

**STATE OF NEW HAMPSHIRE**  
**SITE EVALUATION COMMITTEE**

**August 29, 2018 - 1:10 p.m.**  
49 Donovan Street  
Concord, New Hampshire

**DAY 1**  
**Afternoon Session ONLY**

*{Electronically filed with SEC 09-11-18}*

**IN RE:       SEC DOCKET NO. 2015-04**  
**Application of Public**  
**Service of New Hampshire**  
**d/b/a Eversource**  
**Energy for Certificate**  
**of Site and Facility**  
**(Adjudicative Hearing)**

**PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:**

<b>Patricia Weathersby</b> <i>(Presiding Officer)</i>	Public Member
<b>Dir. David Shulock</b>	Public Utilities Comm.
<b>Dir. Elizabeth Muzzey</b>	Div. of Hist. Resources
<b>Charles Schmidt, Admin.</b>	Dept. of Transportation
<b>Dir. Christopher Way</b>	Div. of Economic Dev.
<b>Michael Fitzgerald</b>	Dept. of Env. Services
<b>Susan Duprey</b>	Public Member

***ALSO PRESENT FOR THE SEC:***

Michael J. Iacopino, Esq. Counsel for SEC  
*(Brennan, Lenehan, Iacopino & Hickey)*

Pamela G. Monroe, SEC Administrator

*(Appearances - See AM session)*

**COURT REPORTER: Cynthia Foster, LCR No. 14**

**I N D E X**

<b>WITNESS</b>	<b>WILLIAM QUINLAN</b>	<b>PAGE NO.</b>
----------------	------------------------	-----------------

*(Resumed)*

Cross-Examination by Mr. Aslin		3
--------------------------------	--	---

**QUESTIONS FROM SUBCOMMITTEE  
MEMBERS & SEC COUNSEL BY:**

Dir. Way	26
----------	----

Mr. Fitzgerald	31
----------------	----

Ms. Duprey	44
------------	----

Dir. Muzzey	47
-------------	----

Mr. Fitzgerald	51
----------------	----

Ms. Duprey	53
------------	----

Dir. Way	54
----------	----

Ms. Weathersby	56
----------------	----

**WITNESS PANEL**

**LYNN FRAZIER**

**NICHOLAS STRATER**

**DAVID PLANTE**

**KENNETH BOWES**

**MARC DODEMAN**

**WILLIAM WALL**

Direct Examination by Mr. Needleman	62
-------------------------------------	----

Cross Examination by Mr. Patch	70
--------------------------------	----

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

**P R O C E E D I N G S**

**(Hearing resumed at 1:10 p.m.)**

PRESIDING OFFICER WEATHERSBY: Okay.

Welcome back, everyone. We're going to resume our hearing with Counsel for the Public.

MR. ASLIN: Thank you, Madam Chair.

**CROSS-EXAMINATION**

**BY MR. ASLIN:**

Q Good afternoon, Mr. Quinlan.

A Good afternoon.

Q We've met before, but, for the record, my name is Chris Aslin, and I've been designated as Counsel for the Public for this proceeding. I've got a few questions to follow up on some of your testimony earlier today.

I want to start with a look at the --

PRESIDING OFFICER WEATHERSBY: Some people are having trouble hearing you. If you could get a little closer to the microphone.

**BY MR. ASLIN:**

Q I want to look first at the cost of the Project. In your Prefiled Testimony, you had some commentary on the cost recovery, but to start I'd like to look at the actual total project

1 cost which based on the last filings I  
2 understand to be about \$84 million as a  
3 projected cost?

4 A That's correct. Yes.

5 Q And if I recall, that is subject to a plus or  
6 minus factor for actual cost at the end of the  
7 day?

8 A Correct. There likely will be some variation  
9 around 84 million, but that's our current and  
10 best estimate.

11 Q Okay. And I believe I've seen in some of the  
12 testimony a plus or minus 25 percent figure.  
13 Does that sound accurate?

14 A I'm not familiar with that testimony. But  
15 oftentimes, a project has a range, a project  
16 cost estimate has a range around it. The range  
17 tends to tighten when you move from conceptual  
18 through design phase and into the construction  
19 phase. So plus or minus 25 percent estimate is  
20 probably the middle of the range.

21 Q Okay. Thank you. And I believe you testified  
22 earlier, and it's in your Prefiled Testimony as  
23 well, that to the extent these costs are  
24 regionalized through the ISO New England and

1 FERC tariffs, that New Hampshire ends up paying  
2 around 9 percent of those costs, New Hampshire  
3 ratepayers?

4 A That's correct. It's based on New Hampshire's  
5 load share or percent of the total New England  
6 money.

7 Q And are you familiar with how that 9 percent  
8 kind of falls out in terms of impacts to  
9 customers' bills?

10 A On a cost per customer basis? No. I have not  
11 done that.

12 Q I want to show you a couple of data responses  
13 that address that question. So what I'm showing  
14 on screen now is a page out of Counsel for the  
15 Public Exhibit 7, and it's got a Bates stamp at  
16 the bottom of CFP000413. Just for the record.

17 A Yes.

18 Q And this was a question that was asked of Mr.  
19 Ausere who has been replaced by other witnesses,  
20 but do you see that here that at this time the  
21 estimated cost -- let me back up.

22 At this time the estimated cost of the  
23 project was \$77 million; is that correct?

24 A I see that. Yes.

1 Q And that that was the original estimate that was  
2 in the Application?

3 A Subject to check, I believe it was. Yes.

4 Q I'll represent that it was.

5 A Yes.

6 Q So at this time, the estimate that was made by  
7 Mr. Ausere was that this would translate into an  
8 estimated cost to New Hampshire retail customers  
9 of .018 cents per kilowatt hour?

10 A I see that. Right.

11 Q Sound about right?

12 A I have not done the math so.

13 Q But no reason to dispute that.

14 A I have no reason to dispute it. No.

15 Q Okay. And there was a second data response  
16 later on, and this is part of Counsel for the  
17 Public Exhibit 9, and it is Bates stamped  
18 CFP000482. And again, at this point, this is  
19 later or in the process, you see that the  
20 project cost estimate has gone up to \$84  
21 million?

22 A Yes. I see that, yes.

23 Q And based on this answer, I'm not sure which  
24 witness is answering this question, but it

1 appears that the best estimated customer impact  
2 was between .012 or -- sorry. That it was,  
3 estimated to be increasing from .012 to .013  
4 cents per kilowatt hours?

5 A I see that, yes.

6 Q And the numbers don't quite match the previous  
7 one, and I know this isn't your testimony so I'm  
8 not going to ask you to reconcile that. We'll  
9 ask a later witness about that. But based on  
10 those answers, is it fair to say that the  
11 expectation for this Project if it's  
12 regionalized, full cost, is that customers are  
13 going to pay something around a hundredth of a  
14 cent per kilowatt hour?

15 A Yes. Slightly over one hundredth of a cent per  
16 kilowatt hour.

17 Q And I did a calculation. I'll just represent if  
18 you assume 600 kilowatt hours per month for a  
19 residential ratepayer?

20 A That's a fair number.

21 Q That would translate out to between essentially  
22 8 to 10 cents or 8 to 11 cents a month per  
23 customer. Just be 600 times those figures?

24 A Just checking math, yes. Roughly. Roughly.

1 Q So over here, if you have 8 to 10 cents, that's  
2 somewhere around a dollar, dollar and quarter a  
3 year for residential?

4 A Correct.

5 Q Does that sound reasonable ballpark?

6 A Yes.

7 Q Would you agree that for commercial and  
8 industrial ratepayers that would be a much  
9 larger number because since they use more  
10 electricity?

11 A Yes. It varies with the size of the load. So  
12 yes. The consumption is obviously higher the  
13 larger the enterprise.

14 Q So that set of figures is based on an assumption  
15 that the cost of the Project is fully  
16 regionalized; is that a fair statement?

17 A Yes. That 9 percent of the project cost is  
18 borne by New Hampshire residents.

19 Q And you had some testimony earlier, and it's in  
20 your Original Prefiled Testimony on pages 13 and  
21 14. You discuss the concept of localized costs.

22 A Correct.

23 Q You recall that?

24 A Yes.



1 Q And I'll just summarize briefly my  
2 understanding. You can correct me if I'm off  
3 base, but a Project like this which is a  
4 Reliability Project is presumed to be a  
5 regionalized, regional cost at the outset, but  
6 ISO has the ability to review those costs and  
7 determine if any of the costs should be  
8 localized instead of regionalized.

9 A That's a fair summary. Yes.

10 Q And if costs are deemed to be localized costs,  
11 they're not recoverable through the FERC tariff  
12 for transmission projects that's being granted  
13 through the ISO process; is that a fair  
14 statement? The company would have to recover  
15 those?

16 A They would not be collected through the regional  
17 tariff, so-called regional network service or  
18 RNS tariff. We would have to separately  
19 petition the Federal Energy Regulatory  
20 Commission for cost recovery and allocation.

21 Q And if Eversource New Hampshire is going to FERC  
22 for cost recovery of localized costs, you're not  
23 able to -- well, I'll ask. What customer base  
24 are you able to post those costs against or

1 allocate those costs to?

2 A That's really a question for the FERC. They  
3 would make a determination as to how do you  
4 spread the localized costs. Do you spread it to  
5 the state in which the costs are incurred or do  
6 you localize it further. And we've had some  
7 experience with localized cost allocation in the  
8 other projects in other states, and there's not  
9 a consistent pattern at the FERC.

10 Q So based on that answer, would I be correct to  
11 say that it could be all New Hampshire  
12 ratepayers or a subset of New Hampshire  
13 ratepayers?

14 A Could be the Eversource New Hampshire  
15 ratepayers, for example. Could be all of New  
16 Hampshire customers. We've had instances in  
17 Connecticut where localized costs were borne by  
18 all of Connecticut's customers, not just those  
19 served by Connecticut Light & Power which is our  
20 subsidiary in Connecticut. The equivalent of  
21 Public Service of New Hampshire. So in that  
22 instance, they spread it across the entire  
23 Connecticut customer base and not just ours.

24 Q Thank you. Are you aware of any instances where

1 localized costs have been allocated to the  
2 subset of a single utility's customer base?

3 A Subset of a single utility's? I am not  
4 personally. That's a very good question for  
5 Mr. Andrew and Mr. Bowes.

6 Q I'll follow up with them as well.

7 Between the Project's inception or at least  
8 the filing of the Application and the current  
9 cost estimates, there's about a \$7 million  
10 increase in total project cost estimate? Is  
11 that a fair --

12 A Correct.

13 Q Does Eversource or do you have an opinion about  
14 whether that \$7 million increase is likely to be  
15 regionalized or localized?

16 A We are going to make the case for regional  
17 treatment for this entire project given its  
18 current design. We believe that the decisions  
19 we've made are in accordance with good utility  
20 practice and that they're necessary for siting  
21 the project. Some of the design changes we  
22 talked about earlier this morning like decisions  
23 to place facilities underground, those have  
24 obviously led to cost increases, but in our view

1 those were necessary, they're prudent, they're  
2 reasonable, and the costs should be treated as  
3 regional costs. So our view is they are  
4 regional in nature and our expectation is ISO  
5 New England will agree, but they will view it  
6 independently.

7 Q So the process, if I understand it correctly, is  
8 that the utility in this case, Eversource, would  
9 submit a filing with the ISO on your costs.

10 A Correct. Based on the actual cost incurred once  
11 the Project's in service.

12 Q And in that filing are you able to, you said you  
13 would make a case for these being regionalized  
14 cost. Do you get to express that opinion in the  
15 filing?

16 A We do. For example, the change we talked about  
17 earlier this morning about the Newington  
18 Historic District and the decision to place that  
19 underground. That clearly led to increased  
20 costs, but from our perspective it was the right  
21 thing to do. Once we're able to secure the  
22 property rights, and it's a better project for  
23 Newington as a result, and it avoids impacting a  
24 historic district in a significant way, and we

1 believe ISO New England will see the wisdom of  
2 that.

3 Q And I take it that filing hasn't taken place  
4 yet?

5 A It's once the Project is in service. Yes. So  
6 after construction.

7 Q Is there any ability in common practice for the  
8 utility to have preliminary discussions with the  
9 ISO about localized versus regionalized costs?

10 A Not that I'm aware of.

11 Q And I assume then that you have not had any of  
12 those?

13 A I have not. Again, it's been a while since I've  
14 interfaced with ISO New England at that level.  
15 Mr. Andrew or Mr. Bowes may have some more  
16 recent experience.

17 Q Thank you. You mentioned the undergrounding  
18 through the Historic District in Newington,  
19 Frink farm, and I wanted to ask you about a few  
20 of the other pieces of mitigation that have been  
21 agreed to, I suppose, by the company. And  
22 earlier today in your testimony I think with  
23 Attorney Patch, you mentioned that the  
24 mitigation measures that the company has adopted

1 so far are extraordinary in your experience.

2 A The extent of the changes, the amount of  
3 outreach that led to the changes, and I would  
4 say the time it's taken to work those out has  
5 been extraordinary. We have been very  
6 thoughtful and have taken our time with this,  
7 but both before filing the Application and the  
8 amendment that you talked about, we essentially  
9 took the time necessary to acquire those rights  
10 and, you know, all of that has occurred over a  
11 quite extended period of time. That's not  
12 customary for Reliability Projects. Normally a  
13 Reliability Project, there's a defined need. In  
14 this case it's an immediate need. And sometimes  
15 developers aren't as deliberate in their  
16 approach.

17 Q So would you agree that there's a risk, and a  
18 risk may not be the right word, but there's a  
19 possibility that some of these costs, these  
20 added costs for mitigation measures for  
21 undergrounding could be deemed localized costs  
22 by the ISO?

23 A There is a possibility, and we will make the  
24 best case for regional treatment. As I said

1 earlier, I personally believe the case is  
2 compelling. I think we made the decisions for  
3 all the right reasons and the changes will  
4 warrant it, and based upon my experience, I  
5 believe ISO will see the wisdom of that.

6 Q To the extent that ISO doesn't agree with the  
7 company on that, do you have any metric against  
8 which to measure the potential impact to  
9 customers of portions of the cost being  
10 localized? I assume it's a fairly simple  
11 calculation that could be done, but you probably  
12 have not done it?

13 A I have not done it, but it's one that certainly  
14 could be done. You could, for example, take the  
15 \$7 million that you alluded to earlier and look  
16 at that on a local basis as opposed to a  
17 regional basis. What's the incremental cost of  
18 that.

19 Q I'd like to make a record request for that  
20 calculation. We'll stick with just the 7  
21 million as an --

22 A Illustrative.

23 Q -- illustrative number to understand the  
24 different rate effect that localizing 7 million

1 of the project costs would have on ratepayers.

2 A For the local treatment, we'll make an  
3 assumption that it's borne within New Hampshire  
4 or just the Eversource customer base?

5 Q Why don't we do both cases so all of New  
6 Hampshire costs versus --

7 A There won't be a material difference between the  
8 two for New Hampshire because we serve such a  
9 large percentage. That's a bigger issue in a  
10 state like Massachusetts where our, you know,  
11 there are a number of other utilities who serve  
12 large blocks of customers there. Here I don't  
13 think there will be a material difference  
14 between the two, but we'll run both cases.

15 Q Thank you. Earlier there was some discussion of  
16 property value guarantee kind of approach. Are  
17 you aware of any projects where property value  
18 payments, diminution of property value payments  
19 by an utility had been assessed by ISO New  
20 England in terms of being local or regionalized  
21 costs?

22 A No. No. And I'm aware of instances where  
23 parties have asserted property claims for  
24 diminution of property value, generally through



1 the court system if they are unsuccessful in  
2 reaching resolution with the developer, but I'm  
3 not aware of diminution of property value  
4 payments being regionalized.

5 Q By that answer --

6 A Let me just add to that answer. I'm also not  
7 aware of widespread payment of diminution of  
8 property value claims on any particular project.

9 Q So I understand, you're not aware of either  
10 property diminution claims payments being  
11 regionalized or localized by any other project.

12 A I'm aware of mitigation, prudent and appropriate  
13 mitigation, being authorized for regional  
14 treatment, whether it's property damage,  
15 business interruption, and we do have the  
16 ability to seek recovery of those costs. I'm  
17 personally not aware of instances where  
18 diminution of property value claims have been  
19 paid by the utility and regionalized. Mr. Bowes  
20 or Mr. Andrew may have more detail on that  
21 particular point.

22 Q Along the same lines, are you aware of other  
23 types of mitigation costs, perhaps a business  
24 loss cost or property damage cost being

1 regionalized?

2 A Yes. Yes. A mitigation. If we have to screen,  
3 for example, a viewshed to avoid a view impact,  
4 I would view that as mitigation, and we would  
5 seek recovery of the cost of that mitigation  
6 step.

7 Q Can you give an example from your experience of  
8 costs that were deemed regionalized? I think  
9 there's reference to the Connecticut project  
10 earlier for underground.

11 A Localized, you mean?

12 Q Yes. I'm sorry. Localized.

13 A Localized, yes. That's one example that just a  
14 questioner alluded to earlier. Oftentimes cited  
15 and one I'm generally familiar with I was in  
16 Connecticut at the time that project was built,  
17 and it was for underground construction, as I  
18 say, through Fairfield County, and ISO New  
19 England looked at that and said, concluded there  
20 was a lower cost alternative and that the  
21 incremental cost of that underground  
22 construction should be borne locally, and I  
23 believe in that instance by local that meant  
24 spread across the entirety of the Connecticut

1 customer base.

2 Q Any other examples that you can recall?

3 A That's the only one that comes immediately to  
4 mind.

5 Q Thank you. There was also some testimony  
6 earlier about the Seacoast Solution's suite of  
7 projects, and the fact that other than this  
8 piece, the other components have already been  
9 constructed, correct?

10 A Correct. Yes.

11 Q If this project were denied by the Committee,  
12 would the company be, how would the company  
13 address the needs that, the reliability needs  
14 that have at that point been unaddressed?

15 A That would be difficult, and we'd have to look  
16 at alternative solutions. I think for the  
17 foreseeable future we would have to do what we  
18 could to manage the risk. You know, in the  
19 extreme circumstance, you know, we would have to  
20 take measures to protect the grid. Avoid it  
21 collapsing. If we were to get into a scenario  
22 where we were within the contingency and we had  
23 an overload, we generally do that by reducing  
24 load. That's referred to as load shedding or

1 rolling blackouts or brownouts, but essentially  
2 shut off customers to keep your load below the  
3 limits necessary to keep the grid intact.

4 That's the ultimate step that we would have  
5 to take until we could identify and make an  
6 alternative solution a reality. There have not  
7 been any, other than the Gosling Road  
8 Autotransformer and all the projects that would  
9 constitute that suite, there really haven't been  
10 any other alternatives identified at this point.

11 Q Just to clarify your answer. The measures you  
12 were just speaking of, essentially brownouts?

13 A Right.

14 Q That is only necessary if the contingencies  
15 occur?

16 A Correct. If we're facing, basically, a thermal  
17 overload or voltage begins to dip or sag to a  
18 point where it's unsustainable, then we would  
19 have to shut off customers.

20 Q And that's the case today as well.

21 A That's the case today. So the risk we're  
22 running today. And, again, it happens when the  
23 grid is in particular configuration, usually  
24 contingencies which means something is not in

1 service like another line or a power plant and  
2 loads are at a certain level. Then you're into  
3 that scenario where you need to start taking  
4 steps to ensure the overall grid remains  
5 reliable.

6 Q And this may be a question for Mr. Andrew, but  
7 am I correct that the ISO New England studies  
8 rely on a N minus one minus one. So two  
9 different contingencies happening at the same  
10 time?

11 A I do believe that's the design criteria that  
12 they applied in this instance.

13 Q To the extent that you had to come up with a  
14 alternative to this Project, would the Gosling  
15 Road suite of projects be one alternative and is  
16 there any overlap that could be, can you get a  
17 benefit from the upgrades that have already been  
18 done as part of the Seacoast Solution project if  
19 you're doing an alternative?

20 A That's truly a question for Mr. Andrew and Mr.  
21 Bowes. But, you know, as I said, the Gosling  
22 Road Autotransformer and related upgrades is an  
23 alternative. It's a higher cost alternative,  
24 and it, I believe, is technically inferior, but

1           it's certainly an alternative.

2       Q     Okay. Thank you. Quick question on jobs. In  
3           your testimony you reference the Project Labor  
4           Agreement?

5       A     Yes.

6       Q     And that a portion of the jobs would be  
7           designated for New Hampshire union workers.

8       A     Correct.

9       Q     Do you have an estimate or a ballpark of what  
10          proportion of the jobs would be New Hampshire  
11          union versus nonunion?

12      A     I don't have a percentage, but I'll tell you our  
13          commitment is to maximize the use of local  
14          labor. Obviously, it's something we're  
15          committed to in the Project Labor Agreement but  
16          also makes good business sense. And I am aware  
17          of several of the large contracts that have been  
18          negotiated and put in place for this will be  
19          using local labor. So I'll use the overhead  
20          construction, for example. I know that was  
21          recently awarded to an in-state contractor in  
22          New Hampshire. JCR. We use them regularly.  
23          They're very good overhead construction company.  
24          They will use entirely local labor to build the

1 overhead portion of the line.

2 The underwater portion, the jet power is  
3 more specialty work so there probably won't be a  
4 large labor component, but there's also not a  
5 lot of people working on those barges. I would  
6 expect the substation in the underground work to  
7 be done largely with local labor. So  
8 percentage-wise, I don't know exactly what the  
9 percentage is, but I would say the majority to  
10 vast majority of construction work will be done  
11 locally.

12 Q When you say "local labor," does that, is that  
13 specifically union labor or is that just New  
14 Hampshire?

15 A It's a mix. We have, under the Project Labor  
16 Agreement we can use nonunion contractors where  
17 appropriate. There are certain skill sets that  
18 are carved out from the PLA, specifically set  
19 aside for nonunion workers. So it's a mix. And  
20 I'll just use JCR illustratively. They were  
21 formerly a nonunion contractor and just recently  
22 changed so they are still in a transition period  
23 between those two states. So the point being in  
24 my expectation is the vast majority of work will

1 be done locally.

2 Q Thank you. You also have some testimony about  
3 the mitigation process that you've employed for  
4 this project. Some of the measures that have  
5 been contemplated. But what I don't see in  
6 there at this point is a specific claims process  
7 for people to raise claims, whether it's  
8 business loss or property damage.

9 A Yes.

10 Q Or property diminution. Has the company  
11 contemplated or is the company willing to  
12 contemplate a formalized claims process?

13 A Short answer is yes. We certainly are open to  
14 discussions, particularly with your office and  
15 we'd be happy to sit down and work out some  
16 parameters. As I said earlier, our experience  
17 has been that we're able to resolve most issues  
18 before ever getting into a formal claim. We  
19 have literally dozens of transmission projects  
20 under development and construction in New  
21 England at any one time. We take the very same  
22 approach and the vast majority of instances we  
23 resolve things without ever having to have the  
24 formality of a claim. But assuming there are



1 instances where we're not able to resolve them  
2 locally, we would certainly be willing to work  
3 under a structured process and be happy to talk  
4 to you and your office about what that process  
5 might look like.

6 Q Thank you.

7 A Instead of relying on some independent party to  
8 either mediate or help to resolve the issue we'd  
9 be open to that.

10 Q In the recent Merrimack Valley Reliability  
11 Project?

12 A Right.

13 Q Are you aware of whether there were any claims  
14 made for damages?

15 A None that rose to my attention. And it's  
16 probably a good example of a recent project that  
17 was sited and built in New Hampshire where I  
18 would say the issues to the extent they existed  
19 were worked out with the parties who were  
20 concerned about the impacts. If something were  
21 material, it would have got to my attention.

22 You know, generally I would say the  
23 Merrimack Valley Project as a whole was very  
24 well received by the community, by the land

1 owners, by the local elected officials. So I'm  
2 not aware of any claims that were not resolved  
3 successfully.

4 Q Okay. Thank you. That's all the questions I  
5 have. Thank you very much.

6 A Thank you.

7 PRESIDING OFFICER WEATHERSBY: Thank you.  
8 Now we'll take questions from the Committee  
9 members if they have some. Mr. Way?

10 **QUESTIONS BY DIR. WAY:**

11 Q Good afternoon, Mr. Quinlan. Good to see you  
12 again.

13 A Likewise.

14 Q So we were talking a little bit earlier about  
15 the growth of the Seacoast. I tend to agree  
16 with you that it is a fast growing part of the  
17 state, and when we were looking back at that  
18 growth, as I recall, you were saying well, in  
19 the last two years or five years, and you said  
20 five years. If you look back in the last couple  
21 of years, do you see any difference?

22 A I would say it varies on a year-to-year basis,  
23 but the overall trend is consistent. It's a  
24 steadily growing part of the service territory,

1 and as we look forward we continue to expect  
2 growth in that area. I mean, as recently as  
3 last week I learned about some large companies  
4 that are expanding operations and locating  
5 operations in the Seacoast so we generally see  
6 that trend continuing. And it's not just the  
7 Pease development area. It's the entire  
8 Seacoast region, whether it's Dover or Durham,  
9 and you see a lot of growth in greater  
10 Portsmouth generally. By Seacoast area, there's  
11 roughly 22 towns that we consider being within  
12 that region.

13 Q Right. And you have quite a few people in the  
14 field, and I imagine you've already been in a  
15 lot of communication maybe with some of the  
16 larger manufacturers. So I'm interested in  
17 maybe some of the feedback you're getting  
18 because they're looking at reliability, but yet  
19 they know that they're going to have a higher  
20 cost. What are you hearing from them?

21 A Yeah. So you're absolutely right. We hear from  
22 businesses across the state, not just in the  
23 Seacoast, about energy generally. Particularly  
24 if you're a manufacturer and you have an energy

1 intensive business. You know, usually the first  
2 topic of discussion is reliability and  
3 sufficiency. Are they going to have the  
4 capacity necessary to allow the business to  
5 grow. I'll take Lonza as an example. You know,  
6 they're going to have an very significant  
7 expansion, and it's a question of capacity. Is  
8 there enough capacity to allow that growth.

9 Second question is cost. What can we do  
10 from a cost perspective so they can remain  
11 competitive both regionally and in some cases  
12 locally. And that's a continuing challenge for  
13 New England in general and New Hampshire in  
14 particular, and obviously there are things we do  
15 to work with large manufacturers to get their  
16 costs down.

17 We talked earlier about energy efficiency.  
18 That's a big part of the equation. That's  
19 usually our first effort to get the overall bill  
20 down is to work with them on energy efficiency  
21 measures and then doing what we can to limit  
22 cost increases.

23 In this case there is an increase in the  
24 transmission portion of the bill necessary to

1 build this infrastructure. It's in the scheme  
2 of things modest. I mean, we're talking about  
3 two one-hundredths of a cent, just, our cost to  
4 a business customer today in New Hampshire is  
5 probably 15 cents a kilowatt hour. So it's, you  
6 know, it's two digits beyond the decimal point  
7 from a cost perspective.

8 But it's something we take seriously,  
9 regardless, and it's one of the things that ISO  
10 New England looks at when they develop who our  
11 costs were prudent. Have we done everything we  
12 can do to keep the costs as low as possible for  
13 need of infrastructure. So those are always the  
14 topics. It's reliability and sufficiency and  
15 costs. And they're legitimate questions that  
16 any business owner would have.

17 Q And when we talked about the sort of the plateau  
18 of the load over the last few years, and I think  
19 it was like .6 percent, one point percent  
20 somewhere in there?

21 A Yes.

22 Q When you look at the original study, does that,  
23 and this may have been already talked about and  
24 I think it was in a way, but I want to just

1 clarify. That .6 percent decrease in your mind  
2 does not negate the need for this project. In  
3 other words, what was the go/no go for a project  
4 like this.

5 A Yes. So short answer is no, it doesn't. For  
6 this project, in this region, the need, the risk  
7 and the need existed in 2012 and that risk and  
8 need has only grown since then because loads  
9 have grown in the Seacoast. The trend for ISO  
10 New England as a whole is flat to negative. But  
11 in the Seacoast region loads have continued to  
12 grow since the original need was identified. So  
13 the issue has only worsened in the Seacoast  
14 region. It hasn't diminished in any way.

15 Q And in discussion this morning about the suite  
16 of projects, just to clarify what I heard is  
17 that these projects were not interrelated or  
18 dependent upon one another. All the previous  
19 ones that were done. This is an independent  
20 project from them, but if, and I think Mr. Aslin  
21 was approaching this as well, if this Project  
22 were denied, does this diminish the success of  
23 those other Projects? Does it affect the goals  
24 of those other Projects?

1 A The way I think of it is these Projects are all  
2 intended to work together, and the greatest  
3 reliability benefit is accomplished if the  
4 entire suite is constructed, but each individual  
5 component improves reliability. But the sum of  
6 the parts is greater than the parts individually  
7 in this case. And the project we're talking  
8 about here is the single most important element  
9 of the entire suite. It's the one that ties  
10 them all together.

11 Q Thank you very much.

12 A Just to make sure I'm clear on this. Each of  
13 those additional upgrades is good and  
14 appropriate in its own right as well. It's just  
15 by tying them all together we get the maximum  
16 reliability.

17 Q Thank you very much.

18 A You're welcome.

19 PRESIDING OFFICER WEATHERSBY: Other  
20 questions? Mr. Fitzgerald?

21 **QUESTIONS BY MR. FITZGERALD:**

22 Q Good afternoon.

23 A Afternoon.

24 Q First of all, Eversource is a multi-state

1 corporation. You're in charge of just the New  
2 Hampshire?

3 PRESIDING OFFICER WEATHERSBY: Your mic?

4 Q Eversource is a multi-state corporation, but  
5 you're in charge of just the New Hampshire  
6 operations?

7 A That's correct. Yes.

8 Q But do you rely on the corporation for managing  
9 a project like this outside of the New Hampshire  
10 operation or is it all managed within the New  
11 Hampshire?

12 A It's a combination. Many of the folks involved  
13 in this project are part of Eversource New  
14 Hampshire so Public Service of New Hampshire,  
15 but we also draw upon the corporate resources,  
16 particularly in specialized areas. So we talked  
17 earlier about historic and cultural resources or  
18 environmental. There we have large corporate  
19 groups that can bring expertise that's helpful.

20 Q Okay. How would you characterize the size of  
21 this project for your company's management  
22 capabilities? Is this a relatively small  
23 project? Medium, large? How does it compare  
24 with other projects?



1 A I would say it's a mid-sized project. We  
2 certainly have many projects that are smaller  
3 than this, literally hundreds of projects that  
4 are smaller than this, and the converse is true  
5 as well. We have many projects that are orders  
6 of magnitude larger than this. So I would say  
7 it's a mid-sized project.

8 Q For New Hampshire or for the corporation as a  
9 whole?

10 A For the corporation. Some of the projects we've  
11 talked about earlier today. Middletown to  
12 Norwalk, that was, I believe, an 89-mile  
13 transmission line that cuts right through,  
14 across Connecticut. That was a several hundred  
15 million dollar investment. We have, to get a  
16 sense, our annual transmission budget, just  
17 transmission part of the business is, I believe,  
18 8 or \$900 million on an annual basis across the  
19 three states. So roughly ten times the size of  
20 this project.

21 Q Okay. I'd like to ask you a couple questions  
22 about the project inception and the ISO New  
23 England piece. I understand that there are  
24 others who may have little more detailed

1 knowledge.

2 A Sure.

3 Q But when I looked at your Prefiled Testimony, I  
4 believe you stated on page 4 that to meet the  
5 needs identified by ISO New England, potential  
6 solutions were proposed and explored and two  
7 alternatives were presented to ISO New England.

8 So that implies that to me that you were  
9 having some sort of an interactive process with  
10 ISO New England, and is that because you're the  
11 transmission operator in this area so you're  
12 responsible to come to ISO New England and say  
13 this is what we propose as a solution?

14 A Yes. So to our earlier discussion, that's an  
15 open process. There are other stakeholders who  
16 are involved. It's true that we operate and own  
17 the transmission grid for all of New Hampshire.  
18 PSNH does. So we are kind of a necessary party  
19 if you will. But other stakeholders participate  
20 in those discussions and propose options and  
21 alternatives as well, including in some cases  
22 non, they're referred to as nontransmission  
23 alternatives. So if there were another solution  
24 to this reliability need that was not a

1 transmission project at all, someone could  
2 propose that. That's referred to as an NTA or  
3 nontransmission alternative.

4 Q Okay. That's helpful. And I guess what, that's  
5 what I kind of wanted to get at. Couple more  
6 questions regarding ISO. You said they  
7 identified a need in 2012.

8 A Correct.

9 Q And they identified it then as an immediate  
10 need. That seems to me -- and I know you're not  
11 charged with that process, but it seems to me  
12 that they, this should have been identified some  
13 time before that? I mean, just it happened to  
14 come up in 2012, but it was an immediate need?

15 A Well, they oftentimes, as I say, they look at  
16 the grid, I believe on an annual basis. Mr.  
17 Andrew and Mr. Bowes are kind of expert in this  
18 field, but they look at it periodically. I  
19 believe it's annual. And they develop what's  
20 referred to as a regional system plan to look at  
21 all of the upgrades required throughout New  
22 England to address all of the needs.

23 In some cases they'll identify a need that  
24 is out in time. It's a need that based on load

1 growth we expect it to be a need five years from  
2 now. In this instance, we determined it to be  
3 an immediate need. And I don't know the details  
4 behind, or why it was identified to be such, but  
5 I suspect they saw it coming in the years prior  
6 to 2012.

7 Q And I just wanted to follow up on the -- is it  
8 okay to keep going here?

9 PRESIDING OFFICER WEATHERSBY: Yes. Keep  
10 going.

11 Q I want to follow up on the comments. I believe  
12 Mr. Patch referred to the ISO New England energy  
13 efficiency and load projections and the role of  
14 energy efficiency. And the document that was  
15 put up, I think it referred to several of the  
16 New England states as being in the top 10 in  
17 energy efficiency. I believe that's referring  
18 to the ACEEE study. I believe New Hampshire's  
19 21st in that study.

20 A Correct.

21 Q So why, obviously that sort of says why other  
22 areas of New England are experiencing flat  
23 projection and New Hampshire is experiencing  
24 growth, particularly in the Seacoast as you've

1 described. But what role does energy efficiency  
2 play. I know the New Hampshire programs are  
3 limited. I do a lot of work with the PUC and  
4 the Core Energy programs and so on, but I know  
5 they're limited, state funding is very limited  
6 here in New Hampshire for those programs. But  
7 from your perspective, isn't purchasing energy  
8 efficiency cheaper than purchasing new  
9 transmission capacity and new electricity and  
10 what role does that play in deciding how,  
11 whether this project, you know, I mean, could  
12 you beyond the Core Energy program say we as a  
13 company are going to implement more energy  
14 efficiency programs with our customers because  
15 that would be cheaper than buying this project?

16 A Yeah. So there's a lot in that question.

17 Q Yes.

18 A Just for frame of reference, so we operate the  
19 utilities in Massachusetts, Connecticut, New  
20 Hampshire. We saw Massachusetts as number one  
21 in energy efficiency under the ACEEE standards.  
22 It's because Massachusetts is funding those  
23 energy efficiency programs to a very high  
24 degree. The state has made the public policy

1           determination that that should be programs that  
2           are heavily invested in.

3           So just for frame of reference, our budget  
4           in Massachusetts for energy efficiency is  
5           probably 3 or \$400 million a year. Our budget  
6           here in New Hampshire for the same programs is  
7           25 million roughly. It's one-tenth the size.  
8           So clearly you're going to have a bigger impact  
9           with that level of funding than you are in the  
10          programs that we run here, even though they're  
11          virtually identical.

12          The offerings we make, the way they're  
13          approached, are consistent across our three  
14          states, but there's no doubt that good strong  
15          energy efficiency programs are doing a lot to  
16          control the growth in load. In Massachusetts,  
17          someone's earlier comment is it's booming  
18          economically, particularly in the greater Boston  
19          area, and the load growth is very modest as a  
20          result of those energy efficiencies.

21          So I'm personally a big supporter of energy  
22          efficiency. I know our company is. We try to  
23          lead the way in this space. Working at the  
24          Public Utility Commission, we recently announced

1 an intention to double the size of our programs  
2 here in New Hampshire. You're probably aware of  
3 that. And to adopt an energy efficiency  
4 resource standard. I do think you're going to  
5 see a significant value and benefits coming as a  
6 result of that growth.

7 Can you do more? You can always do more.  
8 And I believe that those are good investments  
9 and they should continue to grow. But public  
10 policy in the State of New Hampshire is what  
11 dictates how far and how fast we can go with  
12 energy efficiency, but those are programs that  
13 we firmly believe in, and I think the proof is  
14 out there. Just look at Massachusetts. Look at  
15 Massachusetts. Connecticut, I believe, is third  
16 or fourth in the country in energy efficiency,  
17 and it's the very same program, but it's also a  
18 quarter of a billion dollar a year program.

19 Q So I guess my question is, it seems what you're  
20 saying is the level of investment in energy  
21 efficiency is dictated by public policy?

22 A It is.

23 Q And so does your company have the option to say  
24 we're going to invest so much or can they only

1 invest what is allocated publicly?

2 A Yes. So as a regulated public utility, our  
3 program size in the funding for it is really  
4 determined by the Public Utility Commission, and  
5 I know the legislature here in New Hampshire has  
6 a view on how fast and how far the growth in  
7 energy efficiency programs should be taken. I  
8 know there are bills that have been introduced  
9 to either accelerate it or control it. So it is  
10 truly matter of public policy and not within the  
11 discretion of the company. And we take the  
12 funding that we receive and we look to invest it  
13 in the highest best use, and we do have great  
14 success here in the State of New Hampshire with  
15 that program. It's just that the program's  
16 scale is not what you'd see in those other  
17 states that you're referring to.

18 Q One last area. In terms of cost, you carefully  
19 explained, I think, how costs are allocated and  
20 regional and local costs.

21 A Sure.

22 Q And so on. What is, are there costs associated  
23 with failure, if this project were not to happen  
24 or were to be delayed or whatever, are there



1 costs associated with failure to have this  
2 project implemented in a certain time frame that  
3 would impact the ratepayer? In other words, you  
4 know, do brownouts or rolling blackouts or other  
5 measures that would you have to take to mitigate  
6 the lack of having this project in place, do  
7 those have costs to the ratepayer as well?

8 A Not in the form of a monetary penalty but I  
9 would say there's certainly a societal cost of  
10 any time we impact customers, meaning they don't  
11 have the power to keep their lights on or keep  
12 their home warm or to keep their business going,  
13 there is a societal cost. We see that with  
14 every extended outage and it's why we invest so  
15 heavily in reliability is to try to prevent it  
16 from happening or minimizing it. The scenario  
17 we're talking about here where as a utility grid  
18 operator, we are forced to shut off customers to  
19 keep the grid reliable. That's something we  
20 never want to experience.

21 Actually, I was involved in a situation in  
22 southwestern Connecticut where we had to do  
23 that, and it was a bad day. We had to  
24 essentially load shed in Greenwich/Stamford area

1           which is right on the New York border because we  
2           faced significant overloads, and we try to make  
3           that never happen. We've since made a lot of  
4           investments in that region to build in  
5           redundancy and reliability. Just like this  
6           project. So there is clearly a societal cost to  
7           doing that, and it's very significant for those  
8           who are impacted.

9           Q     So if you've proposed the project to ISO New  
10           England, and I assume there's some mechanism for  
11           them to accept it, and then for some reason it  
12           is either delayed or doesn't get built in a  
13           timely manner, there's no penalty to you. I  
14           mean, what's ISO New England's recourse in this  
15           case if they're responsible for the reliability?  
16           How do they deal with you?

17           A     You know, I'd like to think they see that we're  
18           doing everything we can to make the project a  
19           reality, and this is a project they've  
20           identified years ago and are anxious to see go  
21           into service, but they also recognize the siting  
22           of the project is not within their purview. So  
23           it's got to be sited locally here in the State  
24           of New Hampshire. We'll keep them apprised as

1 to when the project in-service date will be, and  
2 if it, if the project is not accepted, we would  
3 obviously advise them of that situation and we  
4 would attempt to manage around the current  
5 system that we have. Do everything we can to  
6 maintain its reliability and look for  
7 alternatives. But that's likely going to take  
8 an extended period of time.

9 Q And along this one last question?

10 A Sure.

11 Q This project, as I understand it is, there's  
12 basically plenty of electricity around. This  
13 project is intended to insert, almost inject a  
14 certain amount of electricity into the Seacoast  
15 area. Is it just New Hampshire or is it  
16 southern Maine also?

17 A This is predominantly New Hampshire. The  
18 Solution is predominantly a New Hampshire  
19 solution. That's where the need is. And on any  
20 given day there is what's referred to as reserve  
21 margin within the New England marketplace, if  
22 you will. So which means there's more  
23 generation. There's more energy than customers  
24 are consuming on any given hour. That's always

1 a goal of ISO New England has is to have a  
2 margin.

3 Q Right.

4 A What we're talking about here is a fairly  
5 localized reliability need which to reliably get  
6 that energy into the Seacoast region.

7 Q So this is basically about just bringing that  
8 energy to a specific location?

9 A Generally. Yes.

10 Q All right. Thank you.

11 A In a reliable way.

12 Q Thank you very much.

13 A You're welcome.

14 PRESIDING OFFICER WEATHERSBY: Susan?

15 MS. DUPREY: Thank you.

16 **QUESTIONS BY MS. DUPREY:**

17 Q Good afternoon.

18 A Good afternoon.

19 Q I think the word "immediate" is what is  
20 bothering folks.

21 A Okay.

22 Q So I'm curious as to what the word immediate  
23 means to ISO since apparently this has been  
24 under discussion since maybe 2011 even, and

1 won't get built by your own testimony until,  
2 completed until 2022. Yes, four years. You  
3 thought three or four years? Did I make a  
4 mistake about that?

5 A No, this, assuming this project is approved,  
6 let's assume this year, calendar year, just  
7 illustratively, we would complete the  
8 construction in one year. So by the end of 2019  
9 it would go into service.

10 Q Okay. So eight years.

11 A Eight years from the --

12 Q Doesn't feel immediate to me so this is what I'm  
13 wondering. What that means in ISO's mind when  
14 it categorizes these things.

15 A So think of it this way. When they looked at  
16 this system in 2012, they evaluated under their  
17 criteria where are the areas where this criteria  
18 is not satisfied under certain system  
19 conditions. And they said today, given loads in  
20 2012, customer demand in 2012, under certain  
21 criteria, which they used to evaluate, you can  
22 have overloads in the Seacoast region which  
23 means things that would compromise your  
24 reliability. It's not to say that they are

1 definitively going to happen or that they were  
2 happening immediately in 2012. They're saying  
3 as we look at our system today, and our load  
4 today, if you had that configuration, we've got  
5 a problem.

6 Thankfully we haven't had that combination  
7 in the intervening period of time. We haven't  
8 had the contingencies they were talking about  
9 along with the load that they analyzed, and we  
10 may not. You know, we may not have this through  
11 all of 2019. We may not have it for the next  
12 two or three years. But when they said it's an  
13 identified need, they're not saying it's per se  
14 is going to happen today or tomorrow. They're  
15 saying if conditions are right, you know, it  
16 will be a problem. We just haven't experienced  
17 it. Which is a good thing obviously.

18 Q Yes. Do they review their decisions again? I  
19 mean, this decision was made in 2012 or  
20 thereabouts. It's now six years later.

21 A Yes.

22 Q Do they periodically review their decisions and  
23 have they?

24 A Yes. I believe it's an annual assessment that

1           they perform, and again, Mr. Andrew is a good  
2           person to ask these questions. Spends a lot of  
3           time interfacing with ISO. And they obviously  
4           look at changes in load. That's a big variable  
5           is load. Are the load projections accurate.  
6           Are things growing more quickly or more slowly  
7           than anticipated. So it is, they periodically  
8           refresh and reevaluate their decisions.

9           Q     Thank you.

10                   PRESIDING OFFICER WEATHERSBY: Any other  
11           Committee members? Director Muzzey?

12                   DIR. MUZZEY: Thank you.

13           **QUESTIONS BY DIRECTOR MUZZEY:**

14           Q     Earlier today you talked about your community  
15           relations team.

16           A     Yes.

17           Q     Which is a group of people who assist property  
18           owners concerned about a project. Could you  
19           walk us through that process from say the  
20           beginning when a property owner hears about the  
21           project, has a concern, maybe it's an individual  
22           or an organization, and what happens next  
23           through the decision making process for a change  
24           to happen?

1 A Yes. So you're correct. Our community  
2 relations team, again, they exist throughout the  
3 State of New Hampshire, and their focus really  
4 is on municipalities that we serve. I think we  
5 serve over 200 municipalities here in the State  
6 of New Hampshire. They maintain those  
7 relations. And they work along with our  
8 construction services specialists on outreach  
9 around a particular project.

10 So let's take the Seacoast Reliability  
11 Project. They obviously will interface with all  
12 of the municipalities through which the project  
13 is passing, but they also do very local and  
14 extensive outreach to property owners along the  
15 projected route as well as businesses along the  
16 projected route. So it is literally, many  
17 instances, face to face. Very direct outreach.  
18 There's letters that they write to provide  
19 project updates, to seek expressions or  
20 questions or concerns. So there's kind of an  
21 ongoing very intense communication between our  
22 community relations folks, our construction  
23 service specialists and interested parties.

24 If the issue that's been raised is one that



1           necessitates us to consider a design change,  
2           which is what you hypothesize, that will tend to  
3           go back to the project team, the overall project  
4           team to look at the technical feasibilities of  
5           making the change. What are the costs impacts,  
6           will the system still be reliable. There are  
7           some instances where that would be elevated  
8           within the corporation if it's a very  
9           significant change. The decision to go  
10          underground through Newington as being an  
11          example of when that will probably be elevated  
12          for a final decision.

13                 But our specialists and our community  
14          relations folks have a lot of authority to  
15          resolve things at a local level face to face  
16          with individuals so it's not often that things  
17          get elevated. They tend to work things out  
18          locally.

19          Q        So is it your sense that that information is  
20          getting back to potentially affected property  
21          owners and they're understanding the differences  
22          that have been made to a project's design?

23          A        Yes. I certainly would expect that to be the  
24          case, and I generally know it to be the case.

1 Q And just a clarification on some, another topic.  
2 When you were talking about the undergrounding  
3 project in Fairfield County, Connecticut?

4 A Yes.

5 Q Where the costs were localized, and it was, it  
6 sounded as if you said partly because, well,  
7 because ISO found that other alternatives were  
8 available.

9 A Yes.

10 Q Did you mean other routes or other ways to move  
11 the transmission such as aboveground?

12 A The latter.

13 Q Okay. Thank you. That's all.

14 A Okay.

15 PRESIDING OFFICER WEATHERSBY:

16 Mr. Fitzgerald?

17 MR. FITZGERALD: If somebody else wants to  
18 go.

19 PRESIDING OFFICER WEATHERSBY: No. Go  
20 ahead.

21 MR. FITZGERALD: I was that kid that always  
22 said "why."

23 **QUESTIONS BY MR. FITZGERALD:**

24 Q But one thing, a few years ago I had some

1 interaction with ISO New England and they were  
2 explaining to me that there was a congestion  
3 issue in the seacoast that required Schiller  
4 Station to run more often than it normally would  
5 have. This was probably four or five years ago.  
6 And they explained that was a temporary  
7 situation. I know you don't own Schiller  
8 anymore, but is this line related somehow to  
9 that congestion issue that was requiring that  
10 plant to run more often?

11 A No. So congestion is not a reliability  
12 question. That's more of a cost question. So  
13 for those that aren't familiar with the phrase  
14 "congestion," it's when a particular area is  
15 consuming more power than can be generated by, I  
16 would say, low cost generation.

17 So in this case, Schiller Station, which is  
18 probably a higher cost form of generation, had  
19 to run because they couldn't import enough  
20 energy under the system condition you were  
21 talking about. That's purely a cost question.  
22 By congestion, it means running higher cost  
23 units than you ordinarily would do.

24 ISO's prevailing approach is to run the

1 lowest cost generation possible to serve  
2 customer load across New England, but there are  
3 instances under certain system configurations  
4 where they have to run something "out of merit"  
5 which means it's a higher cost alternative but  
6 it's due to local system conditions.

7 That's generally not the case in the  
8 Seacoast. It's not a congested area of our  
9 service territory unlike, for example, Boston or  
10 southwest Connecticut which at one time were  
11 among the most congested in the country until we  
12 upgraded the transmission. So that was, must  
13 have been a temporary situation.

14 Q Sure. Well, that's what they explained to me.

15 I wanted to follow up on one thing  
16 Mr. Patch asked, and I wasn't clear. As I asked  
17 you previously, it seems to me you present a  
18 potential solution to ISO New England, and I  
19 know it's through a stakeholder process and so  
20 on.

21 A We or other stakeholders. Could have been  
22 another stakeholder who presented an alternative  
23 or a solution. So any stakeholder to the  
24 process once a need has been identified can

1 introduce a potential solution.

2 Q Okay. So when, in your testimony when you said  
3 these two alternatives were presented to ISO New  
4 England, was it PSNH or Eversource that  
5 presented those or was that just a general, what  
6 came out of the Committee process?

7 A I don't know. I think Mr. Andrew may know that  
8 question.

9 Q Thank you.

10 PRESIDING OFFICER WEATHERSBY: Ms. Duprey?

11 **QUESTIONS BY MS. DUPREY:**

12 Q Last question. We've been talking about what  
13 cost might be localized versus regionalized, and  
14 one thing I'm wondering as I think this through  
15 is that I know there's been an argument that you  
16 should be looking at HDD rather than jet  
17 plowing. And would, if it were changed to HDD  
18 would that additional cost in your view be  
19 something ISO might look at as it should be  
20 localized as opposed to regionalized?

21 A I do believe there would be a risk of that.  
22 We're essentially talking about two different  
23 methods to cross a body of water, HDD being far  
24 more costly and more than double anticipated

1 installation costs. And I think ISO may look at  
2 those two alternatives and say that you had a  
3 lower cost technically acceptable alternative  
4 that you didn't select, and, therefore, the  
5 incremental cost of directional drilling should  
6 be borne locally. I do think there's a risk of  
7 that if we were to go that route.

8 Q Where there regulations that ISO has in place  
9 that help to guide people as to what will be  
10 local and what will be regionalized or is this  
11 totally subjective?

12 A I would say it happens on a case by case basis.  
13 I'm not familiar with the previous criteria that  
14 they, that guide their decision making. There's  
15 certainly precedent that may be nonbinding but  
16 they look to. Again, I think Mr. Bowes and  
17 Mr. Andrew probably have more experience with  
18 that.

19 Q I was just going to ask that. Okay. Thank you  
20 very much.

21 PRESIDING OFFICER WEATHERSBY: Mr. Way?

22 **QUESTIONS BY MR. WAY:**

23 Q Following up on that, and I'm just going back to  
24 some of the previous conversations with what

1           constitutes localized costs as being statewide  
2           or Eversource or it could be that subset area.  
3           I have to imagine to go to the subset area must  
4           be kind of messy. I would expect that that  
5           wouldn't be an easy thing to do or is that just  
6           a -- is that an easy process for you folks?

7           A    I'm not aware of any instance where they have  
8                localized it to a subset of a utility's  
9                customers. You know, so, for example, in this  
10              case, not spreading the cost across all of PSNH  
11              but only the 22 towns in the Seacoast region,  
12              I'm not aware of an instance where FERC has  
13              required that level of localization.

14          Q    So when we're talking about something that  
15                might, like the drilling that was just discussed  
16                that might be put back onto the State, in your  
17                opinion, it doesn't sound like there's a real  
18                danger that that will just be focused in one  
19                area.

20          A    Again, that's not something, not a process I've  
21                been terribly involved in so I think Mr. Bowes  
22                and Mr. Andrew could shed some light. I'm not  
23                personally familiar in an instance where they  
24                have done that.

1           To use the example mentioned by Ms. Duprey,  
2           there is a significant cost differential between  
3           those two alternatives. In this case, I think  
4           it's a more than doubling of the total project  
5           cost. So it's not, you know, a fraction of the  
6           project. It's more than double. That type of  
7           cost increase I think increases the risk of it  
8           being localized. But whether they go beyond  
9           pushing it down to New Hampshire PSNH, I don't  
10          know.

11         Q     Thank you.

12                         PRESIDING OFFICER WEATHERSBY: I have one  
13                         question.

14         A     Okay.

15         **QUESTIONS BY PRESIDING OFFICER WEATHERSBY:**

16         Q     Back in the community outreach.

17         A     Okay.

18         Q     Do you know if every owner of property through  
19                 which this project will pass has been contacted  
20                 by a representative of PSNH?

21         A     I believe subject to check that they have been,  
22                 and I would expect that they had been. I know  
23                 there's been extensive outreach up and down this  
24                 corridor. If we didn't actually connect with



1 each and every person, I know it's not for lack  
2 of trying. I know we've attempted to outreach  
3 to each and every landowner multiple occasions.  
4 And I believe successfully connected with the  
5 vast majority of them, if not all of them. I  
6 could get you the details of that, but --

7 Q That's okay. But you've made efforts of some  
8 fashion to knock on doors --

9 A Absolutely.

10 Q -- give them a letter, every property owner  
11 through which this project passes?

12 A Absolutely, and we've actually written open  
13 letters to every citizen in every town, multiple  
14 open letters with project updates and giving  
15 them hotline numbers that they could call if  
16 they have an issue or question. There's truly  
17 been extensive effort to connect to each and  
18 every individual here.

19 PRESIDING OFFICER WEATHERSBY: Any other  
20 questions of the committee? Mr. Iacopino?

21 MR. IACOPINO: No.

22 PRESIDING OFFICER WEATHERSBY: Mr. Quinlan,  
23 thank you for your testimony. Oh, redirect.  
24 I'm sorry. I'm so sorry, Mr. Needleman.

1 MR. NEEDLEMAN: I was actually leaning  
2 forward to say no redirect.

3 PRESIDING OFFICER WEATHERSBY: Oh, I had  
4 premonition then.

5 MR. IACOPINO: Before we go on, I just want  
6 to go over what we have for record requests with  
7 respect to this witness. First one I have is to  
8 provide the demand load growth in the Seacoast  
9 region over the last ten years. Number 2,  
10 provide a citation to the ISO New England tariff  
11 or other documents containing the reasonableness  
12 standards referenced on page 13, line 12, of Mr.  
13 Quinlan's testimony. Number 3, provide the  
14 guidelines for the ISO New England cost  
15 allocations, and I have in parens, something  
16 more specific than citation and testimony.  
17 Number 4, to calculate the impact of  
18 localization of the \$7 million cost increase to  
19 PSNH ratepayers in New Hampshire and to all  
20 ratepayers in New Hampshire.

21 So maybe at the end of the day you can let  
22 Pam or me know when you'll be able to have that  
23 information for us.

24 MR. NEEDLEMAN: Okay.

1 MR. IACOPINO: Thank you.

2 PRESIDING OFFICER WEATHERSBY: Now I think  
3 we are done with you, Mr. Quinlan. Thank you  
4 for your testimony.

5 MR. QUINLAN: Thank you.

6 PRESIDING OFFICER WEATHERSBY: Why don't we  
7 take a five-minute break while the panels  
8 change. We'll be next hearing from the  
9 Construction Panel.

10 (Recess taken 2:20 - 2:32 p.m.)

11 PRESIDING OFFICER WEATHERSBY: Okay. We'll  
12 resume. Back on the record. Mr. Patch, I  
13 understand you may have an objection?

14 MR. PATCH: Yes. I just wanted to note for  
15 the record an objection that I raised at the  
16 Prehearing Conference and that's with regard to  
17 making a panel of 6 witnesses here because it's  
18 not consistent with the way in which the  
19 Prefiled Testimony was submitted. I think three  
20 or four of the witnesses had submitted testimony  
21 together at one point or another during the  
22 proceeding, but two of them did not, and it  
23 really puts the parties at a distinct  
24 disadvantage when we find out on the day of the

1 Prehearing Conference that this is what the  
2 Applicant intends to do. We went in there  
3 having prepared cross with the understanding  
4 that we were supposed to give estimates of how  
5 much time it would take, and we didn't have any  
6 advanced notice that this is how they wanted to  
7 do it.

8 I understand from Counsel that it is a  
9 tradition with the Committee to give the  
10 Applicant discretion on how they present their  
11 witnesses, but I think this kind of goes beyond  
12 that because 6 witnesses in one panel, I mean,  
13 I'm going to have to do fairly extensive cross  
14 on probably 3 or 4 of them, and it's going to  
15 take quite a long time, and I just think it's  
16 unfair, and I think the other parties had  
17 supported me on that at the prehearing  
18 conference. So I think it's important to note  
19 that for the record.

20 PRESIDING OFFICER WEATHERSBY: Thank you.  
21 Attorney Needleman?

22 MR. NEEDLEMAN: Thank you. I don't think  
23 there's anything unfair about it. As a starting  
24 point, it is traditional practice for as long as

1 I've done cases in front of the SEC that  
2 Applicants disclose their witness order at the  
3 Prehearing Conference so there was nothing at  
4 all unusual about how we did that. It's also  
5 traditional practice that Applicants have  
6 discretion in terms of how they present the  
7 witnesses, and I don't think there's anything  
8 unfair about this, and in fact, I think it's the  
9 contrary. I think it's highly efficient to  
10 group witnesses that are testifying about the  
11 same general subject matter, especially where  
12 there's likely to be overlap and where witnesses  
13 may be able to add information to what other  
14 witnesses might say. There's certainly  
15 precedent for this in other proceedings. And  
16 that the panel you have before you is the panel  
17 that is speaking to the issue of technical and  
18 managerial capability which is a discrete  
19 statutory criteria so that's why they're being  
20 presented together.

21 PRESIDING OFFICER WEATHERSBY: Thank you.  
22 Mr. Patch, your objection is noted. It is  
23 overruled. You will, to address some of your  
24 concerns, however, you will have a chance to ask

1           questions of each individual on the Panel.  
2           I know that we asked you for estimates of time.  
3           We will not hold you to those estimates of time,  
4           and you will have chance to ask all of your  
5           questions of each witness on this Panel.

6           That said, efficiency for all is  
7           appreciated.

8           And if the witnesses could be sworn in,  
9           please?

10          (Whereupon, **Lynn Frazier, Nicholas Strater, David**  
11          **Plante, Kenneth Bowes, Marc Dodeman and William Wall**  
12          were duly sworn by the Court Reporter.)

13                               **LYNN FRAZIER, SWORN**

14                               **NICHOLAS STRATER, SWORN**

15                               **DAVID PLANTE, SWORN**

16                               **KENNETH BOWES, SWORN**

17                               **MARC DODEMAN, SWORN**

18                               **WILLIAM WALL, SWORN**

19                               **DIRECT EXAMINATION**

20          **BY MR. NEEDLEMAN:**

21          Q       So Ms. Frazier, let me start with you.  Could  
22                   you please state your name and position for the  
23                   record?

24          A       (Frazier) Lynn Frazier.  I'm a traffic engineer.

1 Q And then maybe what we could do is work down the  
2 aisle, so Mr. Strater?

3 A (Strater) Nick Strater. I'm Trenchless Practice  
4 Leader for Brierley Associates.

5 MR. IACOPINO: You're going to have to get  
6 closer to that microphone when you speak,  
7 Mr. Strater. Your voice is low. We can't hear  
8 you.

9 MS. DUPREY: I couldn't hear what he does.  
10 I'm sorry.

11 A (Strater) Nick Strater. I'm the Trenchless  
12 Practice Leader for Brierley Associates. Sorry.

13 A (Plante) My name is David Plante. I'm the  
14 Manager of the Project Management for Eversource  
15 in New Hampshire.

16 A (Bowes) Kenneth Bowes, Vice President of  
17 Transmission Performance for Eversource Energy.

18 A (Dodeman) Mark Dodeman. I'm Director of  
19 submarine cable projects at LS Cable America.

20 A (Wall) Bill Wall. I'm Project Director for LS  
21 Cable America.

22 Q And back to you, Ms. Frazier. I've given you  
23 three exhibits. The first is Applicant's  
24 Exhibit 14 which is the April 12, 2016, Prefiled

1           Testimony of Lynn Farrington, and I understand  
2           that since that time your name has changed.

3           The second is Applicant's Exhibit 74.  
4           Amended Prefiled Testimony of Lynn Farrington  
5           from March 29th, 2017.

6           And the third is Applicant's Exhibit 141  
7           which is the Supplemental Prefiled Testimony of  
8           Lynn Farrington dated July 27th, 2018. Do you  
9           have all those?

10          A     (Frazier) Yes, I do.

11          Q     Do you have any changes or corrections to any of  
12                those pieces of testimony?

13          A     (Frazier) No.

14          Q     Do you adopt them all and swear to them today?

15          A     (Frazier) Yes, I do.

16          Q     Let me go to you, Mr. Wall. I have given you  
17                three exhibits. The first is Applicant's  
18                Exhibit number 10 which is the Prefiled  
19                Testimony of Anthony Troy Godfrey, dated April  
20                12th, 2016, and I understand you are adopting  
21                that testimony; is that correct?

22          A     (Wall) That is correct.

23          Q     The second exhibit is the Prefiled Testimony of  
24                Marc Dodeman dated November 11th, 2016, and let



1 me start by asking you are adopting or have  
2 adopted that testimony; is that correct?

3 A (Wall) That is correct.

4 Q And the reason that that occurred is because  
5 after Mr. Dodeman filed that testimony he  
6 changed jobs and then left the case and so you  
7 assumed the testimony for him going forward; is  
8 that correct?

9 A (Wall) That's correct. Yes.

10 Q And then in his capacity at his new job at LS  
11 Cable he came back into the case for another  
12 purpose; is that right?

13 A (Wall) That's exactly correct.

14 Q And I've also given you Applicant's Exhibit 73  
15 which is Substitute and Amended Prefiled  
16 Testimony of William Wall. Is that correct?

17 A (Wall) Correct. I have that here.

18 Q Do you have any changes or corrections to any of  
19 that testimony?

20 A (Wall) No changes or corrections.

21 MR. PATCH: Madam Chair, just to be clear,  
22 I don't think Mr. Needleman gave an exhibit  
23 number for the Dodeman testimony. I think it's,  
24 we had a little discussion during the break. I

1 think it's 181, and I don't think it was  
2 provided electronically with the other exhibits.

3 I just want to make sure that we're clear.  
4 That's the exhibit number, 181.

5 MR. NEEDLEMAN: My understanding is that it  
6 was left off the electronic production and is  
7 being provided electronically, but it was  
8 nevertheless put into the case when it was  
9 filed.

10 PRESIDING OFFICER WEATHERSBY: So it is  
11 part of the record. It has been filed with the  
12 Committee.

13 MR. NEEDLEMAN: Yes, it was filed on  
14 November 11th, 2016.

15 PRESIDING OFFICER WEATHERSBY: And the  
16 Exhibit number is 181.

17 MR. NEEDLEMAN: Correct.

18 BY MR. NEEDLEMAN:

19 Q So back to Mr. Wall. You have no corrections or  
20 changes to any of that testimony?

21 A (Wall) No corrections or changes at this time.

22 Q Then do you adopt and swear to all of that  
23 testimony today?

24 A (Wall) I do.

1 Q Mr. Bowes, let me go to you. I've given you  
2 four exhibits. First is Applicant's Exhibit  
3 number 6 which is the Prefiled Testimony of  
4 James Jiottis dated April 12th, 2016. Do you  
5 have that?

6 A (Bowes) Yes, I do.

7 Q And you are adopting that testimony?

8 A (Bowes) Yes, I am.

9 Q Applicant's Exhibit number 7. The Substitute  
10 Prefiled Testimony of Ken Bowes dated March  
11 29th, 2017. Do you have that?

12 A (Bowes) Yes. I do.

13 Q Applicant's Exhibit 134 which is a combination  
14 of the Prefiled Testimony of Ken Bowes, David  
15 Plante, Nick Strater and Marc Dodeman dated July  
16 1st, 2018. That is the HDD testimony that was  
17 ordered in this case. Do you have that?

18 A (Bowes) Yes, I do.

19 Q And then Applicant's Exhibit 140 which is your  
20 Supplemental Prefiled Testimony along with Mr.  
21 Plante dated July 27, 2018.

22 A (Bowes) Yes, I have that.

23 Q Do you have any changes or corrections to any of  
24 those pieces of testimony?

1 A (Bowes) I do not.

2 Q Do you adopt and swear to them today?

3 A (Bowes) Yes, I do.

4 Q Mr. Plante, if I could turn to you. You have  
5 Applicant's Exhibit number 8 which is the  
6 Prefiled Testimony of David Plante dated April  
7 12th, 2016?

8 A (Plante) Yes, I have that.

9 Q Applicant's Exhibit 72 amended Prefiled  
10 Testimony of David Plante dated March 29th,  
11 2017?

12 A (Plante) I have that as well.

13 Q Also Applicant's Exhibit 134, the combined  
14 Prefiled Testimony of Ken Bowes, David Plante,  
15 Nick Strater and Marc Dodeman dated July 1st,  
16 2018?

17 A (Plante) Yes.

18 Q And Applicant's 140 which is the Supplemental  
19 Testimony of Ken Bowes and David Plante dated  
20 July 27th, 2018?

21 A (Plante) Yes. I have that as well.

22 Q Do you have any changes or corrections to any of  
23 that testimony?

24 A (Plante) No, I do not.

1 Q Do you adopt and swear to it today?

2 A (Plante) I do.

3 Q Mr. Dodeman, to you. Applicant's Exhibit 134,  
4 the Prefiled Testimony of Ken Bowes, Dave  
5 Plante, Nick Strater and Marc Dodeman, again  
6 dated July 1st, 2018. Do you have that?

7 A (Dodeman) I have that document.

8 Q Do you have any changes or corrections to that?

9 A (Dodeman) No, I do not.

10 Q Do you adopt and swear to it?

11 A (Dodeman) Yes, I do.

12 Q And finally, Mr. Strater. Again, Applicant's  
13 134, the Bowes, Plante, Strater and Dodeman  
14 testimony dated July 1st, 2018. Do you have  
15 that?

16 A (Strater) Yes, I do.

17 Q Do you have any changes or corrections to that  
18 testimony?

19 A (Strater) No changes or corrections.

20 Q Do you adopt and swear to it?

21 A (Strater) Yes, I do.

22 Q Thank you.

23 MR. NEEDLEMAN: Madam Chair, they're  
24 available for cross.

1                   PRESIDING OFFICER WEATHERSBY: Thank you.  
2                   Attorney Patch, I understand you're going to be  
3                   questioning from where you're seated. Please  
4                   proceed.

5                   MR. PATCH: Yes. Thank you.

6                   **CROSS-EXAMINATION**

7                   **BY MR. PATCH:**

8                   Q     My first round of questions are for you,  
9                   Mr. Wall, and I would prefer that you be the  
10                  only one to answer the question unless I  
11                  indicate otherwise.

12                  MR. NEEDLEMAN: Objection. I think he's  
13                  free to direct the questions to Mr. Wall, but I  
14                  don't think he's free to limit how they are  
15                  answered.

16                  MR. PATCH: Well, this is exactly why I  
17                  raised the objection I did before. It's an  
18                  obvious attempt to try to combine members on the  
19                  Panel so that they can give backup to testimony  
20                  that they had nothing to do with, and that's why  
21                  I think it's unfair.

22                  PRESIDING OFFICER WEATHERSBY: I'm going to  
23                  overrule the objection. If you want to direct  
24                  your question to a certain witness and instruct

1           that witness only to answer, that's fine.

2           MR. PATCH:   Okay.

3 BY MR. PATCH:

4 Q     Mr. Wall, do you understand?

5 A     (Wall) Sorry.  I didn't hear your response.

6           PRESIDING OFFICER WEATHERSBY:  If he  
7           directs that you're the only one to answer, you  
8           should be the only one to answer, even though  
9           the others may wish to chime in and may, in  
10          fact, be helpful to give the Committee more  
11          information, but it's Mr. Patch's show right  
12          now, and he's asking only you or whoever he  
13          directs the question to to answer.

14 A     (Wall) Okay.

15          PRESIDING OFFICER WEATHERSBY:  Thank you.

16 BY MR. PATCH:

17 Q     So good afternoon, Mr. Wall.  My name is Doug  
18          Patch.  I'm counsel for the Town of Durham and  
19          University of New Hampshire.

20 A     (Wall) Good afternoon.

21 Q     As I understand it, you're sponsoring the  
22          original Godfrey testimony from 2016, the  
23          Dodeman testimony from November of 2016, and  
24          then your own testimony which was submitted --

1 when was that third testimony submitted?

2 A (Wall) March, it was during March 2017. I think  
3 it was March 29th.

4 Q Okay. And you had no other testimony after  
5 that?

6 A (Wall) I have no other testimony after that.

7 Q Are you familiar with the National Electric  
8 Safety Code?

9 A (Wall) I am familiar with that.

10 Q And I have an exhibit that I had presented  
11 electronically. I don't know if you have a copy  
12 of it. If not, I can show you a copy. It's  
13 some provisions of the National Electric Safety  
14 Code. It's been premarked as Exhibit number 10,  
15 at least on our list.

16 A (Wall) Thank you.

17 PRESIDING OFFICER WEATHERSBY: Mr. Patch,  
18 can that be shown to the Committee perhaps on  
19 the ELMO?

20 MR. PATCH: Sure.

21 BY MR. PATCH:

22 Q And I'll just indicate for the record, Mr. Wall,  
23 that these are provisions of the National  
24 Electric Safety Code, and I believe they're from



1 2012. Does that sound correct?

2 A (Wall) I don't know what year they're from. It  
3 doesn't say. It just says Rule Handbook.

4 A (Bowes) Could we also see a copy of the source  
5 document?

6 Q These were provided to me by the PUC, Randy  
7 Knepper and the safety crew, as being the ones  
8 that they reviewed in connection with Docket  
9 16-441.

10 A (Bowes) The reason I ask is the National  
11 Electric Safety Code was published in 2012, in  
12 2017, and this has a different date on it.

13 Q Well --

14 A (Wall) This has copyright 2016.

15 A (Bowes) Does not appear to be the National  
16 Electric Safety Code.

17 Q Well, I asked the Public Utilities Commissions  
18 for these provisions, and this is what they gave  
19 me. Maybe you could clarify.

20 A (Wall) This looks like an IEEE standard. I'm  
21 only going by what's on here and my familiarity  
22 with some of the IEEE labels that they put on  
23 their documents. It looks like an IEEE standard  
24 for building cables, bridges, highways and

1 streets.

2 Q Well, why don't we approach it this way then.  
3 Mr. Wall, what is your understanding of the  
4 applicable safety codes, National Electrical  
5 Safety Codes that would apply to this Project,  
6 particularly with regard to the installation of  
7 the cable under Little Bay.

8 A (Wall) The main criteria on that was the burial  
9 depth of 42 inches outside of the channel.

10 Q What section numbers in the code? Could you  
11 provide that?

12 A (Wall) I don't have that in front of me. I  
13 don't have the code in front of me.

14 Q So then if you don't think these are the  
15 accurate ones, I'd like to make a record request  
16 that you provide the provisions of the National  
17 Electrical Safety Code that you believe are  
18 applicable to placing the transmission cable  
19 under Little Bay.

20 And is it your understanding that you have  
21 to comply with the 2012 code or the 2017?

22 A (Wall) I don't know which. I would imagine that  
23 it would be the 2012, but that's just an  
24 estimate.

1 Q Why would you think the older code would apply?

2 A (Wall) Just because this project has a history  
3 going back that far.

4 Q Are you familiar with PUC Rule 306(b)(1) and  
5 what that requires?

6 A (Wall) No.

7 Q Would it surprise you to know that that's a PUC  
8 rule that applies to be applicability of burying  
9 distribution and transmission lines and the  
10 applicability of the National Electrical Safety  
11 Code?

12 A (Wall) Sorry. Are you telling me that?

13 Q Well, I'm asking you.

14 A (Wall) Is that a statement?

15 Q Do you have any reason to disagree with that?

16 A (Wall) I can't agree or disagree because I'm not  
17 familiar with that particular PUC, New Hampshire  
18 PUC, correct?

19 Q Okay. So it's not something that you've  
20 reviewed in connection with this Project.

21 A (Wall) It's not anything that I have seen in  
22 connection with this Project.

23 Q On page 6 of your 2017 testimony which I believe  
24 is marked as Exhibit 73; do I have that correct?

1 A (Wall) That is marked as Exhibit 73. Correct.

2 Q You state, and I'm quoting, once the plow  
3 progresses to the line delineating the deep  
4 water channel, the plow blade will be lowered to  
5 the 8 foot burial depth. Is that correct? Did  
6 I read that correctly?

7 A (Wall) You read that correctly. Yes.

8 Q Is it your understanding that the target cable  
9 depth in the channel is 8 feet?

10 A (Wall) It was originally 8 feet. Correct.

11 Q And so what is it now?

12 A (Wall) I believe now it is five feet.

13 Q And do you know why it's changed to five feet?

14 A (Wall) I believe it was a request from various  
15 parties to try and minimize what little  
16 turbidity is caused in that difference between 8  
17 feet and five feet.

18 Q And would that be consistent with the National  
19 Electrical Safety Code?

20 A It's hard to answer that because I don't think  
21 the National Electrical Code addresses  
22 turbidity.

23 Q I thought it addressed burial depth.

24 A (Wall) It did address burial depth, but it gives

1 a minimum of 42 inches.

2 Q Okay. So if that's the case, and that applies  
3 to underwater cable, then 42 inches, five feet,  
4 I'm sorry, would be consistent with the National  
5 Electrical Safety Code then perhaps?

6 A (Wall) It would be above the minimum.

7 Q Or below, so to speak.

8 A (Wall) No, If my math is correct.

9 Q Anyway. That was a joke. A bad one.

10 A (Wall) Oh, remind me to laugh. Sorry. Excuse  
11 me.

12 Q I would just like to walk you through how the  
13 excavation in Little Bay, how it's proposed to  
14 occur. As I understand it, first of all,  
15 there's going to be three trenches, and in each  
16 trench will be an electric transmission cable  
17 and in two of the three trenches there will also  
18 be a fiber optic cable; is that correct?

19 A (Wall) That is correct.

20 Q And they are proposed to be 30 feet apart; is  
21 that correct?

22 A (Wall) That is correct.

23 Q And is that a National Electrical Safety Code  
24 requirement that they be that far apart?

1 A (Wall) I don't believe it's National Electrical  
2 Code, but it is from a practical installation  
3 point of view.

4 Q And I'm going to cite to you, and this is where,  
5 I guess, Mr. Bowes, it would be appropriate for  
6 you to chime in response to this question since  
7 you're sponsoring his testimony, but Mr. Jiottis  
8 on page 20 of his testimony which I think is  
9 marked as exhibit -- it's in the top 10. I  
10 don't remember.

11 MR. NEEDLEMAN: Number 6.

12 Q 6. And I'm quoting. "Spacing of the submarine  
13 cables is an important consideration when  
14 designing an underwater cable system. To  
15 prevent inadvertently striking a previously laid  
16 cable during subsequent hydro-plow operations,  
17 the cables need to be separated by a sufficient  
18 horizontal distance. This separation allows the  
19 placement of any anchors used for the  
20 installation or alignment adjustments required  
21 due to unforeseen soil obstructions (rocks).  
22 Sufficient separation is also necessary for any  
23 future repair of the cable."

24 So Mr. Wall, does that help to explain why

1           they're separated?

2       A     (Wall) Well, that basically spells out what I  
3       said. It's a practical application of the -- if  
4       you lay the first cable, you don't want to come  
5       along and lay the second cable and have a chance  
6       of damaging it. So you pick some nominal  
7       distance and with positioning as it is now,  
8       Global Positioning System, we can usually get a  
9       lot closer. So hence, the 30 foot separation.

10      Q     Now, as I understand it, Mr. Wall, there are  
11      three basic ways in which the three new cable  
12      trenches will be dug. First of all, by an  
13      excavator on tracks near the shore; is that  
14      correct?

15      A     (Wall) That it would be an excavator of some  
16      type, whether tracks or wheels.

17      Q     And then secondly, by divers from where the  
18      excavators stop to where the jet plow equipment  
19      starts; is that correct?

20      A     (Wall) It would be hand jetting in that space,  
21      correct.

22      Q     And then thirdly, by the jet plow itself which  
23      is pulled across the middle of the bay by a  
24      barge from the Durham side in this case to the

1 Newington side, correct?

2 A (Wall) Correct.

3 Q And the trenches that are dug by the excavator,  
4 I believe that's, that would be done during a  
5 low tide; is that correct?

6 A (Wall) I think in this case the trench was  
7 mainly on the land section.

8 Q I'd ask you to take a look at the Godfrey  
9 testimony, page 4, line 27, and see if you have  
10 the same answer that he had.

11 A (Wall) Sorry. Which page again?

12 Q Page 4, line 27.

13 A (Wall) It's practicable seaward. So basically  
14 what we're saying there is it would be as  
15 practical as you can without getting what we  
16 would say "wet tracks."

17 Q But it's during low tide that that would be  
18 done, correct?

19 A (Wall) It would most likely be done at low tide.

20 Q What do you mean by "most likely"?

21 A (Wall) Well, it could be, I mean, some of the  
22 installation methodologies are laid out, but on  
23 the particular day it might not be a very good  
24 low tide so you may have to do it at a higher



1 tide.

2 Q So then the excavator could be in the water  
3 digging?

4 A (Wall) Not in this, no.

5 Q In your testimony at page 5, line 9, you say, "A  
6 jet plow will be set as close to the shoreline  
7 as possible at high tide to minimize the amount  
8 of diver burial between the end of the open-cut  
9 landing trench, and the start of the plow launch  
10 position." Is that correct?

11 A (Wall) That's correct. Yes.

12 Q What limits how close the jet plow can be to the  
13 shoreline?

14 A (Wall) The tide on the day, the draft of the  
15 barge you're using to operate the jet plow are  
16 basically the two main criteria.

17 Q What barge is it the intention to use in this  
18 particular case, and how would that impact on  
19 how close they could get to the shore?

20 A (Wall) At the time of this testimony, we were  
21 considering a 180 by 54 barge.

22 Q And what's the draft of that barge?

23 A (Wall) The draft of that could be, I mean, there  
24 could be in the 6-foot range. It's hard to tell

1 without having an exact spec of a vessel.

2 Q And so how far would this be on the Durham side  
3 from the high tide mark to where the barge would  
4 start?

5 A (Wall) It's hard to tell that without looking at  
6 the chart on the day of installation because  
7 remember the tides will have changed with the  
8 time of year.

9 Q I have another Exhibit I would like you to look  
10 at, and this is what I had marked on my list as  
11 Exhibit 11 and it's a memorandum from the Public  
12 Utilities Commission staff in the docket I cited  
13 to you before.

14 A (Wall) Thank you.

15 PRESIDING OFFICER WEATHERSBY: Mr. Patch,  
16 do you have one for the ELMO? If not, would you  
17 repeat the exhibit number?

18 MR. PATCH: Thank you. (Handing the  
19 exhibit to Administrator Monroe)

20 BY MR. PATCH:

21 Q It's pages 10 and 11 of that document that I  
22 guess I would like you to take a look at. In  
23 that document it says the submarine cable will  
24 run down the riser pole into the landing trench

1 and extend out into the shallow waters of Little  
2 Bay. The landing trench will continue  
3 underwater maintaining the 42 inch depth along  
4 the bay floor extending out approximately 365  
5 feet from the riser pole into Little Bay. From  
6 that point the cable depth will increase to 8  
7 feet in the main channel for a distance of 2431  
8 feet. On the easterly side of Little Bay, it  
9 will transition into a 42-inch landing trench  
10 for an additional distance of approximately 770  
11 feet through shallow waters and a shore.

12 I mean, that's the description that was  
13 provided to the PUC and was cited in their  
14 memorandum.

15 A (Wall) Yes.

16 Q Presumably that's changed now since you're  
17 looking at a five foot instead of an 8 foot  
18 barrier, but are there other changes in that  
19 description that you would like to point out to  
20 the Committee?

21 A (Wall) No. I don't think that has changed. I  
22 mean, what has changed is the 8 foot depth to  
23 the five foot depth.

24 Q So the numbers that they cite, for example, on

1 the Durham side where it says that approximately  
2 367 feet from the riser pole into Little Bay,  
3 that number?

4 A (Wall) That approximate figure depends on how  
5 close on the day the barge can get. By the way,  
6 in the Application in maps 21 and 22, there is a  
7 barge position shown.

8 Q Okay. But you don't have any reason to disagree  
9 with the numbers that are in that description  
10 from the Public Utilities Commission staff?

11 MR. NEEDLEMAN: I'm going to object. This  
12 order was superceded by another PUC staff  
13 recommendation that addressed these same issues,  
14 and I think that has more current information.

15 MR. PATCH: Well, if Mr. Needleman wants to  
16 ask about that on redirect, he's free to do so.

17 MR. NEEDLEMAN: Well, I will. I just don't  
18 want it to be misleading.

19 MR. PATCH: Well, I think you can  
20 straighten that out on redirect in the ways in  
21 which it's different.

22 PRESIDING OFFICER WEATHERSBY: Objection is  
23 overruled. You may continue.

24 BY MR. PATCH:

1 Q So the description on the Newington side though,  
2 the number of feet through shallow waters is  
3 much larger, isn't it? 770 feet?

4 A (Wall) Yes.

5 Q And could you explain that difference?

6 A (Wall) Well, the, on that side, the rising to  
7 the tide is obviously larger on that side than  
8 it is on the other, and remember these figures  
9 are approximateLY because as we said in our  
10 testimony, on the day we will try to get as  
11 close as possible.

12 Q Well, I'm under the impression, you correct me  
13 if I'm wrong, but if the barge is pulling the  
14 jet plow from the Durham side to the Newington  
15 side, and it's not pulling it back in the other  
16 direction but just that one direction, then the  
17 limit on how close you could get on the  
18 Newington side would be driven by the fact that  
19 the barge can probably not get as close on that  
20 side, and, therefore, the jet plow would have to  
21 stop much further out. Do I understand that  
22 correctly or no?

23 A (Wall) Correct. There are possibilities that  
24 you can winch the jet plow closer to the barge

1 at that final landing.

2 Q In terms of the advance rate of the cable  
3 installer, could you tell us what your  
4 understanding is of what that advance rate is?  
5 In other words, how fast will it be done?

6 A (Wall) Is that in this, is that something in  
7 this document you're referencing? Or just in  
8 general?

9 Q (Wall) Just in general.

10 A (Wall) The specification of the plow shows 500  
11 feet an hour. That in this case is probably a  
12 little fast. It will probably be between 2 and  
13 400 feet an hour.

14 Q And so it's my understanding there's a cable  
15 installer by the name of Durocher who has made a  
16 recommendation on that in this docket. Are you  
17 familiar with that?

18 A (Wall) Durocher is our cable installer in this  
19 Project.

20 Q And so is it your understanding that they  
21 recommend the jet plow advance rate of  
22 approximately 37 to 400 meters per hour? Which  
23 sounds like a pretty broad range. And the 120  
24 to 1320 feet per hour. Is that your

1 understanding?

2 A (Wall) Sorry. Are you quoting again from a  
3 document?

4 Q I'm quoting from something which cable installer  
5 Durocher has recommended, and I don't have a  
6 cite to that in front of me, unfortunately.

7 A Which document is that?

8 Q I don't have a cite to it right now, but I'm  
9 just testing your understanding of it. I can  
10 try to get that for you.

11 A (Wall) I mean they're given a very wide range  
12 there, but you can hit various bottom conditions  
13 where you could go down to a slow rate of  
14 advance and then easier bottom conditions where  
15 you'd have a faster rate of advance.

16 Q So that's pretty typical to have a wide range  
17 like that?

18 A (Wall) Yes.

19 Q So considering the 1300 meter jet plow rate as  
20 being sort of the high end of that range?

21 A (Wall) Can you just -- sorry to interrupt.  
22 Where did that document come from?

23 Q It's in the record. I don't have a cite to it  
24 right now. But if you have a different

1           understanding, if you could let me know. And  
2           I'm asking --

3       A     (Wall) In the record. Can you reference the  
4           record?

5       Q     Actually, if others on the panel want to consult  
6           with you about that, feel free to do that if you  
7           know where it is in the record.

8       A     (Bowes) Could you produce the document for us?

9       Q     I can't right now. I'm sorry. I'm just trying  
10          to test the witness's understanding.

11      A     (Wall) That seems an unusually high rate of  
12          advance. It could have been a typo. It does  
13          seem extremely high rate of advance for this  
14          type of work.

15      Q     So --

16      A     (Wall) Usually -- if I can just add a little  
17          explanation on that? Usually, in these types of  
18          jobs, if you're using meters which you are using  
19          there, between 100 and 300 meters an hour is not  
20          unusual. So they may have said between 100 and  
21          300 and it got mixed up as 1300, but 1300 an  
22          hour is a very fast rate.

23      Q     So you'd be surprised if that's what he said.

24      A     (Wall) I'd be, I know Durocher very well, and



1 I'd be surprised.

2 Q So based on your experience then, how long will  
3 it take for the single jet plow run to be made  
4 across, given the variables that he's pointed  
5 out?

6 A (Wall) Looks like it would take approximately  
7 two days.

8 Q How many hours a day?

9 A (Wall) Depending on tides, but it might be 14 to  
10 16 hours a day. There is a schedule. Can I  
11 just ask one administrative question? Did the  
12 schedule go in here? No. Okay.

13 A (Bowes) Obviously, I'm not Mr. Wall, but I  
14 believe it's 8 to 13 hours for each cable pull  
15 or jet plowing operation, and that will occur on  
16 subsequent days, depending on tides and how the  
17 operation goes. Probably one to two hours on  
18 either side of that. So a 14- to 16-hour day is  
19 probably accurate.

20 Q So Mr. Wall, are you aware of the duration of  
21 the tidal cycle in the proposed Project area  
22 from high slack to ebb slack is approximately 6  
23 and a half hours?

24 A (Wall) I believe that's correct.

1 Q And so page 5, lines 9 to 15 of your testimony,  
2 you state that the jet plow will be set as close  
3 to the shore at high tide from both the west and  
4 east landings.

5 Considering the anticipated crossing time  
6 that was just given, how would that be possible?

7 A (Wall) We may have to have a waiting period.

8 Q What steps will be taken to limit the  
9 disturbance and sedimentation that are caused by  
10 the excavator specifically?

11 A (Bowes) The excavator is not in the water.

12 A (Wall) The excavator is not in the water so  
13 there wouldn't be turbidity.

14 Q I thought you said there may be some situations  
15 on which there would be?

16 A (Wall) No.

17 A (Bowes) No.

18 Q Never, not a chance?

19 A (Wall) I did say that, you know, you couldn't  
20 have what we would call "wet tracks."

21 Q And there couldn't be tidal pools in the tidal  
22 flats?

23 A (Wall) Not to cause turbidity. Not to cause  
24 measurable turbidity.

1 Q Will jet plowing or the equivalent by the divers  
2 be limited to being done during the time that  
3 the tide is either incoming or going out?

4 A (Wall) For the divers it's mainly at, you know,  
5 at the slackest tide possible.

6 Q So when the tide is the farthest out?

7 A (Wall) Yes.

8 Q And for the jet plow itself? Is there any  
9 consideration in terms of whether the tide is  
10 coming in or going out?

11 A (Wall) Well, yes, from an "as close as we can  
12 get" criteria would be on the high tide, and  
13 then beyond that turbidity would be an item that  
14 is regulated by the permits, and there would be  
15 monitoring of the turbidity to ensure we didn't  
16 get above a certain preset level set by a permit  
17 regulator.

18 Q So in this case, set by the Department of  
19 Environmental Services?

20 A (Wall) Correct.

21 Q What's your understanding of what that will be?

22 A (Wall) We haven't, I have not seen the final  
23 permit yet.

24 Q Okay. So you haven't seen the one that was

1 issued in February of this year?

2 A (Wall) I haven't seen the final permit yet. No.

3 Q Have you been involved in the ongoing  
4 discussions with the DES about these issues?

5 A (Wall) No.

6 Q Have you been brought up to speed on those  
7 ongoing discussions?

8 A (Wall) What do you mean?

9 Q Has anybody from the Applicant talked to you  
10 about those ongoing discussions?

11 A (Wall) We have discussed it, yes.

12 Q And is this an issue that has been discussed?

13 A (Wall) Yes. It's an issue. I mean, that  
14 measurement of turbidity is always discussed on  
15 a jet plow operation.

16 Q And so that's part of what Eversource is trying  
17 to get changed in the February DES quote,  
18 unquote, "Final Decision"?

19 A (Wall) I believe so.

20 Q Okay.

21 MR. PATCH: Obviously, Madam Chair, I would  
22 just like to reserve the right to bring these  
23 witnesses back in the event that we find that  
24 DES has made changes.

1 BY MR. PATCH:

2 Q You mentioned on page 7, line 8, of your  
3 testimony that you talk about the use of a  
4 turbidity curtain where the cable is buried by  
5 divers, correct?

6 A (Wall) Correct.

7 Q Can you tell us what a turbidity curtain is?

8 A (Wall) Basically a fiber type curtain that is  
9 deployed around the area where the divers would  
10 be hand jetting the cable.

11 Q What's the curtain made of?

12 A (Wall) Like a nylon and fiber type mixture, I  
13 believe. I don't know the exact manufactured  
14 items.

15 Q Can you describe how it's used? Does it  
16 surround the divers? Is it like, where is it  
17 placed?

18 A (Wall) It's usually lowered from either a barge  
19 or a dive boat and then with floats on the  
20 surface, it's connected to those floats and is,  
21 as you said, placed around that area where the  
22 diver is operating.

23 Q Is there more turbidity where the divers using  
24 diver-operated jetting tools including possibly

1 a water lift device, is there more turbidity  
2 there than where the jet plow itself is doing  
3 the burying of the cable?

4 A (Wall) Usually, usually not.

5 Q So there's usually more with the actual jet  
6 plow?

7 A (Wall) It's a different distribution. Remember  
8 the jet plow is basically liquifying the bottom  
9 and the stinger or the front of the plow goes  
10 into the sea bed or bay bed. So the  
11 distribution of turbidity is slightly different  
12 between plowing and the hand jetting.

13 Q And what is a water lift device?

14 A (Wall) A water lift device is another type of  
15 hand jetting, but I don't believe we are using a  
16 water lift device.

17 Q And when you say another type, could you  
18 describe it? What does it look like? How is it  
19 used? And why is it not being used here?

20 A (Wall) Well, it's not basically not permitted to  
21 use that type of device.

22 Q Not permitted by who?

23 A (Wall) By the permit regulator.

24 Q So Department of Environmental Services said you

1           could not use it?

2       A     (Wall) Yes.

3       Q     They said this in the February, in the February  
4           issuance?

5       A     (Wall) I don't know whether it was in that, but  
6           I believe that it's not permitted to use the  
7           water lift.

8       Q     And is there a turbidity curtain that's used in  
9           connection with the jet plow itself?

10      A     (Wall) No.  Practically, it's very difficult  
11           when you're moving along to deploy a turbidity  
12           curtain.

13      Q     So what other steps do you take in connection  
14           with the jet plow itself then to limit or  
15           contain the turbidity?

16      A     (Wall) Basically speed of advance and water flow  
17           from the plow.  And as I said before, the  
18           turbidity would be monitored, and if it reaches  
19           above a preset level, then steps would be taken  
20           to reduce that turbidity by either slowing  
21           forward progress or reducing flow or flow or  
22           pressure at the stinger of the jet plow.

23      Q     So somebody's there monitoring a level of  
24           turbidity as the jet plow is moving, and if

1           there's too much coming, you slow it down; if  
2           it's doing fine, you might speed it up a little?

3       A     (Wall) Really the speed is defined by the  
4           conditions in the bay bed, but yes, there is a  
5           constant monitoring of the level of turbidity.

6       Q     And who's doing that monitoring?

7       A     (Wall) At this point, we don't know. It will  
8           probably be an independent contractor appointed  
9           by the regulator. That's standard operating  
10          practice for this type of operation.

11      Q     And is it somebody who has the authority to stop  
12          work?

13      A     (Wall) If they're working on behalf of the  
14          regulator, which they are, then they have the  
15          authority to stop work.

16      Q     And back to the excavating and the tidal flats,  
17          are there any steps that will be taken to try to  
18          limit the impacts of that excavating? Is there  
19          anything that you can do to limit those impacts  
20          or is it just like excavating on dry land?

21      A     (Wall) It will be basically similar to  
22          excavating. You will be basically excavating  
23          similar to dry land.

24      Q     So no containment booms or absorbents or



1 anything like that?

2 A (Wall) There will be containment along each side  
3 of the trench but nothing like turbidity  
4 monitoring.

5 Q Are there protocols that the excavator will have  
6 to follow?

7 A (Wall) Yes, I'm sure that Durocher as an  
8 experienced construction contractor will have  
9 protocols in place.

10 Q Are they written protocols?

11 A (Wall) I don't have anything in front of me, but  
12 I would imagine so.

13 Q Could you provide a copy of whatever protocols  
14 you think might be in existence? I'd like to  
15 make a record request.

16 A (Wall) Okay.

17 MR. IACOPINO: These are the protocols  
18 for --

19 MR. PATCH: The excavator.

20 MR. IACOPINO: -- the excavating in the  
21 tidal flat?

22 A (Wall) Yes.

23 BY MR. PATCH:

24 Q In terms of the barge that will be towing the

1 jet plow, are there any impacts that the barge  
2 itself can have on the bay, on the bed of the  
3 bay, on turbidity?

4 A (Wall) Not so much the barge itself, no. I  
5 mean, the barge is in, you know, is floating in  
6 the bay.

7 Q The Dodeman testimony, the November of '16  
8 testimony which you adopted at page 5, I'll let  
9 you get there if you want to.

10 A (Dodeman) So Exhibit 181?

11 Q That's my understanding. All set?

12 A (Wall) Yes.

13 Q It says the barge will be equipped with a four  
14 point mooring system. What is that?

15 A (Wall) Correct. That's an anchoring system, and  
16 four point is the fact there will be four  
17 anchors on the barge, one from each corner of  
18 the barge.

19 Q And are they what's referred to as spuds or  
20 large poles that extend through the barge into  
21 the sediment to keep the barge in kind of a  
22 fixed location?

23 A (Wall) No. They are separate from any spuds, if  
24 used.

1 Q Okay.

2 A (Wall) They are anchors that anchor into the bay  
3 bed and are moved by an assist tug as the barge  
4 moves along the route.

5 Q So when I think of an anchor, I'm kind of old  
6 school, I guess, but I think of it as having  
7 hooks; is that what it is?

8 A (Wall) Yes. It's basically an anchor, a little  
9 different from that. It's more of a flat, they  
10 call it a Navy Stockless Anchor. Slightly  
11 different design, but you've got the basic idea.

12 Q And so they could be dragged across the bottom?

13 A (Wall) No. We very much do not drag across the  
14 bottom. You're pulling against it. And when  
15 that goes slack, then the assist tug would move  
16 that anchor, and it would be basically the  
17 propulsion system for the barge towing the plow.

18 Q And you said there's one anchor or four anchors?

19 A (Wall) Four. That's where the four point  
20 mooring description comes from.

21 Q And in reference to the spuds, could you explain  
22 that again? Is that something that would be  
23 used or wouldn't be used, and what are they?

24 A (Wall) It's probably not at this stage. It

1           could have been spuds used, but no, we are going  
2           to use four point mooring system.

3       Q     No spuds.

4       A     (Wall) No spuds.

5       Q     And no poles or anything else. The only way in  
6           which the barge could potentially impact the bed  
7           of Little Bay would be through the anchors?

8       A     (Wall) Correct.

9       Q     And you might have answered this, but if you did  
10          I don't recall. Will you use containment booms  
11          or absorbents?

12      A     (Wall) Are you referring to around the barge?

13      Q     Well, anywhere in the process, but that would be  
14          part of it.

15      A     (Wall) That can be deployed. It really depends  
16          on the operation. There will be a spill plan.  
17          Like in any marine operation, the Coast Guard,  
18          you have to have a spill plan, and it's not just  
19          common practice to do that. It's if, perhaps if  
20          it was asked by the permit regulator to do that.

21      Q     So is a spill plan the equivalent of what I was  
22          referring to before in a different connection,  
23          admittedly, but protocols basically on when you  
24          use them and don't?

1 A (Wall) That is a standard document that either a  
2 customer of ours or the regulator or the Coast  
3 Guard, for instance, would ask for a spill plan.

4 Q Okay.

5 A (Wall) Contingency plan. Obviously, there may  
6 be some fluids on board that you, we take, you  
7 know, every precaution not to --

8 Q Has anyone in this, in connection with this  
9 Project, asked for such a spill plan? Either  
10 the Coast Guard, the US Army Corps, the  
11 Department of Environmental Services? Has  
12 anyone asked for one?

13 A (Wall) I would have to check. I think that DES  
14 may have.

15 Q Okay.

16 MR. PATCH: I'd make a record request for  
17 that also.

18 MR. NEEDLEMAN: I think it's in the DES  
19 permit.

20 BY MR. PATCH:

21 Q Is it your understanding that that's something  
22 that's under discussion with DES at this point  
23 in time, Mr. Wall?

24 A (Wall) I wouldn't have thought that was under

1 discussion because, like I said before, for this  
2 particular type of Project, that is a standard  
3 operating procedure.

4 Q Okay. I'm going to shift gears a little bit,  
5 but you're familiar with concrete mattresses and  
6 what they are, right?

7 A (Wall) I am.

8 Q And how much area did you anticipate will have  
9 to be covered in connection with this Project by  
10 concrete mattresses?

11 A (Wall) I haven't got the exact figure in front  
12 of me, but I think we did put in a number of  
13 concrete mats on each side and then we could  
14 work out the area from that. I don't have it  
15 right in front of me.

16 Q Is that something that's fixed in stone, so to  
17 speak, or fixed in concrete or is it something  
18 that would depend on a number of factors?

19 A (Wall) Mainly depends on the factor of the jet  
20 plow and diver hand burial. That they would be,  
21 obviously, the first methodology to bury the  
22 cable, and then if you can't get it to the  
23 correct depth, then mats would be deployed.

24 Q And the correct burial, again, being 42 inches.

1           If you can't get to 42, then you put a mat over  
2           it?

3       A     Yes.

4       Q     And that would be anywhere throughout the bay,  
5           right?

6       A     (Wall) Could be anywhere.

7       Q     I mean, theoretically, you could be in the  
8           middle of the bay and because of ledge or  
9           whatever, you couldn't dig 42 inches so you'd  
10          have to put one there.

11      A     (Wall) Possibility, but it looks like the rest  
12          of the area is jetable.

13      Q     Do you have written protocols on the use of  
14          those mattresses?

15      A     (Wall) We do have -- I will check with Durocher,  
16          but we probably have a method of procedure for  
17          installing the mats.

18      Q     The protocols on when they would and wouldn't be  
19          used, is there anything other than what you've  
20          just told me? It's all about whether you can  
21          bury it to 42 inches, and that's the end of it?

22      A     (Wall) It's whether we make burial. We won't  
23          really know that until the operation is under  
24          way, but the basic protocol is if you don't meet

1 burial, then a mat would be placed.

2 Q Now, I mean, you had described earlier the  
3 30-foot separation for the three cables. So  
4 from, there's a total, basically, of a little  
5 over, as I would see it, 60 feet between one  
6 side of one of the trenches and the far side of  
7 the farther most trench away. 60 feet between  
8 those three trenches, correct?

9 A (Wall) Out in the bay, that is correct.  
10 Remember, they come together at the landings.

11 Q Okay. And do they come together directly or do  
12 they sort of taper in?

13 A (Wall) They taper. They taper in.

14 Q And from what point do they start tapering in  
15 from the 30-foot separation?

16 A (Wall) It's, I believe it's on the maps in the  
17 Application.

18 MR. PATCH: I'd just like to note for the  
19 record that the witness is not answering the  
20 questions by himself. You know, he's conferring  
21 with the other witnesses. I mean I'm not going  
22 to ask that it be stopped, but, again, I think  
23 it's important to note.

24 A (Wall) On Map 20 of 31.



1 Q And what does it show? Could you describe it  
2 for the Committee?

3 A (Wall) It basically shows a gradual, a gradual  
4 necking down of each cable into a single trench,  
5 and then when you're going out on the bay you  
6 see it split to 30-foot separation.

7 Q I guess I'd like a little bit more specificity  
8 though. When you say, when you're going out  
9 into the bay, about where out in the bay would  
10 it start "necking" in as you describe it?

11 A (Wall) I can't tell exactly at the moment, but I  
12 could provide that if required.

13 Q Okay.

14 MR. PATCH: I'd make a record request that  
15 they provide that information about the point at  
16 which on both sides of the bay they anticipate  
17 that the necking in of the cabling is so that  
18 they're no longer 30 feet apart will take place?

19 PRESIDING OFFICER WEATHERSBY: Attorney  
20 Needleman, isn't this all in the plans that have  
21 been submitted?

22 MR. NEEDLEMAN: It's on the maps in the  
23 Application.

24 PRESIDING OFFICER WEATHERSBY: Could you

1 perhaps provide a cite to a map for Attorney  
2 Patch or --

3 MR. NEEDLEMAN: Well, I'm guessing one of  
4 the other panel members could point us to it.  
5 But it's in the Application.

6 A (Bowes) Sure. It's in the environmental  
7 drawings. Each segment of the Project is  
8 identified in those. This begins on 20 of 31,  
9 includes 21 of 31, and then finishes on the  
10 Newington end on page 22 of 31.

11 PRESIDING OFFICER WEATHERSBY: Thank you.

12 A (Bowes) Sometimes they say a picture is worth a  
13 thousand words.

14 Q So Mr. Wall, is that your understanding  
15 consistent with that? Is that information  
16 you're familiar with that's just been cited?

17 A (Wall) Correct.

18 Q And so I guess my question is as it relates to  
19 concrete mattresses, since there isn't really a  
20 great amount of specificity on how far apart the  
21 trenches will be dug as they get close to shore  
22 exactly, how far apart they will be, how does  
23 that impact on the amount of concrete  
24 mattresses, the square footage of concrete

1 mattresses that will have to be used to bury the  
2 cables, assuming, you know, you cannot get to a  
3 42-inch burial?

4 A (Wall) Well, we have given estimates on each  
5 side, but, again, that is just a rough estimate  
6 because we can't tell until we're actually  
7 burying the cable.

8 Q So would you anticipate, for example, in the  
9 tidal flats where the cables have started to  
10 neck in, to come closer together, that the  
11 concrete mattresses would have to cover all  
12 three of the cables continuously so that there  
13 would be no gap between the concrete mattresses?

14 A (Wall) It would appear that way if the strata is  
15 such that we can't get the 42 inch burial.

16 Q And the purpose of the concrete mattresses, I'm  
17 referring to page 6 of the Godfrey testimony, is  
18 for protection, in addition to meeting the  
19 National Electrical Safety Code requirement, and  
20 maybe in connection with that, is protection  
21 from external aggression like anchors and  
22 fishing gear.

23 A Correct.

24 Q Are there any other purposes for concrete

1 mattresses or is that pretty much it?

2 A (Wall) It's mainly protection from external  
3 aggression.

4 Q So in terms of removal of the old cable that's  
5 there, as I understand it, you know, that's part  
6 of your testimony as well. In your March 2017  
7 Prefiled Testimony at page 3, that's Exhibit 73,  
8 I believe, you talk about the cable removal --

9 MS. DUPREY: Could you please cite lines  
10 when you're referring to testimony? It's  
11 difficult enough if you're hopping around from  
12 exhibit to exhibit which I understand you need  
13 to do, but when you don't cite a line for us, it  
14 makes it very difficult for us to follow you.

15 A (Wall) Is it line 23?

16 Q Thank you. That's where it begins.

17 So you have provided testimony about the  
18 process for removal of the existing cable,  
19 correct?

20 A (Wall) Correct.

21 Q Is it a separate barge separate from the jet  
22 plowing barge that would be involved in removing  
23 the existing cable?

24 A (Wall) It could be. It could be a separate. We

1 really leave that up to the contractor when he  
2 does his method of procedure plan just before  
3 the job. Most likely will be. But the  
4 contractor could use the barge without any  
5 equipment on, but there probably will be a  
6 separate barge.

7 Q And would it be a barge that has the same  
8 characteristics as the barge that you described  
9 before that could be pulling the jet plow?

10 A (Wall) Probably a little smaller if he uses a  
11 separate barge. Similar flat top deck barge.

12 Q With the anchor system you described?

13 A (Wall) Correct.

14 Q And when would this be done in relation to when  
15 the jet plowing is done?

16 A (Wall) I believe it's about a week or two  
17 before.

18 Q And where will the cable removal process start  
19 and end?

20 A (Wall) I haven't got the exact position, but it  
21 would start as close as possible to the shore  
22 where they were accessible and then end when we,  
23 the contractor, had cleared enough to lay the  
24 new cables through that channel.

1 Q And in order to, as I understand it, you're not  
2 going to be removing all of the existing cable,  
3 correct?

4 A (Wall) Correct.

5 Q Only going to be removing what is necessary in  
6 order to complete the burial of the three  
7 different cable lines that will be going across  
8 the bay, correct?

9 A (Wall) Yes. Only sections of the existing  
10 out-of-service cables will be removed to create  
11 the clear path for the new cables.

12 Q And so if that's going to be done a week or two  
13 before you start to do the jet plowing, then how  
14 will you know where it needs to be removed and  
15 where not?

16 A (Wall) We, part of the methodology is  
17 positioning, and we use a very accurate Global  
18 Positioning System so those positions would be  
19 recorded where it starts and where it ends, and  
20 obviously there would be some margin, but one of  
21 the most vital items in this type of operation  
22 is what we call an integrated navigation system.  
23 So all of the vessels on board would have part  
24 of the integrated navigation system on board

1 recording positions during various operations.

2 Q And would you be using any containment booms or  
3 absorbents or curtains of any kind when you're  
4 removing the existing cables?

5 A Probably not.

6 Q What would decide whether you might? It sounds  
7 like you're not --

8 A (Wall) If they were demanded by a regulator for  
9 some particular reason, but we don't see any  
10 practical reason for that.

11 Q And the cable that you remove from the bay, what  
12 happens to that?

13 A (Wall) It will be shipped to shore and disposed  
14 of in accordance with local regulations.

15 Q Are there any protocols for how the cable is  
16 removed, any of the process associated with it?  
17 Are there any written protocols?

18 A (Wall) It's more of what we call a "method of  
19 procedure" rather than a protocol. So there are  
20 methods of procedure which actually is somewhat  
21 paraphrased on my testimony.

22 Q So there's nothing really in writing that you  
23 could add to that?

24 A (Wall) I can take a method of procedure from a

1 Durocher document and that, it would basically,  
2 I've paraphrased it there.

3 Q But you think there might be some documents that  
4 would describe that in more detail? I can make  
5 a record request and you can check.

6 A (Wall) What I'm trying to say is it's a standard  
7 operating procedure for a job on how to remove a  
8 cable. So I paraphrased it there. I could  
9 provide a method of procedure document from  
10 Durocher for that type of operation.

11 Q Okay.

12 MR. PATCH: I would make that record  
13 request.

14 A (Bowes) Also in the record, June 30th, 2017,  
15 under the filings to the New Hampshire DES,  
16 there's a document called existing cable removal  
17 plan that may be helpful.

18 Q Okay. But if there's anything in addition to  
19 that, I guess would be my record request.

20 A (Wall) There's not really anything in addition  
21 to that. I mean, like I said, it's not a quote,  
22 unquote, "protocol." It's a method of practical  
23 procedure.

24 Q I guess I'd still make the record request, and



1 if there's anything in addition to what was  
2 cited, if that could be provided. If that's all  
3 there is, that's all there is.

4 PRESIDING OFFICER WEATHERSBY: Request  
5 made.

6 BY MR. PATCH:

7 Q Are you familiar with the fact that there is  
8 likely to be as required as part of the DES  
9 permit a trial, a jet plow trial run?

10 A (Wall) That is correct.

11 Q And would that be conducted by the same barge  
12 that would be used for the actual jet plow run?

13 A (Wall) Most likely, yes.

14 Q And are the steps that would be taken during the  
15 regular jet plow run basically the same as what  
16 would apply for the trial run? In other words,  
17 in terms of, specifically in terms of limiting  
18 impacts?

19 A (Wall) Yes, except no cable in the trial.

20 Q Otherwise, just the same.

21 A (Wall) Yes.

22 Q How about for the diver jet plowing portion? Is  
23 there a trial run of that?

24 A (Wall) There is not at this time.

1 Q And do you have in your mind the kind of  
2 information that you would be gathering during  
3 the trial run and then providing to the  
4 Department of Environmental Services so that  
5 they could assess the impacts?

6 A (Wall) There would be, and, again, I'm not on  
7 the Environmental Panel, but basically from  
8 experience there would be what material was  
9 suspended, probably what the level of turbidity  
10 was, and then a test of the forward motion of  
11 the plow.

12 Q Are you familiar with what sentry station  
13 measurements are?

14 A (Wall) Sorry. Say that again?

15 Q Sentry, S E N T R Y, station measurements. It's  
16 something that Mr. Whitney, the Public Counsel's  
17 witness, referred to in his Supplemental  
18 Testimony.

19 A (Wall) I'm not intimately familiar with that,  
20 no.

21 Q Okay.

22 A (Wall) What was he describing when he said that?

23 Q Well, I don't have the testimony in front of me,  
24 but on page 4 of that, he talked about the

1 possibility of sentry station measurements, and  
2 I'm just asking if you're familiar with that.

3 A (Wall) It may just be a tradename for particular  
4 measurements, but, again, for this type of  
5 Project, standard operating procedure would be a  
6 monitoring of turbidity or total suspended  
7 solids.

8 Q In that same testimony, he cited to the use of  
9 either a hoe ram or rotary cutter to excavate  
10 the cable trenches through rock at landfalls.  
11 Is that something you're familiar with?

12 A (Wall) I'm not familiar with that, no. Sorry.  
13 Whose testimony is that?

14 Q This is the Public Counsel's witness,  
15 Mr. Whitney, and it was joint testimony, Whitney  
16 and Ladewig. So that's not something you're  
17 familiar with?

18 A (Wall) No. I'm not familiar with that.

19 Q And that's not something that could be  
20 anticipated to be used here?

21 A (Wall) No.

22 Q In that testimony they also said it would be  
23 possible to use split pipes in intertidal areas  
24 to limit visual impacts. Do you know what split

1 pipes are?

2 A (Wall) I know split pipes very well and have  
3 installed and used them in many places around  
4 the world. Unfortunately, on this cable, it  
5 would affect the ampacity so they cannot be used  
6 on this particular Project.

7 Q And what about Uraduct. It's apparently a  
8 polyurethane cable protection product. Is that  
9 something that's --

10 A (Wall) Unfortunately, it's a composite type of  
11 split pipe, but, unfortunately, it's very, very  
12 light and would not be applicable for this type  
13 of protection. It's often used in submarine  
14 cables, for instance, going up to an oil and gas  
15 platform or a platform offshore where they don't  
16 need the weight to hold it down.

17 MR. PATCH: At this point, I would have  
18 some questions particularly for Mr. Bowes and  
19 Mr. Plante.

20 PRESIDING OFFICER WEATHERSBY: Mr. Patch,  
21 I'm going to stop you for a moment. I think  
22 some folks need a short break so let's break for  
23 ten minutes. Be back at 4 and then you can  
24 resume your questions.

1 MR. PATCH: Thank you.

2 (Recess taken 3:50 - 4:04 p.m.)

3 PRESIDING OFFICER WEATHERSBY: We have  
4 reconvened. Attorney Patch, you may continue.

5 BY MR. PATCH:

6 Q I just have a couple more questions.

7 I now have a citation, Mr. Wall, for that  
8 jet plow advance rate that I was asking you  
9 about. It's in Exhibit 104 which is the revised  
10 sediment dispersion modeling, and it's on page  
11 35. I'm sorry. Yes, I believe it's 35.  
12 Section 3.3.2. And I will read to you what it  
13 says which I believe is consistent with what I  
14 asked you about.

15 Says the jet plow rate of advance was  
16 recommended by the cable installer, Durocher.  
17 They noted that during operations the rate of  
18 advance can be variable, from 36 to 402 meters  
19 an hour, 120 to 1320 feet an hour, for short  
20 periods but recommended an average rate of 183  
21 meters an hour or 600 feet an hour, particularly  
22 in the shallows where a plow would be advanced  
23 using a skeeter barge.

24 Now, Mr. Wall, if I understand what you

1           said earlier correctly, you thought that the  
2           high range of that was extremely high. Is that  
3           fair to say?

4           A     (Wall) Excuse me. During the last questioning  
5           before the break, unless I misunderstood it, I  
6           think you said 1300 meters. Not 1300 feet.  
7           That's what threw it off. 1300 feet is high but  
8           not impossible, but 1300 meters, I thought, was  
9           extremely high.

10          Q     Okay. Well, the record will reflect what was  
11          said, and if I did use that number, then I  
12          apologize. But what I just read to you then, I  
13          mean, that still sounds to me like a pretty wide  
14          range, from 120 to 1320 feet an hour. That's  
15          pretty variable.

16          A     (Wall) Depending on variable bottoms. It's like  
17          if you're in a very soft bottom it will go  
18          faster. If you're in a very hard bottom, it  
19          will go slower. They are two extremes they've  
20          put there. What I quoted was typical rates of  
21          advancement from previous jobs.

22          Q     And so I think there was an estimate that you  
23          provided or maybe it was Mr. Bowes, I think it  
24          was up to two days for the jet plowing to occur.

1 Obviously, it would be significantly, the amount  
2 of time it would take to do the jet plow could  
3 be significantly different depending on whether  
4 it was 36 meters an hour or 120 feet an hour or  
5 if it was 402 meters an hour as compared to 1320  
6 feet an hour. Depending on where you are in  
7 that range could have a significant impact on  
8 how long it would take to do the jet plow,  
9 correct?

10 A (Wall) Correct.

11 Q And how long at those rates obviously.

12 A (Wall) It's spread over, the basic jet plowing  
13 on the Project schedule is spread over two  
14 dates. It doesn't mean it will take the whole  
15 two days. There is set up included in that and  
16 a time allowance for any problems.

17 Q Okay. Thank you, Mr. Wall.

18 Mr. Bowes, I think you were probably here  
19 when Mr. Quinlan was testifying, weren't you?

20 A (Bowes) Yes. I believe I was here for all the  
21 testimony.

22 Q And he seemed to defer a number of questions to  
23 you, which I'm sure you're happy to try to help  
24 us answer. For example, when we were talking

1 about when the process started, with the ISO, I  
2 guess one of the questions that comes out of  
3 that that maybe you're the right witness, maybe  
4 it's Mr. Andrew, I don't know. But I mean, who  
5 got in touch with who first about this Project?  
6 Did you go to them or did they come to you?

7 A (Bowes) So certainly Mr. Andrew will have more  
8 detailed information, and I will try to answer  
9 at least to give you the basic of it.

10 ISO New England is the designated planning  
11 authority for the New England region. They  
12 decide when various regions will be looked at.  
13 In this case, they focused on both a New  
14 Hampshire and a Vermont study process to look at  
15 those particular needs in that area. That's  
16 pretty typical what they do on a yearly basis.  
17 They will go through various load areas or load  
18 pockets in New England and focus studies on  
19 that.

20 So they started a study group, the  
21 transmission owners participated. I know  
22 Eversource did. At that point there may have  
23 been actually two groups from Eversource  
24 participating. That was before the merger with



1 NSTAR. So there were various members of, at the  
2 time Northeast Utilities participating in that.  
3 Probably the Vermont utilities as well. And  
4 they would be directed by ISO of here's what we  
5 want you to look at. Here's the system model we  
6 want you to use so everyone's studying off the  
7 same model conditions, and also the protocols to  
8 use to do those system studies. Is that  
9 sufficient or do you want me to keep going?

10 Q Well, and do you recall the time frame? Sounds  
11 like it started with a study and they asked you  
12 to get involved obviously which is typical.

13 A (Bowes) The area was probably identified a year  
14 ahead of that, and then resources were allocated  
15 to it from each of the transmission owner  
16 companies, and the studies can take, it's not  
17 atypical to take two or three years for a study  
18 to take place.

19 Q So that was probably identified in 2010 or 2011?

20 A (Bowes) Probably in that time frame. Yes.

21 Q And --

22 A (Bowes) And each year, part of the ISO process  
23 is develop a regional system place, and that's  
24 been consistent now for several decades, and

1           they identify the areas of need, they identify  
2           issues in that, and that's where all of this  
3           Project alternatives are discussed as well.

4       Q     And the suite of projects that's been talked  
5           about and is obviously in the Application and  
6           there were references to it throughout the  
7           testimony, that's what came out of that process;  
8           is that correct?

9       A     (Bowes) Ultimately, that's what came out of the  
10          process, and a PPA, Proposed Plan Addition, was  
11          the actual document that would come out of that.  
12          And that would be formalized and then the  
13          Applicant, in this case Eversource, would go  
14          through a process with the various committees at  
15          ISO New England including looking at the same  
16          things that Mr. Quinlan talked about. Each  
17          Committee looks at a different thing. The  
18          thermal issues, are they all resolved by this  
19          set of solutions. Are all of the voltage  
20          criteria met with this solution. And then  
21          ultimately, it goes to the Reliability Committee  
22          at ISO New England, and ultimately they issue  
23          what's called a PPA or an I.3.9 which is the  
24          section of the tariff that describes here's what

1 the transmission owner shall go build. And  
2 that's the backstop of the process, too.

3 Q And that came out in 2012; is that right?

4 A (Bowes) So I think it came out a little bit  
5 after that. The PAC presentations which go out  
6 to all of the participants in New England,  
7 here's the need we have. Please provide us a  
8 solution. The transmission owner solution is  
9 only the backstop to. If nothing from the  
10 market comes forward, then the transmission  
11 owner's obligated to come forward with a set of  
12 Projects. I believe that PPA or I.3.9 was  
13 approved in early 2013. I think it's also part  
14 of the record.

15 Q Okay. And then I had cited to Mr. Quinlan page  
16 E 2 of the Application there's a footnote that  
17 cites to on April 2012 report. Do you know how  
18 that fits into the process you just described?

19 A (Bowes) Could I get a copy of that report?

20 Q Do you have access to the Application?

21 A (Bowes) Yes.

22 Q It's a footnote on page E 2.

23 A (Bowes) E 2 of the Application?

24 Q Yes. E, I think, standing for when they have

1 the Executive Summary.

2 A (Bowes) So is it footnote 3 or footnote 4?

3 Q I don't have it in front of me. What's footnote  
4 3?

5 A (Bowes) The reason I ask is that on page E 2  
6 footnote 3, and I'll read it. PSNH is  
7 responsible for operating approximately 780  
8 circuit miles of 115 kV, 6 miles of 230 kV, and  
9 252 miles of 345 kV transmission lines and about  
10 200 active transmission and distribution  
11 substations.

12 The next page, E 3, has a footnote which I  
13 think is the correct one. So it's footnote 4,  
14 says New Hampshire/Vermont solution study  
15 report, ISO New England at 121, April 2012,  
16 contains critical energy infrastructure  
17 information and is not publicly available.

18 Q So I was referring to 4 so I gave you the wrong  
19 page number. I apologize. But Solution Studies  
20 Report. So is that the solution to the problem  
21 on the Seacoast?

22 A (Bowes) As well as a larger area. But it  
23 definitely has the Seacoast Solutions set in  
24 there.

1 Q Okay. Thank you. And the suite that has been  
2 described was the solution basically, correct?

3 A (Bowes) Yes.

4 Q And do you have anything to add to what Mr.  
5 Quinlan said this morning about or early this  
6 afternoon about stakeholder notification in that  
7 process? I believe he said in response to a  
8 question from Public Counsel that to the best of  
9 his knowledge, the communities, you know,  
10 Durham, Newington, Madbury, Portsmouth were not  
11 notified during that ISO process. Do you have  
12 any different recollection?

13 A (Bowes) So I do not know if ISO New England  
14 notifies any towns in New England. I don't  
15 believe that they do. But if you go to the ISO  
16 New England website, I see many people have  
17 computers in the room, the second selection on  
18 that web site is "Participate." And it talks  
19 about how individuals can participate in the ISO  
20 New England process. But it does require people  
21 to reach out and do that. That's available to  
22 everyone including, the last six years since  
23 2012. I have the list of registered  
24 participants in front of me. There are a number

1 from New Hampshire.

2 Q But, you know, Mr. Bowes, I've heard this so  
3 many times in this docket that I'm, it really  
4 gets me upset, but how could they, how could  
5 these communities meaningfully participate in an  
6 ISO process they know nothing about? Could you  
7 just answer that for me?

8 A (Bowes) One of them is the University of New  
9 Hampshire. Your client. They're listed on the  
10 ISO website as an active participant in the ISO  
11 process.

12 Q And how many times have you seen them at the  
13 ISO?

14 A (Bowes) I do not attend the meetings.

15 Q Okay.

16 A (Bowes) But they're actively listed on the  
17 website today.

18 Q And how many notifications did Eversource give  
19 during that process of the ISO to any of those  
20 communities or to the University of New  
21 Hampshire, to the best of your knowledge?

22 A (Bowes) The meetings are open. We file a  
23 ten-year transmission plan with the Public  
24 Utility Commission in the state. It's a very

1 open and transparent process.

2 Q Well, but there's no notification.

3 A (Bowes) Well, if you sign up, you get notified  
4 for all of the items, and University of New  
5 Hampshire is now getting notifications.

6 Q Isn't a lot of that information classified  
7 information?

8 A (Bowes) I guess I'd have to understand what you  
9 mean by "classified."

10 Q Confidential? Not available to the public?

11 A (Bowes) So it's not available to the public if  
12 it's critical energy infrastructure information  
13 as noted in the footnote, but I don't think  
14 that's a "classification," as you'd normally  
15 think about it.

16 Q Okay. So we're distinguishing between  
17 classifications and -- what I'm asking about is  
18 what realistically could somebody in one of  
19 those communities know about if it's information  
20 that's confidential? It's not available to the  
21 public?

22 A (Bowes) So they would not be able to get  
23 information about the schematics for a  
24 substation; for example, the Durham substation

1 or the Madbury substation. It doesn't prevent  
2 them from asking lots of questions about what do  
3 you plan to do at Madbury substation. That's  
4 fair game.

5 Q Okay. Let's move on then to the suite of  
6 projects. And as I understand it, they were,  
7 they're basically interdependent from ISO's  
8 perspective. In other words, they're all part  
9 of the solution. Is that fair to say?

10 A (Bowes) If that's your definition of  
11 interdependent, yes. They're all part of the  
12 solution.

13 Q Is that how Eversource looked at it?

14 A (Bowes) I look at them as this is the list of  
15 projects that have to be built. We're under  
16 requirement by ISO New England to do that, and  
17 we go about executing those projects in a timely  
18 manner. So it's not we can do five of them and  
19 not the other five. We have to do all ten of  
20 these projects.

21 Q And so you've done all of other projects except  
22 the one before the Committee now, correct?

23 A (Bowes) So yes, there's three that remain on the  
24 list, but they're all part of this Application.



1 So it's the termination at Madbury, the  
2 termination at Portsmouth, and the new F 107  
3 line remaining. The other 7 projects have been  
4 completed.

5 Q And what impact has there been from completing  
6 those projects?

7 A (Bowes) You mean on the reliability of the  
8 system?

9 Q Yes.

10 A (Bowes) So if there was a criteria violation  
11 related to a terminal condition or a substation  
12 overload or in this case two 115 kV overloads,  
13 those particular overloads have been corrected.  
14 It doesn't mean that the whole host of criteria  
15 violations are remedied, but some of them have  
16 been.

17 Q So are we better off today than before those  
18 pieces of the suite were started? Are we better  
19 off today than we were before that started now  
20 that those have been completed? The pieces that  
21 have been completed? Are we better off?

22 A (Bowes) So I would say with each criteria  
23 violation that we eliminate through a project  
24 that you're better off. The amount of risk has

1           been reduced. So in some regards I would say  
2           yes, we're better off.

3           Q     So is the need from a reliability perspective  
4           "less immediate," quote, unquote, than it was in  
5           2011 or '12?

6           A     (Bowes) Probably not. It just means there's  
7           fewer cases where that need would arise.

8           Q     And I asked the question of Mr. Quinlan, and I  
9           know Mr. Needleman objected, but I'll ask it  
10          again, and I know you're not a lawyer, but do  
11          you have any knowledge of why the decision was  
12          made to just submit this Project even though it  
13          was part of a suite to this Committee and not  
14          all of the suite of projects? Do you have any  
15          knowledge of that?

16          A     (Bowes) Sure. That's our standard practice in  
17          each jurisdiction we operate. We only site and  
18          permit what is required.

19          Q     Even though the other Projects that you have  
20          argued to this committee and in various filings  
21          in this docket you have argued that we did all  
22          those other Projects. This is part of the suite  
23          so let us do this one.

24                   MR. NEEDLEMAN: I'm going to object to

1           that. Mr. Patch is basically making an argument  
2           that these are somehow ancillary under the  
3           statute and subject to jurisdiction. I think if  
4           he wants to make that argument as a matter of  
5           law, he can, but I don't think these witnesses  
6           can answer that question.

7           MR. PATCH: Well, I think the witness can  
8           answer to the best of his ability. Obviously,  
9           I'm a little perturbed by this whole thing, and  
10          I apologize for that, but it just seems like we  
11          have had that argument presented over and over  
12          again. Well, they got this all approved by the  
13          ISO, all the other Projects are done so you  
14          should just go ahead and approve this one. It's  
15          like they back you into a corner and then expect  
16          you to approve it. And so I think it's a  
17          legitimate question for the witness.

18          MR. NEEDLEMAN: I don't think that, that's  
19          not what's happening here at all. As the  
20          witnesses have testified multiple times, the  
21          Projects are independent. They each provide  
22          benefits that relate to electrical problems, and  
23          they have said that they don't believe that  
24          there was any jurisdiction to submit these.

1                   PRESIDING OFFICER WEATHERSBY: The  
2                   objection is sustained.

3                   MR. IACOPINO: She sustained the objection.

4                   MR. PATCH: Okay.

5 BY MR. PATCH:

6 Q       Back to the reference of the University of New  
7       Hampshire, was their involvement with the ISO  
8       just related to the cogen project that they did?  
9       Was it any broader than that? You seemed to  
10       suggest that they were involved in the ISO and  
11       would be familiar with the process there. Do  
12       you have an understanding of what their  
13       involvement is, the extent of it?

14 A       (Bowes) They're listed as an end user on the ISO  
15       web, not as market participant or generator.

16 Q       Which would be a consistent with the, that they  
17       have a cogen facility?

18 A       (Bowes) Could be, yes.

19 Q       I think I heard Mr. Quinlan say today that the  
20       Gosling Road transformer was a quote, unquote,  
21       "technically inferior solution." Did you hear  
22       him say that?

23 A       (Bowes) I did.

24 Q       Do you agree with that?

1 A (Bowes) I would say that I probably would have  
2 been more precise in how I answered that is that  
3 the Gosling Road set of solutions also met the  
4 criteria violations that would be studied, but  
5 it went well beyond that as well. So we often  
6 get accused of uncontrolled transmission costs,  
7 and ISO New England is very prescriptive in how  
8 they go through the process of evaluating  
9 projects, and in laymen's terms they might call  
10 that gold plating because it provides a solution  
11 that goes well beyond the need, and as we've  
12 heard, I think you've even introduced some  
13 information this morning about how the  
14 flattening of loads in New England or the  
15 actually declining loads in New England, that  
16 would put this Project out where it never may be  
17 needed.

18 So if Mr. Quinlan's definition of  
19 technically interior included the fact that it  
20 could be considered gold plating, then I would  
21 agree, but I think from a technical standpoint  
22 both of the sets of Projects satisfied the  
23 criteria violations that we were facing.

24 Q I think I also heard Mr. Quinlan say that there

1           were no other alternatives, and I think what he  
2           was saying and you correct me if you had a  
3           different understanding, but I think what he was  
4           saying, no other alternatives once this suite  
5           was selected. No other alternatives in terms of  
6           the route of this Project. The route that is  
7           part of the Application here. Was that your  
8           understanding of what he was saying?

9           A     (Bowes) No. I think he was talking about when  
10          ISO proposes a need at the PAC Committee, they  
11          look for other solutions to criteria violations.  
12          They describe what the need is, they look for  
13          the competitive market to come forward with a  
14          set of solutions. Oftentimes, a new generator  
15          will say I would like to build a plant in  
16          Durham, and that will satisfy the need. No  
17          other system alternatives or nontransmission  
18          literatures came forward in this process. So  
19          PSNH had the backstop responsibility to build  
20          this suite of Projects.

21          Q     In terms of the route that was taken here  
22          though, there were some other alternatives  
23          considered, weren't there? Rather than going  
24          under Little Bay?

1 A (Bowes) Yes. There were several route  
2 alternatives. It's part of the original SEC  
3 Application. There's some variations that the  
4 Town of Newington asked us to look at as well.  
5 I'm trying to go from memory here. I think it's  
6 Appendix 23 and 24. Maybe 22 and 23, but  
7 there's diagrams in there of the other  
8 alternatives that were considered by the  
9 Applicant.

10 Q One of the residents asked Mr. Quinlan what I  
11 thought was a very good question about what  
12 percentage of this suite is completed, and I  
13 believe his answer was it's about 135 million  
14 for the whole suite, and this is about 84 or 85  
15 million. And is that, do you agree with that  
16 answer? Is there anything else you could add to  
17 elaborate on that?

18 A (Bowes) I mean, maybe to go back to one of the  
19 original responses as well is that since 2013 in  
20 the regional system plans for the last five  
21 years this list of ten Projects appears, and  
22 seven of those ten Projects have now been  
23 completed, and the costs are approximately what  
24 Mr. Quinlan stated. So that list gets updated

1 three times a year. So that list has been out  
2 there publicly available for more than five  
3 years, three times a year updated, so our status  
4 has been out there for more than 15 different  
5 filings with ISO New England.

6 Q And is there another way to look at it, say,  
7 from a Reliability perspective? If 7 of the  
8 ten, I don't know what you call them, aspects of  
9 the suite or portions of the suite have been  
10 completed, from a Reliability perspective is  
11 that 50 percent addressing the issue or 75  
12 percent or 25 percent? Do you have a way of  
13 characterizing that?

14 A (Bowes) There's definitely a way of  
15 characterizing it. I'm not able to do that. I  
16 was not part of the original system studies that  
17 would have identified what criteria violation  
18 each one of those ten Projects mitigated. I  
19 believe the upcoming witness, I hate to do this  
20 to Mr. Andrew, but he'll have to answer that  
21 question.

22 Q Okay. Thank you. I've heard in response to  
23 some questions that I asked, I think it was  
24 Mr. Wall, that there are going to be some or at



1 least there have been in other projects some  
2 independent inspectors who would be reporting to  
3 someone other than Eversource in this process.  
4 I think when he was talking about, for example,  
5 the turbidity reports, there might be an  
6 independent inspector. From an overall Project  
7 perspective, can you tell the Committee how many  
8 independent inspectors who would not be  
9 reporting directly to Eversource and what would  
10 they be addressing?

11 A (Bowes) So I know in the DES permit conditions  
12 there's discussion about the Applicant paying  
13 for an independent inspection process. I do not  
14 know if we've settled on the number of  
15 inspectors and that will probably vary during  
16 the various operations in Little Bay.

17 In addition to that, I believe the Town of  
18 Newington in their MOU has some discussion about  
19 the right and ability to inspect, and I think  
20 some of those are also or may be applicable to  
21 the draft we have with Durham as well.

22 Q So they could involve historic historical  
23 resources or environmental impacts or perhaps  
24 some other issues?

1 A (Bowes) Correct.

2 Q Mr. Plante, I think this is for you, on page 13  
3 of your 2016 testimony. The exhibit number, is  
4 it Exhibit 8, I believe? Do I have that  
5 correct? You referred to training sessions for  
6 contractors, correct?

7 A (Plante) Correct.

8 Q Does any of that pertain to contractors who will  
9 be working in Little Bay?

10 A (Plante) Yes. That would pertain to all of the  
11 contractors who were employed on the Project.  
12 Varying trainings based on the expertise that  
13 they're bringing to the Project.

14 Q What specifically would contractors working in  
15 Little Bay, and we've kind of walked through  
16 that with Mr. Wall from excavation to diver  
17 plowing to jet plowing on both sides, what  
18 specifically would the training sessions for  
19 those contractors cover?

20 A (Plante) So besides the basic safety and  
21 whatnot, they would be trained very specifically  
22 by our environmental consultant on the design of  
23 the Project and the permit conditions associated  
24 with the Project. We don't provide training for

1           them on how to do the work that they're expert  
2           in. We provide training on what permissions and  
3           conditions we've achieved for the Project for  
4           them to work within.

5       Q     And who would do that training?

6       A     (Plante) Our environmental consultants.

7       Q     The Jiottis testimony so I think this is  
8           question is for you, Mr. Bowes. I think you're  
9           sponsoring his testimony.

10      A     (Bowes) That is correct.

11      Q     Page 18. He says the overhead design on the  
12           Durham side of Little Bay will transition to a  
13           short section of approximately 360 feet of  
14           underwater cable installed on the land. I mean,  
15           that kind of didn't make sense to me. Maybe  
16           there's a word that shouldn't be there. Could  
17           you just go through that sentence?

18      A     (Bowes) I can understand the confusion.

19      Q     Apologize to the Committee. I know you asked  
20           for line citations, and I'll see if I can get  
21           one.

22      A     (Bowes) So the intent is to bring the submarine  
23           cable --

24      Q     Do you have a line citation, sir?

1 A (Bowes) I was trying to listen and find it the  
2 same time you were saying it so I don't. Line  
3 17, I'm told.

4 Q 15 to 17.

5 MS. DUPREY: Could you give us the page  
6 again?

7 MR. PATCH: The page is the Jiottis  
8 testimony, and it is page 18. Lines 15 to 17.

9 A (Bowes) Yes.

10 Q And so is there something to correct in that  
11 sentence?

12 A (Bowes) No, it is accurate, but it is, could be  
13 confusing.

14 Q Okay.

15 A (Bowes) So we plan to come or the Project will  
16 ultimately come out of Little Bay, should be the  
17 opposite way, but we will use the submarine  
18 cable on land for that short section on the  
19 Durham side, and the transition station going up  
20 that transition structure will be the submarine  
21 cable.

22 Q I see.

23 A (Bowes) Because it's so close to the shore we're  
24 able to do that. If we had the same geometry on

1 the Newington side, we would propose the same to  
2 avoid a different type of cable in a splice that  
3 would be, a manually made splice.

4 Q So submarine cable means, is the same as, he's  
5 referring to underwater cable here. That's  
6 equivalent basically is what you're saying.  
7 That's what he meant presumably.

8 A (Bowes) It is exactly what he meant, yes.

9 Q Mr. Plante, in your testimony 2016, on page 18,  
10 I think it covers a number of lines, but you  
11 talk about operation and maintenance. Are there  
12 any special requirements for the Little Bay  
13 portion of this Project when it comes to  
14 operations and maintenance?

15 A (Plante) So as far as special considerations for  
16 the operations and maintenance of the submarine  
17 cable, is that what you're asking?

18 Q Yes.

19 A (Plante) No. There's really no maintenance per  
20 se that is done on the underwater cable. We'll  
21 have monitoring equipment at either end of the  
22 line which may or may not indicate conditions on  
23 the cable, but there's really no way to inspect  
24 it without obviously creating the same sort of

1           disturbances that we've going to create while we  
2           install it.

3       Q     Is the monitoring equipment permanent equipment  
4           or is it something that's just, you know, used  
5           periodically?

6       A     (Plante) It's the normal equipment on any  
7           transmission line at the substation ends.

8       Q     So where will that be located in connection with  
9           the underwater cable?

10      A     (Plante) Either at the Madbury or -- actually at  
11           the Madbury and the Portsmouth substations.

12      Q     The joint testimony from July 27th of this year  
13           refers to a thousand foot jet plow trial run. I  
14           think I got the answer from Mr. Wall, but is  
15           that, it's a thousand feet that the jet plow  
16           trial will run, and it's only the jet plow, it's  
17           not the excavators, it's not the divers.  
18           There's nothing else in the trial run.

19      A     (Plante) That's correct.

20      Q     Mr. Bowes, I think this is for you. It's about  
21           stone walls in the, I think there's a draft of a  
22           DHR MOU that says for boundary walls you have  
23           received permission from underlying land owners  
24           to temporarily impact those walls? Is that your

1 understanding?

2 A (Bowes) I believe there's two locations, I think  
3 one in Durham and one in Newington, where there  
4 are boundary walls identified by DHR where we've  
5 worked with the landowners to either relocate  
6 stones or a stone in the wall and then replace  
7 it or to widen an opening in one location.

8 Q And on the Durham side of Little Bay, is it true  
9 that Eversource purchased a property adjacent to  
10 the right-of-way there? Right next to the  
11 water?

12 A (Bowes) I believe it's identified as the  
13 Getchell property or previously was the Getchell  
14 property, and yes, it was purchased. That's the  
15 location of both the historic cable house as  
16 well as the, what we just discussed, the  
17 300-plus feet of submarine cable and the new  
18 transition structure on that property.

19 Q And that was purchased because of this Project  
20 presumably, correct?

21 A (Bowes) Yes, it was.

22 Q When was it purchased?

23 A (Bowes) Subject to check, probably in the  
24 2015-2016. I'm sure it's in the property

1 records in the Town of Durham.

2 Q And what are the long terms plans for that  
3 property that Eversource has? Do you plan to  
4 hang on to the property, and if so, what purpose  
5 would you use it for?

6 A (Bowes) Sure. So we have some active  
7 discussions with, about the property so I'm not,  
8 I can't really disclose what those are at this  
9 point, but, ultimately, we'll keep it through  
10 the construction phase, and then it will be  
11 looked at as all the other Eversource properties  
12 we have, and ultimately, it may be declared  
13 excess. If we don't have a business use for it,  
14 we will put the property up for sale.

15 Q And during the construction process, will you  
16 use the house at all?

17 A (Bowes) Again, I don't think we've really  
18 discussed that at this point, but it would be  
19 logical that we would for the workers there.

20 Q And is it your understanding that the house came  
21 with deeded access? And if so, my question  
22 really is are you intending to use that for  
23 commercial purposes, and are you sure that  
24 that's consistent with what the deeded access



1 is?

2 A (Bowes) I do not know.

3 Q Could you take a record request on that?

4 A (Bowes) Sure.

5 Q Do you need me to restate it?

6 MR. IACOPINO: What is the deeded access  
7 for the Getchell property?

8 MR. PATCH: Yes, and are commercial uses  
9 consisted with that access.

10 PRESIDING OFFICER WEATHERSBY: You're  
11 referring to deeded access to the bay?

12 MR. PATCH: It's deeded driveway access.

13 BY MR. PATCH:

14 Q I have an exhibit that I think, Mr. Plante, this  
15 is really for you. It's about poles. And it's,  
16 I premarked it as Exhibit TD/UNH 99.

17 This is a number of responses to Data  
18 Requests that pertain to different types of  
19 poles that would be used in the Project, and I  
20 think, Mr. Plante, you're the listed respondent  
21 at least on the first one. There aren't any,  
22 there's no one listed on the others, but are you  
23 generally familiar with these responses?

24 A (Plante) Yes, I am.

1 Q And also included in that exhibit are some  
2 charts from the Application that may be from the  
3 supplement to the Application, but they're, I  
4 think they're, maybe charts is the wrong word,  
5 but they're essentially diagrams of the types of  
6 poles that you would typically use. Is that  
7 fair to say?

8 A (Plante) Yes. That's correct.

9 Q And so I have a few questions about what your  
10 intentions are with regard to the poles that you  
11 will use in this Project.

12 In his Original Testimony as page 22,  
13 Mr. Jiottis said the following.

14 "The structure color along the route was  
15 optimized to blend in with surroundings or mimic  
16 existing features. The majority of the line  
17 will utilize structures with a weathering steel  
18 finish, mimicking the color of wooden structures  
19 or surrounding trees. In a few selected areas,  
20 a galvanized steel structure may be used as it  
21 blends into the background (open sky) better  
22 than a weathering steel finish."

23 Are you familiar with that testimony? And  
24 this may be, you know, feel free, Mr. Bowes, to

1 answer as well.

2 A (Bowes) It's also lines 1 through 5. Yes. We  
3 have it.

4 Q Okay. Thank you. Could you provide a little  
5 bit more detail about where you plan to use  
6 galvanized steel versus weathering steel?

7 A (Plante) Generally, we're proposing to use  
8 self-weathering steel as the pole material for  
9 the majority of the line. However, we have made  
10 agreements with the University to substitute  
11 galvanized finish for several of the structures  
12 that are in the vicinity of the football  
13 stadium.

14 Q And the, and you're making that choice based on  
15 what is the least visually obtrusive; is that  
16 fair to say?

17 A (Plante) Yes. I guess in the opinion of the  
18 University. It was part of the negotiation with  
19 them and something that they were interested in  
20 having.

21 Q But not just there, but throughout, particularly  
22 in Durham is what I'm concerned about. There  
23 are other locations in Durham where you will  
24 have poles, correct?

1 A (Plante) Oh, certainly there will be poles in,  
2 several other poles in Durham.

3 Q And so overall, will you be choosing the ones  
4 that are least visually obtrusive or are there  
5 other criteria you use to choose?

6 A (Plante) In terms of self-weathering versus  
7 galvanized?

8 Q Well, yes. Partly that, and then I'd like to  
9 get into, in terms of those charts, what the  
10 structure of the pole is that you would intend  
11 to use.

12 A (Plante) Okay. Well, generally, as I mentioned  
13 before, we've selected self-weathering steel as  
14 the primary pole material because our experience  
15 has been that's been, generally, that's the less  
16 visually interesting feature as opposed to a  
17 shiny galvanized pole.

18 Q Are there any wooden poles? Will there be any  
19 wooden poles along that route?

20 A (Plante) It's not our intention to employ any  
21 wooden poles for the 115 kV line. However,  
22 there will be some wood poles used for the lower  
23 voltage lines that are affected by the Project.

24 Q And on those charts, can you point to

1 particular, the particular type of pole that  
2 would be used?

3 A (Plante) So I guess on the first page of the  
4 charts, those are all 115 kV or double circuit  
5 115, 34 kV structures, and these would all be  
6 proposed to be self-weathering steel with the  
7 exception of the few galvanized that I just  
8 mentioned.

9 On the second page, which is Sheet 2 of 2,  
10 the top row, so on this sheet the top row are  
11 all 115 kV structures and the first three of the  
12 bottom row are 115 kV structures which would be  
13 self-weathering steel. The last five on that  
14 row are 34 kV structures and would be most  
15 likely wood, typical cedar, round wood cedar  
16 pole.

17 Q So the choices of poles, obviously from the  
18 perspective of the community they want the least  
19 obtrusive. The one that blends in the most, the  
20 shortest, you know, I mean, and so again I just,  
21 I'm not sure I have a good handle on it, and I'm  
22 not sure the Committee does on how you will be  
23 choosing which poles in which locations.

24 A (Plante) So each of these structure types that

1 are on these two drawings that you've shared are  
2 Constituent in the Project at some location.  
3 And the structure type, so in the top left  
4 corner here, type ST 2-UV-SB, that's the  
5 indicator of the type of construction as  
6 proposed, and that is identified on the  
7 engineering drawings, the plan and profile  
8 drawings. So each structure identified there  
9 will have a structure type that you can  
10 correlate to this index of structure types.

11 A (Bowes) And at a higher level, I would say this  
12 is somewhat unique. We typically would have,  
13 and I think Mr. Jiottis actually provided this  
14 in the public information sessions, as well as  
15 possible his testimony.

16 We typically start with a couple different  
17 structure types, our standard, and that's what  
18 we proposed for the Project, and that's how this  
19 Project started as well. As we're able to  
20 acquire a wider right-of-way, say along the  
21 railroad, that allowed us to lower the structure  
22 heights 20 to 30 feet, but it also triggered a  
23 different type of structure design. As we met  
24 with, I think we met with more than 80 customers

1 now in the field, they may have a preference  
2 around not only where the pole is located but  
3 also the style of pole that we're going to use  
4 there. So that's what prompted a wide variety  
5 of structure types for this Project.

6 Q So you're attempting to accommodate the  
7 abutters, the landowners, whatever?

8 A (Bowes) Most definitely.

9 Q And the types of poles, these are ones that you  
10 have used elsewhere in New Hampshire?

11 A (Bowes) Yes. So this year, for example, we're  
12 replacing, I think, around 500 structures. The  
13 existing wood pole structures are being replaced  
14 with in most cases the weathering steel. Our  
15 plan to go forward over the next few years and  
16 do the same, probably the same quantity or maybe  
17 even increase that, because what we found with  
18 the wood poles is that at a certain point, they  
19 all seem to be at end of life together. Even  
20 through our best efforts of inspection and  
21 maintenance, we're starting to see a  
22 deterioration of the original, in some cases,  
23 the original wood poles that were installed in  
24 the '40s, '50s and '60s, and we're seeing large

1 numbers of that.

2 And the availability of those poles today  
3 triggers a couple things. You have to go to old  
4 growth forests which is not necessarily an  
5 environmentally sensitive thing to do. Probably  
6 requires going outside the country for that.  
7 We're using domestic steel in this case with 40,  
8 50 percent recycled content, and it will last  
9 with its original, probably the key thing here,  
10 it will last in its original strength and  
11 integrity for its entire life span where wood  
12 decays and loses its tensile strength over the  
13 50, 60 years of its life.

14 So it's actually a much better choice for  
15 the customers as well. It's a lower cost  
16 option, especially as you get into treating  
17 these wood poles at 15-year intervals and then  
18 dealing with the variety of animals and insects  
19 that penetrate the poles.

20 Q In his Original Testimony, Mr. Jiottis on page  
21 25 talks about road crossing designs. And he  
22 says collaboration with the Town of Durham  
23 basically optimized its road crossing designs,  
24 Eversource optimized its road crossing designs



1 to further limit the visibility of the Project.

2 Could you describe in a little bit more  
3 detail about exactly what is being done to  
4 optimize the road crossing designs?

5 A (Bowes) So first of all, it's lines 11 and 12.

6 Q Thank you.

7 A (Bowes) And it's not verbatim either, but the  
8 intent is clearly there the way you've described  
9 it.

10 So we've done many design changes, and I'll  
11 have Mr. Plante talk about those. We've also at  
12 each location proposed a visual screening for  
13 those properties. That does require property  
14 owner approval to do that, and we're actively  
15 seeking that for the road crossings in Durham as  
16 well as the rest of the Project.

17 Q Do you know how many locations there are?

18 A (Bowes) Yes. We do.

19 A (Plante) We have a list of ten aerial crossings  
20 of municipal roads that are proposed in the  
21 Project.

22 Q Could you give a citation to where that is?

23 A (Plante) Well, this is in my notes that I took  
24 out of the Project. Would you like me to just

1 read them?

2 Q What?

3 A (Plante) Would you like me to just read them?

4 Q I don't think you need to read them all. If we  
5 could get a citation as to where they are in the  
6 materials, there's a lot of materials here and  
7 it's hard to keep track so that would be  
8 helpful, and even if you don't have it now, if  
9 you can --

10 A (Plante) I don't have it right now, no.

11 Q Okay. Maybe we could make a record request that  
12 you provide the citation to where those ten road  
13 crossing, that information is?

14 A (Bowes) I actually have it.

15 Q Okay. Thank you.

16 A (Bowes) So in our Supplemental Testimony dated  
17 July 27th, 2018, on page 8 of 10 and lines 23  
18 through 27, it describes the number and  
19 location. And then Appendix A and Appendix 18 A  
20 of the Application have more detail.

21 Q Thank you. And one more question about the  
22 poles. When you're choosing the type of pole to  
23 use, is there a difference in that some poles  
24 may have a much wider base than others? Whereas

1           some are more tapered at the base and  
2           consistently taller? Are there differences?

3       A     (Plante) There are differences. They're all  
4           tapered. However, depending on the available  
5           space that exists for guying, for instance, when  
6           the alignment of transmission line makes a  
7           corner, there are lateral forces that need to be  
8           resisted. We would typically prefer to use a  
9           guy wire type of arrangement to resist those  
10          loads. However, if we don't have space to place  
11          a guy wire, we would then resort to a stouter  
12          structure that's based on a concrete foundation  
13          and would have anchor bolts and a base plate.  
14          So the pole itself would be entirely abovegrade  
15          and there would be a concrete base below grade  
16          to resist those forces.

17       Q     Do you have any idea in Durham, you know, where  
18           you would need to use the wider base structures?

19       A     (Plante) Yes. There's quite a few along the  
20          railroad corridor because that takes kind of a  
21          corner. I mean, it's a gentle curve in some  
22          areas. So those require foundations. We don't  
23          have a lot of space off to the side.

24       Q     So mostly there.

1 A (Bowes) But for every structure type, we've  
2 identified whether it needs a foundation or not  
3 and/or whether it be directly embedded. So  
4 every one of the structures you see on the maps,  
5 we know the type of design for the foundation  
6 and also the width or the diameter of the  
7 structure at its base.

8 Q At the base.

9 A (Bowes) As well as, obviously, the height and  
10 the surrounding tree, average tree height as  
11 well.

12 Q On page 23 of his testimony, Mr. Jiottis refers  
13 to moving structures to accommodate concerns of  
14 abutters, and he says and I'm quoting, "This is  
15 an ongoing and iterative process between all the  
16 parties to determine structure locations that  
17 best accommodate the landowner requests, will  
18 maintain compliance with code requirements and  
19 following good utility practice."

20 Is it fair to say that that iterative  
21 process is still ongoing or would you say that's  
22 been completed?

23 A (Bowes) No, it's still ongoing. And in fact, we  
24 got a request last Friday to relocate a

1 structure in Durham.

2 Q And up until what point would you continue to do  
3 that?

4 A I would hope as a condition of this certificate  
5 we would have some leeway to continue to move  
6 structures up until the time we are actually  
7 building the line. We may run into a situation  
8 of something that's found underneath the earth,  
9 and if we could move five or ten feet it would  
10 seem like a logical acceptance.

11 Or if a customer says you know, I'd really  
12 like to have a shorter structure or a second  
13 structure or remove this structure, those  
14 windows are starting to close because ultimately  
15 we'll be purchasing the materials. There's  
16 probably some opportunity for reuse on another  
17 Project, but I think that process of slight  
18 variations in the Project will continue up to  
19 and probably even into construction.

20 Q According to Mr. Jiottis's testimony, page 17,  
21 pipe jacking will be used under Main Street in  
22 Durham.

23 Can you explain how this is done, you know,  
24 including what equipment is used, how much space

1           you need for the equipment, do you have to make  
2           arrangements with land or business owners, how  
3           long will it take, how noisy is it? Could you  
4           give an overall description of it.

5           A     (Bowes) There's a lot of questions.

6           Q     I know, and if you don't hit any of those, I'll  
7           come back to you.

8           A     (Bowes) So I'll start, and obviously Nick has  
9           some expertise in trenchless crossings as well.

10          Q     Okay.

11          A     (Bowes) So the proposal is to use the PSNH  
12          property on both sides of the highway there.  
13          What did I say? I'm sorry. UNH. The UNH  
14          property on both sides of the Main Street at the  
15          location where the railroad tracks cross as  
16          well. They cross, go underneath the roadway  
17          there. So there's quite an elevation there  
18          where we can do a pit for both jacking and a  
19          receiving pit, and the difference between this  
20          trenchless technology and others is it's for the  
21          most part a straight line. So we have to be at  
22          the right elevation on both sides, sending and  
23          receiving. There's little variation in the bend  
24          of the trenchless crossing.

1           It will take a period of time, probably, I  
2           think we've estimated 1 to 2 months in this  
3           case, between setup, completing the work, and  
4           then removal of the equipment. So there's a pit  
5           on both sides of some size, 20 to 30 feet  
6           probably square. Or rectangular, depending on  
7           the specs. I can give actual dimensions. 36 by  
8           12, and 20 by 10. Receiving pit.

9           It will be done, again, based on the MOU,  
10          in draft form at this point, but I think we're  
11          looking at 7 to 7 time frames for five or 6 days  
12          per week and it will be done when the school is  
13          not in session. Those are some of the, I think  
14          I've hit some of the ones that you were asking  
15          about.

16        Q    I think there's been a little bit of confusion  
17            about who owns that. UNH versus Durham. Is it  
18            your understanding that it's actually Durham  
19            that owns that?

20        A    (Bowes) You mean the property on both sides?

21        Q    I mean Main Street and the railroad trestle.  
22            It's my understanding that Durham owns that, not  
23            UNH. Did you have a different understanding?

24        A    (Bowes) I think we agree with that.

1 Q Okay.

2 A (Bowes) If I misspoke, I'm sorry. I was talking  
3 about the land on either side, not the actual  
4 road or the train structure.

5 Q No. It wasn't with regard to your testimony.  
6 It was just that I know in some of the  
7 negotiations on the MOU that that's been, I  
8 think there's been a little confusion about  
9 that, and I just wanted to make sure I  
10 understood what your understanding was.

11 What about transition structures when  
12 you're transitioning from overhead to  
13 underground. Can you explain how those work?  
14 How much area is impacted?

15 A (Bowes) Sure. I'll try and then maybe Dave can  
16 add as well. Specifically, are we specifically  
17 talking about now at UNH or more generally?

18 Q More generally.

19 A Okay. So the transition structure is a large  
20 overhead structure. It's a three conductor in  
21 each of the cases. I believe we have two on UNH  
22 property, one on either side of the Bay, and  
23 then two, one on Mrs. Frink's farm or property  
24 and then one on Hannah Lane. They vary in



1           heighth. I'll talk about the ones at University  
2           at New Hampshire. I think they're 80-foot  
3           structures. They'll take a transition from an  
4           overhead conductor to an underground cable. A  
5           cable that will run up the side of the structure  
6           and be terminated in a configuration that allows  
7           for the maximum clearance or electrical  
8           separation and the minimum heighth so they'll be  
9           staggered on either side of the pole, two on one  
10          side and one on the other. So it will look a  
11          little bit different than you normally see, no  
12          doubt.

13                 And then at the base of the pole, there'll  
14          be a sweep that goes into the underground  
15          structures and that goes into depending on the  
16          configuration, I think five of the six cases  
17          it's a conventional underground cable and in the  
18          one submarine cable we talked about on the  
19          Durham side of Little Bay. So five will be very  
20          similar in nature, one will be a little bit  
21          different.

22                 On the overhead portion, there'll be an  
23          insulator arrangement where it connects to the  
24          overhead structure and the overhead conductors

1 will exit from there and those will be the three  
2 energized excavators and then a wire above that  
3 used for both lightning protection and for  
4 communications. Fiberoptic communications.

5 PRESIDING OFFICER WEATHERSBY: I'm going to  
6 interrupt just for a moment.

7 Attorney Patch, I'm wondering if you have a  
8 lot more for this Panel? And if so, we should  
9 probably reach a breaking point. So first, do  
10 you have a lot more for this Panel?

11 MR. PATCH: I only have maybe five or six  
12 questions for the Panel generally, but then I  
13 have maybe 10 or 15 minutes for Ms. Frazier.

14 PRESIDING OFFICER WEATHERSBY: Why don't  
15 you finish with your questions for the Panel,  
16 and then this Panel and Ms. Frazier will be  
17 coming back tomorrow, and you can ask the rest  
18 of the questions then. We'll break after these  
19 questions.

20 BY MR. PATCH:

21 Q Okay. I wonder if you could just sort of  
22 generally describe the difference between the  
23 existing poles and the right-of-way in terms of  
24 height particularly and the new poles?

1 A (Plante) Sure. I'll take that on.

2 So the existing right-of-way is occupied by  
3 primarily a 34 kV subtransmission line or  
4 distribution line with the exception of the end  
5 near Portsmouth where we're going through the  
6 malls, it's also occupied by some 115 and 345 kV  
7 lines.

8 So in general, the existing 34 kV  
9 structures are in the 43 to 38 and a half foot  
10 range. So typical existing heights in Madbury,  
11 43 feet, and Durham, Newington and Portsmouth  
12 the typical heighth's about 38.5 feet  
13 aboveground.

14 Proposed typical heights are 84 feet in  
15 Madbury, 84 feet in Durham, 70 in Newington and  
16 75 in Portsmouth.

17 Q So in Durham, for example, about twice as high  
18 as they are now?

19 A (Bowes) Maybe a little more.

20 A (Strater) Yes, little more than twice as high on  
21 average.

22 Q In the Joint Testimony that was filed on July  
23 1st of this year, the HDD testimony, on page 4.  
24 Any of you can answer that, whoever feels

1 comfortable. There was a discussion about how  
2 HDD installations are used to avoid sensitive  
3 cultural and natural resource areas. Do you  
4 recall that testimony?

5 A (Bowes) Yes.

6 Q Do you consider Little Bay to be a sensitive  
7 cultural and natural resource area?

8 A (Bowes) I think I got the same question at the  
9 Tech Sessions, too. As a layperson, as far as  
10 natural resources and environmental goes, I  
11 would say yes but probably defer to the  
12 Environmental Panel for a more scientific  
13 answer.

14 Q But, obviously, you or you jointly or one of you  
15 used that in that testimony so it's really about  
16 your understanding because you used the words.  
17 I mean, I know the Environmental Panel might  
18 have their own reasons for characterizing that  
19 way or differently, but in terms of your  
20 characterization of it, could you just elaborate  
21 a little bit more about what you really meant by  
22 that?

23 A (Bowes) Sure. Yes. So many times the  
24 construction entity, Project development entity,

1 will get a permit requirement from a regulatory  
2 agency, and that's really the context of this  
3 comment. When there is a beach area that needs  
4 to be avoided whether it's for dunes or public  
5 use, if it's a wetland area where, a marsh area  
6 where it needs to be avoided, then HDD is  
7 frequently used.

8 In this case, my understanding was is the  
9 permit agencies, especially the Army Corps, had  
10 a preference for the method that's been proposed  
11 versus an HDD. DES asked us to explore HDD in  
12 more detail and although not part of a permit  
13 condition, they encouraged us to develop a  
14 feasibility or a proposal to do that.

15 Q On page 8 of that Joint Testimony, July 1 of  
16 this year, you said that Eversource does not  
17 presently possess the land rights required for  
18 installation of the Project using either HDD  
19 option.

20 By "either HDD option," I think that meant  
21 either entirely under the Bay or under either  
22 side of the bay and then coming up in the  
23 middle.

24 A (Bowes) Actually, the two things we studied just

1 to be clear were either the entire HDD under the  
2 Bay or doing both shore landings. We never  
3 really studied doing one or the other as a  
4 stand-alone option.

5 Q So could you explain with regard to that portion  
6 of the testimony what land rights you don't have  
7 for the HDD option and what you would have to  
8 get?

9 A (Bowes) Sure. Doesn't look like it was included  
10 with this exhibit, but there was an Appendix to  
11 the HDD report and that has the details in  
12 there. It's in a large 11 by 17 -- I'll get you  
13 the page numbers.

14 So in the HDD report, page 37, there's a  
15 discussion of land rights, and for the full HDD  
16 option, we would need rights, either permanent  
17 or construction rights, for 11 properties in  
18 Durham and for two properties in Newington. If  
19 we were to do both HDD entrances to Little Bay,  
20 sometimes called the shore landing option, we'd  
21 need land rights for five properties in Durham  
22 and for ten properties in Newington. We have  
23 not attempted to get those rights as it was kind  
24 of a feasibility study. We know at least one

1 landowner who would provide those rights to us.

2 Q And that's the land rights you would need,  
3 assuming you were going to do either of those  
4 two HDD options, that's the entirety of the land  
5 rights you would need?

6 A (Bowes) Just checking with the Panel members. I  
7 believe to the best of our knowledge those are  
8 the entirety of the land rights we'd need.

9 Q Just one or two more questions about the  
10 clearing of the right-of-way that's required.  
11 Could you give us an idea of how extensive that  
12 will be in Durham? I mean, obviously, I'm  
13 representing Durham, and we care about Durham  
14 but --

15 A (Bowes) So I'll start and I know Dave has  
16 specific information as well. On the  
17 environmental maps, it is one of the identified  
18 areas. I believe it's in light green so it's  
19 maybe challenging in some locations to see that.  
20 We definitely have an overlay of where we need  
21 to clear the right-of-way, and those are  
22 identified on that map set.

23 A (Plante) Thanks, Ken. Yes. So in general, the  
24 existing corridor is not maintained to its full

1 width. So there's a, you know, an average 60  
2 feet or so of maintained width to the existing  
3 corridor. So we would be proposing to clear  
4 that to its full width of 100 feet which is,  
5 equates to about 20 feet on each side.

6 However, in every instance along the  
7 alignment, we don't need -- excuse me. In every  
8 instance along the alignment, the clearing isn't  
9 all 20 feet in size so in some cases we don't  
10 need to do any clearing on one side or the  
11 other, and in some cases we have clearing on  
12 both sides.

13 There's a segment in Madbury where we've  
14 acquired additional right-of-way so we'll have  
15 to clear that entire amount which is about 75  
16 feet of additional width in Madbury. From the  
17 Madbury/Durham town line working south, we have  
18 some additional rights there equating to about  
19 25 feet that would need to be cleared from Route  
20 4 down to UNH Gables Way area, and then  
21 throughout the rest of the alignment through  
22 Durham it's, you know -- so for 738 feet, from  
23 structure 7 to 9, we have clearing on one side.  
24 From, I'll say structures 39 to 40, we have 180



1 feet on one side. There are actually very few  
2 in Durham that have clearing on both sides.

3 Q What are you reading from?

4 A (Plante) This is just some notes that I pulled  
5 together from the plan set to help me answer  
6 this question actually.

7 Q Okay. And so those figures you just gave would  
8 be reflected in the plan set that's part of the  
9 Application?

10 A (Plante) Well, the figures themselves are not.  
11 So this was my interpretation from the plan set  
12 of where we would be clearing on the left side  
13 or the right side and for what approximate  
14 distance, trying to quantify the amount of  
15 clearing that's required for the Project.

16 Q So with regard to access to the right-of-way and  
17 the actual right-of-way itself, I mean, are you  
18 going to be building new roads to access the  
19 right-of-way to be able to do the work? Or are  
20 you essentially, because I know there are some  
21 sensitive historical resources there, and so  
22 could you describe to the Committee how you're  
23 going to handle that?

24 A (Bowes) Again, I'll describe at least the

1 location of the information in the Application.  
2 On those same environmental maps, the access  
3 roads were identified, I believe, by a red  
4 dashed line, and ultimately they go to each  
5 structure location in some form. In addition,  
6 there are work pads identified, and again, those  
7 were done again for the permitting process in  
8 the most conservative fashion. It doesn't mean  
9 we're going to have to build those entire work  
10 pads at every one of those locations, but for  
11 the sake of permitting we identified the maximum  
12 that would be needed.

13 In general, there are some rides that will  
14 need to be built. I know as part of the MOU  
15 with Newington, I believe, we've agreed to  
16 remove the roads at the end of construction  
17 unless the property owner grants us additional  
18 permission to keep them. That's my  
19 understanding of how it is today.

20 So yes, there will be some roads built.  
21 Typical, they are 16 feet in width, and they  
22 require usually some sort of fill material, a  
23 gravel, and as I said, at least in one of the  
24 towns we've had a requirement to remove those at

1 the end of the construction.

2 Q Okay. That's all the questions I have for the  
3 Panel as a whole. I just have the ones for Ms.  
4 Frazier.

5 PRESIDING OFFICER WEATHERSBY: Thank you,  
6 Attorney Patch, and we'll take those questions  
7 tomorrow when this Panel reconvenes.

8 Ms. Monroe, do we have a plan for Ms.  
9 Bunker for tomorrow?

10 ADMINISTRATOR MONROE: Yes. She'll be up  
11 first, and the estimates that I have are  
12 approximately 1 hour and 15 minutes for the  
13 parties' questions.

14 PRESIDING OFFICER WEATHERSBY: Okay.  
15 Great. So we'll take Ms. Bunker, Ms. Bunker  
16 will be first, and then this Panel will  
17 reconvene and hopefully people will be close to  
18 their time estimates, and we'll be able to get  
19 through this Panel tomorrow.

20 Thank you. We're adjourned. See you  
21 tomorrow.

22 *(Whereupon, Day 1, Afternoon Session*  
23 *adjourned at 5:20 p.m.)*

24

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

C E R T I F I C A T E

I, Cynthia Foster, Registered Professional Reporter and Licensed Court Reporter, duly authorized to practice Shorthand Court Reporting in the State of New Hampshire, hereby certify that the foregoing pages are a true and accurate transcription of my stenographic notes of the hearing for use in the matter indicated on the title sheet, as to which a transcript was duly ordered;

I further certify that I am neither attorney nor counsel for, nor related to or employed by any of the parties to the action in which this transcript was produced, and further that I am not a relative or employee of any attorney or counsel employed in this case, nor am I financially interested in this action.

Dated at North Sutton, New Hampshire, this 4th day of September, 2018.

---

Cynthia Foster, LCR