
21 Council within 30 days of the day hereof. And such  
22 written statements will be given the same weight as if  
23 spoken at the hearing.

24 If necessary, party and intervenor's

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1 presentations may continue after the public comment  
2 session if time remains.

3 A verbatim transcript will be made of this  
4 hearing and deposited with the City Clerk's Office in  
5 Stamford for the convenience of the public.

6 The Council requests that administrative  
7 notice be taken of an article by Jeffrey S. Franson  
8 entitled, "Wall Erected to Protect South End Substation,"  
9 that appeared on page 35 of the March 2013 issue of  
10 Transmission and Distribution World Magazine. Is there  
11 any objection to the Council taking notice of this  
12 article?

13 MS. MARIANNE BARBINO DUBUQUE: CL&P had no  
14 objection.

15 MS. LAUREN A. HENAULT: No objection from  
16 the Office of Consumer Counsel.

17 ACTING CHAIRMAN MURPHY: Hearing no -- no  
18 objection, is there a motion to take notice?

19 MR. PHILIP T. ASHTON: So moved.

20 ACTING CHAIRMAN MURPHY: Second?

21 DR. BARBARA C. BELL: Second.

22 ACTING CHAIRMAN MURPHY: Any discussion?

23 All those in favor, signify by saying aye.

24 VOICES: Aye.

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1                   ACTING CHAIRMAN MURPHY:  Opposed?  We'll  
2     take administrative notice of this article.

3                   I wish to call to your attention the items  
4     shown on the hearing program marked as Roman Numeral I-D,  
5     Items 1 through 80.  Does the Applicant or the Intervenor  
6     have any objection to the items that the Council desires  
7     to take administrative notice of?

8                   MS. DUBUQUE:  CL&P has no objection, Mr.  
9     Chairman.

10                  MS. HENAULT:  No objection.

11                  ACTING CHAIRMAN MURPHY:  Thank you.  The  
12     Council will administratively take notice of these  
13     existing documents, statements, and comments.

14                  And I guess we move to the main -- you  
15     have a panel for us, Attorney Dubuque?  Do you want to  
16     introduce your panel for us?

17                  MS. DUBUQUE:  Yes, thank you.  I'd like  
18     the panel members to introduce themselves by stating  
19     their name and title.  We've already furnished their  
20     business cards for the spelling of their names to the  
21     court reporter.  And I'd like to begin with the lead  
22     project witness and lead engineering witness at this  
23     table.

24                  MR. RAYMOND GAGNON:  My name is Ray

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1 Gagnon. I'm the Director of Transmission Projects.

2 MR. PETER NOVAK: Peter Novak, Senior  
3 Engineer.

4 MS. DUBUQUE: We also have several  
5 potential witnesses in the second row, and I'd like them  
6 to introduce themselves by stating their name and title.  
7 Once again, we've furnished their cards to the court  
8 reporter.

9 MR. ROBERT RUSSO: Robert Russo,  
10 Transmission Planning.

11 MS. AMANDA MAYHEW: Amanda Mayhew,  
12 Environmental Scientist.

13 MR. ANUJ MATHUR: Anuj Mathur, Project  
14 Manager, Level 1.

15 MR. CHRISTOPHER SODERMAN: Christopher  
16 Soderman, Senior Engineer, Transmission Line and Civil  
17 Engineering.

18 DR. WILLIAM BAILEY: William Bailey from  
19 Exponent.

20 MR. CHRISTOPHER SWAN: Chris Swan,  
21 Director of Siting, Northeast Utilities.

22 MS. DUBUQUE: Mr. Chairman, the witnesses  
23 are ready to be sworn in.

24 ACTING CHAIRMAN MURPHY: (Indiscernible) -

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1 -

2 AUDIO TECHNICIAN: Your microphone, Mr.  
3 Chairman.

4 ACTING CHAIRMAN MURPHY: Excuse me. I've  
5 got to remember to push that button. The -- Attorney  
6 Bachman will swear in the witnesses and potential  
7 witnesses.

8 MS. MELANIE BACHMAN: Please raise your  
9 right hand.

10 (Whereupon, the Applicant's witness panel  
11 was duly sworn in.)

12 MS. BACHMAN: Thank you.

13 ACTING CHAIRMAN MURPHY: I believe you  
14 have some exhibits you'd like to offer for  
15 identification.

16 MS. DUBUQUE: Thank you, Mr. Chairman. We  
17 have seven exhibits we'd like to be admitted into  
18 evidence. And I'd like to start with Exhibit 1, CL&P's  
19 Application filed January 18, 2013, with attachments and  
20 bulk file No. 1-A and B listed on the hearing program,  
21 along with CEII Appendix, January 28, 2013, subject to  
22 projective order dated February 21, 2013. Exhibit 3,  
23 CL&P's Responses to Council Interrogatories, Set 1, dated  
24 March 13, 2013. Exhibit 4, CL&P's Supplemental Filing

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1 concerning the preferred route with the Canal Street  
2 Option, dated March 15, 2013. Exhibit 5, CL&P's  
3 Responses to Council Interrogatories, Set 2, dated March  
4 21, 2013.

5 And I'd like to ask Mr. Gagnon, did you  
6 prepare or oversee the preparation of Exhibits 1, 3, 4,  
7 and 5?

8 MR. GAGNON: Yes, I did.

9 MS. DUBUQUE: Are there any corrections or  
10 clarifications or additions, other than those that are  
11 already listed in Exhibit 6, direct testimony, and those  
12 relate to Exhibit 1?

13 MR. GAGNON: No.

14 MS. DUBUQUE: To the best of your  
15 knowledge, including those corrections and clarifications  
16 that I just mentioned, is the information in these  
17 exhibits true and accurate?

18 MR. GAGNON: Yes, it is.

19 MS. DUBUQUE: And do you adopt these  
20 materials as exhibits?

21 MR. GAGNON: Yes, I do.

22 MS. DUBUQUE: Mr. Chairman, I'd like to  
23 continue with Exhibits 6 and 7. Exhibit 6 is CL&P's  
24 Direct Testimony of Raymond Gagnon and Peter Novak and

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1 their respective resumes. Exhibit 7 is CL&P's Public  
2 Field Review Guide.

3 And I'd like to ask Mr. Gagnon and Mr.  
4 Novak, did you prepare or oversee the preparation of  
5 Exhibit 6 with your respective resumes and Exhibit 7?

6 MR. GAGNON: Yes, I did.

7 MR. NOVAK: Yes, I did.

8 MS. DUBUQUE: Are there any corrections,  
9 clarifications, or additions?

10 MR. GAGNON: No.

11 MR. NOVAK: No.

12 MS. DUBUQUE: To the best of your  
13 knowledge is the information in Exhibit 6 with your  
14 respective resumes and Exhibit 7 true and correct?

15 MR. GAGNON: Yes, it is.

16 MR. NOVAK: Yes.

17 MS. DUBUQUE: Do you adopt the written  
18 testimony in Exhibit 6 as your sworn testimony and do you  
19 adopt the guide as an exhibit?

20 MR. GAGNON: Yes, I do.

21 MR. NOVAK: Yes.

22 MS. DUBUQUE: Mr. Chairman, as to the  
23 remaining exhibits -- the remaining resumes in Exhibit 6,  
24 I'd like to do these resumes as a group. The Exhibit 6

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1 resumes include the resumes of Dr. Bailey of Exponent,  
2 Anuj Mathur, Amanda Mayhew, Robert Russo, Christopher  
3 Soderman, and Christopher Swan of NUSCO. I'd like to  
4 collectively ask each person if their respective resume  
5 is true and accurate and to indicate if there are any  
6 changes. So coming forward now, would you -- each of you  
7 please state your name, adopt your resume as true and  
8 accurate, and indicate if there are any changes?

9 MR. SODERMAN: Christopher Soderman. It  
10 is true and accurate, and I do not have any changes.

11 MR. RUSSO: Robert Russo. It is true and  
12 accurate, and I have no changes.

13 MS. MAYHEW: Amanda Mayhew. It is true  
14 and accurate, and there are no changes.

15 MR. MATHUR: Anuj Mathur. It is true and  
16 accurate and I have no -- any -- no changes.

17 DR. BAILEY: William Bailey. And my CV is  
18 true and accurate and there are no changes.

19 MR. SWAN: Christopher Swan. The document  
20 is true and accurate and I have no changes.

21 MS. DUBUQUE: And perhaps as a group, you  
22 can just respond, do you -- do each of you adopt these  
23 resumes today as exhibits?

24 VOICES: Yes.

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1 VOICES: Yes, I do.

2 MS. DUBUQUE: Thank you. Exhibit 2 is  
3 self-proving. Those are certificates of publication and  
4 affidavits, so we do not have a witness at this point to  
5 swear to them because they're already sworn to.

6 ACTING CHAIRMAN MURPHY: (Indiscernible) -  
7 -

8 AUDIO TECHNICIAN: Microphone, Mr.  
9 Chairman.

10 ACTING CHAIRMAN MURPHY: Any objection to  
11 the admission of these exhibits, as well as the resumes?

12 MS. HENAULT: No objection from OCC.  
13 Thank you.

14 ACTING CHAIRMAN MURPHY: Thank you.  
15 They're so admitted then.

16 (Whereupon, Applicant Exhibit Nos. 1  
17 through 7 were received into evidence.)

18 ACTING CHAIRMAN MURPHY: I guess your  
19 panel is ready for cross-examination?

20 MS. DUBUQUE: Mr. Chairman, I do have --

21 ACTING CHAIRMAN MURPHY: Well I guess we  
22 ought to do some other homework too. Go ahead. Yes,  
23 Attorney Dubuque. Sorry.

24 MS. DUBUQUE: May I just add that as you

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1 admit the exhibits as full exhibits --

2 ACTING CHAIRMAN MURPHY: Yes --

3 MS. DUBUQUE: -- would -- can we recognize  
4 that the CEII Appendix is admitted subject to your  
5 protective order.

6 ACTING CHAIRMAN MURPHY: Yes --

7 MS. DUBUQUE: Thank you --

8 ACTING CHAIRMAN MURPHY: -- so ordered.

9 MS. DUBUQUE: Thank you. And now our  
10 panel is ready for cross-examination.

11 ACTING CHAIRMAN MURPHY: Do you have  
12 anything for administrative notice?

13 MS. DUBUQUE: Mr. Chairman, the Council  
14 already adopted our one addition for administrative  
15 notice --

16 ACTING CHAIRMAN MURPHY: Fine --

17 MS. DUBUQUE: -- so thank you, we're all  
18 set.

19 ACTING CHAIRMAN MURPHY: Okay, thank you.  
20 We'll now turn to cross-examination. Mr. Martin.

21 MR. DAVID MARTIN: Thank you, Mr.  
22 Chairman.

23 CL&P has presented several different  
24 possible routes for the proposed transmission line, three

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1 of which would travel under Atlantic Street to cross I-  
2 95. However, given ConnDOT's plans for lowering Atlantic  
3 Street, isn't there only one really viable option at this  
4 point, the preferred route with Canal Street option?

5 MR. GAGNON: Right now that is the best  
6 route that is available.

7 MR. MARTIN: Okay. And who sets the  
8 thermal rating requirements to which CL&P is seeking to  
9 adhere with this project?

10 MR. GAGNON: The thermal rating  
11 requirements are developed by -- the studies -- the  
12 transmission planning studies determines how much power  
13 flow is required on a transmission line. The substation  
14 engineers and line engineers then have to evaluate what  
15 type of conductor can go into this facility. And from  
16 that, they decide what size cable. And the size cable  
17 needs to be able to carry the capacity that the planning  
18 studies had identified. And so that is how they  
19 developed what that rating is going to be, based on the  
20 amount of current and power flow that has to go through  
21 that cable.

22 MR. MARTIN: But the -- and the  
23 application stated that under certain contingency  
24 conditions that were planned for, that the thermal rating

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1 requirements would be exceeded. So I'm trying to figure  
2 out who sets the -- kind of like the limits as to what  
3 you can achieve?

4 MR. GAGNON: For clarification, you're  
5 talking about sometimes we -- in the application we  
6 talked about some studies where some of the other lines,  
7 other existing transmission lines are overloaded --

8 MR. MARTIN: Right --

9 MR. GAGNON: -- in their LTE numbers --

10 MR. MARTIN: Right --

11 MR. GAGNON: -- yes, those were -- those  
12 were done with planning studies many years ago, that the  
13 planning engineers looked ahead at some forecast,  
14 developed some transmission line power flows through the  
15 area, and because of the growth in this area of the part  
16 of the state, more demand, more power needed to be flowed  
17 through those cables, and those cables are now under  
18 certain contingencies being overloaded.

19 MR. MARTIN: Overloaded according to whose  
20 criteria?

21 MR. GAGNON: Oh, these are National  
22 Electric -- NERC criteria, also NPCC criteria, and ISO  
23 New England criteria.

24 MR. MARTIN: Okay, thank you. And in the

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1 prefiled testimony of Messrs. Gagnon and Novak, it states  
2 that the project would not adversely affect any of the  
3 resources protected by the Connecticut Coastal Management  
4 Act. Does this statement hold true for the preferred  
5 route with the Canal Street option?

6 MR. GAGNON: Yes, it does. Even though  
7 the Canal Street option does have a section in the  
8 coastal boundary area, it's actually a smaller impact on  
9 the coastal boundary area. So yes, it is.

10 MR. MARTIN: A smaller impact than what?

11 MR. GAGNON: Than any of the other -- any  
12 other route going through Atlantic.

13 MR. MARTIN: Okay, thank you. And also in  
14 your prefiled testimony, you indicate -- include a large  
15 section addressing EMF issues. And in this section the  
16 MF standard established by the IEEE, International  
17 Committee for Electromagnetic Safety, and the  
18 International Commission on Non-Ionizing Radiation  
19 Protection are given as 9,040 milligauss and also 2,000  
20 milligauss respectively. Is there a particular time  
21 period associated with these levels? Is this like over a  
22 certain level of time or just one moment in time that  
23 they cannot be exceeded, or --

24 MS. DUBUQUE: Mr. Chairman, may we go off

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1 the record for one moment?

2 ACTING CHAIRMAN MURPHY: Alright.

3 MS. DUBUQUE: Thank you.

4 (off the record)

5 ACTING CHAIRMAN MURPHY: We're back on the  
6 record.

7 MR. GAGNON: Okay. Those are maximum  
8 threshold levels that can never be exceeded. So it could  
9 be a one-time event. There's no time period associated  
10 with those.

11 MR. MARTIN: Okay. And how do these  
12 standard levels compare to the EMF levels measures by  
13 CL&P along the various alternate routes for this  
14 project?

15 MR. GAGNON: The net threshold is a lot  
16 higher. We experienced maximum threshold -- maximum  
17 levels of about 7 milligauss or 15 milligauss along  
18 Crystal.

19 MR. MARTIN: Okay. And how do these  
20 levels compare with the MF levels calculated by CL&P for  
21 the completed project?

22 MR. GAGNON: The existing -- a lot of the  
23 existing EMF levels off the road would actually be able  
24 to be compensated. We can configure the transmission

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1 lines in the underground ducts in a fashion that can  
2 actually reduce some of the magnetic fields from the  
3 external transmission lines in the area. So it would  
4 actually reduce along the other lines. But along the  
5 middle of the street you're going to have a localized  
6 peak.

7 MR. MARTIN: Okay. And would this peak  
8 approach the standards given by these kinds of  
9 international boards?

10 MR. GAGNON: No, they won't.

11 MR. MARTIN: Okay. And what does it mean  
12 for the project's cost to be regionalized? What is the  
13 region over which the costs would be spread?

14 MR. GAGNON: Regionalization has to do  
15 with how costs are shared throughout New England. The  
16 cost of a project -- if -- if the project itself benefits  
17 New England in terms of the electric system, the cost is  
18 shared throughout every utility in New England through  
19 the ISO process. And Connecticut pays a portion of that.  
20 And the rest of the New England states pay the rest of  
21 that.

22 MR. MARTIN: So this would be -- the  
23 region would be the ISO New England region?

24 MR. GAGNON: Correct, yes.

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1 MR. MARTIN: Okay. And what is the time  
2 period over which electricity customers would be paying  
3 for the costs?

4 MR. GAGNON: They would pay for the costs  
5 -- for the life duration of the -- of the assets -- while  
6 the assets are on the books.

7 MR. MARTIN: So that's approximately,  
8 what, 30 to 40 years?

9 MR. GAGNON: Forty years.

10 MR. MARTIN: Forty years. And can you  
11 estimate what would be the average cost of this project  
12 in a consumer's electric bill?

13 MR. GAGNON: I believe it's about five  
14 cents.

15 MR. MARTIN: Okay.

16 MR. GAGNON: I could get verification  
17 there -- correct, sixty cents -- five cents a month,  
18 sixty cents for the year.

19 MR. MARTIN: Sixty cents per year?

20 MR. GAGNON: Yes.

21 MR. MARTIN: Okay. Five cents per month,  
22 okay. And -- obviously, you're going to have to pay the  
23 cost of installing this line before 40 years have  
24 elapsed. So how would -- how do you raise the money to

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1 pay for the immediate cost of the project?

2 MR. GAGNON: The costs are paid with a  
3 combination of money that Northeast can get, from short-  
4 term loans -- short-term financing, equity from  
5 shareholder stock, and -- basically, that's the cash that  
6 they use to pay for the cable project.

7 MR. MARTIN: Okay. Will you be using  
8 bonds at all? Is that what you mean by short-term  
9 financing, some kind of bond?

10 MR. GAGNON: I -- I don't know the details  
11 --

12 MR. MARTIN: Alright --

13 MR. GAGNON: -- to be honest with you.

14 MR. MARTIN: Alright. Okay -- and if at  
15 the end of the XLPE cable's useful life CL&P still  
16 determines that it needs this transmission circuit, how  
17 would these cables be replaced?

18 MR. GAGNON: Well if the transmission line  
19 itself is still required at the end of the 40 years, that  
20 cable will be replaced. That will be replaced with a new  
21 cable. If the cable is no longer needed, for some reason  
22 the power shifts or there's some other type of design,  
23 the cable would be pulled out, but the ducts would be  
24 left in place.

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1 MR. MARTIN: And then how do you put the  
2 new cable in? Just pull it through --

3 MR. GAGNON: Yes. Pull a new cable  
4 through -- through the duct.

5 MR. MARTIN: Okay. Alright. Those are my  
6 questions, Mr. Chairman.

7 ACTING CHAIRMAN MURPHY: Before we move  
8 on, on the regionalization, before I forget it, when you  
9 talk about regionalization and it being spread out over  
10 New England's consumers, is that just the preferred route  
11 or all the routes, or --

12 MR. GAGNON: That would be -- oh -- that  
13 would be -- that would be all -- that would be all the  
14 routes.

15 ACTING CHAIRMAN MURPHY: So whichever  
16 route is selected, it would be regionalized is your  
17 understanding?

18 MR. GAGNON: That is correct. It's --

19 ACTING CHAIRMAN MURPHY: Thank you very  
20 much. Dr. Bell.

21 DR. BELL: Thank you, Mr. Chair. Mr.  
22 Gagnon, could the long-term project in Greenwich that you  
23 talked about, a new substation, be done without doing  
24 this project that we're looking at now?

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1                   MR. GAGNON: This project is really a  
2 stepping -- is a steppingstone. What -- what we have to  
3 do is we have to address -- because we have some  
4 transmission violations right now -- and these violations  
5 are set by National Standards, NERC, who's authorized by  
6 FERC -- we need to start addressing these. So it's a  
7 steppingstone to finally get to the final solution of  
8 this area, but we need to start addressing these  
9 violations today.

10                   DR. BELL: I understand that you have the  
11 problem with violations and I understand how it could be  
12 seen as a steppingstone, but I guess I'm asking is this  
13 project necessary to the project in Greenwich? You seem  
14 to hedge on that question in your answer to Question 4 on  
15 the CSC's first set of questions --

16                   MR. GAGNON: Well --

17                   DR. BELL: -- you say that we don't  
18 basically know what the -- what the other substations  
19 would be used to fuel the Greenwich Substation. That's  
20 what I'm saying was a hedge. And I'm trying to get past  
21 that hedge.

22                   MR. GAGNON: Okay. And -- and the reason  
23 I hesitated is because we know we're looking for a  
24 substation in Greenwich. What we haven't determined yet

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1 is what is the best route to get there. And one of the  
2 possible routes and the preferred route right now is to  
3 use South End as a steppingstone to get out. That  
4 doesn't necessarily mean that's the only route. There's  
5 other possibilities. We -- we are also looking at  
6 straight runs from Glenbrook down to the new Greenwich  
7 Substation. It would be a little bit more money, but  
8 that's -- that's another option. So there's many  
9 options. I'm just not trying to close the book on it.

10 DR. BELL: Okay. We have in Stamford  
11 Waterside Power -- I forget the exact name, but a  
12 generating station. And we have -- right next to that is  
13 a substation, the Waterside Substation. Now just in my  
14 time at the Council, I remember there have been at least  
15 two dockets with respect to the power plant, and at least  
16 two on the substation, major upgrades, and maybe more  
17 that came in under EMs or other arrangements that I'm not  
18 remembering. And also my memory could be wrong. But my  
19 basic question is in each case those upgrades were  
20 justified by reliability needs. And so why wouldn't  
21 those upgrades of both the substation and the power plant  
22 have satisfied some of the reliability needs that you're  
23 now saying still exist in this area?

24 MR. GAGNON: I'm familiar with -- I'm not

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1       sure -- I'm not familiar with the very first generation  
2       that was put out there, but the second generation I am  
3       familiar with a little bit. And what it was was a short-  
4       term requirement. At that time Northeast Utilities was  
5       doing a large study in Southwest Connecticut. And as  
6       part of that study, you know, we came out with the  
7       Bethel/Norwalk, Middletown/Norwalk, Glenbrook Cable, and  
8       the Long Island Cable Crossing. But that solution was  
9       going to take us a while to build, so there needed to be  
10      a short-term measure to eliminate some of the reliability  
11      criteria that we had at that time. And that generator  
12      put a bid in to put in additional generation in the area.  
13      So we had a short-term measure until those new cable  
14      projects came into -- into the area.

15                   DR. BELL: Is that applied to the other  
16      upgrades that have happened well since then?

17                   MR. GAGNON: I -- I haven't -- subject to  
18      verification -- maybe Bob has a better answer, but I -- I  
19      have not seen any other generation that has come in to  
20      take a reliability criteria -- oh --

21                   MS. DUBUQUE: Mr. Chairman, may we go off  
22      the record for one moment?

23                   ACTING CHAIRMAN MURPHY: We're off the  
24      record.

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1 (off the record)

2 MS. DUBUQUE: Thank you.

3 MR. GAGNON: I was informed by my  
4 transmission planning engineer, who is familiar with that  
5 first incident where they did some work down in the  
6 Stamford area, and what they were doing was they were  
7 adding an extra breaker in the ring bus -- they actually  
8 were making a ring bus out of the bus configuration at  
9 the site. Meaning that they're changing the  
10 configuration of the backbone of the substation. And to  
11 do that, it allowed the plant to be able to do  
12 maintenance on some of the breakers without taking the  
13 whole entire site out. So they created a ring bus during  
14 that period of time.

15 DR. BELL: Okay. In the application you  
16 mentioned the underwater cables from Norwalk to  
17 Northport. My question is do you really consider those  
18 cables part of the Southwest Connecticut loop that you  
19 described the various steps of elsewhere in the  
20 application?

21 MR. GAGNON: It is a vital part of the  
22 transmission network. We can count on that has having to  
23 be able to supply additional power or reserve power in  
24 times of emergency in the Connecticut area. Power can

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1       come in from New York if -- if something large happened  
2       in Connecticut. So we can -- in the planning studies you  
3       can count on those imports coming in in case something  
4       happens.

5                       DR. BELL: Okay. You can count on it in  
6       an emergency, but you don't count on it on a regular  
7       basis and -- is that correct? I mean the other --  
8       Middletown to Norwalk, Bethel to Norwalk, those are  
9       regular -- they're regularly dispatched by ISO plants  
10      along those lines, and they are running all the time. Is  
11      that -- would that be the way -- an equally good  
12      characterization of the cables from Norwalk to  
13      Northport?

14                      MS. DUBUQUE: Mr. Chairman, we would like  
15      to ask Mr. Russo to come up and address some of these  
16      questions since they're more within his expertise.

17                      ACTING CHAIRMAN MURPHY: Sure. That would  
18      be helpful. Why don't you pull a chair up. You'd be  
19      more comfortable probably.

20                      (pause)

21                      MR. RUSSO: The Long Island cables  
22      provided a means, as Ray pointed out, to provide  
23      emergency support to the Southwest Connecticut area. On  
24      a regular basis they do not. But the rest of the system

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1 -- in a similar fashion, under contingency conditions,  
2 the build-out of Southwest Connecticut provided  
3 robustness to the system and a means to provide the  
4 ability for load growth and expansion -- or the unlocking  
5 of generation in Southwest Connecticut.

6 DR. BELL: Maybe this is another question  
7 for you, Mr. Russo. We're -- we're trying to deal with  
8 this question of need obviously and there are a lot of  
9 facilities in Southwest Connecticut at this point. A  
10 statement is made in the application that the risk of a  
11 constrained system is more than the risk of an over-built  
12 one. I'm paraphrasing a little bit, but that's the  
13 statement that's made. My question is can you explain  
14 exactly why the risks and the consequences of a  
15 constrained system are greater than the risks and  
16 consequences of an over-built one?

17 MR. RUSSO: The risks of a constrained  
18 system could lead to equipment damage, it could lead to  
19 loss of service to customers. And I believe that it's a  
20 greater risk than an over-built system because an over-  
21 built system -- an over-built system could -- you know, I  
22 really -- I'm kind of missing the point on the over-built  
23 part.

24 DR. BELL: Maybe it's because I'm using

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1 the wrong word --

2 MR. RUSSO: Okay --

3 DR. BELL: -- the word that's used in the  
4 application is actually flexibility --

5 MR. RUSSO: Alright --

6 DR. BELL: -- of being able to do this,  
7 that, and the other thing, which I paraphrased as over-  
8 built. I could be -- that might be my fault. But at any  
9 rate, my question still applies. Please -- please  
10 describe a disadvantage of a flexible system?

11 MR. GAGNON: I think -- let me go back to  
12 your original question, which was comparing a constraint  
13 system to an unconstraint system. In a constraint system  
14 already you are having power flows -- very high power  
15 flows on a normal basis across these transmission lines.  
16 When you go and add an extra contingency to those  
17 constraint systems, now you've just added more current to  
18 pass through those lines, making that go a lot higher  
19 than -- maybe in overloading the system, overloading the  
20 individual lines. So a constraint system actually puts  
21 you higher to that overload threshold than a non-  
22 constraint system.

23 DR. BELL: Then let me go to my -- to my  
24 paraphrased question that I asked Mr. Russo. So is there

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1 no problem with a more flexible or unconstrained system?  
2 A totally unconstrained system can do whatever you want,  
3 has no problems whatever?

4 MR. RUSSO: That is correct. An  
5 unconstrained system should have no criteria violations  
6 associated with it. You know --

7 DR. BELL: Does it have any other problems  
8 than reliability -- than satisfying reliability?

9 MR. RUSSO: I don't believe it would have  
10 any other problems.

11 DR. BELL: Okay. Those are my need  
12 questions. I have a couple of questions on other topics.  
13 On the FEMA maps it's stated that the project doesn't lie  
14 within the hundred-flood plain. My question is -- or the  
15 hundred-year flood area. My question is do portions of  
16 it lie within the 500-year flood area?

17 MR. GAGNON: No -- no, they don't. They  
18 do not.

19 DR. BELL: Okay. On noise, can you tell  
20 us if there's any noise during the operations of the  
21 project?

22 MR. GAGNON: The cable itself won't emit  
23 noise. The termination equipment that we're putting in  
24 will not emit noise. We are putting a breaker in at

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1 Glenbrook. And -- and if that breaker ever operates,  
2 there would be an instant pop you would hear of the  
3 breaker operation.

4 DR. BELL: Okay. In the -- in one part of  
5 your application you say that you -- you show the sources  
6 that you've considered in terms of the State Development  
7 Plan and the Stamford Master Plan. I can follow where  
8 you then refer to the State plan and you show in more  
9 detail how it -- how the project doesn't conflict with  
10 that, but I don't see where you specifically address the  
11 Stamford Master Plan.

12 MR. GAGNON: The Stamford Master Plan --  
13 actually, I think we fit into that plan very well because  
14 it actually has a provision that talks about that it's a  
15 priority of the plan to bury underground overhead wires  
16 and power lines if possible, particularly in the areas of  
17 downtown neighborhoods, business districts, and major  
18 corridors. And I believe the idea of that is we don't  
19 want -- they didn't want to impede economic development  
20 in the area.

21 DR. BELL: Sorry? Say that again.

22 MR. GAGNON: Yeah, the -- I believe the  
23 entire master plan -- or the idea of the master plan for  
24 Stamford is actually to encourage economic development in

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1 the area, and so they're trying to make it an area that  
2 businesses will want to come.

3 DR. BELL: Okay. And -- you have the list  
4 of projects in the application that you expect to be  
5 built in the next -- or a couple of them may have already  
6 been built -- but my question, going back to need is were  
7 all of those projects that are listed, say, I don't know,  
8 six or seven, I'm not looking at them right now, were  
9 they all figured into the need when you talked about the  
10 overall scale of what you needed to supply in the area  
11 when -- when the -- and I mean the ISO planning too and  
12 not just CL&P's planning -- were all of those megawatts  
13 that they would need added together to make the overall  
14 need estimate that guided the plan?

15 MR. GAGNON: Those -- yes. What they do  
16 is they take the local information from the account  
17 executives who are out there talking to these businesses  
18 and industry that's coming into the area, and they put  
19 that into their load calculations. They give that  
20 information to what we call circuit owners. And the  
21 circuit owners look at how much current goes to each  
22 substation. They gather that information and give it to  
23 Connecticut Light and Power, who then shares that  
24 information with the transmission group. And that's --

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1 and that's the data that we're using --

2 DR. BELL: And you --

3 MR. GAGNON: -- for this study.

4 DR. BELL: And you count that all even  
5 though you know that one or two of them may not -- or X  
6 number may not be built --

7 MR. GAGNON: We --

8 DR. BELL: -- just because they're on the  
9 drawing boards or somebody has made an investigation  
10 about them?

11 MR. GAGNON: We -- the original plan --  
12 let me -- let me back up -- can I back up a little bit --  
13 and there's actually two studies that take place. One is  
14 at a very high level ISO study level, and that doesn't  
15 take in local effects such as these buildings. And what  
16 that does -- ISO has an overall load profile that they  
17 put together by -- all the distribution companies give  
18 them what the load in the area is each year, and they --  
19 they come up with a New England profile. With that  
20 information and with the forecasts that the distribution  
21 companies put together, ISO develops a forecast for all  
22 of New England. And what they do is then they take that  
23 data and they say, okay, Connecticut is X number percent  
24 of that total load of New England, and they use that

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1 information to do the first round for studies. And then  
2 -- that's how they determine if the project is required.  
3 And then we take that data and we go a little bit  
4 granular to then figure out are we going to make sure  
5 we're going to capture and -- make sure that we build out  
6 whatever we planned, enough to capture the local changes  
7 that ISO doesn't include in their plan.

8 DR. BELL: Thank you. On page 5 of the  
9 application, you have a statement that underground  
10 transmission lines can typically be restored to service  
11 after a damaging outage in one to two months. That looks  
12 like a new statement to me because usually in these  
13 transmission line projects we see the statement  
14 underground transmission faults are very hard to identify  
15 because we can't see them, we can't -- we don't have all  
16 the sensors for them, and it takes us a very long time to  
17 fix those because that they're underground, and we  
18 honestly don't have any average time for fixing them  
19 because it's very, very long. So I'm -- I'm interested  
20 to know how you arrived at the one to two months, which  
21 sounds a lot more specific than I've ever heard before,  
22 and I think very nice, but could you tell us a little bit  
23 more about that?

24 MR. GAGNON: I believe the time frame that

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1 they're talking, one to two months, is once we know where  
2 the fault is, it's one to two months to get into that  
3 area, to coordinate with the towns, to coordinate with  
4 the city, to get the traffic control in place, to get the  
5 equipment in place, and to start the construction.

6 DR. BELL: I see. Okay. It's not quite  
7 as earth shaking as I thought.

8 The physical security section, which  
9 references the Siting Council's white paper -- you don't  
10 need to look at it because I'm just simply going to say I  
11 note that that is a new section --

12 MR. GAGNON: Mmm-hmm --

13 DR. BELL: -- that hasn't been in  
14 applications before, and I just want to say thank you. I  
15 think that's been a useful section to me.

16 Now just a couple of questions on EMF and  
17 I'm through. I'm at a loss in this application to  
18 understand the relationship between the measurements you  
19 took of what now exists and the calculated effects on EMF  
20 of the project. There's -- the measurements you took are  
21 on page I-13. And then the other graphs that I'm  
22 referring to are on page I-19. And they're -- on I-13  
23 and I-12 there's Path 1 and Path 2. And I think that  
24 Path 2 is the only one that is along State Street. And

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1 that's the only one that I could compare because you  
2 didn't do a measurement -- I don't believe -- Path 1 is  
3 not the Culloden Road path, is that correct?

4 MR. GAGNON: That is correct. Path 1 is  
5 off of Lincoln Ave.

6 DR. BELL: Okay. So the only one we can  
7 compare is Path 2 and then the State Street MF  
8 calculations on page I-19. And I -- I just don't see any  
9 agreement between the measurements along Path 2, which  
10 average to 5.2 MF, and the calculated levels described in  
11 the graph on page I-19?

12 COURT REPORTER: One moment please.

13 (pause - tape change)

14 MS. DUBUQUE: Mr. Chairman, may we go off  
15 the record for one moment please?

16 ACTING CHAIRMAN MURPHY: Certainly.

17 MS. DUBUQUE: Thank you.

18 (off the record)

19 MS. DUBUQUE: Can we go back on the  
20 record?

21 ACTING CHAIRMAN MURPHY: Yes.

22 MR. GAGNON: Okay. My understanding in  
23 what we're doing is -- the graph of I-7 is where you're  
24 kind of looking, and the very high peaks that you see

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1 that happen at 2-10, are the peaks that took place when  
2 the person taking the measurements was walking underneath  
3 the rail, the rail system. The graph that you see on I-  
4 10 is -- we -- we do not -- we're not under the rail at  
5 that point, we are off to the side, so.

6 MR. ASHTON: And isn't it true that the  
7 operation of the electrified railroad does have a  
8 profound effect on EMF values in this whole corridor?

9 MR. GAGNON: Yes, it does.

10 MR. ASHTON: And that's driven by the  
11 amount of traffic that occurs on the railroad, especially  
12 in morning peak and afternoon peak? Is that fair to  
13 say?

14 MR. GAGNON: That is true.

15 MR. ASHTON: A big difference.

16 DR. BELL: Well, I -- I understand that,  
17 but here's -- here's more my problem, you -- the Figure  
18 I-7 shows a radical change in the levels, and I -- I  
19 understand what they're caused by, but you have an  
20 average of 5.2 and you have a medium of 4.97, okay, so  
21 that's low. But that's on the path itself basically,  
22 right, walking along the path where -- that the -- that  
23 the project would take, right --

24 MR. GAGNON: Correct --

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1 DR. BELL: -- on State Street, which we  
2 know goes along the railroad?

3 MR. GAGNON: Correct.

4 DR. BELL: Fine. But the -- but Figure 1-  
5 10 is describing something calculated. So you're  
6 calculating the railroad. I -- I understand that.  
7 You've got to figure in the railroad --

8 MR. GAGNON: Right --

9 DR. BELL: -- and you're using kind of an  
10 average -- you're using averages and so forth and so on.  
11 But the only place where we get down to around 5.2 or  
12 4.97 for a median is 300 feet away from the center of the  
13 project, from the underground cables. And -- so that's  
14 my basic problem that I'm having.

15 ACTING CHAIRMAN MURPHY: Off the record?

16 MS. DUBUQUE: May we go off the record one  
17 more moment? Thank you.

18 (off the record)

19 MS. DUBUQUE: Mr. Chairman, may we bring  
20 Mr. Soderman on to explain the EMF information?

21 ACTING CHAIRMAN MURPHY: I think that's a  
22 good idea.

23 MS. DUBUQUE: Thank you.

24 (pause)

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1 MR. SODERMAN: Dr. Bell, I think what you  
2 have to think about when you're looking at these two  
3 graphs is -- you'll notice Figure I-10 for example, that  
4 cuts across the right-of-way. So we're cutting across  
5 the right-of-way, whereas the walking path that's in  
6 Figure I-7 is walking parallel. So we're staying kind of  
7 in that area on that graph where it's kind of low off to  
8 the side. We never actually walked under the center of  
9 the rails. And that's where the existing blue line would  
10 peak for the magnetic fields, when you're actually in the  
11 middle of the rails. But since we never cross that,  
12 we're staying kind of off to the side, okay, and to Mr.  
13 Ashton's point earlier, the distribution lines, the  
14 railroad circuits, all of them are going to have an  
15 effect on the magnetic fields.

16 DR. BELL: Is -- is it correct to conclude  
17 then that the -- that if you take 5.2 as the average for  
18 one cross-section -- an imaginary cross-section because  
19 you didn't go in a cross-section when you walked up the  
20 path, okay, then the EMF post-construction, which on  
21 Figure 10 the highest level is a little bit above 60 in  
22 Figure 1-10, the EMF will increase from 5 let's say to a  
23 little above 60? Is -- is that a correct assumption?

24 MR. SODERMAN: I think there will be an

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1 increase in this area because we will be kind of staying  
2 along the route, so we will be closer to the green peak  
3 that you see in the graph, so there will be an increase.  
4 Of course we stayed on the sidewalks because we were  
5 trying -- you know, we didn't want to walk in the middle  
6 of traffic, and the same thing on State Street. So the  
7 exact path we would measure wouldn't get up above 60, but  
8 a path similar to what we measured would get there. Of  
9 course you'd have to be walking in the traffic to get to  
10 that location, yes.

11 DR. BELL: Yeah, I understand, State  
12 Street is a problem, but I don't have anything to compare  
13 except for the State Street calculations. And I'm,  
14 obviously, trying to make some inference about how much  
15 the levels will increase. And I think you've -- I think  
16 you've helped me in understanding at least how they'd  
17 increase in this area, which I realize isn't relevant to  
18 Culloden Street or Scott Place or some of the areas where  
19 there's residential buildings.

20 Those are my questions. Thank you, Mr.  
21 Chair.

22 ACTING CHAIRMAN MURPHY: Mr. Ashton.

23 MR. ASHTON: Thank you very much. I'm  
24 going to begin my questioning with trying to clarify some

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1 of the questions that have been previously asked, and  
2 then I want to touch on the South End Substation and then  
3 the area itself.

4 Mr. Gagnon, you were talking about in  
5 responding to questions on how to determine thermal  
6 ratings, and as I recall, you implied these were set  
7 nationally, regionally, and by NERC at the local level,  
8 and NPCC I guess too. And you -- these are for overhead  
9 lines to clarify a little bit. And they are really  
10 driven by a number of factors, aren't they? They'd be  
11 driven by the ambient temperature, would that be true?

12 MR. GAGNON: That is true.

13 MR. ASHTON: And what is the ambient  
14 temperature -- what do they use for an ambient  
15 temperature? Any idea? Would it be up in the 90 degree  
16 range?

17 MR. GAGNON: 100F degrees in summer --

18 MR. ASHTON: One hundred F. And so this  
19 is aiming at -- to protect the system or evaluate the  
20 system at a time of summer peak load, fair enough?

21 MR. GAGNON: That is correct.

22 MR. ASHTON: And does it involve a wind  
23 velocity too?

24 MR. GAGNON: Yes, wind is --

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1 MR. ASHTON: And that's, what, one and a  
2 half foot per second or something like that, 1.4?

3 MR. GAGNON: Three.

4 MR. ASHTON: Three, okay. So it's about  
5 two miles an hour?

6 MR. GAGNON: Yes.

7 MR. ASHTON: And the objective is to  
8 prevent annealing, isn't it? And what is annealing?

9 MR. GAGNON: Yeah. Annealing is when the  
10 steel gets extremely hot, it changes properties and it  
11 becomes -- it could actually become a little bit weaker.

12 MR. ASHTON: Right. So over the useful  
13 life of a conductor, the ratings are postulated to limit  
14 annealing to a certain percent. I can't remember what  
15 the figure is -- 20 percent or 40 percent, or something  
16 like that. So loss of strength of the conductor is  
17 minimized, fair to say?

18 MR. GAGNON: That is true.

19 MR. ASHTON: Okay. And that, in general,  
20 means you can load the heck out of it in the wintertime  
21 because the ambients are low, wind velocities are higher,  
22 and annealing is not really a problem. Although  
23 annealing can go on all year round depending on the  
24 circumstances. Fair to say?

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1 MR. GAGNON: Yes.

2 MR. ASHTON: But it's the aggregate  
3 effects stretched out over the useful life of the  
4 conductor that is the determining factor in the rating?

5 MR. GAGNON: That is correct.

6 MR. ASHTON: Okay. There was a question  
7 about the Long Island Cable as backup in case of a  
8 contingency. And I think, Mr. Russo, you were the one  
9 who was talking about that. Is the Long Island Cable  
10 germane to the issue before the house today? Aren't we  
11 talking about the capacity of the system to deliver  
12 energy into the remotest corner of Fairfield County and  
13 not into what I'm calling the bulk of Fairfield County?

14 MR. GAGNON: That is correct.

15 MR. ASHTON: Okay. And just so I'm clear,  
16 is Long Island considered a sink or a source? So that a  
17 sink you're going to have trouble getting energy out of,  
18 but a source would be more likely to have energy  
19 available.

20 MR. GAGNON: Looking at the normal flows  
21 per day, it was more of a sink, than it is a source.

22 MR. ASHTON: Yeah. It's still the same  
23 thing, isn't it -- is the cable back in service full bore  
24 now? It was out for quite a while, wasn't it?

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1 MR. GAGNON: Yes, it is back in service.

2 MR. ASHTON: Okay. How long was it out,  
3 do you know? You can whisper, it's okay.

4 MR. GAGNON: Yes. Yeah, about a year it  
5 was --

6 MR. ASHTON: About a year?

7 MR. GAGNON: Yeah.

8 MR. ASHTON: So if things don't work out  
9 right, an underground cable can be a real headache. Is  
10 that not fair to say?

11 MR. GAGNON: Yes, that is true.

12 MR. ASHTON: Okay. That leads me to  
13 another question. What overhead opportunities did you  
14 look at here, if any?

15 MR. GAGNON: We actually looked at quite a  
16 few overhead opportunities. I would characterize them  
17 as four basic different options that we could have chosen  
18 --

19 MR. ASHTON: Well I noticed for example as  
20 I came down and got off the highway to Atlantic Street,  
21 the crossings over I-95 of the three circuits --

22 MR. GAGNON: Mmm-hmm --

23 MR. ASHTON: -- there is two -- one -- two  
24 towers, one has two circuits on it, the other one only

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1 has one but designed for a second circuit, and the second  
2 circuit is not installed obviously. Would not that be a  
3 practical alternative, to put the fourth overhead circuit  
4 on that vacant tower?

5 MR. GAGNON: That -- that is one of the  
6 alternatives that we looked at. And when we started  
7 looking at that -- again, you -- right, you would have to  
8 put some additional pole arms on there -- I'm not sure --  
9 I'll have to check with Peter, but I -- I do not believe  
10 those were actually designed for a double-circuit tower.  
11 The big reason why we had issues with that tower itself  
12 on that side of the line is it's built on an easement  
13 along the railroad, the right-of-way. And along the  
14 railroad we have an easement language that suggests that  
15 if the railroad ever wanted to come and expand, that we  
16 would have to remove all the structures at CL&P's cost.

17 We are familiar with C-DOT's plan right  
18 now to expand -- to expand the Route 1 -- the Route I-95  
19 exit ramp and the -- there's a bunch of bridge  
20 replacements going on by Metro North. And their plan  
21 right now is to expand the wing-walls, suggesting that  
22 they are going to be expanding the rail tracks in the  
23 near future.

24 MR. ASHTON: In the near future?

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1 MR. GAGNON: In the future.

2 MR. ASHTON: My impression of trying to  
3 expand anything in this area is pushing the pyramid of  
4 Mount Everest.

5 MR. NOVAK: If I may?

6 MR. ASHTON: Mr. Novak, always pleased to  
7 hear you.

8 MR. NOVAK: Part of our review of the  
9 Atlantic Street underpass crossing was a series of  
10 meetings that we've had with Conn-DOT. And during those  
11 discussions with Conn-DOT, we -- we found out a lot of  
12 information not only about Atlantic Street, but also the  
13 surrounding areas and the effects that were associated  
14 with it. Lowering the underpass by five feet had  
15 significant impacts on all the roads leading up to that  
16 underpass. And one of the things that came to our  
17 attention was the fact that they were expanding the wing-  
18 wall for Atlantic Street, they were moving the railroad  
19 wall along South State Street out 15 feet and essentially  
20 eliminating one of the South State Street lanes. And  
21 when we further discussed this with them, they said that  
22 all of the current projects that they have that are new  
23 projects are all being designed to accept an additional  
24 rail in that area.

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1 MR. ASHTON: Additional what?

2 MR. NOVAK: Rail.

3 MR. ASHTON: Rail in that area.

4 MR. NOVAK: So the expansion that they're  
5 looking at is in the neighborhood of 15 feet to the west  
6 --

7 MR. ASHTON: Yeah --

8 MR. NOVAK: -- which would be toward South  
9 State Street. There's approximately 24 structures that  
10 are along that side, which is the 1977 line, the line  
11 that you were referring to --

12 MR. ASHTON: Yeah --

13 MR. NOVAK: -- the structures are designed  
14 for two circuits, 1272, 115-kV. And just the expansion  
15 alone would eliminate 17 of the 24 structures just  
16 because of the close proximity of the -- (indiscernible,  
17 coughing) -- and to piggyback with what Mr. Gagnon said  
18 about the easement, the easement language does state that  
19 at our cost --

20 MR. ASHTON: Yeah --

21 MR. NOVAK: -- we would have to remove  
22 that circuit.

23 MR. ASHTON: I'm sure they were very  
24 generous. My experience with them has always led me to

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1 believe that.

2 MR. NOVAK: So placing a second circuit on  
3 a set of structures that has the potential sometime in  
4 the future, whether it's five, ten, fifteen years,  
5 whatever --

6 MR. ASHTON: Well --

7 MR. NOVAK: -- being removed was --

8 MR. ASHTON: -- I can see -- I can see the  
9 work trying to anticipate an expansion around Atlantic  
10 Street, trying to anticipate an additional lane or lanes  
11 on I-95 for example, and I can see it trying to  
12 anticipate possibly a widening of additional tracking in  
13 this area. But to do this all along, you have to --  
14 before they can really kick the transmission line off the  
15 railroad, they have to expand it all the way along. And  
16 that strikes me as a hellish project. You know, I'm not  
17 sure their capacity limited at this stage on the  
18 railroad. Certainly at peak time they are pushing it,  
19 but I really wonder how serious that is. Was there any  
20 pointblank question placed to Metro North and/or C-DOT as  
21 to the timing of this, what would be likely to occur?

22 MR. NOVAK: Well I don't -- I don't recall  
23 a direct --

24 (interruption - noise)

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1 MR. ASHTON: I'm not armed -- (laughter) -

2 -

3 MR. NOVAK: I do not recall a direct  
4 question, but I also do not recall ever a date given to  
5 us.

6 MR. ASHTON: Well I'm sure they wouldn't  
7 dismiss it, but I -- I would wonder if one question would  
8 not help, especially where you've got two towers in a  
9 ticklish position already positioned --

10 MR. NOVAK: I understand --

11 MR. ASHTON: -- already ready for that  
12 fourth circuit.

13 MR. NOVAK: I understand.

14 MR. ASHTON: There were questions -- I'm  
15 not quite sure what to do with this animal that I've got  
16 by the tail a little bit, so I'm going to have to move  
17 on, but that would seem to me to be a very worthwhile  
18 question. Fifty million bucks or more or less for a mile  
19 and a fraction is something that boggles my mind where  
20 I'm used to thinking of 115-kV at a hundred and fifty  
21 thousand bucks a mile or something like that. Inflation  
22 sure has caught on.

23 There was issues on, you know, how -- is  
24 it worst to have greater capacity -- excess capacity in a

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1 system or risk of loss of load. And let me just probe at  
2 that in trying to illuminate this in my own mind. It  
3 strikes me that load growth is very incremental, very  
4 small increments. You know, you're talking a few  
5 kilowatts at a time. Mr. Novak builds a new house and he  
6 adds load compared to what he had here. Mr. Gagnon puts  
7 in air-conditioning, central air-conditioning, and he  
8 adds a few kilowatts. I think incrementally you see a  
9 pretty smooth line going up. But when you get into  
10 adding facilities, those are step increments, aren't  
11 they? You know, if you're going to put a fourth circuit  
12 in of 200 MVA capacity, that's a big increment. And for  
13 a while you've got a lot more capacity than you really  
14 need if you're trying to build it exact to match the  
15 load, but over time that gets eaten up and then you have  
16 to find another step somewhere down the line. Is that a  
17 fair assessment of the load growth and capacity growth?

18 MR. GAGNON: Yes, it is.

19 MR. ASHTON: Okay. And I can't remember  
20 which hearing it was, but my recollection is either the  
21 East/West Solution or the Greater Springfield -- but the  
22 question was posed of CL&P as to what they felt was the  
23 value of a kilowatt hour that was lost due to the  
24 inability of the system to perform as designed, a loss of

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1 load in other words. And my recollection is that that  
2 was about \$10.00 per kilowatt hour. Would that be  
3 something that would shock you to hear? That's what's on  
4 the record. Does -- anybody in your group familiar with  
5 that at all?

6 MS. DUBUQUE: Yes, Mr. Ashton. As a  
7 matter of fact, I am. So if you can give me just one  
8 moment to find my note on that exact subject. Thank  
9 you.

10 (pause)

11 MR. ASHTON: I -- I'm really not asking  
12 you to justify that number all over again. I'll accept  
13 it from the record if you'll accept my memory.

14 MS. DUBUQUE: I'm remembering 8.5, but --

15 MR. ASHTON: Okay --

16 MS. DUBUQUE: -- but --

17 MR. ASHTON: 8.5, I'll accept that --

18 MS. DUBUQUE: -- I read it last night.

19 Subject to check, that's what I'm remembering.

20 MR. ASHTON: Okay. But my -- my -- where  
21 I want to go with this is that if you lose 100 megawatts  
22 of load because of a transmission failure, would it not  
23 be reasonable that that hundred megawatts times eight  
24 dollars and fifty cents per kilowatt hour is a heck of a

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1 lot of money, and that would be well on the way to  
2 justify additional circuitry. Is that fair to say?

3 MR. GAGNON: That is fair to say.

4 MR. ASHTON: Okay. That's my point --

5 MR. GAGNON: Yeah --

6 MR. ASHTON: -- that the cost consequences  
7 of an outage are significant compared to the incremental  
8 carrying charges on a circuit to protect and ensure the  
9 reliability of a service area. And you agree with that -  
10 - okay.

11 Let me -- let me go on to the South End  
12 Substation. And I was the one who asked that that  
13 article about South End be inserted because it had a  
14 great picture of people moving like crazy to get the  
15 mafia blocks in place around that substation, which the  
16 testimony today says is beyond the five-hundred year  
17 flood. And my point here is, is it not correct that the  
18 five-hundred year flood does not really take advantage of  
19 a howling gale coming down Long Island Sound and forcing  
20 water into the Stamford Harbor? Would you agree with  
21 that?

22 MR. GAGNON: That could happen.

23 MR. ASHTON: Okay. And there is a  
24 hurricane barrier on Stamford Harbor, but is it on the

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1 east branch or the west branch, or is it on both? I  
2 can't remember which. Mr. Swan must know.

3 MR. SWAN: On the -- on the west --

4 MR. ASHTON: On the west side, okay. So  
5 the east side at this time, which is the potential cause  
6 for flooding of South End, is open to a storm surge.  
7 Okay. What would be the company's position to installing  
8 a permanent wall of say six-foot height around that  
9 substation to protect it against an untoward  
10 circumstance?

11 MR. GAGNON: That's something that we can  
12 certainly look into.

13 MR. ASHTON: Well I know you can look into  
14 it, but does that make any -- a little bit of sense? You  
15 had to pay a few bucks to install all those mafia blocks  
16 on an overtime basis compared to what could be installed  
17 on a workday basis with proper drainage allowed for and  
18 proper access through it. Mr. Novak, you're a civil  
19 engineer I respect, what do you think?

20 MR. NOVAK: Well the -- the storm that  
21 we're referring to was a catastrophic storm, one that  
22 people were not --

23 MR. ASHTON: How -- how many catastrophic  
24 storms have we had in the last two years?

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1 MR. NOVAK: Too many.

2 MR. ASHTON: Okay. So the flooding would  
3 come from the east branch of the harbor over various  
4 local streets, which look pretty flat to me, so there's  
5 not much increment there. And you've put barriers around  
6 two sides and maybe a little bit around the third, I'm  
7 not sure. So that would be something that would be  
8 deserving of consideration. If this gets approved, would  
9 you be willing to examine that as part of a D&M plan, so  
10 we could take a careful look at this?

11 MR. GAGNON: Yes -- yes, we would.

12 MR. ASHTON: Okay. There were a number of  
13 questions that were asked on the trip, some of which were  
14 throwaway type things, you know, what are reactors for,  
15 what are -- what is a reactor. It's really just a coiled  
16 wire, isn't it, and it's designed to throttle the current  
17 in a -- a short-circuit current going into a -- or coming  
18 from the substation so you don't blow the equipment up.  
19 Is that fair to say?

20 We asked questions about where the line  
21 would be located, visa vie the side -- the curbs of the  
22 streets they're on. Would you care to repeat that for  
23 the record?

24 MR. NOVAK: Yes. The question was where

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1 would it be in the streets, whether it would be down the  
2 middle, or would it wander about where there would be  
3 space available. And it would wander about trying to  
4 find adequate space for our new facility.

5 MR. ASHTON: And it would be trying to  
6 avoid conflicts like city sewers, storm sewers?

7 MR. NOVAK: That is correct.

8 MR. ASHTON: Do you avoid conflicts with  
9 gas lines now?

10 MR. NOVAK: Yes.

11 MR. ASHTON: And that's because they're  
12 part of your -- okay. They aimed them for -- but that's  
13 another story -- you would seek to relocate if that was  
14 advantageous to your project, would it not? If a gas  
15 line could be moved relatively easily compared to the  
16 complexity of trying to get around it, you'd ask Yankee  
17 to move it, wouldn't you?

18 MR. NOVAK: That is correct.

19 MR. ASHTON: Sure. Would the line go  
20 through people's front yards or the splice chambers?

21 MR. NOVAK: One splice chamber is planned  
22 for Culloden --

23 MR. ASHTON: For what?

24 MR. NOVAK: Culloden Road.

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1 MR. ASHTON: Okay.

2 MR. NOVAK: And the location of that is on  
3 the side of the road. And the expectation is that it  
4 will -- a portion of it will be off the road, but in the  
5 grassy sidewalk area and not the front yard.

6 MR. ASHTON: Okay. And as I recall, there  
7 were three vaults contemplated, is that correct?

8 MR. NOVAK: That is correct.

9 MR. ASHTON: The question was -- one of  
10 the questions asked was why don't you stay on North State  
11 Street for the Atlantic -- for the alternate route.

12 MR. NOVAK: Yes. Part of the I-95  
13 expansion through that area eliminated a portion of the  
14 North State Street in the back of Financial Center, which  
15 is now the Financial Center, such that the North State  
16 Street ends in the back of the Financial Center and then  
17 picks up on the other side of Financial Center. The off-  
18 ramp was built in its place, which is now part of the  
19 highway. It's built on a higher level, retention walls  
20 are holding it up, such that keeping on North State  
21 Street going through the access road area that we  
22 identified to the Siting Council on today's bus route,  
23 and then coming out on the other side through the grassy  
24 area and rejoining North State Street would be the most

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1           advantageous way to build the duct bank.

2                       MR. ASHTON: Has there been any discussion  
3 with the Financial Center about the possibility of using  
4 their front lawn as a route? Nothing at all?

5                       MR. NOVAK: To date no.

6                       MR. ASHTON: They're not even aware that  
7 you're considering it?

8                       MR. NOVAK: That is correct.

9                       MR. ASHTON: I might make a recommendation  
10 that you have a little chat with these people. They hate  
11 like hell reading about it in the paper in the morning.  
12 Does that appear to be a practical alternative, that you  
13 could go through that?

14                      MR. NOVAK: It is a route that works. It  
15 is not the preferred route. It's the alternate route.

16                      MR. ASHTON: Okay. On the Canal Street  
17 option, as you parallel the railroad, will you be on any  
18 metropolitan -- Metro North property?

19                      MR. NOVAK: The vast majority of the Canal  
20 Street option route is not on Metro North properties. We  
21 do parallel a fence line for a good portion in the  
22 parking lot. The -- as we enter on to Canal Street, the  
23 property line associated with Metro North has an odd  
24 shape to it, such that it forces us to cross a portion of

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1 Metro North railroad property.

2 MR. ASHTON: Do you anticipate any trouble  
3 with that?

4 MR. NOVAK: We do not.

5 MR. ASHTON: Okay. Looking at the photo  
6 over to my left showing the Canal Street alternative, as  
7 you come through the property -- or the parking lot  
8 behind the office building there, and I'm not sure what  
9 they call that office building, it goes parallel with the  
10 railroad. But then as it approaches Canal Street, it  
11 dips so it runs away from the railroad in a wide sweep  
12 and turns up Canal Street. Why not just go straight over  
13 and bend it right around?

14 MR. NOVAK: One of the design  
15 considerations -- again this is still preliminary as far  
16 as discussions are concerned, but one of our design  
17 criteria was to try and minimize as much of the Metro  
18 North property as possible.

19 MR. ASHTON: Okay. Would you be crossing  
20 on Metro North property if that didn't take that wide  
21 bend?

22 MR. NOVAK: If we took the wide bend shown  
23 there, we would still be crossing a portion of it, yes.

24 MR. ASHTON: Okay. I just -- you know,

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1 it's a million dollars or something like that to put this  
2 cable in, and I thought maybe you'd make a bargain with -  
3 - and split the difference with Metro North.

4 The issue of conflicts with underground  
5 utilities, water, sewer, phone, gas whatever, you name  
6 it, raise the question in my mind in this very congested,  
7 highly urbanized area, whether it would be sensible to  
8 consider a tunnel where you would install the pipe, poly  
9 -- poly pipe, or whatever, on a rack in a tunnel, and you  
10 also then could satisfy Stamford's four-inch duct that  
11 they want, and as time goes on you could satisfy  
12 undergrounding of distribution getting away from the  
13 substations or in between the substations without tearing  
14 up the streets any more. Was that ever considered?

15 MR. NOVAK: It was not.

16 MR. ASHTON: And how -- wouldn't that be -  
17 - wouldn't that offer some advantages in that you can do  
18 this fairly in small increments because you don't have to  
19 put, you know, a hundred-foot length of this or that in  
20 at one time? Would -- would that have any advantage at  
21 all? I know ducts are used in New York, I know they're  
22 used in Japan, and I know they're used in England. And  
23 I'm wondering whether there's any merit here.

24 MR. GAGNON: Sometimes planning ahead for

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1 a spare duct that is not being used at that time, ISO New  
2 England looks at it as something that's not -- that is  
3 going to be used for a regional benefit, those would be  
4 localized costs. We're trying to minimize the cost to  
5 the Connecticut ratepayers.

6 MR. ASHTON: Couldn't it also give you an  
7 option for a second -- another circuit or two circuits if  
8 you had a utility tunnel? You know, there's no question  
9 -- I don't think that anybody is going to disagree at all  
10 with the very obvious situation that it's extremely  
11 difficult to bring electric power in here. And  
12 underground probably is the only way you're going to get  
13 away with it, ignoring Metro North and all the rest of  
14 it, but you want to be able to have some options in the  
15 future, don't you?

16 MR. GAGNON: We definitely want to leave  
17 all options open, yes.

18 MR. ASHTON: Wouldn't that be something  
19 that would be worth taking a look at? I don't know what  
20 the construction costs are, but it strikes me that you  
21 ought to be able to open up a trench in much shorter  
22 increments than you can with a conventional pipe cable.  
23 And that's an assumption on my part, but it's certainly  
24 something worth looking at.

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1                   As I recall Cos Cob where you have 160  
2 megawatts of load, and it's one of the largest blocks of  
3 load in the area, there are -- or there were three gas  
4 turbines -- three jet engines, 20 megawatts a piece,  
5 installed 1970. They're still there I assume?

6                   MR. GAGNON: That is correct, those three  
7 are still there.

8                   MR. ASHTON: And I'm not sure, but is  
9 there any other additional gas turbines put there -- or  
10 additional generators put there?

11                  MR. GAGNON: Yes. In 2008 two additional  
12 generators were put in there, about 19 megawatts a piece.

13                  MR. ASHTON: Nineteen megawatts a piece.  
14 So you've got roughly a hundred megawatts --

15                  MR. GAGNON: Ninety-five --

16                  MR. ASHTON: -- of generation there?

17                  MR. GAGNON: Ninety-five, yeah.

18                  MR. ASHTON: Given the fact that those  
19 three originally (a) are not the most efficient, and (b)  
20 are starting to get long in the tooth, what's the chances  
21 of replacing those with a combined cycle unit or  
22 something like that, or even a modern 40 percent  
23 efficient gas turbine instead of a 20 percent efficient  
24 gas turbine?

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1 MR. GAGNON: Those are owned by NRG and  
2 I'm not sure what their plans are --

3 MR. ASHTON: Did CL&P have any discussions  
4 with NRG about a generation alternative to provide  
5 additional capacity into this area? Yea or nay?

6 MR. GAGNON: As part of the ISO planning  
7 process, there is an open forum called the PAC process in  
8 which there's a -- market participants are allowed to  
9 participate. NRG is one of the market participants. So  
10 as these solution studies were looked at, that is one of  
11 the possible alternatives to --

12 MR. ASHTON: I'm sorry, did you say it  
13 was identified as an alternative to the underground  
14 cable?

15 MR. GAGNON: No, I did not.

16 MR. ASHTON: Okay. So I'm hearing I think  
17 an answer that, no, you did not consult with NRG --

18 ACTING CHAIRMAN MURPHY: I think he's  
19 saying they didn't come forward.

20 MR. ASHTON: They didn't come forward --

21 MR. GAGNON: Right --

22 MR. ASHTON: -- but you didn't ask the  
23 blunt question. Is that right?

24 MR. GAGNON: That is correct.

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1 MR. ASHTON: And nobody but ISO asked the  
2 blunt question. Is that right?

3 MR. GAGNON: I would assume. I don't know  
4 that for sure.

5 MR. ASHTON: Okay. Isn't that a  
6 reasonable thing to ask? How about the Waterside  
7 installation, which as I recall is six megawatts or  
8 thereabouts, did anybody ask whether they could put fifty  
9 or a hundred in there?

10 MR. GAGNON: Right now at Waterside there  
11 is about 69 megawatts --

12 MR. ASHTON: Is what?

13 MR. GAGNON: Sixty-nine.

14 MR. ASHTON: Sixty-nine megawatts?

15 MR. GAGNON: Yes. And --

16 MR. ASHTON: They had -- they had three  
17 small machines there, didn't they?

18 MR. GAGNON: They're 23 megawatts a piece.

19 MR. ASHTON: Oh, okay. I am definitely  
20 out of touch then

21 MR. GAGNON: And Waterside actually had a  
22 proposal at one time -- in 2006 they proposed to put  
23 about 210 megawatts into that area. And in 2010 they  
24 actually pulled out of the ISO cue.

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1 MR. ASHTON: Okay. Would it be fair to  
2 say that it would -- there's not much hope of extending  
3 the transmission facilities across the New York State  
4 line because there's the problem of connecting one sink  
5 with another sink?

6 MR. GAGNON: That is -- that is correct.  
7 We did look at that and that is --

8 MR. ASHTON: New York has got their own  
9 problems. All you'd be doing is sharing an aspirin --

10 MR. GAGNON: Correct --

11 MR. ASHTON: -- and wouldn't be providing  
12 a good solution. Did you look at various alternatives in  
13 the area? For example, there are -- over the years --  
14 there used to be Norwalk lines going -- coming down to --  
15 I can't remember whether it was Glenbrook or South End --  
16 almost like a radial connection. But then additional  
17 lines were build that either bypassed Glenbrook and came  
18 into Manhattan Street or a line -- you know, you  
19 interspersed the transmission so the terminations were  
20 staggered around. Is there any option for that as a way  
21 to beef up the face? What's -- and really the question  
22 I'd love to know the answer to is what's next? How does  
23 this fit in the longer range? Because the Governor is  
24 sure as hell pushing for more business coming out of New

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1 York into this area, and it's grown -- it used to be --  
2 when I started there were two 69 circuits supplying  
3 Norwalk. Now that's a long time ago and we've gone way  
4 beyond that. Where do you -- what's your next act here  
5 in this area?

6 MR. GAGNON: (Indiscernible) --

7 AUDIO TECHNICIAN: Microphone, sir.

8 MR. GAGNON: We do have a long-range plan  
9 for the area. One of the things that we did announce --  
10 we have in the forecast of load in 2017 to put a new  
11 substation in Greenwich -- a substation down in the  
12 Greenwich area --

13 MR. ASHTON: That would be beyond Cos  
14 Cob?

15 MR. GAGNON: That is beyond Cos Cob,  
16 correct. And --

17 MR. ASHTON: But that -- that solves the  
18 Cos Cob area to an extent. How does it affect South End  
19 and Glenbrook, if -- if at all?

20 MR. GAGNON: Well there's -- we are  
21 looking at different options of how we're going to get  
22 down to Greenwich --

23 MR. ASHTON: Okay --

24 MR. GAGNON: -- and it's in the long-range

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1 plan -- the first -- the first idea is we get the South  
2 End, we build that link. We establish a new substation  
3 down in the Greenwich area. We feed that either off of  
4 South End or by another local substation, it could come  
5 off of Cos Cob, it could come off of Glenbrook. Once we  
6 have one link, we start looking at is it possible to  
7 bring another transmission line in, being able to create  
8 a loop to make sure that we have a good robust  
9 transmission system in the area. So it would go back to  
10 one of the other substations as a possibility. Those are  
11 all things that we're looking at and exploring. We don't  
12 have an answer yet.

13 MR. ASHTON: I can remember back when I  
14 started there was a generating station here in Stamford  
15 Harbor, it was approximately 40 megawatts. I think the  
16 largest unit was 35 megawatts. And it was -- curiously  
17 it was a surprisingly unique unit. It was the first  
18 coal-fired station or unit that had electric static  
19 precipitators on it in the country. Now it's long gone.  
20 It went out roughly in the time of the Northeast  
21 blackout. Has there been any examination made of putting  
22 in gas turbine units or something like that in this area  
23 that would feed into South End or Tomac or any one of the  
24 stations?

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1 MR. GAGNON: I'm not aware of any. I  
2 don't know.

3 MR. ASHTON: I'm almost through.  
4 (pause)

5 MR. ASHTON: I think that's my questions.  
6 Thank you very much.

7 ACTING CHAIRMAN MURPHY: Thank you, Mr.  
8 Ashton. Mr. Hannon.

9 MR. ROBERT HANNON: I did have a few  
10 questions. Most of mine focus on the trenching and also  
11 the D&M plan. I just want to make sure that for the  
12 majority of the site the intent is the duct bank  
13 installation technique?

14 MR. GAGNON: I'm not sure I understand  
15 your question. I'm sorry.

16 MR. HANNON: For -- the trenches for the  
17 underground line, the proposal for the majority of the  
18 route is using the duct bank installation technique?

19 MR. GAGNON: Yes, that is correct.

20 MR. HANNON: Okay. And the reason I'm  
21 asking is because I see maybe a little bit of  
22 inconsistency in terms of what may be in the plan. On  
23 page D-10 where you have this section on the duct bank  
24 installation technique, remove material, relocate it to

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1 an appropriate off-site location for disposal or  
2 occasionally reuse as backfill. A little further in the  
3 report on page G-2 and G-3, you talk about excess  
4 excavated material that isn't suitable for backfilling,  
5 maybe trucked off-site. So can you explain the  
6 difference on that?

7 MR. GAGNON: Well we are -- we are -- we  
8 are planning to excavate the dirt out of the trench and  
9 actually dispose of it, not put it back in the trench.  
10 We're going to be filling the trench with fluidized  
11 concrete to make sure that we have certain thermal  
12 activity that we can count on.

13 MR. HANNON: Okay. And that gets me to my  
14 next point, is because I didn't see anything in here  
15 where there was any type of staging areas proposed for  
16 the soil, to test it and found out what the chemical  
17 composition was, you know, assuming there may be some  
18 contaminated soils.

19 MR. GAGNON: We -- we anticipate that  
20 we're going to be putting that in the D&M plan where  
21 those locations --

22 MR. HANNON: Okay. And that gets me to  
23 the D&M plan, because there's nothing in any of the  
24 descriptions about the D&M plan that talks about that. I

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1 mean it talks about would include procedures on erosion  
2 control, construction site dewatering, spill prevention  
3 control, construction staffing and hours, traffic  
4 control, and restoration. I didn't see anything anywhere  
5 in the document that addresses that issue.

6 MS. DUBUQUE: Mr. Hannon, we can certainly  
7 add that to the D&M plan. Now that you've raised the  
8 issue, we'll make sure to include that. And you'll have  
9 another shot at it because it will come back before the  
10 Council.

11 MR. HANNON: I thank you for that. And  
12 the reason I bring it up is because there was a general  
13 permit at the agency that was specifically set up to work  
14 with utility companies for this exact type of process.  
15 So I just -- I didn't see anything in the document and I  
16 just wanted to make sure that that was covered.

17 COURT REPORTER: One moment please.

18 (pause - tape change)

19 COURT REPORTER: Alright, thank you.

20 MR. HANNON: Okay. And I just also want  
21 to identify that some of these comments and questions I  
22 just made and your responses, it also is the same for  
23 what was the direct testimony of Raymond Gagnon and Peter  
24 Novak, so -- again, I have one question there -- where

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1 it's on page 18, the question was has CL&P identified  
2 potential storage and staging areas, and I'm assuming  
3 that's for vehicles and other types of equipment and has  
4 absolutely nothing to do with the excess soils that are  
5 removed from the trench?

6 MR. GAGNON: That is correct.

7 MR. HANNON: Okay. So I just wanted to  
8 make sure that the soil staging is set up and we adhere  
9 to proper protocol. I have nothing further.

10 ACTING CHAIRMAN MURPHY: Thank you, Mr.  
11 Hannon. Director Caron.

12 MR. MICHAEL CARON: Thank you, Mr.  
13 Chairman. Mr. Chairman, Mr. Ashton as usual has answered  
14 -- has asked a lot of my questions, but I did want to  
15 pursue a little bit on South Station, the potential of  
16 perhaps putting up a wall there for possible future  
17 flooding, and you've addressed that. Are there any other  
18 places in Atlantic Street or State Street where flooding  
19 may be an issue for an underground vault, I mean for the  
20 new, you know, storm environment we seem to find  
21 ourselves in?

22 MR. GAGNON: Well, we -- we do know that  
23 every once in a while you could get flooding or water  
24 into our duct system, and we have in the past had water.

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1 And we do pump out the water, we do vacuum out the sand  
2 or soot or soils that get in there. And if -- if it ever  
3 was saltwater, we'd go in and have to wash down the  
4 inside of the vault to make sure that it is cleaned out.

5 MR. CARON: What would be the recovery  
6 time for some event of that nature? A ballpark.

7 MR. GAGNON: When -- when you go to pump  
8 out a vault, it really depends on exactly where it is.  
9 If you're pumping out a vault that's near the bottom of  
10 many, many vaults together, you end up pumping the entire  
11 duct bank out from one end to another. So you're setting  
12 up traffic, you begin to pump, and it could be -- it  
13 could be 24 hours, it could be two days. Most of the  
14 time we get it pumped out within a day.

15 MR. CARON: So we're not talking weeks?

16 MR. GAGNON: Yes.

17 MR. CARON: Okay. That's pretty much it,  
18 Mr. Chairman, thank you.

19 ACTING CHAIRMAN MURPHY: Thank you, Mr.  
20 Caron. Mr. Wilensky.

21 MR. EDWARD S. WILENSKY: Yes. Just a few  
22 questions -- and I'm sorry if I'm going to ask questions  
23 that might have been asked before, but, you know, sitting  
24 here older than everybody else, my hearing is not as good

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1 as some of the other folks. But anyway, the question I  
2 was curious about is the railroad tracks. You have to  
3 bore under the railroad tracks as I understand this.  
4 Does this disrupt Metro North -- and -- and did you work  
5 with them or are they in agreement with what you're  
6 planning to do?

7 MR. GAGNON: No -- no, we have been -- we  
8 have been meeting with them and they are aware of it and  
9 we work with them. This is something we've done before.  
10 They're aware of this and we're working together on it.

11 MR. WILENSKY: So you don't feel that's  
12 going to be a problem going under those tracks?

13 MR. GAGNON: No, not at all.

14 MR. WILENSKY: And do they have -- do you  
15 have -- do you have to meet with them -- or you must have  
16 met with them to come to some kind of an agreement?

17 MR. GAGNON: Yes. We met with them  
18 several times.

19 MR. WILENSKY: And they're -- they have no  
20 problem -- I gather they have no problem with this?

21 MR. GAGNON: Right. As long as we follow  
22 their specifications --

23 MR. WILENSKY: Okay --

24 MR. GAGNON: -- correct.

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1                   MR. WILENSKY: The other thing I was  
2 concerned about is the state -- I think it's South State  
3 Street -- the traffic on South State Street, which seems  
4 to be a theatre route to 95 or to the railroad station,  
5 or whatever it is, and that would cut down to maybe one  
6 or two lanes. How do you compensate for that during the  
7 late afternoon traffic? You know, at 4:00 or 5:00  
8 o'clock that traffic is horrendous there. And will you  
9 be -- what hours -- will you be working at that time or  
10 will you cut down your hours? Will you work at night or  
11 just how does that go?

12                   MR. GAGNON: Well originally we were  
13 planning 7:00 to 7:00. But we understand there is going  
14 to be traffic and we're going to work with the State and  
15 the city to figure out what is the best time frame to  
16 work on that street. We -- we do recognize that is a  
17 very heavy traffic --

18                   MR. WILENSKY: So you feel you can  
19 compensate for that -- you --

20                   MR. GAGNON: Yes --

21                   MR. WILENSKY: -- you've compensated for  
22 that already? In other words, you'd have -- you'd be  
23 able to work --

24                   MR. GAGNON: Yeah, we would work --

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1 MR. WILENSKY: -- that it wouldn't disrupt  
2 the flow of traffic that much?

3 MR. GAGNON: We would work -- we would  
4 probably minimize some traffic hours, put traffic  
5 controls in place, use police and flaggers to direct  
6 traffic, minimize the impact as much as we can.

7 MR. WILENSKY: I see Dr. Bailey sitting  
8 here and we can't let him go without asking him one  
9 question. Dr. Bailey, can I ask you a question? I  
10 figure you're the EMF expert. You know, we've seen you  
11 throughout the years. And I'm just wondering on Culloden  
12 Road where there are a lot of homes near -- I guess it's  
13 in the Glenbrook section -- does this affect the homes --  
14 the EMF, does that affect the homes? Is there more --  
15 because they're in such close proximity to the cables, do  
16 you see any effect on that or any adverse effect on the  
17 homes in that one particular area?

18 DR. BAILEY: Well if you look at the  
19 calculations, they show that the proposed underground  
20 installation will actually result in lower magnetic  
21 fields at distances as you go away from the cable. So  
22 directly over the cable for a distance of 25 feet around  
23 the cable the magnetic field is going to be higher. But  
24 once you get 25 feet away, going out toward 50 feet and

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1 beyond, then the field levels on the proposed project  
2 will be lower than what they are under the existing  
3 conditions. And the levels in any event, whether  
4 existing or proposed, at those distances are quite low,  
5 certainly in the range that you could find -- as was  
6 shown by the measurements along the walking routes in the  
7 range of, you know, 5 milligauss on average. And those  
8 levels will dissipate to that background level or lower.

9 MR. WILENSKY: So there isn't -- in other  
10 words, there's not -- there's no danger -- there isn't  
11 any danger as you can project for the homes or for the  
12 particular residents in that area or any of the homes?

13 DR. BAILEY: Well as you heard the  
14 testimony earlier, the field levels even above the cable  
15 are not at a level that science has determined does pose  
16 a health risk. And the current recommendations are from  
17 the World Health Organization that public exposures be  
18 kept below the guideline levels that were talked about  
19 earlier in the hearing today of 9,040 milligauss or 2,000  
20 milligauss. So the -- the changes in the magnetic fields  
21 away from the cable at residences are very small and not  
22 at levels that have been determined to be of a health  
23 risk.

24 MR. WILENSKY: Thank you, Dr. Bailey.

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1 Those are my questions, Mr. Chairman.

2 ACTING CHAIRMAN MURPHY: Thank you. I  
3 think Dr. Bell has a follow-up question she indicated.

4 DR. BELL: Just -- just one follow-up  
5 question. I'm not sure if it's for you, Dr. Bailey,  
6 maybe for the engineers, but just -- the question is does  
7 the use of this HOBAS pipe as opposed to steel pipe make  
8 any difference in the propagation of magnetic or electric  
9 fields?

10 MR. SODERMAN: The PVC pipe doesn't -  
11 doesn't attenuate the fields. So steel can actually in  
12 the vicinity of the pipe lower magnetic fields by  
13 shunting them around the pipe.

14 DR. BELL: So that would not happen when  
15 you use the PVC?

16 MR. SODERMAN: That's correct, it would  
17 not happen.

18 DR. BELL: Thank you. Thank you, Mr.  
19 Chair.

20 ACTING CHAIRMAN MURPHY: Thank you.  
21 Attorney Henault, any cross-examination for the panel?

22 MS. HENAULT: Yes. Thank you, Chairman.  
23 I wanted to talk a little bit about NERC reliability  
24 violations that are mentioned in the materials as a

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1 reason for this project, and also there's been testimony  
2 about that today. If you could please describe the  
3 process by which NERC assesses any violation?

4 MR. GAGNON: What NERC -- what NERC does  
5 is they set -- they have a high level standard. FERC  
6 gives the responsibility of transmission reliability to  
7 NERC. NERC then sets a high level national standard on  
8 reliability thresholds. That gets passed on to the NPCC,  
9 Northeast Power --

10 A VOICE: Coordinating --

11 MR. GAGNON: -- yeah, Coordinating  
12 Council, thank you -- a mind block today -- and then ISO  
13 New England takes that information and what they do is  
14 they interpret it, and then they have their reliability  
15 criteria. And that's what we design our system on. So  
16 it's -- it's a tiered standard process. And -- I think I  
17 lost your question in this.

18 MS. HENAULT: It was a general question  
19 just to get a little bit of background. More  
20 specifically, how often would this particular area be  
21 assessed at any of the tiers that you've discussed?

22 MR. GAGNON: According to the planning  
23 process every year we're supposed to reevaluate all our  
24 transmission lines. It's a very daunting task to do

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1 everything, so we -- we end up doing as much as we can  
2 per year. And we have -- once we find issues, we work  
3 with ISO to develop a task force to dive into an area, to  
4 then investigate a little bit further of those criteria  
5 violations or a needs assessment of an area.

6 MS. HENAULT: When was the first -- well  
7 first let me ask has there been a violation assessed to  
8 this area?

9 MR. GAGNON: Yes. This -- this project --  
10 or this load pocket -- during the initial studies of the  
11 Middletown/Norwalk and Bethel/Norwalk back in 2002 --  
12 yeah, 2002 -- what they did is they start looking at an  
13 entire area. And in doing so, it's very difficult  
14 because there's many parts -- there's a lot of work to do  
15 for each one of these studies. What they have to do is  
16 they have to come up dispatch, generation dispatch  
17 scenarios. And then they start -- by running generators  
18 in different ways, they stress the system. We talked  
19 about stressing the system earlier. Then what they have  
20 to do is they evaluate each component on the transmission  
21 system. We call it the N minus one test. And if you  
22 think about a transmission system, all the breakers, all  
23 the transmission lines, and all the substation components  
24 are considered an element. And you could have a fault on

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1 an element. So when a fault on an element takes place,  
2 the project planning person then studies each  
3 transmission line to figure out what was the effect on  
4 that. And in this case we do have some effects on the  
5 transmission system where some of our lines become  
6 overloaded when a certain element has a contingency or  
7 fails or malfunctions during a certain generation  
8 dispatch.

9           The N minus one minus one test is we then  
10 say okay now we have one element out, and now we look at  
11 taking a second element out. As you can imagine, that  
12 compounds the number of analysis that you have to do.  
13 When you look at the whole transmission system, that  
14 becomes -- you have tens of thousands of different cases.  
15 So in the case of this area, we -- we were looking at  
16 solving the southwest solution, solving the backbone  
17 issues of this area. It's so complex we couldn't fix  
18 everything at once. So we started focusing on what are  
19 the major backbone components and you start putting fixes  
20 into the equation. And then you start looking at the  
21 sub-areas. And this was a sub-area that was identified  
22 in the early Bethel/Norwalk studies and we pulled it out  
23 and put it aside because we couldn't deal with that right  
24 away, we wanted to resolve the major issues on the

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1 backbone of the system, and then we started -- after that  
2 was completed, we came back and started addressing this,  
3 the sub-area here for this application.

4 MS. HENAULT: Okay, thank you. So is it  
5 fair to say that this area in Stamford in particular has  
6 had -- has been in violation since 2002?

7 MR. GAGNON: It was -- it was discovered  
8 that we do have a problem in this area. In 2002 we  
9 started addressing the major -- I mean we -- it -- yes.  
10 And we started addressing the major issues first before  
11 we started focusing on the smaller areas.

12 MS. HENAULT: What are the consequences of  
13 a NERC violation?

14 MR. GAGNON: A NERC violation -- in the  
15 past -- I think the incident in Florida in 2000 and --  
16 I'm not sure when that occurred -- there was a major  
17 outage and I believe there was -- we have it somewhere --  
18 there were multimillion dollar fines -- do you have --  
19 (pause) -- 2003 there was a blackout in Florida that  
20 started and it had a cascading effect. And FERC, I  
21 believe, had fines of close to 25 million dollars in  
22 civil penalties --

23 MS. HENAULT: Have there been any fines  
24 for this area in Connecticut?

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1 MR. GAGNON: Not that I'm aware of.

2 MS. HENAULT: Have there been any other  
3 monetary consequences of NERC violations in this area?

4 MR. GAGNON: Not that I'm aware of.

5 MS. HENAULT: Does NERC give a time by  
6 which violations have to be remedied?

7 MR. GAGNON: The -- the idea is once you  
8 find a violation, you are obligated to fix it. You have  
9 to meet these national standards.

10 MS. HENAULT: Okay. I want to follow-up  
11 on the questioning about regionalization that Mr. Martin  
12 had earlier. Would you please give examples of what  
13 conditions would cause the cost for this project to be  
14 localized as opposed to regionalized?

15 MR. GAGNON: If -- there are several --  
16 there are several reasons -- this project in particular -  
17 - if it -- this project solves the reliability problem or  
18 issue that is a regional issue, and so this problem would  
19 not be localized. If we ended up putting in a spare duct  
20 bank for future growth, that portion of the project,  
21 similar to Glenbrook, was deemed by ISO New England to be  
22 a localized cost because it wasn't directly needed for  
23 the reliability of the regional area at that time.

24 MR. NOVAK: I -- I have another example if

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1 you might be interested? The Middletown/Norwalk Project  
2 included some localized costs in the Town of Cheshire  
3 where we had overhead lines come into a certain  
4 community, and we put the lines underground for  
5 approximately one mile, and those costs were localized.

6 MS. HENAULT: How is this situation in  
7 Stamford different with the underground lines as opposed  
8 to the underground lines in Cheshire?

9 MR. NOVAK: The underground lines in  
10 Cheshire are different in the sense that the construction  
11 that we were involved with was building an overhead line  
12 and, therefore, the cost of building a portion of it  
13 underground was greater than it would be if we had built  
14 it overhead as originally planned.

15 MS. HENAULT: Following up on the cost for  
16 overhead versus under-head, I understand from testimony  
17 earlier that an overhead route was considered. What  
18 would be the average cost for an overhead route for this  
19 project?

20 MR. GAGNON: We -- we did look at an  
21 overhead project. We talked about doing some rework on  
22 the 1410, the double-circuit line. And some of the  
23 issues with rebuilding along the right-of-way is we just  
24 don't have enough physical space. We'd have to go and

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1 widen the right-of-way. And in doing so, there was about  
2 29 pieces of property that we identified that we would  
3 have to purchase easements on. Some of those properties  
4 even had buildings. And most likely we would have to go  
5 and purchase the entire piece of property and take down  
6 the buildings. So it came out to be about a hundred and  
7 seven million dollars for an overhead option.

8 MR. ASHTON: I'm sorry, would you mind  
9 explaining -- what was that, 409 million? That was for  
10 an overhead alternative?

11 MR. GAGNON: One -- yeah, 107 million.

12 MR. ASHTON: This is an overhead line from  
13 Glenbrook to South End Substation, the fourth circuit?

14 MR. GAGNON: If we were trying to widen  
15 the right-of-way.

16 MR. ASHTON: Oh, if you were trying to  
17 widen it. But would the fourth circuit require a widened  
18 right-of-way?

19 MR. GAGNON: If we were putting the fourth  
20 circuit on the two double-circuit towers and try to  
21 separate those actually -- that we were just trying to  
22 separate the two lines and solve the reliability criteria  
23 in that case. You know, separating and putting up a  
24 bigger conductor. If we were looking at putting it on

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1 the 1977 line, that was that single line pole that you  
2 had discussed earlier, one of the issues that we would  
3 have with that is it would create another double-circuit  
4 tower configuration and we would be back into the double  
5 contingency issue where then we have the possibility of  
6 all the power coming out of Glenbrook going toward --  
7 going towards South End for the double contingency in  
8 that area and you -- you would --

9 MR. ASHTON: How would NEPOOL react if you  
10 had a proposal (a) for underground at fifty odd million,  
11 and an overhead fourth circuit on existing towers, and  
12 I'm going to throw a number out of two million, would  
13 they consider a cost benefit of undergrounding?

14 MR. GAGNON: I -- you know, maybe --

15 MR. ASHTON: I understand the double  
16 contingency issue, but there's a lot of 115-kV around  
17 Connecticut that you're exposed to two circuits for a  
18 tower failure --

19 MR. GAGNON: That is correct --

20 MR. ASHTON: -- which ain't happened too  
21 often.

22 MR. GAGNON: Yes, correct.

23 MR. ASHTON: Would NEPOOL consider that in  
24 their evaluation?

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1                   ACTING CHAIRMAN MURPHY:  If he can answer  
2     that.

3                   MR. ASHTON:  If -- if you know?  Thank  
4     you, a fair point.

5                   ACTING CHAIRMAN MURPHY:  He's not NEPOOL.

6                   MR. GAGNON:  And unfortunately in this  
7     case, it doesn't solve our problem with the overloads.

8                   MR. ASHTON:  The fourth circuit wouldn't?

9                   MR. GAGNON:  No, because we would be on  
10    the 1977 tower.

11                  MR. ASHTON:  I'm getting lost now.

12                  MR. GAGNON:  Okay.  If -- if that tower --  
13    it's a 1977 tower, was made into a double-circuit tower -  
14    -

15                  MR. ASHTON:  Yeah --

16                  MR. GAGNON:  -- and we had a contingency  
17    on that tower --

18                  MR. ASHTON:  Yeah --

19                  MR. GAGNON:  -- and then we also had a  
20    contingency on the towers that support both the 1440 and  
21    1450 --

22                  MR. ASHTON:  So you're thinking of a total  
23    outage of the transmission system on both sides of the  
24    track?

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1 MR. GAGNON: That is correct.

2 MR. ASHTON: Are you in that kind of a  
3 situation now?

4 MR. GAGNON: Well I imagine if the -- if a  
5 train fell off the track, that's a possibility, but --

6 MR. ASHTON: You what?

7 MR. GAGNON: If a train ever fell off the  
8 track, that's a possibility.

9 MR. ASHTON: Has it, do you know?

10 MR. GAGNON: Has it -- has one ever?

11 MR. ASHTON: Yeah.

12 MR. GAGNON: Oh, yes. Not in that area,  
13 not that I'm aware of though.

14 MR. ASHTON: Okay. What I'm trying to get  
15 at is how much greater risk is there if you went for the  
16 overhead line at a substantial reduction in capital costs  
17 compared to a very expensive, very expensive underground  
18 line?

19 MR. GAGNON: It -- it would -- it would  
20 definitely be --

21 MR. ASHTON: It's a tough decision.

22 MR. GAGNON: It is a very tough decision.

23 MR. ASHTON: Was that discussed with  
24 NEPOOL, do you know?

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1 MR. GAGNON: I wasn't at those  
2 discussions, but I -- I can ask --

3 MR. ASHTON: Mr. Russo, you have wisdom to  
4 shed on this?

5 MR. RUSSO: We did not discuss that option  
6 with ISO New England because of -- as Ray stated, there's  
7 four -- there would be four circuits with this project  
8 serving the area and we could lose three of them in an N  
9 minus one minus one scenario. And as a result, we would  
10 be left with one of the existing lines. And that line  
11 would be overloaded. So building an option overhead,  
12 this project overhead, we would not solve any criteria  
13 violations that the project set out to solve.

14 MR. ASHTON: How do you sleep with the  
15 four circuit towers from Rowayton Junction north to  
16 Norwalk (a), and (b) Rowayton Junction back to the Ely  
17 Avenue Cable termination --

18 MR. RUSSO: I think --

19 MR. ASHTON: -- four circuits on one  
20 tower?

21 MR. RUSSO: If I don't think about it, I  
22 can sleep, but -- (laughter) --

23 MR. ASHTON: I think you'd be biting your  
24 fingernails to the elbow --

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1 MR. RUSSO: Well you -- that's why they're  
2 under the table. It's -- it's problematic. That area is  
3 very constrained --

4 MR. ASHTON: Oh, absolutely --

5 MR. RUSSO: -- in terms of the right-of-  
6 way. And the quadruple tower that you're speaking of is  
7 an issue. Right now we have not considered what we would  
8 have to do with that to remedy any issues it could cause.  
9 Typically, that would be considered an extreme -- it  
10 could be considered an extreme contingency as a loss of  
11 right-of-way and -- and -- unless it would cause a large  
12 loss of system, we tend not to --

13 MR. ASHTON: I empathize with your  
14 problem. I'm well aware of contingent conditions and  
15 what they can do. But I'm also empathetic towards the  
16 poor ratepayer who we're nickel and diming them here at  
17 sixty cents a year or something like that, but that's  
18 not the only one we're gold-plating. Do we do -- and  
19 this is a rhetorical question really -- do we do a fair  
20 shake in judging the likelihood of a contingency versus  
21 the cost to correct that potential contingency? We're  
22 talking a mile and a quarter here, or something like  
23 that. That's a heck of a lot of money. I mean it's mind  
24 boggling --

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1                   ACTING CHAIRMAN MURPHY: You know, Phil,  
2 we're getting --

3                   MR. ASHTON: How -- how do we --

4                   ACTING CHAIRMAN MURPHY: -- we really --  
5 Attorney Henault was doing her cross-examination --

6                   MR. ASHTON: Right -- okay --

7                   ACTING CHAIRMAN MURPHY: -- and let's go  
8 back to her.

9                   MR. ASHTON: Okay -- just to finish it up  
10 though, that's my dilemma in trying to resolve this,  
11 there's a big cost penalty associated with it. I'm  
12 sorry.

13                  MS. HENAULT: No problem. Thank you --

14                  MR. ASHTON: I suspected you'd be  
15 interested in the outcome.

16                  MS. HENAULT: To follow up somewhat on  
17 what Mr. Ashton is describing, what is the average cost  
18 per mile in general for an underground transmission  
19 line?

20                  MR. GAGNON: That's -- it's a very tough  
21 question to answer, but we did address generic  
22 underground construction in the lifecycle hearings. I  
23 think we identified it -- subject to correction, I think  
24 it was like 21 million dollars a mile in a generic

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1 location.

2 MS. HENAULT: So this project would be  
3 quite a bit higher than that --

4 MR. GAGNON: It is --

5 MS. HENAULT: -- double -- or more than  
6 double?

7 MR. GAGNON: No, it's not more than  
8 doubled.

9 MS. HENAULT: Because of the substation  
10 improvements or --

11 MR. GAGNON: Right. It's 40 -- I believe  
12 it was 43 for the line itself and 46 included the two  
13 substations -- that is correct. It's a mile and a half.

14 MS. HENAULT: The -- the last thing I want  
15 to ask about is -- also following up on some questioning  
16 about flooding, which has obviously been a problem, we've  
17 obviously been hit by a lot of storms, and in particular  
18 we're probably all aware that there was significant  
19 damage done to underground systems as a result of Storm  
20 Sandy due to saltwater. Is -- is the -- are the  
21 facilities you're building going to be able to withstand  
22 saltwater if it were to infiltrate the system?

23 MR. GAGNON: Yes, they are.

24 MS. HENAULT: And is the equipment more

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1 expensive because of that?

2 MR. GAGNON: No, it's -- we're not doing  
3 anything really special for saltwater. What we try to do  
4 is use non-corrosive materials in the duct work, in the  
5 concrete splice vaults. A lot of the racking systems are  
6 composite material that it does not corrode.

7 MS. HENAULT: That's all I have, thank  
8 you. Thank you, Mr. Chairman.

9 ACTING CHAIRMAN MURPHY: Mr. Martin, do  
10 you have any follow-up questions?

11 MR. MARTIN: No, I do not, Mr. Chairman.

12 ACTING CHAIRMAN MURPHY: Does member of  
13 the Council have anything further?

14 MR. ASHTON: One question. What's the  
15 annual carrying charges on a capital investment such as  
16 an underground line? Twenty percent roughly?

17 MR. GAGNON: 14.1. When you're not  
18 considering O&M costs --

19 MR. ASHTON: If what?

20 MR. GAGNON: When you're not considering  
21 O&M costs in that number --

22 MR. ASHTON: I'm --

23 MR. GAGNON: -- I've seen --

24 MR. ASHTON: -- I'm looking for the whole

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1 smear, taxes, insurance, return --

2 MR. GAGNON: I think that's closer to 17,  
3 but let me just check --

4 MR. ASHTON: Okay, I'll accept that.

5 ACTING CHAIRMAN MURPHY: Any other  
6 questions from members of the Council? If not, I guess  
7 we'll recess and return at 7:00 -- oh, excuse me --  
8 Attorney Dubuque.

9 MS. DUBUQUE: Mr. Chairman, I did find my  
10 notes and I did want Mr. Ashton to know because I didn't  
11 want him to lose any sleep over it, and this is in the --  
12 you took administrative notice of the Interstate  
13 proceeding, but the value of lost kilowatt hours was  
14 eighty-five hundred per --

15 MR. ASHTON: Megawatt --

16 MS. DUBUQUE: -- megawatt hour. So it was  
17 8.5 per kilowatt hour.

18 MR. ASHTON: That's fine.

19 MS. DUBUQUE: And also I have one question  
20 on redirect for Mr. Gagnon. Mr. Gagnon --

21 ACTING CHAIRMAN MURPHY: Sorry I didn't  
22 afford you the opportunity.

23 MS. DUBUQUE: Can I --

24 ACTING CHAIRMAN MURPHY: Go ahead --

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1 MS. DUBUQUE: -- oh, sorry -- can I  
2 proceed? Mr. Gagnon, when you were talking about the  
3 2003 blackout, you were referring to Chicago and not  
4 Florida, correct?

5 MR. GAGNON: Correct.

6 MS. DUBUQUE: Thank you, Mr. Chairman.

7 ACTING CHAIRMAN MURPHY: We'll resume at  
8 7:00 p.m. Have a good meal all.

9  
10 (Whereupon, the hearing adjourned at 5:00  
11 p.m.)

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