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STATE OF NEW HAMPSHIRE

SITE EVALUATION COMMITTEE

April 17, 2017 - 9:05 a.m. DAY 3
49 Donovan Street **MORNING SESSION ONLY**
Concord, New Hampshire

{Electronically filed with SEC 04-23-17}

IN RE: SEC DOCKET NO. 2015-06
NORTHERN PASS TRANSMISSION -
EVERSOURCE; Joint Application of
Northern Pass Transmission LLC and
Public Service of New Hampshire d/b/a
Eversource Energy for a
Certificate of Site and Facility

PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:

- Chmn. Martin Honigberg** Public Utilities Comm.
(Presiding Officer)
- Cmsr. Kathryn M. Bailey** Public Utilities Comm.
- Dir. Christopher Way, Des.** Dept. of Resources &
Economic Development
- Craig Wright, Designee** Dept. of Environmental
Services
- William Oldenburg, Des.** Department 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: Cynthia Foster, LCR No. 14

{WITNESS PANEL: Bowes and Ausere}

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WITNESS PANEL	MICHAEL AUSERE WILLIAM BOWES	PAGE NO.
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P R O C E E D I N G S

PRESIDING OFFICER HONIGBERG: I just want to make sure people understand that as long as we have a quorum, we can proceed and there are going to be some days during the course of the many weeks that we'll be doing this when one or two people may be missing, but as long as we meet the statutory quorum requirement, we can go ahead. We'll also note that the room that we have just off to the side here to our right is set up so that if someone's in there, the sound is being piped in and there's one of these screens so the people can see whatever exhibits have been put up for review by the witness and everyone else in the room.

(Discussion off the record)

PRESIDING OFFICER HONIGBERG: I think, Mr. Pappas, you were probably in the middle of a cogent question when we interrupted you.

MR. PAPPAS: Thank you.

CROSS-EXAMINATION

BY MR. PAPPAS:

Q Good morning, Mr. Ausere and Mr. Bowes.

A (Ausere) Good morning.

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) Good morning.

2 Q Mr. Ausere, I want to resume asking you some
3 questions of you and I want to start with your
4 Supplemental Testimony. Now, in your testimony,
5 you talk about the SEC requirements that the
6 Applicant provide financial assurances for a
7 decommissioning plan. Do you recall that?

8 A I do.

9 Q And in your testimony, you describe the four
10 things that are listed in the SEC regulations.
11 You describe an irrevocable standby letter of
12 credit, a performance bond and a surety bond or
13 an unconditional payment guarantee from a parent
14 company maintaining at all times an investment
15 grade rating. Do you recall those?

16 A (Ausere) I do.

17 Q So I want to ask you some questions about this
18 topic. And my first question is, the fourth
19 item, unconditional payment guarantee from a
20 parent company maintaining at all times an
21 investment grade rating. Now, as you indicated
22 earlier, NPT does not yet have a rating,
23 correct?

24 A (Ausere) Correct.

{WITNESS PANEL: Bowes and Ausere}

1 Q And you talked about the rating for Eversource.
2 Are those ratings investment grade ratings?

3 A (Ausere) Yes.

4 Q Okay. But in this case, though, Eversource is
5 not providing an unconditional payment guarantee
6 for the decommissioning costs, correct?

7 A (Ausere) In my testimony I describe that the
8 financial assurance for the decommissioning
9 payments come from the operation of the TSA and
10 Hydro-Quebec's guarantee of HRE's obligation
11 under the TSA.

12 Q In other words, Eversource is not providing an
13 unconditional payment guarantee for the
14 decommissioning costs?

15 A (Ausere) Correct.

16 Q Thanks. Now, NPT's Application to the SEC does
17 not include one of these four types of financial
18 assurance, is that right?

19 A (Ausere) Correct.

20 Q And what NPTC is seeking to establish through
21 your Supplemental Testimony is that they think,
22 NPT believes that they provide adequate
23 financial assurance for the decommissioning
24 plan, correct?

{WITNESS PANEL: Bowes and Ausere}

1 A (Ausere) Correct.

2 Q So I want to review what the Applicant claims to
3 be those financial assurances, but before I do,
4 let me just ask two preliminary questions that
5 we touched upon on Friday afternoon.

6 First, if the TSA is terminated for any
7 reason, and we went through a number of reasons
8 on Friday, but if it's terminated for any reason
9 before year 36, there are no payments into the
10 decommissioning fund, correct?

11 A (Ausere) That's not accurate. If it is, if it
12 were terminated early by Hydro-Quebec, generally
13 speaking, Hydro-Quebec or excuse me, HRE, would
14 be required to fund the decommissioning cost.
15 Go ahead.

16 Q But that wasn't my question. I was focusing on
17 the decommissioning fund itself. So that fund
18 doesn't start until year 36, correct?

19 A (Ausere) Correct.

20 Q So if for any reason the TSA is terminated prior
21 to the start of funding that fund, there's no
22 money in that fund, obviously.

23 A (Ausere) That's correct, but I do want to
24 emphasize, though, if it were terminated early

{WITNESS PANEL: Bowes and Ausere}

1 by Hydro-Quebec, in that unlikely scenario HRE
2 would still owe decommissioning costs.

3 Q Understood, and we went through that on Friday.
4 And the second point is that if NPT defaults
5 under the TSA at any time during the 40 years of
6 the TSA, in that scenario, neither HRE or HQ are
7 obligated to pay decommissioning costs, correct?

8 A (Ausere) There are certain circumstances under
9 the TSA where if NPT were to default then you
10 are correct, HRE/HQ would not owe
11 decommissioning costs, but those situations
12 would be really two examples that come to mind.
13 One is where the in-service date of the project
14 is delayed by five years because of NPT's lack
15 of following good utility practice. The other
16 example would be where if the line were to go
17 out of service for longer than five years and
18 that outage is due to NPT's not following good
19 utility practice.

20 Q All right.

21 A (Ausere) All right? Low probability scenarios.

22 Q But they are probabilities, nonetheless,
23 correct?

24 A (Ausere) They are theoretical possibilities.

{WITNESS PANEL: Bowes and Ausere}

1 Q Okay. Now, in your Supplemental Testimony, you
2 testified that the financial assurances provided
3 by the TSA are better than a standby letter of
4 credit because the standby letter of credit is
5 capped at a fixed amount and has a set term. Do
6 you recall that?

7 A (Ausere) Correct.

8 Q And would you agree with me that a standby
9 letter of credit fixed amount can always be
10 increased?

11 A I'm thinking through. After the term of that
12 standby letter of credit, you could increase.
13 You could increase.

14 Q And you can amend a standby letter of credit,
15 can you not? It's a contract.

16 A (Ausere) I guess you could, yes.

17 Q In addition to increasing the amount, the term
18 can be changed by a simply amending the
19 contract, correct?

20 A (Ausere) From what I understand, the terms for
21 either a standby letter of credit or a surety
22 bond are generally relatively short-term. So
23 going 40 years out or plus, at least in my
24 experience, I haven't seen that very often so

{WITNESS PANEL: Bowes and Ausere}

1 that's why I make that point in my testimony.

2 Q Sure. But you would agree with me that both a
3 standby letter of credit and a bond, whether
4 it's a surety bond or payment bond, they can
5 have their amounts increased and they can have
6 their terms extended, correct?

7 A (Ausere) I would agree.

8 Q Mr. Ausere, are you also familiar with terms in,
9 whether it's a standby letter of credit where
10 it's common term to have the letter of credit
11 continue until cancelled?

12 A (Ausere) No. I'm not familiar with that.

13 Q Now, under the TSA, the Management Committee
14 consists of two individuals from HRE and two
15 individuals from NPT, correct?

16 A (Ausere) Correct.

17 Q And the Management Committee must agree on a
18 decommissioning plan in order to adopt one,
19 correct?

20 A (Ausere) Correct.

21 Q And if the Management Committee does not agree
22 on a decommissioning plan which would include
23 the costs of decommissioning, it has to go to
24 arbitration to be decided, correct? To break

{WITNESS PANEL: Bowes and Ausere}

1 that impasse?

2 A (Ausere) It does, but as we discussed on Friday,
3 in that scenario, HRE is still obligated to fund
4 the decommissioning fund.

5 Q Well, under that scenario, if the Management
6 Committee never agrees on a decommissioning plan
7 or decommissioning costs, there's nothing to
8 apply the formula to, correct?

9 A (Ausere) We would apply the formula for the plan
10 that's provided by NPT, and then once the
11 disagreement, if there is a disagreement, is
12 decided, then the fund would be trued up for
13 whatever the arbitrated plan and the cost of
14 that plan is.

15 Q If the Management Committee doesn't agree on a
16 decommissioning plan, including the funding,
17 doesn't that go to arbitration first to decide
18 what the plan should be and what the level of
19 funding should be?

20 A (Ausere) No. Actually, under the TSA, we, NPT
21 would go ahead and collect and then once the
22 arbitration or the disagreement is resolved,
23 then the fund would be trued up, whatever the
24 outcome is of that arbitration.

{WITNESS PANEL: Bowes and Ausere}

1 Q If there's early termination of the TSA, that
2 would lead to disputes, including disputes over
3 the decommissioning fund, correct?

4 A (Ausere) There would be disagreement on the
5 decommissioning plan in that scenario.

6 Q And if NPT enters into a new TSA with a party
7 other than HRE, HRE and the new party have to
8 then agree on an allocation of decommissioning
9 costs, correct?

10 A (Ausere) If NPT were to decide to continue
11 operation of the line through a different party,
12 yes. We would have to negotiate that.

13 Q All right. Okay. And of course, if there's a
14 breach by either HRE or NPT of the TSA, that
15 could lead to disputes including disputes over
16 the decommissioning costs, correct?

17 A (Ausere) That would, I mean, that requires
18 speculation of the scenario. I can't answer
19 that. I mean, that would be very speculative
20 without what the circumstances are of the
21 termination, et cetera.

22 Q You don't have to speculate to agree that if
23 there's a dispute over whether HRE or NPT
24 breached the agreement, that those parties are

{WITNESS PANEL: Bowes and Ausere}

1 going to have to negotiate that or some third
2 party is going to have to decide that.

3 A (Ausere) Again, too speculative for me.

4 Q Well, let me ask you this question. Under any
5 of these various scenarios, whether it's a
6 breach by one of the parties, whether it's early
7 termination of the TSA, whether it's dispute
8 over how much HRE versus a third party owes for
9 decommissioning costs, there are a number of
10 possible scenarios under the TSA where disputes
11 could arise in the future regarding the
12 decommissioning costs and who pays what for the
13 decommissioning costs. Would you agree with
14 that?

15 A (Ausere) I could see, you know, there being a
16 scenario where that could happen. The only
17 thing I would point out is I think in any form
18 of financial assurance there is that risk that
19 there's disagreement over the application of the
20 financial assurance.

21 Q But there's not the same risk if you have a
22 standby letter of credit or a bond, is there?

23 A (Ausere) I don't know that I can agree with
24 that. Again, depends what the circumstances

{WITNESS PANEL: Bowes and Ausere}

1 are.

2 Q Well, you're not going to have the risk with a
3 standby letter of credit or bond that either HRE
4 or NPT or even a third party coming in to take
5 over use of the line would have disputes under
6 the TSA. Those kinds of risks aren't going to
7 arise with a standby letter of credit or a bond,
8 are they?

9 A (Ausere) I can't say that because we don't have
10 a letter of credit in place or a surety bond,
11 for example. So it would depend what the terms
12 of those instruments are.

13 Q Well, with either a letter of credit or a bond,
14 any potential dispute is going to be with either
15 the letter of credit or the bond itself. It's
16 not going to be disputes regarding the TSA and
17 whether its default under the TSA or whether
18 some party owes a different amount under the
19 TSA, correct?

20 A (Ausere) It could be with a different party, the
21 dispute could be.

22 Q But the dispute is going to be with the entity
23 providing financial security, whether it be the
24 bank for a letter of credit or the insurance

{WITNESS PANEL: Bowes and Ausere}

1 company for a bond, correct?

2 A (Ausere) Correct. In this scenario.

3 Q But there's not going to be a dispute with the
4 insurance company or the bond regarding the
5 possible scenarios under the TSA. Correct?

6 A (Ausere) I would imagine that there's going to
7 be an inner tie between when a Petition would
8 draw down on the surety bond or the letter of
9 credit with what the dispute is under the TSA.
10 I don't think, I can't imagine they would be
11 independent of one another.

12 Again, as I think it through, I mean there
13 are risks, I think, with any form of financial
14 assurance, be it letter of credit, a surety bond
15 or a parental guarantee. We feel that we put a
16 robust package in place by virtue of the TSA and
17 the HQ guarantee. It is what we, we being
18 Eversource, ultimately is relying on to recover
19 its costs.

20 Q And given that there are risks for any financial
21 arrangement, would you agree with me there are
22 some additional risks in relying on the TSA for
23 financial surety that don't exist if you rely on
24 a standby letter of credit or a bond or an

{WITNESS PANEL: Bowes and Ausere}

1 unconditional guarantee?

2 A (Ausere) I can think of an example. You know,
3 in the case in terms of what we have right now
4 with the TSA and the HQ guarantee, the guarantor
5 in this case is Hydro-Quebec, and Hydro-Quebec
6 has an A plus credit rating which is very high
7 up in the hierarchy of S&P's credit ratings. If
8 I were to go out as an alternative and procure
9 either a standby letter of credit or a surety
10 bond either from a bank or an insurance company,
11 they could easily have a lower credit rating,
12 and in that case now I've introduced a new
13 uncertainty which is the credit quality and the
14 ability of that insurer to meet the obligation
15 if it arises.

16 Q But you're focused on the quality of the
17 insurer, whether it's HQ, the bank, or the
18 insurance company, and presumably, any standby
19 letter of credit or bond would come from a
20 highly rated bank or insurance company. You
21 wouldn't get one from certainly less than
22 investment grade. My question was geared more
23 towards not the risk inherent from any financial
24 guarantee from the financial strength of the

{WITNESS PANEL: Bowes and Ausere}

1 guarantor. My question was more of, put that
2 aside, under the TSA there are additional risks
3 because there are additional scenarios which we
4 have reviewed where disputes come up under the
5 TSA that would not exist vis-a-vis the insurance
6 company or the bank. Do you agree?

7 A (Ausere) Again, as I said earlier, I can't agree
8 to that. Because there's, it is truly
9 speculative. We're talking about a point in
10 time far down the road, and what the terms are
11 of these alternative forms of financial
12 assurance are unknown to me. Because, again,
13 it's a hypothetical. And I can't picture a
14 scenario where there wouldn't be an interplay
15 between the application of that financial
16 assurance and what the dispute is under the TSA
17 in this example.

18 Q Let me put a little more concretely just as one
19 example. Under the TSA, if NPT defaults, HQ
20 will have no decommissioning cost, right?

21 A In the specific circumstances I described
22 earlier, if NPT defaulted, yes. There would be
23 no, HRE would not be obligated to fund the fund.

24 Q Correct. If there were a standby letter of

{WITNESS PANEL: Bowes and Ausere}

1 credit in place, or a surety bond, and NPT
2 defaulted on the TSA, we wouldn't have to rely
3 on HQ for decommissioning costs. You would look
4 to either the bank or the insurance company,
5 correct?

6 A In that specific case, if NPT were to default,
7 again, because of the contract, I agree in that
8 you couldn't look to HRE or Hydro-Quebec to fund
9 the decommissioning fund. In that case, I guess
10 it would depend on who would be the
11 counterparties to the LOC or surety bond. But I
12 do agree with you that that is the scenario
13 where HRE/HQ would not be responsible for the
14 decommissioning costs, and as I said, on Friday,
15 I think -- not I think. That would be a
16 scenario where Eversource would step in.

17 Q Under this Application, Eversource is not
18 legally obligated to step in, are they?

19 A Correct. Correct.

20 Q I'm going to shift gears for a minute and ask
21 you some questions about the TSA globally. Now,
22 it was signed in 2010 as you testified, and at
23 the time the project was a 1200 megawatt
24 transmission line all overhead with an estimated

{WITNESS PANEL: Bowes and Ausere}

1 cost of a \$1.1 billion. Do you agree?

2 A I agree.

3 Q Then the TSA was amended in December 2013, and
4 at that time, the project was still 1200
5 megawatts transmission line but there were 8
6 miles of underground and the cost was estimated
7 to be \$1.4 billion. Do you agree?

8 A I agree it was still 1200 megawatts, what the
9 cost was and the miles of underground, I can't
10 recall.

11 Q Maybe Mr. Bowes can recall.

12 A (Bowes) I'm sorry. Could you repeat that?

13 Q Sure. In December 2013, the proposed project
14 was 1200 megawatts. At this point it included 8
15 miles of underground and the projected costs
16 were 1.4 billion. Is that right?

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

18 Q And then, Mr. Ausere, in 2015, the project was
19 changed to be 1090 megawatts. Now there were 60
20 miles of underground and 1.6 billion in
21 projected costs. Was the TSA amended to reflect
22 these changes?

23 A (Ausere) It was actually in terms of the
24 reduction in the capacity of the line to 1090.

{WITNESS PANEL: Bowes and Ausere}

1 It was in that in the amendment we talked about
2 on Friday, that was dependent, the effectiveness
3 of which was dependent upon being selected in
4 the three-state RFP, but because we weren't
5 selected, that's not effective yet. So no, the
6 TSA that's in effect today has not yet been
7 amended.

8 Q Okay. That was the point I was trying to get
9 to. So the TSA that's in place today has not
10 been amended to reflect the current proposed
11 project being a 1090 megawatt, 60 miles
12 underground and \$1.6 billion cost.

13 A (Ausere) Well, the cost actually isn't stated
14 in the TSA nor is the miles of underground, but
15 the TSA we do need to revise to reflect the
16 reduction from 1200 megawatts to 1090.

17 Q And is the cost picked up in budgets that are
18 submitted under the TSA?

19 A (Ausere) I certainly know that the costs are
20 shared by virtue of our frequent meetings with
21 Hydro-Quebec, but technically under the TSA, I
22 believe we shared an initial construction budget
23 at the early onset of the agreement, but we're
24 not obligated in the TSA to start sharing, you

{WITNESS PANEL: Bowes and Ausere}

1 know, formal budget updates under the TSA until
2 the construction phase is begun.

3 Q Aren't you required, and I don't mean to test
4 your memory, I assume you have it in front of
5 you, and you can certainly look to refresh your
6 memory.

7 A (Ausere) Yes.

8 Q I think under Article 5, doesn't the Management
9 Committee have to approve the budgets, including
10 construction budgets?

11 A (Ausere) Yes.

12 Q So I think, my reading of TSA is that the
13 Management Committee has to approve any change
14 in the budget.

15 A (Ausere) Correct.

16 MR. IACOPINO: Just for everybody's
17 reference, that would be contained in
18 Applicant's 1, Appendix 16.

19 MR. PAPPAS: It's also Counsel for the
20 Public's Exhibit 16 as well.

21 Q Mr. Ausere, what's on the screen now is Counsel
22 for the Public's Exhibit 18, and this is the
23 letter that extended the approval date under the
24 TSA. Do you recall that?

{WITNESS PANEL: Bowes and Ausere}

1 A (Ausere) I do.

2 Q And that's in fact what paragraph 1 refers to.
3 In paragraph 2, it refers to, it has a sentence
4 that says, quote, notwithstanding the foregoing,
5 prior to the approval deadline NPT and HRE shall
6 file amendments to the TSA with FERC reflecting
7 the terms and conditions of the amended and
8 restated TSA for purposes of the Massachusetts
9 RFP, and I understand that was done, correct?

10 A (Ausere) Wait. I'm sorry. Repeat your
11 question. No. No. No. I was reading the --

12 Q That's fine. That's fine. We saw that in 2016
13 the TSA was amended for purposes of the
14 Massachusetts RFP, correct?

15 A (Ausere) It was amended for purposes of the
16 three-state RFP.

17 Q Three-state RFP. I stand corrected. Thank you.
18 And then this contemplates that the TSA will be
19 amended again for purposes of the Massachusetts
20 RFP, correct?

21 A (Ausere) Correct.

22 Q And it goes on to say, or shall make a second
23 amendment to the TSA to reflect changes to the
24 approval deadline and other mutually agreed upon

{WITNESS PANEL: Bowes and Ausere}

1 changes, close quote. Do you see that?

2 A (Ausere) I do.

3 Q Is that essentially saying that whether it's the
4 Massachusetts RFP or any other solicitation, the
5 parties contemplate amending the TSA in the
6 future?

7 A (Ausere) We potentially anticipate making an
8 amendment to the TSA for purposes of the Mass.
9 RFP to address the allocation of the revenue
10 requirements under the TSA and let me elaborate
11 on that. Let me elaborate by going back to the
12 three-state RFP.

13 In a three-state RFP, what we anticipated
14 doing was reallocating a portion of the revenue
15 requirements or the payments due under the TSA
16 from Hydro-Quebec to the electric utilities that
17 were participating in the three-state RFP. So I
18 think what we're doing here, not I think. What
19 we're doing here is acknowledging that's a
20 possibility for the Massachusetts RFP, but we're
21 early into that process of deciding how to
22 respond to the Mass RFP.

23 Q That was going to be my followup is, I assume
24 one of the things you would amend the TSA would

{WITNESS PANEL: Bowes and Ausere}

1 be to reflect who would be making those
2 payments, whether it's HRE, the tri-state RFP
3 entity, the Massachusetts entity or any other
4 future entity. Is that what's contemplated?

5 A (Ausere) It would be specific to the Mass. RFP.
6 I just draw that distinction. You said any
7 entity.

8 Q Well, what the letter says is it refers to
9 future amendment beyond the Mass. RFP and
10 that's --

11 A (Ausere) It does say for purposes of the
12 Massachusetts RFP.

13 Q But it goes on to say, or shall make a second
14 amendment TSA to reflect changes to the approved
15 deadline and other mutually agreed upon changes.

16 That's a rather open-ended sentence, and so
17 are you saying that this is only intended for
18 the Mass. RFP and not for any other
19 solicitations that may come down the road later?

20 A I think so because, again, we're early on in the
21 decision-making process for how to respond to
22 the RFP, and we may ultimately decide to take a
23 different tack than we did in the three-state
24 RFP. I would say more than likely we'll follow

{WITNESS PANEL: Bowes and Ausere}

1 the similar tack to what we did in the
2 three-state.

3 Q But whatever tack NPT and HQ decide to take,
4 they're free to amend the TSA going forward,
5 correct?

6 A NPT and HRE?

7 Q HRE, yes.

8 A Correct.

9 Q So that the TSA that's currently in place as
10 part of this Application could be amended in the
11 future?

12 A (Ausere) If the parties agree to it, correct.
13 We don't anticipate it, but --

14 Q If NPT amends the TSA in the future, do you know
15 whether NPT intends to come back to the SEC for
16 approval of that amended TSA?

17 A (Ausere) I do not, just not knowing what the
18 requirements of the SEC, I can't speak to that.

19 Q Okay.

20 A (Ausere) I would say if, when we, I saw the
21 language disappeared from my screen, but the, I
22 will tell you the intent there is an
23 acknowledgment that there's a good chance that
24 we'll follow the similar approach that we

{WITNESS PANEL: Bowes and Ausere}

1 planned to in the three-state RFP which is
2 reallocating or passing through some of the
3 revenue requirements that otherwise would be due
4 to HRE to, in this case, the electric utilities
5 in Massachusetts.

6 Q Okay.

7 MR. PAPPAS: Mr. Chairman, I'm finished my
8 questions of Mr. Ausere for the public session.
9 I do have maybe 15 minutes of confidential
10 questions that we can take up at the appropriate
11 time.

12 PRESIDING OFFICER HONIGBERG: Fair enough.

13 MR. PAPPAS: I'll now move to, assume you
14 want me to move to the next witness?

15 PRESIDING OFFICER HONIGBERG: You're
16 questioning a panel. In fact, Mr. Bowes has
17 already given you a couple of answers as you've
18 been asking Mr. Ausere so you're up with the
19 panel.

20 MR. PAPPAS: Okay.

21 BY MR. PAPPAS:

22 Q Good morning, Mr. Bowes.

23 A (Bowes) Good morning.

24 Q Let me start by asking you some questions about

{WITNESS PANEL: Bowes and Ausere}

1 Eversource or NPT's technical ability to
2 construct the line. One of the topics for your
3 panel today. Now, as I understand it, the
4 overhead portion of the line was designed by
5 consultants hired by Eversource, correct?

6 A (Ausere) Yes. Burns McDonnell had designed the
7 overhead portions of the line.

8 Q As I understand it, Burns & McDonnell were given
9 Eversource's existing design criteria that
10 they've used in the past?

11 A That is correct.

12 Q And Burns & McDonnell designed the overhead
13 portion using Eversource's existing design
14 criteria?

15 A (Bowes) If it was applicable, yes. They also
16 borrowed from Hydro-Quebec's design criteria for
17 portions of the overhead DC line.

18 Q Okay. And as I understand it, consultants also
19 were retained by Eversource to design the
20 underground portions of the line, correct?

21 A (Bowes) That is correct.

22 Q And for the underground portions of the line,
23 the consultants didn't use existing Eversource
24 criteria but used criteria from the industry or

{WITNESS PANEL: Bowes and Ausere}

1 their experience. Is that right?

2 A (Bowes) I would say partly, yes. Because it's a
3 HVDC underground line, Eversource does not have
4 any of that on its existing transmission system.
5 However, many of the requirements for civil
6 construction do come from Eversource standards.

7 Q Okay. Now, with respect to Eversource's
8 technical ability to operate the line once it's
9 in place, I assume you expect the line to be
10 subject to ISO New England oversight.

11 A (Bowes) That is correct. Yes.

12 Q And I assume that the line will be operated by
13 existing Eversource personnel?

14 A (Bowes) Yes, it will.

15 Q And will it be operated by existing Eversource
16 criteria, maintenance and operation criteria?

17 A (Bowes) Yes, it will. In fact, I know I filed
18 that in the other portion of my testimony with
19 the construction panel.

20 Q Right.

21 A (Bowes) The requirements of Eversource's
22 maintenance program.

23 Q Yes, I'm going to, because you sit on two
24 panels, this morning is going to be more of a

{WITNESS PANEL: Bowes and Ausere}

1 general, more of a high level review, and when
2 you come back to visit us again for the full
3 construction panel, we'll get into more details.

4 A (Bowes) That is fine. I realize it's somehow
5 confusing with two panels, but I'll do my best
6 to answer all the questions in both sessions.

7 Q Feel free. Okay. So for, I assume then that
8 there are portions of the underground line where
9 Eversource does not have, certainly doesn't have
10 personnel in place in New Hampshire for
11 maintaining underground transmission lines; is
12 that right?

13 A (Bowes) I wouldn't characterize it quite that
14 way. The person responsible for maintenance of
15 the transmission and distribution systems in New
16 Hampshire today will also assume those
17 responsibilities in the future. Some of the
18 components are slightly different. However, the
19 underground system in Manchester, New Hampshire,
20 is maintained today by Eversource, New
21 Hampshire, people. So I would anticipate that
22 that would be the same type of talent and
23 resource that would do that in the future.

24 PRESIDING OFFICER HONIGBERG: Mr. Pappas,

{WITNESS PANEL: Bowes and Ausere}

1 off the record for just a second.

2 (Discussion off the record)

3 BY MR. PAPPAS:

4 Q Does Eversource anticipate maintaining
5 operations and maintenance crews up north where
6 there are 60 miles of underground transmission
7 line?

8 A (Bowes) So the initial responders would
9 certainly be from that general area. I would
10 say if there was a major repair or major
11 maintenance to be done, then it would be
12 coordinated probably out of our Hooksett
13 facility.

14 Q And you feel confident that given the new 60
15 miles of underground a fairly significant
16 distance from your Manchester/Hooksett facility,
17 that you have adequate resources in that area to
18 maintain and operate the line and address
19 emergencies?

20 A (Bowes) I'll answer it in several parts. The
21 first thing that would be done would be there's
22 real time monitoring and control of the
23 transmission assets which include the
24 underground portion, the converter stations, the

{WITNESS PANEL: Bowes and Ausere}

1 substations. That takes place today, 24 by 7 by
2 365, out of our Control Center in Manchester.
3 So that would be the same in the future for this
4 line. The maintenance personnel are on the
5 clock 24 hours a day as well, so they would be
6 responding immediately if an event occurred or
7 an alarm occurred. So that would be unchanged.
8 And we have substations in the North Country
9 today where that takes place.

10 As far as a long-term maintenance program,
11 I think Mr. Quinlan mentioned that that would be
12 for several days per year. The system would be
13 maintained. That would probably be coordinated
14 out of the Hooksett office and be bringing
15 experts probably from the manufacturers
16 themselves.

17 Q Would that also apply for emergency repairs that
18 require expertise, you'd have to bring in some
19 experts from the manufacturers?

20 A (Bowes) Certainly during the warranty period we
21 would. Beyond that, it's to be determined. We
22 maintain thousands of miles of transmission
23 lines today so I would anticipate it would be
24 the same as what we do for the rest of the

{WITNESS PANEL: Bowes and Ausere}

1 system.

2 Q Okay. So let me ask you some questions about
3 managerial ability to construct the line. And
4 as I understand from your testimony, the
5 essential matrix is as follows: That Eversource
6 has retained Quanta to be essentially the
7 general contractor?

8 A (Bowes) For the construction portion, yes.

9 Q And ABB will be responsible for the underground
10 portion, is that correct?

11 A (Bowes) Partially correct. So ABB is both the
12 cable manufacturer and also the converter
13 station manufacturer. So they will be
14 responsible for construction of or the design,
15 engineering and construction of the two
16 converter stations, the one in Hydro-Quebec and
17 the one in New Hampshire. They also have the
18 responsibility to install and splice, well,
19 actually, manufacture, install and splice the
20 cables.

21 Q And who's going to be responsible for the 53 or
22 so HDD/microtunnel; is that going to be ABB as
23 well?

24 A (Bowes) No, that be PAR or Quanta.

{WITNESS PANEL: Bowes and Ausere}

1 Q And PAR Electric is a subsidiary of Quanta?

2 A Yes, it is.

3 Q And as I understand it, PAR will be the owner's
4 agent, NPT's agent, to oversee construction,
5 correct?

6 A (Bowes) That is correct.

7 Q And so you'll have Quanta as a general
8 contractor, you'll have ABB as you just
9 described their role, you'll have PAR, one of
10 Quanta's subsidiaries being Eversource's,
11 owner's representative, and presumably on top of
12 all that comes Eversource?

13 A Yes. And this will be described in the
14 testimony. I believe it's actually due today.
15 So there is one other nuance to that is Burns &
16 McDonnell is the owner's engineer. So they will
17 have responsible for the design review, approval
18 of changes, community outreach, some inspections
19 as well under contract to Eversource.

20 Q That leads me to my next question which is
21 construction monitoring. Who is going to be
22 responsible for overseeing the construction
23 monitoring?

24 A So right now Eversource is maintaining a portion

{WITNESS PANEL: Bowes and Ausere}

1 of that, and we are contracting with Burns &
2 McDonnell for a portion of that.

3 Q Okay. So for monitoring, whether it's Quanta or
4 ABB's work or PAR's work under Quanta, it's
5 either going to be Eversource or Burns &
6 McDonnell to monitor those folks during
7 construction?

8 A (Bowes) To monitor the contractors, yes. Now,
9 obviously, the general contractor, PAR, will
10 have oversight in the field and construction
11 inspection as well.

12 Q Are they going to be doing that as their role of
13 the owner's agent or in their role as one of the
14 contractors or both?

15 A (Bowes) As the role of one of the contractors,
16 the general contractor.

17 Q As the owner's agent, what is their role?

18 A (Bowes) So they would be acting on our behalf to
19 do the construction, the community outreach,
20 obtaining necessary permits, any of the
21 functions related to the construction
22 activities. Monitoring the work of
23 subcontractors, and coordinating an overall
24 project schedule, and ultimately responsible for

{WITNESS PANEL: Bowes and Ausere}

1 the project cost.

2 Q Okay. And would they also be monitoring the
3 work of their own workers?

4 A (Bowes) Yes, they would.

5 Q Okay. Now, as I understand it, the 52 miles
6 underground is the longest underground
7 construction project for a transmission line
8 that Eversource has undertaken; is that correct?

9 A (Bowes) So it's the longest civil construction
10 portion. It's not the longest cable project.

11 Q And when you say civil construction project,
12 tell us what you mean by that.

13 A (Bowes) So you characterized it as 52 miles.
14 That would be the longest single segment. That
15 would be 104 conductor miles with two
16 conductors. We have done longer projects with
17 conductors. In fact, the Middletown-Norwalk
18 project was 144 miles.

19 Q Now, do you anticipate construction over a
20 two-year period?

21 A (Bowes) For which portion? The entire project?

22 Q The entire project.

23 A (Bowes) I would say two to two and a half years,
24 yes.

{WITNESS PANEL: Bowes and Ausere}

1 Q Okay. And during that period, Mr. Ausere's
2 testimony includes Eversource undertaking
3 approximately \$9.6 billion of infrastructure
4 projects total. Do you recall that?

5 A (Bowes) Yes, I'm not sure the time period was
6 identical, but I do remember 9.6 billion. I
7 think it was over four years possibly.

8 Q And as I understand it, that is the largest,
9 certainly from a dollar amount, the largest
10 amount of construction projects that Eversource
11 has undertaken or overseen in recent history.
12 If not its entire history.

13 A (Ausere) This individual project, you mean?

14 Q No. I mean the total of \$9.6 billion in
15 projects. That's the largest amount, from a
16 dollar perspective, of projects that the company
17 has overseen?

18 A (Ausere) Over that four-year period?

19 A (Bowes) I think it could be. It may not be the
20 longer transmission expenditure over a four year
21 project.

22 Q I was looking at total projects, not just the
23 transmission portion.

24 A (Ausere) It could be. We'd have to check.

{WITNESS PANEL: Bowes and Ausere}

1 Q Okay. During all of these projects, I assume
2 much like the Northern Pass project, Eversource
3 is going to have to manage, in addition to
4 construction, its outreach to towns and public
5 entities, businesses, first responders,
6 residents and so forth?

7 A (Bowes) Yes. That is true.

8 Q And they'll have to manage the claims process
9 and everything else that goes on with the
10 project, correct?

11 A (Bowes) Yes. Hopefully, the claims process is
12 relatively small, but --

13 Q Okay. Given the size and scope of both the
14 Northern Pass project as well as all the other
15 projects during this two, two and a half year
16 time period, has Eversource done anything to
17 increase its management capability to manage all
18 these projects?

19 A (Bowes) So I would say yes, we have. We
20 maintain groups in each of the states, each of
21 the service territories where we use a project
22 management organization. We have project
23 controls in place, project estimating, project
24 scheduling, cost analysis, and highly trained

{WITNESS PANEL: Bowes and Ausere}

1 project managers that have responsibilities for
2 project schedule, scope and budget. So we
3 implemented that approximately ten years ago and
4 we do staff it based upon the needs of the
5 company. We've extended that to the recent
6 acquisition merger we had with NSTAR Electric as
7 well so those organizations are now combined,
8 and an example of my involvement with this
9 project was adding additional technical and
10 managerial capability to the phase through
11 siting, permitting and, ultimately,
12 construction.

13 Q Did you bring in more staff to do that?

14 A (Bowes) We certainly have brought more staff on
15 as Eversource, yes.

16 Q And is Mr. Fortier the project manager for the
17 Northern Pass project?

18 A (Bowes) He's actually titled the project
19 director, but, yes, in essence, he has the
20 project management responsibilities.

21 Q Does he have project management responsibilities
22 for any other projects during this two, two and
23 a half year time period?

24 A (Bowes) He does not.

{WITNESS PANEL: Bowes and Ausere}

1 Q Okay. So let me shift gears and ask you some
2 questions about something that Mr. Quinlan
3 suggested I ask you about rather than he.

4 A (Bowes) Okay.

5 Q In Counsel for the Public's Exhibit 42, and you
6 don't have to look at it, I'm just going to give
7 you the context of what --

8 A (Bowes) Okay.

9 Q -- of what he passed to you. Counsel for the
10 Public's Exhibit 42 is a Draft Memorandum of
11 Understanding with towns along the project
12 route, and one of the sections in there deals
13 with damage to roads, and Mr. Quinlan testified
14 that that included damage to roads during
15 construction. So I want to ask you some
16 questions about the NPT's interaction with towns
17 to deal with damaged roads during construction.

18 A (Bowes) Would that be possible to get that up on
19 the screen, that section?

20 Q Sure. When I asked Mr. Quinlan, I was referring
21 to Article 3 that's now on the screen.

22 A (Bowes) Yes. I see it.

23 Q Okay. And he testified that this article
24 covered damage to roads during construction,

{WITNESS PANEL: Bowes and Ausere}

1 both from either construction vehicles or having
2 to deal with the underground construction and
3 restoring roads to their prior condition. Do
4 you recall that?

5 A (Bowes) Yes, I do.

6 Q Okay. So let me start with the construction
7 part, the underground portion. Now, as I
8 understand it, the company's commitment is to
9 return the roads to as good or better condition
10 as they existed before construction.

11 A (Bowes) I believe that's a statement he made,
12 yes.

13 Q And the underground portion is going to be
14 buried approximately 7 feet below the road
15 surface?

16 A (Bowes) The bottom of the trench, I think, in
17 most cases will be 7 feet or less if that's what
18 you mean by --

19 Q Yes.

20 A (Bowes) Yes.

21 Q And are you familiar with the reconstruction or
22 repair standards for the towns where the
23 underground portion will be built on town roads?

24 A (Bowes) I would say I'm not specifically.

{WITNESS PANEL: Bowes and Ausere}

1 However, we would follow the State DOT
2 requirements unless there was some other
3 requirement. I'm thinking in the North Country
4 there are some dirt roads where we will have to
5 work with the local road agent to make sure the
6 repairs are done in an adequate manner and that
7 the final grading and final restoration is
8 complete.

9 Q Okay. Typically, road repair standards have
10 things such as the type of gravel to be used,
11 correct?

12 A (Bowes) Yes, they do.

13 Q And the fluidized bed backfill material, do you
14 know if that's acceptable to replacing removed
15 gravel?

16 A (Bowes) In general, it is not. It happens
17 beneath where the gravel and the road surface
18 would be repaired. In fact, that's one of the
19 comments that New Hampshire DOT has had is that
20 they're looking for a certain depth of that
21 gravel mixture on top of the fluidized backfill.

22 Q When a road is constructed, do you know how deep
23 typically in New Hampshire they go for the
24 subsurface of the road?

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) 30 inches or more. Sometimes 36 inches.

2 Q Do you know that -- that's the subsurface. Do
3 you know how deep they go for what's known as
4 the subsurface?

5 A (Bowes) I do not.

6 Q I'll represent to you it's deeper than 36
7 inches. Do you know whether or not the
8 fluidized backfill material is acceptable for
9 what's known as the subsurface of a road in
10 New Hampshire?

11 A (Bowes) I believe it is, but DOT has asked us to
12 do some test facilities to verify that, and I
13 think they have limited experience with that
14 type of backfill. I think they'll find that it
15 is not only acceptable, it may actually be
16 superior to some of the subsurface materials
17 that are used today.

18 Q Okay. And are you also familiar that typically
19 when a road is constructed new, how it is they
20 compact the gravel, both the subsurface as
21 well as the subsurface?

22 A (Bowes) In general, yes.

23 Q And they generally use large machines like
24 rollers and so forth?

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) Yes.

2 Q And when the construction is installed for
3 burying the line, the gravel that's put back in
4 will be compacted primarily with hand
5 compactors, correct? It's not big enough cut to
6 put a machine in.

7 A (Bowes) Yes. So the trench is going to be about
8 2 feet 9 inches wide so there will be, still a
9 mechanical compactor, but it won't be the same
10 size as a roller used for the entire roadway.

11 Q Right. It's a hand machine, correct?

12 A (Bowes) I guess you would call it that. It's
13 still a mechanized machine, but it's operated by
14 a person, not by a, well, I guess they're both
15 operated by a person, but it's inside the trench
16 so it's going to be a much smaller machine than
17 a large roller.

18 Q Would you agree with me that those smaller
19 machines don't have the same ability to compact
20 the road as the large rollers do?

21 A (Bowes) So they have the necessary capability to
22 do it. Certainly, it's not a question of
23 sufficiency, but, clearly, a heavier machine
24 would compact it more.

{WITNESS PANEL: Bowes and Ausere}

1 Q So after the construction is done and the gravel
2 is compacted by the hand machine, it's not going
3 to be compacted the same level as the rest of
4 the road that was compacted with a large roller.
5 Would you agree with me?

6 A That is probably correct. Some of these roads,
7 I'm not sure I could state what the compaction
8 standard was when they were built, if any,
9 certainly in the North Country.

10 Q After the gravel is replaced, compacted, then
11 the two, two and a half, however wide the cut
12 is, is then patched with asphalt if it's an
13 asphalt road or gravel if it's a gravel road.

14 A (Bowes) a temporary repair is made if that's
15 what you're talking about, yes.

16 Q Well, eventually, is the intent for a permanent
17 repair to just patch the disturbed area or patch
18 curb to curb?

19 A (Bowes) So that's a very good question. The
20 temporary patch is only over the cut in the road
21 surface, about 2 feet 9 inches to three feet.
22 That will be the temporary repair. The entire
23 road lane would be the milled and paved. In
24 certain cases, restrictions are that you have to

{WITNESS PANEL: Bowes and Ausere}

1 go curb to curb. So that would be dependent
2 upon the final ruling from the New Hampshire
3 DOT.

4 Q Let's say, for instance, in a town, if the town
5 requested curb-to-curb repair, would the project
6 do that?

7 A (Bowes) If it was on a town road that will be
8 subject to this agreement that we have with each
9 town. In general, we would do one lane, but in
10 many of the projects we do, we end up doing curb
11 to curb.

12 Q Now, would you agree with me if you do only a
13 lane, you're going to leave an open cut between
14 the new pavement and the existing pavement?

15 A At the midpoint, yes, or centerline.

16 Q And that open cut is susceptible to water
17 entering into the area?

18 A (Bowes) I suppose it is the same as any cut
19 would be in the roadway.

20 Q Right. But you don't have that open cut if it's
21 curb-to-curb repaving, correct?

22 A (Bowes) I would say yes. That's accurate.

23 Q Okay. And that water that enters the road then
24 goes into the subsurface and into the gravel

{WITNESS PANEL: Bowes and Ausere}

1 whether it's the subsurface or the
2 subsubsurface, correct?

3 A (Bowes) I guess it ultimately would migrate,
4 yes.

5 Q And is it your understanding or experience that
6 that water, particularly with freezing and
7 thawing, often is what creates cracks and
8 potholes and other defects in the road surface?

9 A (Bowes) So I think it's also the, where the
10 travel takes place. Typically in the center
11 lane, there's much less travel and thus fewer
12 potholes in the middle of the road. Usually are
13 in the traveled lane. But in general it
14 certainly could lead to that.

15 Q Are you familiar with studies regarding utility
16 cuts into paved roads?

17 A (Bowes) I would say not necessarily studies but
18 certainly a lot of experience with that.

19 Q Okay. So I will represent to you that there are
20 lots of studies about the effect of utility cuts
21 in paved roads. Have you had an opportunity to
22 review any of those?

23 A (Bowes) I have not.

24 Q Are you familiar with the National DPW

{WITNESS PANEL: Bowes and Ausere}

1 Association's view, published view, on the
2 effect of utility cuts in paved roads?

3 A (Bowes) I am not, but I'd be glad to review it
4 if you have a copy.

5 Q I have a copy but not with me. Are you familiar
6 with the ASTM's standards regarding utility cuts
7 in paved roads?

8 A (Bowes) Somewhat, yes, I am.

9 Q And you're familiar that ASTM considers a
10 utility patch to be a defect in a paved road?

11 A Again, that would be in the travel lane, it
12 would be a cut for a perpendicular crossing. In
13 this case, we're talking about parallel.

14 Q Are you familiar that ASTM, whether it's in the
15 travel lane, whether it's in the middle or
16 wherever it is in the paved road, ASTM considers
17 any utility cut in pavement to be a defect?

18 MR. NEEDLEMAN: Tom, do you have a document
19 you could point to to show him what you're
20 talking about?

21 MR. PAPPAS: I don't have it with me, but
22 I'm asking if he's familiar. He indicated he
23 was familiar somewhat with ASTM so I'm following
24 up. He wasn't familiar with the study so I

{WITNESS PANEL: Bowes and Ausere}

1 didn't follow upon those, but if he's familiar
2 with ASTM, I'm just following up on his
3 familiarity.

4 A (Bowes) My understanding is they did classify
5 things differently depending on the location of
6 the cut and the type of cut.

7 Q Are you familiar with either studies or ASTM
8 that have found that utility cuts in paved roads
9 diminishes the useful life of the road?

10 A (Bowes) That I would believe, yes.

11 Q Would you agree with me that if the restoration
12 is curb to curb, you're not, it's far less
13 likely to have the problems than if you have
14 less than curb-to-curb restoration because you
15 don't have the same open-edge cut or other
16 issues?

17 A (Bowes) Yes, and that has been my experience as
18 well. This weekend I had the opportunity to
19 travel over a project that we'd done, actually
20 the Bethel-Norwalk project about ten years ago,
21 and I just happened to be at a recreational
22 event with my son, and traveled over the same
23 roadway, so Route 7 in Norwalk, Wilton and then
24 some smaller state roads and town roads in

{WITNESS PANEL: Bowes and Ausere}

1 Redding, that's a location we did ten years ago.
2 Same type of trench size and scope. It was,
3 there was no visible trace of any settling, of
4 any compaction issues, of any paving issues,
5 and, again, that was a curb-to-curb paving that
6 had been done. So ten years after there was no
7 visible impact of where the transmission line
8 had been constructed. There was no issues with
9 the road.

10 Q And that was a curb-to-curb repair.

11 A (Bowes) That was, yes.

12 Q So let me switch gears and ask you a few
13 questions about the Phase II line that Mr.
14 Quinlan talked about in his testimony. And just
15 to put it in context, the Phase II line is that
16 line that starts in Canada and goes through
17 Vermont, enters New Hampshire at Monroe, New
18 Hampshire, and then goes through New Hampshire
19 down into Massachusetts, correct?

20 A (Bowes) Yes, it is.

21 Q And Counsel for the Public Exhibit 10 which I'm
22 not going to ask you to look at, but that's the
23 Exhibit I showed Mr. Quinlan where Eversource
24 looked at the Phase II line as part of its

{WITNESS PANEL: Bowes and Ausere}

1 consideration for routing the Northern Pass
2 project, correct?

3 A (Bowes) Yes. Could we put that diagram up on
4 the screen?

5 Q If you'd like.

6 A (Bowes) I would.

7 MR. IACOPINO: What number is it?

8 MR. PAPPAS: 10.

9 Q That's the exhibit that I showed Mr. Quinlan.

10 A (Bowes) I thought you were talking about the
11 pictures.

12 Q The pictures. We can do that as well. Would
13 you want the picture of the route or the line
14 itself?

15 A (Bowes) The picture of the route would be great.
16 I think you're going to routing issues and
17 constraints? Okay.

18 Q Okay. So what's on the screen now is Exhibit 11
19 and the pink line is the Phase II line. Do you
20 see that?

21 A (Bowes) I'm seeing some kind of different
22 colors, but it's certainly the one that looks
23 like two shades of color to it, one in Vermont
24 and one in New Hampshire that's slightly

{WITNESS PANEL: Bowes and Ausere}

1 different.

2 Q Pink might be a little bit different in Vermont,
3 but it's that pink line. Do you see that?

4 A (Bowes) Yes, I do.

5 Q Okay. As I understand it, well, first of all,
6 as I understand Eversource owns a portion of
7 that, does it not?

8 A (Bowes) I believe we have an interest in the
9 line, yes.

10 Q As I understand it, Eversource investigated
11 whether it could add another transmission line
12 within that right-of-way, is that right?

13 A (Bowes) I would say it was Eversource and
14 Hydro-Quebec for their portion of it.

15 Q Okay. And Eversource and Hydro-Quebec
16 determined that they could not add another line
17 within that right-of-way, there wasn't room; is
18 that correct?

19 A (Bowes) That is correct.

20 Q As I also understand it, Eversource did not look
21 into whether the line that exists could be
22 reconfigured in order to increase the voltage;
23 is that right?

24 A (Bowes) So you're talking about the New

{WITNESS PANEL: Bowes and Ausere}

1 Hampshire portion?

2 Q Correct. New Hampshire portion.

3 A That's correct. The limitations we saw were on
4 the Vermont segment of the line primarily, and
5 HQ had limitations north of the border on their
6 segment of the line as well. That's really what
7 made us look at alternatives to that corridor.
8 Specifically, in the Vermont section, there are
9 several conservation areas. They're listed in
10 the Section 2.4 of the DOE. Includes the
11 Kingdom State Forest, Silvio O. Conte National
12 Wildlife Refuge, West Mountain Wildlife
13 Management Area, Victory State Forest, and the
14 Victory Basin Wildlife Management Area. If you
15 go back to that diagram?

16 Q It's up in Vermont. I got that.

17 A (Bowes) Again, that's a portion of the issues we
18 had in the Vermont portion.

19 Q Yes.

20 A (Bowes) In the Canadian portion Hydro-Quebec
21 also had limitations on their right-of-way.

22 Q Um-hum.

23 A (Bowes) And it would have to be necessary
24 physical separation of the two DC lines existing

{WITNESS PANEL: Bowes and Ausere}

1 HQ Phase II and now the new, if you want to call
2 it the new Northern Pass DC line. And they
3 would have to expand the right-of-way there.
4 When they originally built the Phase II project,
5 they had significant siting and permitting
6 issues on their segment of the line, and for
7 them to expand the right-of-way in Canada, they
8 would have to do some takings, not only of
9 property but also of many buildings. So they
10 discounted the Canadian portion of the line,
11 they informed us and we worked mutually on the
12 Vermont section of the line. So those were
13 ultimately the limitations that we did not go
14 further with. But you're also correct with the
15 existing right-of-way in New Hampshire, we
16 didn't believe that there was room to put a
17 fourth transmission line.

18 Q Yes.

19 A (Bowes) Which is right here. Correct.

20 Q And that's why I've got now Exhibit 12 on the
21 screen. Currently, there are three sets of
22 towers in that right-of-way, correct? And we're
23 seeing one segment of that?

24 A (Bowes) Yes. Tower sets A and C are the

{WITNESS PANEL: Bowes and Ausere}

1 original 230 kV infrastructure that connected
2 some of the hydro in the North Country,
3 ultimately down to the Boston area. Towers A
4 and C are circa 1930s. And tower set B is the
5 HQ Phase II line which was built in mid 1980s,
6 and that's a 450 kV DC line in the center of the
7 other two.

8 Q My question is, for the Phase II New Hampshire
9 portion only, as we're in New Hampshire and I'm
10 focusing on the New Hampshire portion only, for
11 the Phase II New Hampshire portion only, am I
12 correct that it's technologically possible to
13 reconfigure these lines to add a 345 kV, in
14 other words, upgrade the amount of power that
15 can come down these lines?

16 A (Bowes) So National Grid has applied to ISO to
17 have the up rate of those lines studied. So I
18 would say it's premature to say it's technically
19 feasible. Constructability wise, certainly, you
20 could remove these structures and put new ones
21 up. You could replace these structures in kind,
22 you could reinsulate the structures, you could
23 re-conductor the structures. So many things
24 could be done on the right-of-way.

{WITNESS PANEL: Bowes and Ausere}

1 Q And those many things could be done in order to
2 increase the amount of power you could send over
3 these lines.

4 A (Bowes) Again, pending the ISO studies, right,
5 and where they would terminate, actually goes
6 into Massachusetts. So I'm not confident of
7 what would happen in the Massachusetts segment
8 of the line.

9 Q Let me ask you just a couple of questions about
10 the Coos loop.

11 A (Bowes) I actually have a copy of your
12 presentation. Number 46.

13 Q Okay.

14 A (Bowes) If that's where we're going.

15 Q No, actually, but good guess.

16 My question is simply this. Certain
17 portions of the upgrades are within the NPT \$1.6
18 billion estimate, correct?

19 A (Bowes) Yes.

20 Q And there is also a small portion of the
21 upgrades that it's anticipated will be funded by
22 the Forward NH Fund; is that right?

23 A (Bowes) I think that's probably a question that
24 Mr. Quinlan answered, and I'm unclear what his

{WITNESS PANEL: Bowes and Ausere}

1 response was in that.

2 Q Okay.

3 A (Bowes) My understanding is that Northern Pass,
4 the project is funding those upgrades.

5 Q On the screen now is Exhibit 47. And if you
6 look at the very bottom and just to refresh your
7 memory, this is an internal document by
8 Mr. Fortier of Eversource, and at the bottom
9 under summary it indicates that the NPT project
10 upgrades of approximately \$52 million plus a
11 \$1.2 million worth of additional upgrade, do you
12 see that?

13 A I do.

14 Q And he indicated that that would be paid for by
15 the Forward NH Fund. Do you see that?

16 A I do, and I think Mr. Quinlan has since said
17 that that will be funded part of the project.
18 That is the segment of the transmission corridor
19 from just west of Paris substation into Paris
20 substation, about half a mile or 6 structures,
21 and I think he's committed that that would be
22 just done as part of the project and not funded
23 from another mechanism.

24 Q Okay. That's actually when I get to my point is

{WITNESS PANEL: Bowes and Ausere}

1 I want to get what the commitment is. As I
2 understand the commitment, it's to do what is
3 necessary for the Coos loop as part of the
4 project.

5 A (Bowes) And in this case the entire 115 line
6 from Paris substation through Lost Nation over
7 to Whitefield, and then there's some upgrades
8 right outside of Whitefield as well. That's all
9 part of the Northern Pass project.

10 Q And those upgrades outside of Whitefield helps
11 in terms of being able to send power to the New
12 England grid, correct?

13 A (Bowes) Yes, it's another constraint that's
14 physically outside of that loop.

15 Q Okay. And there also needs to be an ISO New
16 England study, what's known as an I.3.9 study on
17 stabilization. Is that right?

18 A (Bowes) So there would be another study done
19 that would look at what other constraints that
20 are remaining on the loop. We believe that
21 there are some voltage stability issues, and Mr.
22 Quinlan spoke of that. There may be equipment
23 that would be necessary inside Berlin substation
24 or at some other location, and I believe he

{WITNESS PANEL: Bowes and Ausere}

1 committed to funding that as well.

2 Q Okay. And that's that SVC?

3 A (Bowes) Potentially, it's a static bar
4 compensator. It's a dynamic device that adds
5 reactive power to the system. There are other
6 alternatives to that, a simple capacitor bank
7 could suffice or there may be no necessary
8 improvements pending that ISO study.

9 Q And my understanding, that's why I wanted to
10 confirm from you, that whatever that ISO study
11 concludes, whatever is necessary in terms of
12 stabilization, NPT is committed to doing that as
13 part of the Northern Pass project.

14 A (Bowes) That is what Mr. Quinlan committed to,
15 yes.

16 Q Thank you. Last topic. And this may test your
17 memory a bit. But would the plans that were
18 submitted with the Application, do you know how
19 many of the towers were lattice towers either in
20 numbers or percentage?

21 A (Bowes) So I know what they are today. But how
22 many have changed since the original? I'm not
23 sure that I can answer that. I know Mr. Johnson
24 could.

{WITNESS PANEL: Bowes and Ausere}

1 Q Okay.

2 A (Bowes) I have the numbers of what they are
3 today and actually it was a data request. We
4 broke them down by town as well.

5 Q Um-hum.

6 A (Bowes) As of today there are 686 lattice
7 structures, 237 monopole structures and 186
8 H-frame structures.

9 Q And when you say as of today, that is as of the
10 data request response?

11 A (Bowes) Correct, which is, I guess that's
12 actually about a year ago. It's 4/27/2016.

13 Q Right. So my next question to you is, you might
14 have anticipated, is do you know if that has
15 changed in the last year?

16 A (Bowes) I don't know positively yes or no. I
17 think it has. I think the number has changed
18 significantly since we filed as well. I think
19 we've added many more monopoles.

20 Q I will wait to ask that question again once the
21 construction panel comes up.

22 A (Bowes) And we will now be prepared for you.

23 Q I assume you will. Thank you, Mr. Bowes and
24 Mr. Ausere. I have no further questions in

{WITNESS PANEL: Bowes and Ausere}

1 public session.

2 PRESIDING OFFICER HONIGBERG: All right.
3 Next up. Is Municipal Group 1-North. Anyone?

4 (No audible response.)

5 PRESIDING OFFICER HONIGBERG: Municipal
6 Group 1-South. Mr. Whitley?

7 MR. WHITLEY: Thank you, Mr. Chair. I was
8 going to use the podium so I'm going to need
9 just a second to set up. Would now be an
10 appropriate time to take a little break?

11 PRESIDING OFFICER HONIGBERG: Well, off the
12 record.

13 (Discussion off-the-record)

14 PRESIDING OFFICER HONIGBERG: No,
15 Mr. Whitley. Just set up and we'll --

16 MR. WHITLEY: Plo w ahead?

17 PRESIDING OFFICER HONIGBERG: Yes. Mr.
18 Whitley?

19 MR. WHITLEY: Thank you, Mr. Chair.

20 **CROSS-EXAMINATION**

21 **BY MR. WHITLEY:**

22 Q Good morning, Mr. Ausere and Mr. Bowes. My name
23 is Steven Whitley, counsel to several towns
24 along the route. New Hampton, Littleton,

{WITNESS PANEL: Bowes and Ausere}

1 Pembroke, Deerfield, and the Ashland Water and
2 Sewer Department, and I'm also the spokesperson
3 for two of the Muni Groups, 3 North and 1 South.

4 Mr. Ausere, I wanted to start with you.
5 And I had a question about municipal taxes. And
6 I've pulled up on the screen there and I hope
7 that you can see it, but that is your Prefiled
8 Testimony, Applicant's Exhibit 7. And if you
9 look down towards the bottom of that page,
10 you'll see a question there, how are NPT's
11 revenues determined under the TSA. You see that
12 question there?

13 A (Ausere) I do.

14 Q Among the items that you provided in response,
15 you list municipal taxes. I believe it's on
16 line, let's see, 25. Do you see that?

17 A (Ausere) I do.

18 Q So the burden of paying these taxes, NPT is
19 compensated for that by the payments under the
20 TSA.

21 A (Ausere) Correct. NPT pays the property tax
22 expenses, and under the formula rate with HRE
23 recovers the cost of those property taxes.

24 Q Okay. And the formula rate, does it require a

{WITNESS PANEL: Bowes and Ausere}

1 certain methodology or set any sort of a ceiling
2 or a floor on what amount of those municipal
3 taxes would be paid back to NPT?

4 A (Ausere) Not to my knowledge.

5 Q And I understand that the TSA was reviewed and
6 approved by FERC, is that correct?

7 A (Ausere) Correct.

8 Q To your knowledge, does FERC require any sort of
9 methodology or put any sort of ceiling or floor
10 on recouping municipal property taxes through
11 this formula rate?

12 A (Ausere) Not to my knowledge.

13 Q I believe the other day, were you here the other
14 day for Mr. Quinlan's testimony? And I said the
15 other day. I meant Friday. Sorry.

16 A (Ausere) I was here Friday, but I was not in the
17 room the entire time. So it depends.

18 Q Okay. Well, I posed a question to Mr. Quinlan
19 which was, I'm going to pose a similar one to
20 you. Mr. Quinlan indicated that municipal
21 property taxes are part of the transmission
22 tariff that is distributed to all ratepayers in
23 the regional grid. And so I don't know if you
24 were there for that portion of his testimony?

{WITNESS PANEL: Bowes and Ausere}

1 A (Ausere) I don't recall that so I might have
2 been out of the room during that.

3 Q Well, my question is, it appears that Northern
4 Pass is getting compensated twice for the
5 municipal taxes because Mr. Quinlan indicated
6 that they're considered a transmission cost and
7 so they're part of the tariff that everybody
8 pays for in their electricity rates in the
9 region, and I believe you just indicated that
10 the TSA states that the municipal property taxes
11 are also part of the formula rate that NPT
12 receives from HRE.

13 A (Ausere) So in this case, property taxes related
14 to Northern Pass project are recovered through a
15 tariff that's actually with HRE. That's
16 approved by FERC.

17 Q When you say in this case, you mean the TSA?

18 A (Ausere) In the case of Northern Pass. So
19 property taxes are municipal taxes arising from
20 Northern Pass Transmission are recovered through
21 the revenue requirements that HRE pays. Again,
22 I wasn't, I don't think I was here for Mr.
23 Quinlan's testimony so I can't speak to that,
24 but other transmission projects, Reliability

{WITNESS PANEL: Bowes and Ausere}

1 Projects that Eversource undertakes in New
2 England or other utilities undertake in New
3 England, they have similar formula rates, but in
4 that case, for those Reliability Projects, even
5 though it's a similar formula rate and a similar
6 tariff, the payer is different. In those
7 projects, the New England ratepayers ultimately
8 are charged for the projects. In this case, the
9 payer is HRE. There's no double payment as you
10 might, as you seem to suggest.

11 Q I understand your answer, but is there any
12 document you can think of or point to where
13 either FERC states affirmatively or anywhere in
14 the TSA where it states affirmatively that if
15 these taxes are paid some place else that
16 there's no obligation to pay them back a second
17 time?

18 A (Ausere) It would be the TSA and the formula
19 rate attached to that TSA. Under that
20 contractual arrangement, HRE is obligated to pay
21 for municipal taxes arising from the project.
22 And likewise, for our other projects, those are
23 different assets, different facilities. You
24 know, under those tariffs, property taxes

{WITNESS PANEL: Bowes and Ausere}

1 associated with Northern Pass could not be
2 recovered from that. You can only recover it
3 one time.

4 Q Right. Right. But I guess my question was, in
5 the TSA, correct me if I'm wrong, but I don't
6 believe it states in the TSA that the amount of
7 the property taxes is potentially offset by any
8 monies that NPT gets from regional tariff. I
9 don't know if you have the TSA in front of you
10 up there?

11 A (Bowes) I would say, I think things are
12 backwards here. Northern Pass assets wouldn't
13 be collecting taxes for other assets. Quite the
14 opposite. For example, the lease payment that
15 NPT will pay to PSNH would offset PSNH expenses.

16 Q Let me ask it this way then. In the TSA,
17 Mr. Ausere, do you have the TSA up there in
18 front of you?

19 A (Ausere) Now I do.

20 Q I believe this is Applicant's Exhibit 1,
21 Appendix 16. So if you could turn to the
22 Appendix at the back which talks about how the
23 formula rate is calculated, I believe that
24 starts, I don't have a Bates-stamped copy, but

{WITNESS PANEL: Bowes and Ausere}

1 it's Attachment B. You see that?

2 A (Ausere) I do.

3 Q Okay. And on Attachment B, you go to page 4,
4 and I'll put it on the ELMO here so we can all
5 see what I'm talking about here. You see that
6 on your screen there?

7 A (Ausere) I do.

8 Q And you see there the Roman heading is
9 Calculation of Revenue Requirement. And you see
10 G, which I bracketed there, says Municipal Tax
11 Expense. Correct?

12 A (Ausere) I see it.

13 Q On the following page, page 5, of the same
14 exhibit. Wrong page. Apologies. One second.
15 Here we go.

16 So page 7. Municipal Tax Expense. Again,
17 bracketed in G, there, equal owner's electric
18 total municipal tax expense. So my question
19 again, is where is the affirmative language in
20 here language in here that states that if NPT is
21 getting compensated from a regional tariff that
22 it doesn't have to be compensated from HRE under
23 this revenue requirement?

24 A (Bowes) NPT is not part of a regional tariff.

{WITNESS PANEL: Bowes and Ausere}

1 Q I'm sorry. Say that again, Mr. Bowes?

2 A (Bowes) NPT is not part of a regional tariff.

3 Q Okay.

4 A (Bowes) The PSNH transmission assets would be.

5 Q Okay.

6 A (Bowes) As I mentioned on item L on the visual
7 description you just provided, item L is
8 actually the lease payment from Northern Pass to
9 PSNH which would again, in essence, offset the
10 cost of PSNH. They would have to take it in as
11 a revenue credit.

12 Q Okay. Thank you. Mr. Bowes, I want to turn to
13 your Supplemental Testimony which is Applicant's
14 Exhibit 10. Just give me one second and I'll
15 pull it up.

16 A (Bowes) I have it.

17 Q Let's go off the record real quick.

18 (Discussion off the record)

19 BY MR. WHITLEY:

20 Q Okay. Mr. Bowes, you said you had your
21 Supplemental Testimony in front of you?

22 A (Bowes) Yes, I do.

23 Q Okay. Thank you. So what I have on the screen
24 there is page 2 of your supplemental. If you

{WITNESS PANEL: Bowes and Ausere}

1 could turn to lines 14 through 17.

2 A (Bowes) Yes, I have them.

3 Q And in response to the question there in the
4 middle of the page, you talk about economic
5 feasibility or viability of the project. You
6 see that question and answer there?

7 A (Bowes) Yes, I do.

8 Q And you start out by saying that a project like
9 Northern Pass has to be able to attract
10 investment from a market participant, and you've
11 done that here because your market participant
12 is Hydro-Quebec. Correct?

13 A (Bowes) Yes.

14 Q And then you go on to say that their investment
15 decision to get involved was based on being able
16 to recoup their investment and some acceptable
17 return. You see that?

18 A (Bowes) Yes.

19 Q So I wanted to know if you had any knowledge as
20 to what the acceptable return is for
21 Hydro-Quebec.

22 A (Bowes) I do not know what their internal hurdle
23 rates are or what they look at for an acceptable
24 investment. This was really in the context of a

{WITNESS PANEL: Bowes and Ausere}

1 cost discussion and how much additional cost
2 would Hydro-Quebec be willing to pay for this
3 project.

4 Q So it was more of a general statement and not
5 related to any specifics of Northern Pass or
6 Hydro-Quebec?

7 A (Bowes) That is correct.

8 Q Okay. If you could turn now to page 3 of your
9 testimony. Let me change the screen here. Page
10 3, the second full paragraph. I wanted to ask
11 you some questions beginning there. Do you see
12 that portion of your testimony?

13 A (Bowes) I do.

14 Q You start out by saying that increase in
15 required project investment has been accompanied
16 by a decrease in expected revenues. You see
17 that?

18 A (Bowes) I do.

19 Q Can you quantify what that decrease is in
20 expected revenues?

21 A (Bowes) So I believe it goes on to further say
22 in that paragraph, if the wholesale market is
23 just a representative of what has happened in
24 the market as far as revenues goes, that's

{WITNESS PANEL: Bowes and Ausere}

1 dropped approximately 50 percent.

2 Q And that drop is due to natural gas prices being
3 so low?

4 A (Bowes) Primarily. Yes.

5 Q Okay. So were the expected revenues calculated
6 on the basis of the wholesale market as opposed
7 to some other market mechanism?

8 A (Bowes) For this example I used that as a proxy.
9 I do not know what Hydro-Quebec plans to do for
10 a revenue stream.

11 Q Okay. And why did you choose this example then?

12 A (Bowes) Again, it was to show the applicability
13 of adding cost to the project. It's really, is
14 part of the overall testimony around an
15 all-underground alternative and it not being
16 cost effective for Hydro-Quebec to pursue.

17 Q Okay. So some of the examples in this paragraph
18 then, again, are general in nature and not
19 related to any specifics with regard to Northern
20 Pass?

21 A (Bowes) So I would say that the two of them, the
22 increased cost of the project from 1.1 to 1.6
23 billion is a hard fact.

24 Q Right. Right. I think I meant, and I didn't

{WITNESS PANEL: Bowes and Ausere}

1 mean to interrupt you, but I think I meant in
2 terms of your discussion about Northern Pass's
3 or HQ's tolerance for risk and what kind of
4 revenues it could expect. I mean, I understand
5 that the increase in the project cost is a
6 pretty hard figure. The reduction in the
7 capacity over the line is a pretty hard figure.
8 So I mean other than those.

9 A (Bowes) So I would say those are the two
10 founding facts in the document. The rest is
11 either a forward-looking potential price in the
12 wholesale market in 2019, a change versus, say,
13 2010 when the project was kind of estimated for
14 the first time. So the rest is more how much
15 risk and what other market opportunities would
16 Hydro-Quebec have to pursue to make this project
17 feasible.

18 Q Okay. And I believe you just said that you
19 weren't aware of what other projects they would
20 have to pursue to make this feasible.

21 A (Bowes) I think it was markets, but, yes, and
22 there's obviously one I think I say here either
23 in this paragraph or in another one that talks
24 about potentially the capacity market,

{WITNESS PANEL: Bowes and Ausere}

1 potentially a clean energy market of some sort.

2 Q Your statements about market opportunities for
3 Hydro-Quebec are general and illustrative in
4 nature and not based on any specific constraints
5 that you're aware of.

6 A (Bowes) That is correct.

7 Q Okay. On that same paragraph, line 16 through
8 18, you say you're using, again, the wholesale
9 energy market here as an example, and you make
10 the statement that energy revenues that HQ
11 receives would not cover the cost of the revenue
12 requirement. You see that?

13 A (Bowes) I do.

14 Q So you don't know how short or how much more
15 money HQ would have to make in other market
16 opportunities due to the shortfall.

17 A (Bowes) So for this forward-looking example, we
18 could certainly calculate that. In a
19 confidential session, we could talk about what
20 the first year revenue requirements would be.

21 Q Okay.

22 A (Bowes) But to answer your question, I would
23 agree with you that that is just one potential
24 opportunity that Hydro-Quebec would have in the

{WITNESS PANEL: Bowes and Ausere}

1 markets.

2 Q Okay.

3 A (Bowes) It was really, again, an illustrative
4 example to show if much more cost is added to
5 the project, it would no longer be feasible.

6 Q Okay. And thank you, by the way, for reminding
7 me about the confidential nature of some of the
8 information. I'm not intending to elicit that
9 right now so if I ask a question that that is a
10 component of just remind me and we can deal with
11 that in a confidential session.

12 A (Bowes) Sure.

13 Q In line 19 through 20, I guess, is the next
14 sentence, you say HQ would seek to cover the
15 shortfall with other sources of revenue. And
16 then you provide an example, one example of the
17 forward capacity market. Do you see that?

18 A (Bowes) Yes, I do.

19 Q But you end the sentence with, it would face a
20 significant risk of loss. Can you explain that
21 more significant risk of loss?

22 A (Bowes) I guess that means if it were not able
23 to find other market opportunities is really the
24 context there.

{WITNESS PANEL: Bowes and Ausere}

1 Q Okay. So the loss, the risk of loss doesn't
2 stem from the forward capacity Market is what
3 you're saying?

4 A That is correct.

5 Q And so what kind of a loss were you envisioning
6 when you wrote that?

7 A (Bowes) So if Hydro-Quebec were not able to
8 participate or find other sources of revenue, it
9 would have to make a determination using just in
10 this case the wholesale energy sales.

11 Q And as you mentioned earlier, the wholesale
12 energy market wouldn't get you there.

13 A (Bowes) It doesn't appear to in the first year.
14 Over the course of the project, they may find
15 that an acceptable risk. I don't know.

16 Q Okay. Other than the forward capacity market,
17 what other sources of revenue are options?

18 A (Bowes) So certainly bilateral contract would be
19 the primary one. Those might include an RFP
20 like the Massachusetts RFP, some future clean
21 energy RFP or just a sales into the market for
22 more hours of the day than was included in my
23 calculations.

24 Q Okay. Any others?

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) That's all I can think of.

2 Q Okay. When you say wholesale market, does that,
3 to your mind, include merchant sales?

4 A (Bowes) I'm not sure if I understand what you
5 mean.

6 Q I'm just trying to understand what your, whether
7 your response included merchant generators or
8 merchant distributors of power.

9 A (Bowes) So that would be a bilateral contract,
10 you mean? With another entity?

11 Q Yes.

12 A (Bowes) Yes, it would include that.

13 Q Okay. What about environmental attributes?

14 A (Bowes) That is what I said when I mentioned the
15 clean energy RFPs or something like that. They
16 could seek, depending on the jurisdiction, they
17 could seek some sort of clean energy allowance
18 or credits. I think in most of these states
19 today, large hydro is not specifically called
20 out for renewable energy certificates.

21 Q On line 22, you talk about NPT and HQ need to
22 explore new market opportunities which would
23 require a cost competitive profile. Do you see
24 that?

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) Yes, I do.

2 Q Those new market opportunities, is that the same
3 options that we've just been discussing now?

4 A (Bowes) I think it is in general. I mean I
5 can't predict what will come out in the future.
6 When the project was conceived, there was no
7 three-state RFP, there was no Massachusetts RFP,
8 and potentially for Rhode Island or Connecticut
9 RFP. So there may be other things that emerge
10 in the future that Northern Pass or HQ could
11 provide services to.

12 Q Okay. So when you use that language, again, you
13 didn't have any specifics in mind, it was a
14 general category?

15 A (Bowes) So I guess as I've thought about it as
16 you posed the question, I guess there are other
17 ancillary services in the ISO New England market
18 as well. There's frequency regulation, there's
19 reactive power, black start capability. There
20 may be other things that HQ would be interested
21 in pursuing that would provide other sources of
22 revenue besides just energy sales.

23 Q Okay. Among the various options that we've
24 talked about so that's forward capacity market,

{WITNESS PANEL: Bowes and Ausere}

1 the wholesale market, and environmental
2 attributes if you consider those distinct, is
3 there one of those that to you has more risk?

4 A (Bowes) Could you repeat that again just so I'm
5 clear?

6 Q Sure. So among the market opportunities that
7 we've been discussing, I just want to know which
8 one, to you, has the highest risk to an
9 investor.

10 A (Bowes) What were the three? I want to make
11 sure I get to the three that you asked.

12 Q Well, I don't want to put words in your mouth so
13 I want you to answer, please.

14 A (Bowes) So I would say the ancillary service
15 market is well defined, the forward capacity
16 market is well defined, although it varies based
17 upon year to year.

18 Q And Mr. Bowes, when you say well-defined, does
19 that mean it has a high risk or a low risk?

20 A Lower risk. So I'm thinking there's definition
21 around it so if you qualify for it, then you
22 receive a certain amount of revenues for that.
23 So I think those two markets are defined
24 although they do vary in time. I think the

{WITNESS PANEL: Bowes and Ausere}

1 clean energy market is probably the higher risk
2 just because there are fewer solicitations today
3 where Northern Pass or Hydro-Quebec could bid
4 into those. I think right now there's just the
5 one official one in Massachusetts although other
6 states are exploring or have the legal authority
7 but have not issued an RFP.

8 Q And where does the wholesale market fit into
9 this spectrum of risk?

10 A (Bowes) I would say, again, that is pretty
11 prescriptive so I think the forward prices and
12 the cost of fuel are things that Hydro-Quebec
13 would have some certainty over. I mean, they
14 know their portfolio, especially on the hydro
15 side and what they have available, and I think
16 they have a very good, I mean they've
17 participated in the New England markets for more
18 than 30 years now. So I think, I would say
19 they're probably very astute at how to be
20 successful in those markets. So I would say
21 that's not necessarily a high risk.

22 Q Okay. Would you put the wholesale market then
23 before the ancillary services?

24 A (Bowes) Yes.

{WITNESS PANEL: Bowes and Ausere}

1 Q Okay. Okay. So on this kind of spectrum that
2 we've been discussing, and that's my word, the
3 wholesale market would be, would have the least
4 amount of risk.

5 A (Bowes) I would say so, yes.

6 Q Okay. Do you have any specific knowledge as to
7 how Hydro-Quebec intends to make up the majority
8 of their revenue in connection with the project?
9 And by that I mean, which market opportunity?

10 A (Bowes) I do not.

11 Q Okay. I want to step back for a second,
12 Mr. Bowes. Earlier this morning in response to
13 Attorney Pappas, the two of you were discussing
14 the MOU that was attached to Mr. Quinlan's
15 testimony and the issue of road repairs came up.
16 Do you recall that?

17 A (Bowes) Yes, I do.

18 Q Mr. Pappas asked you about the standard of
19 repair on locally maintained roads. Do you
20 recall that exchange?

21 A (Bowes) Yes.

22 Q And I believe your response was that the repair
23 would be per the DOT manual. Do I have that?

24 A (Bowes) Or requirements, yes.

{WITNESS PANEL: Bowes and Ausere}

1 Q Okay. And do you understand that DOT has
2 jurisdiction over locally maintained roads?

3 A (Bowes) I do not.

4 Q Okay. So in referencing the DOT manual, you're
5 making an assumption that DOT has jurisdiction
6 over locally maintained roads?

7 A (Bowes) I was not.

8 PRESIDING OFFICER HONIGBERG: I'm not sure
9 that's what he said, Mr. Whitley. In fact, I'm
10 fairly certain that's not what he said.

11 MR. WHITLEY: Okay.

12 A (Bowes) The context I was trying to describe is
13 how we would repair the roads to a DOT standard
14 is really the purpose of the comment, I guess.

15 Q No, no, and I understood that that was the
16 intent of your response. My question, and I
17 probably didn't say it very well, was if suppose
18 a town does, suppose a town requests a repair
19 that is beyond what the DOT manual specifies.
20 Would NPT then work with the town to make sure
21 that the repair was done consistent with the
22 town's standards if they're different from
23 DOT's?

24 A (Bowes) I think that's probably best outlined in

{WITNESS PANEL: Bowes and Ausere}

1 this MOU process so that we clearly understand
2 if there are requirements that are more
3 stringent than the New Hampshire DOT depending
4 on what they were. I think it's possible. But
5 without knowing, it's almost you're giving me a
6 hypothetical that I'm not sure I can respond to
7 without knowing the specifics of what you're
8 asking.

9 Q Okay. I have one more question, Mr. Bowes. I
10 think I'm going to go to the ELMO, please. You
11 see that, Mr. Bowes?

12 A (Bowes) I do.

13 Q This is a press release that you see at the top
14 there is dated April 12th. This is going to be
15 Joint Muni 82. I have copies which I can
16 distribute to the SEC once I have a chance to
17 make a couple additional ones, and we'll update
18 the Service List with the inclusion of this
19 exhibit.

20 Have you seen this press release before,
21 Mr. Bowes?

22 A (Bowes) I have not.

23 Q Okay. What I want to ask you about is the third
24 paragraph. So if you'll just take a second and

{WITNESS PANEL: Bowes and Ausere}

1 feel free to review the whole thing, by the way.
2 It's fairly short, but I'm going to ask you a
3 question about the third paragraph so just let
4 me know once you've had a chance to review.

5 A (Bowes) Okay, I've done that.

6 Q So the third paragraph there, just in a general
7 sense, the press release is announcing HQ, at
8 the top there it says HQ will submit requests
9 for the study of additional interconnections
10 with Maine and Vermont. And then the third
11 paragraph states, beyond NPT, there are other
12 possible options for increasing exports to New
13 England. Do you see that?

14 A (Bowes) Yes, I do.

15 Q Okay. And my question is, are you aware of any
16 sort of exclusivity arrangement that NPT has
17 with HQ to be the source of power into the New
18 England grid?

19 A (Bowes) For NPT, yes. I believe it's an
20 exclusive arrangement at this point. For
21 others, there's nothing I can add.

22 Q But what I mean by that, does NPT have an
23 agreement with HQ that would prevent HQ from
24 finding another source to get the power into the

{WITNESS PANEL: Bowes and Ausere}

1 New England grid?

2 A Could you maybe rephrase that or repeat it at
3 least?

4 Q Sure. Sure. So I'm asking if you're aware of
5 any sort of an agreement that would prevent
6 Hydro-Quebec from finding another way to get
7 power into the New England grid. So, in other
8 words, Hydro-Quebec would not have to use the
9 Northern Pass line but perhaps could use some
10 other line?

11 A (Bowes) Yes, I believe the agreement with HQ and
12 NPT is specific to the line that we're siting in
13 this proceeding.

14 Q And maybe we're talking past each other. I
15 don't mean the proposal that's before the SEC.
16 I mean, are you aware of anything that prevents
17 Hydro-Quebec from using a different transmission
18 line that hasn't come before the SEC necessarily
19 to get the power into the New England grid?

20 A (Bowes) I have no knowledge of that. No.

21 Q Okay. Mr. Ausere, did you just hear that
22 exchange with Mr. Bowes about this press release
23 that's in front of you there?

24 A (Ausere) I did.

{WITNESS PANEL: Bowes and Ausere}

1 Q I'd like to pose the same question to you. Are
2 you aware of any such agreement that would
3 prevent Hydro-Quebec from using an alternative
4 to Northern Pass to get the power into the New
5 England grid?

6 A (Ausere) I am not. I would say here that it
7 looks like they're also talking about
8 incremental opportunities.

9 Q What did you say?

10 A (Ausere) Just reading the press release, it
11 looks like Hydro-Quebec is talking about
12 additional opportunities above and beyond
13 Northern Pass, and I'm not aware of a
14 restriction around either.

15 Q Okay. That's all I have. Thank you, gentlemen.

16 PRESIDING OFFICER HONIGBERG: We will take
17 our break now. We'll try and limit it to ten
18 minutes and come back as close to 11:15 as we
19 can. Next up I have Ms. Fillmore, Mr. Tanguay.

20 MS. FILLMORE: Yes, Mr. Chairman.

21 (Recess taken)

22 PRESIDING OFFICER HONIGBERG: Mr. Tanguay.
23 You may proceed.

24 MR. TANGUAY: Thank you, Mr. Chairman.

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CROSS-EXAMINATION

BY MR. TANGUAY:

Q May it please the Committee, my name is Shawn Tanguay with the Law Firm of Gardner, Fulton & Waugh. We represent approximately 8 municipalities as Intervenors in this matter. We are also the spokesperson for Municipal Group 2.

The line of my questioning is going to be having to do with Mr. Bowes' Prefiled Supplemental Testimony emanating from March 24th, 2017. It's also identified as Applicant's Exhibit 10.

Mr. Bowes?

A (Bowes) Yes.

Q As I understand it, your Supplemental Testimony back in March of 2017 included a report from Burns McDonnell, the engineering firm; is that correct?

A (Bowes) That is correct.

Q And you adopted that report as part of your Supplemental Testimony, isn't that true, sir?

A (Bowes) Yes, it is.

Q As part of that report from Burns McDonnell,

{WITNESS PANEL: Bowes and Ausere}

1 there was an Executive Summary that sets forth a
2 couple of bulleted points and the top being that
3 the project is currently still estimated at \$1.6
4 billion. Do you still stand by that number,
5 Mr. Bowes?

6 A (Bowes) Yes.

7 Q And part of the purpose of this report was to
8 look at alternative routes and determine what
9 costs, if any, there would be in terms of
10 additional costs to the project if alternative
11 routes was decided on, is that correct?

12 A (Bowes) Not really. It was to estimate an
13 all-underground project cost.

14 Q Okay. And as part of that determination, in the
15 Executive Summary, Burns McDonnell also came up
16 and indicated that, and I'll just state it as in
17 the Executive Summary, compared to the proposal
18 on the past project route, the increase in cost
19 for an all-underground route is approximately \$1
20 billion; is that correct, sir?

21 A (Bowes) Yes, it is, and just to be clear,
22 although Burns McDonnell prepared the report, it
23 was prepared at my direction, and, actually,
24 they did the work that I laid out for them to

{WITNESS PANEL: Bowes and Ausere}

1 do.

2 Q Okay. And you stand by the numbers within the
3 report; is that true, sir?

4 A (Bowes) Yes, I do.

5 Q So moving on to another section of the report
6 that's titled Engineering Estimates, the
7 engineering firm provides for us historical cost
8 estimates, and I'd just like to go through
9 those.

10 A (Bowes) Do you have a page number?

11 Q On the report itself, it's page 9.

12 A (Bowes) Yes, I have it.

13 Q If you go down to the historical cost estimate,
14 Mr. Bowes, it says in the second paragraph, in
15 2010 the project cost estimate was approximately
16 \$1.1 billion.

17 MR. NEEDLEMAN: Could I interrupt for one
18 minute? I'm sorry. I just want to confirm that
19 we're looking at a public document.

20 MR. TANQUAY: This is the redacted version
21 of the engineering report.

22 MR. NEEDLEMAN: Okay. Thank you.

23 BY MR. TANQUAY:

24 Q Do you see that Mr. Bowes?

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) Yes, I do.

2 Q Then in the following paragraph, it says, in
3 2013 the project's cost estimate had risen to
4 approximately 1.4 billion with the change in the
5 routing of the northern section and the addition
6 of the 8 circuit miles of underground.

7 The question I had was with the increase of
8 approximately \$300 million from 2010 and 2013,
9 what amount of that constituted the additional
10 cost of the 8 miles of underground?

11 A (Bowes) You know, subject to check, and I'm not
12 sure that that is in this report, but I would
13 say approximately 100 to \$125 million.

14 Q So then further down in the next paragraph, it
15 says, with the Forward NH announcement in 2015,
16 the project's cost estimate rose to
17 approximately 1.6 billion with the additional 52
18 circuit mile length of underground cable.

19 Is it safe to say that the \$200 million
20 increase in cost was entirely associated with
21 the burying of the 52 miles?

22 A (Bowes) I'm pausing because it also changed the
23 technology. So it was different type of cable.
24 It was a different type of converter. The

{WITNESS PANEL: Bowes and Ausere}

1 ancillary projects, specifically the SVC at
2 Deerfield, also changed as part of this. So,
3 you know, on a high level look, it's the cost of
4 the undergrounding, but there were many other
5 components inside that that also changed within
6 the project. It went from a 1200 megawatt
7 project to 1090. The converter technology was
8 changed. The cable technology was changed. And
9 the cable technology probably is the largest
10 single differentiator. The original cable which
11 included the 8 miles up north was a mass
12 impregnated cable which means there are actually
13 6 conductors. So the associated size of the
14 duct bank was very different as well as the
15 number of cables. With the new cable
16 technology, there are only two cables so the
17 corresponding size of duct bank is much smaller
18 as well as you have a third the number of
19 circuit miles of cable.

20 Q So would it be fair to say that given the change
21 in technology that the addition of the 200
22 million from 2013 and 2016 is an accurate number
23 to identify the additional cost of the 52-mile
24 underground cable?

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes). No, as I just explained. I answered
2 your question ahead of it, but, no, there's many
3 other components in there. It's not just the 52
4 miles. It's the whole change in technology.

5 Q If we just take the \$200 million from 2013 to
6 2016 as the additional cost of inserting
7 underground cable to 52 miles, I'll represent to
8 you that I get approximately \$3.8 million per
9 mile for underground. I then decided, then I
10 took that number and I applied it to 132 miles
11 which is the remaining miles of the project,
12 assuming you take out the 60 miles of
13 underground, and I get the number to that is a
14 little over \$500 million. Can you explain your
15 discrepancy given the fact that Burns &
16 McDonnell is saying it's going to cost a billion
17 dollars for the additional 132 miles?

18 A (Bowes) Sure. It basically goes back to what I
19 explained before in some detail. The mass
20 impregnated cable which was the original design
21 at 1200 megawatts, the availability of that
22 cable and the feasibility of that cable, we
23 could not do that for 52 miles. So we had to
24 change the technology, specifically for the

{WITNESS PANEL: Bowes and Ausere}

1 HVDC, which created changes on both the Quebec
2 side as well as the US side. So the converter
3 stations were different technology. They went
4 to a voltage source converter. That allowed us
5 to do additional underground as a change in cost
6 in that technology. As I explained, the civil
7 construction would be very different now.
8 Instead of burying 6 conductors with the
9 physical separation that requires and the size
10 of the duct bank would be much larger, we are
11 able to go to a two-conductor technology with
12 XLPE cable. So thus the duct bank got much
13 smaller, the cable, the amount of miles of
14 cable, 52 miles times 2 is 104 versus 52 times 6
15 which is well over 300 miles. So the amount of
16 cable is much less with this new technology.
17 There was another upcost increase because the
18 converter or technology required a change in the
19 SVC, a change within Deerfield substation as
20 well.

21 So I guess what I'm trying to explain to
22 you, it's not appropriate to do the simple math
23 the way you calculated. The number of miles
24 divided by the 200 million. There are many

{WITNESS PANEL: Bowes and Ausere}

1 other factors involved, and this estimate is a
2 bottoms-up estimate. So we started with each of
3 the component of the project, the substations,
4 the overhead line, the underground line, and
5 built an estimate. We then compared it to the
6 contract prices we had from contractors already
7 under contract for this project. And then we
8 did a third thing is we compared it with like
9 projects that Eversource has done across New
10 England, both in Massachusetts and Connecticut.
11 So it's kind of a third check on it.

12 The first one was an engineering ups
13 estimate, the second was comparing to our
14 contract prices and the third was a verification
15 against existing projects. So I'm very
16 comfortable in the number of \$1 billion is an
17 accurate number.

18 Q Going to your Supplemental Testimony on page 2,
19 you indicate, and I quote, NPT's cost is
20 increased by over 500 million from 1.2 billion
21 to 1.6 billion. The primary driver of this
22 increase is the addition of underground
23 transmission cable.

24 So is that still a fair and accurate number

{WITNESS PANEL: Bowes and Ausere}

1 that the underground cost is approximately \$500
2 million for the project?

3 A (Bowes) At the highest level, yes. But a lot of
4 the details, as I just explained are, you do
5 have to actually look to the details to see what
6 the routing is as well as the construction
7 techniques, the civil construction being a large
8 portion of it. But in essence a \$500 million
9 number from the original project to today's
10 project is an accurate portrayal, and, in
11 essence, the largest portion is the underground.

12 Q So the \$500 million is essentially the
13 additional cost for the underground
14 construction, is that correct?

15 A Again, at the highest level, yes, but you have
16 to look to the nuance and the detail to get
17 there.

18 Q Turning your attention back to the Burns &
19 McDonnell report on page 27, Burns & McDonnell
20 provided a grid trying to show comparison of
21 other underground projects around the area. But
22 in particular, my interest was the first line of
23 that grid which is Northern Pass Transmission.
24 It has a total cost of underground for \$617

{WITNESS PANEL: Bowes and Ausere}

1 million. Can you explain where that number
2 comes from?

3 A (Bowes) Sure. That's the cost of the
4 underground trenching, the transition stations
5 and the underground cable to build this project.

6 Q But I thought you had just testified that \$500
7 million was the actual cost of the underground
8 project.

9 A (Bowes) So there are some cost offsets here as
10 well. So you're no longer building the overhead
11 portion of the line for that same 60 miles so
12 you have to subtract the overhead costs as well.
13 So the net would come out to be about \$500
14 million.

15 Q The other interesting thing I noticed in the
16 Burns & McDonnell report is it has the cost of
17 underground construction at being approximately
18 another billion dollars to bury the entire line.
19 The one thing I did not see was any analysis of
20 future cost of maintenance. Could you explain
21 why that wasn't added into the report?

22 A (Bowes) It wasn't part of what we asked them to
23 look at. There was a Life Cycle Cost Analysis
24 provided as part of discovery. It actually

{WITNESS PANEL: Bowes and Ausere}

1 comes out of work I did with the Connecticut
2 Siting Council so the costs are in the record
3 for operating and maintaining underground
4 sections of a line. I would use the 345 kV AC
5 costs that are in that report as a very good
6 proxy for what the cost for this 320 kV DC line
7 would be.

8 Q Would it be fair to say that the cost, the
9 future maintenance cost of underground utilities
10 is cheaper than the annual cost of overhead
11 construction?

12 A (Bowes) So the O&M costs may be lower in certain
13 areas. The largest one is vegetation
14 management. So that's the largest ongoing cost
15 for an overhead transmission system. The issue
16 comes in is that when a repair does occur for an
17 underground cable, it tends to be very costly.
18 So those tend to be sporadic in nature, fairly
19 rare, but when they do occur it can be certainly
20 well in excess of \$10 million to do that repair.
21 If you look at that Life Cycle Report from the
22 Connecticut Siting Council, it actually shows
23 that the underground cable system total Life
24 Cycle cost is higher than an overhead system by

{WITNESS PANEL: Bowes and Ausere}

1 about two times.

2 Q Thank you.

3 MR. TANQUAY: I have nothing further,
4 Mr. Chairman. I concede my time to Ms.
5 Fillmore. We also may have questions on the
6 confidential portion regarding Mr. Bowes.

7 PRESIDING OFFICER HONIGBERG: Okay. Ms.
8 Fillmore, are you going to come up here or are
9 you going to work from out there?

10 MS. FILLMORE: I'm going to work from out
11 here if that's okay.

12 MR. IACOPINO: Mr. Chair, before she does,
13 Mr. Bowes, you referenced this Life Cycle
14 report. Do you know if it has been marked as an
15 exhibit? You said it's in the record. I
16 understand it may be in the discovery. But do
17 you know if it's been or if counsel can help,
18 whether that report has been marked as an
19 exhibit?

20 A (Bowes) I do not know.

21 MR. NEEDLEMAN: I don't recall. We can
22 check at a break.

23 MR. IACOPINO: Thank you.

24 PRESIDING OFFICER HONIGBERG: Now

{WITNESS PANEL: Bowes and Ausere}

1 Ms. Fillmore.

2 MS. FILLMORE: Thank you, Mr. Chairman.

3 **CROSS-EXAMINATION**

4 **BY MS. FILLMORE:**

5 Q I just have a few questions, and they are
6 primarily for Mr. Bowes. Sorry, Mr. Ausere.
7 And they have to do with the Project Labor
8 Agreement.

9 In your Prefiled Testimony of February
10 26th, you reference that the PLA requires
11 contractors hire New Hampshire labor first. Do
12 you recall that?

13 A (Bowes) Yes, I do.

14 Q And I'd like to bring your attention to the
15 Project Labor Agreement itself. Page 2. I will
16 represent to you that on page 2 of the Project
17 Labor Agreement, Article 1 lists the priority
18 for hiring under the PLA. Do you have a copy of
19 that?

20 A (Bowes) Yes, I do. I'm not sure it's the same
21 vintage that you have.

22 Q Okay.

23 A (Bowes) I don't think the Article 1 has changed.

24 Q I believe it says Purposes.

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) Yes.

2 Q Okay. Fabulous. So just to summarize, in that
3 Article 1, it states that priority will be to
4 hire New Hampshire-based union workers first.
5 Is that correct?

6 A (Bowes) Yes, it is.

7 Q And then there are three other categories after
8 that?

9 A (Bowes) Yes. Nonunion New Hampshire companies,
10 then priority 3 is neighboring states; Maine,
11 Vermont and Massachusetts. And then priority 4
12 is union contractors that are travelers or
13 people outside of the region.

14 Q Thank you. So union workers who live in New
15 Hampshire are the first hiring priority; is that
16 correct?

17 A (Bowes) Yes, it is.

18 Q Okay. Article 17 which is actually on page 24
19 of the Project Labor Agreement, which is now on
20 the screen, Article 17 is titled Miscellaneous
21 Provisions, and it includes various things like
22 how to amend the agreement, which state's law
23 applies. Are you familiar with that section?

24 A (Bowes) Not specifically, but I can review it.

{WITNESS PANEL: Bowes and Ausere}

1 Q Okay. Well, what I'd like to bring your
2 attention to is paragraph 6 E which is the very
3 last paragraph before the signature page. It
4 would be at the bottom on the screen.

5 A (Bowes) Yes, I see that.

6 Q Okay. Can you read that section, please?

7 A (Bowes) So this defines New Hampshire-based
8 union workers.

9 New Hampshire-based union workers as used
10 hereto shall mean, 1, union member whose primary
11 residence is in New Hampshire. 2, union member
12 whose primary residence is outside of New
13 Hampshire but who is a member of a New Hampshire
14 union.

15 Q Thank you. So a moment ago I asked you if union
16 workers who live in New Hampshire would be the
17 first priority, and you responded yes. Do you
18 recall that?

19 A (Bowes) Yes.

20 Q And does the paragraph that you just read state
21 that a union worker who is not living in New
22 Hampshire but who holds a card from New
23 Hampshire could also be considered in the first
24 priority group?

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) I believe it does, yes.

2 Q Thank you very much. That's all I have.

3 PRESIDING OFFICER HONIGBERG: Next up, I
4 believe, Municipal Group 3. Attorney Pacik?

5 **CROSS-EXAMINATION**

6 **BY MS. PACIK:**

7 Q Good morning. Attorney Pasik from the City of
8 Concord.

9 Mr. Bowes, just to start with you, I have a
10 couple of followup questions. Attorney Pappas
11 had asked you, as well as Attorney Whitley,
12 about the Department of Transportation and their
13 oversight of local roads, and you agreed that
14 the DOT does not have jurisdiction, right?

15 A (Bowes) I don't believe that's correct. I was
16 using that as a standard.

17 Q I believe you also said you're not aware of the
18 different requirements of the municipalities
19 that the proposed project may go through in
20 terms of excavation?

21 A Not specifically, I'm not.

22 Q So you don't know whether towns or cities have
23 damage fees, for example, if somebody does a cut
24 in the roadway?

{WITNESS PANEL: Bowes and Ausere}

1 A I do not.

2 Q Okay. And you had indicated that you expect
3 that the best way to deal with that is through a
4 MOU?

5 A (Bowes) Through the stipulation process, yes.

6 Q And those have been sent to municipalities, and
7 at this point I believe you've received one
8 response so far from Franklin?

9 A (Bowes) I believe that's correct. Yes.

10 Q And you understand that there's nothing that
11 guarantees that municipalities are going to be
12 able to work out a stipulation with Northern
13 Pass. You understand that?

14 A (Bowes) Yes, I do.

15 Q And to the extent that there is no stipulation,
16 you understand that those towns do have rules
17 and regulations, right?

18 A (Bowes) Yes, I do.

19 Q We'll probably go into the costing a little bit
20 in the confidential section, but just in
21 generally speaking, I understand that when you
22 did the original costing, you had just done a
23 high level geotechnical boring at that point.
24 Is that right?

{WITNESS PANEL: Bowes and Ausere}

1 A So maybe you could be a little more specific?

2 Q Okay. So I understand that the estimated cost
3 is 1.6 billion, is that correct?

4 A (Bowes) For today's project, yes.

5 Q And when you came up with that, I understand
6 that at that point you had not originally, you
7 had not yet completed all the geotechnical
8 borings.

9 A That is correct.

10 Q And since that time, those have been completed?

11 A (Bowes) For the underground portion and for the
12 transition and substation portion, yes.

13 Q And I understand from your technical session
14 that you actually, the results of the
15 geotechnical boring show that there was less
16 ledge than was originally anticipated?

17 A (Bowes) That is correct.

18 Q That means that the price of the undergrounding
19 will cost less, at least in terms of labor, when
20 it comes to the underground work, right?

21 A (Bowes) With all things being equal, yes. That
22 would be true.

23 Q Okay. And I understand that there was a cost,
24 though, associated with -- let me just make sure

{WITNESS PANEL: Bowes and Ausere}

1 I have my terminology correct. The fluidized
2 thermal backfill. Right?

3 A (Bowes) Correct.

4 Q So that was going to make the cost of the
5 project potentially, that was going to cost more
6 than you had originally anticipated.

7 A (Bowes) I believe it's a different technology
8 than we had originally estimated so I think
9 there was a change in technology for the
10 backfill. So I think that was part of the cost
11 increase, and depending upon the depth of trench
12 in the final DOT permission is received, that
13 may also be a factor in this.

14 Q Okay. So at this point my question is, we had
15 requested updated costing from you based on the
16 new information that you received on the
17 geotechnical boring results and the use of the
18 fluidized thermal backfill, and that was not
19 provided to us on the basis that it had not yet
20 been done.

21 Are you planning to provide that
22 information to the parties and to the Site
23 Evaluation Committee?

24 MR. NEEDLEMAN: Danielle, you can specify

{WITNESS PANEL: Bowes and Ausere}

1 which data request you're referring to?

2 Q Could you pull up Exhibit 84? It's not been
3 marked and provided yet, but I do have it and we
4 can distribute it to you. It's been marked as
5 Joint Muni 84. So it was Technical Session
6 10/20, and we asked for a revised cost estimate,
7 and the response was that you do not have one
8 for the project. Will you be making that cost
9 estimate available?

10 A (Bowes) So I think once it's prepared, it could
11 be available. I think it's going to depend upon
12 the final DOT permissions, both for the
13 fluidized backfill as well as depth of trench
14 and final contractor pricing as well.

15 Q Okay. So my understanding from what you just
16 said was maybe. We don't know?

17 A (Bowes) Well, it certainly can be provided, but
18 it's certainly not ripe at this point until
19 those other things take place.

20 Q Okay. So as you sit here today, you don't know
21 whether by the end of this proceeding we will
22 have an undated cost estimate?

23 A (Bowes) I'm anticipating the final DOT permit
24 approvals well before that. So that would

{WITNESS PANEL: Bowes and Ausere}

1 certainly allow us time to do a final cost
2 estimate.

3 Q Okay. So just to be clear because when I first
4 asked you that question it was, I felt like the
5 response was a little noncommittal. Will
6 updated cost estimate be provided?

7 A (Bowes) I believe you actually asked Mr. Johnson
8 that data request. I did not respond to it.

9 Q Okay. You're here to talk about some of the
10 costing though, right?

11 A (Bowes) Yes, I am.

12 Q So what would your response be to my question?

13 A (Bowes) I think it would be ready probably
14 within 30 days after final DOT approvals.

15 Q And do you anticipate that to be during these
16 SEC proceedings?

17 A (Bowes) I hope so. Yes.

18 Q Okay.

19 PRESIDING OFFICER HONIGBERG: Off the
20 record.

21 (Discussion off the record)

22 MS. PACIK: I think I'll save the rest for
23 confidential. Thank you. Oh, maybe not.

24 Mr. Chairman, I do have an unusual request.

{WITNESS PANEL: Bowes and Ausere}

1 On the PLA, Attorney Fillmore had a couple
2 questions. I can either try to ask them or if I
3 could defer to Attorney Fillmore to ask those
4 questions, that would be appreciated. I can ask
5 it if you'd like.

6 PRESIDING OFFICER HONIGBERG: I think it's
7 fine. Ms. Fillmore, do you need your notes back
8 or do you remember the question you wrote for
9 Ms. Pasik?

10 MS. FILLMORE: I don't need my notes. I
11 should have read them the first time.

12 **RECROSS-EXAMINATION**

13 **BY MS. FILLMORE:**

14 Q Just to quick followup, Mr. Bowes. So the
15 section that you just read was in Article 17,
16 the miscellaneous section with the definition of
17 New Hampshire-based union worker, is that
18 correct?

19 A (Bowes) Subject to check, I believe so.

20 Q I'll represent to you that it is. Is there a
21 reason that that definition was placed in the
22 miscellaneous section at the end of the
23 agreement rather than in the paragraph that
24 defined New Hampshire-based union worker?

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) Not to my knowledge. No.

2 Q So would you say that based on that definition,
3 a union worker holding a New Hampshire card who
4 lived in Massachusetts could be hired as a New
5 Hampshire-based union worker ahead of someone
6 who actually lives in New Hampshire?

7 A (Bowes) In the same priority one category?

8 Q Yes.

9 A (Bowes) I don't know. I don't know the actual
10 union rules for hiring within a state or local
11 first, and I know some of the locals cross both
12 New Hampshire and Massachusetts. So I don't
13 know the answer to that.

14 Q Assuming for the sake of this question that the
15 union rules wouldn't prevent it, merely under
16 the definition of in this agreement, could a New
17 Hampshire-based worker who holds a New Hampshire
18 card but lives in Massachusetts be hired as part
19 of that first priority?

20 A (Bowes) Yes, but after all the New Hampshire
21 workers were hired.

22 Q Does it say that in that section?

23 A (Bowes) It says 1 and 2, yes. In that section.
24 1 being New Hampshire workers first, 2 being

{WITNESS PANEL: Bowes and Ausere}

1 workers that have a card for New Hampshire.

2 Q I've brought that back up on the screen.

3 A (Bowes) I read it as a priority here, 1, and
4 then 2. That's how I read it.

5 Q Does it say in that order?

6 A (Bowes) It does not.

7 Q Thank you. I'm really finished this time,
8 Mr. Chairman.

9 PRESIDING OFFICER HONIGBERG: Ms. Pasik,
10 did you have anything else?

11 MS. PACIK: No. Thank you.

12 PRESIDING OFFICER HONIGBERG: Next up is
13 Grafton County Commissioners. Anybody here?

14 (No audible response)

15 PRESIDING OFFICER HONIGBERG: Attorney
16 Reimers, you'll be next. Just while he's
17 getting ready, just so everybody's clear about
18 the confidential sessions, first off, obviously,
19 those who haven't entered into appropriate
20 agreements, any members of the press will have
21 to leave and we'll turn off the speakers to the
22 other rooms, but I just want to make sure people
23 understand that the topics that are to be
24 covered during that session are the confidential

{WITNESS PANEL: Bowes and Ausere}

1 sections of whatever documents, whatever
2 information has been developed and is to be
3 used.

4 Now, many of the questions that get asked
5 during such a session don't call for the
6 disclosure of confidential information in a
7 particular exchange, but it's not an invitation
8 to go back to nonconfidential topics that have
9 already been covered. So to the extent that
10 someone moves in that direction, you should
11 expect to be stopped. So during the
12 confidential sessions, you're to focus on the
13 confidential information, and if anybody has
14 questions about that as it's going you can get
15 some clarification or perhaps in advance you
16 could confer with Attorney Iacopino or
17 Administrator Pam Monroe. Off the record.

18 (Discussion off the record)

19 PRESIDING OFFICER HONIGBERG: Mr. Reimers,
20 you may proceed.

21 **CROSS-EXAMINATION**

22 **BY MR. REIMERS:**

23 Q Good morning. My name is Jason Reimers. I
24 represent the Society for Protection of New

{WITNESS PANEL: Bowes and Ausere}

1 Hampshire Forests.

2 Mr. Bowes, this is a followup from an
3 earlier question. When asked about Eversource's
4 interest in the Phase II line, I believe that
5 you and Mr. Quinlan both said that you believe
6 that Eversource has some interest. Does
7 Eversource, in fact, have an interest in that
8 line?

9 A (Bowes) I don't think I have anything more to
10 add. I believe we do, but I've never seen a
11 document if that's what you mean.

12 Q Okay. Who would know that? You know, for sure?
13 Yes or no?

14 A (Bowes) I'm sure our Vice President of Supply
15 would know that.

16 Q Is he or she a witness in this case?

17 A (Bowes) I don't believe so. Mr. James Daly. I
18 don't think he's a witness in this proceeding.

19 Q Mr. Bowes, in your Supplemental Testimony on
20 page 1, line 28, you state, quote, the review of
21 potential alternatives for this project and
22 alternative designs for this project are not
23 properly before the Site Evaluation Committee in
24 this proceeding. My question is, what analysis

{WITNESS PANEL: Bowes and Ausere}

1 did you personally do to arrive at that legal
2 conclusion?

3 A (Bowes) It's just my understanding from
4 conversation with our lawyers that we put forth
5 an Application with the SEC, and they rule on
6 that Application.

7 Q Mr. Bowes, I'm looking at page 3, line 24, of
8 your Supplemental Testimony where you state NPT
9 must judge where the tolerance of potential
10 investors for increased cost and risk will be
11 exhausted. Its senior management's belief that
12 the project is at or near that point by virtue
13 of acceptance of an additional \$500 million in
14 project costs for the construction of 60 miles
15 of underground line to avoid visual effects in
16 most areas of special scenic and recreational
17 value.

18 I have several questions about this, these
19 statements. First, are you included in the
20 senior management referred to?

21 A (Bowes) I am not.

22 Q Who are you referring to?

23 A (Bowes) Mr. Quinlan, and our CEO, Mr. James
24 Judge.

{WITNESS PANEL: Bowes and Ausere}

1 Q The two of them? That's who you're referring
2 to?

3 A (Bowes) And there's probably others as well on a
4 Management Committee.

5 Q And who are the potential investors you refer
6 to?

7 A (Bowes) In this case it's Hydro-Quebec.

8 Q Is there any reason why it's plural?

9 A (Bowes) I think it was more just a general
10 statement, not a specific statement.

11 Q Based on recent press releases, is it possible
12 that Hydro-Quebec is already past the point of
13 tolerance for cost and risk?

14 A I would say no.

15 Q What do you base that on?

16 A (Bowes) On the joint press release by our two
17 CEOs.

18 Q You also state that the 60 miles of underground
19 line would, quote, avoid visual effects in most
20 areas of special scenic and recreational value.
21 Can you think of an area of special scenic and
22 recreational value where the visual effect would
23 not be avoided by burying the 60 miles?

24 A (Bowes) I think there's areas. Certainly

{WITNESS PANEL: Bowes and Ausere}

1 there's some state parks that we've identified
2 that Counsel for the Public has identified as
3 well where we could possibly do more mitigation
4 for the overhead portions of the line.

5 Q Would Little Diamond Pond in Coleman State Park
6 be one example that's not avoided?

7 A (Bowes) That would be one, yes.

8 Q What I'm showing you is the existing photo from
9 Mr. DeWan's report, and I'll show you now his
10 photo simulation.

11 So you agree that the visual effect is not
12 avoided at this State Park?

13 A (Bowes) Not completely. No.

14 Q And this is an instance, I believe, that those
15 are monopoles shown there?

16 A Subject to check, I believe they are.

17 Q When you say subject to check, will you be
18 checking all of these, is someone keeping a list
19 of all these items that are going to be checked?

20 A (Bowes) Certainly the construction panel will
21 have that level of detail and would have the
22 system in place to look at structure by
23 structure. I just don't have it with me today.

24 PRESIDING OFFICER HONIGBERG: Mr. Reimers,

{WITNESS PANEL: Bowes and Ausere}

1 I actually don't think that's what "subject to
2 check" meant for this witness or most of the
3 other witnesses. I think most of those other
4 witnesses are using that phrase to say I'm going
5 to assume what you just told me is true for the
6 purposes of your question.

7 MR. REIMERS: Okay.

8 PRESIDING OFFICER HONIGBERG: If you want
9 someone to confirm, you're going to need to ask
10 that that happen, okay?

11 MR. REIMERS: Okay. Thanks for the
12 clarification.

13 BY MR. REIMERS:

14 Q Mr. Ausere, I'm showing you your Prefiled
15 Testimony at page 3 and I've highlighted lines
16 14 to 15 where you say that HRE will pay NPT for
17 firm transmission service pursuant to a
18 FERC-approved cost based formula rate that will
19 enable NPT to recover the costs of development
20 and construction plus a return on investment
21 over a period of 40 years.

22 So under the TSA, HRE will pay every cent
23 that it costs to develop and construct the
24 project; is that right?

{WITNESS PANEL: Bowes and Ausere}

1 A (Ausere) Yes. Under the TSA, HRE will pay NPT
2 for the cost to develop and construct the
3 project, yes.

4 Q Plus 12.5 percent, 12.56 percent interest?

5 A (Ausere) The 12.56 is a return on our
6 investment. And actually, so that's a return on
7 equity. And that's actually, 12.56 applies
8 while the project is under construction. Once
9 the project goes into service, the allowed
10 return on equity under the formula rate in the
11 TSA, it's actually indexed to the allowed rate
12 of return on transmission projects that are
13 regulated by ISO New England and FERC.

14 So if today's allowed ROE in New England
15 were to stay steady, the 12.56 would decline to
16 I think it's 11.74 percent and that's allowed
17 return on equity.

18 Q 11 point what?

19 A 74.

20 Q Have you calculated how many dollars this 12.56
21 percent interest during the construction phase
22 will amount to?

23 A (Ausere) I have not, but it's embedded in the
24 overall cost of the project.

{WITNESS PANEL: Bowes and Ausere}

1 Q Should I assume the same for the 11.74 percent?

2 A (Ausere) No, that's different. The 12.56
3 applies just during construction.

4 Q I'm sorry. Should I assume that you haven't
5 also calculated in real dollars how much the
6 11.74 percent will end up being?

7 A (Ausere) I have not personally, but I'm sure
8 others in the company have.

9 Q Okay. And does that 11.74 percent interest rate
10 run through the 40 years?

11 A (Ausere) It does unless the FERC/ISO New England
12 further adjusts the allowed return on equity.
13 Remember I mentioned earlier that it's actually
14 indexed to whatever the allowed return is.

15 Q Attached to your Supplemental Testimony is an
16 updated version of your Prefiled Testimony. In
17 that updated testimony, you state that
18 Eversource has paid approximately \$190.5 million
19 through December 31st, 2016, in development
20 costs. Is that correct?

21 A (Ausere) It sounds right, but can you point me
22 to the page?

23 Q Sure. Page 6, line 27, and this is Applicant's
24 Exhibit 10. The Attachment to that.

{WITNESS PANEL: Bowes and Ausere}

1 A (Ausere) Give me one second. Yes, I'm there.

2 Q Okay. Do you agree that Eversource through the
3 end of last year has paid \$190.5 million?

4 A (Ausere) Eversource has invested 190.5 million
5 through the end of last year into the project.

6 Q And these development costs include legal fees,
7 environmental, engineering and communications
8 costs? If you look on to the next page, I think
9 you discussed that.

10 A (Ausere) Correct.

11 Q Are there other categories of development costs
12 besides those four?

13 A (Bowes) I can think of one. Land purchases.

14 Q Land purchases? By NPI?

15 A (Ausere) RPI. Yes. I agree with that.

16 Q And those are the only costs that HRE is not
17 obligated to pay for. Is that right?

18 A (Ausere) Actually, so you're referring to the
19 land that's owned by RPI?

20 Q Correct.

21 A (Ausere) NPT will lease land rights from RPI,
22 and then in turn NPT will recover those lease
23 costs from HRE.

24 Q Okay. So HRE will pay all of the lease costs

{WITNESS PANEL: Bowes and Ausere}

1 under the TSA?

2 A (Ausere) Correct.

3 Q Earlier and on Friday you were questioned about
4 the TSA, and you've discussed the press release
5 issued by HRE and by Eversource and HQ. What
6 legally binding document has HQ or HRE agreed to
7 pay for a \$1.6 billion project?

8 A (Ausere) The answer to your question is the
9 legally binding agreement is the Transmission
10 Services Agreement.

11 Q The one that you testified is for a 1200
12 megawatt project?

13 A (Ausere) And how I get there is that the TSA's
14 in full force and effect, and Hydro-Quebec,
15 through our frequent meetings with them, they
16 understand the current configuration of the
17 project, i.e., the 1090 megawatts as well as the
18 cost associated with that project.

19 Q Is there a legally binding document that
20 obligates HQ or HRE to pay for that \$1.6 billion
21 project?

22 A (Ausere) Yes, the TSA.

23 Q The TSA mentions a 1200 megawatt project, is
24 that correct?

{WITNESS PANEL: Bowes and Ausere}

1 A (Ausere) Correct.

2 Q When this project was a 1200 megawatt project,
3 the projected cost was approximately \$1.4
4 billion, right?

5 A (Ausere) I believe so.

6 A (Bowes) That is correct.

7 Q The project as proposed before the Site
8 Evaluation Committee is a 1090 megawatt project
9 estimated at \$1.6 plus billion; is that right?

10 A (Ausere) Correct.

11 Q But you rely on the TSA as being the legally
12 binding document under which HRE will pay for
13 the \$1.6 billion current project. Is that
14 right?

15 A (Ausere) Or whatever the project ultimately
16 costs. And I say that because it's a formulaic
17 rate that doesn't hinge on a particular cost.

18 Q Okay. Dawn, I want to use the ELMO, please.

19 Have either of you seen this letter?

20 A (Bowes) I saw a letter attached to Mr. Quinlan's
21 testimony. I'm not sure if it was this one or
22 not.

23 Q Okay. This is a letter, I'm not sure if it's
24 attached to, actually I think it is attached to

{WITNESS PANEL: Bowes and Ausere}

1 Mr. Quinlan's testimony or a version of it. Do
2 you see at the top where it's addressed to the
3 Town of Sugar Hill?

4 A (Ausere) Yes, I do.

5 Q It's my understanding that letters were sent.
6 You've got the date at the top of the first
7 page. I'll represent to you that letters were
8 sent to all of the municipalities along the
9 proposed route that were similar in form and
10 information provided. Do you see the numbers
11 that are in bold in the middle of the screen?
12 The number is, I think it's 16 million?

13 A (Bowes) Yes, I do.

14 Q Do you know what that 16 million represents?

15 A (Bowes) The capitalized cost of the investment
16 in that town.

17 Q Is that the cost of construction?

18 A (Bowes) It's the total project cost. So it's
19 more than the construction. It's all the
20 development costs we just went through, the 190
21 million we've spent to date. That gets turned
22 into the capitalized cost of the project.

23 Q Okay. So it's the cost of -- can you repeat
24 that? When I asked you whether it was the

{WITNESS PANEL: Bowes and Ausere}

1 construction cost, you said I believe it's the
2 construction cost plus the development cost?

3 A (Bowes) Correct. If we start construction,
4 hypothetically, January of 2018, it would
5 include all of the project costs since inception
6 until that time.

7 Q Okay. Would that be the correct term for a
8 project cost?

9 A (Bowes) Yes. And I did check Mr. Quinlan's
10 testimony, it's actually the Town of Allenstown
11 is in his so it's a very similar document but
12 it's not this one.

13 Q Okay. So the term "project costs," when we
14 refer to 1.4 billion or \$1.6 billion, are we
15 referring to project costs?

16 A (Ausere) I believe so. All costs associated
17 with putting the project into service.

18 A (Bowes) Yes. That is true.

19 Q Okay. So if there's \$16 million of project cost
20 in Sugar Hill, do you know how many miles --
21 first of all, Sugar Hill is an underground
22 portion; is that correct?

23 A (Bowes) Yes, it is.

24 Q Do you know how many miles of the proposed route

{WITNESS PANEL: Bowes and Ausere}

1 would run through Sugar Hill?

2 A (Bowes) I do not. I can certainly get this
3 information to you.

4 Q I could represent to you that it's 1.7 miles.
5 So if you divide \$16 million by 1.7 miles, would
6 you accept that that's approximately \$9.4
7 million?

8 A (Bowes) I'll accept that, yes.

9 Q Would you like me to get you a calculator?

10 A (Bowes) No, thank you.

11 Q Actually, I think I'm going to get one anyway
12 because it would be useful.

13 Okay. Mr. Bowes or Mr. Ausere, let's just
14 verify that I'm correct. Can you divide 16 by
15 1.7, please?

16 A (Bowes) Yes. I have 9.411 and several other
17 digits.

18 Q Okay. I'm going to round it off to 9.4.

19 A (Bowes) Fine.

20 Q So would you accept that based on this Sugar
21 Hill letter, the cost of undergrounding in Sugar
22 Hill are \$9.4 million per mile?

23 A (Bowes) No.

24 Q Why not?

{WITNESS PANEL: Bowes and Ausere}

1 A Because, as we just said, it includes all the
2 project development costs for that town.

3 Q Would you agree that the total project costs in
4 Sugar Hill which is a town through which the
5 Northern Pass would be buried, the project costs
6 are \$9.4 million per mile?

7 A (Bowes) No.

8 Q Can you explain why?

9 A (Bowes) Because in that cost that we're going
10 through, actually today, there are costs
11 associated with the project that aren't specific
12 to Sugar Hill. So those costs would be spread
13 across all of the project itself. It's not a
14 cost per mile for underground transmission.

15 Q Are you saying that that \$16 million cost is
16 specific to the 1.7 miles in Sugar Hill?

17 A (Bowes) No.

18 Q Then what is that \$16 million figure, how was
19 that arrived at?

20 A (Bowes) So it's the project cost allocated to
21 certain portions to the town of Sugar Hill and
22 also the direct costs of construction in that
23 town.

24 Q So that 16 million is larger than just the

{WITNESS PANEL: Bowes and Ausere}

1 project cost?

2 A (Bowes) Yes.

3 Q And when I asked you about project cost a little
4 while ago, I thought that was all the costs.

5 A (Bowes) It is.

6 Q What costs then are you talking about in
7 addition to the project cost that are Sugar Hill
8 specific?

9 A (Bowes) The direct construction. In your case,
10 the 1.7 miles of underground transmission.
11 Those would be costed and associated with Sugar
12 Hill. In addition, those project costs that we
13 talked about, just hypothetically, through 2016,
14 that 190 million would also be allocated, some
15 directly to Sugar Hill, some indirectly to Sugar
16 Hill, depending on their makeup. For example,
17 the overhead leases would not be allocated to
18 Sugar Hill.

19 Q So the total costs in Sugar Hill are \$16
20 million. Is that right?

21 A (Bowes) Total cost, yes.

22 Q And if you divide that on a per mile basis, the
23 total costs are 9.4 million approximately per
24 mile.

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) Okay.

2 Q Can you do another calculation on there?

3 Multiply 9.4 times 192. What do you get in
4 billions of dollars?

5 A (Bowes) So in billions, it's 1.8. In millions
6 it's 1804.8.

7 Q So if, and I know this is an if, but if the
8 Sugar Hill costs were the same along the entire
9 192 miles of the route, and I know that's a
10 hypothetical, would it, the total cost, project
11 cost plus town specific cost to bury the entire
12 route would be the number you just stated, \$1.8
13 billion?

14 A (Bowes) So you're asking me to assume that that
15 cost is the same across all towns all miles.

16 Q Correct.

17 A (Bowes) And it excludes the project development
18 costs and it excludes the substations.

19 Q And why do you exclude the project development
20 costs?

21 A (Bowes) Well, you're correct. You would not
22 need to exclude the project development cost.

23 Q That's part of the project cost.

24 A (Bowes) Yes. So it would just be the

{WITNESS PANEL: Bowes and Ausere}

1 substations that would not be included in this.

2 Q And that's because there's no substation
3 proposed in Sugar Hill.

4 A Correct.

5 Q So you would take that \$1.8 billion, add the
6 cost of the substations and that would be the
7 total project cost to bury it if the whole route
8 were like Sugar Hill.

9 A (Bowes) Yes.

10 Q Going back to this January 26th letter agreement
11 between NPT and HRE, will you look at that
12 paragraph that begins, NPT and HRE mutually
13 agree?

14 A (Ausere) I see it.

15 Q Okay. So the first line, NPT and HRE mutually
16 agree to extend the approval deadline from
17 February 14th, 2017, to December 31st, 2020, for
18 all purposes under the TSA.

19 Then it says, notwithstanding the
20 foregoing, prior to the approval deadline, NPT
21 and HRE shall file amendments to the TSA with
22 FERC reflecting the terms and conditions of the
23 amended and restated TSA for purposes of the
24 Massachusetts RFP or shall make a second

{WITNESS PANEL: Bowes and Ausere}

1 amendment to the TSA to reflect changes to the
2 approval deadline and other mutually agreed upon
3 changes.

4 This says, to me, that prior to the
5 approval deadline of December 31st, 2020, the
6 parties shall do one of two things. They're
7 either going to amend the TSA to reflect the
8 terms of the Mass. RFP or they shall make a
9 second amendment to the TSA to make changes to
10 the approval deadline. Is that right?

11 A (Ausere) Right.

12 Q Why if the Northern Pass doesn't win in the
13 Massachusetts RFP will it be necessary to amend
14 the approval deadline of December 31st, 2020?

15 A (Ausere) I'm not sure I follow your question.

16 Q Well, that second sentence, beginning with
17 notwithstanding the foregoing, it says prior to
18 the approval deadline, so that's prior to
19 December 31st, 2020, NPT and HRE shall file
20 amendments to the TSA to reflect the terms and
21 conditions of the Massachusetts RFP, right? Or
22 shall make a second amendment to the TSA to
23 reflect changes to the approval deadline and
24 other mutually agreed upon changes.

{WITNESS PANEL: Bowes and Ausere}

1 So that "or" tells me that there's two
2 things. There's two potential amendments.
3 You're either going to amend it with regard to
4 having been successful in the Massachusetts RFP
5 or you're going to amend it to reflect changes
6 to the approval deadline and other changes. So
7 that says to me that if you're not amending it
8 after having won the Massachusetts RFP, you're
9 going to be amending the approval deadline.

10 A (Ausere) Yes.

11 Q My question is --

12 A (Ausere) Go ahead.

13 Q If you're not successful in the Massachusetts
14 RFP, why will the approval deadline be changed?

15 A (Ausere) So we acknowledge we could go one of
16 two paths here. The amended and restated TSA
17 filed with FERC or a second amendment to the
18 TSA. I think what we're acknowledging there is
19 we haven't determined with Hydro-Quebec how
20 we're going to bid in yet to the Mass. RFP. You
21 heard me earlier testify that we could go down a
22 path where we essentially change the payor from
23 HRE to the Massachusetts EDCs for certain of the
24 revenue requirements under the TSA. That was

{WITNESS PANEL: Bowes and Ausere}

1 the approach that we took for the tri-state RFP.
2 If we take that approach, we're contemplating
3 here and in calling it an amended and restated
4 TSA, that would be a sufficiently material
5 amendment to the TSA that we'd have to take that
6 to FERC.

7 Now, if we don't go that path, in the Mass.
8 RFP, there still could be items that we'd want
9 to amend to the TSA and one thing that, well, an
10 example that comes to mind is there are some
11 housekeeping items that we would want to amend
12 in a TSA. For example, the fact that the TSA
13 still refers to a 1200 megawatt project. That
14 is an example of something that we will change
15 in the TSA to refer to 1090 megawatts.

16 Q Okay. So you said that if you don't go the
17 route of the Massachusetts RFP, there's still, I
18 think you said could be items we'd want to amend
19 to the TSA, and you mentioned housekeeping
20 items. The language of that second option after
21 the "or" is shall make a second amendment to the
22 TSA to reflect changes to the approval deadline
23 and other mutually agreed upon changes. It
24 seems to be specific language regarding

{WITNESS PANEL: Bowes and Ausere}

1 reflecting changes to the approval deadline.
2 And then I can see how the housekeeping parts
3 would be under that second clause, and other
4 mutually agreed upon changes. Why, I guess,
5 does it specifically refer to amending the
6 approval deadline again?

7 A (Ausere) I'm not aware of any intention to
8 change the approval deadline from December 31st
9 of 2020. So what I believe we're doing here is
10 saying when we do amend the TSA, either amend it
11 and restate it or just do a simple amendment, if
12 you will, then we'll bring this letter agreement
13 into the body of the TSA itself. I'm not aware
14 of any intentions to make the approval deadline
15 different than 2020.

16 Q Despite what it says in that letter.

17 A (Ausere) I don't know that the letter says
18 different than that, but as I've acknowledged,
19 I'm not a lawyer.

20 Q I'd like to ask, I think I'm asking Mr. Bowes
21 questions about Applicant's Exhibit 80 which is
22 the attachment to your, the underground
23 alternatives paper by Burns McDonnell.

24 A (Bowes) Yes, I have it.

{WITNESS PANEL: Bowes and Ausere}

1 Q This is Applicant's Exhibit 80, and I believe
2 I've got here the redacted version on the
3 screen.

4 Barry, let me know if you see me going into
5 confidential material, but I haven't seen any
6 redactions in the portions I plan to use.

7 MR. NEEDLEMAN: I think as long as you're
8 using the redacted version it's fine.

9 Q So Burns & McDonnell discussed alternate
10 underground rules; is that right?

11 A (Bowes) Yes.

12 Q One of those alternatives is US Department of
13 Energy Alternative 4 A?

14 A (Bowes) Yes.

15 Q And Alternative 4 A would bury the line
16 alongside I-93?

17 A (Bowes) Yes.

18 Q And Burns & McDonnell includes an analysis of
19 the DOT regulations, the New Hampshire DOT
20 regulations, regarding I-93 but does not state
21 that the Applicant's approach to DOT about the
22 feasibility of burying the line along I-93.

23 Would you agree with that?

24 A (Bowes) That is true.

{WITNESS PANEL: Bowes and Ausere}

1 Q Did the Northern Pass or the Applicants directly
2 inquire to the New Hampshire Department of
3 Transportation about burying along I-93?

4 A (Bowes) Yes. I personally did.

5 Q Describe that conversation, please?

6 A (Bowes) So I attended a meeting, I think it was
7 March 1st of 2016, and it was the project team,
8 one of our monthly meetings with the DOT, and we
9 had a discussion around use of the I-93
10 corridor.

11 Q On page 21 of that report, Burns & McDonnell
12 discusses two memoranda of understanding in a
13 Federal Court case involving the construction of
14 I-93 through Franconia Notch. Have you read
15 that section?

16 A (Bowes) Yes. I have.

17 Q And Burns & McDonnell state, quote, "AMC and
18 SPNHF are entrenched opponents to Northern
19 Pass." Do you see that?

20 A (Bowes) I haven't found it yet.

21 Q I can't point you to where it is. We lost the
22 signal on that. It's at the bottom of page 21.
23 Very last line.

24 A (Bowes) Yes, I see it.

{WITNESS PANEL: Bowes and Ausere}

1 Q Are you aware that the Forest Society is a party
2 to that, those memoranda of understanding?

3 A (Bowes) I believe you are.

4 Q And are you aware that the Appalachian Mountain
5 Club is another party to those memoranda?

6 A (Bowes) I am not sure of that.

7 Q Are you aware of the Applicant's ever
8 approaching the Forest Society or AMC about
9 agreeing to amend the memoranda of understanding
10 to allow burial through Franconia Notch?

11 A (Bowes) I do not know.

12 Q Do you know who would know whether the
13 representative of the Applicant approached the
14 Forest Society or AMC?

15 A (Bowes) I do not.

16 Q But you're unaware of any such overture?

17 A (Bowes) That is correct.

18 Q On page 23, Burns & McDonnell, looking at the
19 first full paragraph beginning with furthermore.
20 And in the middle of it begins, "New Hampshire
21 DOT has expressed no interest in doing so."

22 Let me back up. Burns McDonnell says,
23 "Furthermore, because Northern Pass is not a
24 highway construction project or a party to the

{WITNESS PANEL: Bowes and Ausere}

1 Notch agreement, Northern Pass would need NHDOT
2 to propose appropriate changes to the Federal
3 Court approved documents. NHDOT has expressed
4 no interest in doing so for a project that is
5 not related to its highway maintenance or public
6 safety."

7 When did New Hampshire DOT, quote, unquote,
8 express no interest that Burns & McDonnell is
9 referring to?

10 A (Bowes) I do not know.

11 Q At the bottom of page 23, burns McDonnell was
12 discussing a then House Bill 626 while it was
13 still a bill and there's a paragraph that
14 begins, with NHDOT's input, much of I-93 has
15 been included in the legislative discussions for
16 future availability as a utility corridor.
17 Notably, however, Franconia Notch and the
18 Franconia Notch Parkway are specifically and
19 consistently excepted from any such
20 consideration.

21 Do you know whether the final version of HB
22 626 which was signed into law excepted Franconia
23 Notch or Franconia Notch Parkway from
24 availability as a utility corridor?

{WITNESS PANEL: Bowes and Ausere}

1 A (Bowes) I do not.

2 Q I just want to ask you a few questions about the
3 Portland Natural Gas Pipeline. Can you describe
4 the communication, if any, that the Applicants
5 have had with the owner of the Portland Natural
6 Gas Pipeline concerning the collocation of the
7 Northern Pass facility within the shared
8 right-of-way?

9 A At the highest level I can, yes, and we can get,
10 obviously, much more detail at the construction
11 panel. At the highest level, we've been in
12 contact and talks with the pipeline company, and
13 we're in the process of doing an interference
14 study which I think is complete at this point to
15 ensure that there would be no adverse impact
16 from either the AC or the DC transmission line
17 to the pipeline structures.

18 Q Are there currently any written agreements to
19 between the Applicants and Portland Natural Gas
20 regarding collocation?

21 A (Bowes) I believe the only written agreements
22 that I'm aware of are between the gas pipeline
23 and Public Service New Hampshire for the
24 original installation of the pipeline. I don't

{WITNESS PANEL: Bowes and Ausere}

1 believe there are any additional or new
2 agreement in place with Northern Pass.

3 Q Thank you both very much.

4 PRESIDING OFFICER HONIGBERG: Next on the
5 list would be Attorney Birchard. Do you have
6 questions?

7 MS. BIRCHARD: Yes.

8 PRESIDING OFFICER HONIGBERG: How long do
9 you think you have?

10 MS. BIRCHARD: 15 minutes.

11 PRESIDING OFFICER HONIGBERG: Why don't we
12 do that.

13 **CROSS-EXAMINATION**

14 **BY MS. BIRCHARD:**

15 Q If it please the Committee, I will remain
16 seated. We did have a number of questions on
17 the subject of decommissioning for Mr. Ausere
18 that have already been asked by Counsel for the
19 Public so our remaining questions will be
20 directed to Mr. Bowes.

21 Mr. Bowes, this pertains to your
22 Supplemental Testimony, and is a follow-on to
23 your earlier discussion with Attorney Whitley.

24 In response to a question from Mr. Whitley

{WITNESS PANEL: Bowes and Ausere}

1 earlier, you stated an all-underground
2 alternative would not be cost effective for HQ
3 to pursue. But what your Supplemental Testimony
4 says at page 3 is something a little bit
5 different. It says that HQ and Northern Pass
6 are exploring new market opportunities, and that
7 for this reason you need a cost-competitive
8 profile. And here I'm quoting from page 3.

9 By cost-competitive profile, what you seem
10 to be saying is that, for example, in the
11 context of the Massachusetts RFP or another RFP,
12 HQ and Northern Pass Transmission would like to
13 be able to produce bids that are lower than
14 those of their competitors; is that correct?

15 A (Bowes) I guess as a general statement, I would
16 say yes.

17 Q Thank you. TDI Clean Power Link which is a
18 known competitor of the proposed Northern Pass
19 Transmission line has elected to underground its
20 proposed transmission line. Isn't that correct?

21 A (Bowes) They have for the portions in the United
22 States. There is no interconnection in Canada.

23 Q Thank you. Does this mean that if all other
24 things were assumed to be equal, the Northern

{WITNESS PANEL: Bowes and Ausere}

1 Pass Transmission project would have a leg up
2 over the TDI project or some other buried
3 project if they were both competitors in the
4 same RFP or the same venue?

5 A (Bowes) I can certainly speak to what Northern
6 Pass has for advantages. I'm not sure I can
7 speak to TDI and their commercial terms or --

8 Q Sure. I guess what I'm asking you to do is to
9 assume all other things are equal so it could be
10 TDI or it could be another underground buried
11 project and you are competing in the same RFP.
12 By electing not to underground the project,
13 would you have a leg up in that RFP process?

14 A (Bowes) Could you give me some more particulars
15 around the size of the project, the location of
16 the project, the supply for the project? I mean
17 it's --

18 Q Sure. I guess I would ask you to assume
19 everything is equal. Everything is equal except
20 for this one factor.

21 A (Bowes) So the difficulty I have is that, for
22 example, TDI went into the queue with
23 Hydro-Quebec in the fall of 2013 for an
24 interconnection to the HQ system to wheel power

{WITNESS PANEL: Bowes and Ausere}

1 from Labrador. So if that's the assumption I'm
2 making for the TDI project, that they're going
3 to wheel across the HQ system, somehow
4 miraculously get a new transmission line built
5 from the HQ system to the Vermont border,
6 maintain their --

7 Q Mr. Bowes, that's not necessary. I think I've
8 already said this could be some other
9 hypothetical underground project as well. TDI
10 was an example, but I'm positing to you that I
11 would like you to assume it's an underground
12 project that is in all other respects equivalent
13 to the Northern Pass transmission line. And the
14 reason I'm asking that is because I'm trying to
15 get at the idea of the cost-competitive profile
16 that you've referenced in your Supplemental
17 Testimony.

18 PRESIDING OFFICER HONIGBERG: Mr.
19 Needleman?

20 MR. NEEDLEMAN: I'm going to object. I
21 think the witness has just made clear that it's
22 not possible to make that "all things equal"
23 assumption.

24 PRESIDING OFFICER HONIGBERG: Okay. That

{WITNESS PANEL: Bowes and Ausere}

1 may be true, but I'm not sure yet that you've
2 articulated all of the assumptions you wanted to
3 make. So what do you want him to assume is the
4 same about the two lines?

5 MS. BIRCHARD: My focus is on what is not
6 the same, but in terms of what is the same, I
7 would ask you to assume that they both have
8 qualifying energy source and are equivalent in
9 size, otherwise qualify for the terms of that
10 RFP, whatever that theoretical RFP is, in
11 equivalent manners.

12 PRESIDING OFFICER HONIGBERG: So the
13 difference is one's aboveground and one's all
14 underground?

15 MS. BIRCHARD: Correct.

16 PRESIDING OFFICER HONIGBERG: One is
17 Northern Pass and the other one is all
18 underground? Do they cost the same?

19 MS. BIRCHARD: No. I think what I'm
20 getting at here is the issue of
21 cost-competitiveness, and I'd like to have
22 Mr. Bowes address the question of whether or not
23 they would cost the same and what factor --

24 PRESIDING OFFICER HONIGBERG: Oh, I don't

{WITNESS PANEL: Bowes and Ausere}

1 think there's any way he could have understood
2 that from what you've done to that point. So
3 you want him, so why don't you then tell him
4 what it is you want to focus on. Cost
5 differential to the two.

6 MS. BIRCHARD: Well, correct.

7 BY MS. BIRCHARD:

8 Q So, Mr. Bowes, assuming you have equivalent
9 projects and the one factor that is different is
10 that one is underground and the other is not,
11 which, you know, you've indicated is the
12 decision of HQ and Northern Pass Transmission in
13 this instance, can you tell me whether or not
14 you believe that Northern Pass Transmission
15 would have a leg up in that competitive process?

16 A (Bowes) So to make things simple, if I can, why
17 don't I assume the original Northern Pass
18 project at 1090 was an all-overhead project with
19 a cost of approximately \$1.1 billion. The same
20 interconnection in Canada, the same system
21 impact study in Canada, the same power supply
22 from Canada. And then I compare it to an
23 all-underground Northern Pass at \$2.6 billion,
24 same 1090 megawatt, some interconnection in

{WITNESS PANEL: Bowes and Ausere}

1 Canada, same power supply in Canada. Those two
2 projects, one at 1.1 billion, one at 2.6
3 billion, the 1.1 billion project would be more
4 cost-competitive.

5 Q Do you agree that there are certain external
6 costs or externalities that derive from the
7 company's decision not to underground more
8 completely in New Hampshire?

9 A I'm not sure I understand.

10 Q Are there external costs such as, for example,
11 landscape and cultural heritage impacts, or
12 commercial and property value impacts that
13 derive from the company's decision not to
14 underground more fully in the State of New
15 Hampshire?

16 A (Bowes) So I guess I would answer that, I
17 believe that an underground line has less visual
18 impacts than an overhead line. I may get others
19 in the room that disagree with that and the
20 impacts of an underground line. That's my
21 understanding of it. I think it's intuitively
22 obvious that you don't see an underground
23 transmission line. So the specific things
24 around visual impacts would be lower with an

{WITNESS PANEL: Bowes and Ausere}

1 underground line.

2 Q Thank you. And there have been a number of
3 mitigation efforts we've already discussed at
4 this hearing that do also relate to the decision
5 not to underground more fully, including related
6 to property values and other issues, is that
7 correct, Mr. Bowes?

8 MR. NEEDLEMAN: I'm going to object. I
9 don't understand that question.

10 PRESIDING OFFICER HONIGBERG: Do you
11 understand the question, Mr. Bowes?

12 A (Bowes) No.

13 Q I'd be glad to repeat it in simpler terms.

14 A (Bowes) Okay.

15 Q So previously I asked a multi-part question
16 which is are there multiple external impacts and
17 you answered one of those which was yes, there
18 are visual impacts that arise from the decision
19 not to bury the project more completely through
20 New Hampshire. Is that correct?

21 A (Bowes) That's the one example you gave, and I
22 agreed with it, yes.

23 Q Thank you. Thank you. I appreciate that. In
24 addition, my original multi-part question also

{WITNESS PANEL: Bowes and Ausere}

1 gave the example of commercial and property
2 value impacts. So I was referencing the fact
3 that those have already been discussed at this
4 hearing, and there's some acknowledgment that
5 mitigation or other efforts may be necessary to
6 attempt to address those external impacts of the
7 decision not to bury; is that correct?

8 A (Bowes) So Mr. Quinlan spoke to that issue. I
9 don't think I have anything more to add.

10 Q Thank you. That's all of my questions. Thank
11 you very much.

12 PRESIDING OFFICER HONIGBERG: All right.
13 We're going to take our break. Let's go off the
14 record for just a second.

15 (Discussion off the record)

16 PRESIDING OFFICER HONIGBERG: We'll break
17 until 1:30.

18 (Lunch recess taken at 12:41
19 p.m. and concludes the **Day 3**
20 **Morning Session**. The hearing
21 continues under separate cover
22 in the transcript noted as **Day**
23 **3 Afternoon Session ONLY**.)

24

{WITNESS PANEL: Bowes and Ausere}

C E R T I F I C A T E

1
2 I, Cynthia Foster, Registered Professional
3 Reporter and Licensed Court Reporter, duly authorized
4 to practice Shorthand Court Reporting in the State of
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15 employed in this case, nor am I financially
16 interested in this action.

17 Dated at West Lebanon, New Hampshire, this 19th
18 day of April, 2017.

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20 _____
Cynthia Foster, LCR
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23
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