STATE OF NEW HAMPSHIRE

PUBLIC UTILITIES COMMISSION

December 6, 2016 - 10:04 a.m.
Concord, New Hampshire

RE: DE 16-097
LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP. d/b/a LIBERTY UTILITIES: Least Cost Integrated Resource Plan.

PRESENT: Chairman Martin P. Honigberg, Presiding
Commissioner Robert R. Scott
Commissioner Kathryn M. Bailey

Sandy Deno, Clerk

APPEARANCES:

Reptg. Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities:
Michael J. Sheehan, Esq.

Reptg. Residential Ratepayers:
D. Maurice Kreis, Esq., Cons. Adv.
Pradip Chattopadhyay, Asst. Cons. Adv.
Office of Consumer Advocate

Reptg. PUC Staff:
Alexander F. Speidel, Esq.
Richard Chagnon, Electric Division

Court Reporter: Steven E. Patnaude, LCR No. 52

I N D E X

E X H I B I T S

P R O C E E D I N G

CHAIRMAN HONIGBERG: Good morning, everyone. We're here in Docket DE 16-097, which is Liberty Utilities (Granite State Electric) Corp.'s 2016 Least Cost Integrated Resource Plan docket. And we are here for a hearing on the merits this morning.

Before we do anything else, let's take appearances.

MR. SHEEHAN: Good morning, Commissioners. Mike Sheehan, for Liberty Utilities. Present with me is Heather Tebbetts, Chris Brouillard, and Eric Stanley.

MR. KREIS: Good morning, Mr. Chairman, members of the Commission. I am D. Maurice Kreis, the Consumer Advocate, here on behalf of residential utility customers. And I'm all by myself this morning.

MR. SPEIDEL: Good morning, Commissioners. A. Felix Speidel, with the New Hampshire Public Utilities Commission Staff. And I have with me Richard Chagnon, Utility Analyst of the Electric Division.

CHAIRMAN HONIGBERG: All right. How

are we proceeding this morning?

MR. SHEEHAN: In conversations with Mr. Speidel yesterday, I have no particular questions of my witnesses. We don't have testimony. But we will put Mr. Stanley and Mr. Brouillard on the stand, ask some introductory questions, and make them available for whatever questions the Commission may have.

CHAIRMAN HONIGBERG: Are there going to be other witnesses?

MR. SPEIDEL: Other than the Company's and Mr. Chagnon, in succession, no.

CHAIRMAN HONIGBERG: Okay. All right. So, why don't we get started with that.

And while they're taking their positions, there are no preliminary matters or pending motions, are there, Mr. Sheehan?

MR. SHEEHAN: No motions. There are two exhibits. Exhibit 1 would be the filing with attachments. And Exhibit 2 would be Mr. Chagnon's testimony.

(The documents, as described, were herewith marked as **Exhibit 1** and **Exhibit 2**,

respectively, for identification.)

(Whereupon ***Christian Brouillard*** and ***Eric M. Stanley*** were duly sworn by the Court Reporter.)

CHAIRMAN HONIGBERG: Mr. Sheehan.

CHRISTIAN BROUILLARD, SWORN

ERIC M. STANLEY, SWORN

DIRECT EXAMINATION

BY MR. SHEEHAN:

Q. Mr. Stanley, your full name and your employer and position with the Company please.

A. (Stanley) My name is Eric Matthew Stanley. I'm employed by Liberty Utilities Service Corp. And I'm the Manager of Energy Efficiency and Customer Programs for the Company's business unit in New Hampshire.

Q. And did you play any role in creating what has been marked as "Exhibit 1", the Company's LCIRP?

A. (Stanley) Yes.

Q. And, as an overview, what role did you play?

A. (Stanley) I provided input into the Company's energy efficiency activities and its planning

in regards to those specific efforts with its electric customers and as it pertains to any system planning as benefits its energy efficiency activities in that role.

Q. Thank you. Mr. Brouillard, your name and employer please.

A. (Brouillard) My name is Christian Brouillard. I am employed by Liberty Utilities Service Corporation.

Q. And what are your job responsibilities with Liberty?

A. (Brouillard) I am the Director of Engineering. And, as part of my responsibilities, I oversaw the development of the Least Cost Integrated Resource Plan with respect to the -- the requirements of the plan and respect to certain criteria contained within the Plan.

Q. And we heard Mr. Stanley provided input. Who else from the Company? What other positions, if you will, provided input into the Plan?

A. (Brouillard) We had a wide array of participants in the Plan, ranging from our Forecasting group, Mr. Stanley's group, our Planning group, our Regulatory group, and input

from our Operations group.
Q. And you're familiar with the statutory requirement that the Company periodically file these plans for submission to the Commission, is that correct?
A. (Brouillard) Yes, I am.
Q. And, understanding you're not a lawyer, but do you have an opinion as to whether the Plan, as filed, satisfies the criteria set forth in the statute?
A. (Brouillard) Yes, it does. We paid particular attention to that as we were developing the requirements of the Plan.
Q. We had a tech session in this docket and conversations with the parties. And it's my understanding that Mr. Kreis might have some issues, not with the Plan itself, but with how the Plan -- what role the Plan plays in the Company's day-to-day activities. That is, is it something that we use or is it something that we prepare and basically put on a shelf? Could you give us some -- the Commission some understanding of how this Plan -- what role it plays within the Company's daily work?

A. (Brouillard) Yes, I can. The Plan itself serves as a repository for the way that the Company goes about planning a summary document of record regarding our planning criteria, and the various steps that we will be employing going forward as we develop initiatives to address the safe and reliable operation of the delivery system.

We also found that, during the course of our rate case proceedings, that the document itself also served as I'll say a very handy reference, when it came to answering the variety of data requests that we received from Staff and from the OCA.

MR. SHEEHAN: Thank you. They're available for cross-examination.

CHAIRMAN HONIGBERG: Mr. Kreis.

MR. KREIS: Thank you, Mr. Chairman. I don't think I have very many questions for the witnesses.

CROSS-EXAMINATION

BY MR. KREIS:

Q. Mr. Brouillard, you just testified that the Least Cost Integrated Resource Plan we're

talking about today is a "repository of how the Company goes about planning". Can you explain what you meant by "repository"?

A. (Brouillard) Yes. There are various steps that we undertake as part of the planning process. We employ planning criteria as we evaluate the system needs going forward. We essentially combine our forward forecasts with the operating parameters of the system, and the criteria that we use to, you know, essentially determine the health and effective capability of the system. So, this serves as a very quick reference document to ourselves, and also to others who might also be involved in the process and are looking to determine how we go about planning the system and the various steps that are involved.

CHAIRMAN HONIGBERG: Off the record for just a sec.

[Brief off-the-record discussion ensued.]

CHAIRMAN HONIGBERG: You may proceed.

MR. KREIS: Okay.

BY MR. KREIS:

Q. The Least Cost Integrated Resource Plan talks about "wires solutions", "non-wires solutions", it mentions "energy efficiency". Mr. Brouillard, can you think of an example of a wires solution that the Company has determined not to pursue, because it found that either a non-wires alternative or perhaps some combination of a non-wires alternative and/or energy efficiency caused the Company to do that?

A. (Brouillard) I can't think of a ready example. However, I will say that as we -- the non-wires solutions are -- the impact of those solutions are embedded in the historical load information that the Company puts together, and hence they're also essentially embedded in the future forecasts, in that we assume that a similar level of effectiveness of energy efficiency programs or distributed generation on the system is going to continue going forward. So, to that extent, when we -- if we defer any upgrades, whether they would be to a discrete piece of equipment or say a system reinforcement on a feeder position, if we defer

that even by say a year or so, there is an embedded impact of the effect of energy efficiency and distributed generation in that regard.

Most of the -- actually, all of the major facilities additions that we've undertaken to date were in place and in our capital plans and our overall plans prior to the preparation of this, this version of the Least Cost Integrated Resource Plan. So, we do look forward to, as we go forward and we have projects that are out in the future that meet the screening criteria contained in the Plan, we look forward to, I'll say, trying out some non-wires alternatives as direct competitors to wires alternatives. I'm, you know, actually, I'm really awaiting an opportunity to try some of the non-wires alternatives that we've thought of as part of the development of the Plan, really to see, you know, to see how effectively they work, to get a, you know, a good handle on what the costs of these alternatives are, and also to get a better understanding of the time frame that's involved to implement these non-wires

alternatives, you know, as compared to some of the traditional alternatives that we've had a history of implementing.

Q. Are there any circumstances in which a service provided by either the customers themselves or some third party might serve such a non-wires alternative?

A. (Brouillard) It's indeed possible. And we've briefly talked about such a possibility as part of our grid mod. effort that's going on, you know, simultaneously with other -- with other efforts with Staff.

Q. Is that possibility reflected at all in the Least Cost Integrated Resource Plan that we're talking about today?

A. (Brouillard) I don't recall. There may be some, some brief mention of data or other suppliers, but probably isn't called out directly, to my recollection.

Q. Okay. So, here's what I think I've heard from your testimony, and you can tell me if I've got this right. Your testimony is that, because the effect of non-wires alternatives is embedded in the future forecast that's

reflected in your Plan, as long as we're satisfied with the way that you've done that, the Commission can infer that the resource deployment decisions that the Company is making are, in fact, least cost?

A. (Brouillard) I would agree with that.

MR. KREIS: Thank you. Mr. Chairman, those are all the questions I have.

CHAIRMAN HONIGBERG: Mr. Speidel.

MR. SPEIDEL: Thank you, Mr. Chairman.

BY MR. SPEIDEL:

Q. Mr. Brouillard, are you familiar with this proposed Exhibit 1, the LCIRP? You seemed to indicate that you were and you were involved in its preparation, is that correct?

A. (Brouillard) That is correct.

Q. Very good. I would like to turn, if you happen to have it in front of you -- just one moment -- to Bates Page 035 of Exhibit 1. And there's a paragraph that begins on Line 11, and I can read it out verbatim: "Liberty has reviewed and refined its planning criteria since the transition from National Grid. The

refined planning criteria are summarized in Figure 4.3. The planning criteria refinements, such as lowering the equipment rating "take action" limit from 100 percent to 75 percent on transformers and feeders, reflect Liberty's philosophy to strategically plan well ahead of system upgrade need dates."

So, the first question I'd like to ask is, it seems that the "100 to 75 percent" is a shorthand for some kind of technical criteria. Could you just explain what those percentages refer to?

A. (Brouillard) Yes, I can. And I can probably best do so in comparing the past criteria of 100 percent to the current of 75. So, under a -- under prior ownership, the planning criteria was -- distribution planning criteria was such that we typically did not plan to upgrade the delivery facilities until the thermal loading of those facilities had either reached 100 percent or was projected to reach 100 percent of their normal rating capability.

Under the -- under Liberty's design criteria, we will now begin to plan for

upgrades of those facilities when we project the loading to reach 75 percent of either the system or the discrete equipment thermal loading capability.

Q. So, when you mention "thermal loading capability", remembering high school physics, it refers to the natural resistance of the wires as the electrons flow through it. And it's not like nichrome, where you have the heater and it gets very hot, but it warms up even a copper wire that has very good, shall we say, flow-through still has some level of resistance, and it warms up. Is that right?

A. (Brouillard) That is correct. And there is a -- there is a limit to how much the equipment can warm up, if you will. Eventually, the degradation of equipment or what we would technically call the "loss of life" of the equipment, strays outside of the, you know, the bounds that we have set through, you know, that we have accepted through various standards. So, we'll accept some nominal, very small loss of life as part of just the normal -- normal operating and, you know, day-to-day degradation

of equipment. But, when it reaches a certain point, it's now exceeding that rate, and we deem that to be unacceptable.

Q. Okay. So, you're doing this to prevent outages, in the sense that you're concerned that, if you're going up to that 100 percent level, that, in the summertime, for instance, when you have heavy load, a lot of air conditioners working in the summertime, and less ability for the ambient air to sort of cool down the wires, you're concerned that there could be an outage. Could you just technically explain what that would look like or sound like or feel like for the system?

A. (Brouillard) In it's -- in it's worst condition, it would look -- look, sound, and feel very bad. It would be an explosion, and not only damage the piece of equipment itself, but potentially the surrounding equipment, and pose a significant hazard, to say the least, to the workers or the public that may be in the area.

In its -- I guess, in its most benign state, there would be insidious degradation of

the equipment during the overload, and the equipment would fail prematurely at some time down the road.

Q. So, also relying on my experience from high school science courses, I'm trying to remember, there are instances where they give technical ratings for materials for, for example, failure ratings. You have a piece of metal, and it has a certain tensile strength rating, so you can submit it to so much physical force before it snaps. But, you know, there's an actual absolute number. But then don't rating agencies usually give in a little bit of margin of safety? Are you familiar with that? Or would you be able to point that, in this instance, as being a reliability? Or is the 100 percent level the absolute failure level expected from the equipment?

A. (Brouillard) No that is not the absolute failure level. That is the -- the 100 percent level is a level deemed through standards, through an ANSI standard. That, at that point, you're exceeding the acceptable day-to-day loss of life of the equipment. So, you're

accelerating loss of life beyond a -- what we would call a "normal day-to-day loading criteria". There are other standards that apply to emergency loading criteria and that, in order to respond to a system contingency, will accept a higher level of loading during a very short period of time, recognizing that we're going to take some additional loss of life. But, from a standards and ratings basis, we deem that to be acceptable, in order to, you know, maintain the reliability of the system. So, there's actually a couple of criteria that we apply. A "normal" rating criteria, with an assumed loss of life factor, and an emergency -- a "long-term emergency" rating factor that carries with it another assumed loss of life factor. And there are others, depending on the piece of equipment that we would apply to different pieces of equipment.

Q. So, the engineering philosophy that's at play, to oversimplify, is, okay, you have an automobile engine. There is a redline on your tachometer. You don't want to go all the way to failure, which is, say, 10,000 RPM. You

want to stay shy of the beginning of the redline, if you can, even though the machine won't fail. You kind of want to give yourself a little bit of a safety margin there. Is the engineering philosophy that you would make additional investments in the equipment to save the overall system from undue and unnecessary expense from failure?

A. (Brouillard) I think you're headed down a very good road there, in that we not only look at an individual circuit, but we also broaden it to look at the system view. So, where we -- when we develop criteria, such as a 75 percent criteria, we're not only looking to preserve individual pieces of equipment, individual circuits, but we're taking a system view, recognizing that, as part of the normal operation of the system, we are going to experience outages, contingencies, or even a very robust spot load growth in the system that we need to respond to. So, if the entire system is designed with a 75 percent loading criteria in mind, then that -- that allows us to react to normal, contingency, and other

operating conditions on a continuous basis going forward.

Q. Okay. So, I would like to ask a couple of questions about how this revision of criteria was developed. Was it something that a team of engineers within the Company and yourself and other Engineering Department executives developed independently? Was it suggested by your parent company? Could you clue us in a little bit as to how this came about?

A. (Brouillard) Yes. I would be happy to do that. When Liberty -- Granite State Electric was sold to Liberty Utilities, we realized at that point in time that Liberty was a very different company than the previous owner. The previous owner was -- you know, had in excess of 3 million customers, operated on a regional basis. Had tremendous resources, both financial, equipment resources, access to labor and vehicles, storm response was -- capabilities were very, very different. So, it really required us, and "us" being the Engineering group, the Operations group, the Executive group, to take a step back and ask

ourselves what -- "what changes in the design criteria or in our operations planning were necessary, not only to continue to provide the level of service previously provided, but also to meet on our commitments to be local, responsive, and caring to those jurisdictions in which we operate?"

And, when we stepped back and took a look at that, that we concluded that we did not have that breadth and depth of resources. And, furthermore, the expectations were significantly higher in our ability to respond to our customers, to respond to storms, and to respond to even blue sky outages.

So, one of the key elements to this, and there were others, others that are, as an example, are contained in our Reliability Enhancement Program. But, just focusing on the LCIRP initiatives, one of those -- one of the thoughts was to revisit -- revisit the design criteria from a distribution feeder, a sub-transmission, and a substation perspective, and see if that criteria was still appropriate, given the, you know, the resource mix available

through Liberty and the commitments that we've made to our customers, our regulators, and our community. So, that is what -- that is what prompted the revisiting of the criteria.

We also did talk to -- we talked to some of the planning folks at National Grid. Not really from the perspective of, you know, "what do you think it should be?", or more from the perspective of "what changes do you see in the future, given the expertise that National Grid did bring to the table?

And some of their comments were quite -- were quite insightful, in that it touched on the ability of utilities to build in a timely fashion the changing customer expectations, the change in expectations with regards to response during storms. So, again, that further prompted our team to go back and revisit the criteria and to develop something that we felt would be more appropriate for a utility of our size, a utility that has made the commitments that we have, and a utility with the resource mix that we bring to the table.

Q. Thank you. Moving on, and I think this can be

addressed equally to Mr. Brouillard and Stanley, and you can both offer your own individual perspectives on behalf of the Company, if you'd like. You obviously have reviewed Mr. Chagnon's testimony, which is expected to be marked as "Exhibit 2. Did you have a look at the recommendation that written policies and procedures be developed for integration of the LCIRP planning guidelines into enterprise planning for both management and line employees?

A. (Brouillard) Yes. I recall reading that. I don't have a copy in front of me.

Q. Would you like to borrow mine?

A. (Brouillard) Yes, I would.

Q. Sure. I'll allow you to refreshen your memory about it, if you don't mind.

(Atty. Speidel handing document to Witness Brouillard.)

WITNESS BROUILLARD: Thank you.

[Short pause.]

WITNESS BROUILLARD: Thank you.

MR. SPEIDEL: You're welcome.

BY MR. SPEIDEL:

Q. So, does the Company have any reaction or position regarding this recommendation? Obviously, the expectation by Staff is that the Commission would order such a set of policies and procedures to be produced, and the Company would have some time to produce it, significant time, in advance of the next LCIRP. Is the Company still taking that under advisement? Is it willing to work with Staff to move towards that goal?

A. (Brouillard) Yes, we are. And we would look at the current LCIRP as a first step towards, you know, towards developing, you know, documented procedures that we would employ as part of the next LCIRP.

MR. SPEIDEL: Thank you very much. I have no further questions from Staff for these witnesses. And I'll allow them to keep the Staff testimony for now.

CHAIRMAN HONIGBERG: Thank you, Mr. Speidel. Commissioner Scott.

CMSR. SCOTT: Good morning. Excuse my cough here. My usual caveat, whoever feels best to answer, please do so.

BY CMSR. SCOTT:
Q. So, no particular order -- well, let's -- I want to continue the line of questioning regarding the "take action" limit change that you were talking about. And I want to understand a little bit, basically, what I'm trying to understand is "why is 75 percent the right number?" So, what you said is, National Grid before you used 100 percent threshold. Did that result in failures of some sort?
A. (Brouillard) It resulted in a constrained ability to respond to system contingencies when they occur near peak, and also resulted in a constrained ability to respond to a significant spot load growth on a distribution feeder. And it made it very difficult, often resulted in overloads, as we, and I'll give a case, an example case, in Pelham, the reinforcements in Pelham were not -- were not triggered until the 100 percent condition was forecasted to be -- excuse me -- to be hit. That resulted in the Pelham transformer being potentially overloaded until we -- until we were able to temporarily off-load that. So, there's an example of the

criteria being set very high, and the Company being challenged to react to that in time.

The 75 percent number really is embedded in the -- in the ability for an area of four feeders, if one of those feeders is lost, then we can take the -- you know, the remaining feeders in the area have the capability to pick up that feeder that had -- that had experienced an outage.

So, where we have sets of, you know, groups of four -- groupings of four feeders, we can essentially transfer the load amongst the remaining feeders. We can do that in response to a contingency or we could also do that in response to, you know, spot load growth that may occur, you know, essentially buying us time to upgrade facilities in the area to meet those service needs.

Q. So, is the four-feeder situation, is that the standard through your distribution system?

A. (Brouillard) That's what we're heading to as part of this criteria. So, where we look at -- and there are some other elements there, too, that get intertwined. We look to have adequate

feeder ties between our circuits where practical. So, we look to have a -- each feeder to have a minimum of three feeder ties, you know, two neighboring feeders, if it's practical. There are some areas of our system that just don't -- just aren't long enough or broad enough to accomplish that. But, where we can target that, we do. And, then, we also couple it with some transmission and some power transformer loading criteria also.

Q. So, obviously, just like a lot of things you and we do, there's a balance between cost and reliability, and trying to find that is always difficult, right?

A. (Brouillard) That's what we get paid to do.

Q. And I'm an engineer. As an engineer, obviously, we would gravitate to the most conservative way, that way we're sure there's not a problem, but that tends to be more costly. So, that's really the nexus of a lot of my questions.

Do you know what other utilities use for a threshold?

A. (Brouillard) I believe that Eversource uses an

85 percent criteria. I'm not sure what Unitil's is. I would caution, however, it begins to become dependent on what the utility has for backup equipment, what they have for resources, what their transmission, sub-transmission, and distribution system looks like. And, you know, what their -- what their general contingency and storm planning philosophy is. So, it really requires a holistic look as to how one is going to plan, maintain, and operate the system.

Q. So, back to my more general concept of the balance. So, you've applied -- you've at least gave me one, anecdotally, one example of 100 percent caused problems. So, do you have some kind of cost/benefit analysis that you do -- that you did to get to 75 percent?

A. (Brouillard) No. We didn't undertake a cost/benefit analysis to reach that, that point.

Q. But your position is, for instance, and you already went there with Eversource, I was going to ask you "why not 85 or 90?" You know, what -- so, it's really based on that four-feeder

scenario?
A. (Brouillard) That's correct, yes. And that was the fundamental assumption there. Some of the -- and we retained and we had some feeder outage criteria that we also retained from the past. So, we allow 16 megawatt-hours of outage on a given feeder before we'll take action, and we some similar criteria for power transformers and for, you know, for sub-transmission systems.

Our general guiding criteria is that, you know, absent a, you know, a storm-type condition, we should have the system in a position where we can restore all customers within 24 hours.
Q. Do you have a feel for what the price tag is going from the 100 percent threshold to 75 percent threshold?
A. (Brouillard) Yes. Initially, we had developed some conceptual numbers that ranged, you know, in the $14 million range over a number of years. We've since, as part of further refining the planning criteria, and also simultaneously going forward with a couple of

studies, we've now determined that the new criteria will require seven new distribution feeders, some associated substation construction, and the overall number is a little -- just a shy above $7 million. So, that number has come down significantly. And that would more or less take place over the next five or so years at I think it's at four substations, I believe, that involve feeders that will help to achieve this reinforcement.

Q. Thanks. I'll change the topic now to the non-wires alternatives. And just, again, I think I understand, there are a lot of complexities to look at a non-wires alternative. But, if you look at energy efficiency, I assume you have to be assured that it will actually be there and where you need it, I assume, and that's hard.

If you look at distributed resources, especially if they're intermittent, the same issue, right? You have to understand that.

But I was curious, has demand response been something you've looked at? I mean, to the extent you have especially a large

customer, you know, my concept would be, rather than pay three or four million for a substation upgrade, if you effectively, which is done on the wholesale side, I think EnerNOC is a good example, --

[Court reporter interruption.]

BY CMSR. SCOTT:

Q. EnerNOC. Where you pay a client to curtail under contract. So, now, where you have for, let's say, energy efficiency, you may -- it may be hard for you to plan on. But, if you have somebody under a firm contract, with a penalty, then I think you'd be able to rely on a little bit more. Is that something you've explored?

A. (Brouillard) Yes, it is. And you've just hit on, really, the three areas that we think have the most potential; energy efficiency, which really becomes targeted energy efficiency, when one looks at a discrete area, targeted distributed generation, and targeted DSM.

You know, technically, we can certainly identify, at a conceptual level, what would be required to achieve the associated demand reductions on the system. We believe the

challenge really goes beyond that. It goes beyond how we -- how we research the areas, you know, what type of research is necessary to determine which one of -- which one or which combination of those non-wires initiatives might be the most effective, what sort of customer research has to occur. Once we've done that, you know, which specific customers we're going to target, and with what -- with what mechanisms? What tariff mechanisms do we have available for targeted energy efficiency, targeted DSM, and targeted DG? And, then, what, you know, what the recovery would be for the -- you know, for the Company, as we implemented these.

And we did some high-level analysis. And it was a little -- a little sobering, I guess to view the potential costs of some of these initiatives, relative to the wires initiatives. It wasn't a straightforward, you know, this -- you know, a clear winner economically. If anything, it was the other way around. It looked like there were -- our conceptual analysis indicated that it was going to be a

little more -- could be more expensive than some of the wires alternatives.

Now, that certainly shouldn't be viewed as an excuse not to take these initiatives forward. Rather, I think it's just an excuse to look for a way to perhaps pilot and get some more information, as to the success, the timing, the cost that would be involved in implementing these alternatives to a wires-type initiative.

Q. And, in your -- in the testimony, what I think I read was, in looking at non-wires alternatives, you would require to hire a consultant and do a lot of legwork. And, therefore, you weren't doing it, because you didn't see a cost recovery mechanism there. Did I read that right?

A. (Brouillard) I guess the cost recovery mechanism remains in question at this point in time, as were the costs to, you know, to undertake a consultant to help us better explore, you know, what's really involved here. And I think it's safe to say, you know, we're poised to take the next step with, you know,

with the Commission, with Staff, and with whatever resources we need to. I think we're just waiting for a little more clarity as to, you know, the level of interest that we have going forward and the potential to address some of the issues that we identified in the report.

Q. So, I'd like to parse that out a little bit. Because what I thought I read is, to me there's two issues -- I'm sure there's a lot more than two, but two cost recovery issues. If you implemented a non-wires alternative, how would you get cost recovery to do that? But what I'm talking -- so, that's one thing I want to discuss. But what I thought I was reading also is, the Company was unwilling to even explore or do the analysis, because they weren't going to get cost recovery -- there was a concern about cost recovery for the analysis?

A. (Brouillard) Those would be two of them. And a third might be, you know, is there a decoupling mechanism that may or may not come into play here also? And I think part of it, at least on the energy efficiency side, I think that's already been addressed since the report was

prepared.
Q. So, on the cost recovery for the analysis, how do you recover costs now, if you decide to put a substation upgrade in? The analysis of doing that, how do you cost recover that?
A. (Brouillard) So, depending on the timing, presuming that we had already identified the problem, and we were going to, at this point, do preliminary engineering on a solution, those costs would be captured under the preliminary engineering FERC account. And, then, in turn, assuming that the project went forward, those costs would be capitalized along with the capitalization of the assets themselves. So, there's a -- there's an established recovery mechanism for a study that we would undertake to implement a wires alternative. Because there are no capital assets involved in, you know, targeted energy -- well, targeted energy efficiency or targeted DG, you know, that mechanism wouldn't be the appropriate mechanism to recover the costs.
Q. And you've alluded to it, and it's in the filing also in Exhibit 1, there's a reference

to that "regulatory action would be needed" to fix these things. Does the Company have a proposal?

A. (Brouillard) Not at this time. But, you know, we stand ready to explore what proposals might be applicable. And, you know, we've touched on some of these very similar issues as part of our grid modernization discussions that are ongoing.

CMSR. SCOTT: Okay. Thank you. I think that's all I have.

CHAIRMAN HONIGBERG: Commissioner Bailey.

CMSR. BAILEY: Thank you. You guys have the distinct pleasure of being the first company under my preview of an LCIRP. So, I have some really fundamental basic questions.

BY CMSR. BAILEY:

Q. Can you tell me, apart from this particular document, what the word "plan" means to you?

A. (Brouillard) The word "plan" to me means the ability to couple historical information with current conditions, current operating parameters and philosophies, and develop a

forward menu of actions that are consistent with the Company's established risk profile.
Q. "Develop" -- say that again, "develop a" --
A. (Brouillard) I don't know if I can say it again.
Q. "Develop a forward list of actions"?
A. (Brouillard) Correct.
Q. Is that what you said?
A. (Brouillard) Yes.
Q. Okay. And don't you think that this statute requires you to develop a forward list of actions that would be least cost?
A. (Brouillard) I'm not sure I understand your question, but perhaps -- is your question relative to discrete, you know, line item plans? Is that your question?
Q. Yes. I mean, I guess what I -- I was really surprised that this document looks to me like a report, not a plan at all.
A. (Brouillard) So, if we went back somewhat in time, the Least Cost Integrated Plan did look just like that. It was a listing of planned initiatives on the part of the Company, typically contained in a detailed appendix.

So, there was a relatively short body to the report, and then a very detailed list, in the case of the predecessor company, of distribution initiatives, and may have even involved, at the time, transmission initiatives.

The Company's understanding of the request a couple of years -- I guess two versions ago was that this report was to be less focused on individual line item initiatives that, for instance, would be contained in a capital plan. And it was to -- it was to be a view of how we go about our planning and what factors we take into consideration versus the result of that planning. So, the document that you see before you was a direct result of those discussions. We were essentially asked to shift from a detailed plan, and more to a, you know, a guideline plan.

Q. So, the Plan is just about the process?

A. (Brouillard) That's correct.

Q. Okay. So, I mean, the statute requires us to adjudicate this. So, what I expected was maybe a balance between those two things. An

establishment of some processes, and one of the processes, I guess, or inputs that you've raised is changing the load factor from 100 percent to 75 percent. And, then, you know, some kind of indication of which distribution facilities are at the 75 percent figure, and then some alternatives to consider about how to solve that problem.

And it seems like we just get "Well, we're going to change it to 75 percent." And, so, where are we supposed to adjudicate that? You know, if you had given us a plan that said "Looking forward five years, we think we're going to need to add facilities here, here, and here, and here are the different options that we've considered, and this is why the option is least cost." Then, we could adjudicate whether that option was least cost or not. But you've given us nothing like that.

A. (Brouillard) I would certainly apologize for any confusion that may have -- may have come about since the last plan was filed. When the last plan was filed, you know, as I indicated, you know, the clearest signal that we got was

that we -- it was not desired to have a listing of projects, but we were specifically asked to put together a methodology document. And we've been through, you know, a couple of -- a couple of technical sessions with Staff that, you know, that was reinforced.

So, to the extent that somehow we, you know, became confused over what it was we were supposed to submit, and I apologize for coming up short, if that's what happened. But our feeling was that we were delivering exactly what we were asked to deliver. Also, in view of the -- you know, the last hearing that we had on the matter a couple years ago.

Q. I don't think you need to apologize. It could be my misunderstanding. I'm just going to take a look at the order from last time.

[Short pause.]

BY CMSR. BAILEY:

Q. So, in the analysis from the order, it says "provide a detailed methodology of how Liberty intends to engage in distribution planning performed in the past by Liberty's former affiliate National Grid". So, how did you do

that?
A. (Brouillard) I'm sorry. Could you repeat the question?
Q. "Provide a detailed methodology of how Liberty intends to engage in distribution planning".
A. (Brouillard) So, we've described our distribution planning process within the document. And we've also, as part of the document, we contrasted the change in the planning criteria from the predecessor, National Grid, to Liberty's new criteria. And I believe that we included a table in the document that contrasts those two -- those two different planning philosophies. As well as, you know, pointing out, more or less in the same fashion as the previous line of questioning, as to why it was appropriate for Liberty to change its planning and design criteria.
Q. And what did you interpret the next requirement to mean: "Better integrate actual enterprise planning within its LCIRP process, and provide, as part of the filing, a business process model that indicates the Liberty personnel

responsible for each stage"?

I saw the attachment with the sort of org. chart development. But what does it mean to "better integrate the actual enterprise planning with the LCIRP process"?

A. (Brouillard) So, we interpreted that to mean that we not only engage those groups that we would typically interface with, such as the Operations group. But it also involves engaging the local leadership, you know, through the president's office and through the initiatives that come out of the planning process, so that they're aware as to what the result of this LCIRP process are and our plans going forward. And they have an appropriate feel for the -- for the steps that we're undertaking, to ensure that the delivery system is operating as intended.

So, I look at that as an integration upward. Are we getting the -- are we getting the right signals from executive management relative, as an example, relative to our appetite for risk. And, then, are we developing planning criteria consistent with

that and are we communicating it back up in the form of initiatives to address system shortcomings.

Q. And, so, the result of this plan is that you want to change the distribution thermal capacity from 100 percent to 75 percent. Is that the result of this Plan?

A. (Brouillard) No. It goes far beyond that. That's merely one element of the Plan. Actually, you know, a rather small element, when one takes into account some of the other feeder design criteria, some of the other design criteria for sub-transmission and substations. And we also take a look at our ideas and plans to incorporate some of the non-wires alternatives. Not only on a going-forward basis, but to continue to capture them on a historical basis and see those results embedded in our forward load values.

Q. I think in response to Commissioner Scott's question, you said you did some "high-level analysis of the cost of the non-wires plan and it was sobering". And, so, do you recall that?

A. (Brouillard) Yes, I do.

Q. Okay. So, is that analysis included in this plan?
A. (Brouillard) Let me just check the appendices. Thank you.
[Short pause.]
BY THE WITNESS:
A. (Brouillard) So, we don't have any specific costs that are included in the -- I'm looking at Appendix E. We give some of the -- we did a hypothetical base case study, and we included some of the results in tabular form. But we didn't have the actual costs associated with that.
BY CMSR. BAILEY:
Q. So, we don't really know whether that would be least cost or the solution that you are planning is least cost?
A. (Brouillard) Well, this is, of course, our way forward. It wouldn't apply to any of the current projects that are underway. We would look to implement these solutions essentially as a deferral mechanism to some of the projects that we plan going forward that would meet the screening criteria. I offered my observation

on the cost, just to put some relative perspective to it, in that, you know, what we found working with a consultant was an indication that the -- it wasn't a slam-dunk, as far as it being over and above an easy economic alternative to, say, building a feeder position. It required some substantial upfront work, some substantial research, and some implementation risk that goes along with it. I mean, I think that, until we get a little more experience with all three areas, you know, there is a -- there is a risk that we could implement, say, targeted energy efficiency heavily into a particular area, and we might find, in a year or a year and a half down the road, you know, we didn't see the intended results. But that's just part of trying something new. I mean, we have to -- we would look forward to coming up with a mechanism and an environment that we can -- I really do want to try, you know, some of these initiatives to see if they work, and I hope they do. Because, you know, it gives me, as a planner, it gives me more tools in the toolbox, rather than just

building a feeder position or hanging another step-down transformer somewhere, if I have some tools that, even if they're less reliable, as long as I know how reliable they are, I can apply some success percentages, and I can say I'm targeting energy efficiency, I could work with Eric. And, as long as we know the steps we have to undertake and how much it's going to take, I would like to try to implement these. Again, it's another tool in the toolbox.

Q. But we don't want to implement them unless they're least cost. So, that's what this Plan, to me, should be showing us, is not try something and see what happens, but analyze the cost of the traditional solution and the alternatives that are possible.

Did you want to say something, Mr. Stanley?

A. (Stanley) I was just going to add that, as part of our plan development and looking at what the process would be, we did, in looking at non-wires alternatives, we did explore what some of those options could be, what the costs would be, what would the process be to

implement? We specifically examined specific pilots that are happening elsewhere in the region and also across the country. We looked at the level of investment being made as part of those pilots. We specifically looked for pilots that could be parallel, in terms of fitting into our respective geography, in terms of similar customer make-up, the mix of commercial versus residential customers.

And the sobering comment I think is a response back to our analysis of some of those pilots in place to date and some of the preliminary results, where I think what was anticipated by some of the pilots we examined wasn't bearing some of the fruit that might have been anticipated. And what was certainly required was a lot of detailed research on customer behavior, the specific potential, how some of the technologies could work or not work. And there's not necessarily a clear path at this point for us to say "here's a slam-dunk that could be deployed", but it does -- it will require us more evaluation and research on our part. But part of that was certainly a cost

examination and looking at the investment required.

Q. But you --

A. (Brouillard) And given that we were -- I'm sorry, I interrupted you.

Q. But you didn't put it in the Plan to show us that this is way more expensive than the traditional solution.

A. (Stanley) It's not definitive for us to say at this point. I think what we've put in the Plan was basically "Here's the process. Here's our evaluation criteria of looking at some of these alternatives and what we would go" -- what we would be implementing going forward."

A. (Brouillard) I hesitated to, and I think others shared my opinion, to put any hard costs in the Plan. Because, given the level of investigation that we did, you know, putting the costs in and then ranking them, say, with a current feeder or conversion or something, almost looks like we're raining on the parade before it starts. I really wanted to see if there was a mechanism going forward that we could try some of the non-wires alternatives or

at least take it to the next level. And it seemed to me, by putting a very preliminary -- some very preliminary numbers in, it almost, you know, casts a certain -- certain cost category on non-wires alternatives before we even get out of the gate. So, that was part of the thinking as to why we didn't put specific costs in there as part of this appendix. And we certainly could have, but --

Q. Okay. When you reach the 75 percent mark on your distribution facilities, can you tell me about how long it takes to get from 75 percent to 100 percent? I know it will vary, depending on, you know, load growth and new customers and that kind of thing. But in the ballpark?

A. (Brouillard) I would say we're looking at -- usually, we're looking at two to -- unless we have a particular spot load, we're looking at usually two to three years.

Q. And how long does it take to go through the capital budget process to actually put money in the budget to replace the distribution element facility and get it built?

A. (Brouillard) So, annually, we prepare a

five-year plan, which is essentially a year ahead and a four-year perspective plan, for a total of five years. So, to the extent we get a little momentum behind us, and this will really be our first year with the new criteria. So, we'll couple that capital budget with our current load forecast and our current -- our current summer peak readings on all of our facilities, and that will give us some forward view as to where we think -- where and when we think those system reinforcements are going to be required.

And we also take into account, it's not only a loading issue, but we look to leverage opportunities to improve reliability and to address asset replacement needs, which is becoming, you know, more and more a driver as we go forward. We have some stations that were built in the World War 2 and post-World War 2 era, that really are not -- they're not economic, you know, to rebuild in their current state and condition. So, we're trying to couple all these factors going forward.

Nonetheless, I firmly believe that there

are some opportunities out there, given the time frames, and given that we're initiating this forward view, that we'll have adequate time to evaluate some non-wires alternatives for those projects that don't spill into the asset replacement realm.

Q. Do you ever or have you ever attached that five-year -- is it a capital budget plan that you just talked about? Do you ever attach that to this LCIRP document?

A. (Brouillard) I believe a couple of versions ago, so that would be, I would guess, the 2000 -- might have been the 2010 plan from National Grid. They may have attached either the five-year budget or the year-ahead budget. We do make -- we annually make an E-22 filing, of course, that contains the capital plan. And we have provided that five-year capital plan as part of -- a number of data requests as part of our current rate filing.

CMSR. BAILEY: Okay.

[Short pause.]

CMSR. BAILEY: Okay. Thank you.

WITNESS BROUILLARD: You're welcome.

BY CHAIRMAN HONIGBERG:
Q. The statute governing the submission and review and approval of plans was changed between the time of your last plan and today, was it not?
A. (Brouillard) I believe that's correct. I'd have to --
Q. Commissioner Scott and I have been doing a little quick research over here. And it looks like the statute changed in 2014. Is that consistent with your memory?
A. (Brouillard) Yes.
Q. It's true, I think, that before the most recent statutory change, you couldn't get a rate approval unless you could establish that what you were requesting was consistent with your plan, is that right?
A. (Brouillard) I believe that's correct.
Q. The decision to move in the direction of treating filings like this as guideline-type of documents, "how are we going to plan?" and "how are we going to proceed?", rather than being detail-specific plans, I'm going to ask you to speculate, that change may have been, in part, driven by the concern that, if you put together

a prescriptive plan, and then made a move that departed from the prescriptive plan, you might not get rate recovery. Is that a reasonable surmise? I know, Mr. Brouillard, you appear to have concerns about that hypothetical?

A. (Brouillard) I suppose. But that my recollection was, at the time, that we were -- and, of course, this was all occurring during a post-transition period, where we were moving from, you know, National Grid's filed plan, we developed the plan, as we were just discussing, based on the previous LCIRP criteria. And, as part of filing that plan, we were in technical sessions with Staff and hearings with the Commission. So, coming out of that, the feedback that we received as part of that, as part of that process, and also in reviewing the Commission's order, that further moved us down the road and away from a, I'll say, a more detailed capital plan like filing, to more of a guideline filing.

In terms of, I don't know, preparation or visibility or -- we could certainly move to either. It's, in some ways, it's easier, if

you will, to, you know, to file a capital like plan. But the discussions were -- the discussions and the work that we put into developing this plan were actually significantly -- significantly more difficult, in that we had to, you know, identify some of the true issues that come along with non-wires alternatives.

Q. And I'm not questioning the wisdom or appropriateness of the decision that you made to file this type of plan, in light of the history as it actually took place.

I am interested, though, and we don't get -- we don't see this every day. This isn't an everyday kind of thing, it's certainly not an everyday kind of thing for you. But my question is, is this useful? Is having gone through this process and having this plan developed and in place for you helpful to you, in doing what it is you do, to benefit ratepayers, to benefit shareholders, to benefit the operations people who do this?

A. (Brouillard) We've made it helpful. Given that we've -- well, given that we had to prepare

this filing, we prepared it in such a way that we can use it, and we have. We've used it in response to data requests. And we're actively utilizing the planning criteria. And we'll continue to use it.

I suppose, if you asked the question another way and said "if the statute didn't exist at all, you know, would we go ahead and develop, you know, a least cost integrated resource plan?" And the answer probably to that is "no". But we would certainly -- we would certainly have a planning criteria on file. And we would certainly, if we were at all innovative, we'd be looking at different ways of meeting the needs of the system beyond just the wires alternatives. And we'd probably be identifying some of the -- some of the same topics, concerns, and limitations that we identified in this document.

So, I go back to, we've made it a useful document by bringing all these elements together in one.

Q. I was interested in the way you phrased your own question and then answered it. I actually

expected you to say "yes" at the end of your own hypothetical, because, in fact -- and, in fact, what you then said was that you would "go through a process that would produce a plan". It wouldn't be a quote "Least Cost Integrated Resource Plan", because that has a statutory meaning. But it would touch on many of the things that are significant in that plan, because -- or, rather, in that statute, because that statute was the product of work done by the utilities and the Commission to try to determine what would be helpful and useful to a company. Isn't that right?

A. (Brouillard) That's correct.

Q. And, actually, I was interested in the way both you and your counsel phrased the obligation that the statute creates, and both of you, in one way or another, characterized it as "I have to prepare this document" or the Company has to "do this document".

And I think the philosophy, instead of that the document being what's significant about it, it's the plan underlying the document that is significant. And the document just

reflects that plan that I think most of us would agree, and I think you would agree, is a good utility practice, both for shareholders and ratepayers. Isn't that a fair way to look at this process?

A. (Brouillard) Yes, it is.

Q. And I think that going forward, we're going to produce an order that's going to be the result of some discussions you had with Staff, and Staff's views about what it should look like. But, ultimately, it's the underlying plan that's important to both you and Staff, which reflects the benefits that are both -- that are for both ratepayers and shareholders. Isn't that right?

A. (Witness Brouillard nodding in the affirmative).

CHAIRMAN HONIGBERG: All right. I'm done speechifying.

Commissioner Scott has another question.

BY CMSR. SCOTT:

Q. Quickly, I want to go back to the very last page of your Exhibit 1, Bates 164, which is

your hypothetical in your analysis. I just want to make sure I'm understanding correctly. So, you have this Risk Matrix, both graphically and in chart form. And I was little surprised to see, you know, I gave you the example earlier that I thought perhaps demand response, to the extent you could have a signed contract and with penalties, *etcetera*, would be a little bit more attractive to you. But I see that you have on the highest risk scale as an example.

Am I correct, a lot of that risk scale has to do with regulatory uncertainty, that you're not -- you're groping for a mechanism, is that what I'm seeing in this chart below it?

A. (Stanley) I would argue that it's more -- the risk is more based on the ability to control customer behavior, and you're trying -- for example, if you're trying to enroll customers to participate in a particular demand response offering, what does it take to get them to participate? Will they actually follow through with the interest level? What's the investment required in order to capture that customer activity? And examining other pilots and

efforts across the country and the region, that seemed to be the biggest -- one of the biggest risk factors. Is, again, we can't directly control if the customer wants to participate or if they will participate and to what degree. And, then, also similarly, the specific potential in geography to actually capture the opportunities that's necessary.

Q. Okay. So, I get, from your end, you're looking at planning, "can I get the people in?" And I'm looking at, "Gee, if you have signed contracts, doesn't that give you the certainty you need?" But you need to get there first, is what you're saying?

A. (Stanley) You need to get there first, correct.

CMSR. SCOTT: All right. Thank you.

BY CHAIRMAN HONIGBERG:

Q. And I'm going to pick up where I actually intended to go next, which was a very specific question about the use of the word "targeted". Mr. Brouillard, you used the word "targeted" to associate -- associated with each of the non-wires alternatives you talked about. Can you talk a little bit about what "targeted"

means? Is it targeted to a circuit? Is it targeted to a customer group? How do you -- what does it mean in this context?

A. (Brouillard) Typically, it would be targeted to a circuit or an area. You know, there might be -- you know, might be a couple of circuits in an area that present an opportunity, you know, targeted DSM, targeted DG, targeted energy efficiency. To realize the potential of that target, though, we need to go in, understand the customer demographics, the customer loads, commercial, industrial, you know, residential, and, you know, how we would go -- and what that means with each of these initiatives, and what the -- what the likelihood degree of success is as we go.

The "targeted" element is -- actually brings some further interest to the table, in that, unlike, you know, using Mr. Stanley's current energy efficiency program, which is more or less across the entire service territory, here we'd be zooming in on a very particular area. Could be an area in Lebanon, where we might -- where we might have some

circuit loading concerns, and we would actually target a very specific area of Lebanon. And, now, where -- it brings to bear some other issues. I mean, there might be one customer perhaps in that area that presents a very appealing demand reduction target. And, you know, we could, in theory, go in and, with a targeted DSM program, with funding that goes above and beyond just the existing energy efficiency program, we could go in and make that facility one of the most efficient facilities in the country. But how does that relate to the rate recovery, the socialization potential of those costs?

And it brought to bear some other questions that we have. How does that affect this customer's potential competitor in another area of the state, if we have, you know, swooped in and made that facility the most efficient in the country, but his or her competitor in some other area of the state has paid to do that?

So, it just brought up a number of interesting questions as we worked our way down

that road, just to take one example.

CHAIRMAN HONIGBERG: That's helpful. Thank you.

Does anyone else up here have any further questions, Commissioner Bailey? Commissioner Scott?

[No verbal response.]

CHAIRMAN HONIGBERG: All right. I think that's all we have.

Mr. Sheehan, do you have further questions for the witnesses?

MR. SHEEHAN: Just one.

REDIRECT EXAMINATION

BY MR. SHEEHAN:

Q. I think the discussion, I don't think I need to ask any more questions, but, on the issue of what the Company files with the Commission with regard to its capital plans, and you reference an E-22 report. And that's, for the Commission's benefit, is Puc 308, I believe. What information is provided in that annual report?

A. (Brouillard) In that annual report, we provide the capital line items, that's our full year

ahead, approved capital budget, and it includes a description of each of the project line items and the approved funding for the year ahead.

Q. So, that's telling the Commission "we are going to do these 14 projects this year" or whatever it is?

A. (Brouillard) That's correct. And, typically, that's -- there are some categorization of those projects. So that, you know, some further visibility as to what areas the funding is going in.

Q. That does not include the five-year look forward, is that correct, that particular report?

A. (Brouillard) That is correct. The E-22 is the year-ahead look.

Q. And you had mentioned in your testimony that you've -- we've, obviously, provided substantial information to Staff through the pending rate case. That did include such five-year look forwards, is that correct?

A. (Brouillard) That is correct.

Q. Outside of a rate case, is the Commission aware, as far as you know, of what the

five-year plans are on a rolling basis?
A. (Brouillard) I do not believe there is visibility of a five-year view in a formal sense, similar to the E-22.
Q. And, if you had attached -- you referenced a couple plans ago the focus was more on disclosing in an LCIRP what the Company intends to do specifically. If you had done that here, would you have attached, in essence, what is the E-22 report?
A. (Brouillard) I could have, or I could have attached the five-year plan, one of the two.
MR. SHEEHAN: Thank you. That's all I have.
CHAIRMAN HONIGBERG: All right. Is there anything else for these two witnesses?
[No verbal response.]
CHAIRMAN HONIGBERG: Then, you gentlemen can return to your seats. And I think Mr. Chagnon can replace them.
(Whereupon ***Richard Chagnon*** was duly sworn by the Court Reporter.)
CHAIRMAN HONIGBERG: Mr. Speidel, you

may proceed.

MR. SPEIDEL: Thank you, Mr. Chairman.

RICHARD CHAGNON, SWORN

DIRECT EXAMINATION

BY MR. SPEIDEL:

Q. Mr. Chagnon, could you please state your full name and position at the Commission for the record.

A. Yes. Richard Chagnon.

Q. And your position?

A. Is Utility Analyst.

Q. And did you produce this document, with a cover letter dated November the 10th?

A. Yes, I did.

Q. And you did this as part of your responsibilities of reviewing the LCIRP filing, correct?

A. Correct.

Q. Excellent. Would you care to offer a general summary of your conclusions that you presented in this testimony?

A. Yes. Part of my testimony shows that the LCIRP plan is adequate as written. However, making

recommendations to create training documents for employees and managers, which coordinates that with their least cost plan, and also found issues with their planning criteria.

Q. So, regarding the integration piece, the policies and procedures piece, could you explain how your past experience at PSNH informed your analysis there?

A. Yes. Through my 36 years at PSNH, we had policies and procedures for just about everything, which really coordinated employees and managers knowing what the process was, and it coordinated it with the plans of the utility itself.

Q. So, in terms of some of the questions that Commissioner Bailey was asking this morning, do you think that the adoption of that recommendation by the Commission would help to make the next plan a little bit better, in terms of making sure that there's life in the Plan or there's some aspect of the Plan that really does inform corporate decision-making on a day-to-day basis?

A. Yes, indeed it would. As Mr. Brouillard had

mentioned that, the document now is used as a quick reference for the Company. And, so, having policies and procedures, it is really just the next iteration of making sure that everyone within the Company understands how they move forward with least cost planning.

Q. Do you have any reaction to Mr. Brouillard's statements to the effect that it's not best to try to block the Company in to a specific set of financial metrics regarding the different options within the LCIRP, but rather it's better just to present the planning methodology? Do you have any thoughts about that or will you take that under advisement?

A. Well, I do believe that the least cost plan should have a process that the Company follows. Do they stick to it? Possibly not completely. However, it does give everyone an idea of what the plan is and how to bring everyone back to center, if they -- if something goes off focus.

Q. So, you think that having the policies and procedures would -- it would also provide the ability for the next plan to maybe have more input from personnel, perhaps, in terms of not

just kind of a high-level overview, but maybe more specific information?

A. Specifically, to each employee's responsibility to make it happen, yes. It also would -- a proper plan helps the PUC look at what their process is, and then dig in deeper and say "Now, show me. Show me what you did. Show me that you actually have a process that's effective, and that you followed the process."

Q. Thank you. Regarding your statements within the testimony about the "take action" limit being revised, you heard a discussion by Mr. Brouillard about that. And, within the testimony, you took a neutral position, but you flagged this for the Commission's consideration as something that might require a second look. Is there a general context that you're involved in right now where there may be more information developed for the Commission's review or more development of the Staff's position in the near future --

A. Yes.

Q. -- that you're involved in?

A. Yes. Going forward, we currently are working

through the Liberty rate case. And we do have a consultant, who's an engineer, Michael Cannata, who will actually be addressing some of those specific issues. And, so, my point was to make sure that, although Staff does support the Plan at this point, that doesn't mean that we necessarily support the criteria within the Plan, in regards to "take action".

Q. So, you're taking it under advisement, until Mr. Cannata makes his final recommendations and Staff reviews those, is that correct?

A. That is correct.

MR. SPEIDEL: Okay. There are no further direct questions for Mr. Chagnon from Staff.

CHAIRMAN HONIGBERG: Mr. Kreis?

MR. KREIS: I have no questions for Mr. Chagnon.

CHAIRMAN HONIGBERG: Mr. Sheehan.

MR. SHEEHAN: Thank you. Good morning.

WITNESS CHAGNON: Good morning.

CROSS-EXAMINATION

BY MR. SHEEHAN:

Q. On that 75 percent/100 percent issue, I appreciate that what you're saying is "that's not really a issue that needs to be resolved in this docket, but is one better left for the rate case." Is that essentially what your position is?
A. Yes.
Q. And Staff will have an opinion that it's appropriate, or not, and will explain why in the rate case?
A. That is correct.
Q. Will you agree with me that the decision to adopt a particular percentage, whether it's 75 or 85 or some other number, is a very complicated decision that involves many, many, many layers?
A. It absolutely does, yes.
Q. As far as the purpose of the IRP, there's been some discussion this morning whether it is a prescriptive document, as the Chairman suggested, or a guideline document. And it sounds like you are -- come down on the side that the IRP should be more of a guideline process document to guide the Company's

decision-making, is that fair?
A. That is fair. For as long as I've been here at the PUC, that is how I have viewed the plan.
Q. And, if the Commission has concerns about whether we decided to do Project A or Project B, that would be a different look, perhaps in a rate case, and you would use this guideline document, in part, to decide "did they make the right decision?"
A. Partially true, yes. However, we would also look at that project and say "did they follow their least cost resource plan?
Q. That's what I'm saying. So, in the context, most obviously, in a rate case, we chose A, instead of B, and determining whether that was a prudent decision, Staff and then the Commission would say "Okay, they chose A. Did they follow their own process in reaching the conclusion to choose A?"
A. Correct.
Q. And that process, in part, might be the IRP?
A. That is true.
Q. And, as far as that goes, you think the document that we have provided to you sets out

that process. I understand you have recommendations for further steps, but you're satisfied that the Exhibit 1 does set out a process the Company intends to follow in deciding whether it's Option A or Option B?

A. That's true. Yes.

MR. SHEEHAN: Thank you. I have nothing further.

CHAIRMAN HONIGBERG: Commissioner Scott.

CMSR. SCOTT: Thank you. I'm going to ask kind of an open-ended question, so I'm going to be unfair.

WITNESS CHAGNON: Okay.

BY CMSR. SCOTT:

Q. Do you have thoughts on how to prevent overly conservative planning assumptions that would unnecessarily drive up costs? Meaning is there stuff the Company should be doing differently, that we should be doing differently?

A. I believe that they're actually doing it now, they are looking at all their different options. My concern about the 75 percent, as far as "take action", the Company has shown

that, within the next 15 years, their load is going to potentially grow 10-12 percent. And, meanwhile, they're looking at their criteria at 75 percent when they replace something or take action. And, so, it just appears that that could be inefficient, it could be cost-prohibitive, in a time when all businesses and residential customers are raising concerns about high electric bills. It's not just the energy portion, but it's also the distribution side. And, so, the least cost plan is just that, least cost. Not necessarily building in for 15 or even 30 years from now.

Q. Thank you. And, obviously, we discussed a lot with questions on the non-wires alternatives. Do you have any thoughts on any regulatory changes needed?

A. At this time, no. I do recognize, as does the rest of the Staff, that it's a challenge for all utilities to address properly. I think that Liberty Utilities has done a good job of at least addressing it, and then, from here, they can move to the next step. But, in regards to changes, no.

Q. Do you think our current structure, especially regarding return, for instance, on investment, business sense non-wires alternatives?
A. I don't really know.
CMSR. SCOTT: Thank you.
CHAIRMAN HONIGBERG: Commissioner Bailey.
BY CMSR. BAILEY:
Q. Can you point to me in this guideline document --
A. Uh-huh.
Q. -- where we can be sure that the guidelines produce the least cost alternative? How does the process that's outlined ensure that the solution that they choose, when they need to get a solution, will be least cost?
A. Just need a quick minute.
Q. Sure.
A. In the last docket on LCIRP, they were asked to put together a planning process map and timeline. And, on Page 147, they have done that. Which shows that they look at every single process and different options to come out with the least cost for the solution.

Q. So, you're saying that, during a rate case, if they chose Option A, they would show you the analysis that prioritized the deficiencies and evaluated the solutions?
A. Yes.
Q. And that's when we would decide that that was the least cost?
A. That is correct.
CMSR. BAILEY: Okay. Thank you.
WITNESS CHAGNON: You're welcome.
BY CHAIRMAN HONIGBERG:
Q. The specific issue that you talked about with the 75 percent versus the 100 percent standard, is there a healthcare analogy that the Company might want to make here that, if you do regular preventative care to try and avoid something -- from something from getting bad, it may be, in fact, lower cost than waiting until I need to go to the emergency room, which as I heard Mr. Brouillard discuss the risks to a circuit, that the analogy came to mind during that context.
And, before you say anything, I understand you've already had a conversation with Mr. Sheehan in which the two of you have agreed

that this is a complex issue with many moving parts.

But is that analogy, in your view, in any way a valid one, useful for thinking about this problem?

A. Yes, I believe it is. Yes.

Q. So, there's -- I mean, understanding that there's lots of moving parts, --

A. Uh-huh.

Q. -- and it's probably premature for us to make any firm judgments about the wisdom of 75 percent, versus 100 percent, versus 85 percent, versus 60 percent. Is that fair?

A. That is fair. There's a difference between, in healthcare, maybe at the 75 percent, that there's a concern, that it's on the target list, it's on the watch list. But it might not necessarily require being on the "take action" list.

CHAIRMAN HONIGBERG: All right. That's helpful. Thank you. I don't have any other questions.

Mr. Speidel, do you have any further questions for Mr. Chagnon?

MR. SPEIDEL: Sure. I do have one question.

REDIRECT EXAMINATION

BY MR. SPEIDEL:

Q. Mr. Chagnon, you had a little bit of a interrogatory with Mr. Sheehan regarding the interplay of rate case review for prudency and compliance with LCIRP guidelines. And Staff's current position that it's taking this under advisement, this revision of the "take action" level. It's considering all of the evidence that will be, in large part, developed through the analysis of engineer Cannata. Do you recall that?

A. Yes, I do.

Q. So, is it fair to say that Staff saying "The LCIRP as a whole meets the parameters in the statutory standards for acceptance, does not implicate a blanket approval of all the planning criteria within the document itself for prudency analysis in the future, is that correct?

A. That is correct.

Q. So, you do reserve and Staff does reserve the

right in the rate case to say "well, on further review we have more concerns than we had expected about this issue", or, in the alternative, Staff has no concern. Staff is satisfied with the Company's explanations. And you do reserve the right to make that kind of recommendation in either direction in the future, correct?

A. Yes. Correct.

MR. SPEIDEL: Very good. Thank you. No further questions.

CHAIRMAN HONIGBERG: All right. Thank you, Mr. Chagnon. I think you may return to your seat.

Is there anything else we need to do before we let the parties sum up?

[No verbal response.]

CHAIRMAN HONIGBERG: All right. Mr. Kreis, I think you'll go first.

MR. KREIS: Thank you, Mr. Chairman. My summing up really can largely be summarized by offering up a heartfelt expression of thanks to Commissioner Bailey.

The Office of the Consumer Advocate

neither supports nor opposes the approval of the Liberty Electric LCIRP pursuant to RSA 378. However, the Commission would like to draw the attention -- or, the OCA, that is, would like to draw the attention of the Commission to the specific language of RSA 378:39, because it recites certain substantive criteria to guide the Commission in its review.

In relevant part, Section 39 initially says, and I'm reading, "In deciding whether or not to approve the utility's plan, the Commission shall consider potential environmental, economic, and health-related impacts of each proposed action" -- or, "option", excuse me. "The Commission is encouraged to consult with appropriates state and federal agencies, alternative and renewable fuel industries, and other organizations in evaluating such impacts.

In our judgment, the reference to "each proposed option" in the statute clearly suggests the Legislature intended the LCIRP review process to be an opportunity for substantive examination of each utility's

specific decisions on how to deploy its resources, as opposed to just an examination of the adequacy of whatever processes the utility has in place for examining such options itself.

This view of RSA 378:39 is buttressed by the remaining language in the section. The next sentence reads: "The Commission's approval of a utility's plan shall not be deemed a pre-approval of any actions taken or proposed by the utility in implementing the plan." Obviously, this presupposes that Commission review of an LCIRP will involve examination of utility actions, that is the resource deployment decisions I've previously referenced.

And the same point can be made about the concluding language in Section 39, which reads: "Where the commission determines the options have equivalent financial costs, equivalent reliability, and equivalent environmental, economic, and health-related impacts, the following order of energy policy priorities shall guide the Commission's evaluation: (1) Energy efficiency and other

demand-side management resources; (2) Renewable energy sources; (3) All other energy sources.

Now, the 2014 amendments that the Chairman referred to earlier change none of this emphasis on the substantive planning and resource deployment decisions that the utilities make.

The LCIRP document before you today, and Mr. Brouillard confirmed this, is a process document; it does not purport to reveal, much less explain, the actual decisions this utility has made. The report finishes up with six conclusions, about capital budgets, about non-wires alternatives, about energy efficiency, about generation interconnections for distributed generation, and the RPS requirements, Renewable Portfolio Standard requirements.

None of these conclusions, or the underlying report that drives these conclusions, provides a basis upon which the Commission can determine that the utility is, in fact, providing service to customers on a

least-cost basis.

Now, Mr. Brouillard testified, here's what he said: He said "Annually, we prepare a five-year plan that will give us some view of where improvements will be required." What that tells me is that the real planning is happening somewhere else outside of this process. That, in turn, reduces this process, arguably, to busy work for all concerned. That can't be what the Legislature intended. "Is it useful?", asked the Chairman of Mr. Brouillard, and Mr. Brouillard answered respectfully -- or, Mr. Brouillard answered forthrightly that "This company would not go through this exercise, if it didn't have to."

Now, in fairness to the Company, and out of respect for the many hours of work the Company's able folks have devoted to preparing this plan, Liberty is only doing what any rational utility would do in these circumstances. By "these circumstances", I mean two things: (1) The need for all of us, the utilities, the Commission, the OCA, and the public, to try to fit the square peg of least

cost integrated resource planning into the round hole of a restructured electric industry that is in the midst of sweeping technological change. (2) Prior Commission orders, and we've heard about this already, that have implicitly endorsed what I will call the "process oriented" approach to drafting, reviewing and approving least-cost plans. And I'll take up these two circumstances in reverse order.

As Mr. Chagnon noted, in his learned testimony, the Commission's last order approving an LCIRP for this utility, Order 25,625, was entered in January of 2014. The order contains no discussion of the substantive resource deployment decisions made by the utility and, instead, adopts three process-oriented suggestions made in that prior proceeding by Staff.

Mr. Chagnon's testimony, which concerns the extent to which Liberty has complied with those process-oriented improvements adopted by the Commission in 2014, speaks for itself. My point here is simply

that the general approach the Company has adopted here is consistent with the framework for evaluating least-cost integrated resource plans that is implicitly if not explicitly adopted in that previous order from several years ago.

The more important question is the first of the two circumstances I previously mentioned, the square peg/round hole problem. Least-cost integrated resource planning was cutting-edge in the 1980s world of vertically integrated electric utilities. It reflected an understanding that a piecemeal review of utility resource deployment decisions against the traditional prudent and used-and-useful standards, as applied in rate cases, was not enough if the goal is to assure safe and reliable service at the lowest possible cost.

But, as the Commission has repeatedly acknowledged, because electric distribution companies have either divested or are about to divest their generation resources, and because customers can migrate to other sources of energy, the "integrated" part of least-cost

integrated resource planning is no longer operative. That's the reason the Commission has allowed utilities to omit discussion of generation and power purchases from their plans.

That's not -- that is necessary, but it is not sufficient. The problem isn't just that utilities no longer own generation. It's that transmission planning happens regionally, pursuant to the complicated regime set forth in FERC Order 1000, and, frankly, still being worked out quite controversially here in New England. It's that our regional energy and capacity markets supposedly aren't working in light of renewable procurement policies adopted in southern New England states.

It's that state authority over the electricity grid within their borders has eroded significantly in light of the Supreme Court's decision earlier this year in *Hughes versus Talen Energy*. It's that new technologies, utility scale storage, the so-called smart grid, distributed generation, energy management systems, are making even the

distribution utilities envisioned by the Legislature in 1996 when it adopted the Restructuring Act obsolete. And perhaps most importantly, and relatedly, it's the fact that in today's emerging electric grid there is every reason to suppose that planning decisions that are truly least-cost would rely at least to some extent on services and assets provided by third parties and customers themselves. Again, Mr. Brouillard said as much during his testimony.

In our judgment, it is imperative for the Commission to confront this reality, though not necessarily in this docket. We have been endeavoring, and by "we" I mean the OCA, to raise this issue in other places it's relevant, specifically, the pending grid modernization docket, the pending net metering docket, and the pending Unitil and Liberty rate cases.

I have, in various conversations with various parties, suggested that maybe the Legislature needs to address this question. In response, some stakeholders have suggested that the waiver language in RSA 378:38-a gives the

Commission all the authority it needs to reinvent least-cost integrated resource planning to suit the electric grid of the 21st Century.

If so, the Commission should take that step as soon as possible. Signaling an interest in reforming the LCIRP process would be a very welcome and constructive outcome of this docket, regardless of whether the Commission approves the pending Liberty plan, rejects it or takes no action.

A least-cost integrated resource planning regime that holds investor-owned utilities publicly accountable for optimizing all available technologies, even at the cost of their hegemony, is in the best interests of the residential utility customers whose interests my office represents.

For that reason, the call for reform that I make here is something the OCA will echo in other pending LCIRP dockets, in other proceedings, and in public forums. We intend no criticism here of either the Commission, its Staff, or of Liberty. Our message is one of

eagerness to work with all of the good people in this room to a reform of this process.

CHAIRMAN HONIGBERG: Mr. Kreis, I have a question. In what -- in which direction you think it would be best for the planning process to go? Because I heard, and I feel, as we discussed this, two competing things going in two different temporal directions. There's the concept of planning, the forward-looking, "how are we going to do what it is that we do" aspect of a plan. There's a more specific "here's specifically what we plan to do", and that is also forward-looking, but different. And then there's a backward-looking "here's what we have done, and was that prudent and consistent with prudent utility management, consistent with an appropriate plan."

Which of those do you think this process should be focused on?

MR. KREIS: I think that the process should focus in a forward-looking fashion.

CHAIRMAN HONIGBERG: Because I'm concerned that some of what you said sounded backward-looking, in duplicating or even

replacing the kind of review that goes on during a rate case and a rate proceeding, about whether decisions that were made and expenditures that were made should be included in rate base.

MR. KREIS: Well, you know, a rate case is, in fact, backward-looking. And I think, when least-cost integrated resource planning was originally invented back in the 1980s, that was exactly the concern that those folks were expressing by inventing this planning process. The notion that a rate case is backward-looking. It is a piecemeal kind of review that focuses, if necessary, on individual utility decisions to allocate their resources that might not provide the opportunity for a holistic look at what this utility is doing overall, in a fashion that makes sure that ultimately the customers are getting their service for as least cost as possible. And, you know, there are arguments and debates to be had over what the phrase "least cost" actually means. And, frankly, there are some important conversations to be

had about to what extent a forward-looking review like that inappropriately purports to substitute someone else's judgment for that of the management of these investor-owned companies.

The whole reason we have investor-owned utilities is that we think the profit motive will incent them appropriately to deploy their capital in a creative way. And I don't think the Commission, or, certainly, I don't think I should be in a position to substitute my judgment about those things for the utility's. On the other hand, this process presupposes that the regulators, the Consumer Advocate, and the public will have some substantive impact on how these utilities make their strategic decisions going forward. And by that mean on the merits of those strategic decisions.

So, I'm not saying that this is an easy process that I'm proposing. I'm saying that that would be a much better use of everybody's resources than the homework exercises that we're going through today.

CHAIRMAN HONIGBERG: Thank you, Mr. Kreis. Mr. Speidel.

MR. SPEIDEL: Thank you, Mr. Chairman. Staff will start off at the small level, at the particular level. And I think, in general terms, we would ask the Commission to consider our recommendations carefully as presented in Mr. Chagnon's oral and written testimony, and we appreciate your consideration of those recommendations.

But, on another level, I was involved in the review of the last LCIRP, the predecessor parent company's LCIRP really in all but name. And I would say that this is a superior product. It reads better. It has more information. It holds together better. And, so, Staff would like to commend the Company for progress made in the direction of a more substantive document, a more technically interesting document.

And this leads to my next point, which would be the Commission is the ultimate arbiter of how to breathe life into the LCIRP statute and a particular utility's filing. And

there's always going to be a dynamic tension in the review of these filings, that's inherent in the aspects of the regulatory system we have over regulated electric distribution utilities.

There's many philosophies of regulation, and the core philosophy seems to be that electric distribution is a natural monopoly. It's just about the last natural monopoly in electric space right now, because, until Nikola Tesla's ideas about wireless electricity transmission come to fruition, this is the technology that we have. And it's been viewed as economically optimal to have a single set of wires wherever you go in a given territory.

So, what does regulation intend to do? Well, certainly, to protect the interests of the public, balance the interests of the Company, the ratepayers, and other stakeholders. But it also intends to simulate the rigors of a market economy. If you have an absence of monopoly, you always have customer choices, the ultimate stick of discipline on a company's capital investment decisions, if it

over-invests or under-invests, and customer service or cost structure suffers as a consequence, the market takes care of that on its own.

But, in this instance, there's a recognition that the Commission is responsible for simulating the rigors of a market economy on the decision-making of the company.

But, within the LCIRP space, there certainly is a continuum of philosophies. You have, at one extreme, the "AOP" philosophy, which is "any old plan" will do. As long as you check the boxes and have some summary discussion, it's all good, don't worry about it. And I've seen some low-quality LCIRPs come through the door, where you can tell there is no effort to really do anything other than to have a blurb that fact-checks something or drops the name or drops a terminology piece, so that the Commission can say "Okay, it has it. That's good enough."

But, at the other extreme, I mean, the language of the LCIRP statute is generic and general enough where you could almost say

"Well, it justifies creating the Commission as a super board of directors, and Staff as a super capital investment review committee, to preapprove, prejudge, and predetermine different invest strategies by the Company, in, essentially, a command economy paradigm.

And Staff does not have any firm position about these questions, because it really depends on the facts and circumstances. But, in general terms, we believe in the philosophy where it's neither of those two extremes. Where the Commission does have a substantive document that informs its decision-making regarding the LCIRP. And the Company really does use it in its enterprise planning. So, it's not an empty exercise as Mr. Kreis cogently described. But it's not something that really completely straitjackets a private sector enterprise in a dynamic market and investment environment.

So, we leave those general thoughts for the Commission to ponder, because we are in a time of transition. The 21st Century technologies are coming along that really will

change the business, but we don't know exactly how. So, putting everything into one basket, saying "this is the five-year plan", and there's no room for wiggle-room, might not be the best approach in light of past historical experience regarding a dynamic market economy versus a relatively stagnant command economy.

So, Staff thanks the Commission, the Company, and the OCA for its time and consideration.

CHAIRMAN HONIGBERG: Thank you, Mr. Speidel. Mr. Sheehan.

MR. SHEEHAN: Thank you. This has been an interesting discussion. I thank Mr. Speidel for his compliments on our work, and I tend to agree with the -- I do agree with the broad picture he just painted of the fact that the statute is broad, and maybe to the extent it's not broad, it's contradictory. Mr. Kreis read sections that suggest you should conduct a "rate case" kind of review.

The section that actually describes what should be in the report, 378:78 **[**378:38**?]**, every section starts out with "a forecast" or

"an assessment". A forecast of this and an assessment of all these things, which suggest something other than a "rate case" kind of review.

We think we've clearly presented the forecast -- the assessment and policy and guideline kind of document, I think you have a couple categories. Is it a rate case prescriptive kind of document? "This is what we did, this is why we did it, and you have to decide whether those decisions were right or wrong", or this is the guidelines that are going to support our decision-making, and you can nudge that, saying "you should place more weight on this" or "less weight on that", more that kind of document. We believe the statute, as interpreted by the Commission recently, and as suggested by Staff, and as we filed our plan is the latter. This is a process document.

The other note I'd like to make is the phrase "least cost". The statute uses that phrase, obviously. The first section -- the first statute in the series related to the Plan says 378:37, which is the policy one the

general court declares, and it uses the phrase "lowest reasonable cost", while providing reliability, safety and health and all these other non difficult-to-measure factors. So, it's not always a simply least cost. We can either put in a new transformer or whatever the non-wires alternative is. It's overlaid with all of the reliability, safety, health, *etcetera*, factors. And that's as Chris was saying, there's a lot of judgment that goes into those decisions. And sometimes the more expensive short-term is the least cost in the long run, and that was your analogy to healthcare. How much of this is the well care kind of money we're spending to save the bigger costs down the road.

It could also be ultimately more expensive, but a good policy thing. It's clear that our customers, not just our customers, all electric customers demand much more of their utilities than in the old days. No longer is a three-day outage okay. If it's more than an hour, people are screaming. And that's fine, and that's part of what we're moving towards.

We will never have the perfect system, nor would Mr. Brouillard recommend that. But that's part of the balance. The 75 percent criteria is certainly our one benchmark of many to get -- to walk that fine line between cost and reliability of what the Commission will support, what the customers want, *etcetera*.

So, to summarize, I do believe the statute can be reasonably interpreted to allow the kind of planning process document that we filed. I believe the evidence supports that this document does satisfy that reading of the statute. It is adequate, as was suggested by the Staff. And we ask that you approve it.

The condition that Mr. Chagnon put in his testimony, we're okay with. We don't have any objection to that condition going forward, excuse me.

So, I look forward to this conversation continuing in years down the road as maybe this process wiggles. But thank you for your time.

CHAIRMAN HONIGBERG: Commissioner Scott.

CMSR. SCOTT: Thanks for your comments. In the non-wires alternative discussion, Mr. Brouillard mentioned he'd like to do certain things, and a lot of talks about next steps and that type of thing. Whose court is that ball in? Is that -- do we need to do something in an order for you or how do we move this along?

MR. SHEEHAN: Well, and, of course, you know my background if not in the running of a utility or engineering, so I might be a little out-of-school here.

But my sense is it's two-fold, partly ours. If we see a non-wires solution that looks like it will work, we will jump on it. I can tell you, behind closed doors, Chris and Eric are very supportive of those kinds of things and would love to do them. Of course, they also have to go through all the analysis, and Eric is talking about all the other pilots he is looking at, and some of them are not picking up as well as they hoped.

The other court is, I think, in the grid mod. docket. There's a lot of this very

same discussion, and the stakeholders are pushing hard to get that kind of -- those kinds of projects moving forward. And we're hoping that out of that comes some real support for letting us run a pilot, or maybe we propose a pilot that may turn out to be more expensive, and that's the risk. And that's why it's difficult for us to go out on a limb and start something, and we look back and say "You know, if you just spent half of what you did and put in the new transformer, you wouldn't have spent all that money." And that's, obviously, the rate -- the shareholder concerns we have going down some of those roads.

So, I think it's partly us, it's partly dockets like net metering and grid mod. And I can tell you that very interesting conversations are happening all the time in those dockets.

CMSR. SCOTT: Thank you.

CHAIRMAN HONIGBERG: All right. Well, if there's nothing else? Yes, Mr. Patnaude?

[Brief off-the-record discussion

ensued.]

CHAIRMAN HONIGBERG: Oh, yes. We'll strike ID on all the exhibits. Thank you, Mr. Patnaude.

And I think that probably wraps us up with that reminder. Thank you very much. So, thank you all for the interesting discussion of something that I don't think we expected to be quite as interesting when we came in here this morning.

But we'll adjourn, take this under advisement, and issue an order as quickly as we can.

(Whereupon the hearing was adjourned at 12:00 p.m.)