STATE OF NEW HAMPSHIRE

SITE EVALUATION COMMITTEE

October 27, 2017 - 9:05 a.m.          DAY 53
49 Donovan Street                  Morning Session ONLY
Concord, New Hampshire

{Electronically filed with SEC 11-10-17}

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

PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:

Chmn. Martin Honigberg                 Public Utilities Comm.
(Presiding Officer)

Dir. Craig Wright, Designee             Dept. of Environ. Serv.
Christopher Way, Designee               Dept. of Business &
                                        Economic Affairs.
William Oldenburg, Designee             Dept. of
                                        Transportation
Patricia Weathersby                    Public Member
Rachel Dandeneau                       Alternate Public Member

ALSO PRESENT FOR THE SEC:

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

Pamela G. Monroe, SEC Administrator

(No Appearances Taken)

COURT REPORTER:  Cynthia Foster, LCR No. 14
<table>
<thead>
<tr>
<th>WITNESS PANEL</th>
<th>JURGEN WEISS</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMUEL NEWELL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

- Commissioner Bailey  4
- Director Wright      31
- Commissioner Bailey  36, 108
- Chairman Honigberg   84, 102
- Mr. Iacopino         101, 106
- Ms. Weathersby       102

Redirect Examination by Mr. Pappas  109
<table>
<thead>
<tr>
<th>EXHIBIT ID</th>
<th>DESCRIPTION</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFP 601</td>
<td>HQD Supply Plan 2017-2026</td>
<td>110</td>
</tr>
</tbody>
</table>
COMMISSIONER BAILEY: Good morning, everyone. Welcome to Day 53. The Chairman is in the other room conducting some PUC business so we're going to get started without him, but he can hear us.

We are up to questions from the Committee for the Panel of witnesses, and we're going to start with me.

QUESTIONS BY COMMISSIONER BAILEY:

Q Can we look at your Supplemental Report, and that's CFP Exhibit 145 is the confidential version. I understand that the redacted version is attached to 144, but I'm using 145. So if we can go to Table ES 1 in the Executive Summary, page IV, are you there?

A (Newell) Yes.

Q You say that, in this table it shows that the energy market savings are $8, and that's an average figure over 13 years, right?

A (Newell) Well, actually, $8 million.

Q Thank you. Yes. That's a big difference.

A (Newell) Yes, on average. And in real terms,
constant dollars.

Q Nominal?

A (Newell) No. If you did it in nominal dollars, it would be a higher number, but it would be harder to think about what that means.

Q Okay. So is $8 the average of the present value figure?

A (Newell) No.

Q Can you help me understand that?

A (Newell) It is --

Q And $8 million. Sorry.

A (Newell) Yes. If you do the model every year, and one way to model every year is in the dollars as they would be defined in that year given inflation. The other way to do it is then to just express each of those in terms of constant 2020 dollars. So, you know, by 2030, 10 million sounds, ooh, that sounds like that's more money. Well, that's actually about the same. So you sort of correct it back to the kind of dollars we think about today or in 2020.

Q Isn't that what you do when you calculate a present value?

A (Newell) No. So this is just dealing with
inflation. Present value is also the time value of money. The cost of capital, you know, that depending on the risk that you need to -- it's not just inflation. It's also the real cost of capital. So that if inflation is two percent, the cost of capital, the real cost of capital if you were investing money is something like, depending on the risk, called four or five percent, and then the nominal cost of capital like you would, long-term returns on the stock market might be more like, you know, 7 or 8 percent of which about 2 or 3 is inflation and the other is real. But anyway, real versus nominal only deals with the inflation part.

Q Okay.

A (Newell) And so then once we've done that, expressed each of the year's impacts in dollars that we're familiar with, the constant 2020 dollars, all we did was take an average.

Now, separately, we did do a net present value calculation, and that does discount the future values and not just deal with inflation but also the cost of capital.

Q And when you do that, do you take the real
number for each year and convert it to a present value number and then add it up?

A (Newell) Well, sure. You can do it that way, but then you need to use a real cost of capital which is lower than what people are familiar with. So instead of the 7 or 8 percent, it's going to be five percent.

Q Okay.

A (Newell) Or equivalently, you could do a discount all the nominal figures but then you would have to discount it using the 7 or 8 percent rate, but it gives you the same answer.

Q Okay.

A (Newell) And we expressed that, too, the net present value.

Q Okay. So when you figured out the net present value for Scenario 1 that's $307 million over 13 years; is that right?

A (Newell) That's -- hold on just a sec. Correct. Yes.

Q Okay. Did you take 34 million which is the total market savings times 13 and then present-value that figure?

A (Newell) Not exactly. The calculation is
different from that because we have different values in different years and each one of those years you can take a present value by discounting it all the way back to the present. Then you add them all up. It's just, it's a little bit different mechanics from what you just said, and it gives you a more correct answer.

Q All right. But if I asked you --
A But it's roughly, conceptually, you can think of it almost like what you said.
Q Okay. If I ask you to give me the present value total market savings over the 13-year period for Scenario 2 and Scenario 3, you wouldn't apply a 7 percent discount to the numbers on this table, right? Would you apply a five percent discount because of the inflation?
A (Newell) Oh, I see what you're saying. So think about Scenario 2 is really, it's really just about half the value of Scenario 1 so the easiest way is take that 307 and cut it in half.
Q Okay.
A (Newell) Oh, sorry. It's not exactly half. That's just the capacity market savings. Total
savings, the capacity market savings in Scenario 2 is half?
Q Yes.
A (Newell) But the total savings is a little more than half. You see if you look in the rightmost column of the table?
Q Um-hum. Right.
A (Newell) Because the energy savings are just as big.
Q Yes.
A (Newell) So it's, the present value of Scenario 2 would be a little higher than what I just said.
Q Could you calculate that for me and give it, submit it?
A (Newell) Sure.
Q And the same thing with Scenario 3 which just has savings from the energy market.
A (Newell) Yes.
Q Okay. Thanks.
A (Newell) Now, let's see. We may have it here. Actually, if you could, please, turn to -- we already have the answer.
Q Oh, good. All right.
A (Newell) If you could please turn to, I believe it's page 41 although my pagination here seems possibly different.

Q The pagination is different between 144 and 145, and I don't know why. I haven't looked at that. I noticed that yesterday.

A (Newell) But the table is the same.

Q Right. Which table are we looking at?

A (Newell) If could you turn to Table 10, please?

Q Okay. That is in Exhibit 145. Oh, okay.

A (Newell) So we have it right there.

Q Okay. Thank you. Okay. Yesterday there was a discussion about $9 million as the energy market savings instead of 8 million. Do you remember that?

A (Newell) I think so. Yeah.

Q Can you tell me why? What you were talking about with 9 million instead of 8 million?

A (Newell) What I think that was referring to was an average over, that may have been the number directly from LEI, and there were several things we did to that. One is we converted it to we're expressing it as an average of real dollars as opposed to nominal.
Q: Okay.
A: (Newell) And we're also looking at a 13-year average instead of 11. So but I don't know for sure if the 9 that you're referring to had to do with that or the prior analysis which was 9.
Q: All right. But your testimony as of today is that it's 8 million.
A: (Newell) Yes.
Q: For the energy market?
A: (Newell) Yes.
Q: Why did you average things over 13 years instead of 11?
A: (Newell) We, the time, we had to look at 13 years to see the full effect because in the scenarios where Northern Pass is participating in clearing the Capacity Market, we were finding price impacts that extended out to or, you know, 13 years.
Q: Okay.
A: (Newell) And so if we had cut it off. We would have been missing some of the benefits. And LEI had a shorter, it's not that they were cutting it off. It's just that I think mostly because they were, they didn't have energy efficiency in
their forecast. It ended up causing all the
effects for them to be a little more
front-loaded a little earlier.
Q Okay. All right. So you think that these
numbers are comparable to LEI's numbers that
were done over 11 years?
A (Newell) Total. Yes.
Q All right.
A (Newell) You know, once we've converted it, so
we're expressed in this, just below the table
you were looking at before in the Executive
Summary.
Q Right.
A (Newell) If you look at Figure ES 1.
Q Okay. Which is confidential.
A (Newell) Okay. But let's just imagine there's a
bar chart.
Q Yes.
A (Newell) And I just want to be clear. What I
was just saying, our numbers are not comparable
to the numbers that LEI presented as presented
because --
Q They're nominal.
A (Newell) They're nominal. It's an 11-year as
opposed to a 13-year. Once we say oh, you get it for 13 years, we had to sort of dilute what they were presenting. Right? Because if you're getting it over 11, a high number, but we were saying we're going to present it as a 13-year benefit, you have to convert it to a lower number.

Q  Okay.

A (Newell) You see what I mean per year? It's something that you could sort of multiply by 13?

Q  I'm not sure I'm getting your point.

A (Newell) So if we're saying if they -- you want to try?

A (Weiss) Yeah, sure. So if you have a hundred million dollars, this is hypothetical. Hundred million dollars of benefits overall. If you divide it by ten years, you get $10 million of benefits. If you calculate the average over 20 years, you'd get $5 million on average, right? So those two numbers are not comparable. So in some sense LEI did the 5 million per year or the 10 million per year and we did the 5 million per year because we used a different number of years. It's the same -- for the same benefit
you just, if you calculate it as an average annual benefit, it matters by how many years you divide. If you divide by more years you get a lower average annual benefit, even if the total benefit is the same.

Q Okay. So if I'm comparing the total benefit?
A (Weiss) Right.

Q Over your 13-year period and their 11-year old, is it fair to compare those numbers?
A (Newell) So --

Q Because in their scenario, there aren't any benefits past 11 years. In your scenario there aren't any benefits past 13 years. So those are the total benefits?
A (Newell) Yes. Yes. And so, you know, again, without saying the numbers, LEI said that there was this, you know, X.

Q I don't think the total savings numbers are confidential.
A (Newell) Okay. All right. So whereas LEI said it was something like 60 million a year?
Q Right.
A (Newell) For 11 years?
Q Yes.
A (Newell) So we just said convert that to, well, that's equivalent to getting a little less than 50 but getting it for 13 years.

Q Okay.

A (Newell) And now once we've converted theirs, there's just a, it's not, it's just expressing their same value in a different way. Once we've converted to that, now we have a number that we can compare it to our 13-year average.

Q Okay.

A (Newell) But you can't simply take our 13-year average and compare it to their 11-year average, and I don't think they, I'm not aware of their having objected to the way we re-expressed their number, but you do have to re-express their value in order for it to be something you can compare to others that is a 13-year real dollar average.

Q Okay. That makes it hard for us.

A (Newell) Well, it would make it hard for you if we didn't if we just presented ours with different units without then also expressing theirs in the same, you know, in the same comparable way. Leaving that to you. We did
that for you. They are truly comparable, and I
don't think LEI has objected to the way we
re-expressed theirs. Now you can really compare
what we are saying was LEI's, the result of
LEI's analysis to what's the result of our
analysis. If you look at our table, our figure,
ES 1, that's apples to apples.

Q With what?

A (Newell) So if you look at the bar chart, you'll
see bars for, you'll see that the bar, I won't
say the number, but the bar for Brattle Scenario
1, it's a little below. It's not totally
different ballpark, but it's a little below the
bar for LEI.

Q Where is the bar for LEI? Can you show me that?

A (Newell) All the way on the left on Figure ES 1.

Q I'm on ES 1. Oh, the left. That's my other
right.

A (Newell) Your other left.

Q Thank you. Okay. All right.

A (Newell) And the other way we could have done it
is we could have said all right, if we take all
our benefits and we said somehow let's try to
concentrate them in an 11-year we would have
instead increased ours, but whatever it is you have to make it apples to apples, and we did that. And Jurgen makes a great point.

A (Weiss) Yes, I mean, you could compare the NPVs. So we just pointed you to the Table 10.

Q Right.

A (Weiss) So we used the same, I believe used the same discount rate that LEI did so the NPV numbers should be directly comparable.

A (Newell) Great point.

Q Thank you. That's helpful. Did you put LEI's numbers into net present value or did you use -- have you seen, I asked Ms. Frayer to put her numbers in net present value. No. You didn't have those.

A (Weiss) No. I'm not aware that we did. But you could directly take, what I'm saying is you could take the NPV numbers from LEI and directly compare those to the NPV numbers here.

Q All right.

A (Newell) Because NPV-ing takes care of all those issues; time frame, inflation, cost of capital, everything.

Q Okay.
A (Newell) And I'm sorry my answer was long to get there. Jurgen is a little --

Q You guys are dealing with a novice here.

A (Newell) Jurgen's a little better at explaining it, I guess.

Q All right. Let's talk a little bit about Scenario 4. Tell me where I'm wrong in my understanding of this. What you did for Scenario 4 is you compared a case where another project was built and that was the Base Case to the savings that Northern Pass would add if that other project was built. And so --

A (Weiss) So I didn't quite understand your Base Case. Let me try very simply. What Scenario 4 does, it asks -- so we're trying to estimate the energy market, energy and capacity electric market impacts and emissions impacts of Northern Pass. Okay? That's the basic task.

Q Right.

A (Weiss) So in order to estimate those, you have to ask, well, if Northern Pass does not get built, what happens. What happens in a world where Northern Pass does not get built. And in the Scenario 4, the assumption is if Northern
Pass does not get built, something like, another project of similar size that brings similar clean energy to New England will get built instead. That's, so in that sense you're right, the Base Case, the Project Case is Northern Pass gets built. The Base Case is some other comparable Project is in the Base Case so that's correct.

Q: Okay.

A: (Weiss) If that's what you --

Q: I think that's what I meant.

A: (Newell) Just to be clear, that's how we have to construct it because we always have to have a change case and a base case.

Q: Um-hum.

A: (Newell) But what it's really expressing is the question, what if Northern Pass gets built but it's really just outcompeting another project so you've got the line here instead of the line through Vermont or Maine. How different is the world. Well, you've got a line here instead of there, but the electricity market benefits, the electric market prices in that case, they would be the same.
Okay.

(Newell) That's all that expresses.

And Dr. Weiss, you said that you were analyzing the impact on the electricity market and the emissions?

(Weiss) Right. So the three things that we -- LEI looked at more things in their report -- but that we looked at were capacity market impacts, energy market impacts and greenhouse gas emissions.

How did you figure the greenhouse gas emissions reduction benefit into your model. Is there any financial consequence of that in any of the numbers that you calculated?

(Weiss) We estimated in general greenhouse gas emissions in two ways. And the same way LEI did. One was just estimating the quantity, how many tons of greenhouse gas emissions might be reduced. And the second trying to express that in a value, in a dollar value either, you know, globally or regionally and then what might that mean for New Hampshire. We did not break it down into a specific value for New Hampshire for the reasons we explained I think primarily in
our Original Testimony in February.

Q Okay.

A (Weiss) It's a complicated issue.

Q Can we go to Applicant's Exhibit 102, page 30.

A (Weiss) We definitely don't have it.

Q Any way we can get it up on the screen?

A (Weiss) The screen would be good.

A (Newell) Or if you name what it is, we might have it.

Q It's the LEI Supplemental Report from April.

A (Newell) Sure. We have that.

Q So on page 30, the first full paragraph says LEI concluded that HQP's surplus capacity generation available for firm exports to neighboring jurisdictions will equal at least 1527 megawatts from 2021 onward during the winter peak period.

So doesn't that suggest that they're diverting power that's already being used somewhere else?

A (Weiss) Can I ask you a question in this context?

Q I don't know. You can ask, and I'll see. You're not supposed to ask me questions, but if it's to clarify the question, sure.
A (Weiss) I'm just trying to understand why you're drawing that conclusion from that sentence.

Q Because it seems to me to say, and that's why I want you to tell me why I'm wrong, it seems to me to say that they're sure they're going to have surplus capacity because it's going to be available from exports to neighboring jurisdictions. So if they're exporting it to neighboring jurisdictions today, but after 2021 they're going to use it for this Project, to me that seems to suggest that they are diverting the capacity. So the capacity is already being used.

A (Weiss) So while we disagree with the conclusion of the 1527 megawatts or more, I don't read from that sentence that LEI would assume that because it says it's available for firm exports to jurisdictions, to neighboring jurisdictions. It doesn't say anything about whether that capacity would currently be exported some place else.

Q So you think it's just being spilled over and not used and they're not making any money on it?

A (Weiss). No. I'm not saying that.

Q But this says surplus capacity.
A (Weiss) This is about capacity.

A (Newell) I know, but capacity really isn't about spilling. Capacity, and I think we probably still have to get back to your question very specifically, but this is a foundational point that capacity really has to do with you have something you're quite sure you won't use for another purpose at that moment when things are the toughest in the whole year. It really doesn't correspond very closely to energy. And all year where is this, if you're sending most of the time power down this line, where is that coming from. Is that coming from, is that diverted? Is that coming -- and this really speaks to emissions questions. Is that coming from something you would have sent somewhere else, is it coming from new dam? I just want to clarify that that is a different question, an important question, but it's a different one that this does not speak to. This is purely a capacity analysis right here.

Q I think I understand that. Do you want to add something?

A (Weiss) Yes. So, for example, I think there
would be absolutely no question by either us or LEI that in the summer Hydro-Quebec Production has a lot of excess capacity in the sense that --

A (Newell) And energy.

A (Weiss) And energy. Right. But in the sense that the dams that they have, they're using the capacity of the turbines if you want less than 100 percent. Okay? Because the demand in Quebec is just much lower than the capacity for generating electric at any given hour during the summer months. So if for some reason in the summer, there was a spike in demand, they could very easily increase the power generation almost instantaneously from their generation facilities. So it's the, that's sort of the capacity, the ability to instantaneously generate a certain amount of power, and what matters for the capacity benefits is that you can do that any time. So the fact, if you were spilling in the winter, let's just say you were spilling in the winter, then that actually doesn't mean you could increase capacity because in the winter your turbine is already running at
full speed if you want.

Q Okay. So my question was trying to get at the emissions question.

A (Weiss) Okay.

Q So really then we to look at the energy, not the capacity. That's what you're telling me.

A (Weiss) Right.

Q That's a good thing for me to know.

A (Newell) Although I think where they may relate is I think -- can I try from a different angle your question?

Q Sure.

A (Newell) I mean, if somebody comes to you and says, oh, with Northern Pass they already have everything they need for that anyway. They already have the dams, they already have the water behind the dams.

Q Right, and that seems to be LEI's position.

A (Newell) And I think I see what you mean. If that were the case, there's no, where is the incremental clean energy --

Q Yes.

A (Newell) -- that is displacing fossil generation in New England without changing their exports to
somebody else.

Q Yes.

A (Newell) I think that is a very fair question. I have --

Q So what's the answer?

A (Newell) -- a response on two levels. One is it's possible, I don't think anybody's, it's possible that they're spilling a lot of water right now. Again, Jurgen looked for that and hasn't found any evidence of that. In other words, they've sort of got production they're just not using. That's possible.

Q But not likely?

A (Weiss) Pretty unlikely. So what you can find is Hydro-Quebec, I assume it's actually Hydro-Quebec Production that reports it, but you can see as part of the submissions to the regulator in Quebec charts that show the levels of the reservoirs over time, right? And if you had spillage, presumably you could get spillage when the levels of the reservoirs are basically higher than the capacity.

A (Newell) Or if they have minimum flow requirements down below so we don't know.
A (Weiss) The point is the reservoir levels just rise and fall over the seasons as you would expect because, you know, you have excess hydropower in the summer and you have not enough inflow into the reservoirs in the winter.

Q So have you looked at those?

A (Weiss) Yes.

Q Did you see any evidence of spillage?

A (Weiss) So I think Sam's comment is a good one that those by themselves may not be a perfect indicator or a reliable indicator of whether there is spillage for those kinds of reasons. But to your larger point, if you had a problem that every year Hydro-Quebec is, you know, has too much energy at some point.

A (Newell) Massive amounts.

A (Weiss) At some point all the reservoirs would have to be overflowing, and there certainly are not. So you see sort of a relatively stable up and down and up and down.

Q Which is what you would expect to see if they were using the energy?

A (Weiss) Right.

Q Dr. Newell?
A (Newell) Can I take a step back and address a separate point?

Q Yes.

A (Newell) We may be being too exact about this. What I think is a very important underlying point is if Quebec has a policy of actually, you know, building hydrogeneration for export and not necessarily tied to a specific project. I mean, the thing is they have discussions with the governors of New York and Massachusetts and Connecticut, and, sure, there's only one solicitation right now, but they've been having, they already do sell. I mean, this has been going on for a while. They already do sell a lot. And they've been having renewed discussions about selling more, and they have a policy to be a hydro exporter, and we've seen, I think, statements that they, that's a plan. They want to do more of that.

So we're being a little bit too exact and static in how we're looking at this if we just say, you know, if we just look at something like this table. And, you know, so sure, it's, it would be nice to tie Northern Pass to, yup, and
we built that dam and specifically to export, you know, make new clean energy, and it's not like that. But it still could be that in a looser sense, you know, they get more exports, they're going to be building some more. It's just not one-for-one. And I think that is likely the case that is consistent with, in fact, I think we saw a letter yesterday that in a part that wasn't highlighted spoke of a policy.

Q Um-hum.

A (Newell) Of doing that. And so I'm just cautioning against looking in too static, too static a sense.

Q So you think if Northern Pass gets built and they use existing supply they're going to add to their supply so eventually we are going to reduce greenhouse gas.

A (Newell) That's the more dynamic way of looking at it. Now, unfortunately, it's not like there's a promise. You do Northern Pass, we'll do this extra. You know, so it's not like there's a promise there, but in sort of a sort of looser sense, yes, the way you said it.
Q So then we should count the greenhouse gas reduction as a benefit.

A (Weiss) So I'm going to try, so the thing, the question, our discussion is kind of illustrative of an important issue which is that it's entirely possible that over time with a long view, it will lead to greenhouse gas emissions reductions. It's a lot harder to say that those will occur without in the long run Hydro-Quebec also adding new hydro capacity. And it's, as you know, as Sam said that's a provincial policy to do that over time. But that creates an issue not so much for greenhouse gasses but it may create an issue with respect to how one looks at the MOPR discussion.

A (Newell) Hold on before we get to that. I do think that's really important. I just think that to fully, Commissioner, to fully answer your question because you asked should we count them. And I would say, you know, again, if you believe that this is part of a policy, they build a little more, export a little more over time, if you believe that long-term dynamic and these are long-lived assets, sure, yeah. And if
you think that's the right way to think about it, then do you want to count the greenhouse gas emissions. If you think well, it's sort of loosely tied and I can't be sure, you know, you sort of in your mind you have to discount it a little bit. But that's, I think that's the bottom line. If you believe that it's part of, you know, a loosely tied policy, build more, export more, then yes, you definitely would want to count the greenhouse gas emissions if that's the way you think about it.

Q Okay. Mr. Wright is going to ask some followup questions on this topic.

QUESTIONS BY DIR. WRIGHT:

Q Thank you. This is the exact discussion I wanted to get into with you guys so Commissioner Bailey has done a great job. But as a followup to that, can I just ask, so do you believe LEI's analysis that if this is incremental power, that it will displace fossil plants in New England and not other zero emitting sources in New England?

A (Newell) So it depends.

Q I knew that was going to be the answer.
Well, you know, this gets to another issue that we talked about which is about Northern Pass. So first of all, let me break it down.

If Hydro-Quebec is producing incremental clean energy and sending it to New England, then yes, that will primarily displace fossil generation in New England. However, the question that we're asking here is not exactly that. It's what are the benefits of Northern Pass. And this gets us back to our Scenario 4 point and which is do you need Northern Pass to get that incremental hydro or might somebody just build a competing project instead. So that question is sitting there, too.

But if you've put that aside and you're just saying oh, imagine that getting the incremental hydro depends on Northern Pass, and so Northern Pass would enable all that hydropower to come down that otherwise wouldn't, then the answer to your question is yes. It would be primarily. Primarily. Overwhelmingly displacing fossil.

So I can elaborate a little bit the
reason for that. So even though the costs of renewables in New England are also coming down, all the renewables essentially have zero variable cost. And they produce, you know, they produce when the wind blows and the sun shines, by and large. So in the market, those resources which be used when they're available for quite a long time, and the resources that get displaced are the resources that have variable costs. So that's fossil generation.

So fossil generation in New England sets the market price. They're the last resources to be called to produce electricity to meet demand. So if you add new resources that have a low variable cost, then those more expensive generators, more expensive to run because they have fuel costs, those will no longer be used in periods when you add this new energy so in that sense. They will be displaced, it will be displacing fossil generation primarily until you get to a point where, and this happens now occasionally, not in New England, I believe, but in other parts of the country, where some nonemitting resource is setting, is the last
resource that you call upon.

So you might have heard about, you know, in the midwest or in Texas there are now some hours of the year when the entire supply is basically, you might have a couple of existing fossil generators that have to run in the minimum generation levels, and so and everything else is basically renewable. So then if you added hydropower then, then you have no option but you would essentially curtail the renewables output, but I think in New England we're quite a bit away from that being a possibility.

Q Does it help in New England that most states have renewable energy policies like Renewable Energy Credits to the zero emitting sources, are they more likely to stay on line and not be displaced because of those policies?

A (Weiss) So it does in some ways. So the reason, so it's, it could be the RECs and it could be the existence of the Production Tax Credit for wind that that creates incentives for those generators to stay on line even if prices were zero in the market or even sometimes negative. Just so they can earn the Production Tax Credit
for the RECs. But again, that's a situation that is not likely to be very relevant in New England over the next decade or two.

Q Does it matter if it's Northern Pass or if it's another Project, would the greenhouse gas benefits be the same for Northern Pass, assuming the same size versus another project the same size? Would there be a difference in greenhouse gas emissions?

A (Newell) When you say another project being same size, do you mean a transmission project bringing power down from Quebec?

Q Yes.

A (Newell) Probably. I mean, we don't know if there are different commercial arrangements, but if we're assuming that they're both connecting to the same portfolio of current and future hydro, then sure, the emissions impacts would be the same, I think.

Q Do you disagree?

A (Weiss) No, I don't disagree. It's a theoretical possibility in practice. I mean, it's a nodal market in New England so if an alternative line connected some place else and
you had a lot of congestion in the system, but
it would -- practically no difference.

A (Newell) The only interesting point here about
where it might not be as much emissions
reduction as it seems is if it's displacing the
existence of other clean projects. So again
this is our Scenario 4. Through competing with
them. This Project versus that project. A
transmission and hydro project versus a whole
lot of wind, you know, winning the same
solicitation. That's where it gets interesting.

Q Okay. Thank you.

QUESTIONS BY COMMISSIONER BAILEY:

Q So one of the areas that I was going to cover
later but I think I'll cover now because I think
you just sort of touched on it is that of
production costs and when you were talking about
the variable costs for renewable are zero. Can
you explain to me what production costs savings
are?

A (Weiss) Sure.

A (Newell) This is a very standard metric for
evaluating the economic impacts of a project,
and it really expresses the total cost of
producing electricity.

Q    For all the generators in the region?
A    (Newell) Yeah, I mean, so one of the tricky things about doing this is where do you define your circle. You know. So if you define it as the whole world that's sort of the most easy to understand. If you're doing just New England and you have to think about how do you count the imports, it gets a little more complicated.

But the concept, just put that aside, the concept is it's really in its most basic form total fuel costs. So then, and so, for example, there have been all these studies that show if you build a wind, it has huge production cost savings. Of course it does because it's zero fuel, zero variable cost and it's displacing what's at the margin in the electricity market is usually fossil. And so, yeah, you're replacing whatever it is. Say $40 generation per megawatt hour with zero, times all the megawatt hours. It's a lot of production cost savings.

One problem with the production, there are a couple of issues with the production cost
savings. So that's in the form it's often expressed. As a measure of total economic savings, sometimes we talk about something else, total resource cost savings, and that would include, well, the wind actually costs something to build so you could think about including that, too.

Q But we're not talking about that here so let's not get too deep in the woods.

A (Newell) Okay. Well, the reason it comes up is because when LEI estimated production cost savings, they said yeah, in New England you're going to be whatever the price, whatever is the cost of the marginal unit, say $50 a megawatt hour, that's what you're saving and you're replacing it with what. And they in one instance they, I won't say the number, in one instance they assume the "what" is, the hydro is a very, very, very low number and counted all that as savings. And I really question that because you either have to think about a total economic cost, either you have to build hydro to produce that, you know, and/or if it's from existing, you have to count the opportunity
costs, and that's selling it to New York or
Ontario.

Q We're going to get into that in a minute.

A (Newell) But that is what they did. That is
what's fairly typical is to look at the cost of
what you're able to turn down. That's the $50
stuff.

Q So say it's a coal plant and so you're saving
the cost of the coal for the region.

A (Newell) Basically. Yes.

Q Okay. Do consumers benefit from that savings?

A (Newell) So that comes to the next question.
Not directly but perhaps indirectly.

Q Okay. So the generators would benefit. Well,
no. Because the generator is going to be out of
business.

A (Newell) Not necessarily. Not necessarily. The
thing is, yeah, exactly, yeah. I mean the
generator, the one who, you're burning less and
it's not coal in New England, it's natural gas.
You're burning less natural gas. That is, it
doesn't, production cost savings does not
describe what happens to consumers versus
producers. It just doesn't describe that. It's
really, really think of it as the cost of, you know, the fuel in other inputs. You know, some variable costs.

Q But how does a reduction in the overall cost of fuel in New England impact retail customers?

A (Newell) I'll give you an example here. Suppose the, think about the hydro coming in at $28 a megawatt hour. Suppose that we think that's the right number to count it, whether it's opportunity cost or whatever. Let's just say that's the right number. And then suppose in New England the price and the cost of the marginal generator that might be able to ramp down is $40. So if we've replacing $40 generation with $28 generation, the production cost savings is 12.

Q Well, we've already counted for that in the reduction in the energy market prices, haven't we?

A (Newell) Yes. It's definitely not additive. Here's what -- but now let me get to what's happening from a consumer standpoint. By sending in a little more power, and you turn down the $40 a megawatt hour unit, it could be
that oh, now, you just got rid of the $40 unit. The next guy who is still generating and setting the price is a $39 unit. Now they're setting the price in New England. They're setting it at 39. So the customer is getting the $1 reduction in price in this example, you know, and that affects all of their consumption.

Q And that gets counted in the energy market savings?

A (Newell) Yes.

Q So how do we count the production cost savings?

A (Newell) You cannot add them. You can never add them.

Q Okay. So if we count the energy market savings, we don't count the production cost savings?

A (Newell) Right. Right. And I think the only reason -- what? I mean, the only reason --

Q Dr. Weiss, you can talk.

A (Weiss) No. It's just --

A (Newell) The only reason to think about the production cost savings is it's a question is it an indicator of maybe a long-term benefit. So imagine we get to in a very distant future where maybe with other clean energy, you know, you
don't have the $40. You don't have a $39 unit on the margin. You've displaced all of them. Maybe it comes down to, the hydro might have helped you bring it back, bring it to 28. Maybe that's setting the price at that point. You know, so maybe in the long run it's an indicator of customer savings.

I mean, to my mind it's a very meaningful economic indicator, sort of economic wide how much, what's happening, total cost, but if, ultimately, all you're interested in translating it to customers, we have definitely already counted that. We didn't really think through what it might be in the very long-term, and perhaps you could think of the production cost savings as becoming a substitute indicator for the very long-term, perhaps. But you must not, you cannot ever add production cost savings to the market savings.

Another thing that's different about them, too, I mean if you want to get into it, the production cost savings is really just about the quantities displaced. So one megawatt hour of production, you know, in my example, the 39, the
28 to 39, that's a $12 per megawatt hour savings on if you just sent one megawatt hour that's a $12 dollar savings.

When we do the customer impact and we say it brought down the price from 40 to 39, we're actually going to multiply that dollar savings and we already did, that's what the calculation does, multiplies that by the entire customer load because they paid the market price on all of it so you see that the volumes are different? It's just a totally different concept, but you can't add them.

A (Weiss) I'll add something since I started whispering, and it's going to be an attempt at ECON 101 a little bit.

Q Uh-oh.

A (Weiss) No, I'm going to try and make it really, really simple. So as we try to say production cost savings are really a measure of the savings to society. And as Sam said, it doesn't really tell you who those savings go to at all. Because who those savings go to gets determined by the market forces. Okay? And so in that instance, in that sense, they're definitely not
additive. It's, for society, you know, total, sort of production cost savings are a pretty good measure. Figuring out what impact it is on customers, production cost savings doesn't say much. To economists, the price impacts that we're mostly talking about are actually a concept that are not considered a particularly powerful concept because, and Sam mentioned the long-term, so there is a question, and we have this in our report, one thing that happens when there are energy price reductions or capacity price reductions, when we say they benefit consumers, you mentioned it yourself. They don't benefit producers.

So when economists think about whether a project is a good project for Society or not, they're primarily interested in society savings as opposed to one part of society is a saving at the expense of another part of society. So that's why the two are really very different concepts and why it's completely standard for economists to look at production cost savings as a measure of whether a project is beneficial for Society overall. It's only when you're getting
to what does it do to ratepayers or customers, then it doesn't help you.

Q Okay.

A (Newell) I want to add to that, too, because we have done many studies where we are looking at just the societal metrics. We often are arguing that that's a good way to look, make sure this project is adding value to society rather than just, you know, transferring, destroying value and transferring wealth in your metric that just looks at customers as ooh, that's good. So we're often doing that, and benefit cost analysis is often that approach.

Our understanding in this assignment is that the Site Evaluation Committee would be primarily interested in what this Project does to New Hampshire ratepayers, and so that's the question we focused on.

Q Okay. Thank you.

Let's go to your Supplemental Report Table 1, page 15. In the first section of that table, existing year-round surplus, you have a low energy and a high energy cost scenario, and is this when you're figuring out the overall cost,
low energy cost is when the price that you assume the energy market will generate for this Project is low and then you do a high end?

A (Newell) Just to be clear, you're asking about the low versus high energy cost.

Q Right.

A (Newell) This is referring to opportunity cost.

Q Oh, okay. All right. So let's talk a little bit about opportunity cost. And why do you call that low energy cost and high energy cost?

A (Newell) You mean as opposed to opportunity cost? Maybe just didn't fit in the row.

Q So what you mean here is low opportunity cost versus high opportunity cost?

A (Newell) Right.

Q Okay. And let me see if I understand what opportunity cost is. And then you can tell me what I have wrong.

So as I understand it, if Hydro-Quebec Production is selling energy to somebody today, and they're making revenue from that sale, and then they stop making that sale because they're going to sell it to Northern Pass, then the revenue that they're losing by selling it to
somebody else gets counted as a cost?

Q And that's part of the MOPR analysis or the minimum price floor threshold?

A (Newell) Yes, And to be clear, when LEI did its MOPR analysis it did the same thing.

Q Right. Okay. So in these two scenarios in the existing year-round surplus, you see what happens if the opportunity cost was $22 versus what it is at $28.

A (Newell) Yes.

Q And why did you pick those two numbers?

A (Newell) That's not confidential.

Q No. This table is not confidential.

A (Newell) We haven't made any of our analyses confidential.

Q Well, the next page. Table 2 is confidential. But --

A (Newell) Well, that could be because that's using the transmission costs.

Q All right. For right now, tell me why you picked $22 as the low opportunity cost and $28 for the high opportunity cost.

A (Newell) So the high is, and we described this
on page 17 to 18, and so the $28 per megawatt, let me make sure this isn't redacted, where we got this from.

Q Oh, it is.

A (Newell) Is it?

Q The last sentence on that page?

A (Newell) That would be the one.

Q All right. That's confidential. I got that.

A (Newell) Yes, and then the --

Q Okay, so --

A (Newell) I can tell you where the low comes from.

Q It's also shaded as confidential, but I see it. The last sentence in the paragraph? First paragraph on page 18.

A (Newell) That one really shouldn't be shaded, but that is exactly where to look.

PRESIDING OFFICER HONIGBERG: Hang on. Mr. Pappas? This is marked "confidential." I think Mr. Needleman is, I'm not sure exactly why it's marked confidential, but it appears that the witness doesn't think it's confidential.

Q I think probably because you could derive the confidential number if you knew what --

PRESIDING OFFICER HONIGBERG: So it is not confidential because the number could be derived from publicly available information?

A (Newell) No, no, no, no.

PRESIDING OFFICER HONIGBERG: The other way around. It's confidential because it's derived from using confidential information.

Q Correct.

A (Newell) And thank you for figuring that out for us.

Q Okay. All right. So the high opportunity cost produces offer floor price of $4.40 a kilowatt month, right?

A (Newell) Right.

Q And on the bottom of that page 15, you say the bottom line is that Northern Pass will have trouble clearing the capacity market -- no, that's my shading. I highlighted it, and it's in yellow. Will have trouble clearing the capacity market unless its offer is based on existing generation with a low end opportunity
cost and some form of revenue credit for the Project's environmental attributes.

Does that mean it has to have low end opportunity cost-plus like REC revenue?

A (Newell) As I look at this sentence, I think I was trying to combine too many cases into one.

Q Okay.

A (Newell) So in the table, as you pointed out, it would have a low enough Minimum Offer Price of the 4.4 even with the high energy opportunity cost.

Q Okay.

A (Newell) So at 4.4 it would clear.

Q That's what I thought. Okay.

A (Newell) Yes. And you know, maybe I was trying to do too much in that sentence because the next, you know, if you -- well, I'll just leave it at that. It think we'd like to correct or clarify that sentence to reflect what's in the table.

Q Okay. So really the sentence should say it will have trouble clearing capacity market unless its offer is based on existing generation, skip the "with low end opportunity cost."
Q So for all the other scenarios to clear, it needs REC credits. Is that what?
A (Newell) Well, there's another scenario here.
Q The second one?
A (Newell) Yes. The 5.9.
Q I don't understand that one either.
A (Newell) So in that case, the number would be low enough it would probably clear and have the full benefit that we estimated or nearly full.
Q Wait, wait, wait. Say that again?
A (Newell) The scenario with the 5.9, I mean, the 5.9 is pretty low, and you'd pretty much get the full benefit and it would clear.
Q That would also clear.
A (Newell) Yes.
Q Let's look at page 29, figure 7, which is a confidential table.
A (Newell) Okay.
Q Okay. It doesn't look like 5.9 would clear.
A (Newell) I'm sorry. Which table are you looking at?
Q Figure 7 on page 29.
A (Newell) Right, it would clear at least in the
later years when the bigger benefits are there.

Q Right. But not until like FCA 21.

A (Newell) No. I think it would clear and set the price starting in probably FCA 17.

Q Hmm. Because I asked Mr. Pappas to give me the exact numbers, the clearing numbers, and did he give you those numbers?

A (Newell) Yes, but it doesn't have to be below the Clearing Price. It could be -- so notice the Base Case, the price has gone well above the 590 starting in FCA 18.

Q Yes.

A (Newell) So it could very well be that at 590 the Northern Pass would clear and it would set the price at 590.

Q Right. Okay.

A (Newell) And then we'd have not the full benefits we show here but almost.

Q Okay. All right. So you think 590, well, I mean, do I count that if it doesn't clear until FCA --

A (Newell) Yeah.

Q -- 18?

A (Newell) Yeah. Most of the benefits wouldn't
occur until then anyway. Really, the benefits occur when absent this project, look eventually load growth and retirements mean the prices will rise. Right now we've in surplus conditions, prices are kind of in the low end, but eventually, there's low growth and retirement prices will rise until a new entry caps it, right? And that is when you get the benefits and Northern Pass prolongs the surplus conditions for about four years.

Q Okay. Okay. All right. Yesterday you said that the cost of the transmission to be built in Canada at 600 million Canadian dollars translates to $4 a kilowatt month. Do I have that right?

A (Newell) Right.

Q Okay. Now, Ms. Frayer calculates the offer floor price at a confidential number, and if I add $4 to that that's what you would recommend because she doesn't count the cost of transmission. Is that right?

A (Newell) Mechanically, yes. You mean assuming that we agree with everything else she did to get to that confidential number?
Q Yes.
A (Newell) Right.
Q Okay. Well, that number is significantly higher than your 4.4 and so can we talk about what the differences are without talking about confidential?
A (Newell) Yes. I have to say I don't exactly know. So we may have a little bit difference in the energy opportunity costs that we're using.
Q I don't think so.
A (Newell) Well, right, because --
Q Those numbers seem familiar, but I haven't reviewed them recently.
A (Newell) So hers start, I think, at 22 or so but then they go up. But I don't think that is the, I also don't think that's the main reason. I'm just not sure. They may have, I think it has something to do with the transmission revenue requirements for the, what's counted as the transmission cost. I mean, I believe we used what we got from, you know, would be the transmission revenue requirements for Northern Pass.
Q Well, she used 1.6 billion and you used 1.6
billion.

A It's not just the 1.6 billion. It's also the ongoing operating and maintenance costs. I mean, there are a number of elements that come into play in the transmission revenue requirement and both of us included that full requirement, not just the 1.6 billion. You don't just have to pay for the building.

Q Right. I know. You have to pay for the operating costs and the investment costs.

A (Newell) Because we looked at this, too. We wondered, why is it that when it seems that we have basically very similar assumptions, why are we getting the 4.4 with the transmission and she's getting a confidential number, but let's just say --

Q I know what the number is.

A (Newell) Without the transmission, and that's where we looked into it, too, and I actually don't know for sure.

Q I think this is a really important point because you're saying that -- well, are you saying we should use your number or we should use her number plus four?
A (Newell) I think you mean given all those other assumptions, that it's based on existing, you don't have to count new generation, yeah, in this scenario.

Q Because one of the things we have to figure out is whether the Project will clear the capacity market.

A (Newell) Yes.

Q And this number determines that.

A (Newell) Well, remember, this is already, this is assuming the Market Monitor doesn't count any of the much higher costs of new generation, this assumes that he's not giving some special credit for clean energy. But given all that, in that scenario, then you're right, and I don't have an answer for you right now. Is there a process where we can dig into it further and get back to you? I mean, this is only one, yeah, I don't know if we'd get it today, but --

Q Well, can --

A (Newell) Because we looked into it. I'm not sure we have all the information we need to tell, I'm not sure we have all the information to compare, to know the details of what LEI did
that got to that.

Q Okay. Well, let me try it this way. Yesterday you said there was an error in LEI's model. Were you talking about the minimum?

A (Newell) I wasn't talking about that. No.

Q I'll ask you about that later.

A (Newell) I'll tell you this. I'm confident that given the assumptions that we said that we did it right including translating what we had as the revenue requirements for the transmission project. So I'd say, you know, use our number.

Q Okay. So then you think it's going to clear, and we will have capacity market savings.

A (Newell) Under those assumptions, if the Market Monitor treated all those other things the same, no new generation costs, but also no credit for clean energy. Who knows if he'll use the same thing on energy opportunity costs, but given all those assumptions, then yup, I think it would clear.

Q Okay. What about the 40-year life of the transmission project? How confident are you that the Market Monitor is going to accept that number?
A (Newell) Don't know. I think it would be reasonable to accept it, but I don't know if there's precedent for doing that. You know, I think the fact that I think in the workbook there may be a dropdown menu or something.

Q There is, yes.

A (Newell) It suggests there's openness to using that. I mean, if the Market Monitor used 20, I would argue you shouldn't use 20, but I just can't know for sure what the Market Monitor will do. I mean the reason we picked 40 is because we think it's more reasonable, probably more likely, that the Market Monitor would end up using that.

Q Okay. There's a term, and I'm not sure if I have it right, but elective transmission, is it project?

A (Newell) Upgrade.

Q Upgrade. Okay. Elective transmission upgrade and that's what the starting point for the ORTP, the Offer Review Trigger Price, that the Market Monitor would use if Northern Pass didn't want to mitigate that lower to prove that its costs were lower, they would use that price? Is that
right? Am I totally --

A (Newell) Let me just say it slightly differently.

Q Okay.

A (Newell) So the Offer Review Trigger Price for elective transmission upgrades is the starting price of the Auction that is, it's about I think about $14 a kilowatt month. And that is to say any ETU that wants to come in and offer at a lower price than that needs to go through a very detailed review.

Q And that's the workbook that's Applicant's Exhibit 140.

A (Newell) Yes. That's right.

Q Okay. And what number of years did that analysis use? Do you know?

A (Newell) No. I don't think, so the Offer Review Trigger Prices for a number of the standard, more standard technologies, gas-fired combined cycles, combustion turbines, even onshore wind, go through that same kind of workbook analysis and develop a number. I don't think any such process was used for the ETUs. They just said these are all going to be so case specific, they
all have to come in for review. So it's not like they did some calculation, and it happened to be $14 a kilowatt month.

Q $14 was random?

A (Newell) No, no, no. It's the highest price that the Auction could be at. The Auction can't clear higher than that so basically just says, it's just a mechanistic way of saying you guys have to come in for a review.

Q Okay. All right.

A (Newell) By the way, I think with the terminology I think I can give you a little help here. So with the gas-fired unit, I don't remember what the exact number is right now, but the ORTP, the Offer Review Trigger Price so say that's $7 a kilowatt month, that says hey, if you're offering it 9 above it, no problem. You don't need to come in for review. This is just a trigger price for review. If you want to come in at 3, you've got to come in and show me these are your real costs.

Q Right. So Northern Pass, the trigger price is $14, and if they want to show that it's less than that, then they have to prove all these
assumptions.

A (Newell) Right.

Q I really wish I could figure out why their number is so different than your number.

A (Newell) Well, you mean, differ by, when you say "so different," I know we can't talk about it, but --

Q I'm talking about different than your number if you add $4 for the transmission.

A (Newell) That it doesn't line up exactly.

Q Yes. Well, and it's sort of on the threshold between clear and not clear which is why it's important to understand it.

A (Newell) Yes. And we can, we did look into this, and I don't think we had a definitive answer, and we assumed it has to do with differences in the transmission revenue requirement or something that, O&M or something, but just as a reminder though, you really need to understand there are a lot of moving pieces. I mean, these are indicative estimates. I mean, very easily, the energy opportunity cost could be different. The inclusion of generation capital could be there, and that would hugely
They could, they might think of the transmission revenue requirement differently because they say oh, well, that's as low as it is because it's based upon a utility cost of capital, as if there's a very low risk on return on the revenues, but if you treat it like a merchant project, they need much higher payments because it's risky. So I just don't know. That's one of the -- do you follow my point on that?

Q I do, but did you look at Applicant's Exhibit 140?

A Remind me which one it is.

Q That's the workbook that Ms. Frayer filled out?

A (Newell) Yes.

Q And you couldn't figure it out from that?

A (Newell) Couldn't figure out the difference that you were asking about.

Q Okay.

A (Newell) But, again, I'm confident that we properly translated the revenue requirements that we had for the Project.

Q Why would her revenue requirements be lower?

A (Newell) I just don't know. No. They were
actually, her revenue requirements were actually
higher.

Q Oh, oh. Right. That's right.

A (Newell) And I just don't know. She might have
a more updated version.

Q Okay.

A (Newell) I don't know.

Q All right. Are you familiar with the CASPR
proposal? Competitive Auctions with Sponsored
Policy Resources?

A (Newell) Yes.

Q That's the most recent suggestion to the IMAPP
problem. Is that right?

A (Newell) That is the most -- kind of, yes. I
mean, the IMAPP is broader than that, but for
the part that ISO New England is really focusing
on, that's their latest suggestion. Yes.

Q Okay. And if Northern Pass wins the
Massachusetts RFP?

A (Newell) Um-hum.

Q And they don't clear the capacity auction, but
they get capacity revenue from the substitution
action from CASPR, that doesn't give us any
savings from the capacity market, correct?
A (Newell) No. I would think about it differently than that. First of all, I just want to be clear that CASPR is just a proposal.

Q Right.

A (Newell) What it does do is something that I think is really important for the region to do, for the market to do which is it says look, we've got to recognize, if people are building these clean energy projects, it's not to try to manipulate the market or something. I mean, these are filling clean energy goals. You can't just not have them clear and pretend that they're not there from a reliability standpoint. We have to have some way of admitting them into the process. You know, not excluding them forever through some MOPR. That's the concept. But to try to do it in a way so that it doesn't really kill the competitive price, and this is the compromise that they've come up with. Now, what does it mean?

Q Before you tell me what it means.

A (Newell) Well, so the point is you still, if this goes ahead, it becomes a way to admit a Project like Northern Pass and you could largely
get the benefits.

Q How?

A (Newell) Because so what it does is it, the idea of CASPR again, it's just a proposal, but the idea is that there would be two stages in the Auction. The first one is fully with the MOPR just like we've talked about. The second stage would be where the state-sponsored resources --

Q That didn't clear.

A (Newell) -- that didn't clear have a chance to come in and get paid in that Auction and clear forevermore, those megawatts, without any, then they're just treated like existing. They're just going to be in the first stage from then on.

And here's the rub. It's only to the extent that they're replacing somebody who's willing to retire. They sort of swap out, and that's sort of the idea. You couldn't be completely destroying the price if you're just replacing somebody else, but you could keep prices low. You're not going to make prices much lower than they were before, but what would happen if people retired, and you didn't, you
know, get to replace them. The prices would go up. And this allows you oh, you can substitute for those folks who are retiring. And sure, you're not going to plunge prices down to zero or something, but you might keep prices where they would be if those folks had not retired.

So it actually, there would be a way, if CASPR goes forward, it means there is a way, you know, assuming that somebody else is willing to retire and get sort of bought out of their position, there is a way for even completely MOPR'd resources to come in. And the more somebody else is willing to retire, the more room for somebody else to come in, and possibly keep prices at the lower level.

Q So if we keep the prices at the level that it would have been without Northern Pass and no retirements, then how is Northern Pass giving us capacity market benefits?

A (Newell) What it does is it, again, there are two reasons that the price eventually rises absent Northern Pass and Northern Pass might keep prices low. Why do prices eventually rise?

Q What prices?
Capacity prices. I think I had the wrong word in there. Capacity prices eventually rise. Because of load growth and because of retirements. And retirements have been, on average, couple hundred megawatts a year of some of the old steam plants and who knows. They're in chunks. There's probably 5,000 megawatts kind of at risk in New England, but it's really the combination of it. So say you might have zero, you might have a few hundred, you might have several hundred megawatts of retirements a year. Now, meanwhile, load growth is projected to be net of energy efficiency and photovoltaics and everything is projected to be, I forgot, 250 megawatts a year. So it doesn't kill the load growth impact on prices, but it could kill the retirement impact on raising prices.

And how do we quantify that? Because it would, would it be different than the capacity market savings that you've calculated?

Yes, it would.

Would it be lower or higher? How would it be different?

If we were to rerun the analysis, it
would be lower than the capacity market savings we calculated, but it would mean you're not in Scenario 3 which says oh, you don't clear, there's no capacity market impact.

Q Okay.

A (Newell) Yeah.

A (Weiss) Or in Scenario 4.

Q Or what?

A (Weiss) Or Scenario 4.

Q Right.

A (Newell) And I want to clarify for folks that this proposal doesn't even come out until after our report.

Q Right, but I'm aware of it so --

A (Newell) So, for example, we were trying to guess, how is the region going to accommodate this because you can't just, it's strange policy to just say I don't care what the states want to do. For clean energy reasons, we're just going to exclude it. So that's why we imagined a different path which was say, okay, we'll give them some sort of clean energy credit like you do for Class I renewables. So that's what we imagined in our rightmost column of that table.

{SEC 2015-06} [Day 53/Morning Session ONLY] {10-27-17}
we were looking at before.

Q Okay.

A (Newell) That doesn't seem to be the direction they're talking about, but it was our guess at the time. And this idea of CASPR was since then.

Q Okay. Let's talk a little bit about Scenario 4. Can we look at page 44 of your Supplemental Report? At the bottom of, at the end of paragraph 3, you say since no bids have been submitted or accepted, and since the evaluation criteria in Massachusetts and elsewhere are as of yet not fully known, it remains possible that scenarios other than Scenario 4 are the relevant ones.

Now, yesterday we talked about the fact that the Mass. RFP has been issued and that discovery there were a significant number of responses. I think you said between 10 and 20. Is your opinion still the same or do you think Scenario 4 really now is the relevant one?

A (Weiss) So I think Scenario 4 is relevant. I don't know whether it's the relevant one. It remains relevant. I think what has happened
since we submitted the report is, as you said, bids have been submitted. There are evaluation criteria, although since we don't know the results and we also, having been a part of sort of evaluating proposals, I know that how criteria are ultimately applied is not necessarily transparent.

Q But it seems like something is going to be built to meet the criteria that Northern Pass is trying to meet.

A (Weiss) So until and unless, well, until they announce that they have selected a project, we don't know.

Q Why?

A (Weiss) Because part of the evaluation criteria is it has to be beneficial.

Q Oh, okay. So if the result of their analysis is that none of the 10 or 20 projects that have been submitted are beneficial, then Scenario 4 doesn't apply?

A (Newell) Right.

Q But if they pick somebody, and it's not Northern Pass, then Scenario 4 does apply?

A (Weiss) No. So, by the way, first when, I'm
going to, when I said yes, so yes is only true
with respect to the Mass. RFP, and we're talking
a lot about Mass. RFP. But the Scenario 4 in
some sense is broader than the Mass. RFP.

Q But let's apply it to the Mass. RFP.
A (Weiss) So if you apply it to the Mass. RFP,
right? So if no project is submitted, then it's
not clear whether we're in Scenario 4 or not.

We just know that neither Northern Pass nor any
of the other bids was selected. It doesn't mean
whether Northern Pass will get built. It
doesn't mean that in the absence of Northern
Pass one of the other competing projects would
get built. We have no additional information in
some ways.

Q Let's assume that a project gets selected from
the Mass. RFP, and it's not Northern Pass. Does
that make Scenario 4 the most relevant scenario?

A (Newell) You know, unfortunately, you can't say
it in a deterministic way. It has to be in a
forward-looking, uncertain way. If we're in a
world where there's -- no, really. I mean, you
don't know -- there are other solicitations,

{SEC 2015-06} [Day 53/Morning Session ONLY] {10-27-17}
Q But I asked you --
A (Newell) What makes Scenario 4 relevant is if it's, if Northern Pass is competing with another project that will, all right, will turn out to have been viable.
Q Which is what the Mass. RFP really is.
A (Newell) Sure. Hold on just a second.
Q Okay.
A (Weiss) So yes. I think if the hypothetical is true, that in the Mass. RFP a project other than Northern Pass gets picked, and just limiting this to Massachusetts RFP, then we are in Scenario 4. In the sense that we know there is at least one project other than Northern Pass that's deemed beneficial. So, you know, that means if for whatever reason Northern Pass had decided not to bid into the Mass. RFP, for example, there was another competing project that is viable in that Mass. RFP.
Q But it did.
A (Weiss). Right, right, right, right. So that means it is a substitute. In Massachusetts, I mean, I don't know from another state's perspective but from the Massachusetts
perspective, it is deemed a, you know, more appealing Project. That doesn't mean in another solicitation Northern Pass would not be deemed a more appealing project.

A (Newell) Or the only.

A (Weiss) Or the only. But there's at least one here, one situation where it is clear there's one project that is deemed more appealing, and it's, therefore, a, call it a perfect substitute for Northern Pass, and that is the Scenario 4.

Q Okay. Thank you. All right. Can we look at, I think it was your Original Testimony on page 6 where you're talking about the benefits for residential customers in a year. Do you see that? It's around lines 11 through 17 on page 6?

A (Newell) Yes. It's funny. Our pages aren't numbered, but I think we're there.

Q Okay. CFP 142?


Q So here you talk about residential savings on an annual basis may be between zero and $41, and that's based on an average or a consumer who
uses 621 kilowatt hours per month, right?

A (Newell) Right.

Q Did you do any analysis for what the impact would be for commercial and industrial customers?

A (Newell) Implicitly, because we did this rate impact was really an average number that could apply to anybody.

Q So I would just take the savings and multiply it by a commercial and industrial load?

A (Newell) Pretty much although I'm actually remembering we did actually break it down by class for the purposes of the analysis we handed to Kavet & Rockler for the economic impact analysis. So that actually, the breakdown, I believe, is in our workbook somewhere.

Q I'm not sure I have that.

A (Newell) Okay. But it's essentially what you just said.

Q Okay. So I would take $.55 per kilowatt hour and multiply it by a commercial load to figure out what the savings for a commercial customer might be?

A (Newell) Yes. You could do that. And to be
clear, that $.55 corresponds to our highest scenario, highest sensitivity.

Q  Okay.  All right.
A  (Newell) And from the original analysis, but it's, I mean, so I would take from our latest report instead.

Q  Oh, okay. And what's that number? Do you know off the top of your head?
A  (Newell) Well, it was --
Q  Is it on page 2 of your Supplemental Testimony? Line 25?
A  (Newell) The one I like is on page 41.
Q  Of the report?
A  (Newell) Yes. That's the more detailed version of the table and it shows the NPV, shows the average rate impact.
Q  Which table?
A  (Newell) It's Table 10 on page 41.
A  (Weiss) The next to the last column on the right.
Q  And this is not a confidential table. So the last column on the right?
A  (Weiss) The next to the last column on the right.
Q  Okay. So if we were going to look at the
savings from Scenario 1 it would be $.28 per
kilowatt hour times a commercial load. Okay.

A  (Weiss) Yes.

Q  I think I can figure that out. Okay.

My last question is about the energy market
impacts that you mentioned yesterday that don't
include the possible benefits during extreme
weather conditions. Is there any way we can
quantify that?

A  (Newell) Well, sure. So remember LEI did an
analysis of what the value would have been
during the polar vortex, and they came up with,
and also during summer heat wave, and in each
instance they came up with $50 million customer
savings New England wide so about $5 million
customers savings in New Hampshire in one of
these events, and you can imagine, first of all,
I mean, there's a question, you know, even if
you had similar weather in the future, would the
price impact be the same? Don't know. But just
as an order of magnitude way of thinking about
this, what if you think there is going to be one
of those events every year. Hope we don't have
that every year, but if you have one of those every year and it would add $5 million a year to the benefits?

Q Okay.

A (Newell) And compare that to, you know, in or Scenario 1 it's about $30 million a year of benefits or in LEI's it's close to $50 million of benefits. So, you know, that would be in that case significant. I mean, it doesn't completely change the nature of the total number.

It's also worth pointing out, I think I mentioned before, that when LEI analyzed the polar vortex, they were holding gas prices the same. Actually, what would happen if you had more nongas generation available in one of those instances, gas prices would also come down, and that would translate to further electric reductions. So I think probably, if you really replicated everything in the polar vortex, you know, it would probably be a bigger impact than this.

Q Bigger than 5 million?

A I think so. Yes.
Q So 5 million would be a reasonable number to count as benefit because we don't know all these other things?
A (Newell) Reasonable number to what?
Q To count as a benefit?
A (Weiss) No. So as Sam pointed out, so that's, you know, that's assuming you have a polar vortex-like event every year.
Q Right.
A (Weiss) So one of the things that was missing in LEI's analysis, if LEI really had attempted to estimate the benefits to New Hampshire, you have to go beyond just calculating the hypothetical savings during a polar vortex-like event in the past. You also, you have to estimate how likely it is for these things to happen. So one way to kind of help you figure, kind of back of the envelope, is okay, let's just assume that the 5 million or the 50 million are kind of, you know, a good estimate.
Q The 50 million?
A (Weiss) The 50 million per event New England wide. So if you assume that's a good estimate, then you have to sort of apply judgment as to
how likely that is. I think neither LEI nor the Brattle Group would claim that we're experts in predicting extreme weather events. So does that happen every five years? It would be 20 percent.

Q: Do you think the Committee should count it as a benefit?

A: (Newell) So the answer is yes. It's just, it's hard to put your number on exactly what you'd be willing to pay for that. I think it's helpful as an indicator, you know, just to know that, I mean, does this put us in the unknown where it could be, I don't know, the benefits could be ten times, and my example was I'm not asserting that one of those events a year of that nature with the same impacts is the right number. I'm just, as an illustrative way to think about it, if you did, I'm saying that would add say ten percent to what LEI said is the benefit or if you looked at ours, you know, the 30 million a year, it would add what's one-sixth, you know.

Q: Yes.

A: (Newell) And it's an indicator. Nobody is going to be able to tell you exactly what's the right
number, but as an indicator, maybe that's helpful.

Q Okay. Thank you.

COMMISSIONER BAILEY: Mr. Chairman, or perhaps Attorney Iacopino, I really would like them to figure out what the difference between their analysis and LEI's analysis on the MOPR is. Is that a record request? Do they need to work with Ms. Frayer? What's the best way to get that information on the record, do you think?

PRESIDING OFFICER HONIGBERG: Mr. Iacopino.

MR. IACOPINO: I think they're going to have to tell you what they would have to do to do that and then we can see if that's something --

A (Newell) I think we'd have to see more details on what LEI did with that input, and this is something we noticed and we looked into, and I don't think we had all the information.

First of all, we'd have to go back and double-check that we really, really don't have the information. And if we don't, we'd have to work with LEI to see exactly what they did for
all their pieces, but it's probably in the transmission piece.

COMMISSIONER BAILEY: Is that something the Applicant might be willing to work with them on?

MR. NEEDLEMAN: I mean, sure. We can certainly work with them on it. I'm at a disadvantage because Ms. Frayer is not here right now, and it may be that there is more information currently available than I realize, but we'll figure it out.

A (Newell) And maybe there's more than we realize, too. So I want to first check that, that we didn't miss something when we looked into this, and, second, we would be more than happy to confer with LEI on why they were, all else equal, getting a higher number than we were.

COMMISSIONER BAILEY: And that's a higher number assuming that LEI added $4 per kilowatt month for the cost of transmission?

A (Newell) That's what I meant by all else equal, yes.

MR. IACOPINO: So what exactly do you have to do in order to do that first check? Is that something you can do from here in the building?
A (Newell) Oh, that first check meaning do we already have that information?

MR. IACOPINO: Correct.

A (Newell) I just don't know because we already looked into it and didn't think we had the answer. So we'll have to look deeper at all the things we got.

MR. IACOPINO: So you're not talking about something that could be answered today?

A (Newell) I just don't know. So we can try and we'll just get back to you as soon as we can.

MR. IACOPINO: Thank you.

PRESIDING OFFICER HONIGBERG: Well, getting back to us as soon as you can is an issue. And I don't, since none of us knows what's going to be required, I think what I'd like to see happen is for you to do the work you need to do, confer with Counsel for the Public, and then have whatever quick evaluation can be done to determine how long this is going to take.

A (Newell) Sure.

PRESIDING OFFICER HONIGBERG: Then make a judgment about how to proceed in terms of putting a time limit or putting a deadline in
for a response. So Mr. Pappas and Mr. Needleman, in the second instance. The first instance is the witnesses and Mr. Pappas. The second instance is Mr. Needleman and Mr. Pappas conferring about what schedule is going to make sense and then others who are part of this are probably going to have to have a say in what happens after that. But my expectation is we want to get this information sooner rather than later. Like in the next week.

A (Newell) By the way, one thing you need to understand is this is not a very complicated analysis. This isn't doing a whole huge model run. This is going to come down to this is the spreadsheet. You know, this is looking at some costs. It's really just a matter of can we put our information against theirs, and we have to see if we have all theirs, and, if not, just ask for it.

PRESIDING OFFICER HONIGBERG: That's what I was hoping you would be saying. So let's get as many heads together as need to be gotten together and then provide a report probably from you, Mr. Pappas, about what's going to be
required and when it will happen.

MR. PAPPAS: We'll do that.

PRESIDING OFFICER HONIGBERG: All right.

Thank you.

COMMISSIONER BAILEY: All right. With that, I don't have any further questions. Thank you so much.

PRESIDING OFFICER HONIGBERG: Who else on the Committee has questions? Let's take a ten-minute break.

(Recess taken 10:47 - 11:07 a.m.)

QUESTIONS BY PRESIDING OFFICER HONIGBERG:

Q Gentlemen, I want to follow up a little bit on what Commissioner Bailey was asking you; specifically, about how CASPR would affect this situation or could affect this situation. But I want to back up a little bit and make sure I and everybody else understands how things would go in the capacity market, assuming little or no load growth, which I think is the assumption generally prevalent in New England what would be the circumstances going forward as generation retires, an expectation that capacity prices would go up. Can you explain a little bit about
how that works and why that is the expectation?

A (Newell) And I want to understand. You started mentioning CASPR but your question before that is, your question actually immediately is not about CASPR.

Q Correct. I want to get to CASPR and what CASPR's effect would be because you explained it a little bit for Commissioner Bailey, but it's not inherently obvious to me why that's the answer, and I want to make sure I understand how you got from her question to your answer, and I think I need to understand your view of the capacity market going forward without anything from the IMAPP process.

A (Newell) Right. Could you turn to figure 7 in our Supplemental Report? Because that has our price forecast over time. In fact, I'm going to flip between that and -- do you have that in front of you? And also the page before that that has table 4. That would show the supply/demand details.

So first let's look at the price trajectory. So what we're showing is that you see how it goes from FCA 10 to FCA 23, and, of
course, those are for delivery years, FCA 10 is for delivery years 2019 to '20. That Auction already took place. We're just showing the actual price there. Same thing with FCA 11. We're just showing the actual price there. It was 5.30. And then the rest of the blue curve is our forecast for the capacity market. Okay? And what we're showing here is that prices would stay low for quite a few years. They'd stay below $6 all the way through 2017.

Q Just reminding myself that the one you're talking about right now is confidential.

A (Newell) Hmm.

Q It may be that the specific, it's the specific numbers that are confidential whereas the trend is not? I'm not quite sure.

A (Newell) Okay. I want to look for a second at the redacted version so I just know which parts are redacted and which are not. Yeah. Okay. Well, I'm going to describe what's in figure 7. And then we'll go back to -- fortunately, the table is not redacted that's in the prior.

Now, what this figure shows is prices. What the table shows is quantities. Okay? And
what we're showing in the prices is that prices would remain low for several years. And that then, eventually, there would be enough load growth and retirements that prices would be higher, and they would just keep rising. If supply stayed the same and, well, back up.

If load growth keeps occurring and retirements keep occurring, that prices would keep rising except to the extent that new supply comes in and sort of caps it. So eventually, by FCA 20, we say prices stop rising and they cap out at whatever you think net CONE is or the long-run marginal cost of capacity, and they don't go above that because if they did, more new capacity would enter.

And I think your question is why is it that they rise from these low levels to the, why do you ever need new capacity in a market with low load growth, lot of photovoltaics and all that. And that does come down to the assumption so on load growth, I'm going to turn back to the table now. Table 4. This shows the ISO New England load forecast, we took that as given. The very top row of the table is last year's load
forecast for the next ten years from ISO New England, and it does not show zero load growth, even net of photovoltaics. It shows load growth of about roughly 300 megawatts a year. Gets to be a little less.

Now, you may not believe that, but this is their forecast net of photovoltaics, and then there's another element here that we're also accounting for that most normal people, I suppose, would also consider part of the demand which basically erases a lot of that load growth which is energy efficiency. It just so happens that ISO New England counts that on the supply side of the market, but we've got that several rows down. I'm sorry. That is, hold on just a second. That is the teal, if you have a color version. It says new EE, and that is coming in every year. And counteracting most of the load growth, right? So as you said, if you counted that, I mean that's really just a reduction in the load. If you counted that, there's not much load growth so why do you even expect the prices to rise?

And they wouldn't, absent of another
assumption that we made which is that you see this row here, it's several numbers down, that we're going to keep having retirements, and I think that's a reasonable assumption. Exactly how much when is uncertain. The amount that we assumed is based on the average over the last several years of retirements of steam units, steam-type generators in New England.

I'll point out that we did a sensitivity analysis. What if we're wrong? What if it's not 200 a year? What if it's 100, what if it's 400, and I can show you those, but that's, obviously, that is the driver of prices eventually rising, and it's uncertain so we looked into it.

Q So absent any effort to subsidize new resources, new resources start to think about coming into the market to replace the retiring generation?
A (Newell) Basically, yes.
Q And I think what your figure 7 shows that at some point it gets high enough that the new generation enters the market.
A (Newell) Yes. Yes. Actually, can I tell you something helpful?
Q Always.
A (Newell) We've just seen this happen in the market. So a lot of people's forecasts, including, I think, our own when we have done some studies would be the prices would be, turn the clock back to before FCA 8. The prices would be, they had been at the price of floor. They were really low. The prices would stay really low. And then Brayton Point retired at about 1500 megawatts. All of a sudden, we're in higher price territory, and then by FCA 10 now we're seeing, we saw 1400 megawatts of new capacity enter. And so that is, that's the dynamic that could happen again.
Q And so the new capacity wants to enter, and it goes through the process with the Internal Market Monitor to say we want to qualify, we intend to bid in the next auction, we want to go through this qualification process with you. So how far in advance of the Auction does that take place? The Auction is in February of each year. How many months in advance does that process start?
A (Newell) I don't remember exactly, but it's
something like nine or ten.

Q  Basically the previous summer.
A  Yes. And there's a lot of interest for new entrants. There's a deal available to them that they love which is a 7-year price lock-in. I mean, I've worked with developers, they realize they would be derelict in their jobs as a developer not to have a project that they're, you know, they're offering, they're ready to bring into the market in case the market conditions improve.

Q  So the new ones that come in have this projected effect of stabilizing the capacity market or even bringing it down if the numbers work out right.
A  (Newell) Yes.
Q  In a broad sense.
A  (Newell) Yes. I tend to think of it as they cap prices. I wouldn't expect a lot of new entry, you know, coming in and limiting prices say to 550. We've been wrong. You know. Sometimes they come in at really low prices. We've seen that in New England in PGM, but I think our forecast is that they sort of wouldn't come in
until the prices rise to a little higher and then they would basically be capping what you expect the price to get to.

Q And your projections as to how Northern Pass would affect the capacity market are all working within this framework that we've just been talking about, right?

A (Newell) Right.

Q Commissioner Bailey asked you about the CASPR proposal which is one of the proposals from the IMAPP process. It's had a lot of discussion, and I understood you to be saying to Commissioner Bailey that it would have some effect on the market even if it came in during the secondary Auction that's contemplated by CASPR, and I'm not sure I understood your answer.

A (Newell) Yes. It would not have, anything that comes in in the second round does not affect the price in the first stage which is really the vast majority of the volume that customers will pay. But that's okay. Because once it's come in, forevermore it's treated as existing. It can play in the first stage without being
MOPR'd.

Q Oh, without being MOPR'd? So it doesn't have to hold that MOPR'd price at the next Auction?

A (Newell) No.

Q Oh.

A (Newell) But that would be only, so suppose there were 300 megawatts of retirements. And that let the first 300 megawatts of Northern Pass come in. That 300 is forevermore going to come in without being MOPR'd, but you still might take, it might take a couple more Auctions to bring in the next 700 megawatts.

Q And so once -- oh, I see. So if the project's megawatts come in at different times in different secondary Auctions, that doesn't then set their price. Their minimum. Their minimum drops down to whatever their actual bid is at that point going forward. That is something, I did not understand that subtlety of CASPR.

A (Newell) Although I'm not sure I, the way you just phrased it, I wasn't able to follow.

Q I probably phrased it poorly.

A Well, I don't know, but could you say it again if you want confirmation of that?
No. I think I can go back and read what you said and understand it. Maybe it would be helpful for others. I know just enough to be dangerous on this stuff. But can you briefly describe that primary/secondary Auction process so others in the room understand what you and I just talked about?

(Newell) Yes, and I'll tell you my understanding. You know, I'm not intimately involved in this, but I'm observing that it's -- so you just have to understand that what I'm telling you is based on my understanding of the current proposal and that it is just a proposal, and some of the details have really been changing over time. I don't know whether to consider that sort of what I'm telling you right now is what something ISO New England will file, whether stakeholders will approve it, whether they'll change the terms, I just don't know. But I think you're just asking the current proposal. What's the basic idea. That's your question? Okay.

Before getting into the mechanics, I think
I just have to say what the premise is. The premise is about things like Northern Pass, and if states are doing, if they want a lot of clean energy, you know, you want to have a competitive market and sort of protect the price, not have it sort of artificially suppressed, but, you know, if the states have these policy objectives to bring in clean energy, you know, should the market be setting up something to stop it? I mean, and what if they're always MOPR'd? You're in effect going to double-buy capacity, right? Because you're basically saying oh, you can't clear. We're going to have to get all our capacity from somebody else and then you kind of have both? And then even in your reliability studies you ignore that that's there? It feels not sustainable.

So they have, so they thought, you know, the MOPR, should we just keep going with the MOPR as is or should we think of a way that sort of compromises, you know, maybe eventually those resources affect the price. Maybe that's the right thing. And so that's the nature, that's the starting point. Okay.
Now the mechanics. There would be an Auction. The stage 1 is just like everything we talked about. So-called state-sponsored resources would be subject to the MOPR. So if there's some portion of their cost that's subsidized, they're having revenues, sort of special revenues nobody else gets, the Market Monitor will look at that and say got to look at what you really, if you were a competitive provider what would your cost be. How, what price would you be offering. And they enforce that. And in stage 1 they might not clear. And that's just like what we've been talking about so far. Stage 1 is really like everything we've been talking about.

Now, stage 2 would say now let's take this, given what happened in stage 1, and by the way, stage 1 pretty much everything that cleared there, that's going to be most of the resources in New England. They'll get paid that price. And everybody who cleared will also have a capacity supply obligation except, let's go to stage 2, where those that put in a de-list bid, and I have to double-check, but something to the
effect, I think it's the effect of a de-list, you know, the willingness to permanently retire. And I just don't remember if their term for it is still a permanent de-list bid, but it's basically that. You know.

Q: It's a statement that "I want to retire."

A: (Newell) Yes. So maybe the price cleared at $7 but I, and I need it at least 6 because if they were below that I would retire. So that's in there. They cleared. But they told you yeah, I was willing to stay for 7, but I wouldn't have for 6. You say okay, hold that thought. Let's go to stage 2.

Stage 2 says they can be, let's see. It's basically saying that somebody else who wants to come in, I can buy them out of their capacity. I can buy them out of their capacity supply obligation. Yeah, they made a buck already, they already made money on stage 1 because they get, they still get that price, and now in stage 2, basically they're allowed, it's actually they're allowed to buy out of their obligation by paying somebody like Northern Pass. You can substitute for me. And I'll pay you to
substitute to me. I'm not going to pay you the $7 I just got, and I'll make the difference. It's sort of this "cash for clunkers" idea. They call it that sometimes. And you know maybe it cleared at 7 but if you're willing to, but I'll pay you two. Actually, I think the way it actually goes in is they say I'd be willing to pay you 6. Remember that was there. But anyway, there are several of them and there's another, there's, all those, you know, you can substitute for me, it creates -- so this gets sort of detailed. You want me to go into this level of detail?

Q No. You don't need to go into this level of detail. Just the concept is that in the substitution Auction, the second Auction, you need to have someone who wants to retire.

A (Newell) Exactly.

Q And a subsidized resource that's in a position to step in and assume that obligation.

A (Newell) I wish I'd said it that way myself.

Q And so that the new resource then is in for all subsequent Auctions.

A (Newell) The number of megawatts that
substituted.

Q  Good point. And so with that background, I want to circle back to the answer you gave to Commissioner Bailey's question about the beneficial effects of the project like Northern Pass in the capacity market if something like CASPR goes into place.

A  (Newell) Yes. And I think, and what I said is that it's still, there would be benefits where basically, if this happens it's no more Scenario 3 which says oh, you never clear, never any benefits. Where, instead, in Scenario 1 or Scenario 2, there are benefits, and I said they would be similar to what we calculated but probably a little less. And it depends on the availability of those folks willing to retire. How many of them are willing to retire and how quickly Northern Pass or others like Northern Pass could come in.

Q  So you use the phrase "a little," would be a little less. And that's, is that as precise as you can be in determining how much the benefits would be?

A  (Newell) Yeah, I can actually give you a really
good indicator. So if you go to table 4, this shows how many megawatts we assume are retiring. Do you see? Do you see about, I don't know, four rows down or so the number of retirements? So I believe, so see how in FCA 12 there's already been an announcement from Bridgeport Harbor to retire. That's 383 megawatts, I believe. I don't think that would be eligible for this substitution thing. You know, I don't think, but I don't know. But every year under our assumption that there are 200 a year, you can see how even if it's just the 200, even if Bridgeport Harbor somehow didn't count and then again, I don't know. Well, maybe they could. Let's assume for now that Bridgeport Harbor could. That says you could bring in half of Northern Pass in the first year. You see? If it could substitute? Do you see that? If 583 are retiring, that would give a chance for Northern Pass. You know, and maybe there are other resources like Northern Pass, but that would give a chance for them to come in even if they were MOPR'd. They could come in in stage 2.
Q FCA 12 for 2021 and 2022, that's the Auction that's going to take place in February of '18?
A (Newell) That's a great point. And I don't think they've, I don't think they're going to be participating in that one. So starting in the next year you could see that over the course of five years there's, under our base assumption, there's enough retiring, and under our assumption they would be fully in by 1, 2, 3, 4, 5. They would be fully in as an existing resource by FCA 18, and then I know figure 7 is redacted, but most of the benefits under our forecast, again, our FCA 18 forward so does that give you a sense?
Q It does. I understand what you're saying.
A (Newell) And it's going to hinge on were we right about the 200 per year, but that's why I was vague saying "a little."

QUESTIONS BY MR. IACOPINO:
Q I have just one question about that CASPR thing. Is Northern Pass being a large hydro transmission project I guess, is that eligible for this whole secondary Auction? This CASPR program? I thought it would have to be state
subsidized.

A (Newell) That's my understanding. Yes. My understanding is it would. Now hold on just a second. I'm getting a question from Jurgen.

Without all the rules being nailed down, can't say for sure, but my understanding, I mean, this is what this CASPR is about. Yes.

QUESTIONS BY CHAIRMAN HONIGBERG:

Q It's really what the whole IMAPP process was about.

A (Newell) Yes.

Q And CASPR is one of the proposals that has come out of the IMAPP process.

A (Newell) Yes. That's right.

Q Okay. That's what I wanted to ask about.

Do any members of the Committee or Mr. Iacopino have further questions for the Panel? Ms. Weathersby?

QUESTIONS BY MS. WEATHERSBY:

Q Much less technical question. Am I correct that you believe that Hydro-Quebec would be unable to supply power to the Northern Pass Project and another one of the competing transmission line projects without either diverting energy its
supplying somewhere else or building new supply?

A (Weiss) So I'm not sure we're saying that. 
We're saying we're unsure, and it's actually a little stricter than what you suggest. What we're saying is it doesn't seem that it has been demonstrated that Hydro-Quebec would have enough resources to provide sufficient capacity for just Northern Pass Project in addition to its existing obligations. So it's not Northern Pass plus another one of these. It's given its obligations today, we haven't seen evidence that makes it clear that they have sufficient capacity to also service the full 1090 megawatts for Northern Pass.

Q So if they can't --

A (Weiss) Without adding new resources or without diverting existing commitments.

Q So if they can't, if they have insufficient capacity for Northern Pass, they could not then do Northern Pass and TDI or one of the others?

A (Weiss) That would be true by extension. If they couldn't even do Northern Pass entirely, then they could not do Northern Pass plus.

Q So it's really a choice. It's really unlikely
that both, that more than one large transmission project will be built.

A (Weiss) No. No. So it depends on, for example, right, so I think it's been stated multiple times that Hydro-Quebec has the ability to build a lot more hydro resources. So in terms of the potential to have capacity from hydro projects in Quebec, there is probably no limit over a significantly long time horizon. It's just given their existing resources today, there is some question of whether they have sufficient capacity to do one, and if they did one, then from that Hydro-Quebec system you would not get, you would less likely get more than one if you get one.

But of course there are other resources, you know. So we talked about the Mass. RFP bids a little bit, and the fact that there are some bids that are just hydro from Quebec but other bids that are either a mix of hydro and new wind resources, and there are bids that are just a mix of renewable resources. So, you know, using those to have clean energy flow over either Northern Pass or competing transmission line
aren't limited by Hydro-Quebec's current capacity. Right? Somebody else could just
build new wind and solar projects in Quebec if that were a good place to do that and then send the power over any of these lines.

Q So then what do you believe would be the likely effects on the energy markets in New England if Northern Pass and another of these thousand-megawatt transmission projects are also delivering that energy to New England?

A (Weiss) Just to clarify. Kind of interested in -- so we have, the energy price impacts have been estimated for Northern Pass. You're asking how those would change if you had Northern Pass plus some other similar project in addition to that. Is that what you're asking?

Q Correct. In general.

A (Newell) They'd be a little bit lower, but they wouldn't be all that different.

A (Weiss) The energy price impacts. The capacity market impacts might be harder to, but as long as, so conceptually as long as that energy that's delivered over the next line after Northern Pass is similarly, you know, it's low
variable cost, either it's hydro or wind or
solar, so, you know, would still displace fossil
capacity that sets the market price and that
fossil capacity, that fossil energy is very
likely still natural gas. So in other words,
that's the same impact.

A  (Newell) So in general the energy prices, yeah,
if you bring in more supply they come down a
little bit. But they're just not
super-sensitive. So, you know, you add a little
bit more, you know, then adding a little bit
more, there's some diminishing returns, but it
will be similar to the effect we saw.

Q  Thank you.

QUESTIONS BY MR. IACOPINO:

Q  I'm sorry. I just want to follow up with one
thing, and it might help to explain for the
Committee, but you talked about in response to
Ms. Weathersby's question, you talk about
whether or not there's any increase in capacity.
And I was just looking at Applicant's Exhibit
102 which is Ms. Frayer's Rebuttal Report. On
page 30, I think it is, there's a Footnote
number 40 that discusses Hydro-Quebec's
Strategic Plan and specifically indicates that part of their Strategic Plan is to increase the capacity of existing assets by 500 megawatts by 2025, and I guess she suggests that it's possible some of that might come on line before 2025. Is that the type of increasing of existing assets that you were referencing both in response to Ms. Bailey's questions and in response to Ms. Weathersby?

A (Weiss) I think in some sense, yes, so it's important to sort of distinguish between greenhouse gas and sort of MOPR impacts, right? So on the greenhouse gas side, I think that, right, if you could somehow add a way to capture more energy over the course of the year from your existing resources, then that would make it more likely you'd get the greenhouse gas emissions reductions.

Q Was there more of an answer?

A (Weiss) Right, so just making sure I'm answering your question actually. So that is right, so as opposed, so we've mostly talked about do they use their existing resources or do they have to build new dams, right? And this is sort of one
of these of in-between cases where they might be able to do something to their existing facilities that increases either the capacity of the facilities or it increases the amount of energy they can capture, and if they can do that --

A (Newell) Maybe new turbines or something.

A (Weiss) Right.

QUESTIONS BY COMMISSIONER BAILEY:

Q While we're on that page, yesterday I think when Mr. Needleman showed you this footnote perhaps, I noticed Footnote 44 that says that the Brattle Group helped develop the template workbooks used by ISO New England Internal Market Monitor to perform the MOPR analysis. Is that the workbook that is the source of Applicant's Exhibit 140?

A (Newell) No. I think they have updated it or, I think the version they're currently using is not the version that we gave them and they were using for a few years, but I think it's very similar.

Q So that was, did you, was it you specifically who did that?

A (Newell) It was my, I mean, with staff, but
actually same staff who worked on this Project.

Q Okay.

A (Newell) But yes, it was my testimony before the Federal Energy Regulatory Commission that established the Offer Review Trigger Prices for a number of types of resources, and ISO New England filed to adopt those and to use this tool that would be the basis for any individual resources review.

Q And the tool has been updated since your Original Testimony?

A (Newell) I believe so. I think this version is not the one we gave them.

Q But is it based on the one you gave them?

A (Newell) It's very similar.

Q Okay. Thank you.

PRESIDING OFFICER HONIGBERG: Anything else from members of the Committee? Mr. Pappas? I assume you have some redirect?

MR. PAPPAS: Briefly.

REDIRECT EXAMINATION

BY MR. PAPPAS:

Q Gentlemen, do you have something in front of you on the screen?
Q What's on the screen in front of you now is Counsel for the Public's Exhibit 601.

Dr. Weiss, could you explain to the Committee what this document is?

A Yes. So this is the, what I believe, although it's hard to tell because it has a French title as opposed to an English title, I believe that's the document that Ms. Frayer cites in her Figure 18. It's basically a Supply Plan by Hydro-Quebec Distribution from 2017 through 2026.

Q Okay. So I want to ask you some questions related to that issue about the ability to, capacity and whether or not, you know, you can qualify. So if you would turn to, I suppose I could give it to you first.

What's on the screen now in front of you is page 19 from this document. Could you just briefly tell the Committee what is included in this table?

A Sure. So this table 7 --

MR. NEEDLEMAN: Mr. Chair?

PRESIDING OFFICER HONIGBERG: Mr.
Needleman?

MR. NEEDLEMAN: Could Mr. Pappas explain what specific testimony this is responding to as opposed to just adding on to testimony?

PRESIDING OFFICER HONIGBERG: Mr. Pappas?

MR. PAPPAS: Sure. There were a lot of questions about LEI's chart or actually it's Figure 18 about the ability to qualify in the forward capacity market and specifically whether or not there are sufficient excess capacity in which to qualify. And this witness was asked questions about Figure 18, and about the ability to actually have access capacity and that's what this issue goes to. Following up on that.

PRESIDING OFFICER HONIGBERG: Mr. Needleman?

MR. NEEDLEMAN: I guess I'll wait and see what comes.

PRESIDING OFFICER HONIGBERG: Yes, Mr. Pappas, I think it would be helpful, in fact I was just saying to Mr. Iacopino, it would be helpful if when you introduce a subject you can tie it to some questions that your witnesses were asked during their various
cross-examinations and questions from the Committee.

MR. PAPPAS: I agree. In my effort to be brief, I neglected to do that.

MR. IACOPINO: And also we probably want to point out that the document before the witnesses is in French as well.

MR. PAPPAS: That's fine.

A (Weiss) That is correct.

BY MR. PAPPAS:

Q So what I want to ask you about is in Figure 18 in LEI's Supplemental Report, you were asked some questions yesterday about the ability of Northern Pass or actually, I guess, HQP to qualify in the capacity markets, and, specifically, you were asked some questions, for instance, about whether they had sufficient capacity, and you were asked, on Figure 18 there were a number of items you were asked about. And you indicated a moment ago, this document is one of the documents cited in Figure 18. Is that right?

A (Weiss) That is correct.

Q And this document, is this document a ten-year
outlook for HQD?

A (Weiss) It is.

Q And table, it's on the screen now, table 7, does that show the ten-year Outlook 2016 starting 2016/2017 and going out ten years?

A (Weiss) It does for Hydro-Quebec Distribution.

Q And in terms of demand, what does this table tell you? Or tell us?

MR. NEEDLEMAN: So Mr. Chair, I am going to object now because he wasn't asked about this issue or this document. He was certainly asked about the table, and I asked him specific questions about the table. But it seems like we're introducing new information that could have and should have been introduced before. We're not responding to questions he was asked specifically.

PRESIDING OFFICER HONIGBERG: Mr. Pappas?

MR. PAPPAS: Yesterday this witness was asked about HQD's Strategic Plan, and he was asked about whether or not HQD could fulfill Quebec's energy needs, and he was asked about their planning which this document talks to. And so what this is in response to are those
questions about HQD and its ability to meet its demand going forward and whether it has capacity to do so. So he's asked about those issues and that's what this goes to, and this is one of the documents that is cited repeatedly in that Figure 18 that was shown to him and he was asked questions about.

PRESIDING OFFICER HONIGBERG: Mr. Needleman, you want to add anything?

MR. NEEDLEMAN: That's a fair assessment. I mean, I can't read French so assuming it speaks to it, I guess we'll hear what comes next.

PRESIDING OFFICER HONIGBERG: All right. Mr. Pappas, you may proceed.

MR. PAPPAS: Thank you.

BY MR. PAPPAS:

Q Dr. Weiss, could you tell us in terms of demand what HQD is indicating in this table?

A (Weiss) I am not sure I understood the question.

Q I tried to remember the question. My understanding is on this chart there is an indication of what HQD projects for its going forward for its demand. Can you tell us what...
the table tells us?
A (Weiss) All right. All right. Okay. So this is a table that projects the capacity needs and not the energy needs which is important, and the very first line (speaking French) that's the peak demand. So that's what they need the capacity for. And so in answer to a bunch of the questions that were asked yesterday we had a discussion yesterday in the Strategic Plan document that was a question about, A, whether and how much demand in Quebec would increase over time and, B, I was asked about whether or not the fact that there were efforts to increase energy efficiency would not eliminate any future needs to increase the procurement of capacity in Quebec itself.

And so what this document shows in the first line, so that's the peak demand. And it starts 2016/2017. That's the last year for which Hydro-Quebec Production had actually produced. So submitted a document that we looked at yesterday.

And so the first thing one can see that over the next ten years there is a projection of
an increase in peak demand, peak demand in Quebec of a little over 2,000 megawatts from 37630 to 39931 so that's the top line.

Along with that, the second line is the reserve requirement that you need in addition to that capacity to make sure that in unforeseen circumstances you still have enough capacity, and so what one can also see is that reserve requirement increases from about 3450 megawatts to 4377.

COURT REPORTER:  Can you give me those numbers again, please?
A 3457 to 4377.

COURT REPORTER:  Thank you.

Q So the first thing to note here is in relation to the discussion we had yesterday is that demand indeed continues to increase, peak demand is projected to continue to increase in Quebec. So the rest of the table has individual supplies that HDQ projects to use to meet that capacity, that peak demand, and we don't have to go into detail. Many of these rows are reflected on LEI's Figure 18 or some of them are.

But yesterday we talked about energy
efficiency so it's unclear whether energy
efficiency is directly reflected. The Strategic
Plan mentioned 1000 megawatts of energy
efficiency over time. You can see the one, two,
kind of the third indented block says (speaking
French) so that's basically peak demand
management. And you can see there as the first
row (speaking French) so that's interruptible
load that is projected to go from 850 to 1000
megawatts. I do not know whether that's the
thousand megawatts of energy efficiency that are
specified in the Strategic Plan.

But you would think that if it's not that
HQD would include its own energy efficiency
measures in how it projects out peak demand or
the impact of energy efficiency measures on its
peak demand would be included in this.

So then the final point I want to make is
the bottom line, it says (speaking French).
That says additional required capacity which is
projected to be zero or was projected to be zero
for the winter of 2016/'17 and it increases
until it reaches 1650 megawatts in 2025/2026.

Q So does that appear to you that HQD needs to
have more capacity each year over the next ten years to meet its internal demand?

A (Weiss) That's what that document shows. And so to relate it back to yesterday's question and answer session, it does suggest that HQD will continue to have additional capacity needs which it has to meet from some source. Now, it doesn't mean that that reduces the capacity that HQP has for export markets, but it does suggest that there is value to capacity in Quebec, and recall yesterday we had a discussion about whether the relatively recent procurement by HQD from HQP, the price of which was roughly 10 Canadian dollars a kilowatt month, had any value for figuring out, you know, the opportunity cost of capacity going forward, and so this document at least to me suggests that there is going to be ongoing demand for more capacity in Quebec, and, therefore, capacity in Quebec has value in Quebec.

Q Thank you. Gentlemen, what's in front of you now on the screen is Counsel for the Public's Exhibit 266 which is Figure 18 from LEI's Supplemental Report. Do you see that?
A (Weiss) Yes, I do.

Q First, Dr. Weiss, when you look at item 6, 7, 8, 9 and 10, and it refers to HQD Supply Plan 2017-2026, is that the document we just saw before?

A (Weiss) I don't know.

Q But is that the same title?

A (Weiss) So that assumption is my point. So it is the only document that I could find that logically would be this, but since that document you saw has a title that few in the room can read because it's in French, so it's impossible to know for sure whether the document LEI cites is actually this document.

Q Okay. Now, have you looked at the document, the various documents that are cited in Figure 18?

A (Weiss) I've certainly attempted to do that, yes.

Q And have you also looked at additional public documents from HQ to look at this issue of capacity?

A (Weiss) Yes.

Q And yesterday you were asked whether or not you're convinced that HQP has sufficient
capacity to bid the Northern Pass Project into the ISO New England Forward Capacity Auction and you indicated you were not convinced. Do you remember that?

A (Weiss) I think that's correct.

Q Could you simply briefly explain to the Committee why it is you're not convinced?

A (Weiss) Yes. I'll try. Also, I mean, I was asked by Mr. Needleman whether I was essentially, would agree that Ms. Frayer was convinced that her number was correct, and so I think this figure is important since it claims to demonstrate that HQP will have sufficient excess capacity to sell 1090 megawatts over Northern Pass and meet capacity requirements in the capacity market.

So I looked at this in great detail and have to admit that it did not convince me that this is a positive demonstration for a number of reasons. So first, if you just, and we went through this a little bit yesterday, if you look at how this table is structured, it starts with HQP's winter resources. It subtracts from that HQP's domestic commitments to calculate excess
capacity.

From that it subtracts two more items, and I'll get back to those, relatively small, to calculate the excess capacity for exports.

One category that's entirely missing from this table is HQP's nondomestic commitments to the extent they exist. Yesterday we had a discussion about that with Mr. Needleman. We also showed some exhibits that show HQP's kind of capacity balance for the winter of 2016 and 2017, and we noted that there are other commitments, commitments to other parties than HQD in there that were significantly larger than the potential 94 megawatts that are on line 11 of this exhibit.

So, conceptually, I found it surprising and not very convincing that an estimation of a capacity supply and demand balance for HQP does not even have a category that discusses HQP's commitment to parties outside of Quebec since they certainly are shown to exist as of today. So that's one.

So as somebody who puts together these kinds of exhibits a lot, there were a number of
other things that made me somewhat suspicious of
the reliability. First of all, as you can see,
I already mentioned the fact that the sourcing
is not particularly insightful. So one of the
purposes of this kind of proceeding is to have
witnesses from various parties give evidence in
a manner that other Intervenors and the
Committee can check and verify.

So the way all the sources are referenced
here is such that a normal person, and by that I
mean a non-French speaking person, is
essentially, it's impossible to verify since, as
I said, with the exception of the ISEO 18-month
outlook, there is actually no document that is
sourced here that exists with that name. So
that's one.

The second issue is it's not sufficient to
point to a general website as where the document
is. It's like saying there is a document, the
name of which I give you in another language,
and the reference is www.ferc.gov, right? So
that's not sufficient to find the document. I
spent hours having nice conversations with staff
at the Quebec regulator to sort of track down
these documents. So I think in terms of providing a clear sort of track record of these are the documents I used, these are the sources, this is lacking.

Third, you see the very first two rows have the HQP capacity demonstration, December 2016, as the cited document. We looked at a couple of the Annex C and one Annex E sort of Appendix from that document. It is surprising that on row 14 I would use the same document but a December 2014 version, and then on row 5, I would use unspecified historical versions of the same document.

That document we saw yesterday, that document looks exactly the same every year. It's the most up-to-date representation of Hydro-Quebec Production's view of the supply and demand balance for the forthcoming winter. It's entirely unclear why any document other than the most recent version of that would have any relevance for projecting a supply and demand balance five years in the future. Presumably anything that's in the 2014 version that's no longer in the 2016 version has no relevance for
the future. So that's surprising that I'd use the same document but from different years. I'm not sure what I make with information in an old document in what way that would still be relevant in the future documents.

It also does turn out that some of the source documents are just wrong. So, for example, row 14, Cornwall Electric, cites the 2014, December 2014 version of this Annex C. The word "Cornwall" does not show up. It's just not mentioned on that document. So that's either misrepresenting a source or evidence that this is improperly sourced since that's the only document I could find with the help of somebody there.

I'll give you one final one that makes me suspicious. Oh, by the way, that Cornwall Electric obligation based on other research, and I think that came out in cross yesterday and in some sense admitted by LEI or by the Applicants, is actually no longer relevant. That obligation is going away before 2021. So it's unclear why it's in here. It would increase the capacity available, but it's unclear why it would show up
The final one that I puzzled over is row 16, losses on exports, of 107 megawatts. It's puzzling since there are no exports on this chart so far. So it could be that it's accounting for the losses that would occur under Northern Pass because Northern Pass would be exporting power and the source document here actually doesn't say, doesn't have 107 in it, but the source document only shows is that HQ applies a 6 percent losses to exports, but it doesn't apply the 6 percent to domestic sales.

So if I believe the 6 percent, I can sort of back out out of the 107 how many exports I'm actually talking about. And if I do that, I get to a number that's more like 1750 or between 1750 and 1800 megawatts. So even assuming that this is representing Northern Pass, and if you want the capacity reserves I have to have in addition to Northern Pass to account for the losses, those losses represent an extra 700 megawatts of export obligations that are just not here.

So all these things together suggest to me
that it's possible that Ms. Frayer is convinced
that this is evidence. Me, as an independent
analyst trying to understand this, am not
convinced by it, and I think there's just not
sufficient information that has been provided to
make anybody else confident.

Q Thank you. Gentleman, what's in front of you
now on the screen is Applicant's Exhibit 128. I
just want to ask you a few questions about this
that you were shown yesterday.

Now, if you look at the third paragraph on
the first page, the paragraph that begins with
the word first, you see that?

A (Weiss) Yes.

Q And if you drop down to that second sentence
that says, quote, "In its 2006-2015 energy
strategy document," quote, "Using Energy to
Build the Quebec of Tomorrow", close quote, the
Government of Quebec announced a policy to
rapidly expand hydroelectric power generation in
the province, not only to meet growing domestic
demand but also to support increased exports,"
close quote. Do you see that?

A (Newell) Yes.
A (Weiss) Yes.

Q On the screen now is page 2 of this letter, and this is a June 2016 letter from Hydro-Quebec Production to the US Department of Energy. And on page 2 in the second paragraph, do you see where it says, quote, "In its 2009-2013 Strategic Plan, Hydro-Quebec reaffirmed that its top two, quote, "production," close quote, objectives were to increase hydroelectric generating capacity, and, quote, "step up exports," close quotes. Do you see that?

A (Weiss) Yes.

Q So yesterday you were asked about the next paragraph that says "In short, Northern Pass is not the cause of the development of Canadian hydropower resources. Rather that development is the result of a long-standing policy of the Government of Quebec." Do you see that?

A (Weiss) Yes.

Q Okay. So I'm interested in the question about what you were asked yesterday about whether or not the IMM when considering in its MOPR analysis the cost of new production in part of the MOPR analysis. So given what is stated in
this letter about a longstanding policy in
Quebec to develop more hydropower, although
HQP's investment cost to develop more hydropower
may not be specifically only because of Northern
Pass, can the IMM still include some of those
investment costs in its MOPR analysis if HQP
were to bid into the Forward Capacity Auction?

A (Newell) You asked "can" the IMM?

Q Yes.

A (Newell) I'm having trouble with that word. I
mean, what the IMM does is ultimately also under
the jurisdiction of the Federal Energy
Regulatory Commission, but might they?

Q Maybe a better word.

A (Newell) Okay. From our perspective, we have to
say yes. This issue has not been, I don't
think, addressed before by the IMM. I don't
think they have a resolved statement on this.
And I believe the IMM could say okay, it's not
one-for-one if you look at a more dynamic sense.
The, you know, the Government is supporting, the
Government is supporting generation, and that's
the source of generation, and if we're still in
today's MOPR world, you know, that's the spirit
of the MOPR. You can't ignore those subsidized, you know, creations of generating capacity that competitive producers don't enjoy.

Q Thank you, gentlemen. I have no other questions.

PRESIDING OFFICER HONIGBERG: I think we are done with this Panel. Thank you, gentlemen, for your testimony. We're going to take our lunch break and return around quarter after 1.

(Lunch recess taken at 12:12 p.m. and concludes the Day 53 Morning Session. The hearing continues under separate cover in the transcript noted as Day 53 Afternoon Session ONLY.)
CERTIFICATE

I, Cynthia Foster, Registered Professional Reporter and Licensed Court Reporter, duly authorized to practice Shorthand Court Reporting in the State of New Hampshire, hereby certify that the foregoing pages are a true and accurate transcription of my stenographic notes of the hearing for use in the matter indicated on the title sheet, as to which a transcript was duly ordered;

I further certify that I am neither attorney nor counsel for, nor related to or employed by any of the parties to the action in which this transcript was produced, and further that I am not a relative or employee of any attorney or counsel employed in this case, nor am I financially interested in this action.

Dated at West Lebanon, New Hampshire, this 8th day of November, 2017.

Cynthia Foster, LCR