STATE OF CONNECTICUT

SITING COUNCIL

BEFORE: ROBIN STEIN, CHAIRMAN

BOARD MEMBERS: Brian Golembiewski, DEP Designee Edward S. Wilensky Daniel P. Lynch, Jr. Philip T. Ashton Dr. Barbara Bell

STAFF MEMBERS: Linda Roberts, Executive Director Christina Walsh, Siting Analyst Melanie Bachman, Staff Attorney

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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, Re: Connecticut Portion of the Interstate
5	Reliability Project, held at the Central Connecticut
6	State University, Institute of Technology and Business
7	Development, 185 Main Street, New Britain, Connecticut on
8	August 2, 2012 at 11:05 a.m., at which time the parties
9	were represented as hereinbefore set forth
10	
11	
12	CHAIRMAN ROBIN STEIN: Good morning. This
13	is Docket 424. It's approximately 11:05 on August 2,
14	2012.
15	My name is Robin Stein and I'm Chairman of
16	the Connecticut Siting Council. Other members of the
17	Council present are Mr. Golembiewski, the designee from
18	the Department of Energy and Environmental Protection;
19	Mr. Ashton; Mr. Wilensky; and Dr. Bell oh and Mr.
20	Lynch, you're not supposed to be here, but I see you're
21	here (laughter).
22	MR. DANIEL P. LYNCH, JR.: I I can
23	leave, Mr. Chairman (laughter)
24	MR. PHILIP T. ASHTON: Go home.

1	CHAIRMAN STEIN: So we have the special
2	appearance of Mr. Lynch (laughter) sorry.
3	And members members of the staff are
4	Executive Director Linda Roberts; Staff Attorney Melanie
5	Bachman; Supervising Siting Analyst Christina Walsh.
6	Gail Gregoriades, the court reporter; and Aaron DeMarest,
7	the audio technician.
8	This hearing is a continuation of the
9	evidentiary portion of the proceedings that began on June
10	4th on CL&P's proposed Interstate Reliability Project.
11	We'll proceed today in accordance with the
12	prepared agenda, copies of which are available.
13	A verbatim transcript will be made of each
14	hearing session. And all hearing transcripts will be
15	deposited in the Town Clerk's offices of the affected
16	towns for the convenience of the public.
17	We will begin with the appearance of the
18	Applicant. I understand you have to swear in new
19	witnesses and verify highlighted exhibits on the hearing
20	program?
21	MR. ANTHONY B. FITZGERALD: Yes, Mr.
22	Chairman.
23	CHAIRMAN STEIN: And Attorney Bachman will
24	begin by swearing in the witnesses. Please rise those

1 who are --2 MS. MELANIE BACHMAN: Please raise your 3 right hand. 4 (Whereupon, Kenneth Collison, Maria Fusco 5 Scheller, Judah Rose, Paula Taupier, Robert Carberry, and Timothy Lakowski were duly sworn in.) 6 7 MS. BACHMAN: Thank you. 8 CHAIRMAN STEIN: Attorney Fitzgerald, if 9 you could begin by verifying the exhibits for admission 10 that you've filed in this matter, and verifying the 11 exhibits. 12 MR. FITZGERALD: Yes. I'd like to start 13 with Miss Taupier, who is going to sponsor the Response 14 to Question CSC-25, which is part of Exhibit 10. 15 Miss Taupier, what is your position with 16 Northeast Utilities? 17 MS. PAULA TAUPIER: I'm the Director of 18 Transmission Rates for Northeast Utilities Service 19 Company appearing on behalf of Connecticut Light and 20 Power today. 21 MR. FITZGERALD: And in that capacity did 22 you prepare the response to Question CSC-025, which is 23 part of Exhibit 10 in this proceeding? 24 MS. TAUPIER: Yes, I did.

1	MR. FITZGERALD: And is the information in
2	that response true and correct to the best of your
3	knowledge and belief?
4	MS. TAUPIER: Yes, it is.
5	MR. FITZGERALD: I move that Exhibit 10
6	well that Question 25 in Exhibit 10 be accepted as
7	evidence in this proceeding. And that will leave us with
8	one question remaining in this set.
9	CHAIRMAN STEIN: (Indiscernible)
10	COURT REPORTER: I'm sorry
11	CHAIRMAN STEIN: Does any party or
12	intervenor object? Hearing and seeing none, this exhibit
13	is admitted.
14	(Whereupon, the Response to Question No.
15	25 in Applicant Exhibit No. 10 was received into evidence
16	as a full exhibit.)
17	MR. FITZGERALD: And are there any
18	questions on the on this exhibit? This is the if
19	there's not, I have one. And then Mrs Miss Taupier
20	can go
21	CHAIRMAN STEIN: Well we'll go to cross-
22	examination I guess we'll let you raise the first
23	question.
24	MR. FITZGERALD: Miss Taupier, in this

1	exhibit you calculate that the incremental retail rate
2	impact for a 700 kilowatt hour rate 1 residential
3	customer of the project if built as proposed would be 24
4	cents a month. Is that right?
5	MS. TAUPIER: Yes, that's correct. For
6	the CL&P portion of the project.
7	MR. FITZGERALD: Okay. And the did you
8	also do calculations to estimate what the further
9	incremental rate impact would be were the Mount Hope
10	underground variation to be ordered in this case in lieu
11	of the overhead section that it would replace?
12	MS. TAUPIER: Yes, we did.
13	MR. FITZGERALD: And what was that and
14	what is that amount?
15	MS. TAUPIER: We had calculated that if we
16	were to underground the Mount Hope section, that it would
17	increase the cost to consumers by an additional 25 cents
18	
19	MR. FITZGERALD: So so that would
20	MS. TAUPIER: per month (mic
21	feedback) oh, I'm sorry per month.
22	MR. FITZGERALD: So that would be an
23	approximate doubling of the rate impact on the
24	Connecticut consumers for the Connection portion of the

1	project, is that right?
2	MS. TAUPIER: That is correct.
3	MR. FITZGERALD: That's all that I have.
4	CHAIRMAN STEIN: Were there any other
5	exhibits new exhibits?
6	MR. FITZGERALD: There will be, yes, from
7	these witnesses. I was going to take them up in order as
8	I as I took their testimony, but which I can do right
9	now if there's no I actually I guess I'm waiting to
10	see if we can let Miss Taupier go and then I'll move to
11	the next
12	CHAIRMAN STEIN: So there is a method to
13	your madness
14	MR. FITZGERALD: Yes (laughter)
15	CHAIRMAN STEIN: I didn't understand.
16	So I guess we'll now go to cross-examination. I'll first
17	see if staff has any.
18	MS. CHRISTINA WALSH: No questions. Thank
19	you, Mr. Chairman.
20	CHAIRMAN STEIN: Dr. Bell.
21	DR. BARBARA C. BELL: I have no questions
22	of Miss Taupier, Mr. Chair.
23	CHAIRMAN STEIN: Mr. Ashton.
24	MR. ASHTON: You drew an unlucky number.

1 I -- I have a couple of questions. 2 Miss Taupier, the 24 cents is for the CL&P 3 -- this assumes that it's all accepted by ISO and 4 regionalized, is that correct? 5 MS. TAUPIER: This estimate assumes a very 6 small portion, 4.3 million dollars might be localized. 7 But yes, largely --8 MR. ASHTON: Basically it's all -- you're 9 -- you're talking four out of 500 million, more or less, 10 is that right? 11 MS. TAUPIER: No, the Connecticut portion 12 for CL&P was 218 million --13 MR. ASHTON: Okay --14 MS. TAUPIER: -- so it's slightly smaller. 15 MR. ASHTON: So that this is a 16 regionalized impact? The 24 cents assumes that all the other companies pick up a piece of that 218 million? 17 18 MS. TAUPIER: Correct. 19 MR. ASHTON: What does it -- what is the 20 total project impact on rates? That is there's -- other 21 companies are picking up a Connecticut portion, Connecticut is picking up a portion in Rhode Island and 22 Massachusetts, and all the rest of it. Do we have any 23 numbers that would reflect that? 24

1	MS. TAUPIER: This data request also
2	identified for the National Grid portion of the project,
3	again assuming a hundred percent regionalization of those
4	costs, that CL&P would pay an additional 30 cents
5	increase to an average monthly bill for a total of the
6	entire Interstate Reliability Project to be approximately
7	54 cents per month.
8	MR. ASHTON: Okay. That national grid
9	piece includes the Rhode Island portion, it includes the
10	Massachusetts portion? National Grid is the only other
11	conspirator in this, aren't they?
12	MS. TAUPIER: Correct. Their portion of
13	the project was estimated to be approximately 293 million
14	
15	MR. ASHTON: Okay okay. That answers
16	that question. While that represents a new investment,
17	which is depreciated over its useful life, there is
18	ongoing depreciation, I assume, on some of the other 345
19	system on the rest of the 345 system. Is that fair to
20	say?
21	MS. TAUPIER: That is fair to say, yes.
22	MR. ASHTON: So if there was a standstill
23	in everything except outside of the 345 was excluded,
24	what would be the net impact? You've got an increase

1	driven by the Interstate Project, but you've got a
2	decrease driven by the declining rate base on the balance
3	of the 345 system, is that not correct?
4	MS. TAUPIER: That is correct. But what
5	you need to consider is the fact that CL&P and of course
6	National Grid are not the only transmission owners within
7	New England who are building out their system. So there
8	is other activity going on in the regional transmission
9	grid where other utilities are building out the system,
10	so
11	MR. ASHTON: I I understand that
12	MS. TAUPIER: so CL&P would be paying
13	some of those costs
14	MR. ASHTON: Yeah, I I understand that.
15	I'm just trying to get it's a dynamic process, if you
16	will. You've got new facilities being added, old ones
17	being retired or depreciated. And I'm just trying to get
18	to understand what the likely net impact is on the
19	ratepayer. You're saying that 24 cents is the CL&P share
20	of this. And that would be an increment?
21	MS. TAUPIER: Yes, to what CL&P's
22	customers are currently paying to support the existing
23	transmission system.
24	MR. ASHTON: But wouldn't CL&P customers

1 pay less to support the existing customers -- or existing 2 system in the future? Do you follow what I'm driving 3 at? 4 MS. TAUPIER: I think that you have a 5 valid point. What we could certainly do is look at where 6 the R&S rate is going for the regional facilities. That 7 analysis would be --8 MR. ASHTON: Yeah --9 MS. TAUPIER: -- we'd have to assume 10 something static at a point in time to be able to do that 11 analysis --12 MR. ASHTON: Yeah, I --MS. TAUPIER: -- to get the net impact --13 MR. ASHTON: -- I understand. It's less 14 15 than a crystal clear thing, but I know CL&P has put 16 facilities in service and I know that others are going in 17 too --18 MS. TAUPIER: Mmm-hmm --19 MR. ASHTON: -- but I'm trying to get at 20 the -- that the 24 cents is incremental, but it ain't 21 incremental in the sense that there are factors attending 22 to drive that down so that the rates don't change as 23 dramatically as might otherwise be indicated. Is that 24 fair?

1	MS. TAUPIER: I don't know if I would say
2	it in that way. I think that this is an incremental
3	addition to improve the reliability in the region. Other
4	New England transmission owners are doing similar
5	projects to improve reliability. CL&P does have core
6	transmission assets that are already in place and, yes,
7	they are depreciating, but there are other improvements
8	being made. So I don't think you could say that it's a
9	net decrease.
10	MR. ASHTON: Oh, I didn't say it's a net
11	decrease. It's there are offsets to the 24 cents.
12	That's what my point is.
13	MS. TAUPIER: Yes, there are some offsets
14	
15	MR. ASHTON: Right
16	MS. TAUPIER: but it's a factor of
17	MR. ASHTON: for example, the the
18	Norwalk to Middletown system is in service, is being
19	depreciated, and hence its rate base is its impact on
20	the rate base is less and less as time goes on.
21	MS. TAUPIER: That is correct.
22	MR. ASHTON: And that's so that's an
23	offset. And I'm picking on that just because it's a hell
24	of a big project.

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1 MS. TAUPIER: Yes, it is. 2 MR. ASHTON: The numbers are scary frankly 3 for somebody with my background. I used to think a hundred thousand dollars a mile was pretty steep. Mr. 4 5 Carberry is laughing hysterically. We're both dating 6 ourselves --7 CHAIRMAN STEIN: I didn't know you were 8 that old -- (laughter) --9 MR. ASHTON: Oh, yes, I am. I -- I think 10 that's my only question of this witness. Thank you, Mr. 11 Chairman. 12 CHAIRMAN STEIN: Mr. Golembiewski. 13 MR. BRIAN GOLEMBIEWSKI: Thank you, 14 Chairman. I just had one question, and maybe it's not an 15 apples to apples question, but the Interstate is going --16 the project is going to allow Connecticut to import -- I 17 think it's 600 or 700 megawatts of more energy. Is there 18 any benefit that -- in your calculations to the 19 ratepayers? 20 MS. TAUPIER: No, our calculation 21 specifically addressed the transmission rate impact --22 MR. GOLEMBIEWSKI: Okay --23 MS. TAUPIER: -- absent any other market 24 savings, we did not address that. That is not my

1 expertise. 2 MR. GOLEMBIEWSKI: Okay. Thank you. That's all. 3 4 CHAIRMAN STEIN: Mr. Wilensky. 5 MR. EDWARD S. WILENSKY: Yes. I'm a little confused. I think you said the Mount Hope 6 7 underground increase would cost consumers approximately 8 25 cents or 24 cents -- 25 cents -- is that what you 9 said? 10 MS. TAUPIER: Twenty-five cents, yes. 11 MR. WILENSKY: Now when you say the 12 consumers --13 MS. TAUPIER: Per month --14 MR. WILENSKY: -- who are the consumers? 15 All of Connecticut, all of New England? Who pays that 25 16 cents? MS. TAUPIER: That was an estimate for 17 18 CL&P's retail customers. 19 MR. WILENSKY: So in other words if I -- I 20 live in Wolcott. I would pay an additional 25 cents on 21 my bill for this --22 MS. TAUPIER: Per month --23 MR. WILENSKY: -- portion of the line? 24 MS. TAUPIER: Yes, that is correct. You

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1 are --2 MR. WILENSKY: If I lived in Rhode Island 3 or Massachusetts, the same thing would apply? 4 MS. TAUPIER: You would pay a different 5 percentage share of that. Recognizing that if the Mount 6 Hope underground piece was determined to be a localized 7 cost by ISO New England --8 MR. WILENSKY: Yes --9 MS. TAUPIER: -- then if you lived in 10 Rhode Island, you might not pay anything associated with 11 Mount Hope --12 MR. WILENSKY: So it would be primarily 13 the Connecticut ratepayers that will be paying this? 14 MS. TAUPIER: In the past --15 MR. WILENSKY: The cost would not be 16 shared with -- with other -- with other states? 17 MS. TAUPIER: ISO New England has that 18 responsibility to determine what portion of projects will 19 be regionalized. Based on previous past experience with 20 our projects, underground costs have been localized. 21 MR. WILENSKY: But in past experiences --22 past -- in past experience with ISO, this would not be 23 part of the regional cost, it would be just primarily 24 Connecticut.

1 MS. TAUPIER: Yes. 2 MR. WILENSKY: And the total cost of that 3 underground variation was what, two million something, is 4 that what you said, or did you release a figure? 5 MS. TAUPIER: I just have to check, one moment --6 7 MR. WILENSKY: Okay --MS. TAUPIER: -- excuse me. 8 9 (pause) 10 MS. TAUPIER: We have approximated the 11 Mount Hope underground capital investment would be 12 approximately 60 million dollars. And we have translated that to be a revenue requirement impact of approximately 13 14 10 million dollars per year. 15 MR. WILENSKY: Sixty million dollars 16 would be the total additional cost? Is that what you 17 said? 18 MS. TAUPIER: That is the capital cost of 19 the project. 20 MR. WILENSKY: I'm sorry -- well the 21 underground portion for Mount Hope would be how -- would 22 be an additional cost of what? 23 MS. TAUPIER: Sixty million dollars. 24 MR. WILENSKY: Okay. That's what I'm

1 getting at. Okay. Thank you, Mr. Chairman. 2 CHAIRMAN STEIN: Mr. Lynch. 3 MR. LYNCH: I'm just going to check my 4 math here -- and that's a scary thought -- (laughter) --5 the -- it's 25 cents per month as it stands now. If we 6 use the undergrounding alternative for Mount Hope, it 7 goes to 49 cents --8 MS. TAUPIER: Yes --9 MR. LYNCH: -- an additional --10 MS. TAUPIER: -- yes. 11 MR. LYNCH: Thank you very much. 12 CHAIRMAN STEIN: Mr. -- Mr. Golembiewski. 13 MR. GOLEMBIEWSKI: Thank you. In your 14 calculations what did you assume would occur during the 15 Mansfield Hollow section, because there are three 16 alternatives? 17 (pause) 18 MR. ROBERT CARBERRY: In that -- at the 19 time that Miss Taupier did this, the project still 20 thought for Mansfield Hollow would be building the 11-21 acre expansion option --22 MR. GOLEMBIEWSKI: Okay --23 MR. CARBERRY: -- and they're now of 24 course advocating the five-acre expansion option. It was

1	only a million to two million dollars of capital cost
2	difference between those two.
3	MR. GOLEMBIEWSKI: Okay. Would that
4	reflect in a couple of cents per month difference?
5	MR. CARBERRY: Less less than that I
6	think.
7	MR. GOLEMBIEWSKI: Okay. Alright, thank
8	you. Sorry, Chairman.
9	CHAIRMAN STEIN: So I think that may have
10	answered my question, but throughout this whole project
11	there are a number of alternatives. I guess the Mount
12	Hope one is the most significant one, but there are
13	others. So I wondered whether any of the others have any
14	kind of a significant cost and cost to the ratepayer
15	MR. FITZGERALD: We
16	CHAIRMAN STEIN: so I guess that's my
17	question.
18	MR. FITZGERALD: Yeah. I think Miss
19	Taupier also calculated the incremental cost of the
20	Mansfield underground variation. This is the other
21	underground variation.
22	MS. TAUPIER: Yes, we did. We calculated
23	for the Mansfield underground an additional 22 cents per
24	month incremental costs.

1 CHAIRMAN STEIN: Mr. Ashton has an 2 additional question. 3 MR. ASHTON: Just to clarify for all of 4 us, we talk about carrying charges, annual carrying charges, annual premium, what have you --5 MS. TAUPIER: Mmm-hmm --6 7 MR. ASHTON: -- is it fair to say that those are a conversion of the capital costs into the 8 9 annual cost, reflecting annual depreciation, the cost of 10 capital, property taxes, insurance, operation and 11 maintenance, etcetera, so that you can express that as a 12 percent of capital costs, which if I heard your numbers right is around 17 percent? Is that fair? 13 14 MS. TAUPIER: That's a good rule of thumb. 15 And yes, a carrying charge factor is an approximation of 16 the revenue requirement impact, which is the annual cost 17 to consumers for --18 MR. ASHTON: Okay. So if you had a 19 hundred million dollar project --20 MS. TAUPIER: Mmm-hmm --21 MR. ASHTON: -- your annual cost would run approximately 17 million dollars. And you'd then convert 22 23 that annual cost by spreading it over the total customer 24 base on a monthly basis --

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1	MS. TAUPIER: Correct
2	MR. ASHTON: just
3	MS. TAUPIER: using a forecast
4	MR. ASHTON: just as little arithmetic.
5	MS. TAUPIER: Yes
6	MR. ASHTON: Okay
7	MS. TAUPIER: using a forecast of
8	CL&P's retail load, yes.
9	MR. ASHTON: Okay.
10	CHAIRMAN STEIN: Any more questions from
11	Council staff? Okay. Thank you. I guess we're on to
12	your next witness.
13	MR. FITZGERALD: Thank you.
14	(pause)
15	MR. FITZGERALD: Mr. Collison, Mr. Rose,
16	and Miss Scheller, your professional resumes are included
17	in the resume volume for CL&P witnesses that has been
18	marked as Exhibit 19 in this matter. Are the statements
19	of your qualifications and experiences set forth in your
20	curriculum vitae true and correct to the best of your
21	knowledge and belief?
22	MR. JUDAH ROSE: Yes.
23	MR. FITZGERALD: Now that completes the
24	verification of the resumes in Exhibit 19 that are going

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1	to be offered as full exhibits. There are several
2	resumes of potential witnesses in there that have not
3	been verified because the people haven't testified. But
4	and I'll just for the record state that those are
5	Barton, Buckley, Busby, Fritz, Hatfield, Scarfone, and
6	Tanaka. So, I would ask that Exhibit 19 be marked as a
7	full exhibit with the exception that we're not it's
8	not being offered for the qualifications of those
9	witnesses who I just those non-witnesses who I just
10	identified.
11	CHAIRMAN STEIN: Is there any objection
12	from any party or intervenor? Hearing and seeing none,
13	it's admitted as you stated.
14	MR. FITZGERALD: Thank you.
15	(Whereupon, the Curriculum Vitaes of
16	Collison, Rose, and Scheller in Applicant Exhibit No. 19
17	were received into evidence as full exhibits.)
18	MR. FITZGERALD: CL&P's application in
19	this docket has been marked as Exhibit 1. The Critical
20	Energy Infrastructure Information Appendix, or CEII
21	appendix to that application includes a report by ICF
22	Consulting entitled Assessment of Non-Transmission
23	Alternatives to the NEEWS Transmission Projects, the
24	Interstate Reliability Project, December 2011. In

1	addition, a copy of that report, redacted to remove CEII,
2	has been marked as Exhibit 6 for identification. Did you
3	with the assistance of colleagues of yours at ICF
4	Consulting perform the analyses described in that report
5	and prepare the report?
6	MR. ROSE: Yes.
7	MR. FITZGERALD: And is the factual
8	information in that ICF report true and accurate to the
9	best of your knowledge and belief, and do you honestly
10	hold the opinions expressed in the report based on the
11	facts and analysis set forth in the report and your
12	expert education and training and experience?
13	MR. ROSE: Yes.
14	MR. KENNETH COLLISON: Yes.
15	MS. MARIA FUSCO SCHELLER: Yes.
16	MR. FITZGERALD: May it please the panel,
17	I I move Exhibit 19 as a full exhibit, and move that
18	the CEII appendix to the application be accepted as a
19	full exhibit subject to the protective order that's in
20	place. This ICF report is the last piece of the CEII
21	appendix to be qualified.
22	CHAIRMAN STEIN: Does any party or
23	intervenors have any objection? Hearing and seeing none,
24	it's thereby admitted.

1	(Whereupon, Applicant Exhibit No. 1 with
2	the CEII Appendix attached was received into evidence;
3	and the Redacted CEII was marked as Applicant Exhibit No.
4	6 and received into evidence.)
5	MR. FITZGERALD: Mr. Rose, Miss Scheller,
6	and Mr. Collison, did you assist in the preparation of
7	the section of the application, CL&P Exhibit 1, that
8	concerns non-transmission system alternatives, that is
9	Section II, Volume I-A I'm sorry Volume II no,
10	that is Volume I-A, Section 13.2?
11	MR. ROSE: Yes.
12	MR. COLLISON: Yes.
13	MS. SCHELLER: Yes.
14	MR. FITZGERALD: And does that section
15	accurately summarize the analyses and conclusions of your
16	report that has now been marked as a full exhibit?
17	MR. ROSE: Yes.
18	MR. COLLISON: Yes.
19	MR. FITZGERALD: That is the last section
20	of the application, the last outstanding section of the
21	required verification. So even though it's not
22	highlighted on the hearing program, I think if we look
23	back in the transcript, we'd find that this particular
24	piece has not been moved into evidence. So, I now move

1 that piece into evidence and ask that the application in 2 its entirety be accepted as a full exhibit. 3 CHAIRMAN STEIN: Is there any objection 4 from any party or intervenor? Hearing and seeing none, 5 the application is now fully entered. 6 (Whereupon, Applicant Exhibit No. 1, with 7 the inclusion of Non-Transmission System Alternatives, 8 was received into evidence in its entirety as a full 9 exhibit.) MR. FITZGERALD: CL&P Exhibit 10 consists 10 11 of a partial set of responses to the Council's first set 12 of interrogatories, dated March 25, 2012. Did you provide the response to CSC Question 11 in that set? 13 14 MR. COLLISON: Yes. 15 MR. FITZGERALD: And was that response 16 true and accurate at the time it was filed? 17 MR. ROSE: Yes. 18 MR. FITZGERALD: Have you since 19 supplemented that response in your prefiled testimony? 20 MR. ROSE: Yes. 21 MR. FITZGERALD: Is that response as 22 supplemented by your prefiled testimony true and accurate 23 today? 24 MR. COLLISON: Yes.

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1	MR. FITZGERALD: This is the last
2	outstanding response in Exhibit 10 to be verified. And
3	that being the case, I move that Exhibit 10 be admitted
4	as a full exhibit in its entirety.
5	CHAIRMAN STEIN: Does any party or
6	intervenor object? Hearing and seeing none, this exhibit
7	is fully admitted.
8	(Whereupon, Applicant Exhibit No. 10 in is
9	entirety was admitted into evidence as a full exhibit
10	with the inclusion of CSC Question 11.)
11	MR. FITZGERALD: Finally, CL&P Exhibit 31
12	for identification is your prefiled testimony, Mr. Rose,
13	Miss Scheller, and Mr. Collison. Did you supervise the
14	preparation of this testimony?
15	MR. ROSE: Yes.
16	MR. COLLISON: Yes.
17	MS. SCHELLER: Yes.
18	MR. FITZGERALD: And is the factual matter
19	in the testimony true and correct to the best of your
20	knowledge? And do you honestly hold the opinions
21	expressed in it based upon the facts and analyses
22	described in the testimony and your expert education,
23	training, and experience?
24	MR. ROSE: Yes.

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HEARING RE: INTERSTATE RELIABILITY PROJECT AUGUST 2, 2012 1 MR. COLLISON: Yes. 2 MS. SCHELLER: Yes. 3 MR. FITZGERALD: Do you have any 4 corrections or additions to that testimony? 5 MR. ROSE: No. 6 MR. FITZGERALD: And do you adopt that 7 written testimony as your sworn testimony in this 8 docket? 9 MR. COLLISON: Yes. 10 MR. ROSE: Yes. 11 MS. SCHELLER: Yes. 12 MR. FITZGERALD: I move Exhibit 31 as a 13 full exhibit. 14 CHAIRMAN STEIN: Does any party or 15 intervenor have any objection? Hearing and seeing none, 16 this is also admitted. (Whereupon, Applicant Exhibit No. 31 was 17 18 received into evidence as a full exhibit.) 19 MR. FITZGERALD: Thank you, Mr. Chairman. 20 I now offer the panel for cross-examination. 21 CHAIRMAN STEIN: Thank you. We'll now 22 start with staff. Do you have any --23 MS. WALSH: No questions at this time, 24 thank you.

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1 CHAIRMAN STEIN: Dr. Bell.

2 DR. BELL: Thank you, Mr. Chair. In vour 3 report you update the information about the study you did 4 concerning whether or not the Millbury to West Farnam line would be constructed. I believe that's what Mr. 5 6 Fitzgerald was drawing -- was referring to in previous 7 housekeeping. But at any rate, you say in your report 8 that -- or in response to questions that you did the 9 report and you submitted it to National Grid and they 10 submitted it as part of their application in 11 Massachusetts. What I would like to know is simply did 12 that report support the project which -- or the need to 13 build the line and generally support the whole IRP 14 project? I realize that's not the Connecticut part that 15 you were dealing with, but I just want to know for the 16 record whether the report supported building the line. 17 MR. ROSE: Ma'am, first of all, the report 18 was focused in on a situation in which the Millbury to 19 West Farnam line was not constructed. It had, if you

will, as a preamble a conclusion of a report filed in
December which supported the construction of the
Interstate project. And overall, yes, it did support the
construction of the Millbury to West Farnam line.

24

DR. BELL: Thank you. On page 22 of your

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1	prefiled testimony, you refer to certain challenges that
2	would confront any non-transmission alternative solution
3	to the problems dealt with in the IRP. And there are two
4	of them that I'd just like you to expand on. One of the
5	challenges you say is an absence of centralized multi-
6	state procedures. What did you exactly mean by that?
7	MR. ROSE: In comparison to the
8	transmission project in which ISO New England is a lead
9	entity, we didn't feel that there was similar procedures
10	for non-transmission alternatives. And in particular
11	what we concluded as a hypothetical non-transmission
12	alternative, which didn't solve the problems but
13	indicated to scale of what a non-transmission alternative
14	might be if we could find one that would actually work,
15	and it was dispersed broadly over the three states,
16	involved demand side resources, it involves supply side
17	resources, it would involve contract for differences, it
18	would be involving identification of those sources,
19	etcetera, and we didn't see that there was a situation
20	comparable where ISO New England would say here is the
21	non-transmission alternative.
22	DR. BELL: Wouldn't wouldn't these
23	if if some agency or a set of merchants got together
24	and proposed this package of materials, wouldn't they all

1	have to go to ISO though and be sort of say cleared by
2	ISO or accepted by ISO, so that would be the ISO would
3	still be the centralized authority?
4	MR. ROSE: In a situation in which you
5	were able to demonstrate that the problems of thermal
6	violations went away, it still would not be a situation
7	in which for example ISO New England would be allocating
8	27 percent of the cost to Connecticut, 51 percent or
9	whatever the specific number is to Massachusetts and
10	etcetera, and so I think that's a I don't I
11	don't I don't believe that there are similar
12	procedures comparable to what would happen in a
13	transmission situation.
14	DR. BELL: I see. So it's not just a
15	matter it's not just a technical matter. You're
16	talking about cost allocations and how that kind of thing
17	would work for a package of alternatives that would look
18	very different from a simple transmission solution?
19	MR. ROSE: The thing that I'm most focused
20	on right now is the allocation of costs, but I can't
21	think of anything that's comparable to the situation that
22	we observe here where ISO New England is identifying a
23	need, looking at a transmission line I just I don't
24	think and then instead of looking at a transmission

1	line or a set of transmission lines, it's looking at
2	specific projects being brought on as a solution to
3	thermal violations and criteria violations, etcetera, and
4	the same thing with respect to the various different
5	demand resources that we looked at.
6	DR. BELL: The other the other item
7	that you have on this list was the contract for
8	differences to make up revenue, which which I question
9	but just in your response to me just a minute ago, you
10	kind of threw that into the challenge that had to do with
11	the absence of centralized multi-state procedures. In
12	other words, it doesn't it seems to be sort of part of
13	that larger umbrella. So I guess I'll just take I'll
14	just take your answer on the question that you just
15	answered and conflate the two conflate it with my
16	second question instead of asking the second question.
17	Okay, moving along, you refer on page 24 to new rules for
18	the market, the ISO markets, that make the non-
19	transmission alternatives less practical. And then you
20	define that a little bit. You say they make the out-of-
21	market solutions well, you define it a little bit in a
22	technical way. But what I'd like to know is specifically
23	what are the new rules that make the non-transmission
24	alternatives less practical?

1	MR. ROSE: I was referring specifically to
2	the treatment of out-of-market, OOM, capacity resources.
3	When I reviewed the testimony in Connecticut with respect
4	to the consideration of I believe the Connecticut peakers
5	and the Kleen facilities, it was an explicit calculation
6	of how much those contracts and the addition of those
7	plants would decrease ratepayer costs by decreasing the
8	capacity prices. And under the new FERC rules, the bids
9	of a new entrant who is receiving similar contracts would
10	in my opinion likely result in out-of-market adjustment
11	to their bid, such that you wouldn't get those benefits.
12	It would be as if those plants weren't there from the
13	perspective of the determination of the capacity price.
14	And therefore, it's less practical to achieve a situation
15	in which for example Connecticut would enter into a
16	contract for differences, takes the financial risks
17	associated with that, and then I'd point to the contract
18	for differences in particular because I also reviewed
19	testimony in Connecticut where developers indicated they
20	wanted or would require a contract for differences in
21	order to go forward with any project.
22	DR. BELL: Okay. So that's that's
23	really one one FERC rule that you're focusing on and
24	not a whole set of them. Would that be fair to say?

1	MR. ROSE: Yes, that was the sitting
2	here right now, that's what I was thinking of.
3	DR. BELL: Alright, thank you. Those are
4	those are my questions, Mr. Chair.
5	(pause)
6	CHAIRMAN STEIN: Sorry.
7	DR. BELL: That's it.
8	CHAIRMAN STEIN: Okay. Mr. Ashton then.
9	MR. ASHTON: This is going to get a little
10	bit into philosophy and I need I need a couple of
11	things from you. Whether you're a utility regulator or a
12	corporate manager, in many respects shockingly the
13	desired outcome is very similar. We are looking for a
14	system that is efficient, effective, recovers costs and
15	so forth. And it really is a risk free award and a cost
16	benefit process, but which leads to a judgment as to
17	what you should do. I'm suspicious of any program that
18	comes out and says this is a god had ordained this
19	answer and therefore you must do thus and so. Moses was
20	the last guy who came out with that kind of an outcome.
21	When you do transmission studies, you
22	clearly attempt to test the system to find out its
23	capabilities of preserving its integrity under a variety
24	of conditions. And I think we can call acknowledge that

1 if you run into a very stressful case, a minor overload, 2 good judgment says you will probably, probably pass it by 3 and say I'll wait for a few years until it gets worse 4 before I do anything because the cost of fixing it and 5 the benefit attained thereby is probably, probably not 6 advantageous. On the other hand if you have a case where 7 the system falls apart because you failed to do something 8 or under a severe test, that's the kind of thing that 9 causes people to stay up nights and worry about it. 10 Forgive me for this long preamble, but I'm -- I'm sort of 11 thinking this out in my own mind as I go -- I can think 12 of many cases where Mr. Carberry and Mr. Zaklukiewicz have run tests on various sizes of conductors to be put 13 14 up in a transmission line, and they have found that those 15 curves tend to nest within a fairly tight range so long 16 as you have a reasonable selection of conductors, so that 17 the penalty, the economic penalty associated with taking 18 a large conductor is not too bad, and knowing that man 19 proposes and god ordains it, you would like to have a 20 large conductor up in the air to withstand that one test 21 that you can never imagine.

You've been involved in this -- I read your testimony with great interest and one of the things that has bedeviled me for a long, long time is trying to

1	understand what the impact on the system is from an
2	entirely different point of view. What is the value of a
3	kilowatt hour of interrupted load to the customer? When
4	I played with this 50 years ago, we used the figure of
5	about a dollar a kilowatt hour. There was no
6	justification to it other than what judgment led us to
7	that. I would like to hear from each of you what your
8	value is on lost kilowatt hours that might result from
9	inadequate, improper, inopportune installation of
10	facilities leading to a system outage. Now let me go
11	there for
12	MR. ROSE: I
13	COURT REPORTER: One moment.
14	(pause - tape change)
15	MR. ROSE: In Appendix E of our report we
16	indicate that we believe that the best estimate is
17	approximately eighty-five hundred dollars a megawatt hour
18	
19	MR. ASHTON: Eighty-five cents a kilowatt
20	hour?
21	MR. ROSE: Eighty it's 85 it's
22	eighty-five hundred dollars per megawatt hour.
23	MR. ASHTON: Okay, that's 85 cents a
24	kilowatt hour?

AUGUST 2, 2012 MR. ROSE: No, I think it's -- it's 8.5 dollars a kilowatt hour --DR. BELL: Yes, 8 point --MR. ASHTON: Oh, 85 -- I beg your pardon. You're right --DR. BELL: -- 8.5 --MR. ASHTON: -- my mistake. I got the decimal point wrong. MR. ROSE: Now that presupposes that the outage being conducted or results in a -- essentially like a rolling blackout situation in which you're assessing the average impact --MR. ASHTON: Yep --MR. ROSE: -- across all of the various different classes. That estimate in turn is based on unserved energy cost studies --MR. ASHTON: Yep --MR. ROSE: -- and furthermore, we emphasize that in our study that because of our concerns in a situation in which there was persistent reliance on interruptible load, that you would have rapid and unexpected attrition, unexpected from the -- in the sense

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24 dollar number, you would be surprised at the amount of

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that unless you were sensitive to the eighty-five hundred

1	attrition that would occur in a situation in which you
2	were repeatedly calling on the interruptible load during
3	the summer. And so we do actually have a quantitative
4	estimate of that.
5	MR. ASHTON: Other comments? I can't
6	believe you're all absolutely of a like mind
7	(laughter)
8	MR. FITZGERALD: Well they have different
9	different roles. Mr. Rose is the economist
10	MR. ASHTON: Okay. I was looking for
11	different opinions if there is any.
12	So anyway, what you're telling me so far
13	is that my dollar per kilowatt hour, if I took care of
14	inflation, would be about up to the eight and a half. So
15	that's not too far off the mark I guess. Does that come
16	in to the selection of non-transmission alternatives? Is
17	that going to drive any one customer to do certain things
18	that they otherwise wouldn't do?
19	MR. ROSE: The process by which we examine
20	non-transmission alternatives was to look at energy
21	efficiency or passive demand resources. We looked at
22	supply resources. We looked at combinations. And when
23	we ran and when we found that we were short, we
24	couldn't eliminate the thermal violations, we also gave

1	considerations to incremental interruptible load or
2	active resources. So it was an input into our analysis
3	and contributed to our conclusion that a I had a
4	hypothetical non-transmission alternative because we
5	couldn't find one that would work but if we could get
6	a huge increase in interruptible load, something, you
7	know, far in excess of anything that anyone would ever
8	have even thought and which we think is possible, you
9	would end up with a cost that is 30 times the cost of the
10	project. And that reflects the extremely high value that
11	society has for electricity in terms of its willingness
12	to pay to avoid a broad-based blackout.
13	MR. ASHTON: I guess that's it for now.
14	Thank you.
15	CHAIRMAN STEIN: Thank you. Mr.
16	Golembiewski.
17	MR. GOLEMBIEWSKI: I just have one
18	question. Did your analysis I know it said it broke
19	it down into sub-regions. Was Connecticut in itself
20	modeled and was there any alternative you know,
21	alternate to transmission in Connecticut that would get
22	rid of the violations in Connecticut?
23	MR. ROSE: We we looked at scenarios in
24	which the stresses on the system varied by location. So

1	we looked at a western southern New England import
2	scenario in which the issue is the ability to serve
3	Connecticut load, and then we looked at an eastern import
4	scenario, a Rhode Island import scenario, and I believe
5	we also looked at a Connecticut specific scenario. So we
6	were focused in on Connecticut. And we were looking at
7	non-transmission alternatives broadly across Southern New
8	England, so we weren't only looking in Connecticut.
9	What we found when we looked in
10	Connecticut was that there were demand side resources
11	available. And actually, almost all of the supply
12	resources that we were able to find in the
13	interconnection cue were actually located in western
14	southern New England, and a lot of it was in Connecticut.
15	So we were very much looking at the Connecticut options
16	as part of the overall NTA to try to resolve the
17	violations.
18	The violations were very broad-based that
19	we observed. They were occurring both west and east in
20	Southern New England. I think we had more success in
21	solving some of the violations in Connecticut. But what
22	we were finding is we had very difficult problems in

24 problems in Connecticut, particularly not in the near

23

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eastern Connecticut. And we didn't resolve all of the

1	term. We were finding that there were thermal violations
2	and criteria violations as early as 2015 and the the
3	lead time for the non-transmission alternatives was such
4	that you were getting much of the non-transmission
5	alternative action if you will or results or benefits
6	occurring later in 2020. So again, we did that's a
7	long way of saying that we did look at Connecticut and
8	with a fairly granular approach.
9	MR. GOLEMBIEWSKI: Okay. So just looking
10	at Connecticut, your your opinion is that there's
11	there's no alternatives, you know, generation, etcetera,
12	that would just take care of Connecticut? Because it
13	looks like Rhode Island has its issues. There's
14	there's no doubt. But there's no placement of, you know,
15	demand side generation or new generation in Connecticut
16	that would sort of not require as much infrastructure in
17	Connecticut?
18	MR. ROSE: I mean what we found is when we
19	looked at an NTA, we had a lot of it was very
20	expensive for Connecticut. As to the previous question,
21	what do you do in a situation in which the NTA, all the
22	supply resources, which we believe require contract
23	differences, are almost all are in Connecticut, and
24	what is the multi-state procedure for dealing with that?

1	So we had very expensive I indicated overall the cost
2	was 30 times. So very expensive NTAs in Connecticut.
3	And we solved we did better I think in solving
4	although we didn't solve all of the criteria violations
5	in Connecticut, but we did better in Connecticut than we
6	did in eastern New England.
7	MR. GOLEMBIEWSKI: How would so you're
8	saying it's 30 times more expensive. How does that
9	funnel down to the Connecticut ratepayer? You know, we
10	heard previously that's 24 cents or 25 for the, you know,
11	30 percent portion of Connecticut's portion of the
12	Interstate. When you throw that number out, how does
13	that sort of trickle down to the Connecticut ratepayer or
14	if it
15	MR. ROSE: You know, in contrast to the
16	transmission alternative where the sharing is an
17	established procedure
18	MR. GOLEMBIEWSKI: Yes
19	MR. ROSE: based on the load share, we
20	there was no similar mechanism that we felt we could
21	reliably indicate would allocate the costs. What we did
22	observe, again as I indicated, is that almost all of the
23	supply resources that were in the NTAs, the non-
24	transmission alternatives that we were assessing was in

1	Connecticut or were in Connecticut. And so unless you
2	had an agreement among the states to sort of somehow
3	share the risks and the costs, certainly on the supply
4	side, it would disproportionately affect Connecticut by
5	an extremely large margin. We were assuming in 2010
6	dollars that every kilowatt of combined cycle capacity
7	would cost around fifteen hundred dollars a kilowatt in
8	Connecticut, and we had a large you know, roughly one
9	to two thousand megawatts of capacity that we were
10	considering adding or we we did we did add in a
11	supply non-transmission alternative.
12	MR. GOLEMBIEWSKI: And when you say that
13	is fifteen hundred per megawatt hour is that what you
14	said?
15	MR. ROSE: Fifteen hundred dollars per
16	kilowatt of capital costs.
17	MR. GOLEMBIEWSKI: Okay. And and who -
18	- who bears those costs in your calculation when you're
19	talking like that?
20	MR. ROSE: Well again, because I
21	personally am of the view that in order to have
22	construction with some degree of assuredness that it's
23	going to help that you're going to be in a position to
24	solve your violations, you're going to have to have a

1	contract for difference. And and that would in the
2	past the contract for differences have been executed at
3	the direction of the commission some commission in
4	Connecticut.
5	MR. GOLEMBIEWSKI: So that would be a
6	social cost somehow?
7	MR. ROSE: Yes.
8	MR. GOLEMBIEWSKI: Okay okay. I just
9	had one question I was looking at I guess page 7 and
10	the question is about your extensive experience. Have
11	you ever found that there was a non-transmission
12	alternative that solved the violations, thermal and
13	voltage violations in any of the projects you've
14	reviewed?
15	MR. ROSE: In the projects in the
16	NEEWS projects that we've reviewed, no, we did not find
17	an NTA.
18	MR. GOLEMBIEWSKI: Any other any
19	another transmission projects have you done evaluations
20	for other than the NEEWS?
21	MR. ROSE: Not that's resulted in
22	testimony that come to mind.
23	MR. GOLEMBIEWSKI: Okay, thank you. Thank
24	you, Chairman.

1	CHAIRMAN STEIN: Mr. Wilensky.
2	MR. WILENSKY: Just one question, Mr.
3	Rose. Is there a timeline for this particular project,
4	for this Docket 424? And are there are there
5	directives to get this done by a certain time? Is there
6	a time a time limit set on this, on this particular -
7	_
8	MR. FITZGERALD: I think Mr. Laskowski
9	would be the person
10	MR. TIMOTHY LASKOWSKI: Yeah, I think
11	MR. FITZGERALD: to take that question
12	
13	(mic feedback)
14	MR. WILENSKY: Is that the answer
15	(laughter)
16	MR. LASKOWSKI: Yesterday, we we gave
17	you the dates that according to the ISO reports that for
18	eastern New England this project should be so that
19	with correct violations, this project should be in
20	service between the year 2015 and 2016. For Connecticut
21	it should be in service in 2014, 2015. Those are the
22	dates of need. And for western New England, 2017, 2018.
23	And of course for Rhode Island the need is immediate.
24	MR. WILENSKY: Well we have no control

1	over Rhode Island, but but this project that we're
2	talking about, this Docket No. 424, you say by 2014 and
3	2015 it has to be completed or in the ground?
4	MR. LASKOWSKI: We it should be to
5	really correct the reliability corrections, it should be
6	completed. But we know the time frame is impossible, so
7	we will not got fined because we have a plan to fix it.
8	According to NERC and FERC rules and everything, as long
9	as you've got a plan and you're working on it to fix it
10	as soon as possible, there's no fines
11	MR. WILENSKY: What happens what
12	happens if you don't complete it by those by the
13	specific dates? Is there a fine or is there a
14	MR. LASKOWSKI: If specific contingencies
15	happen, somebody is going to lose power most likely.
16	MR. WILENSKY: Thank you, Mr. Chairman.
17	Thank you, sir.
18	CHAIRMAN STEIN: Mr. Lynch.
19	MR. LYNCH: I had some questions regarding
20	costs, but thankfully Mr. Golembiewski asked them. And I
21	understood your answer, Mr. Rose, so thank you very much.
22	No questions.
23	CHAIRMAN STEIN: Any other questions from
24	staff?

1	MR. ASHTON: I've got one.
2	CHAIRMAN STEIN: Mr. Ashton.
3	MR. ASHTON: I'm not sure this is
4	appropriate, but did any of your examinations consider
5	bringing in 735 or 65 kV from New York State and the
6	eventual start of a loop through New England back up to
7	Canada?
8	MR. ROSE: No.
9	MR. ASHTON: One of the problems in
10	transmission or any electrical planning from my
11	experience is that you can always increment the system
12	bit by bit and never take the step that gets you to where
13	you really know you ought to be. For example, you could
14	I remember a study four times nineteen fifty nine load
15	level where everything was 115. You could live with 115,
16	but it was very clear that at that kind of load level,
17	which is about where we are now, you need 345 or 500
18	kV would offer a far better answer. Did your work
19	consider that kind of issue where you could increment the
20	transmission system to death, but you know that after you
21	sit back and look at the results, that's the wrong answer
22	and we ought to do something different?
23	MR. ROSE: The work that we are that
24	our report addresses is considering Interstate but no

1 other transmission option. And it -- perhaps it might be 2 better to be addressed to the company. 3 MR. ASHTON: Okay, that's fine. I just 4 wanted to pick your brains, but you're not into that 5 area. MR. ROSE: You know, I did pass up on, you 6 7 know, discussing Moses and I hope my rabbi doesn't find 8 out -- (laughter) --9 MR. ASHTON: Thank you. 10 CHAIRMAN STEIN: I think we're complete in 11 our cross-examination by the Council. So we'll now go to 12 see if any of the other parties are prepared to cross-13 examine the Applicant, so raise your hand or voice if you 14 are. If not, I'll assume you're not. NRG Companies? 15 A VOICE: No questions. 16 CHAIRMAN STEIN: The Civies? EquiPower 17 Resources Corporation? United Illuminating Company? 18 Edward Hill Bullard? The Office of Consumer Counsel? 19 Richard Cheney and the Highland Ridge Golf Range? Mount 20 Hope Montessori School? The Intervenor ISO New England? 21 A VOICE: No questions. 22 CHAIRMAN STEIN: No questions. Attorney 23 Fitzgerald, do you want to cross-examine yourself or do you have something you'd like to --24

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1	MR. FITZGERALD: Redirect. No, I don't
2	want to cross-examine, but I would like to ask a few
3	follow-up questions following on some of the matters that
4	were raised by the Council if I may?
5	CHAIRMAN STEIN: Yes.
6	MR. FITZGERALD: Thank you. I want to
7	start with what Dr. Bell was asking about, and that is
8	this question of mechanisms for coordinating non-
9	transmission alternative responses that would potentially
10	substitute for the project or at least ameliorate the
11	problems that the project addresses. And let's just look
12	at for the purposes of this illustrative response,
13	let's look at the generation component of a non-
14	transmission alternative. And it it's the case, isn't
15	it, that in your study you looked at constructing
16	generation in several different states as part of an
17	NTA?
18	MR. ROSE: Yes.
19	MR. FITZGERALD: And under under
20	current conditions did you have an opinion as to whether
21	any of that generation would get built without state
22	support in the form of contract for differences?
23	MR. ROSE: We were of the view or at
24	least I was of the view that a contract for difference

1 would be required.

2 MR. FITZGERALD: And is there any 3 mechanism in place for coordinating the issuance of 4 contract for differences for generation in multiple 5 locations in three states? MR. ROSE: Not -- not to my knowledge. 6 7 MR. FITZGERALD: And under existing 8 regulatory structures would the -- the ratepayers in each 9 state -- well question withdrawn. 10 You mentioned that Connecticut had issued 11 contract for differences in the Kleen and peaker cases. 12 In Rhode Island and Massachusetts is there any similar 13 existing statutory structure or state supported 14 generation projects by issuing contracts for 15 differences? 16 MR. ROSE: Not that I'm aware of. 17 MR. FITZGERALD: Okay. So in order for 18 that NTA to be realized, the other states would have to 19 develop some means for issuing contract for differences 20 to incentivize generation, right? 21 MR. ROSE: Yes. MR. FITZGERALD: And then the three states 22 23 would have to agree on what got built where? 24 MR. ROSE: Yes.

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1	MR. FITZGERALD: And you you mentioned
2	that in Connecticut's case where they actually did this,
3	part of the calculus for doing it was that the capacity
4	cost to Connecticut ratepayers would be lowered by
5	locating this capacity in Connecticut, and that would
6	tend to offset the support payments through the contract
7	for differences for the generation that was being
8	incentivized to locate in Connecticut, right?
9	MR. ROSE: Yes.
10	MR. FITZGERALD: Now and and but
11	ISO New England has since then with respect to new plants
12	that might be built, adopted this out-of-market rule that
13	would tend to take away that offsetting benefit of
14	reducing capacity prices, is that right?
15	MR. ROSE: Yes.
16	MR. FITZGERALD: Now you mentioned that
17	that was your primary focus, this out-of-market rule, but
18	is there another change in the ISO rules that gets
19	involved here in terms of the complicating attractiveness
20	or practicality of a non-transmission alternative? Does
21	the does the rule for modeling all zones all the time
22	get involved?
23	(pause)
24	MR. ROSE: Yes

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1	MR. FITZGERALD: Maybe not as much as I'm
2	thinking (laughter) judging from your hesitation.
3	Is it worthwhile talking about that or not?
4	MR. ROSE: It is it is an added well
5	one view of modeling all zones all the time would be that
6	it is improving the structure for sending signals as to
7	where the capacity is needed. The problem is that the
8	you know, the question is whether or not there's a close
9	enough mapping between the specific transmission
10	problems, which can be very localized individual lines or
11	equipment, to whatever zones are being modeled all the
12	time. So you know, I think it could be helpful, but I
13	don't think it's a simple solution to the problem. And -
14	_
15	MR. FITZGERALD: Okay. Well let me pass
16	that pass by that. And I know want to ask a few
17	follow-up questions about what Mr. Ashton was asking you
18	about. First of all, your your contract was
19	specifically to consider whether there were non-
20	transmission alternatives to the NEEWS project, correct?
21	MR. ROSE: Yes.
22	MR. FITZGERALD: You you were not asked
23	to and did not look at any kind of transmission
24	alternatives?

1	MR. ROSE: Not as part of the study that -
2	_
3	MR. FITZGERALD: Right
4	MR. ROSE: is in the record here.
5	MR. FITZGERALD: Okay. Now, you you
6	later on Mr. Ashton was asking you, you know, about, you
7	know, the judgments the kind of judgments that are
8	required to determine, you know, are you building the
9	right thing, are you making enough of a prudent provision
10	for the future rather than just putting a patch on a tire
11	that's going to get you through the next couple of miles.
12	I don't think he used those exact words, but that was
13	what I think he was talking about. Did you do any work
14	in the course of your assignment that is relevant to that
15	question, specifically as it relates to the Connecticut
16	part of the project?
17	(pause)
18	MR. FITZGERALD: Well let me tell you what
19	I'm thinking about.
20	MR. ROSE: Okay.
21	MR. FITZGERALD: Didn't you do didn't
22	you do some some analyses where you used some
23	different assumptions than ISO New England used in their
24	studies to see, you know, what would happen if the

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1	demands on the project turned out to be greater than
2	those that were being modeled in the ISO New England
3	analysis to see what to see if it provided, you know,
4	a margin for the future and coverage for things that
5	could happen, such as retirements that ISO New England
6	wasn't taking into account in their work?
7	MR. ROSE: Yes. And if you'd like, I
8	could elaborate a little bit? We we did look at
9	scenarios in which the peak demand in New England grew at
10	historical levels. We looked at the growth over an
11	eleven year period, culminating in a ten-year growth
12	rate culminating in 2011, so it included the current or
13	past poor economic times. And the growth rate in New
14	England we found was 2.1 percent a year. And ISO New
15	England was looking at 1.4 percent per year. And we also
16	looked at a scenario in which we just took the last six
17	years of demand growth, which was 1.9 percent per year
18	versus 1.4 percent. This is visa vie Massachusetts or
19	the numbers that are in my head. We also looked at
20	retirement of some of the steam capacity in eastern New
21	England. And what we found is that the Card to Lake Road
22	portion of the line resolved a very large number of
23	thermal violations. And and so it was, if you will,
24	an anticipation of either unexpected load growth,

unexpectedly poor performance of either energy efficiency
 visa via the demand reduction or some other incremental
 retirements.

4 And so I think that -- getting to the 5 issue or the philosophical issues, as you're thinking 6 about the cost benefit, one of the concerns that I have 7 would be a situation in which you had unexpectedly strong 8 economic growth, and no one is expecting that right now, 9 but you had -- and you wouldn't know that you're having 10 it until a certain period of time, so you have higher 11 demand, just back to historical levels, you have more 12 retirements, a concern that I discussed in my testimony because the underlying assumptions -- the implications of 13 14 the assumptions that ISO New England has made have not 15 been explored, which is you have more competition through 16 the energy efficiency in the forward capacity market 17 depressing the price and there are more retirements. So 18 the concern that -- the philosophical issue is how do you 19 both think about the patch issue, but also how do you deal with the risks because there's a lot of 20 21 unprecedented things that are occurring in New England 22 generally and in the industry generally, and they -- and 23 many of them could lead to a set of outcomes that are 24 unexpectedly stressful on the transmission grid.

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1	MR. FITZGERALD: And so did that analysis
2	leave you with a conclusion about the judgment of solving
3	the modeled thermal violations that ISO found with this
4	project rather than some even though you didn't do a
5	transmission alternative analysis, did it give you an
6	impression of the wisdom of attacking the problems with
7	this 345-kV project rather than some set of patches of
8	the 115 system?
9	MR. ROSE: Yes, because it's the bulk
10	upgrades are able to anticipate uncertainties, that if
11	they go a certain way and increase the stress on the
12	system one of the uncertainties is load growth, which
13	is going to happen, it's just a question of when. And so
14	I think the fact the fact that there's a focus on the
15	bulk upgrades as opposed to the lower voltage lines and
16	its resilience in the face of unexpectedly strong
17	stresses on the system, I found was reassuring because it
18	was solving more thermal violations than I think ISO New
19	England found.
20	CHAIRMAN STEIN: Does that nod mean that
21	you're finished with your cross-examination?
22	MR. FITZGERALD: Yes yes.
23	CHAIRMAN STEIN: We do have of course I
24	suspected that that would open up more questions from the

1 Council, but we'll start with Dr. Bell. 2 DR. BELL: Thank you, Mr. Chairman. Going 3 back to the contract for differences matter, on several 4 occasions just now when you've been speaking about that, 5 you said -- you referred to your opinion and you said -or you -- you -- you said there was a general opinion, 6 7 but then you said well at least it was my opinion, and 8 you said that kind of thing several times, that contract 9 for differences would have to be arrived at. So my 10 question is I assume you're not referring to just your 11 opinion as opposed to your two colleagues who are 12 sitting to your right, but maybe you are, and -- or if not, you're referring to somebody else's opinion out 13 14 there. And I'm just curious about what that other 15 opinion is. 16 MR. ROSE: Well, I think there's two parts 17 to that question. One is I invite you to -- I've been 18 working with my colleagues for -- in some cases 17 years 19 and in another case only 10, and I invite you to ask them 20 separately. Just to be clear, as I indicated there is 21 -- I did review testimony in Connecticut indicating that 22 23 in order to build a new power plant, the developer wanted or required a contract for difference. I also point out 24

1 that there's been no major new power plant added or 2 started construction in New England without a contract 3 for differences since I believe 2003. So we're getting 4 close now to 10 years without -- without such an 5 arrangement. So you know, it is my opinion that if you wanted to solve a thermal violation, you're in a 6 7 situation where you're violating the various different standards and criteria and you have to have a plan that 8 9 you think is actually going to be actualizable, and if it 10 -- if we could find one that was associated with a new 11 power plant, which we weren't able to, you should expect 12 to be signing a contract for differences and then 13 fighting with the other states as to is that the right 14 plant, where should it go, you know, when should it come 15 on-line, what's my share of the costs, and thinking a lot 16 about the uncertainties in the marketplace over time and 17 the various different bills that would be coming in over 18 time to customers.

DR. BELL: Yeah. So it's not -- I understand what you're saying. You're -- you're kind of putting up a hypothetical opinion against your opinion, which would sort of be -- I'll characterize it as well the market will take care of this and we'll -- we -we'll just let the market work and then the generation

1	will arrive when we need it and we don't need to really
2	do anything to engineer all of this. And you're saying
3	actually that isn't that could be a valid opinion that
4	it might work that way, but you're saying it isn't
5	working that way, we aren't observing that, and therefore
6	your opinion is that it would have to be arrived the
7	situation would have to be solved by some kind of an
8	economically engineered solution, which would be a
9	contract for differences, and then we'd go from there.
10	Is that is that a fair characterization of this
11	argument that you're that's going on in the back of
12	your mind?
13	MR. ROSE: Yes, ma'am. I'm not sure
14	exactly where in my mind it's going on (laughter)
15	but I feel you should get ready if you were going to
16	go down that route and you could find an NTA, to deal
17	with the contract for differences requirement.
18	DR. BELL: Thank you. Thank you, Mr.
19	Chair.
20	CHAIRMAN STEIN: Mr. Ashton.
21	MR. ASHTON: With regard to non-
22	transmission alternatives, isn't it true that no non-
23	transmission alternative can match the capability of a
24	transmission alternative to withstand major power swings

1	in terms of especially in terms when you look at
2	the from time to equal zero to increment it out on a
3	very tight basis? It takes a while for generation to
4	come on line and get loaded up. It takes a while for
5	well a lot of things to happen.
6	MR. ROSE: You know, I'm not a physicist -
7	- you know, my understanding is that the electromagnetic
8	phenomenon that we're discussing that is what's occurring
9	on the transmission line is essentially occurring at the
10	speed of light
11	MR. ASHTON: Yeah
12	MR. ROSE: the that's the electrical
13	fields that are involved
14	MR. ASHTON: Yeah
15	MR. ROSE: the electromagnetic fields
16	that are involved. And so it does have the the
17	flexibility to respond quickly. At the same time it's
18	that very speed that is requiring attention to ensure
19	that the system is able to withstand the unexpected
20	contingencies because what's happening is that you
21	know, an intimately related phenomenon is the power is
22	redistributing itself to minimize impedance automatically
23	
24	MR. ASHTON: Right

1	MR. ROSE: you know, through the cosmic
2	forces of the universe and if if a system element is
3	out, the redistribution can then sort of cascade to
4	stress another element as it redistributes and you're in
5	a situation in which you have both the benefits, but you
6	also have sort of the special care that you have to take
7	to make sure that it doesn't work against you.
8	MR. ASHTON: If Millstone 3, a twelve-
9	hundred megawatt unit, tripped off the line, do you have
10	any approximation as to how much of that generation would
11	be picked up within New England and how much would be
12	picked up outside of New England?
13	MR. FITZGERALD: Do you
14	MR. ASHTON: Maybe Mr. Laskowski is the
15	better one for that. I'm not trying to exclude anyone
16	from the
17	MR. LASKOWSKI: Well in operations
18	they've had experiences with this and they say
19	instantaneously about 90 percent is picked up outside of
20	New England
21	MR. ASHTON: Okay
22	MR. LASKOWSKI: on the New York ties.
23	So then eventually we've got spinning reserve on
24	MR. ASHTON: Right

1 MR. LASKOWSKI: -- and that would back it 2 down --3 MR. ASHTON: But a time to equal zero plus 4 one cycle, 90 percent of that lost power is being made up 5 by generation outside of New England? MR. LASKOWSKI: Correct. 6 7 MR. ASHTON: Okay. So that says that the transmission system takes a hell of a big swing at that 8 9 point. Is that fair to say? 10 MR. LASKOWSKI: Yes, it does. 11 MR. ASHTON: And are there any -- I'll go 12 back to Mr. Rose et al -- are there any non-transmission 13 alternatives that can respond that fast other than under 14 frequency relaying or something like that? 15 MR. ROSE: You know -- not to my knowledge 16 unless you had like the mother of all capacitors --17 (laughter). 18 MR. ASHTON: So it's fair to say that the 19 transmission swing issue is only solvable via 20 transmission? MR. ROSE: I -- I think that's fair. I --21 one thing I -- I -- you know, there was the disturbance 22 23 recently within the last two years in Florida. And that 24 disturbance where there was a major loss of supply in

1 Florida --2 MR. ASHTON: Yeah --3 MR. ROSE: -- and I've seen a graphic of 4 how that propagated through the system from Florida 5 throughout the eastern interconnect grid that we're in, 6 all the way up to Canada, in the -- in the course of a 7 few cycles. And so it happened very -- it can happen 8 very quickly and you don't have a situation in which you 9 have something that can respond so quickly, other than 10 the transmission grid itself. 11 MR. ASHTON: Okay. That was my question. 12 Thank you, sir. CHAIRMAN STEIN: I think this -- then that 13 14 concludes today's evidentiary --15 MR. FITZGERALD: I did -- I did just have 16 a question for Mr. Laskowski to clear up something that 17 he said yesterday --18 CHAIRMAN STEIN: Okay -- well just --19 MR. FITZGERALD: -- and I didn't want to 20 go home without doing that. But we --21 CHAIRMAN STEIN: Alright. Just -- when 22 you're finally finished, just let me know so --23 (laughter) --MR. FITZGERALD: This is -- this will be 24

1	the this will be the end. And it has to do with Mr.
2	Laskowski's responses to Mr. Ashton about the one unit at
3	Lake Road that's connected to Killingly. And you said
4	that
5	COURT REPORTER: I have to stop you just
6	for one moment.
7	(pause - tape change)
8	MR. FITZGERALD: You said that that one
9	unit could be considered to be in Connecticut. And then
10	that kind of morphed into a conclusion that it is
11	presently considered to be in Connecticut. Now what in
12	fact is the current situation of that one unit in terms
13	of being counted for Connecticut capacity in the local
14	source of requirement or not?
15	MR. LASKOWSKI: Currently no unit is
16	considered none none of the Lake Road units are
17	considered
18	MR. FITZGERALD: And why isn't that single
19	unit considered in Connecticut?
20	MR. LASKOWSKI: Okay. The report, which
21	was written at the request of Lake Road actually, said
22	that if they removed the SPS so that the unit didn't trip
23	because of the units didn't trip because of the loss
24	of the line, then it could be then one unit could be

1	considered. SPS is special protection system. There's a
2	special protection system so that if you lose the line,
3	before it recloses and potentially breaks shafts, that
4	they trip all three units. And there was a report that
5	says Lake Road if you remove if you'll allow us to
6	remove the SPS, then we could consider one unit. And my
7	thoughts was that that they accepted that. And also
8	that I was thinking that in the future the studies show
9	that if we build a second line, you wouldn't need the
10	SPS. So they'd almost have to guarantee at least one
11	unit into Connecticut was what I was thinking. Sorry for
12	the if I misled you.
13	MR. FITZGERALD: That's all we have, Mr.
14	Chairman. You're laughing at me.
15	CHAIRMAN STEIN: I'm not laughing. I'm
16	trying to understand what was just discussed. But anyway
17	that's why we have people like Mr. Ashton on the
18	Council to help us all out.
19	So with that, I believe we'll now conclude
20	today's evidentiary hearing session. This will continue
21	the hearing. We'll go back to our Council offices in
22	Hearing Room 1 on August 28th of this year at 11:00 a.m.,
23	and also on August 30th of this year, with interrogatory
24	submissions due by August 14th, and prefiled submissions

1	due by August 21st.
2	Thank you all for your participation and
3	drive home safely.
4	
5	(Whereupon, the hearing adjourned at 12:33
6	p.m.)

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