STATE OF NEW HAMPSHIRE 1 SITE EVALUATION COMMITTEE 2 3 DAY 12 June 2, 2017 - 1:10 p.m. 49 Donovan Street Afternoon Session ONLY 4 Concord, New Hampshire 5 {Electronically filed with SEC on 06-18-17} 6 7 IN RE: SEC DOCKET NO. 2015-06 8 Joint Application of Northern Pass Transmission, LLC, and 9 Public Service Company of New Hampshire d/b/a Eversource Energy for a Certificate 10 of Site and Facility. 11 (Hearing on the merits) PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE: 12 13 Chrmn. Martin P. Honigberg Public Utilities Comm. (Presiding as Presiding Officer) 14 Cmsr. Kathryn M. Bailey Public Utilities Comm. Dir. Craig Wright, Designee Dept. of Environ. Serv. 15 Christopher Way, Designee Dept. of Resources & 16 Economic Development Public Member Patricia Weathersby 17 Rachel Whitaker Alternate Public Member 18 19 ALSO PRESENT FOR THE SEC: 20 Michael J. Iacopino, Esq., Counsel to the SEC (Brennan, Caron, Lenehan & Iacopino) Pamela G. Monroe, SEC Administrator 21 22 (No Appearances Taken) 23 COURT REPORTER: Susan J. Robidas, NH LCR 44 24

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AFTERNOON SESSION 1 2 (Hearing resumed at 1:32 p.m.) CHAIRMAN HONIGBERG: Ms. Weathersby, 3 you may continue. 4 5 MS. WEATHERSBY: Thank you. INTERROGATORIES BY COMMITTEE MEMBERS 6 7 BY MS. WEATHERSBY (cont'd): 8 0. So I'm a bit of a news junky. In addition to reading things we just talked about 9 concerning Bayroot and Wagner Forest, et 10 11 cetera, through the miracle of Google Translator I've also been reading some 12 articles concerning Hydro-Quebec and the 13 14 lines going from the dams to connect to this 15 project. And there seems, according to the 16 articles that I've read, there seems to be 17 some push to bury those lines as well. Could 18 you provide any status concerning that 19 section, the Hydro-Quebec portion of the 20 route? 21 Α. (Bowes) So I'm somewhat familiar with it. As 22 well I try to translate myself to what they 23 say. So I've been looking at some of the BAPE web site, which is equivalent to the SEC 24 {SEC 2015-06}[Day 12 Afternoon Session ONLY]{06-02-17}

1		in Canada and there are some desumants up
		in Canada, and there are some documents up
2		there. And we've had some conversations with
3		HQ as well. They're a little bit of ahead of
4		us in the siting process, and they expect to
5		have at least the provincial approval in the
6		June-July time frame and then final approval,
7		similar to the U.S. DOE approval, sometime
8		later in the year, possibly at year end for
9		the Canadian Government approval.
10		As part of their siting process, they
11		again have been challenged on routing and
12		type of construction. And especially in one
13		area near the New Hampshire border they've
14		been asked to evaluate placing a portion of
15		that underground, I believe. HQ's position,
16		as far as I understand it, is they're going
17		forward with an all-overhead solution, and
18		that's what they have filed or reaffirmed
19		with their regulator because that's their
20		plan to move forward.
21	Q.	Is there a significant chance that the
22		permitting will either get delayed or will
23		not be granted?
24	Α.	(Bowes) Not to my knowledge. I don't I

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1		mean, that's speculative, I would say, for me
2		to even comment. HQ seemed to be confident
3		that they would get approval as proposed.
4	Q.	Concerning the laydown and staging areas, I
5		think it's been indicated that three of
6		those three laydown areas have been
7		specifically identified, but approximately 25
8		are needed. Is that correct?
9	Α.	(Bowes) I would say that's reasonable, yes.
10		I think that's what we said.
11	Q.	And that Quanta/PAR's responsible for
12		locating those additional areas?
13	Α.	(Bowes) Yes.
14	Q.	So when those are identified, do those
15		plans what is the process? I'm wondering
16		how it integrates with the SEC process. Do
17		they what's the review for you know,
18		maybe DES permits are needed. Are they
19		evaluated for historical or archeological
20		significance? What happens when these
21		additional parcels are added to the Project?
22	Α.	(Bowes) So we would propose we would do the
23		same thing we did with the Merrimack Valley
24		Reliability Project. We would ask the SEC to
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1		delegate that responsibility to the New
2		Hampshire DES to evaluate the laydown areas
3		as presented and provide a ruling on that.
4		If it's a positive ruling, then we would go
5		forward. If it's a negative ruling, we'd
6		either work with the permitting agency to
7		understand the complications or restrictions
8		on that site or select another site to use.
9	Q.	A day or two ago, I think perhaps when you
10		were talking with Mr. Oldenburg, you
11		indicated that probably sitting in your
12		mailbox were the DOT waiver request results.
13		Have you received those?
14	A.	(Johnson) We did get the first batch back, if
15		you will. Two were approved, and seven were
16		requested to be refined. So they asked for
17		additional information on the first set of
18		seven.
19	Q.	And are those results provided to the
20		Committee?
21	A.	(Johnson) They will be, yes. I don't have
22		them with me at this time.
23	Q.	Okay. Earlier today we were talking about
24		using monopoles versus lattice towers, and
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1		there was a discussion about the changes in
2		the site preparation that is needed for both.
3		But is there a price difference just between
4		the pole itself, a monopole tower and a
5		lattice tower at the same height?
6	A.	(Kayser) From a materials standpoint, a
7		lattice tower is cheaper. Just the steel is
8		cheaper from a materials standpoint;
9		although, the labor to put up a lattice tower
10		is more than a steel pole, and the biggest
11		difference is the foundation. Typically the
12		foundation for a steel monopole costs
13		significantly more than the lattice tower
14		because the lattice tower has four smaller
15		foundations. A monopole has one large
16		foundation, which typically is significantly
17		more concrete and more expensive.
18	Q.	So a monopole is more expensive because of
19		the foundation and the pole itself.
20	Α.	(Kayser) Yes.
21	Q.	The lattice tower is more expensive than the
22		monopole in its erection.
23	A.	(Kayser) Yeah, more labor in the erection of
24		it. Sorry. So, overall, typically, and I
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1		know Derek talked about this, or Mr.
2		Bradstreet, if you look at just one single
3		pole sometimes, a monopole may be more
4		cost-effective. But overall, when you get a
5		really long line with lattice towers,
6		typically lattice towers are a more economic
7		choice.
8	Q.	And just ballpark, would you say it's half
9		again as much to use monopoles or twice as
10		much? Or what's kind of a ballpark figure?
11	Α.	(Bowes) I think Derek indicated around
12		10 percent, probably, if you looked at a
13		large number or a large cross-examination.
14		Again, each type of structure weighs into
15		that as well. If it's an in-line structure,
16		the prices tend to be closer. But if it's a
17		tangent structure, or an angle structure,
18		rather, the price tends to go up because of
19		the foundation requirements, the tensions on
20		the structures.
21	Q.	How much of a factor, if any, has that price
22		been in the selection of the towers for this
23		project?
24	A.	(Bowes) I would say one of the factors, but
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1	probably one of the less impactful criteria
2	we used, was really more around getting a
3	base design in place that was constructable,
4	especially in areas that were more
5	challenging to build roads into. And the
6	terrain in the North Country and overall with
7	a very long line, economics plays some role.
8	But as the price of steel has gone down, that
9	factor is more minimized now. So it's really
10	about getting the material into the site and
11	the type of equipment that would be necessary
12	to erect those structures.
13	Q. Okay. That's all I have. Thank you.
14	CHAIRMAN HONIGBERG: Commissioner
15	Bailey.
16	MR. IACOPINO: Can I jump in one
17	second, Mr. Chairman? I just want to point out
18	that the reference just before the lunch break
19	to the Cape Horn State Forest in Applicant's
20	Exhibit 3, which is the Application,
21	Appendix 13, there is a filing with the Public
22	Utilities Commission to cross over state lands,
23	and the Cape Horn parcel is included in that.
24	So I just want to make the Committee aware of
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1 that.

2 BY CMSR. BAILEY: Thank you. Good afternoon. Let's start 3 Q. where we left off yesterday about the 4 5 consideration you gave to routing along I-93. Can you describe that for me? And I guess 6 7 I'm interested in underground, which is what 8 I think most people would prefer, but why you wouldn't look at overhead along that 9 corridor. 10

11 A. (Bowes) So we'll start with overhead and then
12 we'll go to the underground.

It was obviously a route that was looked 13 We tend not to co-locate on transmission 14 at. 15 lines along highways except for short 16 distances, really, because of the necessary 17 right-of-way we would need to acquire in this There really aren't any rights-of-way, 18 case. with the exception of existing X178 line 19 that's near the White Mountain National 20 21 Forest. So in order to acquire 150- or 22 120-foot right-of-way for the entire length 23 adjacent to the DOT corridor, it would be 24 quite a large amount of land to acquire for

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that length. If we were to go inside the DOT 1 right-of-way, again we'd still need that 2 120 feet. In some locations that would be 3 obtainable, but other locations we'd still 4 have to go off that DOT right-of-way. 5 Our visual experts indicated that would be quite 6 a visual impact as well if we were to 7 co-locate along I-93 for its entire length. 8 As I said before, we do it in short segments, 9 usually where the right-of-ways just happen 10 11 to come together. So we have done that in other locations. 12

As far as the underground goes, we had 13 that question a lot as we did the public 14 15 outreach and public meetings, public hearings for this project. And Mr. Quinlan had made 16 17 some statements about the approximate costs, 18 which were not necessarily a detailed 19 analysis. So I think about a year ago he 20 asked me to commission a study. It was done 21 under my direction with Burns & McDonnell. 22 We had some legal input as well around what 23 we could do for various underground alternatives. We actually looked at three of 24

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1	those. Two were identified in the Department
2	of Energy draft EIS as 4A and 4C, which
3	included routes that co-located along I-93,
4	and in some cases went all the way through
5	Franconia Notch and others avoided Franconia
6	Notch. And then we looked at what the
7	Project considered was a viable alternative.
8	And I'll get back to why we didn't think 4A
9	and 4C were viable.
10	We looked at a third alternative that
11	was all within state roads, including some of
12	the roads we're using for this Application
13	for the SEC. We've done that in other
14	states. We've co-located within an existing
15	state highway. We have never done that on a
16	limited-access highway.
17	The reasons why we haven't done
18	limited-access highways are similar to those
19	we found in New Hampshire. First, the DOT
20	Utility Accommodation Manual says you can't
21	be in the travel lanes. Obviously, you can't
22	be in the median. Can't be in the travel
23	lanes, can't be in the breakdown lane, and
24	really can't be in the shoulder either. You
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have to be all the way off to the right-hand 1 2 side of the right-of-way. Now I'm talking about the DOT right-of-way. And that's done 3 for many good reasons. First is the public 4 safety aspect. Again, on state roads, and 5 even town roads, the traffic control measures 6 are very different than on a limited-access 7 8 highway. Speeds are much different, and the expectations of people are much different as 9 well. They expect to be on that unencumbered 10 11 and travel the full length. From regular state roads or town roads, we can service our 12 facilities and construct those facilities 13 from that road. For a limited-access 14 15 highway, that's not allowed. Basically have 16 to build your own road next to the existing 17 interstate in order to do the construction. And that's really whether it's overhead or 18 19 underground because they don't want traffic 20 coming off the limited-access highway, you 21 know, onto the shoulder and, you know, into 22 the right-hand side of the DOT right-of-way 23 and then coming back on, for obvious reasons for public safety. 24

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So then we looked at what the 1 environmental impacts would be of going along 2 And over on that side of the shoulder I-93. 3 there's lots of wetlands, lots of rock and 4 ledge. And we had to build a 20- to 30-foot 5 access road in order to get the vehicles in, 6 7 same as we talked about on the rights-of-way, 8 and then to do the trenching. So that posed many challenges. And then all of the 9 on-ramps and off-ramps on the highway we 10 11 would have to go under. So we have far more and far longer horizontal directional drills 12 or other trenchless construction, so the 13 environmental impacts and now 14 15 constructability. We thought it would take us at least another year, possibly two years 16 17 to do that construction just because of the 18 length of time. And the constructability of 19 that is challenging, especially where we have 20 raised roads in many segments for water 21 crossings. So now we're talking about fairly 22 long directional drills or some other means 23 to get across, and there's far more, many more of them. 24

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That ultimately leads to cost. 1 And 2 that's really how we built this. We looked at all the requirements and then ultimately 3 did the cost. And it did come out to be 4 approximately \$2.6 billion for each one of 5 the three alternatives. 6 They came up very 7 close in cost, actually, even though the lengths were different, the construction 8 methods would be somewhat different in state 9 roads versus along the interstate highway. 10 11 But they all added an amount of cost that, when we took it back to our senior management 12 and the senior management at Hydro-Quebec, 13 14 they said the Project would not be viable by 15 adding approximately a billion dollars to the 16 cost and an extra one or two years of 17 construction.

So that's the analysis we went through 18 19 and documented in the report. I attached it 20 to my Prefiled Supplemental Testimony. And 21 that's kind of the basis of what we came to. 22 So, kind of to summarize, we don't do 23 longitudinal, overhead transmission next to the interstate highways because of 24

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1		right-of-way needs. And then for the
2		underground, it's really the four things:
3		Public safety, environmental impacts,
4		constructability and then ultimately the cost
5		of underground.
6	Q.	Thank you. I think, Mr. Johnson, you said in
7		response to one of Ms. Weathersby's
8		questions I had a brain cramp that
9		there would be penalties for the contractors
10		who were constructing the Project if they
11		were late. Do you recall that?
12	A.	(Johnson) Yes.
13	Q.	And the reason was because you have or are
14		going to have a commitment to the ISO?
15	A.	(Johnson) That's correct.
16	Q.	And is that commitment the capacity supply
17		obligation that would be three years from the
18		date of an auction that you were awarded, a
19		capacity supply auction, or something else?
20	A.	(Johnson) It could be both capacity
21		obligation or just an energy obligation. So,
22		for instance, if we have sold a contract to
23		somebody for that supply, if we don't provide
24		that supply that they're relying on, they
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1		have to go buy it somewhere else, and there's
2		an obligation to pay for that difference.
3	Q.	Is that an obligation to the person you sold
4		it to or to ISO?
5	A.	(Johnson) That would be the owner. So,
6		whoever is supplying that. So in this case,
7		Hydro-Quebec, who is supplying the
8		electricity, if the transmission line isn't
9		available for them to deliver that product,
10		then the person who bought the product is
11		going to come back to who's supplying the
12		product, who will then come back to Northern
13		Pass and say you owe us the money.
14	Q.	I understand. But is the obligation to
15		deliver it at the time you say it will be
16		delivered? If it's under a PPA, for
17		instance, would the obligation be to the EDCs
18		in Massachusetts who
19	A.	(Johnson) Yes.
20	Q.	have the so that's not an ISO
21		obligation.
22	Α.	(Johnson) No. That's correct. So that's the
23		energy side. Correct.
24	Q.	Right. So when you were referring to an ISO
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1		obligation, that's in the event that you get
2		a capacity supply obligation from the Forward
3		Capacity Market?
4	A.	(Johnson) That's correct.
5	Q.	Okay. And so when do you expect the earliest
6		you could have such an obligation would be in
7		the capacity market?
8	Α.	(Johnson) Right. So our current in-service
9		date is the end of 2019, if we can construct
10		this completely within two windows. I
11		believe the Forward Capacity Market for that
12		has already passed. So it would be whatever
13		the next Forward Capacity Market is in three
14		years beyond that.
15	Q.	So three years from next February?
16	A.	(Johnson) Yes, I believe that's correct.
17	Q.	So that would be like 2021, in probably June
18		of 2021?
19	A.	(Johnson) Correct.
20	Q.	The line that comes from Des Cantons to
21		Franklin is all one DC line; correct?
22	A.	(Johnson) That is correct.
23	Q.	And is the Canadian segment of the DC line
24		being built brand new like this is?
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			2.
1	Α.	(Johnson) Yes.	
2	Q.	Do you know how much that's expected to cost?	
3		Does anybody know that?	
4	Α.	(Johnson) Around \$200 million U.S. dollars.	
5		But I'm hesitating on that because I'm not	
6		sure.	
7	Q.	Can you check on that and just	
8	Α.	(Johnson) That's just the transmission	
9		portion. They also have a substation on	
10		their side	
11	Q.	Oh, that was my next question.	
12	A.	(Johnson) Sorry.	
13	Q.	That's okay.	
14	Α.	(Johnson) A DC station	
15	Q.	A converter station. Right.	
16		CMSR. BAILEY: Sorry.	
17	BY M	IS. BAILEY:	
18	Q.	They have a converter station they have to	
19		build as well in Des Cantons.	
20	A.	(Johnson) Correct.	
21	Q.	Okay. So you think it's \$200 million to	
22		build the transmission line. And you'll	
23		correct that later if that's not accurate.	
24	Α.	(Johnson) Correct.	
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1	Q.	And do you have any idea how much it'll cost
2		to build the converter station?
3	A.	(Johnson) About another \$200 million.
4	Q.	Okay. Has the I-93 study been completed?
5	A.	(Johnson) It has.
6	Q.	And do you know what the estimated capital
7		cost for upgrades to the existing system that
8		are required by that study?
9	A.	(Johnson) It's approximately \$100 million. A
10		little bit less.
11	Q.	And is that hundred million included in the
12		\$1.6 billion total estimate?
13	Α.	(Johnson) It is, yes.
14	Q.	Okay. Is the \$400 million that they need to
15		spend in Canada included in the \$1.6 billion
16		estimate?
17	A.	(Johnson) It is not. Hydro-Quebec will
18		absorb that as part of their normal rates.
19		And because they're the energy supplier, that
20		will be part of that cost of energy that they
21		would then sell into the market.
22	Q.	Do you have any idea how much they're going
23		to sell their energy for?
24	Α.	(Johnson) I have no idea, no. It's not part
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1		of my part of this.
2	Q.	Okay. Are there any cost constraints on any
3		of the contracts that you have for building
4		it?
5	A.	(Johnson) Can you be more specific? Sorry.
6	Q.	Well, the estimate is \$1.6 billion to build
7		the Project.
8	A.	(Johnson) Correct.
9	Q.	Is there any cap on that amount? Or if it
10		costs 3.2 billion, is that "so be it"?
11	A.	(Johnson) No. The prices that we've got from
12		our contractors are firm, fixed prices for
13		the scope of work that we put in front of
14		them and put in front you guys. So it is
15		basically, effectively a guaranty of a price,
16		so that it will be \$1.6 billion at the end of
17		the Project.
18	Q.	Okay. Mr. Bowes, I think these are for you.
19		But Mr. Johnson, you're free to answer if you
20		have an answer.
21		I was just curious. When you
22		direct-bury the transmission line and it's
23		4 inches below grade, how is that protected?
24	A.	(Bowes) Direct buried 4-inches below grade?
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1 Q. Oh, probably 4 feet.

2	А.	(Bowes) So I don't know if we're proposing to
3		do that in any locations on this project. I
4		know there's some private property as we
5		enter the transition stations. But I believe
6		we're still using a duct bank in those cases,
7		which means plastic conduits and then encased
8		in some sort of concrete material, whether
9		it's fluidized thermal backfill or just a
10		concrete cap.
11	Q.	So there's no direct buried
12	Α.	(Bowes) So I don't believe we're proposing
13		that. But how would you do that and how
14		would you protect it?
15	Q.	No, I thank you. I must have read
16		something wrong or maybe that's fine. If
17		you're not using direct bury on this project,
18		then I don't need to know, today.
19		Mr. Bowes, your most recent testimony
20		from April, you say that Applicants are
21		required to leave enough space between the
22		existing transmission line to provide space
23		for future expansion by the generator. Do
24		you recall that?

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1	А.	(Bowes) Yes. There's a section of line in
2		Dummer
3	Α.	(Johnson) Yes, Dummer.
4	Α.	(Bowes) from the existing wind farm down
5		to where it interconnects with the PSNH
6		right-of-way on the Coos Loop, where there's
7		an existing 115 kV transmission line. And
8		they have some requirements in that
9		right-of-way to add more facilities.
10	Q.	Who is "they"?
11	Α.	(Bowes) Granite State Renewable.
12	Α.	(Johnson) Granite State Reliable Granite
13		State Renewable Energy.
14	Q.	And they have rights to your right-of-way
15		there?
16	Α.	(Bowes) No. It's their right-of-way on that
17		portion. It goes from the Coos Loop north to
18		the generators. That's the portion that
19		we're adjacent to.
20	Α.	(Johnson) So they also have a deal with the
21		Wagner Forest for a right-of-way. And part
22		of their deal is that they are able to expand
23		and potentially build another line if they
24		build another set of turbines. So the
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1		requirement put upon us was you can't be
2		right next to them, which we had first
3		thought we would be, but to be offset so that
4		there's room for them to build their
5		facilities in between ours.
6	Q.	And this issue is only in the Wagner Forest?
7	A.	(Johnson) Yeah, that's correct.
8	Q.	Okay. Mr. Bowes, somewhere in that same
9		testimony you listed all the visual impact
10		mitigation efforts that you considered. And
11		it sounded like there wasn't a good solution
12		for most of them. But there was one that was
13		on North Side Road in Stark that seemed
14		that it seemed to me you were saying would
15		reduce temporary wetland impacts and reduce
16		the visual impact. Do you remember that?
17	A.	(Bowes) Yes, I believe it's on Page 6 through
18		8 of my Supplemental Prefiled. And actually,
19		I might characterize it a little differently.
20		What I tried to do is identify what
21		other visual experts had indicated the
22		potential changes we could make. And it
23		wasn't to say they couldn't be done. It was
24		just to offer that in each of the cases there
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1		may be some other impacts that should be
2		considered. You could minimize the visual
3		impact potentially, but it might create a
4		temporary or permanent wetland impact. And
5		that's the balance that we try to strike.
6		And we're not saying we always get the
7		balance right, but there's this would be
8		the impact if we were to make that change,
9		really the purpose of that part of the
10		testimony.
11	Q.	Okay. Thanks. And so on North Side Road in
12		Stark, it looked like there were no
13		offsetting impacts. It looked like the
14		impact, the other impact was improving the
15		impact on temporary wetlands. And so I
16		wondered why you didn't decide that you could
17		do that.
18	Α.	(Bowes) Yeah. Let us call it up and take a
19		look.
20	Q.	Okay.
21		(Witness reviews document.)
22	A.	(Bowes) So I believe this is on Page 6, and
23		it starts with Line 14 and goes into 15 and
24		16. "Two structures along North Road in
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Lancaster..." and then you jump down to --1 2 basically we concluded that monopoles at these locations would not provide significant 3 benefits. And that's where -- I know we had 4 5 some discussion the other day because our visual expert didn't consider them scenic 6 7 resources. Again, that's not necessarily a 8 constructability or even an engineering decision. We're not saying that you couldn't 9 change those structures from lattice to 10 11 monopoles. It's just that these are two locations that weren't identified as scenic 12 resources. One of the consultants, I think 13 14 it may have been Counsel for the Public's, 15 suggested we do it anyway. So it's really 16 just a description of trying to be complete 17 in the record of saying we looked at those. They weren't considered scenic resources. 18 19 Doesn't mean we couldn't be told you should do that in these locations. But there wasn't 20 a criteria established for us to attack them. 21 22 And that's specifically the one on North Side **Q**. 23 Road? (Bowes) Yeah, the two structures along North 24 Α.

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1		Road. Maybe I'm looking at the wrong
2		location.
3	Q.	I'm pulling up your testimony because that
4		doesn't sound like the one I was talking
5		about. But it could be.
6		MS. WHITAKER: I'll just throw in
7		that there's a North Road in Lancaster, but
8		there's a North Side Road in Groveton.
9		CMSR. BAILEY: Thank you.
10	A.	(Bowes) So I have the structure number being
11		DC433 and 0154-82. It's actually in my
12		testimony on Page 9 of 16, beginning on
13		Line 24.
14	Q.	I think that's it because I have a note that
15		says Page 9, Line 27 through Page 10, Line 2.
16	A.	(Bowes) And it is right next to the North
17		Road, Lancaster discussion. So that probably
18		led to more confusion.
19		Yes, we could move those structures.
20		Looks approximately 40 feet would reduce
21		potential visual impact and reduce temporary
22		wetland impacts.
23	Q.	So it looked like a win-win. And there was a
24		reason in every other case why you wouldn't
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1		do it because the balancing test didn't favor
2		moving it. But in that case, it looked to me
3		like it would make sense to move it, and you
4		didn't say you would. And I was just
5		wondering why you wouldn't do that.
6	A.	(Bowes) I think if requested we would.
7	Q.	Okay. I don't know the area. It was
8		strictly from an analytical point of view.
9		Looked like a no-brainer, so I wondered why
10		you didn't say you would do that.
11		Ms. Farrington, was the current traffic
12		volume that you analyzed during the peak
13		period?
14	A.	(Farrington) So it was vehicles per day from
15		the New Hampshire DOT web site. And they do
16		sort of random counts on the roads once in a
17		while. So we didn't have detailed per-hour
18		information. So we had to use that K factor
19		of 10 or 12 percent of the vehicles per day
20		to assume the vehicles during the peak hour.
21	Q.	And does that take into account increased
22		traffic in the summer?
23	A.	(Farrington) It doesn't. It's an average
24		over the course of the year. There are
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1		seasonal factors that we can apply. They're
2		usually in the range of 1.1 to 1.2 percent.
3	Q.	Okay. Did you add 1.2 percent to your
4		traffic volumes?
5	A.	(Farrington) No, because we were just doing
6		it as a comparison. When we go into the
7		detail of giving the exact work zone lanes,
8		then we will certainly consider seasonal
9		factors. Yeah.
10	Q.	So did you identify any locations where
11		demand exceeds capacity?
12	Α.	(Farrington) Not currently. During
13		construction, it is my expectation that the
14		one location that needs further analysis is
15		the intersection of Route 18 and Route 116 in
16		Franconia, and that's currently a traffic
17		signal. So, for that location, we would
18		actually need to go out and do the manual
19		turning movement counts during the peak hours
20		and do further analysis, which will be
21		included in the Transportation Management
22		Plan.
23	Q.	And you would do that during the peak time of
24		year or during the time of year that you
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1		would be anticipating construction activity?
2	Α.	(Farrington) Ideally, yes. If not, then
3		again we'd use the seasonal adjustment
4		factors to increase to that volume.
5	Q.	Okay. I think this is my last area.
6		In Canada, I understand that under the
7		transmission lines the utilities sometimes
8		create bike trails or snowmobile trails or
9		ATV trails, and people in Canada like that.
10		Is there a technical reason why you couldn't
11		do that in New Hampshire?
12	A.	(Bowes) No. In fact, many of our
13		rights-of-way in New Hampshire are used by
14		snowmobile clubs and ATV clubs. So there's
15		no reason why we couldn't do that.
16		CMSR. BAILEY: Okay. Thank you.
17		CHAIRMAN HONIGBERG: Mr. Wright.
18	BY D	IR. WRIGHT:
19	Q.	Good afternoon. I'll try not to be
20		repetitive here, but I certainly have some
21		areas that I want to have clarified in my
22		mind. And also, the good thing about going
23		later in this process is I don't have as many
24		questions.
	~	

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1		Let me start with Mr. Bowes and Mr.
2		Johnson, I believe, and talk a little bit
3		about your field inspection teams.
4		You had mentioned you envisioned two
5		sets of teams. There'd be one set of teams
6		for your contractors, either ABB or PAR, and
7		then there would also be a Northern Pass
8		team. Is that accurate?
9	A.	(Johnson) That is correct.
10	Q.	And the purpose of these teams is to go out
11		into the field and inspect the sites for
12		environmental safety and community relations?
13		Is that what I heard described earlier as
14		well?
15	A.	(Johnson) So I will add a fourth one, and
16		that would be safety. And so while safety is
17		able to be managed by any of those
18		inspectors, clearly an unsafe activity needs
19		to be stopped immediately. There will be
20		specialty inspectors for environmental,
21		specialty inspectors for quality control,
22		then we'll have our community relations staff
23		out there as well.
24	A.	(Bowes) So it's actually different people in
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			34
1		most cases	
2	Q.	That's what I was going to ask.	
3	A.	not the same.	
4		(Court Reporter interrupts.)	
5		DIR. WRIGHT: Sorry.	
6	Q.	Thank you. That helps me. It's not one	
7		person doing all this. There are multiple	
8		people within these teams with different	
9		areas of expertise.	
10	A.	(Johnson) Correct.	
11	Q.	I think you mentioned there would be 25 or 30	
12		active construction sites at any given time.	
13	A.	(Johnson) Approximately, yes.	
14	Q.	And you envision these teams going out to	
15		each site at least once a day? Is that what	
16		I heard?	
17	A.	(Johnson) Ideally, yes, you want to touch	
18		each construction site once a day. I think	
19		as we discussed earlier, sites like Franklin	
20		or Deerfield will have a permanent resident	
21		that is going to be monitoring because that's	
22		such a large construction site. For	
23		instance, if we had a work zone every	
24		2.7 miles along the underground, you might be	
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1		able to drive back and forth between three or
2		four sites in a day and still have a
3		meaningful inspection and meaningful
4		validation of the work.
5	Q.	Yeah, that's the key I'm look for is the term
6		"meaningful inspection," because obviously
7		you can't just walk onto a site and walk off
8		a site. You need to spend some time there
9		making sure things are being done properly.
10	A.	(Johnson) Exactly.
11	Q.	Obviously, PAR and ABB would be responsible
12		for inspecting their sites. Now, the
13		Northern Pass Team, I assume, would be
14		inspecting all sites.
15	Α.	(Johnson) Correct.
16	Q.	And these teams will have the ability to stop
17		the work.
18	Α.	(Johnson) Absolutely.
19	Q.	What's the mechanics of that? How does that
20		occur in the field?
21	Α.	(Johnson) So, first and foremost, from a
22		safety perspective, an immediate stop, where
23		the person that was there would then or
24		identified an issue would talk to the foreman
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1		and demand immediately that all work be
2		stopped. The foreman would then inform his
3		crew to cease activities, and then we'd
4		probably have a meeting to discuss what's
5		going on and whether we could form corrective
6		action immediately, or why there was an issue
7		that had to be brought back to the senior
8		management of either PAR, ABB or Eversource,
9		and then the teams would work together to
10		rectify whatever that situation was.
11	Q.	If there was A situation found in either a
12		PAR site or an ABB site by their teams, would
13		that be reported back to you guys?
14	Α.	(Johnson) Yes. That's in their contract.
15		They must do that.
16	Q.	Are there internal protocols to report any
17		environmental violations to DES?
18	Α.	(Johnson) Absolutely, yes. Also a
19		requirement of our permit.
20	Q.	Yes, it is.
21		I did notice in the DES final decision
22		there's a requirement on Page 5, Condition
23		36, that requires the Company to have a
24		certified wetlands scientist to monitor the
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1		Project during construction. I don't know if
2		you're familiar with that.
3	Α.	(Johnson) I am, yes.
4	Q.	Is that the same person as these inspection
5		teams or a stand-alone person?
6	Α.	(Johnson) Typically that would be part of our
7		environmental inspection team, that minimum
8		qualifications would be a certified wetland
9		scientist. Once you've identified the rare
10		and threatened or endangered and
11		archeological, those tend not to be the types
12		of activities that you disturb or have a
13		potential to disturb on a regular basis
14		because you clearly identified them to the
15		contractor in the field. It's more the
16		impact of wetlands from, as we've seen
17		earlier, driving in or accidentally impacting
18		them in some way.
19	Q.	So let's use that as an example then. Say
20		your inspection team was out there. We've
21		seen some pictures today that you guys I
22		think accepted as being unacceptable
23		practices from an environmental standpoint.
24	A.	(Johnson) Correct.
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1	Q.	What would have transpired in that situation
2		had your inspection team come across that?
3	Α.	(Johnson) We would have shut the job site
4		down immediately.
5	Q.	Just to try to close the loop on laydown
6		areas, Mr. Bowes, you mentioned that DES
7		would delegate certain authorities under, I
8		think you mentioned the Merrimack Valley
9		certificate?
10	A.	(Bowes) Yes, that's correct.
11	Q.	I'm looking again at the DES final decision,
12		Condition 22 on Page 4. I could put this up
13		if necessary or just read it real quick. It
14		just basically says DES shall be notified of
15		any additional laydown areas that are needed
16		for construction purposes. And then it goes
17		on to say that DES shall evaluate those for
18		whether it needs additional permitting
19		requirements or not. Mr. Bowes, is that the
20		level of authority you were talking about, or
21		was there additional conditions in the
22		certificate?
23	A.	(Bowes) So I believe the SEC has to delegate
24		that to you as well as a condition of the
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1		certificate, that you can review and approve
2		laydown areas, to cover all of the aspects of
3		that laydown area. You'd be the point agency
4		to do that.
5	Q.	There's been a number of discussions and
6		commitments on your part to I think we've
7		covered this, so I'm not going to beat this
8		to death about moving either construction
9		pads out of roadways or to make to move
10		away from wetlands in some cases. But I do
11		recall at least one case, I believe it was
12		when Attorney Whitley was asking, in the
13		Pembroke area and Flag Road. I think it was
14		Map 318. I don't remember exactly. But it
15		looked like, to me, if you were going to move
16		that construction pad, the only way to move
17		it would be into the wetland a little bit
18		more. I assume you have to go back to DES
19		and get approval for that situation?
20	A.	(Johnson) Absolutely. If we did move it into
21		a wetland, that would have to be recirculated
22		back through the entire process, as it would
23		be in any field condition that was come
24		across where the contractor would suggest
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1		another way or anything. We have to come
2		back to the agency first. I believe in this
3		particular case we were going to sort of
4		limit the contractor. We were going to
5		truncate it at that road and not move it into
6		a wetland. But, for example, yes, we would
7		have to come back.
8	Α.	(Bowes) And, for example, the discussion we
9		had yesterday around the vernal pool, we were
10		able to see on our mapping that if we did
11		relocate that to the right or I'm sorry
12		to the left, there was a wetland there, but
13		we could avoid that by going further to the
14		left. That's why I was able to commit to
15		that. We still have to go back to DES for
16		approval for the change in the work pad, but
17		it would not impact the wetland. That's why,
18		with the tool we had, we could see that. But
19		in this case you were talking about with Mr.
20		Johnson, I think we might have to go back to
21		DES if we're going to change the work pad
22		that's already in the wetland.
23	Q.	Okay. That's what it looked like to me.
24		Shifting gears a little bit to blasting.
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1		I know we haven't spent too much time talking
2		about that, but there have been some areas
3		identified for blasting.
4		Mr. Kayser, in your Prefiled Testimony,
5		I believe you indicated that the Company
6		would be testing private wells or public
7		drinking water wells that were within
8		500 feet of a blast zone; is that contract?
9	А.	(Kayser) Yes, that's correct.
10	Q.	Where does that 500-foot number come from?
11	A.	(Kayser) I believe it comes I know there's
12		some New Hampshire DES guidelines on testing.
13		But that's a fairly standard distance that
14		we've used before for blasting, to test
15		within 500 feet.
16	Q.	And when you blast in an area, how do you
17		draw the center of that 500-foot circle? Do
18		you put it in the center of the blasting, or
19		do you go to the outside edges of the
20		blasting zone?
21	A.	(Kayser) It depends how big our blasting zone
22		is. In the overhead, it's usually a pretty
23		small area. Say for Transition Station No.
24		4, it's going to be a pretty big area, so
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1		you're going to have to go from the outside
2		edges of that to 500 feet.
3	Q.	Okay. If I were a private homeowner and I
4		lived 600 feet away, could I request the
5		Company to do the pre- and post-testing?
6	Α.	(Kayser) Have to ask Mr. Bowes.
7	Α.	(Bowes) Yes. And, for example, Mr. Kayser
8		just mentioned we made some commitments to go
9		much further than that for some wells near
10		Transition Station No. 4. So, yes, it's not,
11		okay, you're 510 feet and you're not going to
12		get monitoring. We'll honor reasonable
13		requests so far beyond the 500 feet.
14	Q.	And also in the area of blasting, do you
15		recall, I believe it was Mr. Thompson, when
16		he was talking about DES recommendations on
17		blasting.
18	A.	(Bowes) Yes.
19	Q.	And as I understand, I believe the document
20		is an exhibit. It's the combined group of
21		intervenors, Clarksville to Stewartstown,
22		CS-5. This outlines a system where normally
23		blasting regulations are adopted at a local
24		level. Is that your understanding?
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1	A.	(Bowes) Without reviewing the document, I'm
2		not sure I can say. I just don't remember.
3	Q.	Let me ask you this then: If I was to say
4		that most blasting ordinances are at the
5		local level, is the Company committed to
6		following those local ordinances, or at a
7		minimum, what's in the DES recommendations,
8		or both?
9	A.	(Bowes) So, certainly what's in the DES
10		recommendations. And I don't know the
11		differences between the local ordinances and
12		DES. So on a case-by-case basis we would
13		look at that. And that would be something we
14		would include in the town MOUs as well, if
15		there were differences between the DES
16		blasting requirements and the local blasting
17		requirements.
18	Q.	Okay. I think I just have one more area, and
19		that dealt with this morning there was some
20		discussion about we know that when you enter
21		a right-of-way and there are wetlands impacts
22		that it could occur over two construction
23		seasons.
24	A.	(Kayser) Correct.

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1	Q.	And there were some questions about whether
2		the wetlands matting would be left in place
3		over the winter and into the next season.
4	Α.	(Kayser) Correct. And that's I wasn't
5		sure on the New Hampshire rules. Some states
6		have different rules on how long the matting
7		can be left. We feel that if we're going to
8		be coming back there, it's better to leave
9		that. There's less impact than taking it
10		back up and putting it back down. But we
11		would work with DES in those individuals
12		areas.
13	Q.	Okay. And I'm certain that's an area I'll
14		follow up with the environmental panel. But
15		I did look at the wetlands permit, and it
16		does indicate that all this is Page 5,
17		Condition 41, that all distribution mats
18		shall be removed from the wetland as soon as
19		practical, but no more than seven days from
20		when the construction is completed.
21	Α.	(Kayser) Right.
22	Q.	So, in theory, how would you interpret that
23		condition then?
24	A.	(Kayser) Yeah, and that's where we have to
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work with them: When is construction 1 2 complete? You know, "construction complete" you would take to be done with all of the 3 construction we're doing in the area for both 4 of the lines. So then we would have to work 5 with the DES: If we're going to have a long 6 7 gap in there, is it better environmentally to 8 remove the mats and then replace them again, or would we just leave them there and reuse 9 them when we come back in the next season? 10 11 And that would be in conjunction with our 12 environmental people and the DES to see what is the least impactful way to do that. 13 I lied. I do have one more question. 14 Q. Ι 15 think this was mainly answered yesterday by 16 Mr. Scott in response to Attorney Iacopino 17 about the HDD drilling contingency plans. This is how you're going to respond to a 18 breakout or a frack-out or some sort of 19 20 leakage of the spill of the mud here. Ι 21 think what was described is there would be, 22 depending on the crossing, there would be a 23 case-by-case contingency plan developed, in terms of what materials would be necessary to 24

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1		respond to a spill. Is that a fair summary?
2	Α.	(Kayser) Yeah, that's correct. We will have
3		an overall Monitoring Operations Plan.
4		There's a draft one in my testimony.
5	Q.	Yup.
6	A.	(Kayser) But then, as they develop each
7		individual area, they will be able to get
8		more detail on the risks of an inadvertent
9		return at each of those individual HDD sites.
10		And part of our permit is also that we have
11		to submit the Monitoring Operations Plan at
12		least 90 days prior to construction for DES
13		approval.
14	Q.	Okay. Is part of that contingency plan to
15		ensure that you have the necessary manpower
16		to deploy the equipment?
17	A.	(Kayser) Yes, I believe manpower, materials
18		that you would need based on, you know, where
19		the risk is. Do you need a back truck in the
20		area, divers? I think that would be part of
21		that whole plan.
22		DIR. WRIGHT: I think I'm done.
23	BY C	HAIRMAN HONIGBERG:
24	Q.	I have a couple of things I wanted to
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1		first, there's been a lot of discussion about
2		what utilities generally and what Northern
3		Pass feels it could do within a right-of-way,
4		that it has rights to. I'm not intending
5		that as asking for any legal conclusions
6		about what you own or what you don't own.
7		I'm talking generally about utility
8		rights-of-way, which in this state there are
9		hundreds of miles of electric distribution
10		companies' transmission rights-of-way
11		crisscrossing the state.
12		When a utility needs to do something in
13		the right-of-way it sees trees or other
14		growth that needs to be dealt with what
15		are its rights and obligations? And what
16		generally is a utility like Eversource's
17		practices with respect to working with a
18		landowner? So, rights, obligations and
19		practices.
20	A.	(Bowes) So the rights in general, I'll say
21		because each easement could be unique and
22		in this case I think we have almost 1500
23		easements and permitted crossings for this
24		project, so what we've done for the Project
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1		is develop a matrix of those and understand
2		those would be passed on to the contractor as
3		well. But in general, those allow us to
4		construct, operate and maintain a line within
5		that specific width of corridor, and it
6		allows the maintenance activities to allow
7		the electricity to flow in an unimpeded
8		manner, which means vegetation management
9		within the corridor and to the sides of the
10		corridor. We don't always clear the entire
11		corridor, so there may be some areas that
12		vegetation grows over time.
13	Q.	Right. That's a different question which I
14		was going to ask you about separately. But
15		when you are in the corridor that you're
16		using and see things that need to be dealt
17		with or a utility sees things that need to
18		dealt with, what are its rights? What
19		obligations does it have to the landowner,
20		and what practices does Eversource follow in
21		dealing with landowners?
22	Α.	(Bowes) So, schedule-type work, we tend to
23		notify the landowner that we're going to be
24		there. The emergency work, we have to take
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1		actions as needed. But I would say that is
2		more rare than the case for planned
3		activities. Like vegetation management is
4		probably the most common, as well as the most
5		cyclical in nature. We would notify the
6		landowners of the vegetation management
7		activities that would occur. Foot patrols
8		and things like that, there may not be as
9		much notification. We may just be going
10		along the right-of-way walking the line. For
11		aerial patrols, because of concern after
12		9/11, we now do a more broadcast of
13		indicating that we're going to be patrolling
14		with helicopters at low altitudes or
15		fixed-wing aircraft at low altitudes. We
16		tend to send that to the media to give people
17		an idea that you're going to see, you know,
18		activity in this area over a certain period
19		of days.
20	Q.	As long as you're working within the
21		right-of-way, do you need to seek permission
22		from the landowner to do any of that work?
23	A.	(Bowes) In most cases, no. There may be some
24		special requirements in an easement
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1	Q.	Separate and apart from bilateral agreements
2		or easement conditions. The general
3		situation.
4	Α.	(Bowes) General? No, there is not.
5	Q.	You mentioned rights-of-way that are wider
6		that are actually being used. And that's a
7		point that I want to make sure people
8		understand and that I understand. When we
9		drive by an area that's cleared and we see
10		distribution lines or transmission lines, and
11		we see a cleared area on either side of those
12		lines, is that the extent of the right-of-way
13		always?
14	A.	(Bowes) In fact, I would say in most cases
15		it's not the full extent of the right-of-way.
16		There may be wetlands adjacent, for example,
17		that we would not trim or do vegetation
18		management in. We would try to avoid those
19		and let the growth grow to a certain point,
20		and then potentially even have to handcut
21		that to avoid the impacts of a wetland.
22		That's just one example. But typically we
23		don't clear the entire width of the
24		right-of-way. Usually a few feet of buffer
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1		on either side, sometimes only half of the
2		right-of-way would be cleared.
3	Q.	When we look at some of the aerials
4		actually, many of the aerial photos that have
5		been that are exhibits here, the various
6		maps where the right-of-way lines are drawn,
7		there's often vegetation within those lines
8		already that we can see; is there not?
9	А.	(Bowes) That's true. Yes.
10	Q.	And that's at this point just vegetation that
11		the utility that owns that right-of-way
12		hasn't felt it needs to deal with; right?
13	А.	(Bowes) It doesn't pose an immediate safety
14		risk. And the cycle for doing the side
15		trimming is much longer than the cycle for
16		doing the flora maintenance.
17	Q.	In some instances that provides part of the
18		buffer if it's close to buildings, occupied
19		buildings; right?
20	А.	(Bowes) Yes, it does.
21	Q.	The other area I wanted to touch on, I think,
22		Mr. Johnson, you brought something for show
23		and tell. You have something that is a
24		cross-section a few inches long of what might
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1		be underground; is that right?	
2	Α.	(Johnson) So what I brought today is an	
3		example of an AC underground cable, very	
4		similar design and characteristics of our DC	
5		cable.	
6	Q.	How comfortable are you coming over to the	
7		ELMO, putting it on the ELMO, having the hand	
8		mic in your hand and pointing to the various	
9		elements of what you've brought?	
10	A.	(Johnson) No problem at all.	
11		CHAIRMAN HONIGBERG: Let's go off the	
12		record and have Mr. Johnson set himself up to	
13		do that.	
14		(Pause in proceedings)	
15	Q.	Mr. Johnson, you may proceed.	
16	A.	(Johnson) Thank you. So what I have on the	
17		ELMO here is a representation or is the	
18		actual cable that was installed on the	
19		Middletown-Norwalk Project, on the	
20		underground portion of the project. So this	
21		represents a 345 kV underground cable. And	
22		I'm going to describe basically the various	
23		components of what this is and then how it	
24		would differ to the DC cable that we will be	
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installing.

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This manufacturer happens to be Sila cable, I believe manufactured somewhere in Europe. Italy, I believe. But that's kind of irrelevant to this conversation.

So here is the copper core. This is the 6 actual conductor where the electricity and 7 8 the electrons are passed. This particular 9 distance here happens to be 3,000 millimeters -- or I'm sorry -- 3,000 10 11 kcmil. Our conductor will be 2500 kcmil, or slightly smaller. It'll be sort of just 12 inside of that ring. There is a protective 13 14 jacket basically that holds the strands of 15 the conductor together. And then this area around here is a cross-linked polyethylene 16 17 insulation. So this is the proprietary design that ABB has and each individual cable 18 manufacturer has and is purely an insulator 19 of the conductor itself. 20

Along the edges here, if you can just see these colored areas here, this design of this cable happened to have fiberoptic built into it. This is not the fiberoptic that

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1	we're using as communication or as
2	temperature-detecting devices. This just
3	happens to be the manufacturer putting it in
4	for their own use.
5	Surrounding that is a metal jacket.
6	This is again another layer of protection for
7	the cable. It also adds weight to the cable
8	to make sure that it stays where it is. And
9	then the very outside is a hard, rubber-type
10	compound. And what that compound does is
11	allow the cable to be pulled through the
12	conduit as we go from each end.
13	This particular cable here weighs about
14	20 pounds a foot. And the configuration of
15	the insulator versus the fiberoptics versus
16	the metal versus the jacket will slightly
17	change from different manufacturers but
18	basically is represented here.
19	The one thing we were discussing earlier
20	is the temperature gradients across this
21	cable. As Mr. Scott was discussing, the
22	center of this core at its hottest place will
23	be 70 degrees C. Once you get to the edge of
24	this jacket just before the metal, the
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1		insulation is dropped back to about
2		50 degrees C, and then the remaining heat is
3		dissipated as you get into the full fill of
4		the concrete and then the natural surrounding
5		ground.
6	Q.	Thank you.
7	A.	(Johnson) You're welcome.
8		MR. NEEDLEMAN: Mr. Chair.
9		CHAIRMAN HONIGBERG: Mr. Needleman.
10		MR. NEEDLEMAN: Do we want a picture
11		of this that could be turned into an exhibit?
12		CHAIRMAN HONIGBERG: Yes. And what I
13		was thinking is if you can do this angle and
14		then on its end so you can see the two
15		different aspects of it.
16		MR. NEEDLEMAN: We'll provide that.
17		CHAIRMAN HONIGBERG: All right. I
18		have nothing else for the panel. I know some
19		of the other Committee members do, and I know
20		Mr. Iacopino has questions.
21		So, Commissioner Bailey, why don't
22		we do you first since you had the recent
23		questions. You wanted follow-up on
24		something.
	6	

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1	BY	CMSR. BAILEY (CONT'D):
2	Q.	Okay. Well, now I want to follow up on that
3		cable. Why would the manufacturer use fiber
4		in the cable? What would they use it for?
5	А.	(Johnson) Honestly, I don't know.
6	Q.	So could you use it?
7	Α.	(Johnson) I believe they're using it to
8		measure for their own purposes over time
9		whether how the cable performance is,
10		temperature variations, those kind of things.
11		We as the designer would want our own
12		temperature-sensing devices and communication
13		devices independent of whatever the
14		manufacturer has, and that's why we have a
15		separate DTS system.
16	Q.	So they have electronics hooked up to your
17		cable to monitor the performance of it over
18		time?
19	A.	(Johnson) Yes.
20	Q.	Oh, okay.
21		Mr. Bowes, this is the follow-up that I
22		had. Can you look at your February 26th
23		testimony at the bottom of Page 7? This is
24		where I got the direct-buried cable idea.
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(Witness reviews document.) 1 (Bowes) Yes. So originally, we had planned, 2 Α. I started to say, on private property as we 3 enter and exit the transition stations. 4 5 There was some initial thought of placing that conductor directly in the ground and 6 7 then covering it over, probably with, again, 8 either a concrete encasement or a concrete mattress for physical protection from above. 9 But over time we realized that it's probably 10 11 just as well to put all of those in duct banks and then create a trench and do the 12 construction all in the same method; that 13 14 way, we'd have more control over the 15 temperature characteristics of the cable. 16 Okay. Q. 17 Α. (Bowes) So that kind of changed over time as the design evolved. 18 19 0. Okay. Thank you very much. 20 CHAIRMAN HONIGBERG: Mr. Way. 21 BY MR. WAY: 22 Thank you. I just have a couple more 0. 23 questions. Following up on my earlier 24 inquiries into the business directory and SEC 2015-06 [Day 12 Afternoon Session ONLY] $\{06-02-17\}$

such, I did look on the Northern Pass web 1 site to see what sort of registration there 2 I saw a business directory. Great. Ι 3 was. saw a job sign-up as well, which is for the 4 construction project. So if someone's 5 interested, they can sign up as an 6 7 individual. I also looked and saw a supplier 8 sign up as well, so if someone has goods or services to sell to you. One thing I noticed 9 on that, and just maybe get an explanation, a 10 11 little different than the business directory or the job sign-up, you're looking at the 12 business size and ownership classification on 13 14 that: Minority-owned, woman-owned, small 15 disadvantaged, certified, HUBZone. Great. 16 And typically, though, that's what you would 17 use for government contracting if you were a prime and then subbing out; correct? 18 19 Α. (Johnson) Correct. 20 And so I guess my only concern would be that 0. 21 anybody could sign up for this. And so if 22 you're prioritizing like a government 23 contract would prioritize -- I don't know if that's the intent -- if you -- for example, 24 {SEC 2015-06}[Day 12 Afternoon Session ONLY]{06-02-17}

1		if you add small disadvantaged, we only have
2		seven or eight in the state. I don't think
3		we have any up north. I want to make sure
4		that our businesses aren't at a disadvantage
5		for a classification system that you've put
6		in place when you're not going for the
7		when this isn't involving a federal contract.
8	Α.	(Johnson) Correct. So I believe that kind of
9		information is just kind of being brought
10		forth on a general basis. I don't know. But
11		there's no obligation to limit contracts as a
12		government contract would in this case. I
13		believe our commitment is to New Hampshire
14		First. So it would be New Hampshire
15		businesses first, and then, if not enough
16		services or a specific service is not
17		available in New Hampshire, we would then
18		look to go outside of New Hampshire.
19	Q.	All right. Very good. Thank you.
20		The other thing, too, is, Mr. Bowes, you
21		mentioned this was the contract is a fixed
22		contract; correct?
23	Α.	(Bowes) I think Mr. Johnson
24	Q.	Mr. Johnson. I'm sorry. A fixed contract.
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1 A. (Johnson) Correct.

2	Q.	Well, over the last, you know, few days we've
3		seen quite a few change orders coming down as
4		a result of commitments and discussions. Is
5		that going to impact things? I have to
6		imagine that those are not going to
7		necessarily come inexpensively. As we go
8		along and you make those changes, is that
9		already figured into the contract?
10	A.	(Johnson) So the way we structured the
11		contract is that these type of small moves
12		so, just the movement of a structure has no
13		bearing on cost from the contractors'
14		perspective; they still have to build the
15		road, erect the structure. But within the
16		contract itself, we have asked them to, if
17		you will, build in a little bit extra for
18		these types of changes. So there will be no
19		increase in the project cost.
20	Q.	All right. Thank you.
21		And Ms. Farrington, one last question
22		for you. And I was listening to what
23		Commissioner Bailey was asking a little bit
24		about the traffic counts again. And the one
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1		thing I'm wrestling with on traffic counts is
2		it keeps coming back to 116 for me in
3		Franconia, a major scenic area. Matter of
4		fact, one would say that the tourism aspect
5		of that is its biggest feature for a road
6		like that. And so when we look at the fact
7		that you're basing your traffic study off of
8		the automatic traffic counts I think is
9		that what they're called, "automatic
10		traffic"
11	Α.	(Farrington) Yes.
12	Q.	the "automatic traffic counts" that come
13		from DOT. It's not an hourly thing. It's
14		just and I heard the word "random." It's
15		a random count that you get?
16	Α.	(Farrington) The time of year is random,
17		whenever they can fit it into the count
18		season. Although, it won't be done during
19		the winter because the plows hold them up.
20	Q.	And I don't want this to come out wrong. And
21		again, I'm sure you've heard something like
22		this before. But for someone like me whose
23		second largest industry in this state is
24		tourism, and I'm looking at potential roads
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1		that, you know, is tourism-related roads, how
2		much value does that have for me to be able
3		to assess the impact of that business, that
4		tourism business?
5	Α.	(Farrington) So I guess it's an admitted flaw
6		in our industry that for example, traffic
7		signal. We go out and do this count one day
8		out of the year and we set up our traffic
9		signaling timing and phasing and we expect it
10		to last for a minimum of five years and work
11		well. So we are coming up with ways around
12		that. Surprisingly enough, the data, because
13		they collect it every couple of years, it
14		actually turns out to be quite consistent.
15		The seasonal factors reported are fairly
16		consistent year to year. And the seasonal
17		fluctuations are fairly consistent. So while
18		it seems fairly I've heard it described
19		like "voodoo." There actually is a very
20		repetitive nature to traffic on a daily,
21		seasonal, yearly basis. So I have fairly
22		strong confidence in it. We have done things
23		like this previously, and it certainly has
24		worked. If you would like, we can certainly
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1		do either a request for counts from DOT, if
2		they have them available by hour, or do our
3		own counts just to verify that data on that
4		roadway.
5	Q.	Well, I would request it. And I would think
6		you would definitely want it. I'm just
7		trying to get a sense as to whether,
8		particularly on roads like that, you know,
9		tourism season and, you know, for that
10		area, tourism season could be Cannon Mountain
11		snow. It could be the foliage. It varies
12		throughout the year. And so I think, you
13		know, going forward we would definitely want
14		to see something more on that. Thank you.
15		CHAIRMAN HONIGBERG: Mr. lacopino.
16		MR. IACOPINO: Thanks.
17	BY M	IR. IACOPINO:
18	Q.	Mr. Bowes or Mr. Johnson, the first question
19		I think should be an easy one.
20		Of the entire proposed route, how many
21		miles of it is co-located with the gas
22		pipeline?
23	A.	(Bowes) Twelve, I believe.
24	Q.	Mr. Bowes, Commissioner Bailey asked you
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1		about the I-93 considerations that you used.
2		And I was wondering if RSA 162-R that was
3		passed in 2016 factored into your
4		considerations in rejecting I-93.
5	A.	(Bowes) I'm sorry?
6	Q.	That's the utility corridor bill that was
7		passed by the Legislature that requires the
8		Department of Transportation to amend the
9		Accommodation Manual.
10	A.	(Bowes) So I think we were aware of it. I
11		don't think it had any bearing on the
12		analysis that we did. It may have had a
13		bearing into Mr. Quinlan's request to have us
14		study that. He never shared that
15		specifically with me. But we did an analysis
16		to look at what it would take to build an
17		all-underground project. Two of the routes
18		were what the DOT had suggested, 4A and 4C.
19		And then we selected another route that we
20		thought was more viable, and we came up with
21		a cost estimate as requested and identified
22		the concerns or risks to doing an
23		all-underground project.
24	Q.	Do either Mr. Johnson or Mr. Bowes or Mr.
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1		Kayser or Ms. Farrington, do any of you know
2		if the Utility Accommodation Manual has been
3		amended in response to RSA 162-R?
4	A.	(Johnson) It is my understanding that we were
5		still using the 2010 Utility Accommodation
6		Manual. So I would assume that, no, it is
7		not.
8	Q.	Okay. Thank you.
9		Mr. Johnson, I mentioned this yesterday
10		and told you we would return to it today.
11		Can you just tell us a little bit well,
12		not a little bit. Please explain the nature
13		of any proposed changes to Transition Station
14		No. 5. You indicated that the whole parcel
15		is only about 1500 feet long yesterday. Can
16		you just tell us what's under discussion for
17		any changes there?
18	A.	(Johnson) So it would be the actual location
19		of the transition station compared to where
20		it is today, which is the intersection of the
21		right-of-way in Route 302 to some location
22		along the edge of the right-of-way, but
23		further north on the developer's property.
24	Q.	And are there any changes in elevation
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1		involved there, and would it affect the	
2		visual impact?	
3	A.	(Johnson) Absolutely. Yes.	
4	Q.	And are your visual impact experts involved	
5		in that discussion?	
6	A.	(Johnson) Yes.	
7	Q.	Ms. Farrington, I think it was back on	
8		May 1st you said you would not be doing an	
9		analysis of how many work trucks may use the	
10		access points to access roads. Do you recall	
11		that testimony?	
12	A.	(Farrington) Yes. Correct.	
13	Q.	Okay. You told us it was not a necessary	
14		parameter and that it is taken into	
15		consideration as part of the driveway permit	
16		side of things. You also told us that it was	
17		already assessed as part of the DEIS. Okay.	
18		First, with respect to the DEIS, where	
19		in the DEIS is that study?	
20	A.	(Farrington) So I'm sorry. It's not they	
21		didn't do an analysis. They created a number	
22		of vehicles expected due to each type of	
23		construction activity in an area.	
24	Q.	And who performed that?	
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1	A.	(Johnson) It's part of the	
2	Q.	The contractor hired by the Department of	
3		Energy. But do you know who the contractor	
4		was? Usually the competitors know it right	
5		away.	
6	Α.	(Johnson) EME is the environmental, but	
7		that's not the	
8	Q.	All right. I don't want to waste too much	
9		time with it. But if you could just get that	
10		to us.	
11	A.	(Johnson) Yes.	
12	Q.	Okay. Did you agree with that study, Ms.	
13		Farrington?	
14	Α.	(Farrington) Parts of it. There was a	
15		representation where they describe the	
16		increase of traffic on each roadway. And it	
17		showed, you know, 150 percent increase. But	
18		the initial traffic, you know, might have	
19		been three vehicles that hour. So it was	
20		very, I thought, misleading.	
21	Q.	So, like 150 percent of 3 is 1-1/2. So it'd	
22		be 5-1/2 vehicles? Is that what you're	
23		talking about?	
24	A.	(Farrington) Exactly, yes. And they didn't	
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1		take into account the capacity of roadways
2		per hour. So I thought it was a little
3		misleading.
4	Q.	You also said you didn't think it was a
5		necessary parameter, and I didn't quite
6		understand what you meant by that.
7	A.	(Farrington) Sure. So, for the access roads
8		in particular, a traffic impact analysis
9		to back up.
10		So there are two types of driveway
11		permits, a minor and a major. So these
12		access areas, if a driveway permit was
13		required, would be minor. They're evaluated
14		based on safety conditions, site distance
15		adjacent to intersections, that sort of
16		thing.
17	Q.	Does the size of the equipment that's going
18		to be going in there make a difference
19		whether they're major or minor?
20	A.	(Farrington) It does not. So the minor I
21		recently learned that the minor driveway
22		permit, DOT may not even want to consider
23		that because it's such a temporary impact.
24		So what triggers the major driveway permit is
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1		a 100-vehicle-per-hour number. So you'll see
2		100 vehicles per hour in a peak hour at maybe
3		a Dunkin' Donuts, Wal*Mart, something like
4		that.
5	Q.	I have.
6	A.	(Farrington) So it's and they all go to
7		the drive-thru.
8		So the intent of that is to not
9		necessarily consider the traffic on Main
10		Street, for instance, because you're not
11		really traffic turning into and out of a
12		Dunkin' Donuts is what is going to be
13		delayed, especially coming out. So in those
14		cases, like a right-turn lane or a signal
15		installation or something like that would be
16		considered, which actually generally slows
17		down traffic on the main road. So, for
18		something like this, it's not something we
19		would want to consider. I don't think it
20		would help anyone but the contractor, other
21		than perhaps back to the safety conditions,
22		making sure the truck turning movements are
23		appropriate.
24	Q.	Okay.

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(Farrington) Does that make sense?
1
    Α.
2
    0.
         Yeah.
              Mr. Johnson, I think you were asked
3
         this, but I wasn't sure you answered it
4
         earlier in the testimony. But we understand
5
         from the testimony that town roads in the
6
7
         underground portion, when they're -- after
         you've done the construction will be restored
8
         to as good a condition as before or "to DOT
9
10
         standards" I think is what was testified to.
11
         I guess my question is: Do any of the towns
         that are going to have the underground work
12
         done, do any of them have standards beyond
13
14
         what DOT requires?
15
         (Johnson) I don't believe so, no. But again,
    Α.
16
         we coordinate with the road agents to make
17
         sure that whatever we're going to restore
         would be acceptable to them.
18
19
    Q.
         So, sort of subsidiary to that was that a
20
         town could wind up with a better road than
21
         what previously existed I think somebody said
22
         during the course of this.
23
         (Johnson) That's correct.
    Α.
         Which led me to ask this question: As part
24
    Q.
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1		of the road restoration, are you willing to
2		pave a road that was previously unpaved?
3	A.	(Johnson) I'll defer that one.
4	A.	(Bowes) I'm not going to rule it out. I
5		guess we'd say we'd certainly consider that.
6		And oftentimes the rural nature of a road
7		being dirt is what the people want. But we'd
8		certainly consider it. I know there's a
9		portion of one of the roads in the North
10		Country that's partly paved now and partly
11		dirt now. So there might be an opportunity
12		there, or even some of the dirt roads.
13	Q.	The road agent might want it paved; right?
14	A.	(Bowes) They might, yeah.
15	Q.	All right. During cross-examination by the
16		City of Concord, we saw a couple of instances
17		where there was a house, a garage, a shed
18		right smack on the right-of-way and very
19		close to where there's going to be
20		construction and installation of the new
21		facility. And my question which I wanted to
22		ask then is how does that happen, that
23		somebody's garage is underneath the wires,
24		basically?

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1	Α.	(Johnson) So in most cases it's because of an
2		expansion of a building or the addition of a
3		garage without seeking the appropriate
4		authority from the utility. You may have it
5		okay'd by the zoning in the town, but without
6		having a Joint Use Agreement with the
7		utility, it's illegal, if you will. It's an
8		encroachment.
9	Q.	Doesn't Eversource or the owner of the
10		easement, doesn't that company have the
11		obligation to enforce that, even if it's just
12		for public safety?
13	А.	(Johnson) So, mostly these don't actually
14		cause public safety, meaning that the
15		conductors are high enough that they don't
16		cause a public safety issue. But certainly
17		the Company and I'll speak for Ken at this
18		point.
19		WITNESS JOHNSON: You can tell me if
20		I'm wrong.
21	Α.	(Johnson) But the Company would prefer that
22		they not be there.
23	Q.	Yeah, but there's lots of things I would
24		prefer. But when there's something that
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1		impacts my assets and my ability maybe to run
2		my business, I'm going to take action. Why
3		wasn't there action taken, for instance, with
4		respect to the Hoit Road property? I assume
5		that garage was built after the easement was
6		granted.
7	A.	(Bowes) Yes, it was. And I believe we did
8		ultimately arrange a Special Use Agreement
9		with that customer to allow the continued use
10		and to prevent further future growth onto the
11		right-of-way. I will say that, you know, an
12		annual inspection, or more frequently
13		sometimes, isn't enough to catch especially
14		temporary impacts underneath a right-of-way.
15		Unfortunately, we have encroachments,
16		especially on a temporary basis, where people
17		store things underneath the conductors, maybe
18		even use vehicles and cranes underneath
19		conductors. And every year there's usually a
20		story in the newspaper about something bad
21		happening when the clearances are encroached
22		upon. Typically the permanent-type sheds and
23		things like that can be allowed. And most
24		times the customers do contact us and request
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1		that. And we'll either note it on the
2		drawings or create it. If it's going to be
3		an expanded use, create a Special Use
4		Agreement, as we did with Sabbow, for
5		example. So in this case it probably should
6		have never happened. And I think Public
7		Service has the responsibility, as you said,
8		to patrol that.
9	Q.	Speaking of patrols, actually, this thought
10		came to me before when you were asked
11		questions by Mr. Wright, I think.
12		You use unmanned aerial vehicles now?
13	Α.	(Bowes) We're starting to, yes.
14	Q.	And do you have a policy in place, in terms
15		of when and how you use those?
16	A.	(Bowes) Yes, we do.
17	Q.	Is that policy part of the Application as
18		well?
19	Α.	(Bowes) I don't believe it is.
20	Q.	Okay. Mr. Johnson, you've had several
21		questions about the certified survey provided
22		to DOT. We know that's been provided to
23		them. We know that they've issued a
24		condition that you provide it to them. Have
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1		they accepted those letters, or have they
2		asked you to do more survey work? Or don't
3		you know?
4	Α.	(Johnson) So I don't believe that the DOT is
5		going to accept them, if you will, from a
6		verification perspective. They are accepting
7		the fact that our surveyors have certified
8		them and that we believe that's where the
9		boundaries lie. The DOT is not going to
10		validate, if you will, that those are
11		correct.
12	Q.	Well, I guess my question is more they
13		required you to provide a certified survey.
14	A.	(Johnson) That's correct.
15	Q.	And is what you provided to them
16		satisfactory, or are they requiring you to
17		provide more?
18	A.	(Johnson) So in a couple discrete locations
19		they are asking for more information, but
20		that's actually part of the exception request
21		process.
22	Q.	That was going to be my next question then.
23		How many separate variances or exceptions are
24		you seeking from those conditions in the
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1		that the Department of Transportation has put
2		on you?
3	Α.	(Johnson) So, over the 60-1/2 miles we're
4		asking for approximately 2 a mile, on
5		average. So I believe the number is just
6		around 140 in total. The vast majority of
7		those have to do with constraints where the
8		infrastructure needs to be under the roadway
9		because we're either crossing from one side
10		of the road to the other
11	Q.	Condition 12?
12	A.	(Johnson) Correct.
13	Q.	How many are Condition 15 requiring you to go
14		under existing utilities?
15	Α.	(Johnson) That would be the second highest
16		number. Off the top of my head, I want to
17		say that's in the 20 to 30 range.
18	Q.	And the other ones are all various
19		conditions; is that correct?
20	Α.	(Johnson) Correct. So it would be an HDD
21		entry or exit area that would be slightly in
22		the shoulder or in a pavement lane type of
23		thing. Temporary impacts.
24	Q.	And if I understand the Application
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1		correctly, one of the things that you're
2		requesting is that you be allowed to that
3		the Committee grant you a certificate, but as
4		a part of that certificate, that you be
5		allowed to work out these variance requests
6		with the Department of Transportation and
7		that any authority the Committee has over
8		them be delegated to the Department of
9		Transportation; is that correct?
10	А.	(Johnson) Yes, I believe so.
11	Q.	In other words, because you don't expect
12		you expect these considerations and these
13		exception requests to go on beyond obtaining
14		a certificate, if one is granted; right?
15	A.	(Johnson) Sorry. Yes. So the answer is yes,
16		within the bounds that the DOT has prescribed
17		in their April 3rd letter.
18	Q.	We've had a lot of discussion during your
19		panel about things like that, about
20		conditions that might be set because of
21		things that might happen beyond the granting
22		of a certificate because of delegations that
23		you have requested that the Committee make to
24		state agencies. Just some examples, so you
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know what I'm talking about: The DOT 1 2 variances is one example; the delegation to DES to approve laydown yards and access 3 You indicated that there will be an roads. 4 5 interference study with the co-located gas pipelines that will be sometime down the 6 7 Mr. Bowes, you mentioned a number of road. 8 MOUs with various towns that you're trying to negotiate. We know you have to test the 9 fluidized thermal backfill and get back to 10 11 DOT on that. There's a request for using local roads for detours, using I-93 for 12 There's the site-specific plans for 13 detours. 14 inadvertent returns, the Concord overpass 15 issue, approval of final construction plans 16 the Traffic Management Plan. All of these 17 things are the types of things I understand you to be asking the Committee to either 18 19 delegate to a state agency or create a 20 condition down the road that you have to comply with in order to maintain your 21 22 certificate. 23 (Bowes) Yes, that is accurate. Α. Can we get a list of all of those things that 24 Q.

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1		you are requesting that would go beyond the
2		granting of a certificate, should one be
3		granted?
4	A.	(Bowes) Yes.
5	Q.	Thank you. When do you think you could have
6		that? And for you guys, I'm only talking
7		about for the construction panel. I'm sure
8		we'll have same of the issues when we get to
9		the environmental panel.
10	A.	(Bowes) By the end of June?
11	Q.	Thank you.
12		MR. IACOPINO: All done. Thank you.
13		CHAIRMAN HONIGBERG: Does the
14		Committee have anything else for this panel?
15		[No verbal response]
16		CHAIRMAN HONIGBERG: All right. You
17		gentlemen are excused. Thank you.
18		Oh, yeah, you want to ask
19		questions, too, Barry?
20		[Laughter]
21		MR. IACOPINO: We already gave them
22		an opportunity to do a show and tell.
23		CHAIRMAN HONIGBERG: Oh, man, I
24		thought we were done.
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Do you need a break? I think some 1 people probably do. 2 Whatever you want. 3 MR. NEEDLEMAN: CHAIRMAN HONIGBERG: Off the record. 4 (Discussion off the record.) 5 CHAIRMAN HONIGBERG: All right. Why 6 7 don't you continue, Barry. 8 MR. NEEDLEMAN: Couple of guick housekeeping items. Before the break you asked 9 me for timing on when we could get the list of 10 11 business information that Mr. Way wanted. We will get that to you next week. 12 Yesterday, Commissioner Bailey, you 13 14 asked about whether we were seeking approval 15 for crossing of local roads. We are. That's 16 in the Application at Pages 82 to 84, and the permit drawings associated with that are in 17 Appendices 9 and 10 of the Application. 18 Let me start by asking, Dawn, if 19 20 you could pull up the first of the new This will be Exhibit 144. 21 exhibits. 22 (Exhibit App 144 marked for 23 identification.) 24 MR. NEEDLEMAN: This is speaking to SEC 2015-06 [Day 12 Afternoon Session ONLY] $\{06-02-17\}$

1	the issue, Mr. Way, you raised about business
2	outreach. I thought it would be helpful to put
3	an example of one of the letters in the record.
4	Exhibit 144 is an example.
5	If you could pull that up, Dawn.
6	Oh, I'm sorry. There we go. Looking in the
7	wrong place.
8	REDIRECT EXAMINATION
9	BY MR. NEEDLEMAN:
10	Q. Exhibit 144 is an example of a letter that
11	went to overhead to overhead businesses.
12	And then in Mr. Quinlan's Supplemental
13	Testimony at Attachment J, that's an example
14	of a letter that went to the underground
15	businesses. Mr. Johnson, do you know how
16	many of these letters have been sent out to
17	date?
18	A. (Johnson) I believe the number is just under
19	350. And there was sort of 80 that went to
20	the overhead and the remainder being to the
21	underground.
22	Q. With respect to the business claim process,
23	we've heard something about that. Ms.
24	Weathersby asked a little bit more about it
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1		today. In the Applicant's Exhibit 6, which
2		is Mr. Quinlan's Supplemental Testimony, at
3		Attachment J, I believe, Mr. Bowes, there's a
4		further description of that claims process;
5		is that correct?
6	Α.	(Bowes) Yes, there is.
7	Q.	Is there other information provided there
8		that would also be helpful?
9	A.	(Bowes) There's a claim form as well with
10		identification of the information needed.
11	Q.	Mr. Bowes, earlier Commissioner Bailey asked
12		about the use of the right-of-way for
13		snowmobiles and ATVs. And I think her
14		question was: Is there any technical reason
15		that would restrict the use? And I think you
16		said, no, there wasn't. I just want to make
17		sure the record is clear. There may be other
18		reasons why it couldn't be used for those
19		purposes; is that correct?
20	A.	(Bowes) That is correct. There could be, you
21		know, sensitive areas, cultural, endangered
22		species, wetlands, things like that.
23	Q.	How about landowners' rights? These
24		easements are subject to other landowners who
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1		ultimately own the property. Could that be a
2		restriction?
3	Α.	(Bowes) Yes, it could.
4	Q.	Again, Mr. Bowes, earlier Commissioner
5		Bailey, and later Mr. Iacopino, asked about
6		the study related to I-93 and reasons why you
7		didn't go there. During the public
8		information sessions that the Committee held
9		early on in this project, one of the issues
10		that was raised about the potential use of
11		I-93 were legal restrictions going through
12		the Notch. I wonder if you could speak to
13		that issue as well.
14	A.	(Bowes) Sure. There were some other
15		restrictions in a Memorandum of Agreement
16		with various parties for actually, for DOT
17		changing their roadways through the Notch.
18		And it also has some limitations on what is
19		done within the roadway and also outside of
20		the roadway. That was a constraint that we
21		looked at and actually dismissed as far as
22		having a viable route of trying to build a
23		transmission line either overhead, which
24		would clearly not be practical, or

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1		underground, which again has some limitations
2		as well through Franconia Notch. So we
3		really never pursued that as a viable option
4		for an underground route.
5	Q.	Mr. Johnson, let me turn to you. And I want
6		to ask you some questions about town
7		outreach. There have been multiple occasions
8		during the course of the panel's testimony
9		when questioners have asked about
10		communications with particular towns. And I
11		want to focus on some of those towns. And I
12		want to start with Stewartstown and ask Dawn
13		to bring up Exhibit 145.
14		(Exhibit App 145 marked for
15		identification.)
16	Q.	When Mr. Thompson was questioning the panel,
17		he raised concerns about the Project not
18		talking to Stewartstown now and instead
19		waiting until it would be too late for the
20		town to have meaningful input.
21		Exhibit 145 is a summary, I believe, of
22		the outreach that the Project has engaged in
23		with Stewartstown. Could you briefly
24		summarize that, Mr. Johnson?
	[

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1	A.	(Johnson) Sure. So what this is, is a list
2		of the number and types of correspondence
3		and/or meetings that have been held with the
4		Town of Stewartstown's administrative body,
5		whether it's selectmen or and I'm
6		generalizing here or a conservation
7		commission or an administrator of a town. So
8		you can see we've had one public open house
9		in Stewartstown; we've had four public
10		information sessions and public hearings of
11		which the entire route was invited to; we've
12		had four outreach letters; we've had 12
13		municipal contacts and meetings, and we've
14		had five other types of correspondence with
15		town officials.
16	Q.	Is it correct that there are existing
17		exhibits in the record already that summarize
18		the range of the outreach that the Project
19		has engaged in?
20	Α.	(Johnson) Correct. I believe that is in
21		Appendix 42 and was recently updated with my
22		Supplemental Testimony.
23	Q.	When you say that, you mean Appendix 42 to
24		the Application?
	[and	

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1	A.	(Johnson) I'm sorry. Yes. That's correct.
2	Q.	And also in your Supplemental Testimony
3		that's Applicant's Exhibit 86?
4	A.	(Johnson) Correct.
5	Q.	And was there also information in your
6		Original Prefiled Testimony, which was
7		Applicant's Exhibit 11?
8	A.	(Johnson) Yes, there was.
9	Q.	Is it correct that on March 15, 2017, the
10		Project reached out to the Town of
11		Stewartstown and asked if they would be
12		interested in having discussions about an
13		MOU?
14	A.	(Johnson) Yes, it is.
15	Q.	And what was the result of that outreach?
16	Α.	(Johnson) There's been no communication since
17		then.
18	Q.	Mr. Bowes, we've heard a lot about the MOUs
19		and stipulations here. When Ms. Saffo was
20		questioning you, she characterized NPT's
21		offer as essentially "one-sided," and she
22		said, quote, But if they say they don't want
23		something, your answer is "tough," close
24		quote. Is that an accurate description of
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1		the process that you have been engaging in to
2		try to reach MOUs with towns?
3	A.	(Bowes) No, I don't believe it is.
4		MR. NEEDLEMAN: I want to put
5		something up on the ELMO for a minute. This is
6		going to be Exhibit 146.
7		(Exhibit App 146 marked for
8		identification.)
9	Q.	This is the second MOU that the Project has
10		executed at this point, and this one is with
11		Lancaster; is that correct?
12	A.	(Bowes) Yes, it is.
13	Q.	And before we began here, I asked you to star
14		particular provisions of this MOU that you
15		thought were particularly important. And so
16		we're just going to flip. I don't want to go
17		through the whole thing. But if we could
18		flip a few pages and just have you explain
19		why you starred particular provisions.
20	A.	(Bowes) So the first one was to make sure
21		everyone understood that the term of it
22		wasn't just during construction, but the term
23		of the MOU is actually for the entire
24		operation of the Project, however long it
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1		continues in its operation.
2	Q.	And could we flip the page, please. And you
3		have several stars on the next page. Could
4		you explain those, please.
5	A.	(Bowes) So these are really some of the
6		things that we've talked about in several of
7		the hearings around the construction
8		schedule, how traffic control would be
9		handled, and one I think is very important to
10		people is the work hours. In this case,
11		Lancaster was agreeable to, you know, the
12		7 a.m. to 7 p.m. that we had proposed. But
13		they did have a request of us around the
14		Lancaster County Fair, which we will
15		certainly accommodate, which comes in the
16		fall of each year. The others, equipment,
17		material and staging areas, again, they were
18		interested in having some part in that
19		discussion as well.
20	Q.	And maybe flip one more page. Why did you
21		star these?
22	A.	(Bowes) So the first one is around the
23		oversized vehicles and any special deliveries
24		that we'd have to make. In this case, we
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1		wanted to give advanced notice to the town
2		and also look at when we could avoid peak
3		rush hours and coordinate that with the town.
4	Q.	So is the Project requesting that this
5		Exhibit 146 now be attached to the
6		certificate as conditions if the Committee
7		issues a certificate?
8	Α.	(Bowes) Yes, we are.
9	Q.	And to the extent that the Project and other
10		towns enter into executed MOUs, would it also
11		be your intention that those be attached to
12		any certificate, if issued?
13	Α.	(Bowes) Yes.
14	Q.	Let me talk to you about Franconia for a
15		minute. When Ms. Saffo was questioning you
16		about outreach with Grafton County towns, and
17		Franconia in particular, she raised some
18		issues. I think Dr. McLaren also raised
19		issues regarding interactions with Franconia.
20		When you were going back and forth with
21		Ms. Saffo, you said a good example of how you
22		could work with the town would be with
23		respect to the Gale River Crossing. Do you
24		recall that?

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1	Α.	(Bowes) Yes, I do.
2	Q.	You said it was a place where, if you had a
3		good, cooperative relationship with the town,
4		you could minimize impacts from the existing
5		proposal. Do you recall that?
6	A.	(Bowes) Yes.
7	Q.	So I'd like to call up that crossing on
8		OneTouch if we could. And while we're doing
9		that, maybe let me go to Sam for a minute.
10		I think there was a question yesterday
11		as to exactly what OneTouch is. Can you
12		explain that briefly?
13	A.	(Johnson) Sure. So, OneTouchPM is
14		effectively a way that Burns & McDonnell has
15		developed that we can superimpose any of the
16		project designs onto Google Earth. So we
17		have the flexibility of moving around in the
18		Google Earth environment, but still having
19		our actual design, the actual wetlands and
20		then other project information, such as
21		landowners et cetera on here. Effectively,
22		it's all the maps that we've given through
23		the Application condensed onto one platform
24		for ease of zooming back and forth.
	(

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1 MR. NEEDLEMAN: Ovid, before we screenshot this as an exhibit, can you just 2 zoom out a little bit so there's more context 3 as to where we are? That's fine. 4 BY MR. NEEDLEMAN: 5 So this is now coming down from, I believe 6 ο. 7 it's coming from down from 302 toward Franconia; is that correct? 8 (Johnson) That is correct. Yes. 9 Α. 10 MR. NEEDLEMAN: Now, can you zoom in 11 on the intersection, please. BY MR. NEEDLEMAN: 12 And I'm going to ask you, Mr. Bowes, to speak 13 0. 14 to this. Is that the appropriate size right 15 there? 16 (Bowes) Yeah, that's fine. Α. 17 Q. All right. MR. NEEDLEMAN: Could you screenshot 18 that, please, Ovid. And that will be 19 Exhibit 147. 20 21 (Exhibit App 147 marked for 22 identification.) 23 And so, Mr. Bowes, now speaking off of Q. Exhibit 147, could you explain what you meant 24

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1		when you were speaking to Ms. Saffo about
2		this being a good opportunity here to reduce
3		impacts?
4	A.	(Bowes) So, many of the same things we talked
5		about with Lancaster would apply here. And
6		because it's a downtown area as well, the
7		things we described earlier today about
8		working with business owners in the Town of
9		Plymouth would apply also to a MOU. This is
10		also somewhat unique in the fact that
11		Ms. Farrington said the traffic control at
12		this location is probably the more
13		complicated of any of the locations along the
14		route dealing with this, you know, basically
15		90-degree sweep across the highway and then
16		going underneath the Gale River. We talked
17		about that at great length, and I'm not going
18		to go through all the details again, other
19		than to say that this would be a location
20		because there is town property right about
21		where that 116 indicator is just over the
22		Gale River, that's town property there. So
23		either a temporary construction easement or
24		even a permanent easement to place the shaft
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1	for the microtunnel would take all of the
2	traffic impacts off this intersection. I
3	realize it's a burden on the town to grant
4	that to us, but that's one example where, if
5	we had cooperation with the town, we could
6	greatly improve the conditions for the
7	residents of the town and anyone else
8	traveling on 116.
9	MR. WAY: Excuse me. Where exactly
10	is that again?
11	WITNESS BOWES: So you can see the
12	soccer field. So it's between the soccer field
13	goal and the roadway. We could put the shaft
14	in that location and take the construction
15	completely off the road.
16	MR. NEEDLEMAN: Dawn, would you bring
17	up the next exhibit, please, which is the
18	outreach history with Franconia. This will be
19	Exhibit 148.
20	(Exhibit App 148 marked for
21	identification.)
22	Q. Mr. Johnson, similar to what we had with
23	Stewartstown, can you briefly describe the
24	Project's efforts to have outreach in
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1 Franconia? (Johnson) Yes, as soon as it gets here. 2 Α. It always comes up last. 3 Okay. So, for the Town of Franconia, 4 again, if you recall --5 Sam, let me interrupt. 6 Q. 7 MR. NEEDLEMAN: Can everyone read 8 that, or do we need it larger? MR. IACOPINO: I would like it 9 larger. 10 11 MR. NEEDLEMAN: Larger, please, Dawn, if you could. 12 (Pause in proceedings) 13 14 BY MR. NEEDLEMAN: 15 All right. Sam, please continue. ο. 16 (Johnson) Yeah, so as people recall, Α. 17 Franconia was not one of the original towns on the original route, so communications with 18 19 them don't go back as far as some of the 20 other towns. But we've had three public 21 information sessions and public hearings; 22 we've had four sets of outreach letters; 23 we've had four meetings with town officials, 24 and then we've had three other types of SEC 2015-06 [Day 12 Afternoon Session ONLY] $\{06-02-17\}$

	correspondence with the Town.
Q.	Is it correct that on March 15th of this
	year, the Project reached out to Franconia to
	inquire about their interest in a
	stipulation?
Α.	(Johnson) That is correct.
Q.	And what's the status of that?
Α.	(Johnson) We have not heard from the Town
	regarding this particular letter. In fact,
	we haven't heard from the Town since October
	of 2015.
Q.	Mr. Bowes, when Mr. Lakes was asking the
	panel questions, he was discussing with you
	the use of bentonite for drilling mud and
	suggesting that it would be appropriate to
	provide material safety data sheets to towns
	like Easton. You responded that this would
	be a good topic for an MOU. And then he
	asked you, quote, What MOU do you have with
	Easton? And you said, "None." Is it correct
	that, like the other towns, you've reached
	out to the Town of Easton seeking an MOU?
A.	(Bowes) That is correct. We started the
	initial discussions.
	A. Q. A.

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1		MR. NEEDLEMAN: Could I, Dawn, have
2		the next exhibit, please, which were minutes, I
3		believe, from the Easton Select Board Meeting
4		on March 15th of this year. And this is
5		Exhibit 149.
6		(Exhibit App 149 marked for
7		identification.)
8	Q.	And Mr. Bowes, if you could just look at the
9		paragraph on the bottom of the first page.
10		And everybody can read it, but can you
11		summarize your understanding of Easton's
12		willingness to have discussions about an MOU
13		with the Project?
14	A.	(Bowes) It appears that, you know, a vote was
15		taken and the opinion was raised not to
16		cooperate with the Project for this
17		construction phase.
18	Q.	All right. Let me turn now to Plymouth.
19		We've heard a lot about Plymouth. Let me
20		first of all ask Mr. Johnson.
21		MR. NEEDLEMAN: Let's bring up
22		exhibit, I guess this will be 150. Again,
23		outreach summary with Plymouth.
24		
	(and	

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		-
1		(Exhibit App 150 marked for
2		identification.)
3	Q.	And if you could summarize for us the
4		Project's efforts at outreach with Plymouth,
5		focusing on Plymouth and not saying anything
6		about the sewer and water district, which
7		we've already covered.
8	A.	(Johnson) Okay. As a reminder, Plymouth was
9		not one of the original overhead towns. So
10		this town was added when the underground
11		portion of the Project was put forth, so we
12		don't have the old history of communication.
13		But since basically mid-2015 there have been
14		three public information sessions and public
15		hearings; there have been three outreach
16		letters to town officials; there have been
17		eight meetings with town officials; and there
18		have been four other types of correspondence
19		with town officials.
20	Q.	And is it correct that on March 15, 2017, the
21		Project reached out to Plymouth inquiring
22		about their interest in discussing
23		stipulations?
24	A.	(Johnson) I believe it's March 14th. But
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1 yes.

2	Q.	Thank you. And what is the status of those
3		discussions?
4	A.	(Johnson) We've heard nothing from the Town.
5	Q.	Okay. Earlier Mr. Way was asking you
6		questions about construction on Main Street.
7		And there was some discussion about the
8		possibility of moving the Project off of Main
9		Street, and I wanted to circle back to that
10		for a minute.
11		Is it correct that the Project did
12		engage in discussions with Plymouth at one
13		point about moving the Project off of Main
14		Street?
15	Α.	(Johnson) Yes, I believe that's the subject
16		of those eight meetings, or some of the
17		subjects of those eight meetings with town
18		officials.
19		MR. NEEDLEMAN: Dawn, could you bring
20		the map up that shows those alternative routes
21		up. And that will be Exhibit 151.
22		(Exhibit App 151 marked for
23		identification.)
24	Q.	So, Mr. Johnson, if you could just
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1		MR. NEEDLEMAN: And I want to make
2		sure that's large enough. Can everyone see it?
3		Tom, does that work?
4	BY M	R. NEEDLEMAN:
5	Q.	Okay. Can you briefly walk us through what
6		we're looking at here?
7	Α.	(Johnson) Sure. So, starting from the north
8		coming to the south, you can see that there's
9		the green line or a light green line. And
10		where it intersects with the orange line,
11		that is the town circle, or the traffic
12		circle that's there. So the original route
13		is that orange line that effectively extends
14		from the top of the page down through Main
15		Street, right through the bottom of the page.
16		So the Project evaluated, I believe
17		eight or nine different types of routes that
18		would get us off of Main Street, three that
19		we thought were viable as we discussed
20		earlier in the process. All of them start by
21		exiting the traffic circle and going down
22		towards Green Street. From there, there are
23		basically three options: One, Green Street
24		does kind of hook back up to Main Street
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1		about halfway down, and that's that darker
2		green color, if you will. Another option is
3		to hook up a little bit onto Depot Street; go
4		down Depot Street and connect into where the
5		skate park is today and then ultimately down
6		to Route 3. And then the third option would
7		be continuing down South Street or South
8		Road to the water treatment facility, and
9		from the parking lot of the water treatment
10		facility doing directional drill all the way
11		out to connect back into Route 3.
12	Q.	And is it correct that the Project was
13		willing to consider all three of these
14		options?
15	Α.	(Johnson) Yes, we were.
16		MR. NEEDLEMAN: Dawn, could you bring
17		up Exhibit 152, please.
18		(Exhibit App 152 marked for
19		identification.)
20	Q.	This is a summary, I believe, of your course
21		of dealings with Plymouth regarding this
22		issue. Can you briefly walk us through it?
23	Α.	(Johnson) Sure. So we began meetings back in
24		August of 2015. Effectively, we presented
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the Project. The Town articulated to us 1 2 their concerns with impacts to the downtown Plymouth corridor. We then, in a subsequent 3 meeting in February of 2016, were instructed 4 5 to identify alternative underground routes, if you will. In March of 2016, we presented 6 7 the eight or nine options and were directed to focus on the three options that we 8 discussed according to the map. So we --9 Point C is noted there. We started to work 10 11 with the Town's engineering firm and town departments, including the water and sewer 12 division, to focus on alternative route 13 14 No. 1.

15 In April of '18 [sic] we met with the 16 Highway Department, the Town Planner and the 17 Plymouth Village Water and Sewer Department as part of the land ownership assessment. 18 19 One of the particular issues with this is 20 that the Project did not have the land rights 21 to perform a directional drill, one, where 22 the city is; two, where the railroad is; and 23 then three, where the directional drill would then come up over by the skate park. 24 So we

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1		were working with the Town, first of all, to
2		assess who owned the property, but then to
3		work with them to come up with a solution as
4		far as getting permission from them.
5		In May of 2016, we continued and
6		basically met with them. It was a meeting
7		where the Town inquired about locating the
8		route within the I-93 corridor and that they
9		basically informed us that they would no
10		longer be engaging in conversation. And
11		then, basically by the end of that month, or
12		early June, the town indicated that with the
13		exception of I-93, it was not interested in
14		further pursuit of any alternative routes.
15	Q.	Having in mind the concerns that Ms. Fillmore
16		and Mr. Pappas and others raised about the
17		Project's location on Main Street, do you
18		believe that if the Project were to have
19		taken one of these other routes, it would
20		have addressed many of those concerns?
21	Α.	(Johnson) Sure. Every route has its own
22		issues, but I believe that getting off of
23		Main Street would have alleviated a lot of
24		issues.

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1	Q.	When Ms. Pacik was questioning you, she
2		raised some concerns about the Project's
3		consultations with the City of Concord and
4		also about McKenna's Purchase.
5		MR. NEEDLEMAN: Could we have exhibit
6		what will now be 153, Dawn.
7		(Exhibit App 153 marked for
8		identification.)
9	Q.	Can you briefly summarize the Project's
10		outreach efforts with Concord?
11	A.	(Johnson) Okay. So, Concord, there has been
12		one public open house; there have been public
13		informations and public hearings; there have
14		been four outreach letters similar to the
15		other towns; there have been 15 individual
16		meetings with town officials, again whether
17		it's the administrator, selectmen,
18		conservation commission, et cetera; and there
19		have been nine types of other correspondence
20		with the deputy city manager and other folks.
21	Q.	And is it correct that the Project reached
22		out to the City of Concord about discussing a
23		stipulation?
24	Α.	(Johnson) We did.

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Q. And is it correct that those discussions are 1 underway at this point? 2 (Johnson) They are underway at this point, 3 Α. 4 yes. 5 MR. NEEDLEMAN: Dawn, can you bring up Exhibit 154. 6 7 (Exhibit App 154 marked for identification.) 8 We've also heard a lot about McKenna's 9 Q. 10 Purchase. Could you briefly describe for us 11 the Project's efforts to communicate with McKenna's Purchase. 12 (Johnson) Sure. So, again, there was one 13 Α. public open house in which the McKenna's 14 Purchase folks were invited to. I know that 15 16 I dealt with a couple of those folks 17 personally. Correspondence with property owners. So there were two sets of mailings 18 that went out to folks. There were other 19 20 correspondence to McKenna's Purchase. There 21 were five meetings with McKenna's Purchase 22 representation, and there were two telephone 23 calls that were held also with McKenna's 24 Purchase representatives.

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1	Q.	We've heard and I'm not going to go
2		through every town. But we've heard other
3		parties raise issues about towns like
4		Clarksville, New Hampton, Bristol, Woodstock
5		and others. Is it correct that the Project
6		has reached out to every town along the route
7		at this point to discuss stipulations?
8	A.	(Johnson) We have, again, as we discussed a
9		couple days ago, except for Dixville and
10		Millsfield who are unincorporated. So, yes.
11		MR. NEEDLEMAN: Dawn, put up Exhibit
12		155, please.
13		(Exhibit App 155 marked for
14		identification.)
15	Q.	This exhibit, as I understand, summarizes the
16		status of those efforts to engage in
17		stipulations with towns. Can you briefly
18		walk the Committee through that?
19	A.	(Johnson) Sure. So as the Committee recalls,
20		there are 31 affected towns; 28 are the
21		number of towns that received the MOU letter;
22		2 are the unincorporated, and 1 is Franklin,
23		that we've already concluded our negotiations
24		with. So, 14 towns have responded; 13 are in
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1		active negotiation; and 1 is completed, and
2		that would be Lancaster; 10 additional
3		towns sorry. Drop to the bottom. The
4		number of towns that did not respond is 14 of
5		the 28 that were initially mailed.
6	Q.	Okay. Thank you.
7		Mr. Bowes, let me turn to you now. I
8		want to follow up on some topics that Mr.
9		Pappas raised when he was questioning the
10		panel. We talked about laydown areas. And
11		Mr. Pappas suggested that the Project can't
12		know the impacts at laydown areas because you
13		don't know the precise locations yet. Do you
14		agree with that?
15	A.	(Bowes) I would say no.
16	Q.	Why?
17	A.	(Bowes) Because we do know the
18		characteristics of the laydown areas. We
19		know the location; they're going to be within
20		a few miles of the construction activities.
21		We know the size, generally 5 to maybe a
22		maximum of 50 acres. We know we're going to
23		place them in disturbed areas, previously
24		disturbed, not pristine areas. We know we
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1		have to have highway access. So, in general,
2		it's going to be a commercial or industrial
3		type of facility that the Project would use
4		to store materials and store vehicles for the
5		work that needs to be done.
6	Q.	Ms. Farrington, how about the traffic
7		aspects?
8	A.	(Farrington) Very similar to the access roads
9		that we discussed with Mr. Iacopino. We did
10		do a calculation of the highest number of
11		vehicles per hour we would expect to see
12		going in or out during a peak hour, and it
13		actually turned out to mostly be workers
14		arriving in the morning or leaving in the
15		afternoon. That number was 30 vehicles per
16		hour, so it would not trigger a change of
17		use, major driveway permitting need.
18	Q.	Ms Farrington, continuing with you. Mr.
19		Pappas asked you at one point if you had
20		studied traffic impacts on tourism or on the
21		orderly regional development. You said you
22		didn't, but you didn't have a chance to
23		elaborate, so I want to look at that right
24		now.
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1		MR. NEEDLEMAN: Dawn, could you call
2		up Applicant's Exhibit 91.
3	Q.	And that, I believe, is your Supplemental
4		Prefiled Testimony, Ms. Farrington?
5	A.	(Farrington) Yes.
6	Q.	And I want to focus on the bottom of Page 3
7		and over to the top of Page 4.
8	A.	(Farrington) Okay.
9	Q.	First of all, the question in the middle of
10		Page 3 that is then addressing the
11		information on the bottom of Page 3, what was
12		that question?
13	A.	(Farrington) "Please describe the expected
14		impacts due to the planned lane closures."
15	Q.	And so in your evaluation of lane closures,
16		at the end you offer a concluding statement
17		at bottom of 3 that begins with the word
18		"however" and goes over to Page 4. Can you
19		read that, please?
20	A.	(Farrington) Yes. "However, it is my opinion
21		that impacts to the traveling public will be
22		limited and will be considered acceptable by
23		New Hampshire DOT."
24	Q.	And then in the middle of Page 4, Lines 14
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			10
1		and 15, you also are offering conclusions	
2		with respect to the traveling public. Can	
3		you describe those?	
4	A.	(Farrington) Yes. "Based on this approach,	
5		the proposed detour routes and preferred	
6		routes are expected to have a minimal	
7		impact."	
8	Q.	So that "minimal impact" relates to detours;	
9		is that correct?	
10	A.	(Farrington) Yes. That was specific to the	
11		North Country	
12		MR. NEEDLEMAN: And then Dawn	
13	Α.	the three detours in the North Country.	
14		(Exhibit App 156 marked for	
15		identification.)	
16	Q.	And the Project also furnished a response to	
17		Counsel for the Public's data request which	
18		has relevant information. We're going to put	
19		that on the screen, call this Exhibit 155	
20		[sic]. Am I correct, Ms. Farrington, that	
21		you participated in preparing this response?	
22	A.	(Farrington) Yes.	
23	Q.	And can you tell us what relevant information	
24		that has in there that relates to tourism?	
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1	Α.	(Farrington) This is similar statements to my
2		Prefiled Testimony, that delays will be
3		intermittent, temporary and minimal to the
4		traveling public, and therefore we concluded
5		that it would also be temporary to visitors
6		and vacationers. It also goes into detail
7		about pedestrian routes and Americans With
8		Disabilities Act for pedestrian detours and
9		rerouting in downtown areas. And our
10		Transportation Management Plan would also
11		consider bicycle routes.
12	Q.	So based on the work you've done in this
13		case, do you feel you have helpful
14		information regarding traffic impacts on
15		tourism?
16	Α.	(Farrington) Yes.
17	Q.	And what is that information?
18	Α.	(Farrington) I would say that we, the
19		Project, will work to minimize impacts not
20		only on the traveling public, but in turn on
21		vacationers and tourists.
22	Q.	Another area that Mr. Pappas asked you about
23		was detours. There were a number of
24		questions about detours around the $7-1/2$
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miles of underground construction in the North Country.

1

2

Have you been able to make any sorts of comparisons between the kinds of detours that the Project is proposing and the sorts of detours that people in the North Country might typically encounter with other types of highway construction projects?

(Farrington) Yes. So we talked a little 9 Α. 10 yesterday, or two days ago I think, about a 11 similar project in the North Country, because it was brought up that if Route 116 had to be 12 detoured, the detour would be -- I can't 13 remember -- in the range of 25 miles because 14 there aren't a lot of local and state routes 15 16 within the North Country that's not densely 17 populated. So the New Hampshire DOT currently, today, is detouring -- has put in 18 19 place a detour for one of their bridge 20 repairs, and it's over Bishop Brook Road on 21 Route 145, and that detour route is around 22 25 miles. It is signed along state routes, 23 so there are local roadways. But some of the locals, if they know the route, could find 24

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1		their way a bit shorter, but it would also
2		likely be a lower speed limit. And just for
3		comparison, Route 145 in that area has an
4		expected number of vehicles per day of 520,
5		whereas Bare Rock Road, which we are
6		detouring, has 140. So, significantly less.
7	Q.	Mr. Johnson, when Mr. Pappas was questioning
8		you, he asked you about Beecher Falls Road,
9		and I think he pointed out an omission in the
10		design drawings. And DOT subsequently
11		identified a work area that they thought
12		would lead to a road closure, and you said
13		that it was the intent not to have a road
14		closure. Can you clarify this issue?
15	A.	(Johnson) Sure. So I believe what Mr. Pappas
16		was referring to was during the phase where
17		we'd be assembling the conduit along the side
18		of the road and then having to pull it back
19		through the directional drill. And the work
20		zone that's shown on the plans shows that
21		actually crossing right in front of Beecher
22		Falls Road as it intersects with Route 3. We
23		realized that and have had discussions with
24		the DOT for a temporary sort of excavation
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1		where we will install a PVC pipe underneath
2		the road, and then we'll repave the road to
3		keep Beecher Falls Road open. And we will
4		pull the conduit back through that larger
5		culvert, if you will, into the HDD.
6		A second alternative, as we've
7		discussed, would be extend the HDD past
8		Beecher Falls Road, and then we could tie in
9		the trench as it came around that corner at a
10		later date. So we wouldn't impact Beecher
11		Falls Road at all.
12	Q.	Mr. Johnson, you were asked a lot of
13		questions about road layouts and the proper
14		right-of-way boundaries. For example, Ms.
15		Pastoriza asked you about the road layout
16		information that the Project had for Easton
17		and Sugar Hill. Do you recall that?
18	A.	(Johnson) I do recall that.
19	Q.	And I think the implication in her
20		questioning was that the Project lacked
21		adequate information to be able to define the
22		right-of-way and ensure that it stayed off
23		private property.
24		Do you believe that the Project has
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1		adequate information to ensure that it will
2		stay within the right-of-way when doing the
3		underground work in Easton, Franconia and
4		Sugar Hill?
5	A.	(Johnson) I do.
6	Q.	Why do you believe that?
7	A.	(Johnson) Because I believe that our
8		surveyors have done the appropriate research
9		and field assessments to verify that.
10	Q.	Ms. Pastoriza also implied that your
11		surveyors missed relevant information in
12		Easton and Sugar Hill. How do you respond to
13		that?
14	A.	(Johnson) So I believe Ms. Pastoriza's
15		testimony was basically that a lot of these
16		roads were laid out in the late 1700s and
17		early to mid-1800s. And she's correct that
18		those are the original road layouts. I
19		believe, as Mr. Oldenburg stated when he was
20		questioning us, these are the unbuilt roads,
21		if you will, that just evolved over time.
22		Over time, there have been sorry. The
23		issue with some of those original layouts is
24		that they're from Farmer Brown's tree to
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1	Farmer Smith's wall. They do identify a
2	width, whether it's two rods, three rods or
3	four rods, but they do not identify
4	geographic or spatially where they are. So
5	there's no GPS coordinates that would say
6	it's from this edge to this edge.
7	So how do we sort of get around that?
8	And it's sort of a multi-tiered answer, if
9	you will. There have been a lot of
10	betterment projects over the years, where
11	either towns have put in sewers or water
12	lines. The DOT has built I-93. There have
13	been paving projects, bridge replacement
14	projects. All of these projects have defined
15	a boundary, if you will, of the right-of-way.
16	So there are many instances up and down, all
17	the way from, you know, I believe Woodstock
18	right through the entire underground route.
19	But specifically to Ms. Pastoriza, from
20	Woodstock through Sugar Hill and ultimately
21	up to Bethlehem, where the DOT has or the
22	towns have prescribed where those edges of
23	rights-of-way are.
24	So the Project survey teams went to the

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state archives, they went to the town 1 2 archives, they went to the DOT archives, and they pulled those plans and found those 3 boundaries and used them as the base of the 4 project. They also went to municipalities 5 and looked at landowner deeds and landowner 6 plans, whether they were subdivision plans or 7 individual lot plans, where the individual 8 landowners have acquiesced, if you will, the 9 boundaries of the DOT or the right-of-way. 10 11 And we have further corroborated that with the iron pins and other boundary markers that 12 we found during our field surveys. It showed 13 14 them on the plans, and we went out and found 15 them where we could, you know, on the actual 16 field work. So that again sort of sets another set of boundaries. 17 And then the third set of boundaries 18

18 Would then be the prescriptive rights of the 20 road -- meaning road surface, the shoulder, 21 the ditch line -- a very small area outside 22 of that, that would then be the prescriptive 23 rights of the road. So we feel that our 24 surveyors have taken all that into

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1		consideration in the preparation of our	
2		survey lines.	
3	Q.	Mr. Pappas was walking you through the	
4		highway right-of-way drawings and the quality	
5		of information that the surveyors had. And	
6		he walked you through three kinds of	
7		classifications. Do you recall that?	
8	Α.	(Johnson) I do.	
9	Q.	Is it true that the surveyors here relied on	
10		New Hampshire DOT's own plans to establish	
11		the right-of-way limits?	
12	A.	(Johnson) Absolutely. Yes.	
13	Q.	So if that's the case, why didn't the	
14		surveyors why did they use the highest	
15		classification so sparingly?	
16	A.	(Johnson) Basically the surveyors in general	
17		are conservative, and they are not going to	
18		validate, if you will, somebody else's work	
19		unless they've redone the work of going out	
20		and doing their own research and effectively	
21		redoing what the DOT did previously.	
22	Q.	The plans that you're relying on, are these	
23		the same plans that New Hampshire DOT uses	
24		for its own construction projects?	
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			11
1	A.	(Johnson) It is.	
2	Q.	And how familiar is Eversource with those DOT	
3		right-of-way plans?	
4	A.	(Johnson) For the Eversource projects that	
5		I've worked on, very, very familiar.	
6	Q.	And how reliable have you found those DOT	
7		plans to be in your personal experience?	
8	Α.	(Johnson) Extremely reliable.	
9	Q.	We were shown an e-mail at one point. It was	
10		Joint Muni Exhibit 198, and it contained	
11		it was an e-mail from DOT that contained a	
12		general disclaimer about the use of these	
13		plans. Why would that disclaimer be in	
14		there?	
15	A.	(Johnson) So I believe that that disclaimer	
16		is used whenever the DOT provides information	
17		to other parties, that effectively they're	
18		not going to certify or be responsible for or	
19		liable for work done by others.	
20	Q.	In locations where the right-of-way lines are	
21		marked as "undetermined," what has the	
22		Project done to address uncertainties in	
23		those locations?	
24	A.	(Johnson) So, from a design perspective, what	
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1		we've tried to be is very conservative and
2		make sure that our designs are either within
3		the disturbed roadway or exactly right off of
4		the disturbed roadway.
5	Q.	Overall, then, what's your level of
6		confidence that for all the underground
7		sections the Project will be able to stay
8		within the right-of-way and off private
9		property?
10	Α.	(Johnson) Very high.
11	Q.	Going back to when Ms. Pacik was questioning
12		you, she went through a list of properties in
13		Concord that were adjacent to the line. And
14		she asked you in a number of cases about the
15		Project's contacts with property owners, and
16		you didn't have that information available.
17		Have you had a chance to go back and check?
18	Α.	(Johnson) I have, yes.
19	Q.	So I want to just ask you quickly about those
20		properties. There were six in particular:
21		12 Brookwood, 10/8 Brookwood, 41 Hoit,
22		516 Mountain Road, 37 Snow Pond Road and 5/7
23		Old Loudon Road. Can you tell us briefly
24		what outreach the Project has engaged in with
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those properties? 1 2 Α. (Johnson) Sure. So I went back to the Contract Manager, which is our data base of 3 all contacts that we've had with folks. 4 For 8 Brookwood Drive, we had a meeting with the 5 landowner at an August 18th open house in 6 2013. We also had a site visit with them in 7 late August of 2016, where we discussed the 8 Project. We walked out into their yard and, 9 you know, basically discussed what would be 10 11 happening. For 12 Brookwood Drive, in September of 12 2015 we had a meeting with the current 13 landowner at that time, and we again talked 14 15 about the Project and potential clearing. It was actually noted in the notes that there 16 17 was a discussion regarding tree-clearing. For 41 Hoit Road, there have been two 18 19 meetings, one in May of 2013 and one in July 20 of 2014, again, discussing both the 21 encroachment of the garage, or the living 22 quarters now, that are in the right-of-way, 23 as well as the Project and the plans to span over the top of them. 24

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1		On 516 Mountain Road, in January of 2017
2		we received an inquiry from the project
3		owner, and we responded by mailing them a
4		certified letter with some general
5		information regarding the Project and the
6		construction process, as well as the design
7		in that area.
8		For 37 Snow Pond Road, we have no direct
9		contact with them, although we've had a
10		mailing and contact with both neighbors.
11		And on Old Loudon Road, 5 and 7 Old
12		Loudon Road, if you recall, that's across the
13		street from the Starbucks and the Joseph A.
14		Banks residence, and we've had no direct
15		correspondence with them or site visits with
16		them.
17	Q.	When Ms. Pacik was questioning the panel, she
18		also pointed out that there were four
19		properties along the right-of-way in Concord
20		that were not actually included on the
21		original Project maps that were submitted to
22		the Committee. Do you recall that?
23	A.	(Johnson) I do.
24	Q.	Those four properties were: 61 Sanborn,

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1		67 Sanborn, 87 Oak Hill Road and 83 Appleton	
2		Road. Can you explain why they were not	
3		included on the maps?	
4	A.	(Johnson) The maps were of an older vintage	
5		before those houses were actually	
6		constructed.	
7	Q.	And has there been any outreach to any of	
8		those properties?	
9	A.	(Johnson) There has, yes.	
10	Q.	Can you explain that, please?	
11	Α.	(Johnson) So, 61 and 67 Sanborn Road, if you	
12		recall, they were the houses that were built	
13		on both sides of the right-of-way. Actually,	
14		the land developer or the real estate agent	
15		contacted us to inquire about project	
16		information as they were building. That was	
17		in April of 2011. So any project knowledge	
18		would have to be disclosed within the sale of	
19		that property.	
20		87 Oak hill Road I believe is a little	
21		farther down the right-of-way. There were	
22		two individual contacts with that landowner	
23		in 2012 and sorry April of 2012 and	
24		December of 2013, and in both cases an	
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1	inquiry came in, phone calls were sent, and
2	then further correspondence on project
3	information was delivered to the landowner.
4	And 83 Appleton Street, which is that
5	nice house with the view of the pond there,
6	there's been no direct contact with them, so
7	no individual meetings or individual phone
8	calls.
9	MR. PAPPAS: Mr. Chairman, a point of
10	clarification. It appears to me that Mr.
11	Johnson is reading as opposed to testifying
12	from his memory. I don't know if he's reading
13	prepared or just his notes, but he seems to be
14	reading these answers rather than testifying
15	about his answer. And I'm just
16	CHAIRMAN HONIGBERG: Your
17	impression's a little different from mine.
18	But Mr. Johnson, I assume you're
19	not doing that one hundred percent from
20	memory. You have some notes in front of you.
21	WITNESS JOHNSON: I have some written
22	notes, yes.
23	MR. PAPPAS: That's fine. I
24	understand it's okay for the witnesses to have
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1	their material up there. I just wanted to know
2	that it was his material and not prepared notes
3	or prepared testimony, because it looked like
4	to me he was reading.
5	CHAIRMAN HONIGBERG: Yeah, as I said,
6	I have a different impression. But I think
7	we've clarified what he has in front of him.
8	MR. PAPPAS: That's fine.
9	BY MR. NEEDLEMAN:
10	Q. Mr. Bowes, there have been several
11	discussions about the Sabbow Concrete
12	property. Mr. Way was asking you about that
13	earlier.
14	MR. NEEDLEMAN: Dawn, can you put up
15	Exhibit 156 [sic], please.
16	(Exhibit App 157 marked for
17	identification.)
18	Q. What is this document, Mr. Bowes?
19	A. (Bowes) So we call it a Special Use and
20	Consent Agreement, or Joint Use Agreement.
21	Q. And this is the Joint Use Agreement between,
22	I guess it was Public Service of New
23	Hampshire and Sabbow Concrete?
24	A. (Bowes) Yes.
24	A. (Bowes) Yes.

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1	Q.	What's the purpose of these agreements?
2	Α.	(Bowes) So, most often it's either when a new
3		customer wants to use an eased area of their
4		property or in this case, I believe we
5		identified that a customer was using it, and
6		we wanted to put in place an agreement that
7		clearly defines how you will use the eased
8		area for Public Service of New Hampshire.
9	Q.	So in this case, the PSNH easement was there
10		long before Sabbow was there?
11	A.	(Bowes) Yes.
12	Q.	And then Sabbow located there?
13	A.	(Bowes) Yes.
14	Q.	And then the two companies entered into this
15		Joint Use Agreement?
16	A.	(Bowes) Yes.
17	Q.	And this is for the purpose of defining how
18		each company will relate to each other so
19		that you do your best to avoid interfering
20		with each other; is that correct?
21	A.	(Bowes) Yeah, so both uses can continue
22		undisturbed.
23	Q.	Mr. Johnson, when Mr. Reimers was questioning
24		you, he went through in his cross-examination
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1		a very detailed description of all the	
2		conservation areas in and around the overhead	
3		line. Do you recall that?	
4	A.	(Johnson) I do.	
5	Q.	So, focusing for a moment on the 32 miles of	
6		new overhead line in the North Country from	
7		Coos in Coos County, is there any place in	
8		that new 32 miles of line that sits on	
9		conservation land?	
10	A.	(Johnson) No.	
11	Q.	So the Project made a deliberate effort to	
12		avoid locating on conservation land there; is	
13		that correct?	
14	Α.	(Johnson) That is correct, yes.	
15	Q.	And then focusing on the remainder of the	
16		overhead line, which I think is approximately	
17		100 miles, is it correct that all of that	
18		100 miles of line, if it goes through a	
19		conservation area, the easement predated all	
20		of those conservation areas?	
21	A.	(Johnson) That is correct.	
22	Q.	Is there any conservation area in that	
23		98-mile segment that did not predate the	
24		line?	
	[- 1

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1	A.	(Johnson) No, there is not.
2	Q.	So, okay, let me turn now back to you, Mr.
3		Bowes. Actually, let's go to Ms. Farrington.
4		When Mr. Oldenburg was asking you
5		questions the other day, he mentioned the DOT
6		Traffic Control Committee. He noted that he
7		ordinarily chaired that committee, and I
8		think that he urged you and the Project to
9		appear before that committee as soon as
10		possible. Do you recall that?
11	A.	(Farrington) I do.
12	Q.	Can you just tell us briefly what that
13		committee does?
14	A.	(Farrington) Sure. So they're made up of
15		representatives that review each roadway
16		project and give it a level of significance,
17		and depending on that level of significance,
18		request either a memo or a full
19		transportation management plan which studied
20		the impact, the expected impacts of the
21		proposed construction, as well as there's
22		actually a list of options for mitigation
23		that you can pick from and put into your
24		report or into your memorandum. And then the
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1		TCC reviews and approves that report or gives
2		suggestions to improve it.
3	Q.	What have the Project's dealings to date been
4		with the Traffic Control Committee?
5	Α.	(Farrington) So we have not yet gone before
6		the Traffic Control Committee. We actually
7		had a meeting with New Hampshire DOT I think
8		a few weeks ago, and the representative there
9		said she would like to go before the
10		committee ahead of us and kind of introduce
11		the Project. So we are waiting for New
12		Hampshire DOT's okay before we fill out the
13		form and have our official presentation.
14	Q.	Does the Project consider it to be important
15		to appear before that committee and interact
16		with them?
17	Α.	(Farrington) Absolutely.
18	Q.	Mr. Oldenburg asked you also about
19		transportation management plans that were
20		described in your Prefiled Testimony, which
21		is Applicant's Exhibit 15. And I thought
22		there was some confusion in one of your
23		answers about how the plan was going to be
24		prepared and approved. Can you clarify that?
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1	Α.	(Farrington) Sure. So we, being PAR, is
2		responsible for preparing the plan. They
3		have signed a contract with Louis Berger for
4		us to prepare their transportation management
5		plan which will then be put before, first,
6		New Hampshire DOT, and then, after New
7		Hampshire DOT and us come to agreement, then
8		it goes before the Traffic Control Committee
9		for official approval.
10	Q.	And Condition 22, A-B of the DOT letter
11		actually requires you to submit it to the
12		Traffic Control Committee; is that correct?
13	A.	(Farrington) That is correct.
14	Q.	Mr. Bowes, Mr. Oldenburg was asking you about
15		the issue of differential frost. Do you
16		recall that?
17	Α.	(Bowes) Yes, I do.
18	Q.	Is it correct that this issue has been one of
19		DOT's concerns from the beginning regarding
20		the Project's dealings with them?
21	Α.	(Bowes) Yes. It's the first, you know, long,
22		linear project that they've had in state
23		roads.
24	Q.	And have you been working with DOT on this
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1		issue since you first began interactions with
2		them?
3	A.	(Bowes) Yes.
4	Q.	Is it your understanding that in order to get
5		ultimate approval, you're going to have to
6		satisfy DOT's concerns about this issue?
7	A.	(Bowes) Yes. And they've placed three
8		conditions that I think are probably the most
9		important for the differential frost issues:
10		Condition 12, which deals with being as far
11		off to the right or off the roadway as
12		possible; Condition 14, which deals with the
13		depth, and then Condition 38, which deals
14		with the warranty period that they're
15		imposing. He also showed a diagram that had
16		a depth of the trench that has since been
17		revised. So as part of the latest conditions
18		with the DOT, we are now 1 to 2 feet lower
19		than the diagram that he was using. He also
20		drew kind of a red semicircle above the
21		trench line and indicated that that would be
22		where frost would be less likely to occur.
23		If you look at that diagram now, and also the
24		information that Mr. Scott presented in the
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1		ABB report, it's clear to me, at least, that
2		there will be potential for frost underneath
3		the duct bank I'm sorry above the duct
4		bank will still occur, or there will still be
5		frost there, and it'll be basically to the
6		level of the concrete cap. So there'll still
7		be maybe not 4 feet of frost under the duct
8		bank, but clearly not the same situation that
9		was displayed with that red semicircle.
10		Probably be at least 3 feet of frost in those
11		roadways.
12	Q.	Continuing with you, Mr. Bowes. Mr.
13		Oldenburg also raised concerns about the
14		manner in which the Project was designed in
15		relation to the requirements of the New
16		Hampshire Utility Accommodation Manual. He
17		pointed out that utilities use roads as a
18		privilege, not a right, and that there was a
19		preference for utilities to be located at the
20		edge of the right-of-way. Do you recall
21		that?
22	A.	(Bowes) Yes, I do.
23	Q.	So can you explain what the Project's
24		thinking was regarding its design in light of
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1		your understanding of the Utility
2		Accommodation Manual?
3	A.	(Bowes) So, first, we're very aware and fully
4		understand what was in the Utility
5		Accommodation Manual. Early in the process
6		we also verified, for example, the use of the
7		interstate highways. So where we didn't have
8		a full understanding or just wanted to verify
9		what our understanding was, we did that with
10		the DOT. We've had, you know, monthly
11		meetings with the DOT now for well over a
12		year. So we have described what we wanted to
13		do and got interaction with the DOT for this
14		entire process. We understood that they
15		wanted it off the roadway where possible, but
16		we also were trying to balance both the
17		customer impacts of being, you know, in
18		people's front yards and into the ditch line,
19		for example, and the environmental impacts
20		with the New Hampshire DES of being off the
21		road and into a wetland. So what we tried to
22		do was balance all three of those concerns
23		and present a plan to the DOT that they have
24		since asked us, especially with Condition 12,
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1		to move to the right or move to the side of
2		the travel lane as much as possible.
3	Q.	Can you explain what the traffic impacts
4		would be of being in the road versus off the
5		road?
6	A.	(Bowes) So there's probably we're still
7		going to take a full lane, whether we're off
8		to the shoulder or still within the roadway.
9		What it may do, though, is it may prolong the
10		length of construction by being off-road.
11	Q.	Why is that?
12	A.	(Bowes) So the progress will be potentially a
13		little bit slower, will be under or off to
14		the shoulder, so there may be guardrails we
15		have to deal with. In some cases there may
16		be some embankments. We may have to be a
17		little bit deeper in the ditch line than we
18		would if we were just under the road. So,
19		real slow progress when we're off to the side
20		of the road versus being within the road, and
21		thus duration of the traffic impact would be
22		longer.
23	Q.	What's the experience of the panel in terms
24		of transmission lines being located in roads?
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1	A.	(Bowes) So in my case, we've always had, when
2		we've done underground transmission
3		construction, a portion has always been in
4		the roadway.
5	A.	(Kayser) That's my experience also.
6	A.	(Johnson) Similar.
7	Q.	Before the December 2016 Project submittal to
8		DOT, is it correct that you had had
9		discussions with DOT about what your
10		rationale was going to be for your proposal?
11	A.	(Bowes) Yes, we did.
12	Q.	And then you submitted the proposal in
13		December. And did you continue to have
14		dialogue with DOT?
15	Α.	(Bowes) Yes, we have a monthly meeting, and
16		then obviously correspondence in between
17		those meetings.
18	Q.	So now you've received this April letter
19		which we've heard a lot about, and we've also
20		heard a lot about the requested exceptions
21		that you're making. Is it correct that the
22		letter actually contemplated that you could
23		request exceptions?
24	А.	(Bowes) Yes. And the discussions we had,
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they actually encouraged us to provide 1 exceptions, for example, especially for some 2 of the abutter concerns. And we have asked 3 for some of those exceptions as well. 4 So, some examples would be, you know, when a 5 house was very close to the edge of the 6 roadway, clearly within the right-of-way, 7 there's a location on 12 -- I'm sorry --8 17 Lost River Road in Woodstock is an example 9 of that. An example in the North Country, 10 11 near the cemetery that we've talked a lot about, just to the south of that there's a 12 rock wall. And we wanted to be more into the 13 roadway to avoid stone walls and rock walls. 14 15 And where there's a splice pit that goes into an embankment, we talked about one of those 16 17 on Route 116. That's an area where we would ask for an exception to be within the 18 19 roadway, or it was going to cause an impact 20 to either an abutter or other impacts -- in 21 that case, a retaining wall -- where we think 22 it makes sense to go within the roadway and 23 maintain the flow of traffic and speed the 24 construction.

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1	Q.	When you were answering Mr. Oldenburg's
2		questions the other day, you gave the example
3		of being in the road versus being in a
4		wetland and trying to balance those competing
5		impacts. Are these other examples of efforts
6		to try to balance competing impacts?
7	А.	(Bowes) Yeah, those are three examples that
8		would impact customers' property.
9	Q.	Ms. Farrington, Mr. Oldenburg provided the
10		example of traveling the 52 miles of the
11		underground route and walked through his
12		calculations about what the expected delays
13		might be. And yesterday, I think it was, you
14		talked about a calculation you had made
15		traveling from the Rocks Estate in Bethlehem
16		to the intersection of 112 and 116. Do you
17		recall that?
18	Α.	(Farrington) Yes.
19	Q.	Why did you undertake this calculation? What
20		was the point of that?
21	Α.	(Farrington) So it was our thinking that it
22		would be unlikely for someone to travel the
23		entire 52-1/2-mile route without using other
24		roads, such as 93 or other roads.
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1	Q.	And so you chose this section to try to get a
2		sense of what a local traveler might
3		encounter during construction?
4	Α.	(Farrington) Yes.
5	Q.	And when you did your calculations, I
6		understand that you used Mr. Oldenburg's
7		numbers to do those calculations?
8	Α.	(Farrington) Yes. So, number of construction
9		zones, one minute of delay at each.
10	Q.	All right. And so what was the length, the
11		mileage from the Rocks Estate to the 112/116
12		intersection?
13	A.	(Farrington) I measured it as 16-1/2 miles.
14	Q.	And you assumed how many construction zones
15		in that 16-1/2 miles?
16	A.	(Farrington) Six.
17	Q.	And so what delay did you calculate?
18	Α.	(Farrington) So, again, assuming a full
19		minute delay at each construction zone
20		approached, that would add six minutes worth
21		of delay to that route.
22	Q.	Did you do a Google Map search to figure out
23		what the typical travel would be between
24		those two points without any construction?
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1	A.	(Farrington) Of course. It was 25 minutes.	
2	Q.	And so adding the delay that you calculated	
3		would be 31 minutes?	
4	A.	(Farrington) Yes.	
5	Q.	Let me just ask you about some of the	
6		assumptions. When you say six minutes of	
7		delay, are you assuming that somebody	
8		traveling and encountering each of those six	
9		construction zones would have to wait the	
10		full one minute at each zone?	
11	A.	(Farrington) So, yes, they would either need	
12		to come to a complete stop, and that would	
13		include the slow-down due to a reduced speed	
14		limit. So, one full minute of delay at each	
15		site encountered.	
16	Q.	Is it possible somebody could pass through	
17		all six zones with little or no delay?	
18	A.	(Farrington) Yes, it is possible.	
19	Q.	Not a very likely outcome, though; right?	
20	A.	(Farrington) No, not that good.	
21	Q.	So is there some average between waiting the	
22		full amount at each place and passing through	
23		each one of them unencumbered?	
24	A.	(Farrington) Yeah, I think 30 seconds at each	
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1		would be reasonable.	
2	Q.	So what would you calculate the delay to be	
3		in that circumstance?	
4	Α.	(Farrington) That would make a three-minute	
5		delay.	
6	Q.	Did you factor in well, let me ask you	
7		this: What is your experience in situations	
8		like this with people finding alternate	
9		routes if they're available?	
10	Α.	(Farrington) So, again, with the Bishop Brook	
11		Road, which is a New Hampshire DOT	
12		bridge-replacement job, there was actually a	
13		newspaper article where the locals described	
14		the routes they were planning to take that	
15		were not the planned detour route. So I	
16		found especially the local community will	
17		usually find their way around, whether we	
18		sign it or not.	
19	Q.	And is it correct to assume that in this day	
20		and age with people having navigation systems	
21		and navigation systems on their phones, that	
22		that's another opportunity for people to find	
23		alternatives if they exist?	
24	Α.	(Farrington) Yes.	
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1	Q.	And is it reasonable to assume in these
2		circumstances that at least some people would
3		take advantage of alternatives if they were
4		available?
5	Α.	(Farrington) Sure.
6	Q.	Mr. Bowes, when Mr. Van Houten was
7		questioning you, I think it was yesterday, he
8		asked you about the transition station in
9		Bethlehem and the proposed hotel next to that
10		station. Do you recall that?
11	Α.	(Bowes) Yes.
12	Q.	In one of his questions he made the assertion
13		that the hotel developer was "horrified"
14		and I think that was his word when he
15		learned about the transition station. Do you
16		recall that?
17	Α.	(Bowes) I do.
18		MR. NEEDLEMAN: Dawn, do you have
19		Applicant's No. Exhibit 6? Can you pull that
20		up?
21	Q.	Mr. Quinlan, in his Prefiled Testimony at
22		Attachment K, I believe attached a letter
23		from that hotel developer; is that correct?
24	Α.	(Bowes) Yes, he did.
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1	Q.	Is it your understanding that that hotel
2		developer is horrified about the transition
3		station?
4	A.	(Bowes) No.
5	Q.	What's your understanding?
6	A.	He's happy that we're working with him. He's
7		actually using some of the properties that we
8		have adjacent to do his construction
9		activities today.
10	Q.	Ms. Farrington, when Dr. McLaren was
11		questioning you, he was asking you about
12		emergency vehicles passing the construction
13		sites, and he was expressing concern about
14		ensuring that there would be no delays. And
15		he offered the view, quote, There's a pretty
16		strong possibility of human collateral
17		damage, close quote. Do you agree with that?
18	A.	(Farrington) Absolutely not.
19	Q.	Why?
20	A.	(Farrington) Because flaggers, pre-emption
21		systems, we are going to put all of the
22		standard traffic control devices into effect,
23		as well as obviously common sense, to
24		expedite emergency vehicles through this
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1		travel zone in the best manner possible.	
2	Q.	And last topic, Mr. Bowes. Dr. McLaren was	
3		questioning you about the use of fly ash and	
4		fluidized thermal backfill. And we've heard	
5		more about that. He was suggesting that	
6		these environmental concerns here could be	
7		substantial and that the Project's use of	
8		this was experimental. Do you remember that?	
9	A.	(Bowes) Yes, I do.	
10	Q.	You said at one point that concrete or fly	
11		ash had been used in concrete for decades.	
12		Do you recall that?	
13	A.	(Bowes) Yes.	
14	Q.	You didn't get a chance to elaborate. So I	
15		want to get a couple of exhibits	
16		MR. NEEDLEMAN: What number are we	
17		on, Dawn?	
18		MS. GAGNON: 158.	
19		MR. NEEDLEMAN: All right. So pull	
20		up 158.	
21		(Exhibit App 158 marked for	
22		identification.)	
23	BY N	MR. NEEDLEMAN:	
24	Q.	So, Dr. McLaren showed you a couple of	
	{SEC	2015-06}[Day 12 Afternoon Session ONLY]{06-02-1	L7}

			113
1		articles. My recollection is they were from	
2		around the 2010 time period. This exhibit is	
3		EPA's December 2014 determination about fly	
4		ash. And is it correct that EPA made the	
5		determination that it was not going to treat	
6		fly ash as hazardous?	
7	Α.	(Bowes) Yes.	
8	Q.	If you look at the highlighting on the bottom	
9		of the page, what does EPA say about the use	
10		of fly ash?	
11	A.	(Bowes) Basically they're supporting it's	
12		reuse for other activities.	
13		MR. NEEDLEMAN: And then, Dawn, can	
14		we call up Exhibit 159.	
15		(Exhibit App 159 marked for	
16		identification.)	
17	Q.	And let's start with the cover page. Ms.	
18		Farrington, there is an acronym on that cover	
19		page. Can you tell us who this organization	
20		is?	
21	Α.	(Farrington) Yes. The American Association	
22		of State and Highway Transportation	
23		Officials.	
24	Q.	Okay. And can we go to the next page,	
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1		please. And Ms. Farrington, just in the
2		yellow highlighting, what does this
3		organization say about the use of fly ash?
4	A.	(Farrington) The survey had 52 respondents:
5		46 state DOTs, DC DOT, Illinois Tollway,
6		Western Federal Lands, Ontario, and the FAA
7		and DOD, and I believe they all said they
8		have used fly ash.
9	Q.	And I guess I should have asked that question
10		to Mr. Bowes.
11		So is this what you had in mind when you
12		were saying that it's used in a widespread
13		manner?
14	Α.	(Bowes) Yes, it is.
15	Q.	Or at least illustrative of that. I'm sure
16		you didn't have this document in mind.
17		And then just the next page, please.
18		And Mr. Bowes, that last point, what was the
19		other what was the concern expressed in
20		this document about the availability of the
21		fly ash?
22	Α.	(Bowes) Just that there's a growing shortage
23		of it for highway use.
24		MR. NEEDLEMAN: Dawn, can you call up
	{SEC	2015-06}[Day 12 Afternoon Session ONLY]{06-02-17}

[WITNESS PANEL: FARRINGTON|JOHNSON|BOWES|KAYSER]

1		Exhibit 160.
2		(Exhibit App 160 marked for
3		identification.)
4	Q.	So these are going to be two pages. These
5		are screenshots we took last night I think
6		from the New Hampshire DOT web page. And
7		this is talking about various New Hampshire
8		DOT environmental goals and then the way in
9		which they implement those goals.
10		What is one of the objectives or
11		implementation goals that DOT highlighted
12		there in yellow, Mr. Bowes?
13	A.	(Bowes) So one of their construction
14		initiatives is for use of fly ash from power
15		plants.
16	Q.	And then finally Exhibit 161.
17		(Exhibit App 161 marked for
18		identification.)
19	Q.	When Mr. Wright was questioning you
20		yesterday, he asked whether any of you knew
21		about whether the Department of Environmental
22		Services had spoken on this issue. We were
23		able to locate this document last night. I
24		don't think we're going to represent this as
	{SEC	2015-06}[Day 12 Afternoon Session ONLY]{06-02-17}

[WITNESS PANEL: FARRINGTON|JOHNSON|BOWES|KAYSER]

		Ĩ
1		definitive because we had a limited amount of
2		time to look. But am I correct that this is
3		a 1997 request of DES to use fly ash as a
4		certified waste-derived product?
5	Α.	(Bowes) Yes, it is.
6		MR. NEEDLEMAN: And Dawn, could you
7		flip over to I think the third page.
8	Q.	And could you just read No. 1, please, Mr.
9		Bowes.
10	Α.	(Bowes) "Coal ash generated at Merrimack
11		and/or Schiller Station may be reused to
12		produce Controlled Low Strength Material, AKA
13		flowable fill, under the terms of this
14		certificate."
15		MR. NEEDLEMAN: Okay. And I think
16		that's it.
17		CHAIRMAN HONIGBERG: All right.
18		Looking at the hour, I'm not sure it makes
19		sense to try to do anything else today.
20		MR. PAPPAS: Agreed.
21		MR. NEEDLEMAN: Ms. Frayer is here.
22		We could
23		CHAIRMAN HONIGBERG: We're going to
24		have to take a break, anyway. I apologize to
	{SEC	2015-06}[Day 12 Afternoon Session ONLY]{06-02-17}

[WITNESS: FRAYER]

		1.
1		Ms. Frayer, who I know has been here earlier.
2		Off the record.
3		(Brief recess was taken at 4:06 p.m.,
4		and the hearing resumed at 4:18 p.m.)
5		CHAIRMAN HONIGBERG: We're going to
6		pick back up now and get started with the next
7		witness, Ms. Frayer. Mr. Needleman.
8		MR. NEEDLEMAN: Thank you. Shall we
9		swear her in?
10		(WHEREUPON, JULIA FRAYER was duly sworn
11		and cautioned by the Court Reporter.)
12		DIRECT EXAMINATION
13	BY M	R. NEEDLEMAN:
14	Q.	Please state your name and where you work.
15	Α.	My name is Julia Frayer, and I'm a managing
16		director at London Economics International,
17		LLC.
18	Q.	And just generally, what's the purpose of
19		your testimony in this matter?
20	Α.	I will be presenting the analysis that I was
21		responsible for that speaks to the
22		electricity market impacts of the Northern
23		Pass Project, the state economic impacts of
24		the construction operations of the Northern

1		Pass Project, and the emissions-related
2		impacts of the Project.
3	Q.	And you have a series of documents in front
4		of you. Some of them are your reports which
5		have been filed in this case and then some is
6		your Prefiled Testimony. And I wanted to
7		focus on your Prefiled Testimony.
8		There are three pieces: Applicant's
9		Exhibit 28, which is your October 16, 2015
10		Prefiled Testimony; Applicant's 82, which is
11		your March 17th, 2017 updated Prefiled
12		Testimony; and then Applicant's Exhibit 101,
13		which is your Supplemental Testimony of
14		April 17th, 2017. Do you have all those?
15	A.	Yes, I do.
16	Q.	And do you have any changes or corrections to
17		any of those three pieces of testimony?
18	Α.	No, I do not.
19	Q.	Do you then adopt those testimonies and swear
20		to them today?
21	Α.	Yes, I do.
22	Q.	Great. Thank you.
23		CHAIRMAN HONIGBERG: Mr. Needleman, I
24		know there was a motion regarding the original

testimony, and the motion -- it was a Motion to 1 2 Strike. Can you or the witness briefly explain how the updated testimony and the Supplemental 3 Testimony affect the original testimony? 4 I think I'll let 5 MR. NEEDLEMAN: Julia do that. 6 7 WITNESS FRAYER: The updated analysis 8 that I believe is Exhibit 82 -- and please correct me if I get the wrong numbers -- the 9 testimony associated with that updated analysis 10 11 was actually in response to data requests we received from -- that we were asked to 12 complete. But it is using the same 13 14 methodology, the same approach that we used in 15 our original report. We were simply updating 16 certain assumptions and inputs. And then our 17 Supplemental Testimony and the associated, what we labeled as our "Rebuttal Report," was 18 19 responding to the reports that we reviewed in 20 January of 2017. They were filed in December 21 of 2016 from some of the other parties. We 22 were essentially responding to and creating 23 some additional foundation and context for the Committee to consider in consideration of our 24

1	analysis and in consideration of other analyses					
2	that the Committee is going to hear about or					
3	read about.					
4	CHAIRMAN HONIGBERG: But the original					
5	testimony that was filed with the Application					
6	and the update, from your perspective, the					
7	original testimony still has viability and is					
8	still relevant to what we're considering.					
9	WITNESS FRAYER: Of course, yes.					
10	CHAIRMAN HONIGBERG: All right.					
11	Mr. Boldt.					
12	MR. BOLDT: Thank you, Mr. Chairman.					
13	CROSS-EXAMINATION					
13 14	CROSS-EXAMINATION BY MR. BOLDT:					
14	BY MR. BOLDT:					
14 15	BY MR. BOLDT: Q. Ms. Frayer, I'm over here. And I represent					
14 15 16	BY MR. BOLDT: Q. Ms. Frayer, I'm over here. And I represent the City of Berlin, and I have just a couple					
14 15 16 17	BY MR. BOLDT: Q. Ms. Frayer, I'm over here. And I represent the City of Berlin, and I have just a couple questions that I believe are "Yes" or "No,"					
14 15 16 17 18	BY MR. BOLDT: Q. Ms. Frayer, I'm over here. And I represent the City of Berlin, and I have just a couple questions that I believe are "Yes" or "No," but I could be wrong in the way of the					
14 15 16 17 18 19	BY MR. BOLDT: Q. Ms. Frayer, I'm over here. And I represent the City of Berlin, and I have just a couple questions that I believe are "Yes" or "No," but I could be wrong in the way of the answers that you need to give me.					
14 15 16 17 18 19 20	BY MR. BOLDT: Q. Ms. Frayer, I'm over here. And I represent the City of Berlin, and I have just a couple questions that I believe are "Yes" or "No," but I could be wrong in the way of the answers that you need to give me. I wanted to simply confirm that in your					
14 15 16 17 18 19 20 21	BY MR. BOLDT: Q. Ms. Frayer, I'm over here. And I represent the City of Berlin, and I have just a couple questions that I believe are "Yes" or "No," but I could be wrong in the way of the answers that you need to give me. I wanted to simply confirm that in your Prefiled Testimony and in your reports there					

1	Α.	Yes, that is correct.
2	Q.	And I believe, also, your reports do not
3		reflect your expectation of any retirements
4		of the existing generating facilities in the
5		North Country of New Hampshire, primarily in
6		Berlin and Gorham, New Hampshire, as a result
7		of Northern Pass coming in; correct?
8	Α.	That's correct as well.
9	Q.	And finally, it's my understanding that you
10		did no independent analysis of the tax
11		benefits, the property tax benefits generated
12		by Northern Pass, or the improvements to the
13		Coos Loop, that you instead relied only on
14		Dr. Shapiro's analysis, who's a later
15		witness; correct?
16	Α.	It is correct that I have relied on Dr.
17		Shapiro's calculations and estimates of the
18		property taxes. And in the Rebuttal Report
19		that was filed in April, we did incorporate
20		Dr. Shapiro's analysis into the Local
21		Economic Impact Analysis that I then
22		presented.
23	Q.	But you didn't do an analysis of the tax
24		benefits separate from her report; correct?

[WITNESS: FRAYER]

1 Α. That's correct. MR. BOLDT: No further questions, 2 Your Honor. 3 CHAIRMAN HONIGBERG: Mr. Boldt, that 4 didn't even take five minutes. 5 MR. BOLDT: I strive to be brief, 6 7 sir. CHAIRMAN HONIGBERG: Well, I believe 8 everybody thanks you. 9 10 All right. If there's nothing else 11 that we can accomplish today, and I think 12 there probably isn't, we'll adjourn for the 13 day. And the next time we're together is a week from yesterday, right, next Thursday. 14 MS. MONROE: June 8th. 15 16 CHAIRMAN HONIGBERG: June 8th, 9:00. Thank you all. 17 (Whereupon the hearing was adjourned at 18 19 4:24 p.m.) 20 21 22 23 24

CERTIFICATE

1 I, Susan J. Robidas, a Licensed 2 Shorthand Court Reporter and Notary Public 3 of the State of New Hampshire, do hereby 4 5 certify that the foregoing is a true and accurate transcript of my stenographic 6 7 notes of these proceedings taken at the place and on the date hereinbefore set 8 forth, to the best of my skill and ability 9 under the conditions present at the time. 10 11 I further certify that I am neither attorney or counsel for, nor related to or 12 13 employed by any of the parties to the 14 action; and further, that I am not a 15 relative or employee of any attorney or 16 counsel employed in this case, nor am I financially interested in this action. 17 18 19 Susan J. Robidas, LCR/RPR 20 Licensed Shorthand Court Reporter Registered Professional Reporter 21 N.H. LCR No. 44 (RSA 310-A:173) 22 23 24

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