

In The Matter Of:

*SEC DOCKET NO. 2015-06 NORTHERN PASS TRANSMISSION, LLC
ADJUDICATORY HEARING*

*DAY 3 - AFTERNOON SESSION ONLY
April 17, 2017*

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STATE OF NEW HAMPSHIRE
SITE EVALUATION COMMITTEE

April 17, 2017 - 1:34 p.m. DAY 3
49 Donovan Street Afternoon Session ONLY
Concord, New Hampshire

{Electronically filed with SEC on 4/25/17}

IN RE: SEC DOCKET NO. 2015-06
Joint Application of Northern
Pass Transmission, LLC, and
Public Service Company of
New Hampshire d/b/a Eversource
Energy for a Certificate
of Site and Facility.
(Hearing on the merits)

PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:

- Chrmn. Martin P. Honigberg Public Utilities Comm.
(Presiding as Presiding Officer)
- Cmsr. Kathryn M. Bailey Public Utilities Comm.
- Dir. Craig Wright, Designee Dept. of Environ. Serv.
- Christopher Way, Designee Dept. of Resources &
Economic Development
- William Oldenburg, Designee Dept. of Transportation
- Patricia Weathersby Public Member

ALSO PRESENT FOR THE SEC:

- Michael J. Iacopino, Esq., Counsel to the SEC
- Iryna Dore, Esq.
(Brennan, Caron, Lenehan & Iacopino)
- Pamela G. Monroe, SEC Administrator

(No Appearances Taken)

COURT REPORTER: Susan J. Robidas, NH LCR 44

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WITNESS PANEL: Michael J. Auseré
Kenneth Bowes

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1 AFTERNOON SESSION
2 (Resumed at 1:34 p.m.)

3 CHAIRMAN HONIGBERG: Mr. Palmer.

4 MR. PALMER: Good afternoon. My
5 name is Walter Palmer, and I am the
6 spokesperson for the intervenor group along the
7 underground portion of the route, the Bethlehem
8 to Plymouth Abutting Property Owners Intervenor
9 Group. And I have some opening questions, and
10 then two other members of my group are here and
11 would like to also follow up with some
12 questions. I promise they won't overlap.

13 My first question is just a
14 quick follow-up on some of the questions that
15 Mr. Reimers from Forest Society was asking
16 Mr. Bowes. He mentioned that -- or I just
17 want to clarify.

18 CROSS-EXAMINATION

19 BY MR. PALMER:

20 Q. Did you say that the reason that the Burns &
21 McDonnell study excluded the I-93 corridor
22 was because of the Franconia Notch issues?

23 A. (Bowes) No, I didn't say that.

24 Q. Okay. Could you clarify, then, what were the

1 reasons that the I-93 corridor were excluded
2 if it's not the Franconia Notch issues?

3 A. (Bowes) So, the purpose of the Burns &
4 McDonnell study on all underground costs was
5 to determine a more definitive cost estimate
6 to put the Project entirely underground. So
7 we looked at a couple different options for
8 doing that. A couple were directed as in the
9 DOE option 4A and 4C, and then we had a
10 viable project underground which was using
11 all state roads. We chose those two options,
12 A and C, from the DOE analysis, and that's
13 what we did a cost estimate for. In all
14 three cases, they're different from the
15 proposed project, in that they're an all-DC
16 transmission line and the converter station
17 is no longer in Franklin; it's now in
18 Deerfield. So it's really just a way a
19 technically feasible project could be built.
20 And it's actually underground Route 3 is what
21 we used, and that was all use of state roads
22 and Route 3. But none of them went through
23 Franconia State Park or through the Notch.

24 Q. Okay. So you characterize the ones that you

1 chose as "viable," suggesting that the one
2 through Franconia Notch was not viable?

3 A. (Bowes) That is correct.

4 Q. And you felt it was not viable because of the
5 environmental and technical issues associated
6 with Franconia Notch?

7 A. (Bowes) Partly, but also the restrictions of
8 the DOT and some agreements that had been
9 made previously.

10 Q. Restrictions of DOT and some of the previous
11 consent agreements, et cetera.

12 A. (Bowes) Correct.

13 Q. Okay. Thank you.

14 All right. Mr. Auseré, I have a few
15 questions for you. In your October 2015,
16 testimony, Page 6, Line 27, you mentioned you
17 need a U.S. Forest Permit. Could you tell me
18 what that permit is for?

19 A. (Auseré) Give me just one minute.

20 (Witness reviews document.)

21 A. (Auseré) I'm going to have to look to Mr.
22 Bowes for help. I know that's part of the
23 build-up of the cost of the Project, but
24 specifically...

1 A. (Bowes) Sure. There's a forest permit to go
2 through the White Mountain National Forest.

3 Q. Okay. So has that application been updated
4 since 2011, or has it been updated since --

5 A. (Bowes) Yes. It was updated as part of the
6 supplement or addendum for DOE purposes. So
7 the DOE has, you know, a final package, and
8 it's actually a special use permit, I think
9 is what it's technically called, for going
10 through the White Mountain National Forest.

11 Q. So it has been updated to reflect your
12 current plans of going underground through
13 portions of the White Mountain National
14 Forest?

15 A. (Bowes) Yes.

16 Q. Okay. All right. This time, Mr. Auseré, I
17 hope this will be in your topic area.

18 It's been stated many times that the
19 total Project cost is about \$1.6 billion.
20 You noticed that that includes costs related
21 to development, permitting and siting the
22 Project, that these development costs are
23 also capitalized. So is it correct to assume
24 these development costs are part of the \$1.6

1 billion estimate?

2 A. (Auseré) Yes.

3 Q. It's been stated that, as of December 2016,
4 you've spent about \$190.5 million in costs on
5 permitting and legal fees and acquisition of
6 the property; is that correct?

7 A. (Auseré) Correct.

8 Q. So, this \$190.5 million, this is all money
9 that has been firmly committed, or is some of
10 it contingent on approval of the Project?

11 A. (Auseré) No, the \$190.5 million is money
12 that's been spent.

13 Q. It's spent. So it is committed.

14 So, then, that means that of the \$1.6
15 billion estimate, about \$1.4 billion remains
16 to be spent on the Project; is that right?

17 A. (Auseré) I would agree.

18 Q. So, going forward from here, it's actually
19 1.4 rather than 1.6 that we're looking at in
20 terms of future projected expenditures.

21 A. (Auseré) I would agree that 200 million out
22 of the 1.6 has been expended.

23 Q. Okay. So can you provide a rough breakdown
24 of the \$1.4 billion remaining to be spent?

1 How much of that is going to be on project
2 development work and how much is going to be
3 on actual physical construction?

4 A. (Bowes) I probably can. I think the budget
5 for this year is approximately \$20- to
6 \$30 million. So that would take us through,
7 I would say, the majority of the development
8 phase, and the rest of the funds would be
9 once we enter construction.

10 Q. So, \$20- to \$30 million additional from this
11 point on for project development?

12 A. (Bowes) From I would say December of 2016 on,
13 yes.

14 Q. Okay. I have a few questions about the
15 Forward NH Fund. Would you be the right
16 person to ask about that?

17 A. (Auseré) If not me, I'm sure Mr. Bowes can
18 help.

19 Q. Okay. We'll forge ahead and see whether --

20 A. (Auseré) I'll do my best.

21 Q. Okay. On Page 3 of your supplemental
22 testimony, you note that the TSA formula
23 covers a return on investment plus associated
24 income taxes, depreciated expenses, operation

1 and maintenance expenses, administrative and
2 general expenses and municipal tax expenses.
3 Does that mean that the Forward NH Fund would
4 be partially funded out of the TSA agreement?

5 A. (Auseré) The Forward NH Fund will be funded
6 through the Transmission Services Agreement
7 for the formulaic rate.

8 Q. So, then, correct me if I'm wrong. Does this
9 mean that at least part of that funding is
10 coming from Hydro-Quebec or from the Canadian
11 partners?

12 A. (Auseré) So we will be providing transmission
13 service to HRE. And in exchange, HRE will be
14 paying revenue requirements to NPT, and that
15 will include -- revenue requirements will
16 include the Forward NH Fund, funding for the
17 Forward NH Fund.

18 Q. And HRE stands for what?

19 A. (Auseré) I sorry. Hydro Renewable Energy.
20 That's the Hydro-Quebec subsidiary that's a
21 counter-party to the Transmission Services
22 Agreement.

23 Q. Okay. So, in other words, in short, part of
24 the Forward NH Fund does in fact come from

1 the Canadian partners.

2 A. (Auseré) In exchange for provision of the
3 transmission service.

4 Q. According to the current provisions.

5 A. (Auseré) Correct.

6 Q. Okay. All right. Now, it was mentioned
7 earlier in the cross-examination today that
8 the Federal Energy Regulatory Commission
9 establishes a return on equity, or ROE, on
10 transmission projects in New England of
11 11.74 percent? Is that --

12 A. (Auseré) It's currently 11.74.

13 Q. Current. Right. So, basically, under this
14 FERC-set ROE, you would expect to be able to
15 receive an 11.74 percent return on any
16 transmission project that you build; is that
17 right?

18 A. (Auseré) Not any transmission project. Our
19 return, or ROE on this project is indexed to
20 the FERC-approved and ISO-New
21 England-approved base return on equity. But
22 the specific equity -- or excuse me -- the
23 specific return on any transmission project
24 can vary.

1 Q. Can vary. So, even though the FERC
2 established this 11.74 percent cap, as a
3 result of the fact that some projects were
4 actually realizing greater return on
5 investment than that, you're saying that most
6 of your projects would -- you would expect
7 them to receive less than that?

8 A. (Auseré) No. I thought you were asking if
9 all of our projects, regardless of whether
10 Northern Pass or other projects, if they all
11 earned 11.74 percent, and they do not. But
12 you're correct in saying that the return on
13 transmission projects is capped currently by
14 the FERC at 11.74 percent.

15 Q. So, basically, you can expect to -- you could
16 expect theoretically to receive 11.74 percent
17 on any transmission project that you built.
18 And the more transmission projects you build,
19 the more money you would make; right?

20 A. (Auseré) Again, the return that we earn on
21 each transmission project is governed by the
22 FERC and ISO-New England, and it can vary
23 between projects. So I'm not going to paint
24 that all transmission projects earn

1 11.74 percent.

2 A. (Bowes) And they all go through an approval
3 process as well, either ISO-New England as a
4 reliability project or as an electric
5 transmission project like this one. So there
6 is an approval. It's not just build as much
7 as we want as what I think you said.

8 Q. Okay. The FERC ROE percentage, that applies
9 to even on cost overruns; right? It applies
10 ultimately to the total cost of the Project?

11 A. (Auseré) It applies -- the return on equity
12 applies to the equity that we've invested
13 into a project.

14 Q. So that would include overruns.

15 A. (Auseré) It would apply to whatever equity
16 we've invested into a project to fund the
17 cost of the project.

18 Q. So would an overrun be part of the equity --

19 A. (Auseré) It would. That's what I was about
20 to complete with.

21 Q. So I have a series of questions about some
22 recent studies and statements that have come
23 out about the FERC ROE, and they ultimately
24 get to the point of public use or public

1 interest of the Project. I would just like
2 to ask you about your reaction to some of
3 these statements.

4 In a October 2016 energy panel that was
5 convened in Connecticut, a U.S. Senator from
6 Connecticut, Richard Blumenthal, made the
7 statement that this rate of return, the
8 11.74 percent, "is a glaring incentive to
9 build excessive transmission and to incur
10 excess transmission costs." What is your
11 reaction to that?

12 MR. NEEDLEMAN: Mr. Palmer, do
13 you have a document that you're referring to?

14 MR. PALMER: Yes. I'm referring
15 to -- I don't have it with me. I have it
16 online on the computer. But the document is a
17 October 5, 2016 article in The Concord Monitor,
18 entitled, "Growing Transmission Costs Are
19 Raising Region's Electric Rates."

20 CHAIRMAN HONIGBERG: Why don't
21 you assume that Senator Blumenthal said that.
22 I think Mr. Palmer wants to know what your
23 reaction to what we presumed that Senator
24 Blumenthal -- we assume for purposes of this

1 question that Senator Blumenthal said.

2 A. (Bowes) So I'll start and maybe Mike might
3 like to add to that.

4 I've learned long ago not to comment on
5 any U.S. Senator's public comments. So
6 that's about all I have to add.

7 BY MR. PALMER:

8 Q. Okay. I will say that the senator was
9 speaking from information provided to him by
10 a panel of experts that he had with him at
11 the time.

12 Another statement that he made is,
13 "Since 2002, ratepayers have been footing the
14 bill for \$12 billion in transmission costs
15 across New England." Do you have a reaction
16 to that statement?

17 MR. NEEDLEMAN: I'm going to
18 object again. And I'm also going to add, to
19 the extent that Mr. Palmer wants to
20 characterize these, I think it would be fair to
21 have documents in front them because I think
22 that is sort of tantamount to testimony.

23 CHAIRMAN HONIGBERG: That was
24 definitely testimony that you gave there at the

1 beginning of what ended up as sort of a
2 question. What exactly do you want to know
3 from them? You just want to know whether they
4 agree with what you say Senator Blumenthal
5 said? You've already got an answer from one of
6 them that he doesn't comment on what senators
7 say. So...

8 MR. PALMER: Okay. I'll leave
9 that alone. I won't go into any further
10 comments from the senator.

11 I have a comment from the Connecticut
12 Public Utilities Commission Commissioner
13 Robert Scott. Can I read that out?

14 CHAIRMAN HONIGBERG: Well,
15 Commissioner Scott would be a New Hampshire
16 Commissioner.

17 MR. PALMER: I'm sorry?

18 CHAIRMAN HONIGBERG: Do you have
19 a quote from Commissioner Scott?

20 MR. PALMER: I do, yes.

21 CHAIRMAN HONIGBERG: Ask your
22 question.

23 BY MR. PALMER:

24 Q. Commissioner Scott stated that New England is

1 an outlier with the highest transmission
2 costs compared to any other region in the
3 country and that transmission has been
4 overbuilt in New England, and that is one of
5 the reasons for high electricity costs in New
6 England. Do you have a reaction to that?

7 MR. NEEDLEMAN: Same objection.

8 CHAIRMAN HONIGBERG: So, for the
9 purpose of this question, assume Commissioner
10 Scott said that. Do you have a reaction?

11 A. (Bowes) I'll start. You're welcome to join
12 if you'd like.

13 So, I welcome comments from Public
14 Utilities officials. They clearly provide
15 transmission owners like Eversource and
16 distribution companies that they regulate
17 valuable insight. I would say that the EEI,
18 or the national average is for transmission
19 costs around 12 percent of the retail bill,
20 and in New Hampshire they are approximately
21 that as well. And the distribution costs in
22 New Hampshire are actually below the national
23 average. The largest portion of the bill in
24 New Hampshire is the energy supply bill or

1 the generation services, where the retail
2 market we've been talking about -- the
3 wholesale market this morning was, you know,
4 around \$4 a megawatt hour, which translates
5 to, you know, a retail rate of 4 cents -- I'm
6 sorry -- a wholesale rate of 4 cents. In New
7 Hampshire, it's closer to 11 cents.

8 So, while I note the transmission costs
9 have gone up in New England, the largest
10 portion of the bill and what's driving energy
11 prices in New England, as well as New
12 Hampshire, is the generation portion of the
13 bill. And Northern Pass is proposing to
14 bring in a lower-priced part of that portion
15 of the bill and would make the wholesale
16 market more competitive, as identified by the
17 Federal Energy Regulatory Commission.

18 Q. Okay. Thank you. I understand. I do
19 understand that the largest portion of the
20 bill, roughly 50 percent of the bill, comes
21 from generation costs. However, you're
22 stating that you disagree with the -- with
23 Commissioner Scott's statement that New
24 England has the highest transmission costs in

1 the country?

2 A. (Bowes) I don't think I said that. I think I
3 said the EEI average and the New Hampshire
4 average are very similar.

5 Q. Okay. So, then Mr. Scott's statement stands.
6 You agree that transmission costs here in New
7 England are higher than anywhere else in the
8 country?

9 MR. NEEDLEMAN: Objection.

10 CHAIRMAN HONIGBERG: Do you have
11 any different answer you can give to the
12 question this time, Mr. Bowes?

13 WITNESS BOWES: (Bowes) I do
14 not.

15 MR. PALMER: I'm sorry. Okay.

16 BY MR. PALMER:

17 Q. Are you familiar with the Carsey School of
18 Public Policy study that came out of the
19 University of New Hampshire in March of this
20 year which made the same or similar findings,
21 that the transmission costs are one of the
22 reasons for driving up costs of electricity
23 in New England?

24 A. (Bowes) Is there a chance I could see a copy

1 of that?

2 Q. Again, I have it on the computer. I could
3 put it up on the screen if you want me to
4 take the time to do that.

5 A. (Bowes) Well, there's a portion of that where
6 I believe they saw Northern Pass as a
7 solution to part of the problems in the
8 market. So that's the portion I remember
9 seeing in that report. So it might be useful
10 to put it up on the screen.

11 Q. I'll just move on.

12 The point that I'm coming to and the
13 question that I'm coming to is, if in fact
14 transmission costs are higher in New England
15 already, and if in fact transmission has
16 already been overbuilt in New England,
17 wouldn't you agree that the Northern Pass
18 Project is going to contribute to the
19 problems of higher electricity costs in New
20 England rather than help alleviate them?

21 A. (Bowes) I'm not sure I share the basic
22 premise that you set the question up with.
23 But I would say that the Northern Pass
24 transmission costs do not get passed on to

1 the ratepayers in New Hampshire at all. It's
2 a participant-funded project. The people
3 that use the -- I mean, last week we heard
4 the analogy of the "garden hose and pool of
5 water." This is the "hose" that we're
6 talking about here. The "pool of water" is
7 in Canada. People will use the water, and
8 some people may pay more for clean water.
9 But the ratepayers in New England are not
10 subject to this transmission tariff unless
11 they enter into a bilateral agreement like
12 Massachusetts. And New Hampshire has chosen
13 not to enter into that. So the New Hampshire
14 ratepayers will not pay for Northern Pass
15 transmission.

16 Q. All right. I guess I would like to ask you a
17 couple more questions about that statement.

18 You say that the New Hampshire
19 ratepayers are not going to be responsible
20 for any of the costs for the Northern Pass
21 transmission costs; yet, it's been stated
22 many times over that New Hampshire
23 ratepayers -- that New Hampshire will receive
24 10 percent of the energy delivered by

1 Northern Pass; is that right?

2 A. (Bowes) If the Power Purchase Agreement is
3 ultimately approved, yes. And that would be,
4 again, for the commodity for the use -- not
5 for the use of the line, but for the "water"
6 that comes out of the hose."

7 Q. This is one of the benefits that you have --
8 that Northern Pass has expressed for the
9 Northern Pass Project all along is the idea
10 that 10 percent of the energy delivered would
11 go to New Hampshire. Is that not right?

12 A. (Bowes) So, Mr. Quinlan testified to that
13 extensively last week. Yes.

14 Q. So, if 10 percent of the energy is going to
15 people of New Hampshire, are we to understand
16 from you that we're receiving that energy
17 without having to pay for any of the
18 transmission costs associated with that
19 energy?

20 A. (Bowes) So I would say, again, there's a
21 "hose" being built by Northern Pass; there's
22 a supply of energy, or "water," in
23 Hydro-Quebec. People pay for the water that
24 comes out of the end of the hose. There's

1 not a direct causal effect of the costs of
2 that hose onto the retail ratepayer.

3 Q. Well, I mean, it may not be direct. It may
4 be possible to obfuscate it. But in the end,
5 isn't it the ratepayers that pay for
6 everything? The electric company doesn't
7 build this in order to be nice. It's built
8 to make a profit, and the only source of
9 revenue is the ratepayers.

10 A. (Bowes) In this case there's only one
11 ratepayer for Northern Pass, and that's
12 Hydro-Quebec.

13 Q. Hydro-Quebec.

14 A. (Bowes) Yes.

15 Q. Hydro-Quebec pays you for the ability to
16 transmit their electricity over Northern
17 Pass.

18 A. (Bowes) Thus, by the Transmission Services
19 Agreement, they're the only ratepayer.

20 Q. And once they've transmitted that energy,
21 they sell it in New England. Someone in New
22 England buys it and resells it to ratepayers
23 at a profit. The cost of transmission has
24 got to be built into that sale price to the

1 ratepayers. To state that the ratepayers
2 don't pay -- I'm asking you. Can you state
3 that the ratepayers are not paying any cost
4 of transmission?

5 A. (Bowes) The ratepayer is not paying for the
6 use of the "hose," Hydro-Quebec is. They're
7 the sole ratepayer under the Transmission
8 Service Agreement.

9 Q. Of course they have to be paying for it,
10 don't they, if they are the only source of
11 revenue ultimately that covers the cost of
12 the whole thing?

13 A. (Bowes) So they may include some costs into
14 their product, but that is not how the
15 transaction is set up.

16 Q. Okay. So we finally get to the point that in
17 fact some transmission costs may be included
18 in the cost paid by ratepayers in New
19 Hampshire.

20 A. (Bowes) No, I did not say that.

21 Q. Okay. I'm sorry. Sounded like that's what
22 you just said.

23 All right. I have a few questions
24 about -- again, a few more questions about

1 the Forward NH Fund, if that would be all
2 right.

3 Is the Forward NH Fund going to be set
4 up as a non-profit organization?

5 A. (Bowes) I do not know.

6 A. (Auseré) I don't know either.

7 Q. Okay.

8 CHAIRMAN HONIGBERG: Who are the
9 appropriate witnesses to testify about the
10 Forward NH Fund? Was it Mr. Quinlan?

11 WITNESS BOWES: It was
12 definitely Mr. Quinlan. I think he may have
13 deferred portions of that, but it was not
14 around the formation of the organization.

15 MR. PALMER: All right. Then
16 that concludes my questions, and I'll hand it
17 over to the next person in our group.

18 CHAIRMAN HONIGBERG: You have
19 Barbara Meyer listed here.

20 MR. PALMER: Yes.

21 MS. MEYER: Mr. Chairman, I
22 wanted to ask Mr. Bowes questions about
23 property rights. Is that something that you'd
24 like me to proceed with today, or should I hold

1 that for the future construction panel?

2 CHAIRMAN HONIGBERG: Mr.
3 Needleman.

4 MR. NEEDLEMAN: Well, it's the
5 next panel, so I think it would be better to
6 save it. But if there's some reason people
7 want to proceed today, that's okay, too.

8 CHAIRMAN HONIGBERG: Well, I
9 just don't want -- I want to make sure you get
10 a chance to ask the questions you want to ask.
11 If it turns out that it's more appropriate for
12 the next time he's here for the other panel,
13 which is confusing to me, too, I grant you,
14 he'll say that, but then he will answer the
15 question in that next go-round. So why don't
16 you start asking him questions, and we'll
17 figure out I think pretty quickly whether it's
18 now or next time.

19 MS. MEYER: Okay.

20 CROSS-EXAMINATION

21 BY MS. MEYER:

22 Q. Mr. Bowes, I'd like to refer to your
23 testimony, the Property Rights section that's
24 on Page 19. It's the paragraph that begins

1 on Line 7. This is about your reliance on
2 RSA 231:160. That's the state statute that
3 permits local utility lines to be run along
4 the roadsides and bring phone, cable TV and
5 electric power to everybody's homes.

6 MR. IACOPINO: Ms. Meyer, what
7 document are you referencing?

8 MS. MEYER: This is his prefiled
9 direct testimony, and it's Page 19.

10 MR. IACOPINO: Thank you.

11 A. (Bowes) I have it.

12 BY MS. MEYER:

13 Q. The date of the document is February 26,
14 2016.

15 So, basically, that paragraph is about
16 using 231:160. And my understanding is that
17 this is the first time that high-voltage
18 transmission lines are being run along a New
19 Hampshire state road relying upon 231:160; is
20 that correct?

21 A. (Bowes) It's certainly the first time
22 Eversource companies have done that. I
23 cannot speak to the other utilities in the
24 state.

1 Q. So, then, that makes this the first time that
2 the right-of-way has historically been used
3 for distribution lines and being used for
4 siting transmission lines, as far as you
5 know.

6 A. (Bowes) For Eversource, as far as I know,
7 that's correct.

8 Q. For Eversource, yeah.

9 A. (Bowes) Yes.

10 Q. And even though here we're talking about
11 specifically doing this on certain roads,
12 like Route 116 and Route 112, the precedent
13 of using state roads like that for
14 transmission lines, that could be done
15 anywhere in the state; right? There's
16 nothing unusual about 116 or 112 that allows
17 that there -- that couldn't apply to any
18 state road in New Hampshire?

19 A. (Bowes) My only pause would be interstates.
20 I'm not sure that that would be the same.

21 MR. NEEDLEMAN: Mr. Chairman, if
22 I could note one thing. This is actually a
23 piece of his testimony that we did not mark for
24 this segment because our assumption was that

1 this was going to be used in the next track.
2 So, again it's fine to answer questions, but he
3 hasn't even adopted this testimony yet.

4 MS. MEYER: Even though his
5 testimony is from February 2016?

6 CHAIRMAN HONIGBERG: Well, Mr.
7 Needleman is making a correct technical point
8 about the portions of the testimony that Mr.
9 Bowes adopted for purposes of this round of his
10 testimony.

11 Mr. Needleman, do you have an
12 objection to Ms. Meyer pursuing it now, just
13 understanding she won't do it again next
14 time?

15 MR. NEEDLEMAN: I certainly
16 don't. I just wanted to be clear. And I also
17 didn't want her to think she would be precluded
18 in any way from asking these questions when
19 he's back on the construction panel.

20 CHAIRMAN HONIGBERG: Right. Ms.
21 Meyer, I'm going to leave it to you. If the
22 topics you want to pursue now are here and you
23 want to do it, you should do it. If you want
24 to wait, that's fine, too. It's up to you.

1 MS. MEYER: Okay. I'll
2 briefly -- I'll handle briefly what I have left
3 here, just like one or two more questions.

4 CHAIRMAN HONIGBERG: Okay.

5 MS. MEYER: But then I'll
6 reserve the right to ask other questions, not
7 duplicates, but other questions when the
8 construction panel is on. Is that all right?

9 CHAIRMAN HONIGBERG: I think so.

10 MS. MEYER: Okay.

11 BY MS. MEYER:

12 Q. So I've got a hypothetical situation here.

13 And this is my last question.

14 If instead of running the Northern Pass
15 across the front of my property -- I happen
16 to live on 116, by the way -- and if instead
17 of running the Northern Pass across the front
18 edge of my property you needed to run it
19 perpendicular to 116 -- so, say, for example,
20 you wanted to run it along the edge of my
21 property on the fence line between my house
22 and my neighbor's house, so you're going
23 cross-country with the line -- I presume in
24 that case you'd have to come to me and

1 negotiate an easement; isn't that correct?

2 A. (Bowes) We would need property rights to do
3 that. It could be an easement. It could be
4 a sale of property.

5 Q. Right. But you definitely have to come to me
6 to ask my permission, and you'd have to offer
7 me some sort of compensation to induce me to
8 allow you to use that land; correct?

9 A. (Bowes) Certainly if it were Northern Pass,
10 we would have to. If it were another
11 utility, they might have the ability to
12 acquire those easements through a court.

13 Q. Right. And so, for example, if Northern Pass
14 cannot use eminent domain, you couldn't force
15 my hand in that case. But maybe if there was
16 a reliability project, they could use eminent
17 domain; is that correct?

18 A. (Bowes) That's my understanding, yes.

19 Q. Right. Okay. So, now going back to the
20 situation where -- of what is actually
21 proposed, where you're running this along the
22 front edge of my property that's parallel
23 with 116. Because you're using 231:160, you
24 don't have to ask my permission, and you

1 don't have to offer me any compensation; is
2 that correct?

3 A. (Bowes) I believe that is correct. Yes.

4 MS. MEYER: Okay. That's all I
5 have. Thank you.

6 CHAIRMAN HONIGBERG: Mr. Lakes.

7 MR. LAKES: Thank you. My
8 questions are for Mr. Bowes. And I'll try not
9 to eat my microphone. I'm not sure, as well,
10 if these questions may be best for the second
11 track as well. It's very confusing.

12 CROSS-EXAMINATION

13 BY MR. LAKES:

14 Q. Anyway, Mr. Bowes, thank you for being here
15 today.

16 Isn't it true that this 52-mile
17 underground project is the longest
18 underground project in terms of excavation
19 from points A to B in the country?

20 A. (Bowes) I believe it is for a DC transmission
21 project on land. I do not know if it is for
22 a submarine project or AC cable.

23 Q. Yes, this is strictly for land.

24 You mentioned earlier about the 24 miles

1 of underground from Middletown to Norwalk
2 that I believe Eversource was involved with.
3 Was this buried entirely in the roadway?

4 A. (Bowes) Only thing I'm pausing on is I
5 believe it did go across Eversource-owned
6 land for transition station or substation
7 locations. But aside from that, it was in
8 the public way.

9 Q. So when you say "the public way," that's the
10 roadway? Is that --

11 A. (Bowes) Within the road right-of-way, yes.
12 So it may have been adjacent or on the side
13 of the road.

14 Q. Okay. My understanding, and maybe you can
15 corroborate this, was that the 24 miles that
16 was buried on that road was actually a
17 four-lane highway, and one of those lanes was
18 used for the trenching of that cable. So it
19 wasn't trenched off the road. I guess that's
20 what I'm trying to find out from you.

21 A. (Bowes) So a portion of the Project was built
22 on Route 1, and in certain places that is a
23 four-lane road. There were other roads also
24 used. And my recollection was most of the

1 spliced enclosures -- in this case there were
2 manholes -- were adjacent or off the traveled
3 portion of the lane.

4 Q. Yeah, I wanted to ask about the vaults. Now,
5 what size vaults did you use on that
6 particular portion of the highway? Just
7 generally.

8 A. (Bowes) Approximately the same size as we're
9 using for Northern Pass.

10 Q. Which is?

11 A. (Bowes) Approximately 30 feet long, 8 to
12 10 feet in depth, and 8 feet in width.

13 Q. Now, my understanding is that Eversource --
14 or it might have been Northeast Utilities at
15 the time -- but, anyway, Eversource had to
16 seek easements from many landowners along
17 that route because you couldn't put in the
18 road because the width of the road was
19 already taking up the right of way, so it had
20 to be put into people's yards.

21 Did Eversource -- well, No. 1 you had to
22 get easements to do that. I assume you did.

23 No. 2, did Eversource pay for those
24 easements that it got from landowners along

1 that route?

2 A. (Bowes) So if I understand, the first
3 question was did we acquire easements? And
4 the answer is yes. And the second part was
5 did we compensate the property owners for
6 those easements? I believe in every case
7 that I can remember it was "yes" also.

8 Q. Okay. Can you say whether the trenching that
9 you're going to be doing for Northern Pass
10 down Routes 116, et cetera, will be in the
11 road or under the pavement, or off the road?

12 A. (Bowes) So the final design is yet to be
13 approved by the DOT. The initial design is
14 in the travel lane. They have asked us,
15 wherever we can, to move it to the side of
16 the travel lane.

17 Q. Okay.

18 A. (Bowes) Or you know, off the roadway as best
19 we can.

20 Q. Yeah. Have you ever driven Routes 116, 18,
21 112 and 3?

22 A. (Bowes) Yes, I have.

23 Q. Have you ever driven these roads in the
24 winter?

1 A. (Bowes) Yes, I have.

2 Q. So I guess you wouldn't be surprised, but
3 maybe you would be, if I told you that these
4 roads in the wintertime, and even really the
5 whole year, are severely cracked, fissured,
6 frost-heaved, rutted, pot-holed. So I guess
7 my bottom line here is: Do you think these
8 roads are built to interstate standards?

9 A. (Bowes) So, couple-part answer to that.
10 First, for the construction we would be
11 limited to April 15th to November 15th
12 construction windows by the New Hampshire
13 DOT. So, construction would not take place
14 during the winter months.

15 As far as the roadways go, I wouldn't
16 characterize all four of those roads the same
17 way. I would say Route 3, 112 and Route 18
18 don't exhibit clearly as much of the issues
19 that you portrayed. 116 does, and I think
20 it's a different maturity of road, probably
21 different standards when it was built. But
22 the last part of that is that the
23 geotechnical work we've done has found a
24 pretty solid base for all four of those

1 roads, and there are -- they do certainly
2 have gravel down 30-plus inches in most cases
3 on the samples we've taken. So that leads me
4 to believe that we will have a pretty good
5 likelihood of doing the construction without
6 impacting the road base because it's already
7 been predisturbed.

8 Q. I as well live on Route 116, and that's why a
9 lot of my testimony surrounds that road,
10 which, if I had a say, it's more or less a
11 glorified back road, if that.

12 So I guess my question is: Because that
13 road crumbles all the time, and we just had
14 it paved, what was it, a year and a half,
15 maybe two years ago. I mean, the fissures
16 and the cracks and all of that are severe
17 right now. You can step in some of them.
18 What's going to be done with the road base to
19 improve that situation? And with the line
20 under the road in particular, I guess my
21 question is: Is it possible it could
22 exacerbate problems as opposed to be a
23 neutral presence in the road?

24 A. (Bowes) My experience with even rural roads

1 has not been that it has a detrimental
2 effect. We spoke this morning around the
3 paving requirements. I would anticipate that
4 we'll get full paving requirements for the
5 roads that we use. So I would think, at
6 least in the short term, you'll see an
7 improvement in those roads. And in the long
8 term, I'm not sure that we can correct all of
9 those issues that are on some of these roads.
10 Maybe it's more localized in certain areas as
11 well. But clearly I would think that the
12 three roads I mentioned -- Route 3, Route 112
13 and Route 18 -- there will be no detrimental
14 impacts. On 116, again, I think if the road
15 base is a problem to start with, I don't
16 think we're going to make it worse. In some
17 cases I think we'll make it better.

18 Q. Thank you. Okay. Next question.

19 Are underground transmission lines
20 susceptible to water damage and flooding?
21 And that would also go for not only the
22 transmission lines and the trenches, but
23 those also in the spice vaults.

24 A. (Bowes) So, both the duct banks, the HDDS, as

1 well as the splice pits or splice vaults are
2 designed to -- or the cable system is
3 designed to be submerged. Some of those
4 holes will likely have water in them on a
5 periodic basis. Some of them may have water
6 in them on a full-time basis. It won't
7 impact the cable system, nor should it really
8 impact the flow of water, you know, across
9 the roadway.

10 Q. Okay. Just a couple more questions, fairly
11 short-answer type of things.

12 With an underground cable, the duration
13 of outages because of failures are difficult
14 to locate and access. Let me just say that
15 again.

16 There is an increased duration of
17 outages because failures are difficult to
18 locate and access. It takes, on average,
19 60 percent longer to fix an underground cable
20 that has been compromised. Would you agree
21 with that?

22 A. (Bowes) So I would break it into two parts.
23 An underground cable is going to be much less
24 susceptible to failure than an overhead

1 transmission line. Typically, an overhead
2 transmission line is very easy to locate the
3 fault. Our protected relays give us a
4 distance to that fault almost
5 instantaneously. We go to that structure,
6 find the wire is broken or tree is into the
7 wire, and we make the repairs probably in
8 hours.

9 For an underground transmission line, we
10 will be putting sensing technology into the
11 line that will give us some indication of the
12 exact location or pinpoint of where the fault
13 is. But also, every few splice pits we're
14 also installing a link box where we will be
15 able to go in and test the cable and
16 determine the distance to the fault that way.
17 So it could take one to two days to find the
18 fault on an underground transmission cable,
19 but the extra repair of that is going to be
20 much more involved. So the 60 percent, I
21 think it would be much longer than
22 60 percent. Most overhead failures are
23 repaired within a day. Most underground
24 failures are probably closer to a month in

1 duration.

2 Q. Okay. As far as the life of an underground
3 cable, at least from what I understand, it's
4 shorter than an overhead cable by as much as
5 50 percent, in terms of the full-use life of
6 an underground versus an overhead cable. How
7 would you characterize that?

8 A. (Bowes) I'm just trying to go based on the
9 experience that I have. We clearly have
10 transmission lines that are 80 years old. We
11 also have cable systems that are 75 years
12 old. So I think it really depends upon how
13 well the installation was performed, how the
14 cable or overhead system is operated and what
15 maintenance is done along the way
16 specifically for the overhead system. Many
17 times you'll put new insulators up or
18 sometimes even a new conductor to extend the
19 life.

20 In general, I would probably tend to
21 agree with that statement, that overhead
22 systems have a life that's probably almost
23 twice as long as underground. But again,
24 those life times in many cases we've yet to

1 realize. Like I said, we have transmission
2 cable systems that are 75 years old. So it's
3 still a very, very long life.

4 MR. LAKES: Thank you. That's
5 all of my questioning.

6 CHAIRMAN HONIGBERG: All right.
7 Mr. Baker, I know you weren't here this
8 morning. Do you have questions for this panel?

9 MR. BAKER: I do. About 10
10 minutes.

11 CHAIRMAN HONIGBERG: If you're
12 ready to go.

13 MR. BAKER: Thank you, Mr.
14 Chairman.

15 CROSS-EXAMINATION

16 BY MR. BAKER:

17 Q. My questions relate to the parties that I
18 represent, and they have concerns about the
19 time it's going to take for them to know
20 whether or not your project will be built.
21 And as we sit here today -- and I'll direct
22 this to Mr. Auseré. Did I get the
23 pronunciation --

24 A. (Auseré) It's "aus-ser-ray." You were very

1 close.

2 Q. Thank you.

3 What can I tell them? When will you be
4 building this project if you get all the
5 permits you need?

6 A. (Auseré) We anticipate moving into
7 construction, you know, shortly after
8 receiving the permits.

9 Q. And when you say "the permit," you're talking
10 about the Site Evaluation Committee permit?

11 A. (Auseré) All necessary permits.

12 Q. Oh, okay. Could you run through those with
13 me, the permits that are needed.

14 A. (Auseré) I'm going to look to Mr. Bowes for
15 help on that. Sorry, Ken.

16 Q. And that's fine.

17 A. (Bowes) So, at the federal level, there would
18 be a DOE, Department of Energy, Presidential
19 Permit, and also a Special Use Permit for the
20 White Mountain National Forest. So there's
21 two permits at the federal level. There are
22 other approvals from those agencies, but they
23 are coordinated with that DOE process.

24 There will be a Site Evaluation

1 Certificate, I believe is what it's called.
2 And that certificate, the New Hampshire DES,
3 New Hampshire DOT and many other agencies
4 will feed up into that permit as well.

5 The permit timing for that, to my
6 understanding, is September of this year. We
7 anticipate having the final federal permits
8 by the end of 2017. There's a process in
9 there. I think there's a 90-day period where
10 the record of decision is given and then the
11 permit is finally issued about 90 days later.
12 So we anticipate that Presidential Permit
13 process towards the end of this year. Trying
14 to think if there's any other permits that
15 are needed besides the state and federal.
16 Obviously, the permits would be required on
17 the Canadian side as well, equally, a
18 provincial and federal permit in Canada.

19 Q. I'm going to focus on the permits needed in
20 the United States. Mr. Quinlan, also in his
21 testimony, referred to "going back to FERC
22 for an amended TSA approval." Do you know
23 anything about that?

24 A. (Bowes) I personally do not, but I'm sure

1 Mike does.

2 A. (Auseré) I think we spoke about that this
3 morning. If as a result of the upcoming RFP
4 in Massachusetts, if we make material
5 amendments to the Transmission Service
6 Agreement, we'll go back to FERC for their
7 approval of those amendments. And the
8 amendment potentially we'll make is to
9 change -- a simple way to describe it is to
10 change the payor for certain of the revenue
11 requirements under the Transmission Service
12 Agreement in the early parts of its life,
13 change it from HRE to be the electric
14 utilities in Massachusetts that are part of
15 that Massachusetts RFP.

16 And I also testified earlier this
17 morning that we're still in the early
18 phases -- stages of determining how we will
19 bid into the Massachusetts RFP. So there's a
20 chance we don't do that. But if we do do
21 that, we need to go back and get FERC's
22 approval of that change, and we would do that
23 shortly out of the Massachusetts RFP. And I
24 believe it takes 60 days for FERC to review

1 and approve those changes.

2 Q. Well, as things stand now, hasn't Eversource
3 agreed with Hydro-Quebec that the Project TSA
4 will need to be amended to incorporate the
5 future event, if it occurs, of a successful
6 bid in the Massachusetts RFP?

7 A. (Auseré) We haven't decided how we're going
8 to bid into the RFP. If we -- there are
9 different ways we could approach that bid.
10 It would only be in the scenario where,
11 again, we change who's paying the revenue
12 requirements under the TSA. My understanding
13 is it would only be that scenario. That
14 would be material enough of a change to have
15 to go in front of the FERC. But, again, we
16 have to determine exactly how we're going to
17 bid into the RFP.

18 Q. Let me try it this way: Let's assume you get
19 all your permits at the federal level -- the
20 DOE, the Special Use Permit for the White
21 Mountain National Forest. Let's further
22 assume, although my clients hate this
23 assumption, that the state permit for the
24 Site Evaluation Committee is obtained, but

1 the Massachusetts RFP bid is unsuccessful.
2 Will Eversource start construction of this
3 project notwithstanding the unsuccessful bid
4 in the Massachusetts RFP?

5 MR. NEEDLEMAN: Mr. Chairman,
6 I'm going to object. I think this exact
7 question was asked of Mr. Quinlan, and he
8 already answered that.

9 CHAIRMAN HONIGBERG: He was
10 definitely asked the question. I don't know if
11 these witnesses have a different answer to the
12 question.

13 A. (Auseré) No, I don't have a different answer
14 than Mr. Quinlan.

15 Q. And I'm sorry. I was here, but I must not
16 have heard Mr. Quinlan's answer. And I
17 apologize for repeating this question. What
18 is the answer that you're adopting?

19 MR. NEEDLEMAN: I don't think
20 they're adopting anything. I don't think
21 that's --

22 CHAIRMAN HONIGBERG: Why don't
23 the two witnesses, or one of them, whoever
24 wants to speak, try and answer the question.

1 A. (Bowes) I'll try to answer the question. And
2 I would like to say that I missed a couple
3 permits along the way. There's also two
4 proceedings before the New Hampshire PUC:
5 One for road crossings and one for approval
6 of a lease agreement. So those are two other
7 milestones the Project would need.

8 I believe Mr. Quinlan stated
9 that the success of Northern Pass and the
10 commitment of both Northern Pass and
11 Hydro-Quebec did not depend upon any single
12 RFP, including the Massachusetts RFP, and
13 that once permits are received, management of
14 both companies would make a decision to go
15 forward into construction. Now, he can't
16 predetermine what that decision would be.
17 But he, I believe, was confident that we
18 would enter into construction following the
19 permit phase.

20 Q. Right. And I do recall something about
21 confidence that an agreement can be reached.
22 But it has to be mutual agreement, doesn't
23 it?

24 A. (Bowes) Yes, it does.

1 Q. And that's what the Appendix 2 to Mr.
2 Auseré's testimony says in the second
3 paragraph, doesn't it, that there needs to be
4 mutual agreement in the future on future
5 events before this project will get underway?

6 A. (Auseré) Let me look at my Appendix 2. Is
7 this in my supplemental?

8 Q. I have it here. I'll put it up on the
9 screen. It's your Appendix 2, the last pages
10 of your supplemental testimony.

11 MR. BAKER: I don't know if this
12 can be turned on now.

13 A. (Auseré) I think you're referring to the
14 amendments to the TSA, but I'm not...

15 BY MR. BAKER:

16 Q. I am, Mr. Auseré. Correct.

17 A. (Auseré) Okay.

18 Q. And I put a little box -- the only thing is I
19 put a box around the paragraph I'm asking you
20 about.

21 A. (Auseré) Yes. So, making amendments or
22 changes to the Transmission Services
23 Agreement requires approval of both NPT and
24 HRE.

1 Q. Right. And this amendment contemplates that
2 there will need to be future agreement; does
3 it not?

4 A. (Auseré) If we make an amendment to the TSA,
5 it requires approval of both parties. Now,
6 this is in contemplation of bidding into the
7 Massachusetts RFP. We would have made those
8 agreements between the two parties as we go
9 into that RFP process, not on the other side
10 of it.

11 Q. I understand. But that's an event in the
12 future that may or may not be completed
13 before this proceeding before the New
14 Hampshire Site Evaluation Committee is
15 completed; correct?

16 A. (Auseré) Correct. But if we don't amend the
17 TSA, then we still have the TSA that's in
18 place today.

19 Q. I understand. But this agreement requires
20 Hydro-Quebec's agreement before you go ahead
21 with construction under any circumstances;
22 does it not?

23 A. (Auseré) For us to move into construction, we
24 need all the applicable permits. We don't

1 require -- we don't need HRE's approval. In
2 other words, we already have an agreement in
3 place today for us to proceed with
4 construction. We need the construction
5 permits.

6 Q. Well, let's examine that for just one more
7 minute.

8 MR. BAKER: And I'm going to go
9 over my ten minutes with this, if it's all
10 right, Mr. Chairman.

11 BY MR. BAKER:

12 Q. When the TSA was originally approved by FERC
13 in, I believe early 2011 -- am I correct with
14 that date?

15 A. (Auseré) That's correct. Early 2011.

16 Q. I know it was amended after that. This was
17 labeled by FERC as a "participant-funded
18 project"; was it not?

19 A. (Auseré) Correct.

20 Q. All right. What does that mean?

21 A. (Auseré) It means, in simple terms, that HRE
22 is paying for the cost of the Project --

23 Q. Right. And --

24 A. (Auseré) -- in exchange for the transmission

1 service.

2 Q. And FERC was told that HRE or Hydro-Quebec
3 and its affiliates were going to use this
4 project to sell power into the New England
5 market under the control of ISO-New England
6 at what was called "market wholesale rates";
7 correct?

8 A. (Auseré) Correct.

9 Q. Right. And if the wholesale market went down
10 and the Project was not worth the money that
11 was invested, who took the risk of loss?

12 A. (Auseré) I'm sorry. Repeat your question
13 again.

14 Q. If the Project was built and the wholesale
15 market price continued to decline, which it
16 has, who is going to absorb the risk of loss
17 on this project?

18 A. (Auseré) That would be HRE.

19 Q. Right. Now, HRE has announced publicly in a
20 press release that it will not pay for this
21 Project. It will not take any risk of loss,
22 that it will only make money with this
23 project under its plans. Are you aware of
24 that?

1 A. (Auseré) If you could show me those
2 statements. There's been a fair number of
3 articles.

4 Q. It's been out before. I know Counsel for the
5 Public went into that. Let's move along.

6 Right now, HRE is looking for a
7 long-term contract, a power purchase
8 agreement for 20 years, where it will be
9 guaranteed enough revenue under this project
10 to perform its obligations under the old TSA.
11 Isn't that what they're looking for?

12 A. (Auseré) They're looking to compete into the
13 Massachusetts RFP and ultimately be
14 successful.

15 Q. Right. And they're looking to shed some or
16 all of the risk of loss; are they not?

17 A. (Auseré) I can't speak to Hydro-Quebec or
18 HRE's ultimate plans for use of the line.

19 Q. Well, that's my whole point, sir. If this
20 agreement requires mutuality of agreement in
21 the future with respect to how you proceed,
22 and you have no idea what Hydro-Quebec's
23 negotiating strategy will be, how are we ever
24 going to be assured this project will be

1 built, even if you get all your permits in
2 the United States?

3 A. (Auseré) I think the most accurate statement
4 that's out there came out in the joint press
5 release that we issued at the end of March,
6 and I believe both of the CEOs in that
7 statement stated their plans to proceed with
8 the Project and that it's not dependent on
9 success in one RFP.

10 Q. Does Eversource base its business decisions
11 of the future on what parties it's
12 negotiating with, say, in press releases? Or
13 does it require amendments executed by those
14 parties to the agreements that it's looking
15 to perform?

16 A. (Auseré) I'm not sure I understand your
17 question, because the TSA, as it stands, is
18 an effective document. There's not a
19 requirement for Hydro-Quebec or HRE to
20 approve moving forward. Now, if the Project
21 were to become uneconomic for them, they do
22 have rights in that scenario. But right now,
23 we have an active agreement between the two
24 counter-parties.

1 Q. And you have an amendment that's
2 aspirational, looking into the future for
3 circumstances where you can mutually agree on
4 going forward; isn't that correct?

5 A. (Auseré) It's not -- that's not correct. We
6 point out in here that we may amend the TSA.
7 But again, we haven't determined our bid
8 strategy into the Massachusetts RFP.

9 Q. What does the word "notwithstanding" mean to
10 you?

11 A. (Auseré) Oh, I'm not a lawyer.

12 Q. Okay. Thank you.

13 MR. BAKER: I have no further
14 questions.

15 CHAIRMAN HONIGBERG: All right.
16 Ms. Lee, do you have questions for this panel?

17 MS. LEE: Not at this time.

18 CHAIRMAN HONIGBERG: The
19 Deerfield Abutting Property Owners. It says
20 Mr. Cote or a substitute. All right. Looks
21 like we have people coming up.

22 Let's go off the record for
23 just a second.

24 (Discussion off the record)

1 CHAIRMAN HONIGBERG: All right.
2 Ms. Bradbury, you may proceed.

3 MS. BRADBURY: My name is Jo
4 Anne Bradbury. I am a member of the Deerfield
5 Abutters Group, and I have some questions for
6 Mr. Bowes today. My friend and fellow abutter,
7 Bob Cote, will be asking questions of Mr.
8 Auseré, different questions on really more
9 financial issues. My questions are for Mr.
10 Bowes, probably entirely on public health and
11 safety and the safety and security that you,
12 Mr. Bowes, described in your prefiled testimony
13 from February of 2016. Okay? All set?
14 Everybody got that package of pictures?

15 CROSS-EXAMINATION

16 BY MS. BRADBURY:

17 Q. Okay. So, Mr. Bowes, the Northern Pass
18 Project calls for the major expansion of the
19 Deerfield Substation; correct?

20 A. (Bowes) Yes, it does.

21 Q. Yeah. That expansion includes roughly
22 15 acres of clearing and 8 acres for a new
23 substation; is that right? Have I got that
24 right?

1 A. (Bowes) Yeah, I didn't think it was that
2 amount of clearing. I thought 8 acres was
3 the size of the clearing that would be done.

4 Q. Okay. Well, we've been told it would be
5 15 acres. We think that it's going to be
6 15 acres, based on what we've been told.

7 But in any event, you agree that it is a
8 sizeable increase in the substation to
9 accommodate the new high-voltage lines; is
10 that right?

11 A. (Bowes) Yes, I do.

12 Q. Okay. And the expanded substation will house
13 a greater number of hazardous materials than
14 it currently has in there now; is that
15 correct?

16 A. (Bowes) So I'm not aware that we store any
17 hazardous materials in the substation today,
18 nor will we in the future.

19 Q. Transformer fluid is not considered a
20 hazardous material?

21 A. (Bowes) It is not.

22 Q. Well, okay. Fair amount of oil out there?

23 A. (Bowes) It's mineral oil, so it's not
24 hazardous material.

1 Q. Okay. All right. Any substation, but
2 especially the one that would be the size of
3 the expanded Deerfield Substation, is at risk
4 of fire; is that correct?

5 A. (Bowes) Yes.

6 Q. And you agree that fire or explosion in a
7 substation poses a significant threat to
8 nearby residents and to emergency personnel?

9 A. (Bowes) I'm not sure I would say that, no.

10 Q. You don't think a fire in a substation or
11 explosion would pose a threat to people who
12 live near it?

13 A. (Bowes) I do not.

14 Q. Well, do you agree that these substation
15 fires can cause significant smoke plumes?

16 A. (Bowes) So I would say that substation fires
17 are fairly rare events and --

18 Q. But if there is a substation fire, do you
19 agree that there would be a significant smoke
20 plume, if it's a bad enough fire?

21 A. (Bowes) It could be, yes.

22 Q. Okay. And those are toxic fumes, as with any
23 fire; correct?

24 A. (Bowes) I do not know if they're toxic or

1 not.

2 Q. Well, are you aware that most firefighters
3 will tell you that people who die in fires
4 don't actually die from the fire, that they
5 die from the fumes and the smoke?

6 A. (Bowes) That's probably true, but that
7 doesn't mean that --

8 Q. Okay. So would you agree that a fire in the
9 expanded Deerfield Substation would likely
10 necessitate the evacuation of nearby
11 residents?

12 A. (Bowes) I would not.

13 Q. No? Okay. So there's no concern of a health
14 hazard posed by toxic smoke plumes in close
15 proximity to the substation? Not concerned
16 about the effects of smoke on nearby
17 residents if there is a fire or explosion?

18 A. (Bowes) Not specifically, no.

19 Q. No health hazard?

20 A. (Bowes) I did not say that. I'm probably not
21 the best person to judge the health hazard.

22 Q. Well, who would be? You speak of health and
23 safety and security in your prefiled
24 testimony. Who would be the right person to

1 ask?

2 A. (Bowes) I do, but I don't speak of the health
3 aspects.

4 Q. Who would be the right person for us to ask
5 that question?

6 A. (Bowes) I know there's a public safety panel
7 coming up later in the week.

8 Q. And the names?

9 A. (Bowes) I believe Dr. Bailey, but I'm not
10 sure he has expertise in health for smoke
11 inhalation.

12 Q. Anyone besides Dr. Bailey?

13 A. (Bowes) Not that I'm aware of.

14 Q. Okay. All right. So you would not agree
15 that smoke, toxic smoke plumes would pose
16 risks not only to residents but to emergency
17 response personnel?

18 A. (Bowes) So, again, we have some protocols
19 with local emergency response personnel.
20 They are not to enter the substation until
21 the substation area is made safe.

22 Q. Yeah.

23 A. (Bowes) So we would work with them if a rare
24 event were to occur.

1 Q. So the smoke plumes are going to continue
2 until the fire is put out by the firemen;
3 correct?

4 A. (Bowes) Or unless it burns itself out, yes.

5 Q. Okay. And as you just said, firefighters are
6 instructed not to enter a fire at a
7 substation without an Eversource person
8 there; correct?

9 A. (Bowes) That is correct.

10 Q. And that's because the high-voltage lines
11 pose an increased risk of harm?

12 A. (Bowes) That's one of the reasons, yes.

13 Q. Okay. So you would agree that prompt
14 response time from an Eversource team is
15 critical in a situation like that.

16 A. (Bowes) My only hesitation is that many of
17 the things are monitored at our control
18 center, so they will know instantaneously if
19 there's a fault on the system and take
20 immediate action. So, by that nature we do
21 monitor the substations and have full-time
22 response personnel available.

23 Q. Okay. So, "immediate action" to me says
24 prompt response time is something you guys

1 think is important.

2 A. (Bowes) From the control center, yes,
3 definitely.

4 Q. Okay. Are you aware that Eversource
5 personnel have had issues with slow response
6 time to substation fires?

7 A. (Bowes) I'm aware of the one in the package
8 here at Cos Cob Station service transformer.

9 Q. Yeah.

10 A. (Bowes) The control center took immediate
11 action to isolate the piece of equipment.
12 And we dispatched personnel, and they were
13 not available to respond immediately;
14 however, the fire department maintained a
15 safe distance outside the substation. They
16 did not enter, and no one was harmed by smoke
17 or electric hazard from that fire.

18 Q. That's good. I'm glad no one was harmed.

19 You're aware that Eversource was
20 notified of the fire about 9:25 in the
21 morning, but they didn't -- they weren't able
22 to cut the power until after 11 in the
23 morning, at that time, only at that time,
24 allowing firefighters to get in to fight the

1 fire; isn't that correct?

2 A. (Bowes) So that's a different one than I was
3 speaking to.

4 Q. Well, I'm not talking about --

5 (Court Reporter inquiry)

6 CHAIRMAN HONIGBERG: Ms.

7 Bradbury, just slow down a little bit. That's
8 all.

9 MS. BRADBURY: Okay.

10 BY MS. BRADBURY:

11 Q. So if you'd look at Exhibit 15, Deerfield
12 Abutter 15.

13 (DFLD ABTR EXHIBIT 15 marked for
14 identification.)

15 A. (Bowes) Yes, I have it.

16 Q. That's the substation fire in Centerville,
17 Massachusetts. And Eversource was notified
18 of that fire at 9:25 in the morning, but your
19 Eversource personnel did not cut the power
20 until after 11 a.m., and at that time that
21 allowed the firefighters to fight the fire.
22 And in the meantime, the fire continued to
23 burn. You see the picture on the front?

24 A. (Bowes) Yes, I do.

1 Q. What do you see in the picture?

2 A. (Bowes) I see a fire and smoke.

3 Q. Hmm-hmm. And there's a truck there. The
4 firefighters did get there. But it took an
5 hour and a half to get in and fight that
6 fire; correct?

7 A. (Bowes) And that is fairly common. Just
8 because we arrive on the scene and the fire
9 department is there does not mean we enter
10 the substation to fight the fire.

11 Q. All right. Okay. So the thick black smoke
12 was continuing to pour out of the substation
13 until they were told it was okay to go in and
14 fight the fire.

15 A. (Bowes) And maybe a portion of time after
16 that, too.

17 Q. Okay. Yes.

18 (DFLD ABTR Exhibit 16 marked for
19 identification.)

20 Q. Okay. And you're also aware, obviously, of
21 the situation in Cos Cob, Connecticut. That
22 was Exhibit 16. There was a substation fire
23 there as well; correct?

24 A. (Bowes) Yes.

1 Q. And that took place in June of 2015; correct?

2 A. (Bowes) Hmm-hmm.

3 Q. And once again, the fire department notified
4 Eversource, but the necessary personnel were
5 not able to cut the power for well over an
6 hour and a half; is that correct?

7 A. (Bowes) Yes.

8 Q. And Cos Cob is pretty developed; right?

9 A. (Bowes) Yes.

10 Q. It's, you know, lots of houses. Okay.

11 A. (Bowes) Not adjacent to the substation, no.

12 Q. Okay. Do you agree that a hazardous material
13 team would be called in the event of a fire?

14 A. (Bowes) I'm not sure what a "hazardous
15 material team" is.

16 Q. Hazmat team? You don't know what a Hazmat
17 team is?

18 A. (Bowes) Not specifically, no.

19 Q. Okay.

20 A. (Bowes) This is for the substation clean-up
21 after you mean or --

22 Q. In the case of a fire where there's toxic
23 fumes pouring into the atmosphere on a windy
24 day.

1 A. (Bowes) No, I'm not.

2 Q. Okay. Well, for Deerfield, we do have a
3 Hazmat team that is at least 30 minutes away.
4 That's as soon as we could get one. And to
5 the extent there's anything hazardous that
6 needs to be dealt with in a substation fire
7 explosion, just let me inform you that it's
8 at least 30 minutes away before we can get
9 those there, and probably a little longer.

10 As you know, Deerfield is rural. We
11 don't have a stop light. Got a couple of
12 stop signs. It's located at least 30 minutes
13 from the nearest city. Wouldn't you agree
14 that given Deerfield's remote location, that
15 the expanded substation poses a health and
16 safety risk to the Deerfield residents?

17 A. (Bowes) I would not.

18 Q. All right. Are you aware that Deerfield has
19 a volunteer force of roughly 17 firefighters
20 and 10 volunteer rescue squad members?

21 A. (Bowes) I did not know the specific numbers,
22 no.

23 Q. Well, now you know.

24 Are you also aware it has a paid police

1 department of eight full-time officers?

2 A. (Bowes) I did not know.

3 Q. Okay. Well, are you aware that those folks,
4 those emergency responders, are responsible
5 for a town that's 52 square miles, with
6 80 miles of road?

7 A. (Bowes) I did not know that.

8 Q. Okay. Well, that's how big Deerfield is. So
9 wouldn't you agree that the Northern Pass
10 expanded substation will increase the demands
11 on Deerfield's first responders?

12 A. (Bowes) I think from the standpoint of
13 training, there may be some training needs
14 for Deerfield firefighters and responders.
15 So in that regard, I guess there would be an
16 increase on their training requirements. But
17 we've had a substation there for many
18 decades, and although it's expanded, it
19 really doesn't change the nature of operation
20 or response that we expect from Deerfield.

21 Q. Well, it's bigger. It's going to have --
22 there's more to it than the smaller
23 substation that's there now. And if there is
24 an explosion or fire at the substation, don't

1 you agree that it calls for more from the
2 Deerfield first responders, in that it's
3 bigger?

4 A. (Bowes) I suppose you could make that
5 assumption that it's now a larger substation,
6 so there might be more exposure from
7 electrical equipment.

8 Q. Thank you. Okay. I'm moving away from fires
9 now.

10 Would you agree that with this project
11 there is a risk of tower collapse?

12 A. (Bowes) I would say there is a small risk of
13 tower collapse, yes. We designed the system
14 to the National Electric Safety Code. In
15 this case, the Northern Pass structures would
16 be designed for heavy wind loading and heavy
17 ice loading for transmission structures, and
18 it's the most severe structure design that we
19 have on our system. And our operating
20 experience with transmission structures has
21 been quite good. We have had structure
22 failures when a tree or something from off
23 the right-of-way -- a tree from off the
24 right-of-way in this case has come down on a

1 conductor and has broken either arms off a
2 monopole or created a lattice -- crumpling of
3 a lattice structure.

4 MR. NEEDLEMAN: Mr. Chair, these
5 types of questions I would just note are
6 squarely within the construction testimony, and
7 I know there is testimony that speaks to these
8 sorts of things which is not in evidence now.
9 Of course, if Ms. Bradbury wants to continue,
10 that's fine, but I would think then we would
11 not see these questions again later.

12 CHAIRMAN HONIGBERG: Ms.
13 Bradbury, if you would be asking this witness
14 the same questions another time, what Mr.
15 Needleman says is right. You're going to get
16 one crack at this. If you want to do it now,
17 that's fine.

18 MS. BRADBURY: Right. We're
19 good with it now.

20 CHAIRMAN HONIGBERG: Okay.

21 MS. BRADBURY: We looked at
22 this. We agree it overlaps with construction,
23 but it's also on the subject of public health
24 and safety, and we didn't want to lose our

1 opportunity to raise these as part of public
2 health and safety.

3 CHAIRMAN HONIGBERG: This is
4 your shot then. Go ahead.

5 MS. BRADBURY: Okay.

6 BY MS. BRADBURY:

7 (DFLD ABTR Exhibit 17 marked for
8 identification.)

9 Q. So if you would look at Deerfield Abutter 17,
10 there's a newspaper article with two
11 pictures. Do you agree that towers and lines
12 have collapsed in this exhibit? One tower is
13 bent, and on the other page, the next page
14 you will see that others have fallen to the
15 ground. One's just bent over halfway up just
16 before the three extend -- right angles that
17 come out from it, and the others are lying on
18 the ground. Do you see that?

19 A. Yes, I do.

20 Q. All right. Would you agree that the most
21 common cause of tower collapse is severe
22 weather?

23 A. (Bowes) Yes, I would.

24 Q. Okay. Do you have an understanding that the

1 severity of extreme weather events is
2 increasing? You wouldn't dispute that, would
3 you?

4 A. (Bowes) It certainly seems that way, I would
5 say in the last, say, five years. It seems
6 like the weather, both the frequency of
7 events and the severity of events, is getting
8 more commonplace.

9 Q. Okay. Great. Also, tower collapse can occur
10 from high wind; right?

11 A. (Bowes) Yes.

12 (DFLD ABTR Exhibit 19 marked for
13 identification.)

14 Q. Would you look at Deerfield Abutter 19.

15 A. (Bowes) Yes, I have it.

16 Q. That was a high wind situation. And you
17 agree it also -- I think you already
18 mentioned this. It also can occur with
19 icing, if you look at Abutter 20 --

20 MR. NEEDLEMAN: Mr. Chair,
21 before you go forward, I'm going to object to
22 19. There's no information on this exhibit
23 that talks about what the purpose or the basis
24 for why the tower collapse occurred.

1 MS. BRADBURY: Well, it --

2 CHAIRMAN HONIGBERG: Ms.

3 Bradbury.

4 MS. BRADBURY: It does indicate
5 that there was a storm that wreaked havoc on
6 major transmission lines.

7 CHAIRMAN HONIGBERG: You can
8 proceed.

9 MS. BRADBURY: Thank you.

10 BY MS. BRADBURY:

11 Q. So you agree that a tower collapse can occur
12 where there's not icing -- well, actually,
13 yeah, that's in my Exhibit 20. Wait.

14 MS. BRADBURY: So the objection
15 was to 19. That was wind. Okay. So we're
16 good to go with 20.

17 So we've got 19, which were
18 winds; right?

19 MR. NEEDLEMAN: That's the
20 objection.

21 CHAIRMAN HONIGBERG: You've
22 supplied information that isn't in the exhibit.
23 How do you know this was wind?

24 MS. BRADBURY: Just on the

1 belief that storms come with wind. They don't
2 just -- because I read the article. And if you
3 see the link that's listed there, it refers to
4 a wind event.

5 CHAIRMAN HONIGBERG: Yeah, what
6 I see is a link, which doesn't have any text
7 associated with it. You're going to be allowed
8 to proceed. Just understand the limitation of
9 the usefulness of a picture like this when the
10 only information supplied about the underlying
11 information was supplied by you, not by
12 anything outside.

13 MS. BRADBURY: Well, we lifted
14 that heading right out of the article. I
15 didn't make any of it up.

16 CHAIRMAN HONIGBERG: I
17 understand that. Just understand the
18 limitation of the usefulness of the document.
19 But you can use it. We've already said that.
20 And you can proceed.

21 MS. BRADBURY: Thank you.

22 MR. ROTH: Mr. Chairman --

23 CHAIRMAN HONIGBERG: Who's
24 speaking?

1 MR. ROTH: Sorry. Peter.

2 CHAIRMAN HONIGBERG: Peter.

3 Yes.

4 MR. ROTH: Could we stipulate
5 that wreaking havoc in a storm is likely a wind
6 event as a matter of logic and reason, and that
7 South Australians are unlikely to experience an
8 ice storm?

9 CHAIRMAN HONIGBERG: I don't
10 think anybody can or should stipulate to that,
11 but I understand the point. The document's in,
12 you know, it's being used. She's asking
13 questions about it. She's supplied more
14 information orally than is in here. And I
15 think you would advise someone doing this,
16 wouldn't you, Mr. Roth, that it would be better
17 to have supplied the text; would it not?

18 MR. ROTH: Certainly.

19 CHAIRMAN HONIGBERG: Yes. Thank
20 you, Mr. Roth.

21 MS. BRADBURY: Okay. Thank you.

22 (DFLD ABTR Exhibit 20 marked for
23 identification.)

24

1 BY MS. BRADBURY:

2 Q. So, in Exhibit 20 we have an icing situation,
3 although from the picture you cannot see the
4 ice, but from the article you can read that
5 it was caused by ice; correct?

6 A. (Bowes) That's what it says, yes.

7 Q. Okay. And you're aware also -- so that's
8 just a photograph of what can happen with
9 ice.

10 And in January of 1998, I'm sure you're
11 aware that there was an ice storm across
12 Canada and New England that resulted in the
13 extensive collapse of towers?

14 A. (Bowes) Yes, I'm very aware. Personally
15 aware, actually.

16 Q. Thought you would be. In fact, there were
17 over 1,000 towers, with at least 130 major
18 structures that collapsed in Canada alone; is
19 that correct?

20 A. (Bowes) Sounds about right, yes.

21 Q. They had several thousand kilometers of power
22 lines and telephone cables that were -- back
23 then that cost about \$100,000 apiece that
24 were toppled; correct?

1 A. (Bowes) I will accept that, yes.

2 Q. And more than 30,000 wooden utility poles
3 valued at about \$3,000 apiece were brought
4 down; right?

5 A. (Bowes) I will accept that as well, yes.

6 Q. We got that from "Ice Storm '98," Institute
7 of Catastrophic Loss.

8 MR. NEEDLEMAN: I'm going to
9 object.

10 CHAIRMAN HONIGBERG: Yeah, Ms.
11 Bradbury, you just supplied information again
12 in the nature of testimony about what happened.

13 MS. BRADBURY: Oh, well --

14 CHAIRMAN HONIGBERG: Now, Mr.
15 Bowes I think has some understanding of what
16 happened and seems willing to accept your
17 representations about what happened. But,
18 again, that's not in the exhibit you've given
19 us. It's information that you've brought to
20 the table from another source. I'm not --
21 pretty much what's done is done here, and
22 you've had your conversation with Mr. Bowes.
23 I'm just, I think, maybe suggesting to you
24 that, again, there's limited usefulness of

1 information that you bring, sponsored by Ms.
2 Bradbury herself, about a storm that happened
3 in Canada versus some other source of
4 information there. Now, it actually sounds
5 like Mr. Bowes knows something about this and
6 was willing to accept your representations
7 about what happened, which works out just fine.
8 But it's not always going to work out so fine
9 in situations like this. Okay?

10 MS. BRADBURY: Yes, I
11 understand. Thank you.

12 BY MS. BRADBURY:

13 Q. So, given the size of the towers from 1998
14 that you have a familiarity with, their
15 collapse, if someone happened to be in the
16 wrong place at the wrong time, could result
17 in loss of life; correct?

18 A. (Bowes) It's certainly theoretically
19 possible.

20 Q. Would you agree that is especially true with
21 the towers close to homes or buildings?

22 A. (Bowes) So I'm not aware of the tower
23 collapses or wood poles that broke during the
24 Hydro-Quebec storm that actually fell on a

1 person. So that was probably a very extreme
2 case of weather, so I'm not aware that that
3 actually -- that there was causal effect with
4 a human life.

5 Q. Right, not in the ice storm of '98. That's
6 fine.

7 Are you familiar with Sherburne Woods, a
8 senior housing project located at No. 1 Upham
9 Drive in Deerfield Center? We've got some
10 information on it --

11 A. (Bowes) Yeah. I've actually been there.

12 Q. Okay. So that's our Exhibit 23.

13 Are you -- you must -- you've been
14 there. So you're aware that those buildings
15 are right next to the right-of-way. As you
16 can see in Exhibit 24, you can see the
17 right-of-way on the bottom and you can see
18 those buildings right next to it.

19 A. (Bowes) Yeah, and it's a fairly new complex.
20 So, again, people chose to locate next to the
21 right-of-way.

22 Q. To the existing right-of-way, yeah.

23 A. (Bowes) Yeah.

24 Q. With those existing towers. Correct.

1 Okay. The proposed high-voltage line is
2 just an additional 35 feet from the very edge
3 of the right-of-way; is that correct? In
4 that area.

5 A. (Bowes) That's probably a question that would
6 be better to hold for the construction panel,
7 where we can bring up the right-of-way
8 profile and the actual structure locations.

9 Q. Okay. But you can see the trees between the
10 buildings and lines and the towers that are
11 there now; is that correct?

12 A. That is correct. There are some very low
13 shrubs I think is all that's there.

14 Q. And do you agree that collapse of the towers
15 and lines would put the Deerfield residents
16 in harm's way at that area?

17 A. (Bowes) I do not.

18 Q. You do not. So if the towers fell right in
19 that area because of a strong wind or ice,
20 you don't think anyone would get hurt?

21 A. (Bowes) I do not.

22 Q. Okay. So you don't think that there is a
23 significant risk of injury and death if that
24 were to happen?

1 A. (Bowes) I do not.

2 Q. Okay. Would you agree that the collapse of
3 the towers may fall in any direction,
4 depending on the direction and strength of
5 wind in a wind storm?

6 A. (Bowes) I would say it is theoretically
7 possible, although highly unlikely. They're
8 going to be constrained by the conductors
9 themselves.

10 Q. Okay. Are you aware that in the past few
11 years, Deerfield, or a few years back,
12 Deerfield had an F2 tornado? And not just
13 two years back, but from time to time in the
14 summer months we have instances of
15 straight-line winds.

16 A. (Bowes) Yes, I am aware.

17 Q. So, given the right wind direction, wouldn't
18 it be possible for high voltage power lines
19 to fall on the senior housing community?

20 A. (Bowes) Again, theoretically possible, but
21 highly unlikely.

22 Q. Have you driven Route 107 between Deerfield
23 and Northwood?

24 A. (Bowes) Not recently, no.

1 Q. So you haven't seen the big, wide swath taken
2 out by the tornado?

3 A. (Bowes) I have not. I have seen similar ones
4 in Sturbridge, Mass. and Great Barrington,
5 Massachusetts, but I have not seen that
6 particular one.

7 Q. Okay. All right. So would you agree that
8 when the tower and line collapse occurs, it
9 can block roads?

10 A. (Bowes) We've certainly had conductors come
11 down on roadways. I've never seen a
12 structure come down on a roadway other than a
13 distribution wood pole.

14 Q. If it did come down, would you agree that it
15 would block the road --

16 A. (Bowes) If it came --

17 Q. It's possible that it would block the road?

18 A. (Bowes) If it came across the roadway, yes,
19 it could block the road.

20 Q. Okay. And I apologize for stepping on your
21 answer. Try not to do that.

22 If it does come down across the road,
23 this can result in delayed response time for
24 the emergency services; correct?

1 A. (Bowes) Again, it's a hypothetical. You'd
2 certainly have probably many more trees down
3 across that same roadway which would hamper
4 response time probably much more than a
5 single transmission structure would.

6 Q. But if the structure came down, you agree it
7 could block the road?

8 A. (Bowes) It could, yes.

9 Q. Okay. Are you familiar with the location of
10 the Deerfield Volunteer Fire Department at
11 No. 4 Church Street in Deerfield Center?

12 A. (Bowes) Yes, I am.

13 Q. Okay. Do we have Exhibit 25, Jeannie?

14 MS. MENARD: Yeah, it's up.

15 BY MS. BRADBURY:

16 Q. Ah, there's the fire station. And you can
17 see it's down there near Jeannie's finger.
18 Just north of the volunteer fire department
19 is the right-of-way. You can see where
20 Northern Pass will construct its monopoles
21 and lattice towers; right?

22 A. (Bowes) I see the right-of-way, yes.

23 Q. Okay. The right-of-way crosses Church Street
24 and then Routes 43 and 107. Are you aware

1 that those roads are the primary access roads
2 for the town's emergency vehicles, fire and
3 rescue?

4 A. (Bowes) I am not, but I'm willing to accept
5 that.

6 Q. Okay. On the other side of the right-of-way
7 you'll see Deerfield Community School, which
8 serves Deerfield's K through 8, eighth-grade
9 students, and it's also the town's primary
10 shelter in disasters. Do you see that?

11 A. (Bowes) Yes, I do.

12 Q. Would you agree that the collapse of just
13 five or six towers would result in both of
14 those primary access roads being blocked?
15 You can see the towers behind the town
16 center, they run right through there.

17 A. (Bowes) From the Deerfield Fire Department --

18 Q. Yes.

19 A. (Bowes) -- towards the school?

20 Q. Yes.

21 A. (Bowes) I understand the question then. And
22 if those towers were all to come down, they
23 could block two of the roadways, yes.

24 Q. Well, they wouldn't have to all come down,

1 would they? Well, five or six of them.

2 Okay. They would block it, yes. So they
3 would have to go all the way around in a
4 circuitous route to make it to the school.

5 Would you agree that the emergency
6 responders would have to drive that far
7 around all through that?

8 A. (Bowes) If roads were blocked, yes, they
9 would have to drive around.

10 Q. Okay. And would you agree that that delay in
11 their response time could pose a risk to
12 residents of Deerfield?

13 A. (Bowes) It's a hypothetical. But yes,
14 response time could change the --

15 Q. Okay. Now, with respect to terrorism, would
16 you agree with Mr. Quinlan's testimony last
17 Thursday that electrical substations are more
18 likely targets of terrorism than the towers
19 and lines themselves?

20 A. (Bowes) I would have to say yes, from the
21 standpoint that they are subject to both
22 physical and cyber terrorist activity.

23 Q. Okay. In a rural substation like Deerfield,
24 given their isolation, it could prove to be a

1 very attractive target to people interested
2 in terrorism; is that correct? Would you
3 agree with that?

4 A. (Bowes) I'm not sure the rural nature would
5 create any additional risk to the substation
6 than any urban setting.

7 Q. Okay. Would you agree that damaging the
8 infrastructure that supplies power to a large
9 segment of the population is usually one of
10 the terrorists' goals, as far as what we know
11 what terrorists' goals are? Would you agree?

12 A. (Bowes) So, my experience is that it's
13 usually as much about creating the fear and
14 having a visual indication of the attack than
15 it is inflicting physical damage. That's why
16 I erred on an urban substation where you're
17 going to have a higher profile event might be
18 a higher risk target than a rural substation.

19 Q. Okay. You're aware that five of the
20 September 11 hijackers came down through
21 New Hampshire from Maine to go to Boston?
22 They know where we live. Are you aware of
23 that?

24 MR. NEEDLEMAN: Mr. Chair, I'm

1 going to object at this point to relevancy.

2 CHAIRMAN HONIGBERG: Sustained.

3 MS. BRADBURY: Well -- okay.

4 BY MS. BRADBURY:

5 Q. Given the fact of Deerfield's available
6 police force, would you agree that
7 maintaining the security of the expanded
8 substation presents a significant burden on
9 the town and its residents?

10 A. (Bowes) I do not.

11 Q. You don't? Okay. That's all I have. Thank
12 you for your time.

13 MS. BRADBURY: Thank you, Mr.
14 Chairman. Really is my last question.

15 CHAIRMAN HONIGBERG: I
16 understand. Perfect. Thank you.

17 Mr. Cote, how long do you
18 think you have, just as a guide?

19 MR. COTE: Ten minutes.

20 CHAIRMAN HONIGBERG: All right.
21 Let's do it and then we'll take our break.

22 MR. COTE: My questions
23 initially are for Mr. Auseré.

24

1 CROSS-EXAMINATION

2 BY MR. COTE:

3 Q. When you did your original testimony, was
4 your role different with Eversource than it
5 is now?

6 A. (Auseré) My title was different. I was the
7 Vice-president of Energy Planning and
8 Economics. So I had a different title, but
9 my role hasn't substantively changed.

10 Q. Okay. So in that role, did you have any
11 interaction or responsibility with Julia
12 Frayer and London Economics regarding their
13 work?

14 A. (Auseré) No, actually.

15 Q. Okay. Well, that throws off my line of
16 questioning.

17 So did you -- are you familiar with her
18 work, or did you interact with her at all, or
19 London Economics, during the course of that
20 work?

21 A. (Auseré) I did not.

22 Q. So who -- I guess who would that be if I have
23 any follow-up questions? I realize Ms.
24 Frayer will be here to answer questions. But

1 there's some aspects of her work that she
2 wasn't tasked to do, and I'm wondering who in
3 the witness list might be able to provide
4 feedback on what she was asked to do and what
5 she was not asked to do and why.

6 CHAIRMAN HONIGBERG: Mr.
7 Needleman.

8 MR. NEEDLEMAN: I think that
9 would be a question for the witness. That was
10 a fairly common question at the technical
11 sessions: What was your task? What was your
12 scope and so forth?

13 CHAIRMAN HONIGBERG: Who was
14 directing Ms. Frayer's work?

15 MR. NEEDLEMAN: It was mostly
16 the legal team, I would think.

17 CHAIRMAN HONIGBERG: So it
18 seems, Mr. Cote, the appropriate thing to do is
19 ask Ms. Frayer herself what she was tasked with
20 doing and how she went about doing it.

21 MR. COTE: Well, for example, I
22 know from the technical sessions that she was
23 not tasked to look at any other alternatives.
24 And I was -- I guess my question was why was

1 she not, for example, asked to evaluate the
2 Project, if it had greater segments
3 underground, for how that would affect jobs,
4 how that would affect the economic analysis,
5 and would there still be significant economic
6 benefit. And during the technical sessions,
7 the response I got was, "I can't comment on
8 that. I was not asked to do it."

9 CHAIRMAN HONIGBERG: All right,
10 all right. I understand. So, here's the
11 thing. If you ask these witnesses if they
12 interacted with Ms. Frayer and directed her and
13 they say no, that's going to be what you get.
14 When you ask her what she was tasked with doing
15 and she says she didn't do that, that's what
16 you're going to get. If at the end of the case
17 you are dissatisfied with the level of analysis
18 that was performed, you're going to make an
19 argument based on that. I'm not going to tell
20 you what that argument is, but you can probably
21 figure it out. And you should ask the
22 witnesses what you just asked Mr. Auseré, and
23 when they all say they didn't direct her,
24 that's your answer.

1 MR. COTE: Okay. Understood.

2 BY MR. COTE:

3 Q. Now, in various parts of the testimony,
4 estimates were made about the economic
5 benefits. And again, this may not be a
6 question you can answer. But do you know, in
7 terms of dollars per household in New
8 Hampshire, what expected savings might be for
9 a typical resident after, for the first, I
10 guess, 10-year analysis for the Project that
11 people are using? Do you have --

12 A. (Auseré) Unfortunately, that's outside the
13 scope of what I testified to. And as I
14 previously mentioned, I did not interface
15 with Ms. Frayer and the LEI team.

16 Q. But your role is economic development, market
17 analysis and project analysis. But that's
18 not information -- I just want to confirm.
19 That's not information that you would have --

20 A. (Auseré) My role is primarily business
21 development. And no, I did not have any
22 interaction with Julia on that work.

23 Q. Okay. If the Project has a cost overrun and
24 ends up costing, say, \$1.8 billion instead of

1 \$1.6 billion, how will that be handled?

2 A. (Auseré) So in that scenario, NPT would be
3 building, constructing and operating a more
4 significant project. So, more expense and
5 presumably more scope would come along with
6 that. We would continue to provide -- we,
7 being NPT, would provide HRE with
8 transmission service over the line, including
9 the larger-scope project, and in return, HRE,
10 or the Hydro-Quebec subsidiary, would pay for
11 that service. And the payment for that
12 service is calculated under a formulaic rate.
13 And the rate would actually increase. In
14 your example, where the cost of the Project
15 rose from 1.6 to 1.8, under the formulaic
16 rate under the Transmission Service
17 Agreement, HRE would be paying a larger sum.
18 Now, what that sum is, I don't know.

19 Q. So is it reasonable to assume that that
20 additional cost would be passed on through
21 their contracts for power sales?

22 A. (Auseré) No, that's not necessarily the case.
23 So I'll just continue with kind of the
24 business model.

1 So, in this example, the cost HRE pays
2 for transmission service would increase. In
3 any scenario, HRE/Hydro-Quebec will use
4 Northern Pass, as well as their own
5 infrastructure in Canada, the line as well as
6 the generation fleet, to produce power and
7 then move that power into New England and
8 sell that power into the wholesale markets.
9 And the price they receive in the wholesale
10 market is really determined by the
11 marketplace, so not correlated to the cost of
12 producing the power. The price they receive
13 is what the market will bear.

14 Q. I guess my understanding of the energy market
15 in New Hampshire or New England might be a
16 little weak, but I guess I was under the
17 impression that almost on a daily basis
18 there's an auction that takes place, and
19 ISO-New England determines who will and who
20 will not be providing power into the market.
21 And they generally start by letting the
22 lower-cost producers in first, and then the
23 higher-cost producers would be last to enter,
24 you know, into the power production on a

1 day-by-day basis. Is that not true?

2 A. (Auseré) No, I think -- well, first off, I'm
3 not an expert in the ISO markets either. But
4 I will say that, generally speaking, that's
5 an accurate portrayal. The last generation
6 resource into the marketplace is the one that
7 sets the wholesale power price.

8 Q. So, on a given day, wouldn't they be feeding
9 power into the market at a cost that's
10 consistent with what it cost them to provide
11 it, and if their price is too high, they just
12 may not be asked to provide power on a given
13 day? So I'm saying they would --

14 A. (Auseré) Who is "they"? You're --

15 Q. Hydro-Quebec would be selling power, I think,
16 at close to their cost. And either they
17 would be in the market on a given day or they
18 wouldn't be, depending on the demands of the
19 region and the pricing.

20 A. (Auseré) The price that Hydro-Quebec receives
21 will be set by the marketplace. And there's
22 a whole lot of power plants that feed into
23 that marketplace. I think there's
24 approximately 30,000 megawatts of generation

1 capacity in New England.

2 In the example where Hydro-Quebec is not
3 recovering -- if their cost structure's
4 higher than what the market's clearing at,
5 then I think in that example I'm going to
6 guess they would not dispatch into the
7 marketplace. But the wholesale market will
8 do this (indicating). And again, it's not
9 determined by any one particular generator.
10 It's determined by what the marketplace is
11 doing.

12 Q. Okay. But if the power is needed and it's at
13 a higher price point, then ISO-New England
14 will purchase it, won't they?

15 A. (Auseré) ISO-New England or the wholesale
16 market.

17 Q. Or the wholesale market.

18 A. (Auseré) Correct.

19 Q. So is it -- I believe Ms. Frayer's analysis
20 was based on the \$1.6 billion price. So is
21 it fair to say that if the Project costs more
22 than the \$1.6 billion, and Hydro-Quebec ends
23 up selling into the market at a higher or
24 slightly higher cost because of that, that

1 that would reduce the projected benefits that
2 her report is currently projecting?

3 A. (Auseré) So I would direct that question at
4 Ms. Frayer. But I would say, kind of
5 thinking this through, the cost that HRE pays
6 under the TSA is not volumetrically driven --
7 in other words, they're paying the same
8 revenue requirements in the Transmission
9 Service Agreement to be able to use the
10 transmission line regardless of how they're
11 utilizing it.

12 So, again, I think it's a good question
13 for Ms. Frayer. But I would say if the cost
14 of the Project goes up, since HRE is paying
15 for that anyway, it will not change their
16 bidding-in behavior into the marketplace.

17 Q. Okay. Are you familiar with the New England
18 Clean Energy RFP from 2016 for, I believe,
19 460 megawatts of power?

20 A. (Auseré) At a very high level. I was not
21 directly involved in the three-state RFP.

22 Q. But was Northern Pass one of the 24 bidders?

23 A. (Auseré) Yes, Northern Pass bid into the
24 three-state RFP.

1 Q. And do you happen to know why Northern Pass
2 didn't or wasn't one of the finalists in that
3 process?

4 A. (Auseré) To my knowledge -- no. And to my
5 knowledge, the three states didn't publish or
6 otherwise release the rationale for why they
7 chose what they selected. But I would say no
8 large transmission project, period, was
9 selected out of that three-state RFP.

10 I think primarily -- and Ken, you can
11 perhaps help me on this one. But I believe
12 it was primarily solar and onshore wind that
13 was selected out of that RFP.

14 A. (Bowes) Selected projects were the smaller
15 wind and solar projects. And I believe Mr.
16 Quinlan testified around -- his thoughts were
17 that it was around renewable energy
18 certificates which would be generated as
19 well.

20 Q. Okay. I believe the remaining few questions
21 I have are maybe more appropriate for Mr.
22 Bowes.

23 And I take it that the same answer to my
24 question about involvement with Ms. Frayer is

1 that you didn't have any direct involvement
2 with her -- is that correct -- or her work?

3 A. (Bowes) So I didn't have any direct
4 involvement with her work. I was part of one
5 conference call with Counsel for the Public
6 experts around trying to make sure we gave
7 them all the necessary data in the
8 spreadsheets that they were requesting. So
9 that was really my limited involvement with
10 her work that she'd done as part of this
11 project.

12 Q. Okay. I believe in your testimony, Mr.
13 Bowes, you referenced \$40 per megawatt hour
14 being a typical wholesale New England energy
15 price?

16 A. (Bowes) So that's what's projected right now
17 for the 2019 time frame. That's the
18 wholesale market price that's being
19 forecasted out a couple years.

20 Q. Okay. And that's equivalent to 4 cents a
21 kilowatt hour, a measure consumers can more
22 readily connect with?

23 A. (Bowes) Yes, it is.

24 Q. And I believe you also, maybe in that same

1 part of that testimony, were discussing the
2 fact that it wouldn't be feasible to
3 underground it with respect to that
4 \$40-per-megawatt-hour price.

5 But do you know, has anyone done an
6 analysis to see how that \$40 price would be
7 increased in the event -- in the Project case
8 of complete burial? How much would that
9 number need to go up to reflect the
10 additional cost?

11 A. (Bowes) So I have not done that calculation.
12 I suppose that it could be done. But one of
13 the limiting factors is you still only have a
14 partial set of information. You would have
15 what the U.S. cost of the line would be. And
16 I don't have access to the Canadian cost of
17 the line or the Canadian cost of supply, nor
18 what Hydro-Quebec is willing to accept as far
19 as revenues or profit on the line. So I'm
20 limited in the exposure -- or limited in what
21 I can do a calculation on.

22 The calculation for purposes of this
23 testimony was really around, you know, Mike
24 and I understanding what the annual revenue

1 requirement is for the first year for HRE and
2 then comparing it with project costs, with
3 market conditions when the Project will go in
4 service. And my analysis says they will not
5 be able to cover the cost of the Project in
6 their first year with just the energy market.

7 Q. Is that analysis that you just referenced
8 something that's in the exhibits or testimony
9 anywhere?

10 A. (Bowes) I do not believe so, other than right
11 here.

12 Q. Just looking at the Project from a
13 higher-level point of view, non-technical
14 point of view, I believe Ms. Frayer indicated
15 that over a 10-year period that the Project
16 would have energy cost savings of \$600
17 million -- approximately \$600 million a year
18 over the next 10 years. Is that... does that
19 sound about right?

20 A. (Bowes) Yeah. Again, I'm probably not the
21 right person to ask for that.

22 Q. Mr. Auseré?

23 A. (Auseré) Sorry. Same response.

24 Q. What my question is, is that's \$6 billion

1 over a 10-year period. So I'm comparing that
2 to the incremental cost of \$1 billion for
3 burial. And it's maybe not a good
4 comparison, but I would just like to hear
5 thoughts on those two numbers, if you have
6 anything to offer.

7 A. (Bowes) So I will start, and Mike can
8 certainly add. Ms. Frayer is certainly the
9 person to ask that question to. I would say
10 they're obviously two very, very large
11 numbers, a billion dollars and 6 billion. I
12 think it's apples and oranges, though, and I
13 think she can go into much more detail of why
14 that is.

15 Q. Okay.

16 A. (Auseré) And all I would add to that, again,
17 professing that she's going to be best to
18 speak about it, my understanding -- this is
19 really going from hearing Mr. Quinlan testify
20 the other day -- is that Ms. Frayer is
21 estimating what the impact of
22 HRE/Hydro-Quebec selling energy into the New
23 England market will be, and that impact is
24 causing prices to go lower. So it sounded

1 like you're attributing those numbers in her
2 report to somehow being extra money to
3 Hydro-Quebec, and I don't believe that's what
4 she's analyzing. She's analyzing bringing a
5 little bit over 1,000 megawatts of energy in
6 New England with a new resource and what that
7 will do to prices.

8 Q. Well, do you understand why an average person
9 might ask: If there's that much savings, why
10 can't some of it be shifted into the cost of
11 undergrounding the Project?

12 A. (Auseré) I'm not sure I see that connection
13 because it's going to be just the effect on
14 the wholesale marketplace. But again, I
15 would defer to Ms. Frayer.

16 Q. Okay. I just wanted to follow up on a
17 question or a line that Mr. Whitley, a thread
18 that he started. And maybe I heard
19 incorrectly, but the answer to the
20 question -- I believe the answer to one of
21 Mr. Whitley's questions was that if
22 Hydro-Quebec, at some point in the future,
23 decided they were going to discontinue to use
24 the Northern Pass transmission line and maybe

1 send their power to New England through an
2 alternate route, that there's nothing in the
3 current agreement to stop them from doing
4 that. Did I hear that correctly?

5 A. (Auseré) I don't remember that thread of
6 questioning. But I don't believe that's
7 correct. So if -- let me just kind of walk
8 through how I would think about it.

9 If HRE/HQ chose to no longer bring power
10 down through the Northern Pass line, that
11 may be -- as I just mentioned a minute ago,
12 what HRE/Hydro-Quebec owes under the TSA is
13 not volumetrically driven. As long as the
14 line is in service, HRE owes for the ability
15 to use that line. There is not a volumetric
16 relationship. So if they chose to ship their
17 power down a different route, that, in and of
18 itself, does not impact the revenues that are
19 due NPT under the TSA.

20 Q. So they are still obligated to pay the
21 revenues under the agreement even if they are
22 not using the transmission line?

23 A. (Auseré) Correct. Now, they do have rights
24 under the -- and perhaps maybe this is what

1 you were picking up on. They do have rights
2 under the TSA where they could terminate the
3 agreement. And if they do, they would owe
4 significant sums to NPT. They would owe NPT
5 whatever cost of the line that hasn't been
6 paid for. They would also owe
7 decommissioning costs associated with the
8 decommissioning of the line, and I believe
9 some other costs as well. And the reason for
10 pointing that out is I would say the
11 probability of HRE/Hydro-Quebec ever
12 exercising that right are very, very di
13 minimus, given the sums of money they'd have
14 to pay.

15 Q. Okay. Understood.

16 MR. COTE: That was my last
17 question.

18 CHAIRMAN HONIGBERG: All right.
19 We are going to take our break. Let's go off
20 the record for just a second.

21 (Discussion off the record.)

22 (Brief recess was taken at 3:28 p.m.,
23 and the hearing resumed at 3:47 p.m.)

24 CHAIRMAN HONIGBERG: Mr. Stamp,

1 you may proceed.

2 CROSS-EXAMINATION

3 BY MR. STAMP:

4 Q. Thank you. I think this is probably directed
5 more to Mr. Bowes.

6 At Mr. Quinlan's testimony last
7 Thursday, there was some discussion about the
8 decision to go underground and what it was
9 based on, what caused Northern Pass to
10 seriously consider putting it underground as
11 opposed to above ground. And the two things
12 I picked up I think from his testimony, and
13 you may have to help me with this a little
14 bit, one clearly was aesthetic concerns up in
15 the northern part of the state, and the other
16 had to do with, I would say, property
17 easement complications that may have forced
18 an underground approach as opposed to above
19 ground. Have I got that -- am I close to
20 being correct with that?

21 A. (Bowes) I clearly remember the first part of
22 that. And he talked about, you know,
23 listening to stakeholders and I guess a
24 universal response that he got when he talked

1 to people about the White Mountain National
2 Forest. I don't recall the second part about
3 land restrictions or things like that. The
4 first clearly was around visual impact. But
5 I don't recall that second part about what
6 you're saying are land rights or easements.

7 Q. Yeah, there seemed to be some complications
8 associated with going above or over a road
9 easement, et cetera. I'll let that one go
10 by. Those are the two things that I thought
11 I heard.

12 So now I want to shift you over to
13 above-ground segments. And I'm curious.
14 Were there any right-of-way issues identified
15 in the 132 miles that would cause Northern
16 Pass to pause and think about consider
17 avoiding potential damage to water resources,
18 all kinds of things that your right-of-way is
19 often covering in the process of coming down
20 the 132 miles? You're running over aquifers;
21 you're getting into community well head
22 areas; you're getting into wastewater
23 treatment facility areas, things of that
24 nature, river-associated, water-associated

1 and on and on and on.

2 Was there anything in your discussions
3 and decision-making process that caused you
4 to pause and think about segments? Anywhere
5 in that above-ground area cause you to pause
6 and think about maybe we should consider
7 diverting or considering another course
8 through here or doing something like that?
9 Were those discussions part of the
10 decision-making process over the 132 miles?

11 A. (Bowes) So the simple answer is yes. When
12 you look at a routing analysis -- and the
13 initial one that was done was between, you
14 know, March of 2009 to March of 2010. That
15 followed that original route that was to the
16 west of New Hampshire, and that portion in
17 the North Country was not on an existing
18 transmission right-of-way. And there were
19 many water resources, specifically the
20 Connecticut River, that was impacted by that.
21 It was also a more populated area along that
22 part of the right-of-way to be developed. So
23 those were two things that led to moving the
24 route to the east. The agreement with Wagner

1 Forest was to try to minimize 24 miles of
2 both visual impact, but also land-use impact
3 by going into a working forest, a single
4 landowner, if you want to look at it that
5 way.

6 So, again, instead of 40 miles of new
7 right-of-way, it starts to make that around
8 16 miles of new right-of-way that are in the
9 public -- in a public way, so to speak. Not
10 technically a public way, but public exposure
11 to it.

12 The decision around land rights led to
13 8 miles being underground in the North
14 Country. We didn't have all the necessary
15 rights to go overhead. So that pushed two
16 segments: One at the Connecticut River for a
17 short span and then one at several of those
18 North Country roads for about 7-1/2 miles.
19 So, again, now it's not 40 miles of this new
20 right-of-way. It's 40 minus 24 minus 8. So
21 now we're down to about 8 miles of new
22 right-of-way where we didn't have an existing
23 transmission line already there.

24 Those were some of the early

1 considerations of going with that route to
2 the east. That also had some concerns,
3 especially as we went through the DOE process
4 and we heard public concerns about the White
5 Mountain National Forest. Bill Quinlan
6 talked last week about lots of stakeholders
7 told him that was just a bad idea. You know,
8 we had a transmission line through the White
9 Mountain National Forest before it became the
10 White Mountain National Forest. That was the
11 original design, to follow that path. Bill
12 took a pause and said, no, we're not going to
13 do that. We're going to find another route.
14 And that put us off on about another
15 nine-month or so journey to find the best
16 alternate to going overhead in the White
17 Mountain National Forest.

18 There was also a permit concern with
19 that as well. While the Special Use Permit
20 may have been granted -- I guess we'll never
21 know -- it clearly would have triggered a
22 forest management plan within the White
23 Mountain National Forest for us to add a
24 second line there. That is now avoided by

1 going on an all-underground route through the
2 White Mountain National Forest. So that was
3 a consideration as well.

4 I think there's still considerations. I
5 mentioned one of them this morning around,
6 you know, the visual impact around the state
7 parks. That is something we have tried to
8 minimize. I think we have some other ideas
9 to help with that as well. But the type of
10 structures is clearly something we can do in
11 those areas.

12 And I think one of the fundamental
13 things that we used throughout all of the
14 routing analysis was to try to use an
15 existing right-of-way that we did not have to
16 expand for this project. And that now
17 covers, you know, a large portion of that
18 132 miles. Once we get onto the Coos Loop,
19 you know, down south of that, it's now either
20 underground or in an existing right-of-way,
21 co-located with other transmission lines. So
22 I know it was kind of a simple answer to
23 start with and I kind of expanded. Is that
24 sufficient?

1 Q. I'd like you to come down state a little
2 more.

3 A. (Bowes) Okay.

4 Q. Pick up around Plymouth, Ashland and come
5 down along the Pemi and that whole area.

6 A. (Bowes) The Pemi, that's where your
7 constituents are.

8 So there are multiple river crossings
9 along the Pemigewasset River. It follows an
10 existing transmission path already.

11 Q. Yes.

12 A. (Bowes) And that was one of the
13 considerations we looked at when we chose
14 that route. That was kind of where we wanted
15 to be and at least minimize the impacts with
16 an already existing and established corridor
17 there. You're obviously adding another line.
18 Sometimes it's, you know, one of two lines,
19 sometimes it's one of three lines as you get
20 further south.

21 But, again, on those river crossings and
22 in proximity on those existing right-of-ways,
23 we've spoken before in the technical sessions
24 about creating a vegetative buffer to assist

1 with future erosion along the Pemigewasset
2 River. I think that is something that we've
3 committed to. And I've actually seen it in
4 real life where there is a vegetative buffer,
5 and there's clearly much less erosion on that
6 river. Not that it's -- in the scheme of
7 things, it's still a small amount of erosion
8 where the transmission right-of-way crosses
9 compared to the entire erosion. But I think
10 that is something over time we can fix and
11 repair, provided DES and others agree with
12 our practices to restore that shoreline. So
13 I believe that's part of that.

14 As you get further south, south of
15 Franklin, now you're onto an AC system.
16 There are -- you know, we've done many things
17 through that corridor to limit the structure
18 heights. And we've actually rebuilt more of
19 the PSNH infrastructure, whether it's
20 transmission or distribution line in that
21 area, so we could put the 345 AC onto H-frame
22 structures for many miles in the Concord area
23 and a little bit north of there, again, as a
24 way to try to minimize the visual impact by

1 lowering the structure height from vertical
2 construction to a horizontal one. There are
3 still some things we can do in that area
4 where we do need some necessary land rights.
5 As we talked about this morning, we can
6 acquire. We need cooperation to do that.
7 But many of the road crossings we could lower
8 more with some of that cooperation.

9 Q. You are encroaching seriously into pure land
10 buffer areas as you come down from Plymouth
11 coming south. We're losing a lot of trees
12 and a lot of vegetation in that area because
13 of your right-of-way in your current plan.
14 So if that's all off the table, we'll have to
15 go from there. But I just wondered if at any
16 time there was consideration given to we've
17 got to avoid this area, this 4 miles,
18 2 miles, and we ought to do something
19 alternatively to get away from this because
20 we're interfering with too much in the way of
21 serious resources, town and river. So it
22 appears that didn't get any serious
23 attention, buffer loss, aquifer problems and
24 so forth down through that section.

1 A. (Bowes) So that section I would say, again,
2 we tried to minimize the impact by using the
3 existing corridor, and the structure
4 selection and locations are to avoid wetlands
5 wherever we can. We increase or decrease
6 spans to try to accomplish that. We
7 obviously have some wildlife preservation and
8 protection areas in that corridor that we
9 have categorized. We understand where they
10 are. We understand the seasonal
11 restrictions. And that's actually part of
12 the DOE process. We had to provide them kind
13 of a road map of when we would be where to
14 ensure that we wouldn't harm the natural --
15 or the animals along the route as well.

16 So I would say we've done an extensive
17 amount along the existing right-of-way once
18 we got onto it, things that may not have been
19 done for decades when the original lines were
20 even built.

21 Q. But the right-of-way didn't change.

22 A. (Bowes) No.

23 Q. It is where it was, and that's where it is
24 today.

1 A. (Bowes) Correct. And --

2 Q. So nothing you looked at caused you to
3 rethink about is there, you know, another way
4 to get at this thing.

5 A. (Bowes) In fact, I would say it was a
6 conscious effort to try to reuse the
7 right-of-way rather than create a new one.

8 Q. Thank you.

9 CHAIRMAN HONIGBERG: All right.
10 Did we miss anybody?

11 [No verbal response]

12 CHAIRMAN HONIGBERG: All right.
13 Good. So we're ready to move into the
14 confidential session. Go off the record for a
15 second.

16 (Discussion off the record.)

17
18 (Pages 115 through 137 of the
19 transcript are contained under separate
20 cover designated as "Confidential and
21 Proprietary.")
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PAGES 115 THRU 137 FILED UNDER SEPARATE COVER

CONFIDENTIAL & PROPRIETARY

1 (Hearing now resumes in the public
2 portion of the record.)

3 CHAIRMAN HONIGBERG: Go back on
4 the record. All right. We're at the stage now
5 for the members of the Committee to ask
6 questions of the witnesses.

7 Commissioner Bailey, please
8 start us off.

9 CMSR. BAILEY: Thank you, Mr.
10 Chairman.

11 INTERROGATORIES BY MS. BAILEY:

12 Q. Good afternoon.

13 A. (Auseré|Bowes) Good afternoon.

14 Q. We've talked a lot about HRE being
15 responsible for whatever the Project costs.
16 And my question is: Is there anything in the
17 TSA that limits the Project costs?

18 A. (Auseré) No. I'm thinking through the TSA.
19 No, nothing that limits the Project costs.
20 The TSA doesn't specify what the Project
21 costs are. So as Project costs change,
22 there's nothing specific in the TSA that
23 would limit that.

24 Now, maybe the one indirect limitation

1 is that HRE/Hydro-Quebec, they do have the
2 right to terminate the agreement if they
3 choose to. And so I think that is a de facto
4 limitation. If the Project becomes
5 uneconomic to them, then they do have the
6 right to exit the TSA under that scenario.

7 Q. And if you hadn't spent any money other than
8 the Project development costs, but you knew
9 that the cost was ultimately going to be more
10 than \$1.6 billion, would they have the right
11 to get out of the contract without any
12 penalty?

13 A. (Auseré) They would have the right to get out
14 of the contract, but they would pay a cost if
15 they chose to exit the contract.

16 Q. And what cost would that be?

17 A. (Auseré) It would be -- so we haven't hit the
18 construction phase yet.

19 I'm just going to ask, I'm sorry, just a
20 quick question, in terms of confidential
21 term.

22 WITNESS AUSERÉ: Is the letter
23 agreement confidential?

24 A. Before I quote a specific number, we haven't

1 hit the construction phase yet.

2 Q. Right.

3 A. (Auseré) And so under -- and the construction
4 phase is actually a contractual term that's
5 defined in the TSA. And before we hit that
6 point, if the parties cancel the contract,
7 then there is cost sharing. So, the 190-plus
8 million dollars that had been invested in the
9 Project, those costs would be absorbed by the
10 two parties. So what that specifically means
11 is that up to this point NPT has been paying
12 those costs -- well, I guess NPT and RPI for
13 the real estate portion. And if the Project
14 were to be terminated before we hit the
15 construction phase, HRE/HQ would pay a
16 portion of those costs. So, in other words,
17 both parties would incur a loss if the
18 Project were cancelled before the
19 construction phase.

20 Now, once we go into the construction
21 phase, again there are termination rights,
22 but in most scenarios HRE would shoulder all
23 those costs.

24 Q. And HRE has the right to tell Northern Pass

1 Transmission go or no go on the construction?

2 A. (Auseré) We have to reach a mutual agreement
3 to commence the construction phase, which is
4 the term that's used in the TSA.

5 Q. So if you got approval from us and all your
6 other permits came through by the end of the
7 year, but you didn't know about the
8 Massachusetts RFP yet, HRE could say don't
9 start construction until we know the results
10 of that.

11 A. (Auseré) They would have the contractual
12 right to say that.

13 Q. So is it possible that we could approve this
14 and that you would never build it?

15 A. (Auseré) You know, I think back to what we've
16 said in the joint press release, that, you
17 know, the two companies are committed to the
18 Project, and it's not dependent on any one
19 RFP. So I think if that scenario happened,
20 that we weren't selected in the Massachusetts
21 RFP, we'd have to evaluate, you know, what's
22 in front of us, in terms of market
23 opportunities.

24 Q. Okay. Mr. Bowes, can you tell me how often

1 energy prices are above \$40 a megawatt hour
2 on a sustained basis?

3 A. (Bowes) I cannot. This was a point in time
4 in the future. It wasn't on today's market.

5 Q. Okay. Has it been -- well, okay. I'll leave
6 it at that.

7 A. (Bowes) To add to that, I think the average
8 over the last year was, like, 4.1 cents. But
9 lately it's been below 3 cents, I think.

10 Q. So, \$41 a megawatt hour?

11 A. (Bowes) Correct.

12 Q. But lately it's been \$30 a megawatt hour?

13 A. That's my understanding. More recently it's
14 been lower.

15 Q. Okay. So if you get to the point you don't
16 have a contract or a PPA with an EDC or a win
17 on a bid, then you'd have to evaluate the
18 market prices going forward and figure out
19 whether it was buildable.

20 A. (Bowes) I believe HQ would look at other
21 opportunities, like the Forward Capacity
22 Market, and decide what needed to be done to
23 enter that, provided they were allowed to.

24 Q. So they'd have to clear in the Forward

1 Capacity Market?

2 A. (Bowes) That's one of the things I actually
3 noted in my testimony. That's where I think
4 the first place they would go.

5 Q. Okay. Were you here yesterday -- or Friday
6 when I questioned Mr. Quinlan about the
7 Forward Capacity Market?

8 A. (Bowes) I was.

9 Q. In our discussion, he thinks it's likely to
10 go -- the Forward Capacity Market prices are
11 likely to increase and/or be two times more
12 than they have been. Do you agree with him?

13 A. (Bowes) So what I've seen in the slides, it's
14 been about \$1.1 billion for several years.
15 It makes a couple step changes over the next
16 two years and then starts to come down again
17 in, say, year four and five. So I think what
18 he said was exactly the same data that I have
19 seen, and it ultimately gets up in the \$3
20 billion market I think at its peak and in a
21 couple years in the two-point plus billion
22 dollars, on either side of that. So I think
23 it peaks about '19 or '20 and then starts to
24 come down again.

1 Q. You think it peaks in 2019?

2 A. (Bowes) I thought so, but --

3 Q. I think it peaks in the next 12 months but --

4 A. (Bowes) That could be.

5 Q. Did you have something to add, Mr. Auseré?

6 A. (Auseré) No.

7 Q. Okay. Mr. Auseré, do you think it's more
8 likely that you'll be successful in the
9 Massachusetts RFP than you were in the Clean
10 Energy RFP?

11 A. (Auseré) I do. I mean, it's tough to
12 predict. It's certainly a competitive
13 process in the Massachusetts RFP. But I
14 think what bodes well for the Project is,
15 unlike the three-state RFP, this RFP is
16 specifically designed with large hydro in
17 mind. And that was a circumstance that we
18 didn't have in the three-state RFP. And so I
19 think for that reason alone, I think -- yeah,
20 I'm more optimistic on this RFP.

21 Q. Okay. When Mr. Whitley was asking questions,
22 he was asking you questions about HRE's risk.
23 And did I hear you say that the energy market
24 was the highest risk and the bilateral -- no.

1 The energy market was the least risk and the
2 bilateral agreement was the highest risk?

3 A. (Auseré) I think Mr. Bowes offered that.

4 A. (Bowes) Yeah, I don't think I said the
5 bilateral was the highest. That's obviously
6 the lowest of all. But then the Energy
7 Market, the Forward Capacity Market, the
8 Clean Energy Market, in that order, just
9 because the way the markets have developed.
10 And risk doesn't necessarily mean just price
11 risk, but having a market that has
12 established rules and a known process to bid
13 into and to clear.

14 Q. So you think the clean energy market has the
15 highest risk?

16 A. (Bowes) Just because there's really no --
17 except for the Mass. RFP today, I don't think
18 it's well developed at this point. Also, you
19 know, with the risk comes the largest reward
20 as well. I think it has the most
21 opportunity.

22 Q. Okay. I think that's all. Thank you.

23 CHAIRMAN HONIGBERG: Ms.
24 Weathersby.

1 INTERROGATORIES BY MS. WEATHERSBY:

2 Q. A couple questions just following up with
3 some of the technical issues. And I've got a
4 number of more financial ones.

5 Mr. Bowes, concerning the road damage
6 that we were talking about, you indicated
7 there may be some use of fluidized backfill.
8 Could you tell me what that is?

9 A. (Bowes) Sure. It's a low-grade concrete that
10 is more porous in nature than the hard
11 concrete you're used to, so it becomes
12 hardened around the conduits in the bottom of
13 the trench. And what it provides is a very
14 consistent thermal condition around the
15 cables, so it allows it to dissipate heat
16 very evenly and consistently in a known
17 manner. But it also becomes a good road
18 base. It's much harder than even compacted
19 gravel. And we've used it extensively in
20 other states as a way to ensure both cable
21 capacity so we can control that, but it also
22 provides a very fast insulation. So instead
23 of trying to pour soil back into and around
24 the conduits, compact it by hand and then do

1 a layer upon layer, it provides a very fast
2 way to put the road back into its temporary
3 condition. So you pour that and it sets up
4 in, you know, a couple hours. You can
5 compact over it, patch over it, and you can
6 be in and out in a very quick manner.

7 Q. So it's a concrete-based -- it's not
8 petroleum-based asphalt.

9 A. (Bowes) It is not. It's concrete.

10 Q. There's no potential environmental issues
11 associated with that.

12 A. (Bowes) That is correct. And we use it
13 extensively in states that have as
14 significant or more environmental
15 restrictions than in New Hampshire.

16 Q. Thank you. And could you tell me
17 approximately the cost difference between
18 when you're repaving the area where the
19 trench was, the difference between on an
20 average-size state road, going curb to curb
21 versus the single -- a two-lane road
22 versus -- curb to curb on a two-lane road
23 versus a single lane.

24 A. (Bowes) So I'm probably not the best person

1 for this. I'm sure one of the underground
2 experts would be. But I'll take a stab.

3 It's not twice as much, that's for sure,
4 because you've already mobilized the
5 equipment, the traffic control patterns and
6 everything else. So it becomes a question of
7 material and time. I'm probably not going to
8 be able to answer in any more detail than
9 that.

10 Q. Okay. So, someone on the construction panel
11 will --

12 A. (Bowes) Definitely.

13 Q. Okay. Concerning the status of the permits,
14 I think we've heard the status of the
15 Presidential Permit and the special use
16 permit. And there's also an ISO-New England
17 upgrade approval? Has that been obtained?

18 A. (Bowes) So there's a transmission operating
19 agreement permit or approval that we would go
20 through, and that's the conditions under
21 which we'd operate the line. And that will
22 be filed earlier -- I mean later this year.
23 And we'd expect approval within a few months
24 as well. That's really more about operation

1 than it is construction.

2 Q. Okay. And in Canada, do you know the status
3 of their infrastructure planning and
4 development for the portion of the line that
5 Hydro-Quebec is responsible for?

6 A. (Bowes) So they're a little bit ahead of this
7 process. I think they expect to have a
8 certificate or the equivalent in the
9 June-July time frame. And then there will be
10 federal approval after that. So I would
11 think by time the Site Evaluation Committee
12 makes a determination, all the permits would
13 be received in Canada.

14 Q. Okay. Thank you.

15 It was noted, I believe in your
16 testimony, that ISO-New England would assume
17 operational control of the line once it's
18 ready for commercial operation. Can you tell
19 me what that means? Do they actually assume
20 control of how it's -- can you tell me what
21 that means?

22 A. (Bowes) Sure. So it's really no different
23 than any other transmission asset -- in this
24 case, transmission and generation asset -- in

1 New England. All the PSNH transmission lines
2 today are technically under ISO control. We
3 have a local control center here that does
4 the switching, putting the line in and out of
5 service, ramping it up and down, but it's all
6 technically under the direction of ISO-New
7 England. So if there's a system condition
8 that they see on a broader basis, you know,
9 they're looking at all of New England, we're
10 looking at New Hampshire, or to the
11 interfaces, you know, into New England, they
12 can take control, operational control and
13 direct the control in Manchester to make this
14 change. And again, that's really how all the
15 systems operate today on the transmission
16 system.

17 Q. So, forgive me. I'm just learning all about
18 this electrical system we have here.

19 So it sounds like they're in charge of
20 the flow of electricity over the line. But
21 am I correct in understanding that Northern
22 Pass Transmission would still be in charge of
23 the line itself, the maintenance of the line,
24 safety issues and all that kind of thing, or

1 does that also get transferred?

2 A. (Bowes) No, you are correct in that. But,
3 for example, if we wanted to take an outage
4 on that line, we'd have to have ISO's
5 permission to do that. So there is still an
6 approval process. If we want to take a line
7 out to do maintenance for two days, we
8 schedule that outage with ISO-New England.
9 In certain cases, if it's an annual-type
10 maintenance like Mr. Quinlan was talking
11 about, that is scheduled months in advance.
12 And those are the dates we get. Because
13 they're planning everything else that's
14 taking place. So, for example, if we were to
15 take this line out of service for some reason
16 and it was being used on a daily basis to
17 provide 1090 megawatts, they have to know
18 they have to make that up somewhere else. It
19 might be from imports from New York or might
20 be imports through Maine or might be starting
21 local generation in the New Hampshire area.
22 They would have that control and that
23 visualization of what's happening all around
24 us and make that determination.

1 So they are actually the Independent
2 System Operator, just like it says. They
3 operate the system. They delegate certain
4 things to Public Service New Hampshire in our
5 control center, and then they in turn would
6 delegate certain things to Northern Pass
7 Transmission to actually go out there and
8 turn the wrench to do the maintenance. But
9 we have to have approvals all the way up to
10 do that.

11 Q. Similarly, if they decided, oh, we've got too
12 much power going on, they could take that
13 line out of service or divert the energy
14 somewhere else or --

15 A. (Bowes) Or curtail its operation, sure.

16 Q. Curtail its operation.

17 A. (Bowes) If there's a system condition, say at
18 Deerfield Substation, where there's too much
19 power coming in, they could either ramp
20 Northern Pass down, probably unlikely
21 Seabrook down, or the imports from Maine
22 through New Hampshire south, they could ramp
23 those down as well. But that's what their
24 job is to do on a daily basis, and actually a

1 minute-to-minute basis as well.

2 Q. Okay. As I understand it, if that happens,
3 or for some other reason the line was shut
4 down for some period of time, that would
5 really not affect the income to Northern Pass
6 Transmission under the TSA, that HRE is still
7 responsible to pay that said amount based on
8 the formula, et cetera, regardless of whether
9 there's power flowing, except for an extended
10 period of time, of course. Is that a correct
11 understanding?

12 A. (Auseré) Generally correct. If there was a
13 prolonged outage, I think five years, and
14 that prolonged outage wasn't due to ISO-New
15 England making that decision, but it was due
16 to our failure to keep the line maintained in
17 Good Utility Practice, then they would no
18 longer owe us under the TSA for that
19 scenario. But very, very remote.

20 A. (Bowes) So that term comes up quite often.
21 You know, we operate -- as Eversource, we
22 operate that with every generator
23 interconnection. There's some interface with
24 those facilities. We're required to show we

1 use Good Utility Practice to make sure those
2 generators can operate as much of the time as
3 possible. And that's the commitment we make.
4 Part of the tariff as well. So we want to
5 make sure we're maintaining our facilities so
6 we don't curtail any generator at any time.

7 Q. Okay. Switching gears a little bit.

8 Construction financing. I understand it's
9 about \$1.6 billion for the Project, a roughly
10 50/50 split concerning equity and debt; is
11 that correct?

12 A. (Auseré) Correct. Correct.

13 Q. So that's about \$800 million of debt. And
14 then once the line is operational, you've
15 indicated -- I believe you've indicated that
16 the debt will be converted, or will likely be
17 converted to third-party financing; is that
18 correct?

19 A. (Auseré) Correct. So during the construction
20 phase, what we're anticipating, at least
21 right now, is that during construction NPT
22 will borrow from Eversource, the parent. But
23 once construction is entered into, then that
24 inter-company debt NPT would convert or

1 refinance with third-party debt.

2 Q. Have you had discussions with third-party
3 lenders; and if so, do you have any letters
4 of commitment or letters of credit? What is
5 the status of communications with potential
6 third-party lenders?

7 A. (Auseré) We've had preliminary -- our
8 treasury group has had preliminary
9 discussions with various banks about
10 financing options, actually not just once
11 operation commences, but also during the
12 construction period, just to see if that
13 might be a cheaper source of capital than the
14 inter-company borrowing through the ultimate
15 parent. But they have not advanced to a
16 letter of intent stage at this point.
17 Borrowing internally during the construction
18 phase for us looks to be the most attractive.
19 I say borrowing internally. But borrowing
20 ultimately through Eversource, the parent,
21 looks to be the most attractive option. And
22 we'll continue to monitor the debt markets to
23 see if those change. But I would say
24 refinancing, you know, once we enter into

1 operation, that is our expectation. But
2 again, if the market doesn't present itself,
3 if it's not as attractive as borrowing
4 through Eversource, the parent, then that
5 would be an option for us to do as well.

6 Q. Do you know if any reluctance has been
7 encountered with any banks or other lenders?

8 A. (Auseré) Not that I'm aware of. From talking
9 to our treasury group, no, not that I'm aware
10 of. And the reason for that is the TSA. I
11 keep coming back to that. The financial
12 profile of that TSA, the fact that it's a
13 formulaic rate, the fact that it's
14 FERC-regulated, the fact that the returns are
15 FERC-regulated, to the banks that looks and
16 feels a lot like what they're used to
17 financing in just typical utility projects.
18 So the financial profile is a good financial
19 profile. The other piece of that is the fact
20 that HQ is on the other side of the agreement
21 is received favorably as well.

22 Q. Debt that is -- the lending presently being
23 done by Eversource presently to Northern Pass
24 Transmission, is that at commercially

1 reasonable rates? Is it typical in the
2 industry, or is there kind of a favored rate
3 or an especially high rate? Do you know or
4 could you describe that debt?

5 A. (Auseré) We actually have an inter-company
6 borrowing agreement in place right now
7 between NPT and the parent. And I recall
8 that actually the rate is, I believe it's
9 equivalent, if not the same, as the rate that
10 Eversource borrows under its Commercial Paper
11 Lending Program. So it's a low, short-term
12 debt rate. Now, that may evolve over time as
13 more and more costs get to be built up. I
14 could see the parent issuing term debt. And
15 if we do that, that could be more expensive
16 debt and the cost to NPT would increase in
17 that scenario. But right now it's a very low
18 commercial paper type of rate, like one to
19 two percent type low.

20 Q. Can you discuss what insurance will be
21 carried for the Project, and will it be
22 self-insured or are you going out to an
23 insurer?

24 A. (Auseré) We will insure it. We will insure

1 it typical with our other transmission
2 projects, you know, in accordance with Good
3 Utility Practice. So, in other words, we'll
4 insure it similarly to how we would insure
5 other projects. But more specifics around
6 that, I'm not an insurance expert, unless you
7 know, Ken, if we self-insure versus through
8 third parties. I'm not positive.

9 A. (Bowes) So we have a reinsurance program. I
10 know for the claims we have \$1 million
11 deductible. Beyond that, we have several
12 parties that reinsure the Company. And I
13 believe that the general liability policies
14 are about \$130 million.

15 Q. Okay. In Northern Pass Transmission's
16 financial statement of operations, it showed
17 \$8,670,099 of income. What is that? How are
18 they making that much money already?

19 A. (Auseré) It's related to allowance for funds
20 used during construction. So what that is,
21 is the earnings on the equity that we've put
22 into the Project so far. So when Eversource
23 invests equity into the Project, it actually
24 earns a return. This is that 12.56 I was

1 referencing earlier. And it's capitalized to
2 the cost of the project. That's why a second
3 ago when Ken was talking through a cost
4 estimate, the very bottom line there had an
5 AFUDC line, if you recall. And that's for
6 the equity -- that's earnings on equity, but
7 it's also costs associated with the
8 borrowing, the debt portion of the
9 capitalization as well. So the short-term
10 borrowing costs that NPT is incurring, those
11 are also capitalized to the cost of the
12 Project.

13 But to answer your question
14 specifically, the majority, if not all of
15 that earnings that you're seeing in NPT's
16 financial statements is related to the
17 allowed return on what equity we put into the
18 Project so far. But it's non-cash.

19 Q. Too bad; right?

20 A. (Auseré) Yes.

21 Q. The TSA, its terms -- it appears that the
22 agreement can be amended pretty much at any
23 time by agreement of the parties; is that
24 correct?

1 A. (Auseré) Correct. Other than -- I was just
2 thinking about an earlier discussion. It is
3 FERC-regulated, so there's -- and I'm not a
4 FERC expert, but there are limits that --
5 yes, the two parties can always, I guess, do
6 whatever they want to, but at some point it
7 cannot -- it can be disallowed by the FERC.

8 Q. But assuming it would be allowed by the FERC,
9 you could certainly amend it relatively soon
10 and that wouldn't have much effect. But five
11 years into the Project or 10 years into the
12 Project, assuming the changes would be
13 allowed by FERC, that TSA could be amended;
14 correct?

15 A. (Auseré) It could be, yes.

16 Q. So at what point does the TSA become final
17 for us to know what it's really going to say,
18 the Committee?

19 A. (Auseré) The only -- as you've heard me
20 describe, you've heard me describe several
21 times that, depending on how we decide to bid
22 into the RFP, that may result in changes to
23 who's paying the revenue requirements, at
24 least in the early years of the Project.

1 That is -- that's the only potential
2 amendment, at least a significant potential
3 amendment that I can think of. So your
4 example about five years down the road, other
5 than changing the payor of the revenue
6 requirements, I don't anticipate other
7 amendments being made to the TSA. I mean, at
8 that point the cost of the Project is known.
9 There's no -- between HRE or Hydro-Quebec and
10 NPT, there's no disagreement over the TSA, or
11 the formula and how that works. I really
12 can't anticipate or don't expect there to be
13 any changes.

14 And I think significantly from an NPT
15 and Eversource perspective, it's very
16 important to us that the cash flow profile on
17 the Project look like it does today. In
18 other words, it's very important to NPT and
19 Eversource to have this formula rate
20 mechanism in place with HRE/HQ because it's
21 important to us that the cash flow profile of
22 the Project behave and share similar
23 characteristics as the rest of our business.

24 Q. So, given that you don't anticipate many

1 changes, other than perhaps because of the
2 Clean Energy RFP, would NPT be amenable to a
3 certificate condition, if this was approved,
4 that amendments need to be reviewed --
5 approved by the Committee?

6 A. (Auseré) I mean, off the top of my head, I
7 can't think of an exception to that. I'd
8 have to consult with others on that. But I
9 can't think of an exception to that.

10 Q. Concerning the guaranty particularly for the
11 decommissioning costs, the guaranty
12 doesn't -- we got into this yesterday, I
13 believe. It doesn't guarantee the term "net
14 decommissioning costs." Net decommissioning
15 costs are set forth in the decommissioning
16 plan, approved by the management committee,
17 less the decommissioning fund balance.

18 I guess my question is: Has the
19 decommissioning plan been approved by the
20 management committee? Let me back up.

21 Is the decommissioning plan, the GZA
22 plan that we have in our exhibits?

23 A. (Auseré) No. No. So, under the TSA, it
24 might be. But here's the distinction: Under

1 the TSA, the decommissioning plan will be
2 put -- if you will, presented -- NPT will
3 develop it and present it to the management
4 committee 5-1/2 years before the end of the
5 term of the Project. And the reason that's
6 an important distinction is rules and
7 regulations could change between now and
8 then. I believe the decommissioning plan
9 that's put forward as an exhibit today is
10 based on the rules and regulations that exist
11 today. But under the TSA, NPT will develop a
12 plan at a future point in time.

13 A. (Bowes) I would add, as Mike said, today it
14 meets all the requirements we believe of the
15 Site Evaluation Committee. So it's per the
16 statute. It's very likely that those will
17 change in the next 35 years. The management
18 committee of Eversource and HQ have seen the
19 cost figure for it, the \$100 million
20 approximate cost figure, and that did not
21 create any concern for them.

22 Q. Okay. Thank you. That cost figure is in
23 today's dollars and not what the dollars are
24 40 years from now. Could you tell me why

1 that is?

2 A. (Bowes) It's per your regulation.

3 Q. Okay. Funding the decommissioning plan I
4 know will take place as it's structured in
5 those last five years. Why not fund it
6 sooner and then allow time value of money,
7 that kind of thing, so you have the end goal,
8 and that way everyone knows the money is
9 there, and particularly when you look at the
10 numbers and you're making more money in those
11 early years than you are towards the end?

12 A. (Auseré) You know, that's where we landed
13 when we were negotiating the TSA. I think,
14 you know, because NPT's interest in this is
15 that, you know, it's very important to us
16 that the decommissioning be provided for.
17 And the TSA we thought was an attractive
18 feature to have it paid in advance. To NPT
19 and Eversource, we felt that five years was a
20 reasonable time frame, well before the
21 decommissioning were to take place.

22 Q. I'm not sure you answered my question.

23 A. (Auseré) Oh, I apologize.

24 Q. Why not sooner? Why not do it between years

1 5 and 10 or some other rather than 35 to 40?

2 A. (Auseré) Because it was negotiated, and we
3 felt -- the two parties felt that that was a
4 reasonable time frame.

5 Q. But wouldn't you agree with me that there's
6 more uncertainty that the funds will be fully
7 funded, given that it's being funded at such
8 a late time in the term of the TSA?

9 A. (Auseré) Again, when we were putting the
10 agreement in place, we felt it was important
11 to us to have the decommissioning fund
12 established, you know, before end of service.
13 But to have it done any sooner, is there a
14 risk? I mean, if HQ or HRE were to somehow
15 default under the contract, they would still
16 owe us those monies. I don't see
17 significantly more risk by waiting until the
18 last five years. I can see your point. But,
19 again, we got comfortable with that. We felt
20 like we struck the right balance.

21 Q. The terms of the decommissioning fund, the
22 terms and conditions are to be established by
23 the management committee? Have the terms --
24 I know the fund hasn't been created. But

1 have the terms and conditions of the fund
2 been created?

3 A. (Auseré) No, they're -- but under the TSA,
4 even though the terms haven't been provided
5 under the TSA, it's required that the fund be
6 established, such that it can only be used
7 for purposes of decommissioning. So the
8 management committee will have to figure out
9 exactly what the specifics are to that. But
10 there's the overall governor inside the TSA
11 that, you know, those terms and conditions
12 have to result in those decommissioning funds
13 only being used for decommissioning.

14 Q. So I guess that's my question. Given that
15 the structure is not in place, what -- and
16 that the terms and conditions can change,
17 that the management committee can change the
18 terms, what assurance does the SEC have, the
19 public have, that those terms and conditions
20 will absolutely result in the funds being
21 there when it's time for the line to be
22 decommissioned?

23 A. (Auseré) Well, I think, number one, you have
24 the TSA that provides that those terms and

1 conditions must result in that outcome, that
2 they can only used for decommissioning.
3 Further, it's in NPT's interest that those
4 funds only being used for decommissioning,
5 because NPT ultimately has that obligation to
6 decommission the line. So I believe it's
7 those two factors.

8 Q. So I struggle with this because our rules --
9 I sense sort of some dodging around
10 decommissioning. And not you in particular.
11 But our rules require certain things be
12 provided for decommissioning, financial
13 assurances. And you've asked -- Eversource
14 and NPT asked for a waiver of those, which
15 was denied. But as I read those, they're
16 still not satisfied, and now there's -- I
17 mean, HRE hasn't issued -- without pulling
18 out the rules and the four things but --
19 thank you.

20 So, for financial assurances, we don't
21 have -- do we have an irrevocable standby
22 letter of credit?

23 A. (Auseré) No.

24 Q. Do we have a performance bond?

1 A. (Auseré) No.

2 Q. Do we have a surety bond?

3 A. (Auseré) No.

4 Q. An unconditional payment guaranty executed by
5 the parent company of facility owner,
6 maintaining at all times an investment-grade
7 credit rating?

8 A. (Auseré) No.

9 Q. So those are the things our rules require,
10 and those haven't been satisfied, nor has
11 that rule been waived. And then there's some
12 squishy stuff with the terms and all that.
13 So how are you satisfying the rule and our
14 requirement?

15 A. (Auseré) We believe -- I believe that the
16 financial assurance that NPT has by virtue of
17 the TSA in combination with Hydro-Quebec is
18 equivalent, if not better, than those
19 instruments. And let me just kind of walk
20 through the rationale, because, again, NPT
21 has the same interest here. You know, we're
22 ultimately liable for the decommissioning.
23 So it was very important to us when we put
24 this TSA and this contractual arrangement in

1 place, which preceded this whole hearing
2 process. It was very important to NPT that
3 we have that assurance.

4 So, number one, the TSA. The TSA
5 requires HRE to pay the fund the cost of
6 decommissioning, regardless of what the rules
7 and regulations are at that point in time.
8 So that's the point I was making just a
9 minute ago about the fact that, you know, 35
10 years from now, 40-plus years from now, HRE
11 is still on the hook for paying whatever the
12 decommissioning costs are per those rules at
13 that point in time.

14 Further, to the extent that actual costs
15 of decommissioning are different than the
16 estimated decommissioning plan, HRE is
17 responsible for paying those costs as well.

18 Also under the TSA, there's really no
19 time limit to this. In other words, HQ has
20 those extension rights. So, regardless of
21 how long ultimately this contractual
22 relationship goes out with HRE, they are
23 obligated to fund the decommissioning costs.

24 And then, finally, we have the guaranty

1 from Hydro-Quebec. So in the unlikely
2 scenario where HRE doesn't live up to their
3 obligation, Hydro-Quebec is backing that
4 obligation. And that's significant. So
5 that's a parental guaranty. It's not a
6 parental guaranty from the facility owner.
7 But what is attractive to us about that as
8 NPT is that's a guaranty from an extremely
9 highly rated entity that's obviously a crown
10 corporation.

11 So, for those reasons, NPT itself feels
12 like that is extremely robust assurance that
13 the funds will be there to decommission the
14 asset when the time comes.

15 Q. Right. I understand all of that. But you're
16 asking us basically to accept an alternative
17 form of assurance that's not specified in our
18 rules. That's correct; right?

19 A. (Auseré) We are. We are.

20 Q. Thank you. I don't... I don't think I've got
21 any -- I'm all set. Thank you very much.

22 INTERROGATORIES BY MR. IACOPINO:

23 Q. Mr. Auseré, let me just jump in where Ms.
24 Weathersby left off. You obviously place

1 great faith in your TSA; correct?

2 A. (Auseré) I do. I think it's very --

3 Q. And that's an asset of your company; correct?

4 A. (Auseré) The TSA?

5 Q. Yes.

6 A. (Auseré) We are -- well, NPT is the
7 counter-party, yes.

8 Q. And you put great faith in the guaranty
9 provided to you by HQ; correct?

10 A. (Auseré) Correct.

11 Q. Since you have such faith in that, why won't
12 Eversource provide a guaranty? You own these
13 assets. You have -- you're the counter-party
14 with HQ. Why won't Eversource provide the
15 parental company guaranty that the rules
16 require?

17 A. (Auseré) I think the answer to that is we
18 didn't view it, to be honest, to be adding a
19 whole lot to it. We feel like we've got a
20 robust set of financial assurance in place
21 with the TSA and the guaranty from
22 Hydro-Quebec. So we don't -- I guess we
23 don't feel like it adds much more to it. And
24 there's implicitly a cost with Eversource

1 issuing a parental guaranty. So our view is
2 it would add a cost that doesn't necessarily
3 add much.

4 Q. At this point, that cost, at least according
5 to your estimates, is a \$100 million; right?
6 That's what the GZA report that you filed
7 says, \$100 million in today's dollars?

8 A. (Auseré) It would be the decommissioning
9 liability. The cost I'm referring to would
10 be the imputed cost of debt on Eversource,
11 the parent, issuing a guaranty.

12 Q. And so if they guaranty \$100 million, that
13 would be a substantial impediment to
14 Eversource?

15 A. (Auseré) I'm not going to say it's a
16 significant or substantial impediment. But
17 we view it as an additional cost, something
18 that wasn't necessary.

19 Q. Thank you.

20 CHAIRMAN HONIGBERG: Mr. Way.

21 INTERROGATORIES BY MR. WAY:

22 Q. Good afternoon, gentlemen, soon to be
23 evening. Ms. Weathersby answered -- or asked
24 a lot of the questions that I wanted to

1 address with regards to the decommissioning
2 plan. And what I'm hearing you saying is, as
3 we look at 301.09 -- 301.08(d)(2), you agree,
4 it does not meet the letter of those
5 requirements. This is outside of those
6 decommissioning requirements. You're saying
7 it meets the intent and it's equivalent; is
8 that correct?

9 A. (Auseré) Correct.

10 Q. Has this sort of model been employed in other
11 projects, Eversource projects, for
12 decommissioning, or something similar?

13 A. (Auseré) Not that I can think of. Because in
14 this case it's a single -- I mean, it is a
15 single payor project. So I don't believe we
16 deployed this model on other transmission
17 projects. On other transmission projects
18 that are reliability transmission projects,
19 we don't provide for the provision of a
20 decommissioning fund, you know, to be set up
21 ahead of time, et cetera, et cetera. So I'm
22 just thinking out loud. I don't believe
23 we've employed this on other projects.

24 A. (Bowes) I would agree. This is unique for

1 Eversource.

2 Q. This is unique. That was my next question,
3 whether anybody else is employing this model
4 that you're aware of for utility projects.

5 A. (Bowes) I am not aware of any other companies
6 that have this requirement.

7 Q. All right. Very good.

8 Ms. Weathersby asked you if the GZA plan
9 is considered your decommissioning plan. And
10 I didn't know if I heard, Mr. Auseré. Did
11 you say maybe or no or --

12 A. (Auseré) In the context of that conversation,
13 we were talking about the decommissioning
14 plan that's provided for under the TSA. And
15 that is potentially different than the
16 decommissioning plan that we filed here,
17 because under the TSA, before we start
18 accumulating the decommissioning fund, there
19 has to be a decommissioning plan put together
20 by NPT and reviewed by the management
21 committee. So if rules and regulations
22 change between now and then, it would look
23 like a different decommissioning plan. If
24 rules and regulations don't change, it would

1 probably look the same.

2 A. (Bowes) And the other thing I would add is it
3 would have an up-to-date cost estimate, too.
4 It would no longer be \$100 million. It would
5 be whatever the cost was at some future date
6 35 years ahead.

7 Q. Thank you. When you look at 301.08, you see
8 the four requirements -- well, the different
9 options that you can have, well, actually,
10 particularly on b., irrevocable letter of
11 credit, performance bond, surety bond, or
12 unconditional payment guaranty. Particularly
13 in the light that you're probably going to be
14 asking this Committee to go a little bit in a
15 different path than otherwise we might have
16 with this requirement, outside of the GZA
17 plan that details these funding mechanisms
18 and why they may not be appropriate for what
19 you're trying to do, give me a sense maybe at
20 the level of seriousness by which you looked
21 at these different options. Did you
22 investigate a letter of credit? Did you
23 speak to banks? How did you come to that?
24 Or did it just simply -- was it a discussion

1 of that probably won't work for us?

2 A. (Auseré) No, we didn't reach the conclusion
3 it wouldn't work. But what we -- but what we
4 did specifically is we spent time with our
5 treasury group that does deal with letters of
6 credit and surety bonds. And when we
7 compared those instruments to what we had in
8 place already through the Hydro-Quebec
9 guaranty and the TSA, we felt that we had a
10 superior level of assurance with what we
11 would get through those products.

12 Q. Thank you.

13 Now, my understanding on the
14 decommissioning plan is this is for new
15 structures and new components, as I think I
16 read in the actual GZA plan; is that correct?

17 A. (Bowes) I'm not sure I understand the
18 question.

19 Q. Well, in other words, so, for example, if
20 you're modifying existing structures -- let's
21 go to the Deerfield-Scobie structure. Is
22 that -- any old structures, are they
23 considered part of the decommissioning plans,
24 things that were there before that may have

1 been incorporated into Northern Pass?

2 A. (Bowes) So, in essence, I don't think so. So
3 what's included in the decommissioning plan
4 is the HVDC components of the system. And
5 the improvements we make at Scobie Pond and
6 at Deerfield would remain and have benefits
7 beyond that, no longer part of NPT. You
8 know, at that point 40 years from now, things
9 could change, and we would, of course, update
10 the plan if they were no longer used and
11 useful. We would remove them as part of this
12 updated plan. But the way the plan states it
13 today, it's removing the DC portion of the
14 system and the AC transmission line from
15 Franklin to Deerfield. So it's really the
16 line and all the components of the DC system
17 because the AC system may have other benefits
18 to PSNH customers.

19 Q. All right. Very good.

20 Just a minor question. Salvage costs.
21 Now, salvage costs I don't believe enter into
22 decommissioning costs. But there is salvage.

23 A. (Bowes) In today's dollars, I think it's
24 around \$3 million of salvage costs. Those

1 are not included nor part of the
2 requirements. In fact, I think they're
3 actually excluded from the requirements for a
4 decommissioning plan. It's just information
5 at this point.

6 Q. On a different note, we talked a little bit
7 about the Project Labor Agreement that was
8 brought up earlier. There was one provision
9 that was discussed about hiring local. And
10 as you heard from discussion with Mr.
11 Quinlan, there's always a desire to hire
12 local. And as we looked at the definition of
13 that, I think, Mr. Bowes, you mentioned that,
14 first and foremost, that it would look at
15 in-state licensed utility workers. And I
16 apologize. I don't have it right here in
17 front of me, despite I was looking for it.
18 But you said that in-state local workers
19 would be first, and then you would have a
20 pool of out-of-state, but licensed in New
21 Hampshire; is that correct?

22 A. (Bowes) Correct.

23 Q. One thing I'm not sure I shared is your
24 reading of the prioritization of that from

1 that verbiage. And that may be something for
2 another discussion as to whether that was
3 your intent. Maybe I'll ask you.

4 Was that your intent to have it that
5 way?

6 A. (Bowes) That was my intent, and that was my
7 understanding of it. I can certainly check
8 to see if the intent of the people that
9 signed the agreement is the same, and they're
10 the local unions.

11 Q. All right. Thank you.

12 And in terms of being licensed in New
13 Hampshire for utility work, and I probably
14 should know this, how difficult is that to
15 get? How difficult is it for someone -- we
16 talked about Massachusetts as being the pool
17 of someone that might be licensed in New
18 Hampshire. But, you know, as we said the
19 other day, could it be someone in Texas
20 that's licensed in New Hampshire?

21 A. (Bowes) So that does qualify, but that would
22 be Priority 4 in the Project Labor Agreement.
23 The first one is people that are either
24 licensed in -- or I should say are residents

1 of New Hampshire or hold a card in New
2 Hampshire currently. Can't transfer that in
3 when the Project gets approved. The second
4 is, you know, New England states, which
5 includes Massachusetts, Vermont. And then
6 the last or fourth priority is for what they
7 call "travelers," which are people that will
8 come to the job purposely for that work.
9 They travel around the country working on
10 large infrastructure projects. That's the
11 fourth priority in here. So it's basically
12 trying to establish the rules that New
13 Hampshire workers get first priority and then
14 local neighboring states get second and third
15 gets to another classification and fourth is
16 finally the travelers that come in with
17 licenses from Texas. That's the intent.

18 Q. So the answer is we do delineate between New
19 England and the rest of the country in terms
20 those that are licensed in New Hampshire?

21 A. (Bowes) For certain states in New England.
22 Does not delineate Connecticut, for example.
23 Connecticut would be a traveler.

24 Q. Very good.

1 MR. WRIGHT: Thank you, Mr.
2 Chairman. I think my questions have been asked
3 already. I did have some follow-up questions
4 on some of the Deerfield comments, but we have
5 a public health and safety panel tomorrow, and
6 I think they'd be better addressed there.

7 CHAIRMAN HONIGBERG: Mr.
8 Oldenburg.

9 MR. OLDENBURG: Thank you, Mr.
10 Chairman. I have a question on route selection
11 and alternative analysis.

12 INTERROGATORIES BY MR. OLDENBURG:

13 Q. When I reviewed the route, the underground
14 route in particular, it sort of made sense to
15 me from a impact standpoint of where it was,
16 with the exception of downtown Plymouth. I
17 mean, from The Common Man to Railroad Square
18 Road, you have to get across, through, around
19 the Baker River. You have to go through a
20 roundabout, which is a traffic control issue.
21 You go down a one-way street, which is a
22 traffic control issue. You're going to
23 affect, you know, on-street parking, which in
24 most cases is businesses-only parking. You

1 have to trench down Main Street, which I have
2 to believe has underground drainage and
3 utilities. It seems like that route, that
4 section, is probably the most complicated
5 section in Plymouth you could go through. So
6 I was wondering if you looked at other routes
7 through Plymouth; and if you did, why didn't
8 you chose those? Just the thought of any
9 other routes through that area. And I might
10 have a follow-up question, depending on your
11 answer.

12 A. (Bowes) Sure. We looked at three alternative
13 routes with the Town of Plymouth, and they
14 were towards the river and would avoid the
15 downtown area completely. We finalized
16 through a process with them and proposed one
17 that we thought was the most constructable, I
18 will say. At that point, we got into some
19 more formal discussions with them. And talks
20 broke down, and they decided that they no
21 longer wanted to look at alternatives for
22 that project. And their position, I believe
23 at that point, was put it on I-93. So we
24 attempted -- we actually did some preliminary

1 designs and advanced one of those designs,
2 and then discussions did not progress.

3 Q. So my follow-up question is: Was it put on
4 Main Street to stay on Route 3, which is a
5 state-maintained road, and then you'd have to
6 deal with the state instead of the town?

7 A. (Bowes) It was put on Route 3 because it was
8 the most direct route, and also it was under
9 state jurisdiction. So, in essence, yes.

10 MR. OLDENBURG: Thank you.
11 That's all I have.

12 INTERROGATORIES BY CHAIRMAN HONIGBERG:

13 Q. Mr. Auseré, regarding decommissioning, during
14 your conversation with Mr. Pappas, I'm pretty
15 sure it was this morning, and it was among
16 the very first things you talked about with
17 him, was a scenario he hypothesized in which
18 a lot of things went wrong and the money
19 wasn't there. You used a phrase, "At that
20 point Eversource" -- and I wrote in quotation
21 marks, "would step in." What are the
22 circumstances in which Eversource would "step
23 in" the decommissioning situation?

24 A. (Auseré) Well, I described that in the

1 context of the scenario that we were going
2 through this morning, which was a scenario
3 where the decommissioning fund was not funded
4 because there are limited circumstances
5 inside the contractual agreement where -- and
6 essentially they have to do with NPT's
7 default -- where HRE is not required to fund
8 the decommissioning fund. Those scenarios
9 would be: One is the commercial and service
10 date is delayed by five years, or there's an
11 outage, a prolonged outage for five years,
12 and in both cases where either the delay in
13 service or the outage is due to our not
14 following Good Utility Practice. So I made
15 that comment in the context of in those
16 scenarios, you know, Eversource would step
17 in. I can elaborate on that.

18 I think, you know, for those instances,
19 you know, I think we'd be willing to accept
20 as a condition to the certificate that
21 Eversource would guarantee that those funds
22 are there for the decommissioning.

23 Q. A man who can read the house.

24 A. (Auseré) Say again?

1 Q. A man who can read the house.

2 A. (Auseré) I'm trying.

3 Q. Mr. Bowes, this may be questions you're going
4 to defer to the construction panel, but you
5 said enough to at least give me the
6 impression that you have some knowledge about
7 this.

8 You indicated that the whole project
9 will take two to two and a half years. How
10 long is the Project in any one place along
11 this many-many-mile route?

12 A. (Bowes) So, probably the longest duration at
13 any location will be the two major
14 substations in Franklin and Deerfield. That
15 will take probably close to the two years.
16 In fact, Franklin may take the entire time.
17 That may be the long pole in the tent, so to
18 speak.

19 As you get by the duct bank, we've said
20 we'll be going 20 to 100 feet per day. So in
21 fact of anyone's house, we'll be in and out
22 in a matter of probably a week. Now, that
23 just means in front of their house. They're
24 still gong to be impacted as we go in a

1 linear fashion. So that's one example. Once
2 we do the duct banks, that's the last part
3 that people will see.

4 The splice vaults are a little bit
5 different because those go in first. So
6 there will be one to two weeks of impact
7 then, and then we'll cover them up and do
8 temporary patching. But we're going to come
9 back there when we have to do both the duct
10 bank entrances into each side of it and also
11 the splicing. Those are probably, again,
12 each one- to two-week ventures as we enter
13 that. And then the splicing activities
14 themselves will take place over a week. So
15 that's for the underground section.

16 The overhead, again, it's a repetition.
17 So we're going to be, in some cases, logging
18 or removing the trees that are out there.
19 That's kind of one phase. A second phase
20 will be road building. A third phase will
21 be, you know, drilling or excavating
22 foundations. A fourth phase will be
23 structure erection or setting the monopoles,
24 depending on the type. And then there will

1 to a certificate, we would offer up the
2 financial assurances that are listed in the
3 rules. We just need to evaluate what they
4 are. But I can commit, again, in that
5 scenario where NPT defaults causing the fund
6 not to be funded, we'll provide assurance. I
7 just can't sit here right now on the stand
8 and say there'll be a parental guaranty. But
9 it would be satisfactory financial assurance.

10 Q. Understood. Thank you.

11 In response to some questions from Mr.
12 Reimers, Mr. Bowes, you looked at the Sugar
13 Hill letter where there's \$16 million of
14 total project costs in the town, and then you
15 had a little exchange with him about the sum
16 of the construction in all of the towns. And
17 I think the way that you settled out was the
18 sum of the numbers in all the towns would
19 come to \$1.6 billion ultimately; correct?

20 A. (Bowes) Yes. Yes.

21 Q. But to just look at any one town, especially
22 if it didn't have a substation, you can't
23 gross those numbers up; right?

24 A. (Bowes) You can't extrapolate those numbers

1 on a per-mile cost and get that total project
2 cost. There are other components that have
3 to be added in.

4 Q. And one of the important ones you mentioned
5 was substations.

6 A. (Bowes) Correct. Those are a large project
7 cost.

8 Q. Roughly, how much value, how much total
9 project cost is accounted for by the
10 substations in order of magnitude?

11 A. (Bowes) Yeah, we had some of the detail in
12 the executive or the confidential session.

13 Q. Do you need to give a confidential answer to
14 this question?

15 A. (Bowes) I think I can do a high-level one.

16 Q. Okay.

17 A. (Bowes) So, out of \$1.6 billion, you probably
18 have 30 to 40 percent of the cost are
19 substations.

20 Q. Further on substations, but different topic
21 having to do with the safety. And I know
22 we're going to have a safety panel and a
23 construction panel, but I'm interested in you
24 again seem to have some knowledge about

1 substations and fires. How often do
2 substations catch fire?

3 A. (Bowes) Again, fairly rare. Most people
4 think of a substation fire being the main
5 transformer that catches fire. I would say
6 there was the one we talked about in
7 Deerfield Exhibit 15. I know of one other
8 that occurred in the last five years and one
9 that occurred approximately 25 years ago.
10 So, in my experience -- the Cos Cob was a
11 little bit different. That was actually just
12 a single-distribution transformer that
13 failed. It was not a substation transformer.
14 So I would say, you know, with 600 plus or
15 minus substations on our system, and if you
16 did, you know, every year is a substation
17 year, I'm talking about three in, you know,
18 several thousand substation years. So it's a
19 fairly rare event.

20 Q. Have any of those fires, the very few, spread
21 beyond the footprint of the substation
22 itself?

23 A. (Bowes) They have not. So, even with the one
24 I'm thinking about that occurred about 25

1 years ago in a Franconia substation in
2 Western Massachusetts, that had a full
3 rupture of the main tank at the substation
4 transformer, and the oil spread around. But
5 again, it was all contained within the trap
6 rock in the containment we have under each
7 one of the transformers. We actually build a
8 secondary containment under them so the oil
9 is trapped there. There will be a fire, and
10 it will probably burn until the oil or fuel
11 is expended. And we typically don't try to
12 fight those fires.

13 So, again, a rare event. All of them
14 have been contained within the substation
15 themselves.

16 Q. Different topic. You were asked, and Mr.
17 Quinlan was asked, about the decision-making
18 process if you are granted a certificate and
19 get all the other permits that you need, but
20 you don't have -- you haven't won an RFP.
21 And I understand you don't know how that will
22 come out. You know some of the factors that
23 will be discussed.

24 Is one of the factors the virtual

1 certainty that there would be an appeal of
2 any grant of a certificate and a proceeding
3 that would be going on in the New Hampshire
4 Supreme Court for some number of months
5 following the approval by this body?

6 A. (Bowes) I'm not as familiar with the appeal
7 process in New Hampshire as I am with other
8 states. Where we've had an appeal process in
9 other states, it has not stopped the start of
10 construction.

11 Q. Okay. That's helpful to know, too.

12 Do the Committee members or -- Counsel
13 has a question.

14 MR. IACOPINO: Two sets of
15 questions.

16 CHAIRMAN HONIGBERG: Just want
17 to see if anybody else has questions. All
18 right, Mr. Iacopino.

19 INTERROGATORIES BY MR. IACOPINO:

20 Q. First of all, during your cross-examination
21 by Mr. Tanguay, you mentioned this life cycle
22 report.

23 MR. IACOPINO: And I don't know
24 if Mr. Bowes should answer this or counsel.

1 You're going to look to see if it was marked as
2 an exhibit because he said it was in the
3 record.

4 MR. NEEDLEMAN: I was actually
5 going to put that in when I did the redirect.

6 MR. IACOPINO: Okay. Thank you.

7 BY MR. IACOPINO:

8 Q. And then, Mr. Bowes, I just have a couple
9 questions.

10 You were asked about tower collapse.
11 And for a large part of this project you're
12 in an pre-existing right-of-way, where you're
13 going to be putting up higher towers, as I
14 understand it, in most places. Those new
15 towers, whether they be lattice, H-frame or
16 monopole, I assume were manufactured
17 relatively recently; is that correct?

18 A. (Bowes) In fact, they probably have not been
19 manufactured yet. They'll be ordered as part
20 of the Project.

21 Q. Okay. So if I consider those modern towers,
22 is there any -- do you have any concern that
23 the modern towers are more prone to collapse
24 than the ones that have been there for 30 or

1 40 years, or vice versa?

2 A. (Bowes) Actually, it would be the opposite.
3 The new standards of the National Electric
4 Safety Code are more stringent for the two
5 main conditions that cause structure failure,
6 which is wind loading and ice loading. So
7 both of those have increased since 30, 40, 80
8 years go in some cases. So, today's
9 standards are much more stringent than they
10 were in previous versions of the National
11 Electric Safety Code. We've also selected
12 the more severe standards within that code to
13 design Northern Pass and incurred the
14 additional cost that goes with that. But,
15 again, we think this asset should be
16 reliable. And part of that reliability is
17 resilience to extreme weather events. So I
18 would say my opinion is that we will have a
19 superior product to what's out there
20 currently.

21 Q. And what about the height? Does the height
22 diminish the load bearing of the -- or make
23 the tower collapse more probable? In other
24 words, the longer the tower, does it make it

1 more apt to collapse?

2 A. (Bowes) There is a movement associated with
3 that, sure. So it's the same as any lever.
4 The longer the lever, the more susceptible,
5 the more wind loading it's going to be
6 exposed to. But it's also built to a tougher
7 standard.

8 Q. And these increased-height towers -- I mean,
9 I don't know all their heights, but I know
10 like 150 feet some of them, perhaps more --

11 A. (Bowes) Most of them are quite a bit shorter
12 than that, but there are a few that get into
13 that height range.

14 Q. Let's use the worst case scenario. Have
15 there been increased -- is there increased
16 evidence of collapse in these newer taller
17 towers? In other words, are you at the top
18 of the range that the code allows, or is
19 there room for comfort in that?

20 A. (Bowes) So I would say the experience I have,
21 again, which is fairly limited, isn't due to
22 the height of the tower, it's due to what
23 falls into the conductors, and that's really,
24 you know, the trees along or adjacent to the

1 right-of-way.

2 MR. IACOPINO: I have no other
3 questions.

4 CHAIRMAN HONIGBERG: Mr.
5 Needleman.

6 MR. NEEDLEMAN: Thank you. A
7 moment ago, Mr. Wright mentioned deferring
8 questions for the public health and safety
9 panel tomorrow. I just wanted people to
10 understand that that panel will speak to
11 components of public health and safety: EMF,
12 line sound, line interference, substation
13 sounds. There are other components of health
14 and safety that will be addressed by the
15 construction panel later.

16 REDIRECT EXAMINATION

17 BY MR. NEEDLEMAN:

18 Q. Let me start with one of the areas we talked
19 about a moment ago, substation fires.

20 Mr. Bowes, is there anything about the
21 expanded substation equipment in Deerfield
22 that would be materially different from the
23 equipment that is currently present and has
24 been present there?

1 A. (Bowes) No, it's the same type of equipment
2 that's there now.

3 Q. And is there anything materially different
4 about that equipment that's there now and
5 that will be added that is materially
6 different from other substation equipment
7 around New Hampshire?

8 A. (Bowes) No, there's none.

9 Q. These are all for Mr. Bowes.

10 The Chair picked up a moment ago on the
11 Sugar Hill letter that Mr. Reimers asked
12 about. Mr. Reimers posited the hypothetical
13 to you of taking the full 192 miles of the
14 line and multiplying it by 9.4 million per
15 mile derived from his numbers for Sugar Hill
16 and suggesting that that might be a way to
17 calculate the total amount of cost for
18 underground. Would that be an accurate
19 depiction of the total underground cost for
20 the Project?

21 A. (Bowes) No, it's not. In fact, there's
22 another data table in that underground
23 report, Data Table No. 1, that goes through
24 the major components and --

1 Q. Is that part of a public report?

2 A. (Bowes) It is.

3 Q. Okay.

4 A. (Bowes) And then the confidential document
5 went into much more detail about the
6 components of each part of the construction,
7 which included materials, included the
8 engineering and included the total cost of
9 each one of those major components.

10 Q. Okay. Thank you.

11 Another one of Mr. Reimers' questions
12 asked whether the Project had ever had a
13 discussion with New Hampshire DOT about being
14 in Interstate 93. And I think you said that
15 in fact they had and that you were personally
16 present at that discussion on March 1st,
17 2016. We didn't get to hear about the
18 substance of that discussion. Can you tell
19 us your understanding of what DOT's view was
20 at that discussion about the use of I-93?

21 A. (Bowes) Sure. The DOT confirmed Northern
22 Pass's understanding of the regulations in
23 the Utility Accommodation Manual, which would
24 be that we could not use any of the travel

1 lanes. We could not use the breakdown lane.
2 In fact, we'd have to be to the extreme
3 right-hand side of the road right-of-way.
4 And we could only be there if we had
5 exhausted all other alternatives, including
6 use of state roads. So the words that they
7 used at that meeting were "discourage and
8 deter Northern Pass from pursuing an I-93
9 option."

10 MR. NEEDLEMAN: Dawn, could you
11 pull up what we're going to mark as Exhibit 84,
12 please.

13 (Exhibit APP 84 marked for
14 identification.)

15 BY MR. NEEDLEMAN:

16 Q. This goes to Mr. Iacopino's question a moment
17 ago. The document that's part of the record,
18 which has not been entered yet, but we can
19 enter now, is a Northern Pass response to a
20 data request from one of the municipal groups
21 which refers to this "life cycle analysis."

22 And I would ask you, Mr. Bowes, to look
23 at that. I think there was a question before
24 about whether one could quantify the life

1 cycle costs of underground versus overhead.

2 Do you recall that?

3 A. (Bowes) Yes, I do.

4 Q. And looking at this document now, does that
5 refresh your recollection about what those
6 costs are?

7 A. (Bowes) Yes. In fact, a copy of the document
8 as well contained in the executive summary,
9 there's a nice data table, that although it's
10 in AC transmission, the 345 kV AC underground
11 and the 345 kV overhead are very good proxies
12 for the 320 kV DC that we're proposing in
13 this project. And it shows it's right around
14 three times the cost, again, total life cycle
15 cost, for underground transmission versus
16 overhead.

17 Q. All right. And we will get that circulated.

18 And then one other topic.

19 MR. NEEDLEMAN: Dawn, could you
20 pull up what we're going to mark as Exhibit 85.

21 (Exhibit APP 85 marked for
22 identification.)

23 BY MR. NEEDLEMAN:

24 Q. Mr. Reimers also asked you at one point with

1 respect to the proposed legislation in New
2 Hampshire about energy corridors. I think
3 you had observed that it was your
4 understanding that Franconia Notch was
5 excluded from that. And he asked whether you
6 knew if that was the case in the final
7 legislation, and you didn't know. What we
8 have marked here as Exhibit 85 is what is
9 indicated on the top of the page as the final
10 version of that bill. I believe it is the
11 final version of the legislation.

12 MR. NEEDLEMAN: And Dawn, if you
13 could go to the top of the third page.

14 BY MR. NEEDLEMAN:

15 Q. And if you look at the top of the third page,
16 that first line in B, is that what you were
17 talking about before?

18 A. (Bowes) So that was part of the underground
19 cost estimate report. And at the time, the
20 bill had not seen a final version.
21 Apparently this is the final version, and it
22 does exclude that section through Franconia
23 Notch.

24 CHAIRMAN HONIGBERG: Can you

1 show us the bottom of the previous page --

2 MR. NEEDLEMAN: Sure.

3 CHAIRMAN HONIGBERG: -- because
4 we want to see what leads into that.

5 MR. NEEDLEMAN: Yup.

6 (Committee members review document.)

7 CHAIRMAN HONIGBERG: Okay. So
8 now can we go to the second page and see what
9 had been designated as corridors?

10 MR. NEEDLEMAN: And I was
11 focused on the end of part B.

12 CHAIRMAN HONIGBERG: Right. We
13 were just -- we all saw the word "excepting."
14 We just didn't know what we were excepting it
15 from.

16 MR. NEEDLEMAN: Understood.
17 Thank you. That's the end of my questions.

18 CHAIRMAN HONIGBERG: All right.
19 Thank you, gentlemen.

20 Let's go off the record.

21 (Discussion off the record.)

22 CHAIRMAN HONIGBERG: We can go
23 back on the record. So we're going to end the
24 day here and pick up the day again at 9:00

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tomorrow morning.

(Whereupon Day 3 Afternoon Session was
adjourned at 5:48 p.m.)

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I, Susan J. Robidas, a Licensed
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under the conditions present at the time.

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