STATE OF NEW HAMPSHIRE

SITE EVALUATION COMMITTEE

October 11, 2017 - 1:30 p.m. **DAY 45**
49 Donovan Street **Afternoon Session ONLY**
Concord, New Hampshire

{Electronically filed with SEC 10-20-17}

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 *(Presiding Officer)*	Public Utilities Comm.
Cmsr. Kathryn M. Bailey	Public Utilities Comm.
Christoper Way, *Designee*	Dept. of Business & Economic Affairs
William Oldenburg, *Designee*	Dept. of Transportation
Patricia Weathersby	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

I N D E X

WITNESS PANEL **THOMAS E. KAVET**

NICOLAS ROCKLER

QUESTIONS FROM SUBCOMMITTEE MEMBERS & SEC COUNSEL BY:

E X H I B I T S

P R O C E E D I N G S

(Hearing resumed at 1:30 p.m.)

PRESIDING OFFICER HONIGBERG: All right. Mr. Way.

QUESTIONS BY MR. WAY:

Q Good afternoon.

A (Kavet) Good afternoon.

A (Rockler) Good afternoon.

Q I want to build on some of the questions that were asked earlier. It was very helpful this past morning. So in terms, and some of these I just want to make sure I understand as we go through this. In terms of the REMI model, and I think it was on page 12 of your testimony, when you say you put in the inflated employment data and inflated compensation data, that causes the direct employment to be lower which means that you need to have more productivity from those workers?

A (Rockler) Well, exactly. What it's doing is it's understating or underestimating the number of people who will be working on the job, and the implication of that is still you're going to build a Project of the same size. So that means

you've got to have, for the whole system to kind of work accurately, it presumes superproductivity on the part of the number of workers you've estimated.

Q So if I cut it off right at that point, wouldn't that just say to me that I need more workers?

A (Rockler) Exactly.

Q So wouldn't my direct employment figures actually go you up at that point?

A (Rockler) They will go up. That's correct.

Q In looking at your Table 24 on Counsel for the Public Exhibit 148 A, versus 148 A, I don't think there's any changes from what I'm talking about, and you're looking at a net gain of jobs created versus jobs lost.

So in the REMI model, and maybe you can help me out as I'm trying to frame this question.

A (Rockler) Um-hum.

Q Is a job gain considered the same sort of calculation as a job loss? In other words, if I invest $10 million in a Project, this will give me X number of jobs that will be gained. Can I say the flip side, if I took $10 million out

that I would lose a commensurate number of jobs or is it different?

A (Rockler) No. It's fairly symmetrical. As long as you put them in the same industry at the same time period, then you should have an equivalent exchange for either losses or gains. If you put in minus five employees or plus five employees, you'll get the same impact estimate but with the different sign, that's all.

Q And when you've done modeling, and I don't want to call them estimates. We call them projections, I believe, is what you're --

A (Rockler) Yes. This is an important distinction. We're not forecasting in the traditional sense of an economic forecast that's going to tell you with some precision what the interest rate is going to be. What we're estimating is the change from a baseline, a presumed baseline level of activity, and in REMI the baseline is based on, largely, a trend. It's not a behavioral forecast that has assumptions what the Federal Reserve is going to do or what trade policy is going to be. It largely relies on a trend from current

conditions and historical growth rates.

A (Kavet) It's a simulation model. So it's used to simulate a potential change. Some impact that you tell the model something different is going to happen than it just sort of assumes and it's kind of trend line out. And it's the difference between what it is sort of assuming going out and that impact that is used to frame risks/benefits, you know, costs, potential impacts, but that's different than a forecast. And we do lots of economic forecasting, too. We never use REMI for economic forecasting. It's a simulation tool.

Q So, you know, and I'm always interested when you take others' forecasts, estimates, projections, simulations, when you actually take them out into the real world, and I think that's what we're trying to grasp here when we talk about the impact of views on impact on property values, on job losses, whatever.

How successful have you folks been with your simulations with past projects? One, have you gone back and taken a look at what you simulated and, two, how are those results?

A (Kavet) A lot of times they, if you go back they're unmeasurable things that you're, you know, that you're trying to assess. In terms of our economic forecasting, we have a long track record in the public sphere. We've been forcasting revenues for the State of Vermont for more than 21 years. So you can go back and we publish all the error versus over what time period, by which category, and, you know, so there's a public track record of all of that. Average forecast error that we have on that is around two percent, but that's over a very long period of time.

Q What was that again? I'm sorry?

A (Kavet) Average forecast error that we have in that is under two percent.

Q What does that mean?

A (Kavet) Means that relative to the number that was forecast, that we were within two percent of that number on average, plus or minus two percent. Now, there are many, many forecasts that we do for many, many different purposes. Quite often somebody is concerned about a risk in a particular area so they'll say all right,

you may forecast this, but I have a real downside risk. Either if I lose market share or something like that, it could be severe. So give me a worst case. Or give me a best case with something, and that's a -- that's a different, we're not being asked to forecast right down the middle. Being asked to forecast a lowest worst case kind of thing.

Q Because what I'm trying to get a handle on, too, is when we look at that net gain/net loss of jobs, in other words, at its height it's going to give us this jobs, but this is how many jobs that it might take away and this is the number we're working with.

A (Kavet) Yes.

Q And sometimes, and I don't know what you think, but sometimes the jobs lost can be somewhat dismissed as opposed to those that are projected to be gained. From your experience when you project jobs lost like you do or simulate jobs lost in Table 24, is that part of that 2 percent error rate? In other words, is that just a valid simulation as the jobs gained?

A (Rockler) I would say not. I would say that

those go to the accuracy of the model itself in terms of what it estimates the resource requirements are based on what you've given it. If the historical relationships hold true for the Project you're working with, so that if you have a typical construction project that uses ten full-time employees, the model will tell you what everything else is if it's a typical Project.

And that really raises the interesting question of how you do those kinds of simulations with this specific Project because you know its basic characteristics. You don't need to rely on a model to tell you anything about the materials inputs list. You don't need to rely on the model for anything to tell you what the number of jobs are likely to occur if they're done at a historical rate, and you do need to make adjustments where this Project deviates from the average typical construction project, and this one deviates in every possible way.

This is not a typical commercial construction project. So when you're operating

the model, you need to put in the individual characteristics of the Projects that are known and that avoids the whole problem of having the model think that you're dealing with a typical construction project. It's not. It simply isn't.

A (Kavet) But I think it's really important to understand, with this Table 24 and 25 and LEI's provided some comparable sorts of tables in their rebuttal analysis. These are order of magnitude estimates about what might happen. These are not point forecasts. They're, you know, unmeasurable in some respects. The take-away is you're going to get a lot of jobs when you build something of this magnitude. There will be substantial net job gain. Depending on how much electricity price response you get even in that next operational period, you're likely to have a net beneficial effect.

As you get farther out, these effects diminish, the property tax revenues become smaller, the construction's over and the electricity price benefit disappears. And then if there are things like tourism losses that are

anywhere close to this magnitude, it can flip to be a net negative over a period.

We're not saying you should do the Project or don't do the Project based on that. We're saying these are the risks that you have to consider in making a decision like this. And there's a potential for that kind of loss. Here's the order of magnitude that we think it could be. But it's not a point forecast.

Q And so I know when we start pouring all of this information all together and be voluminous, this table is going to stand out like the table will for the Applicant.

A (Rocker) Sure.

Q On its own we're going to be looking at it and a lot of the nuances are going to be lost, and, you know, we're going to see things like negative 320 jobs for tourism. And so there's a part of me that says well, okay. But is that in your mind a valid simulation that over time particularly from 2050 to 2060 it's a loss of another 100 jobs and why?

A (Kavet) Okay. So in the case of tourism, are you asking what that would be in the case of

tourism?

Q Right. Validate that, give your thoughts on that number.

A (Kavet) Yes. So, again, our explanation of what we did with tourism speaks to that. What it's saying is there is some incremental degradation of the scenic landscape that will matter to a small, a very small number of tourists. It will affect tourism in a very small way, but it's a very large industry, and when you put those into the same REMI models, all the rest of the stuff, these are both direct and indirect employment impacts from that order of magnitude change.

So there will be no way to circle back and say, you know, in some year, how many fewer people came to the state because of this or how much less did they spend or how much shorter was their visit because of this. And, you know, the incremental effect of one, we know it's not a positive. There's no, you know, nobody would seek to put this in a scenic environment and say oh, things are better with this there. None of the marketing material in the State of New Hampshire uses to attract tourists have vistas

with transmission lines going through them.

So we're not saying the sky is going to fall because of this, but even a fairly small effect can be fairly significant, especially when you don't have a lot of longer term benefits that are accruing from this. A lot of the benefits are nearer term. Big construction project, some electricity price benefits are likely, and then you're running a risk of some degradation of the scenic landscape that could affect a really important segment of the economy.

Q And this is a good point to ask the question so that when we look at these jobs from year to year, in all of these projections, each year are these new jobs added or these jobs that are sustained and considered to be added in that year?

A (Kavet) It's an average annual difference from a baseline.

A (Rockler) It's a net change.

A (Kavet) It's a net change relative to a baseline expressed as average annual number. If that helps.

Q Okay. So if I do 200 in year 1 and 250 in year 2, it's 250 jobs over that two-year period?
A (Kavet) 225 jobs, you know, that we, and we're picking different periods. The impacts change over time. So that's just giving a perspective of that.
Q All right. I'm sorry. Go ahead, Kate.

COMMISSIONER BAILEY: Chris? Can I ask a followup question on your tourism questions?

MR. WAY: Please.

COMMISSIONER BAILEY: So I think you said it can be a small impact, but it has the effects in Table 24 and 25 because it's such a large industry. What I don't understand is why it continues to increase from, you know, each ten-year period, and the GSP is increased six times in the last period that you look at. The negative effects. How do the negative effects continue to multiply year over year?

A (Kavet) They're not multiplying. They're persisting in an industry that is seeing real growth so the tourism industry has experienced real growth of about two percent a year across all of New England actually. It's not a huge

variation. So if you do something that changes the tourism appeal in an area, even if it's very small, in an industry that's growing, and the impact doesn't disappear, then you will have that effect persisting. It's not multiplying. It's just remaining constant with a little bit of growth, two percent a year real growth.

Unlike some industries, tourism is really benefiting from an aging population. So the demographic issues that weigh negatively on employment and some things like that are benefiting this industry because it is something that older people disproportionately spend on. So it's an area of growth.

COMMISSIONER BAILER: So you're saying that it also reduces the growth?

A (Kavet) No. It just takes late bit off something. It's a constant amount off a base that's growing.

A (Rockler) The base is growing, yes.

A (Kavet) So because it's a constant amount it's going up at that same growth rate.

COMMISSIONER BAILEY: Okay. So you assume that the constant amount continues forever?

A (Kavet) That's right or continues as long as that visual encumbrance exists. And we talked to some people about whether the canopy might grow taller enough to actually obscure it, and I think it was Kenneth Kimball at AMC who referred us to some studies on canopy height and it's at maximum canopy height right now so we don't expect that to disappear. So those effects persist as long as the line's there. Now, how long will it be there is anybody's guess.

COMMISSIONER BAILEY: And you don't think that people sort of get over it?

A (Kavet) They do. Most people do. This is a teeny tiny percentage, though, that will see it and say that's not my cup of tea. That's not the kind of place I want to be or it affects a particular property that they like to be, a particular lake that they might visit or something, and they're saying, you know, I'm not going to go there.

COMMISSIONER BAILEY: What's your teeny tiny percentage that you apply to these?

A (Kavet) 15 hundredths of one percent. 000.15 percent change in tourism activity in the

affected areas. So you won't see it, when you see the state of New Hampshire tourism hit a new record high, yeah, it will. It will keep going up. It's not going to be something, you know, where you're getting some decline in tourism. It's a small part of it. It's a small change.

BY MR. WAY:

Q If I could. So one question is, when we get out to that long a period, when we get out to 2040, how much real world credence does it have because it isn't about someone getting over it. We're talking about generations. It's about our grandchildren getting, you know, or the next generation not caring. So it won't be about any of us getting over it. And then you look at the fact that states will dodge and weave. If something happens, they change their marketing strategy. There's a lot of things that change. So when I look at and I look at any studies that are put out there for 40 years down the road --

A (Kavet) Yes. All the climate change stuff is 2100 kind of projections so the numbers that LEI used for climate change benefits are based on projections that are a hundred years out. We

try to estimate what those costs are and then bring them back down to some employment or monetized value today. It's very, very difficult to do.

But, you know, we looked at, you know, when you think about it long-term, it was interesting. One of Nichols studies, the 2002/2003 work that he did for New Hampshire included a review of some other surrounding states and states that people came from to visit New Hampshire. One of those was New Jersey. And it was really interesting to look at how kind of polar opposite New Jersey is in the way people perceive it and think about it and look at the natural beauty there, and that wasn't always the case. New Jersey used to be the summer capital where all the presidents would summer and the Garden State, you know, beautiful scenery and all the rest. It doesn't have that now. And it's not the result of one decision or one transmission line. It's an accumulation. Each one has some incremental negative impact, but at some point, there are only 15 percent of the people who regard, you know, in Nichols

study, would regard New Jersey as being scenic and beautiful. And it's in the 90s, upper 90s in New Hampshire.

This is a precious resource and maybe you could pivot and say all right, we're going to be the nightclub state or we're going to the casino state or we're going to be something else, and, you know, states do what they have to. But right now that's a comparative advantage and there are competitors. As to whether that really gets mitigated way out into the future will probably depend on the relative attractiveness. So if every other state has a lot more development that's around, there's no place else to go that will be the best you can do. But if other states don't, you know, it could end up, you know, New Jersey's instructive. If there a bunch of decisions that are made. So this is just, you know, this isn't the sky falling. It is some negative increment though. That's all.

Q All right. Just a couple assumptions that I keep coming back to and I think I asked in a previous Panel.

Part of the whole benefit here is that reduced electrical cost will be passed on to consumers, will be passed on to manufacturers. Manufacturers, in their operations, they'll realize these energy savings. In return, they're going to do something with those energy savings. Hopefully they're going to create jobs. Those would be the induced jobs, correct?

A (Rockler) Those would be, um, it's profits and retained earnings end up in the investment stream. And so if the state has additional investment opportunities, yeah, they'll end up creating new jobs through new investment. The induced stream is really a consumer expenditure stream that's created by the additional income that comes from either working on the construction part or being a savings on the part of consumers from spending on electricity rates they have things to spend elsewhere on other goods. So the induced spending is really a consumer, think of it as consumer expenditures derived from activities in the Project.

Q Sort of with a direct connection to a direct job.

A (Rockler) They have a direct connection to a direct job or one of the intermediate jobs. One of those intermediate material supplier jobs. So if the Project goes and buys Portland Cement from a distributor to make those Redimix concrete pads for the towers, the distributor makes a markup on the sale of the Portland Cement, and they're an intermediate goods supplier to the Project, but there are people who work for them that actually get their income from this additional sale, and they go out and spend their new income, and they're part of the induced income stream at that point. Their additional wages and earnings flow to other consumer goods.

Q So lets go beyond construction. Assume that it's all constructed.

A (Rockler) Right.

Q And manufacturers are starting to realize their savings.

A (Rockler) Sure.

Q The idea, though, is that they're going to create jobs.

A (Rockler) Absolutely.

Q There's a tipping point. We talked about that in previous sessions. There's a tipping point by which most people will create a new job. I know like working with grants and modeling sometimes it could be 30,000, sometimes it's 50,000. What is the modeling, what is the multiplier that you folks look at that sort of helps you to assume that a business will create a new job?

A (Rockler) The model actually solves those things at a particular -- probably from the intermediate sales, those related manufacturing jobs, you're at about if your overall multiplier's about two which would be a pretty good sized multiplier for New Hampshire, obviously, one of it is the direct effect and the other one is direct and induced, and usually the induced is about three quarters of that. So it's about, to shorten my answer, I guess, it would be about an eighth of the overall impact goes to these indirect and other investment-related jobs. That's where the potential comes from.

A (Kavet) It's not an estimate we're making

outside of the model though. We're introducing change as the model and the model is calculating, it's not, you know, it depends on the industry, depends on the effect that you're making with the change. It's not just some single number.

A (Rockler) So being more price competitive allows industries to grow faster than they otherwise would. That is, they have greater and wider sales opportunities than they otherwise would have.

Q And that was a good answer, and it kind of went, sort of sailed over me. Because in my mind what, I'm looking at this very simplistically. That for manufacturers that say I want this to occur, we've heard about some of the savings for consumers, and whether you're pro or con it has a lot of opinions, but will the energy savings be enough for manufacturers to realize enough savings that they'll then go and actually hire. And getting a sense at what point in a typical business will they make that hire.

A (Kavet) I guess, when you say typical business, that's --

Q I understand that's a absolutely loaded question. But I guess what I'm trying to find out --
A (Rockler) The answer is yes, I mean, in the sense that if you get cost savings on the manufacturing or the industrial rate side or the commercial rate side those all contribute, and they're significant contributors to regional growth. And when you have a region or a state like New Hampshire where the rates are very high to begin with, reducing them slightly combined with what is a very high productivity labor force anyway is a very attractive option. So it does stimulate growth. There's no question that even five percent rate reductions is stimulative.
Q It's just hard to tell how much because, as I said, when I look at it when I do a grant, and I put for every $50,000 I get I assume it's a FTE. One FTE created. It's not that simple here.
A (Rockler) Right.
A (Kavet) It's not. You're increasing general competitiveness. So you could say to the extent competitiveness is enhanced, sales will

increase. At some point you have to manufacture more, you have more profit, but it's not like they're some magical tipping point that we can lay out.

Q Because that's something that we're going to have to feel comfortable about that if you put this in place, and there's this much savings that are realized that someone will actually translate that into greater employment.

A (Kavet) There's so many things that you're going to have to take leaps of faith on around this that are based on reasonable estimates of things, but it's sort of laying out all these as risks, and it's difficult to weigh all those. I don't envy you.

A (Rockler) I would just add, very briefly, when you see in Table 24 the line for electricity market benefits, included in those estimated job impacts are jobs that come from growth from greater competitiveness. That is, those numbers are already baked in, if you will. So that the more cost competitive the state is in terms of its own production costs, the more attractive it is for others to come to the state and for

producing a greater volume of goods. So they're actually in there. The model does do that part very well.

Q Looking at the Forward NH Plan, I read your critique of the Forward NH Plan. Do you think, though, with modifications that that could be a valuable part of the Project?

A (Kavet) We counted it as a valuable part of the Project. So we didn't really say it was, we just said there's some risks that it might not be as beneficial as it could be, that independent administration of it and an orientation to economic development would probably make it even more effective. But we included benefits for that and they're pretty substantial benefits so we're assuming that it will be operated in an impactful way.

Q One other assumption that has been offered to us with regards to business. And actually let me strike that.

If I go backwards, at one of our sessions we had someone say with regards to the construction part, and I'm going by memory, that if a business, if someone was to go out of

business as a result of the construction, it was more of an excuse than it would be as a result of the construction.

A (Kavet) You mean a business in a town like Plymouth or something like that?

Q Exactly. Your response to that?

A (Kavet) Well, I don't think that's true. Depends on how the construction is managed and I could very easily imagine a business if the construction period were extended and parking and access to their business was limited, they're operating on thin margins, they could go out of business and it would not be their fault. It would be as a result of this Project.

Q So to mitigate that, there's a couple ways that have been proposed. One is to do business claims where you could say these are the sales I lost or whatever. These are the losses I've experienced, and you'd be made whole again. Another one was that there would be increased patronage to businesses from, say, for example, construction crews, the other jobs that were to be created.

In your modeling does your modeling allow

you to take into account the fact that construction crews might have spending within the footprint of the construction area or do you take that into account at all?

A (Kavet) We didn't do the construction analysis below the state level so we didn't say what's the construction impact going to be town by town, but all of those benefits are in the statewide analysis. They would not have been a part of an individual town level analysis. And to some extent that would be offsetting, but I don't think you would get the same spending that you might get from tourism access from people working on the Project but you'd certainly have some.

Q So I guess that would was my question for your opinion. Whether this is something that would be meaningful or whether would it be a drop in the bucket or somewhere in between?

A (Rockler) I wouldn't say construction employment and its own internal spending in the state is a drop in the bucket.

A (Kavet) No, say in Plymouth, for example.

A (Rockler) Oh, in Plymouth, yeah, that would be

hard to say whether they could offset lost businesses or whether they would exceed it and certain business they might and certain not. I'm not sure about that.

Q Because that has been one of the suggestions is to a degree, don't worry, there will be some patronage that will occur as a result of the Project. We've never really quantified that. We've just sort of accepted that as a truism. But, you know, I think at some point there has to be some sense of well, what does that mean for, for example, the town of Plymouth. I don't have the choice of one restaurant. I have the choice of several restaurants. And you know, that money is spread out. Does it actually end up meaning anything?

A (Kavet) Yeah. I don't think it would offset the losses, but it could certainly help mitigate it with some kinds of businesses. So, for example, you know, there are insurance companies and dentists and businesses like that that you're probably not going to have construction crews going in and purchasing services from. Restaurants certainly you would. You know.

Lodging, I don't know, you know, exactly where they'd be located. They wouldn't want to deal with some of the same parking problems that anybody else would. But it would offset it to some extent, but I don't think it would, it certainly doesn't entirely mitigate it.

Q Another thing that generated the discussion was at a public hearing there's a business called Polly's Pancake Kitchen off of, in Franconia, and it's off the beaten path of the underground portion which was brought up in redirect. That they're not right on the pathway. But Polly's has done a detailed analysis of here's what they see to be the impact.

For those businesses that are off the beaten path, not directly on Main Street, has there been any analysis, has there been any consideration to how far away from the impact zone for underground before you don't feel the effects?

A (Kavet) No. We haven't done anything aside from a pretty deep dive into Plymouth, what the impacts might be. So we carry an aggregate number that we think is in the ballpark of what

the total effects might be for that, but it's very rough and it's not bottom up. It's not like we inventoried all the businesses, calculated a percentage, that kind of thing.

Q Does it seem reasonable to you that Polly's might experience some impact as a result of the underground?

A (Kavet) Certainly.

Q And when you looked at the town of Plymouth, I remember saying that you're looking at a 30 percent business loss? Was that, I believe that's what I saw?

A (Kavet) We ran a couple different ranges. I think that's the final one in the aggregate table that was used.

Q And I'm sure you've probably gone over this. How did you come up with that 30 percent again?

A (Kavet) We looked at the very thin literature on other places that had some construction disruptions, and then we also asked business owners in town, if there were disruptions of this type, what would they expect potential business losses could be.

Some of them, I think, wrote letters, you

know, to this effect that you may have seen. So we're trying to get some ballpark idea of what the potential losses could be.

Q Because that's quite a bit more than between the typical 5 to 15 percent or whatever.

A (Kavet) Well, it's over a very short period of time, though. It's over just the period of time the construction is taking place. So it's not, you know, and then we did do it by month though because there's some months where there's more visitation. So it depends when it happens as well. But there's, more of it is happening, of course, not in the winter when you would have low visitation.

Q And I saw that you said in Plymouth you mentioned about the total loss of parking. What did you mean by the word total?

A (Kavet) On the section on the Main Street a lot of the parking is at an angle on the road. So if you lose that parking, you don't have, a lot of these stores depend on the parking right in front of the establishments for people to access that.

Q So you're talking about individual

establishments' designated parking spaces? I'm just trying to reconcile the word "total" which says everything to me versus a lot.

A (Kavet) It would be the parking that's on the road that's under construction that you would lose. So parking outside of that, if you drove to another street and had a place to park, that would be, that would not be affected.

Q All right. Thank you. One quick question. Tourism experts you consulted, how did you decide on Alice DeSouza and Mark Okrant? How did you come to that conclusion?

A (Kavet) The Institute for New Hampshire Studies at Plymouth State University was the source of all this tourism data, and we started at the top and said let's talk to the top person we can about that and went there. We spoke with people in the state that are involved in tourism now, but there was a reluctance for any kind of opinion or statement from people that were currently state employees. So we went to people who had been state employees that had senior positions and Alice DeSouza was the most senior of those, and we thought that would be a

reliable or useful opinion to get.
Q All right. You anticipated my next question.
One last question. So when we talk about the right-of-way trails for ATVs because oftentimes I know what I've heard without getting into testimony is that they're a source of good trail riding and they're well maintained. But you heard differently that oftentimes that the right-of-way is posted and people don't have access. So when we look at all that mileage of right-of-ways, do you have a sense as to how much of that is posted to give that credence?
A (Kavet) No. We asked that of the Applicant and got no response. We wanted to know how many, you know, how many places there was access and how many miles and, you know, all that, and we didn't get a response on that. So in discovery we asked that question, but it wasn't addressed. And then we had the feedback from, I believe it was the Colebrook meeting where we had people that were ATV enthusiasts, and they spoke to their desire not to ride under the transmission line any more than they had to. They're

interested in riding in the woods.
Q All right. To the Chair, I don't know if that's something we can request as a data point is how much of the right-of-way is actually available for ATV-type activities? Is that something --
PRESIDING OFFICER HONIGBERG: Mr. Needleman?
MR. NEEDLEMAN: I think it's something we can get.
PRESIDING OFFICER HONIGBERG: Okay.
MR. WAY: Okay. Thank you. Gentlemen, thank you.
PRESIDING OFFICER HONIGBERG: Ms. Weathersby?
QUESTIONS BY MS. WEATHERSBY:
Q Good afternoon, gentlemen.
A (Kavet) Good afternoon.
A (Rockler) Good afternoon.
Q Just a followup question on Plymouth that Mr. Way was talking with you about. In Plymouth you seem to have assumed, am I correct that you assumed that Main Street would be closed or did you just assume a lane closure?
A (Kavet) No. Lane closure, but reduction in

parking and bottlenecks and delays and the like.

Q Okay. I misunderstood something in your report then. Let's see. You'll be happy to hear that some of my questions have been already addressed. I've been deleting them throughout the day.

But one thing that came up this morning that I added to the list was Attorney Needleman's discussion about bias, and bias in reporting can sometimes come in subconsciously. So my question to you is when you were hired by Counsel for the Public, did you know at that point whether or not they had formed an opinion concerning the Northern Pass Transmission Project?

A (Kavet) Absolutely not. We were asked to do a completely unbiased analysis of it. I don't consider myself an adversary or an opponent or anything. I think people can use this report to argue both ways, depending on how you see it and how you assess the relative risks. So it's really more an analysis that can provide you with a foundation for trying to weigh these risks and arrive at a very difficult decision.

And so no, the analysis we were charged with doing was, you know, no thumbs on the scale, right down the middle kind of analysis.

When we looked at the Applicant's analysis initially, there were some areas that they could have and we thought should have included that they didn't. So, for example, they did not include in the REMI model impacts any of the property tax benefits that had been estimated. So they estimated them and said okay, they're there, but we're not going to plug them in the model and get the multipliers and include them as part of the benefit. We thought they should have been so we did include those. There were a number of areas like that. It wasn't like it was all, you know, we were just looking at ways that we could make it less impactful or more, some of the things Nick talked about ended up creating more jobs than otherwise would have been the case.

And there's been a shift, though, the final analysis, the rebuttal analysis that was done was just loaded up on the -- they took all the things that we said, they added, you know,

carbon impacts, they added a thing for a business income tax. It's a double counting in the REMI model, and it's loaded up with jobs now. So in my view it's, you know, it's really pushing the outer limits of I think what would be at all reasonable. But our goal was to present risks, try to quantify them even if they're really difficult to quantify, and give you some basis for weighing those same sorts of things.

Q And I was in no way insinuating that this report or your analysis was biased. I was just wondering if you were aware when you were hired whether Counsel for the Public had even had a position on the Project yet, but we don't need to go there. I understand that the, you believe the report is not biased, and clearly there are things, benefits pointed out in your report like Forward NH Fund, et cetera, that favor the Applicant. Favor approval of the Project. So I'm going to move on.

One thing I noticed that I didn't see in your report, and tell me if I missed it, was the economic analysis did not seem to account for

decommissioning of the Project. Is that correct?

A (Kavet) That is correct.

A (Rockler) That's correct.

Q And that, again, would be a further benefit of the Project, most likely, the spending concerning decommissions?

A (Kavet) Yes, the spending, and then if it were decommissioning and you removed visual encumbrance, then you'd have no basis for negative tourism and other aesthetic negative impacts. So that would have been a positive thing.

Q Okay. Getting down a little deeper, I'm sure Commissioner Bailey will get into this more concerning electricity benefits. I'm trying to get my head around some of it.

In the report you indicate that there were, the Project reduces electricity prices about $17 million a year resulting in the Gross State Product of 33 million a year. But then you state that the Gross State Product would be reduced due to the electric markets, especially in the long-term, and those reductions are

fairly dramatic. And I'm trying to better understand that if you can help me.

A (Kavet) Yes, and that is consistent with what LEI is saying as well so they have a Figure 14 in their rebuttal analysis that shows the way you'll get electricity market swings. You'll, get, and, again, we took the inputs on this from Brattle Group so they're doing just the electricity side of it and you'll hear from them and their rationale, and we didn't just run one of these. We ran five different scenarios so you can say, all right, here's where I could hit along a spectrum. And I think it's difficult to know because when you asked Brattle, is there one of these that you think is most likely and we should use, they said no. So we picked one that was in the middle just for purposes of illustration of like, okay, if it's in the middle, here's an order of magnitude impact you get from that.

But in the REMI model you have a supply response that occurs after those benefits expire that end up being a negative, and in our table, it's a negative in terms of jobs, 192 in that

2030 to 2040, period and in LEI's it's a negative 250 something so both of them are sort of saying the same thing. That's what it relates to.

Q So is that supply response, as you call it, sort of a recalibration of the market or plants going off being displaced?

A (Rockler) I don't want to interrupt you. I think it means that the electricity market benefits do not persist beyond 2030. That is, the market reverts to its old pricing level. And without that, without the persistence of the price effect, all the jobs you gained as the prices were lowered you're now going to lose as a response. That is, you're going to become less competitive from 2030 onward without the benefit of persistent price effects.

So I think that's something that's worth talking about with the people who do these long-run forecasts, whether they really mean to shut the benefit off and have it go back to the way it was so that this is just a 20-year effect or 10-year effect or whether they think that there may be some persistence to the rates.

Q And the reason they believe the effect does not linger, that's what I'm trying to get my head around, is that because of new efficient sources of power coming on so they can also sell or displacement of other plants?

A (Kavet) I think you want to need to talk to the people that prepared the electricity price impacts because we took their data and put it into the REMI model and ran it, the same way LEI took the property tax information from an outside consultant and plugged it into their model and ran it.

But I just would point out that we're consistent. I mean, there's not a huge variation in terms of that bounce-back and that swing in terms of economic impacts. There is variation on that period of maximum benefit which is the ten years preceding that so when the Project is finished, that first ten years, LEI had much higher numbers than this scenario, too, that Brattle provided us with and that would be something that Pratt could speak to.

Q Okay. Thank you. Switching, I guess, to jobs. I think I have one question. And I understand

that your report and your analysis is really presenting us with different versions of what could be a reality. It's a simulation, running different simulations, I think you said.

A (Kavet) Right.

Q But as you've looked at all of this, do you believe that Northern Pass Transmission Project will actually have an effect on tourism? I mean, you've put out 3 percent, 5 percent, the different simulations, but as you look at it, what do you believe the Project's impact on tourism will be?

A (Kavet) Well, it's inconceivable to me that the impact will be zero, and that's what the Applicant is saying. There will be absolutely no negative impact whatsoever. Their consultant showed that in the survey work they did, 4.7 percent of the respondents in the survey said it would be a critical barrier to visitation. I'm not saying -- and then 10.3 percent said it would be very important or a critical barrier to visitation. I'm not saying that what people say about it and what they do will be the same necessarily, but that's the only information we

have. Even a small number of people that respond badly to this can represent a substantial amount of money and economic impact so I think something closer to what we're saying is more likely than zero, and whether it's half of that or double that, I think you've got to kind of process that yourselves and say knowing what you know about the state, knowing what you've heard through these hearings, you know, how impactful could that be. And there's a continuum along which that could occur.

So it's not a, I wish I could give you a point forecast that I'm 95 percent certain that's going to happen. That is not the world that we live in. It's an unmeasurable kind of thing in terms of circling back and saying what it was. It's not like there are a lot of studies on it.

A (Rockler) We've tried to show you what's at risk because the Applicant said there was no effect so there's no risk associated with tourism in the construction of this line. And we've given you the size of the tourism market, we've adjusted it for the different zones and the

effects that way, and controlling for visibility, and the volume of tourism activity as the State can best represent it now with the data it has at its hand, you have a sense of what a loss might turn into at a very small rate, our .15 of one percent. If it's double or triple that you'll know what that is, and if it's half that you'll know what it is. That's all, I think. So we tried to just show you what's at risk.

Q I'm just trying to pin you down.

A (Rocker) No, that's fine.

Q That's okay. It's not going to happen so I understand.

Attorney Iacopino wants to know if .15 is a reasonable or unreasonable assumption?

A (Kavet) I would say it's reasonable.

Q Property values. Let me see if I can read my question.

When you determined the property value losses from the proximity to the Northern Pass Project, you first determined the properties with the view of the Project based on the viewshed mapping provided by others, and then

you estimated a change in the value using a maximum reduction of 1 percent and then less as it -- you're shaking your heads.

A (Rockler) Well, we actually, the actual calculation we did was using the property value loss rate as determined by Callanan in her study of New Zealand properties. She defines or determined the loss rate as a function of visibility to the lines on the structures so with each incremental block of distance she will estimate for you the amount of value that's lost, and it ranges from around 27 or 28 percent right up abutting the structures and it declines very rapidly within 300 feet to almost nothing. Very small amount.

So at varying distances from the line, we estimated, and with measures of how much of the property value is associated with that amount of distance, we estimated values that way. So it ranges from 27 percent right up against the line to almost zero 300 feet away from the line.

Q Okay.

A (Kavet) The same study was used by the Department of Energy as one of the metrics to do

the same thing, but, again, understand this is not a bottom-up thing where we're looking at each property and saying this is what it is. We're simply using the percentage of land that's in the viewshed as a way to reduce the number for the potential impacts so that it's concentrated in a very small area and then assigning a distance measurement. Ideally, if we had, you know, if we knew what the view was from one of those properties and how important it was you would build it up from the bottom. That's an enormous both an in expense and time undertaking but that would be optimal. It's a statistical approach that's, you know, it's again, it's an order of magnitude estimate.

A (Rockler) Let me just correct something. On page 60 of our Supplemental Report, it's just a bit over 30 percent, not 27 percent, right up against the structures or lines. So if you look at that chart on page 60 it shows you the rate of decay that we used to estimate our values of property value-wise.

Q All right. Thank you. And then you took those property value losses and you changed it into a

flow of income based on rental income in New Hampshire as a way of quantifying that loss because --

A (Rockler) Right.

Q -- because obviously, it wouldn't be realized until the property is sold?

A (Rockler) That's right. It's not realized right away, but what we did was use a technique that the Department in Commerce uses to estimate the value of property that individuals who own it and occupy it as housing, they need to turn it into a rental equivalent value. So they had a technique which estimates what the rent is for properties of equivalent characteristics to those that are owned by different residents across the county. So if you have a house of 2,000 square feet and it has two bathrooms and three bedrooms and a garage, that rents for $1,600 in this area. So what you say is the value of that property produces a flow of $1,600 worth of rental income to the owner essentially. You're giving them a proxy measurement for the income value of the property they own.

So that's what we've done here. We've

taken the imputed rent of property ownership and said this is the value of this property in terms of a monthly income stream, and if you lose a portion of that income stream, that's what it would cost -- if you lose it as a result of proximity to the line and the market valuing it, ultimately what it does transact for less than it otherwise would, that's the imputed value that's lost. So that's how we did the estimation.

Q So you assumed that a, say a ten percent reduction in a property's market value, it was equivalent to a ten percent reduction in its rental income potential?

Q (Rockler) Imputed, yes.

A (Kavet) That's right. It was an attempt to find a way to enter some measure into the REMI model that would be meaningful. It was so small just as an imputed rent that it really didn't register. I mean, it's one of those things that even though the total impact could be $15 million and if you took the affected parties it could be very large for some of them individually, but it's a paper loss until you

sell it, and it's not something that's easy to enter into the model in a meaningful way. So we kept that separate and just identified an order of magnitude of it and characterized it as something that could affect a relatively small number of people but in a very significant way in some cases.

Q Did I hear you say a moment ago that this was a process that was used in another, by others? Is this a standard procedure?

A (Rockler) I wouldn't say this is a standard procedure. This is an extension of the use of the imputed rent data to try to derive value from ownership in this circumstance. I don't know that it's been done in this particular fashion based on visibility losses or using the literature to drive with.

A (Kavet) And the estimate of the total loss is pretty standard. It's how do you get that into the REMI model in a meaningful way, and it wasn't something that was easy so we kept it separate.

A (Rockler) And there's a lot of uncertainty about the persistence of the property value changes.

I mean, the market will adjust once the line is there. And again, you may see a smaller pool of buyers but ones for whom the visual affect of the line may not make any specific difference at that point. The market has a way of adjusting to that, and you may have fewer buyers, but there's still a market for it. It's hard to say how long the visual impact persists. So we got to be very uncertain as to how you really want to approach that in a long range sense. In a very long range sense the loss of property, we've calculated it to be pretty small. The loss of imputed rental income. It doesn't move the REMI model very much.

MR. IACOPINO: I'm going to ask that you both keep your voices up. There's some folks in the back can't hear you.

A (Kavet) Okay. Thanks.

A (Rockler) Sorry.

Q Just with regard to the property value decrease your Table 25 of your report seems like a good summary of effects on Gross State Product, but I notice that the property value exchanges or the rental in that rental income analysis is not

included in that, and I'm wondering if you could tell me why.

A (Kavet) As we said, it didn't lend itself to entry into the REMI model in a meaningful way so we treated it as a separate issue but didn't include it as a part of the scorekeeping that would flow through the REMI model.

Q But had you, then the negative effects of the Project as outlined on Table 25 would be greater?

A (Kavet) Yes. It would be a negative effect. It's just the way it works itself into the economy would end up being fairly, so small as to not really be significant, but that said, understanding that on an individual basis could be very, very significant, and the total could be $15,000,000 or more, depending on number of affected properties.

Q Okay. Thank you. That's all I have.

PRESIDING OFFICER HONIGBERG: Commissioner Bailey?

QUESTIONS BY COMMISSIONER BAILEY:

Q Thank you. Good afternoon. Most of my questions have been asked, but I want to ask

followup questions in general because I want to make sure that I'm understanding what I heard.

So the first thing I'd like to talk about is supply response, and do I understand that when you say supply response you're talking about the response of the economy when savings are no longer there?

A (Kavet) Yes.

Q Okay.

A (Rockler) Yes.

Q And the negative numbers in the electricity market effects in the Gross State Product table, are those the result of the lost jobs from the supply response, the negative 30 and the 2030?

A (Kavet) The same event is causing both of the those things to be negative so they're consistent with one another.

Q So we lose 192 jobs so, therefore, the electricity market is going to lose $30 million?

A (Kavet) No. The impact on the state economy is negative $30 million. So those are two metrics that are measuring the same, that are reflecting the same event. So the model has a supply response that results in 192 fewer jobs and $30

million less in Gross State Product relative to the baseline.
Q And that's because there's no more savings from the capacity market. Or from the electricity market.
A (Kavet) Pricing capacity. Yes.
A (Rockler) Combined price and capacity. Yes.
Q Combined energy and capacity?
A (Rockler) Right. Yes.
Q So how does the GSP increase from the electricity market or how does the GSP increase in the electricity market effects and in both tables during construction? How does the electricity market --
A (Rockler) It's that overlap into 2020. That's, what you're seeing is the effect of one year because the Project goes live in part of 2020. So it has the immediate effect of that one year.
A (Kavet) There's a little bit of spillover in that one year because you have operational effects and the end of the construction effects occurring so there's, you know --
Q So the model assumes that the operations begin some time in 2020.

A (Kavet) In this case.
A (Rockler) Yes. The model doesn't assume it. We put it in.
Q Thank you. Okay. I think I'm good on the table now.
In your original Direct Testimony, you make a statement that you think that the impacts on tourism are greater if visitors encounter transmission lines multiple times as they travel through the region.
A (Kavet) Yes.
Q What do you base that on?
A (Kavet) Common sense, I think.
Q Okay. That's your opinion?
A (Kavet) That's my opinion. That's right. So when we say is it's a viewshed limited sort of effect. You have no idea exactly how many times a visitor may see the line and the more frequently it's seen and more frequently it's seen in places that it's not expected you might get a more intense response. So we're not, we're not basing numbers on some average number like that, but it's just a point to keep in mind that it's not, there's one destination somebody

goes to and they drop out of the air and that's the only thing and if there's no view there's no effect. Sometimes they could, you know, it could be prominent in an area that they drive through and it could still have a negative effect.

Q In your initial Exhibit A you have a lot of contacts from Plymouth businesses who are concerned about loss of business, and I was wondering if you're familiar with Northern Pass's offer to make up for lost business revenue with their business interruption claim?

A (Kavet) I was recently shown a copy of, I don't know if it's a final document or some draft that's to that effect.

Q Do you think that that would mitigate the impact on businesses?

A (Kavet) If there was some kind of either coincident payment or lending capacity with a true-up later on so that payroll could be maintained and things like that right during the period that it's happening and if it were independently administered, I think it could.

Q Okay. I would characterize your Direct

Testimony about Plymouth is that you believe the construction impact on Plymouth is going to be particularly harsh.

A (Kavet) It's a high risk is what I would say. So there are ways to mitigate it and things that could be done, but right now it's, you know, the feedback we've gotten and from what we know about it, it represents a risk. It's not, you know, we've tried to quantify that and give you an order of magnitude on it, but it's a negative risk that right now exists.

Q Do you think that that negative risk is an unreasonable impact?

A (Kavet) Well, it's a significant impact, especially to the businesses and people in that locale. It's obviously, you know, when you start to move back out and say well, the whole state or something like that it's much smaller as a share of everything else, but that's what it is.

Q Okay. That's all I have. Thank you.

A (Kavet) Thank you.

PRESIDING OFFICER HONIGBERG: Mr. Iacopino?

QUESTIONS BY MR. IACOPINO:

Q Just a couple clarifying questions. You referenced a figure before when you were asked about your confidence in the model, well, I guess it was in the modeling, but you referenced your revenue forecasting for the State of Vermont, and I think what you told us is that you are within two percent on that revenue forecasting. Is that correct?
A (Kavet) Average absolute error is around, is a little less than two percent.
Q Okay. That's not economic forecasting. That's just revenue forecasting, though, or is there a difference?
A (Kavet) Well, we have to do economic forecast to get to the revenue forecast so revenue models are built on economic variables that we also forecast so you have to do both.
Q Okay. So you were very careful to say that using the REMI model is not forecasting.
A (Kavet) That's right.
A (Rockler) That's right.
Q Does that two percent translate to your use of the REMI model? I mean, is that a fair translation?

A (Kavet) No. That's what we're saying. It's not a point forecast. It's a simulation model, and depending on what you assume, you're going to have a different outcome, and it's used to allow bodies such as yours to evaluate relative risk.

Q And is there some base level margin of error in the REMI model?

A (Rockler) Not that's measured explicitly, no. Each of the data sources that go into it has survey error, it has data collection error. They're census data, largely, and census-related related data so each one of those things has error associated with it. On a national level, those tend to be very small, but in individual regions, they started having to make estimates for certain things that are sometimes suppressed in the data or missing.

So there are lots of reasons to be skeptical as to its hundred percent accuracy level or claims that it's highly accurate. It's a representation of the economy as an accounting driven machine and the accounts are thought to be pretty good, but they're not flawless, and the notion that things operate in the future the

way they have in the past is sometimes a weak assumption.

So implicit in the model are things like historical growth and historical responses to different economic phenomenon so that you take into account the response to the economy to changes in prices, in that case electricity prices. We do it for residences, commercial and industrial rates. If those industries have undergone some sort of technological change that makes them less or more responsive to changes in price, it's not going to show up in the model. Model uses history. It's a backward looking device.

Q So if I understand what you're explaining right now, though, is what you're saying is that yes, there's some margin of error in there. It's just not published, and we don't know what it is.

A (Rockler) That's correct.

A (Kavet) No, and it would be almost impossible to calculate. It would depend on the run you did, and then going back and could you even validate something, are there data that support

validation. Even in national income accounts that feed this, if you saw how some of the sausage was made with respect to the economic statistics that you hear every day on even things like employment and gross national product and things like that, you know, some of them are a lot weaker than some of the constructs that we've used here.

Q Thank you. No further questions.

BY PRESIDING OFFICER HONIGBERG:

Q Everything I was planning on asking has been asked, but something struck me when you were talking about the area around the Steeplegate Mall in Concord. Someone made a reference to the new Chipotle underneath or right near the lines. Where a piece of property can see the existing line or is right on top of the existing line, abuts it, is the change to having taller lines or more lines in the right-of-way that is already right next to them greater than, less than, or the same as the new effect or the delta on someone who is at the next property or the property after that who might not have had such a pronounced view of it, of the line, the

existing line already? Do you understand what I'm asking?
A (Kavet) I think so.
A (Rockler) The existing property won't see that change if they're right up against the line as they now are. Raising the height probably won't have much of an effect, I don't think. I can't think of --
Q Intuitively, that's what I think is probably correct, but I'm not an expert in this field.
A (Rockler) But you're right up against it. Well, we're not experts in visual phenomenon either as much as the --
Q But I think you said that your calculations of financial impact are at the sliding scale as you start right next to it and move farther away.
A (Rockler) That's right.
A (Kavet) But it's not done property by property bottom up. We're applying a percentage to an entire town and derived from a town and saying, all right, this is, you know, this is a reasonable estimate of a range. So you might have, you know, less visitation in a region that could affect one establishment even, but it

could also affect establishments that are outside of the viewshed.

Q Right.

A (Kavet) It's not, you know, there's a tendency to try to think of it bottom up, but this is a statistical analysis looking at broad areas.

Q But I'm concerned that one of the basic assumptions of the statistical analysis is flawed where the new line would go in an existing right-of-way. Because even looked at at the macro level, you're making a basic assumption about effects geographically moving away when it seems like it may be a straight line after the first property or after the second property, but that's going to pretty much be true across the board. So you don't have to go property by property. You would be applying just a slightly different formulation of what you already did.

A (Kavet) There are a lot of nuances in this on both sides of that. So you also have people that are traveling within an area and encountering the line at different times and different ways. We simply use the visibility

metric as a way to narrow the impact so it narrows it to 1.5 percent of all of the areas in those affected areas. So it's simply saying we just don't want to put five percent on a hundred percent of the tourism activity. That would be a huge number, and we just don't think that's realistic. So what can we use that says let's try to focus it to an area that could, you know, as a way to potentially say, you know, you can argue it could be higher than that because people are traveling all the time and seeing it many, many different times, and it's simply a way to narrow that. It's not a micro level analysis that says okay, we've excluded that perfectly and this one not. It could be done if you had a parcel sort of basis and built it bottom up. It could be a huge endeavor to do that.

Q I appreciate that. Thank you. All right. Mr. Way has a question.

QUESTIONS BY MR. WAY:

Q Just one last question. You said something to Ms. Bailey that piqued my interest in terms of the business claims process where a business can

submit claim after the fact for sales, and you mentioned that it might be something that could be a loan or some sort of process for before the fact. Or and then you mentioned about it be an independent entity. Expand on that a little bit more. What kind of independent entity are you thinking?

A (Kavet) Well, the way a lot of relief or disaster response kind of things like after the BP oil spill, there's an independent entity that then makes decisions about what sort of payments are appropriate. So the entity that's having to pay isn't saying, you know, isn't controlling that in a way that has any bias or, you know, so that's just a fairer way to do it.

The timing is the other issue. A company if they're going to meet the payroll, they have to have a cash flow that's going to support that, and that, you know, the idea is that you don't lay off your employees during this as you can keep them on even though your business dips and there would be some compensation.

So it just has to be timely, and that's why if there's a lending operation with a true-up or

a very quick response to a loss, it would enable a business to stay in business and not lay people off.

Q So that makes me think. We also have the Forward NH Fund which is providing upfront grants for job creation.

A (Kavet) Right.

Q Do you see opportunities for the two to be put together?

A (Kavet) Sure, and it's a substantial amount of money that could be directed in different ways, you know, if you didn't want to incur additional expense and would be more than sufficient to, I mean, it would be a small part of that, of the total commitment that's there.

Q Okay.

A (Kavet) Same with property valuation. It would be more than adequate to compensate affected parties.

Q Thank you.

PRESIDING OFFICER HONIGBERG: Commissioner Bailey?

QUESTIONS BY COMMISSIONER BAILEY:

Q When the supply response produces a negative

impact on the economy in your tables, would you say that that's a result of the Project?

A (Kavet) Well, it's a result of the change in the assumptions about the electricity price savings. And it's not just our table, it's also in the Applicant's table.

Q Okay. Thank you.

A (Kavet) So it's consistent.

PRESIDING OFFICER HONIGBERG: All right. Any other questions from members of the Committee? All right. Seeing none, Mr. Pappas, do you have any redirect for your witnesses?

MR. PAPPAS: I do. May I suggest just a five-minute break?

PRESIDING OFFICER HONIGBERG: You certainly can suggest that, and we'll take a ten-minute break.

MR. PAPPAS: That would be fine.

(Recess taken 2:50 - 3:00 p.m.)

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

MR. PAPPAS: Thank you, Mr. Chair.

REDIRECT EXAMINATION

BY MR. PAPPAS:

Q Gentlemen, I just have a few followup questions to ask you. First you were asked some questions about your work in TDI, and I want to follow up some of what Mr. Needleman asked you. He showed you Applicant's Exhibit 301. And on the screen now in front of you is Applicant's Exhibit 301. It is the Prefiled Testimony, Mr. Kavet, that you gave in Vermont. Do you see that?
A (Kavet) Yes.
Q And he specifically asked you about pages 17 and 18, and if you look on page 17 starting at line 18, he asked you about your testimony where you said, quote, "The primary negative externalities considered in this economic analysis were possible traffic delays and potential negative impacts on local businesses that could be affected by traffic issues during underground constructive work. These were not considered large enough to include as model inputs based on TDI New England's other testimony in this case indicating that such negative externalities would be minimal and temporary, with local business access maintained during construction periods and minor detours planned where

necessary to keep traffic flowing."

Do you recall that?

A Yes. I do.

Q Could you explain to the Committee why it is in TDI you found as I just read and some of your findings in this case are different?

A (Kavet) The negative impacts that affect tourism property valuations were largely, were entirely mitigated by the fact that it was underground or under water the entire time so you had no aesthetic impacts.

The construction-related negative impacts were mitigated by a very thorough process that the Applicant in this case went through with each town that was involved. There was not a single town on the route that opposed the Project. There were all kind of work-arounds that they did, sometimes changing the route, sometimes doing things that would ensure smooth flow of traffic and access to businesses, but there wasn't a single town on the entire underground route that was opposed to the Project.

Q Now, you had also been asked about the TDI case

you didn't find or you found long-term positive impacts and it was a little different in this case. Do you recall that?

A (Kavet) Yes. We didn't go out as far with the analysis, but the analysis of the longer term impacts were notable in that even though capacity market benefits were estimated by an outside energy consultant, we did not include those in the REMI model. The Applicant wanted to be conservative with the inputs and the benefits that the Project could bring and they directed us not to include that as an economic benefit in the REMI model. So, you know, I think it was a conservative decision, but quite often I think an Applicant would want to err on the side of being conservative.

Q So in TDI, did you also rely on another consultant to provide you with the analysis for the energy market and the capacity market?

A (Kavet) Yes. Very similar to the way we did with Brattle, Leveton was the consultant in that case. Leveton was the outside list for energy markets in much the same way that Brattle was in this case.

Q And did Leveton provide you with their analysis of the energy markets?
A (Kavet) Yes.
Q Did you include that in your REMI model for the TDI Project?
A (Kavet) Just the market prices, not the capacity market benefits. So they called them out and said here's what they are, but they didn't go through the REMI model and generate all the secondary benefits and count as part of the job counts that we used in that analysis.
Q Okay. And that was a decision not to include those capacity --
A (Kavet) Yes. I think, there's some concern in the discussions about the difficulty of allocating that on a state-by-state basis and just wanting to be conservative with the overall benefits.
Q Okay.
A (Rockler) And I don't think Leveton was convinced that the additional capacity that TDI was bringing in would qualify. So there was some uncertainty about that and they said given the level of uncertainty, let's leave it out.

Q Okay. Now, you were asked earlier today about your analysis of Northern Pass Transmission lines' impact on property values so I just want to follow up with a few questions about property values.

What did you consider to be the biggest factor in your analysis of any impact on property values?

A (Kavet) Visibility, I think, is the primary mechanism through which there's an impact.

Q And did your methodology seek to capture the impact from visibility?

A (Kavet) At a macro level, yes. That's why we used the data that T.J. Boyle had on visibility to scale that.

Q In your opinion, were there properties that could be impacted by visibility that were not included in Dr. Chalmers' work?

A (Kavet) Yes. I mean the, his focus was on property that were proximate to, very close to the power line and very little beyond that. So that a property even like the one that he speculated might have an impact loss of, you know, a view lot that was $200,000 could be a

hundred thousand or even $75,000, that sort of a lot of it if it wasn't proximate to the power line would not have been included. So that's a sort of thing, who knows how many of those there might be, but it's inconceivable that there are none.

Q And when you refer to that kind of lot, are you referring to the interview Dr. Chalmers gave to New Hampshire Public Radio?

A (Kavet) That's correct.

Q Now, you were asked about the New Zealand study that you refer to in your report. In the New Zealand study what was the key factor in assessing impact on property values?

A (Rockler) Once again, it's visibility to the lines and visibility to the structures. Both of those things.

Q Did it make a difference whether it was visibility to the structures or visibility to the lines?

A (Rockler) I think they both had an impact, if I recall correctly.

Q Now, the New Zealand study was first done in 1995; is that right?

A That's correct.
Q And it looked at 444 property transactions?
A (Rockler) That's right.
Q And in your opinion was it a well-performed study?
A (Rockler) I think it has the, yeah, a lot of the characteristics of a very well-performed study.
Q And why is that? Why do you believe that?
A (Rockler) This is a technique which is used to identify the value of different attributes of properties. So not only is the visibility of the property included but the degree of improvement of the property characteristics that the property brings to the market that people would look at in terms of valuing when they make a purchase. This uses a large sample of transactions, and they are all vetted as arms-length transactions. They are comprehensive, I think. The number of variables that are included with the property descriptions is about 10 or 12, if I recall correctly. And yeah, visibility is one of the key factors so it's an objective means of establishing the value of different attributes of a property.

Q Now, we've heard the term hedonic study. Would you consider the New Zealand study to be a hedonic study?
A That's correct, yes. That's a study that uses characteristics in a regression-based model to try to ferret out the value of individual attributes of the property to put a weight or a value on each one of those.
Q And did I hear you correctly that the Department of Energy also relied on the New Zealand study in the EIS?
A They do, and it's cited in a number of other places, even a set of recent studies we just found in the last couple of weeks, 2017 studies. Too late to include in our Supplemental, but ones that list that study very specifically as an example of a very well done hedonic statistical study in terms of valuing property.
Q Earlier today Attorney Needleman asked you some questions bouncing back between Table 16 and Table 17 so on the screen now is Counsel for the Public's Exhibit 586 which we have put both tables on one page for convenience sake.
Could you just briefly explain to the

Committee what you're trying to explain in Table 16 and what you're trying to explain in Table 17?

A (Kavet) Yes. It may have been confusing, but we were essentially trying to say what is the distribution of properties that exist. So if you had a flat one percent impact, what would it be, and what did we actually use when we applied the Callanan and Hargreaves data to that set of properties, that's the actual impact that you get, and you see it decreases substantially as you get out very far. It's almost infinitesimally small, but one is just a flat one percent times the total number of properties, it's property value, and the other is scale.

Q Okay. So the Table 16 is sort of an example and Table 17 is the analysis?

A (Kavet) That's right.

A (Rockler) That's right.

Q Okay. Now you were asked a number of times this morning about you could have followed up with the Data Request if you couldn't find something in LEI's workbook and so forth. Do you remember

that?
A (Rockler) Yes. I do.
Q And in your Data Request, did you request a complete copy of LEI's REMI workbook and other working documents to review?
A (Rockler) That's precisely what we did. We asked for all of it.
Q Was it your understanding that you in fact received all of LEI's workbooks and working papers?
A (Rockler) That's correct. So that if we had all the working papers we would know how certain values were derived. We would see where they come from.
Q So if you couldn't find something in one of their documents, did you assume that it wasn't there because you had all their documents?
A We had asked for it. We didn't get it. It doesn't exist.
Q So let me ask you, you had some questions earlier about the missing $98 million. Do you recall that?
A (Rockler) Yes.
Q And you were asked a question about one method

that LEI used and you indicated that in your opinion they didn't do the proper method. Do you recall that?

A (Rockler) Yes.

Q You weren't given the opportunity to explain why they didn't use the proper method and you did so why don't you explain to the Committee why you think their method was not proper?

A (Rockler) Yes. What they allow the model to do, they say well, we're going to input the wrong data, and we're going to then calculate what the effect of that measuring it as kind of a quasistate product so that's really called value added, but they're similar concepts, and what they did was they said well, we'll go ahead with the misestimation and then we'll subtract it out at the end. But it's not given the same composition by industry or the effects that have an effect on local activities, different local activities weighted properly. It's just an aggregate removal of this value added that's misestimated. It's an odd way to do it. It's not a standard procedure by any means.

Q Okay. Now, you also had some questions this

morning and testimony about the intermediate materials purchased. Do you recall that?
A (Rockler) Yes.
Q And you were shown some exhibits where there were numbers and you had recalled using $34 million and this related to the difference in the labor number for 18 percent difference. Do you recall that?
A (Rockler) That's correct. Yes.
Q And you weren't able to locate quickly in front of you the $34 million, correct?
A (Rockler) Right.
Q Are you willing to go back and look at your -- do you need to look at all your material in order to come up with that?
A (Rockler) I need to have the full set of the files that I used to prepare the input data, yes.
Q Are you willing to go ahead and look for that and provide that?
A (Rockler) It is now on the schedule. We will hope to get that back to you by the end of the week. If there's a change that needs to be made in the tables to reflect a problem, yeah, we'll

make that change.
Q Okay. So you'll go back and look, and if you can locate it you'll identify it, and if there's a change to be made you'll make the change?
A (Rockler) I'll tell you exactly what I find.
Q And if there's no change to be made, you'll indicate that?
A (Rockler) I will.
MR. IACOPINO: What are we calling that document?
MR. PAPPAS: It came up in, I believe, Applicant's 303 was the document that those numbers on the bottom indicated, and he couldn't recall where the $34 million came up.
A (Rockler) It's the highlighted Redimix input data, the value of Redimix purchased in New Hampshire.
MR. IACOPINO: Okay.
A (Rockler) Redimix concrete. I should be clear.
Q Now, you were shown earlier today the quote from the person from the Chamber of Commerce in Sedona regarding putting a transmission line in that area. Do you recall that?
A (Kavet) Yes.

Q Am I correct that before the -- was that, I believe, the President of the Chamber of Commerce?
A (Kavet) Yes. She is.
Q And before the President of the Chamber of Commerce in Sedona was able to provide that to you, did she need to clear that with her Board of Directors?
A (Kavet) Yes.
Q And was one member of her Board an executive from an electric company?
A (Kavet) Yes. From Arizona Public Service. I think that was mentioned in a question from the Committee.
Q Now, when you met with business owners in downtown Plymouth, had some of them indicated to you that they had gone through past construction projects in their area?
A (Kavet) Yes. Several had mentioned.
Q And did some of them express to you some of the business losses they had incurred in those past Projects?
A (Kavet) They did.
Q Did they express to you that they had the same

concern for potential business losses in this Project?

A (Kavet) Yes. And from some things that, you know, you might not guess. You know, there's the traffic flows and all, but one mentioned just the level of dust was a real problem. They had to like dust everything in their store each day because there was a lot of dust that was created, and they were selling gifts and things like that. So that, you know, that wasn't something that jumped to mind for me as a potential issue or something so yeah, it was useful to be able to get that kind of feedback on potential issues.

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

PRESIDING OFFICER HONIGBERG: All right. I think we are done with these witnesses. There's no one else we are calling today so I think we're going to adjourn and be back tomorrow morning with --

MR. PAPPAS: Our Aesthetics Panel.

PRESIDING OFFICER HONIGBERG: The Aesthetics Panel. Mr. Needleman, you look like

you want to say something?

MR. NEEDLEMAN: I do, and I'm not sure it needs to be on the record. My question is do we have any sense of the witnesses who will be coming after the Aesthetics Panel.

PRESIDING OFFICER HONIGBERG: Off the record.

(Discussion off the record)

(Hearing adjourned at 3:26 p.m.)

C E R T I F I C A T E

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

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

Dated at West Lebanon, New Hampshire, this 17th day of October, 2017.

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Cynthia Foster, LCR