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1	Least Cost Integrated Resource Plan and Supporting Attachments [REDACTED - For PUBLIC Use]	<i>premarked</i>
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5	April 30, 2021 Customer Survey Results	<i>premarked</i>
6	May 28, 2021 System Assessment	<i>premarked</i>
7	Rebuttal Testimony of Russel Johnson, Lavelle Freeman, and Gerhard Walker	<i>premarked</i>
8	Supplemental Testimony and Supporting Attachments of Russel Johnson, Lavelle Freeman, Gerhard Walker, Matthew Cosgro, and Tracy Gionfriddo	<i>premarked</i>
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19	Testimony of Christopher J. Skoglund	<i>premarked</i>
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21	Department of Energy Status Update	<i>premarked</i>
22	Settlement Agreement between Eversource Energy and the N.H. Department of Energy	<i>premarked</i>

P R O C E E D I N G

1
2 CHAIRMAN GOLDNER: Okay. Good morning.
3 I am Chairman Dan Goldner. I'm Presiding Officer
4 here today, with Commissioner Simpson and
5 Commissioner Chattopadhyay. This is the first
6 day of hearings for DE 20-161, the Public Service
7 Company of New Hampshire 2020 Least Cost
8 Integrated Research Plan -- Resource Plan,
9 rather, LCIRP.

10 On October 14th, 2020, the Commission
11 commenced this adjudicative proceeding through
12 the issuance of an Order of Notice, which said we
13 are here to adjudicate whether this filing meets
14 the statutory requirements in those imposed by
15 RSA 378:38 and RSA 378:39, as amended, and
16 Commission Order 26,362, dated June 3rd, 2020.

17 Let's begin today by taking
18 appearances, beginning with the Company.

19 MS. RALSTON: Good morning. Jessica
20 Ralston, from the law firm Keegan Werlin, on
21 behalf of Public Service Company of New
22 Hampshire, doing business as Eversource Energy.

23 CHAIRMAN GOLDNER: Thank you. And
24 let's move to the New Hampshire Department of

1 Energy?

2 MS. SCHWARZER: Good morning, Mr.
3 Chairman. Mary Schwarzer, I'm a Staff Attorney
4 with the Department.

5 CHAIRMAN GOLDNER: Very good. And the
6 Office of the Consumer Advocate?

7 MR. KREIS: Good morning, Mr. Chairman,
8 Commissioners. I'm Donald Kreis, the Consumer
9 Advocate, here on behalf of residential
10 ratepayers. And I have my whole team with me, or
11 much of it, and I guess I'll introduce them
12 later.

13 CHAIRMAN GOLDNER: Thank you very much.
14 And Clean Energy New Hampshire?

15 MR. EMERSON: Good morning,
16 Commissioners. Eli Emerson, from Primmer, Piper,
17 Eggleston & Cramer, on behalf of Clean Energy New
18 Hampshire. Thank you.

19 CHAIRMAN GOLDNER: Very good. Okay.
20 I'll address the outline for today's proceedings
21 next, and then ask for any objections.

22 So, beginning with housekeeping
23 matters, that would be the late-filed Settlement
24 Agreement, the witness list substitution,

1 confidentiality, the scope for today, and the
2 exhibits. Then, go to opening statements, then
3 move forward with the Petitioner putting forward
4 their case to meet the standards imposed by
5 statute and Commission order. And, after hearing
6 from the Petitioner, cross, and Commissioner
7 questions, hearing from the DOE, the OCA, and
8 CENH, in turn.

9 Are there any objections to this
10 outline today?

11 Attorney Schwarzer.

12 MS. SCHWARZER: Thank you, Mr.
13 Chairman. I would like to add an issue to the
14 preliminary matters.

15 CHAIRMAN GOLDNER: Okay.

16 MS. SCHWARZER: The Department would
17 just like to address an issue with a pending
18 investigation in the DOE Docket 22-001, just
19 briefly at the commencement of this proceeding.

20 CHAIRMAN GOLDNER: Okay. And you'd
21 like to do that before the Petitioner takes the
22 stand?

23 MS. SCHWARZER: Yes, Mr. Chairman.

24 CHAIRMAN GOLDNER: Okay. Okay.

1 MS. SCHWARZER: And we have no
2 objection necessarily to going second, but we're
3 also happy to go last.

4 CHAIRMAN GOLDNER: Okay. Very good.
5 I'd suggest going second today because of the
6 nature of the proceeding. We have -- I know the
7 DOE and the Company have aligned on many topics.
8 So, if you're going first and second today --

9 MS. SCHWARZER: We have. And we're
10 amenable to going second.

11 CHAIRMAN GOLDNER: Thank you. Thank
12 you. That would work great.

13 MR. KREIS: Mr. Chairman, if I might
14 add another issue to your list of preliminary
15 matters.

16 I'd like the Commission, if possible,
17 to let the parties know that this case will be
18 subject to post-hearing briefs, rather than
19 post-hearing arguments. And the reason I think
20 it would be useful to address that issue at the
21 beginning of the hearing is that, if we're going
22 to write briefs, that creates a more leisurely
23 atmosphere for people like me. If I need to make
24 an oral argument at the end of the hearings, then

1 I need to be taking frantic notes about what
2 everybody is saying in here. And, if I can await
3 the arrival of the transcripts before I compile
4 whatever positions I think I want to take at the
5 end of the hearing, that's a whole different
6 process, at least for me.

7 CHAIRMAN GOLDNER: Okay. Very good,
8 Attorney Kreis. We'll take that in turn today.
9 Attorney Emerson?

10 MR. EMERSON: Yes. So, I had proposed
11 to the parties, and I can discuss this as we get
12 closer to Mr. Skoglund's testimony, and I will
13 request that he be able to do five to ten minutes
14 of what I'm terming "surrebuttal testimony". It
15 would be before cross-examination of the -- the
16 other parties start their cross-examination. So,
17 I just wanted to put that out there.

18 CHAIRMAN GOLDNER: Okay. Are there any
19 objections to that approach from the parties?

20 MS. SCHWARZER: Mr. Chairman, I would
21 ask about the scope of that surrebuttal?

22 CHAIRMAN GOLDNER: All right. Mr.
23 Emerson, would you like to address that now?

24 MR. EMERSON: It's going to address the

1 interconnection standard, really, just replying,
2 or just replying to what was contained in
3 Eversource's supplemental and rebuttal testimony.
4 But it would be limited to the interconnection,
5 and really more the issues of cost allocation of
6 interconnection costs.

7 CHAIRMAN GOLDNER: Okay. What I would
8 suggest at this point is we'll take that in turn,
9 Attorney Schwarzer. So, we'll go through, you
10 know, sequentially each of the issues, and we'll
11 have a chance to address it before the Petitioner
12 takes the stand.

13 So, anything else that we'd like to add
14 to the housekeeping, before we get started today?
15 Anything else?

16 Attorney Schwarzer.

17 MS. SCHWARZER: Thank you, Mr.
18 Chairman.

19 I was just curious about the scope of
20 the post-hearing briefs, because it's not -- this
21 is a very large docket, there are many topics.
22 And it would be helpful if I understood what the
23 Office of Consumer Advocate was intending.

24 CHAIRMAN GOLDNER: Okay. Very good.

1 I'm sure that the Consumer Advocate will address
2 that when we get -- I think that's issue number
3 five or six.

4 *[Atty. Schwarzer indicating in the*
5 *affirmative.]*

6 CHAIRMAN GOLDNER: So, we'll take that
7 up then.

8 Okay. Well, let's begin then with the
9 late-filed Settlement Agreement. So, we have a
10 late-filed Partial Settlement Agreement presented
11 to the Commission Thursday, March 2nd, between
12 the New Hampshire Department of Energy and
13 Eversource. So, we need to determine whether the
14 Commission should accept this late-filed Partial
15 Settlement Agreement for consideration.

16 And I'll just begin by asking if there
17 are any objections to the late-filed Partial
18 Settlement?

19 MR. KREIS: There are, indeed, Mr.
20 Chairman.

21 This docket has presented, to a party
22 like the OCA, and possibly other parties, a
23 perpetually moving target. And, you know, at
24 some point, parties needed to prepare for hearing

1 by figuring out what issues would be before the
2 Commission today. And, so, filing a settlement
3 agreement between two of the parties that
4 resolves some of the issues really just, I guess
5 it was two business days before the hearing,
6 that's a classic example of something that is
7 fundamentally unfair.

8 This is a contested administrative
9 proceeding under the Commission's rules and the
10 Administrative Procedure Act. We've been doing a
11 lot of dockets lately that proceed as informal
12 investigations. And, in those contexts, for good
13 or ill, there's a degree of informality, and I
14 guess you could say "unpredictability", that just
15 is not appropriate here. It simply is not
16 appropriate to drop something big like that on
17 parties that close to a hearing.

18 I had no idea that such a settlement
19 was in the offing. And it just popped into my
20 in-box on Friday afternoon like an electric
21 shock. And, you know, I don't know how it hit
22 the Commission. You, obviously, didn't know it
23 was coming. But it's just unfair.

24 CHAIRMAN GOLDNER: Okay. And, Attorney

1 Kreis, if you could expand a little bit. There
2 was, in one of the filings, it might have been an
3 Eversource filing, there was -- it seemed an
4 invitation for all the parties to participate in
5 the process. And, according to the filing, as I
6 recall, "CENH participated, but didn't sign off",
7 and "the OCA decided not to participate."

8 So, I'm just hoping you could expand on
9 the process, or lack thereof, from your
10 perspective?

11 MR. KREIS: Well, I don't think it's
12 appropriate for there to be a lot of discussion
13 in front of the Commission about settlement
14 conversations. But I will say that our prefiled
15 testimony is very clear. We think that the
16 Company has not even begun to comply with the
17 statute that governs least cost integrated
18 resource plans.

19 And there really didn't seem to me to
20 be anything that could have been said or talked
21 about in the course of settlement agreements --
22 in the course of settlement discussions that
23 would address that fundamental contention that we
24 have, and that we will put before the Commission

1 today. So, therefore, I made that clear to all
2 the parties. I've made that clear to the
3 Commission and all of the parties through every
4 minute of the two and a half years that this
5 proceeding has been pending.

6 CHAIRMAN GOLDNER: And do you, Attorney
7 Kreis, have a proposed remedy for this late-filed
8 Partial Settlement?

9 MR. KREIS: I think the Commission
10 should ignore it.

11 CHAIRMAN GOLDNER: Okay. Very good.
12 And I want to give the other parties the
13 opportunity to comment. Attorney Emerson, would
14 you have any comments on this?

15 MR. EMERSON: No. We take no position
16 on the Settlement.

17 CHAIRMAN GOLDNER: Okay. Very good.
18 Attorney Schwarzer?

19 MS. SCHWARZER: Yes. Thank you, Mr.
20 Chairman.

21 I would like to draw the Commission's
22 attention to the letter that was filed with the
23 Settlement Agreement, where the Company
24 explained, and the Department supports this

1 explanation, that the criteria in Administrative
2 Rule 203.20(e) were met, because the Settlement
3 was filed as soon it was possible to file it.
4 So, the delay was unavoidable.

5 The issues themselves were identified
6 in a January 19th filing, which would have
7 alerted the OCA to the issues, even given that
8 the OCA elected not to participate in settlement
9 discussions. And had the OCA wished to inform
10 itself of what was going forward, it had an
11 opportunity to do that.

12 Allowing the Settlement Agreement
13 supports the orderly and efficient conduct of
14 this hearing. And it would be sort of artificial
15 and an undue hardship on the two parties that
16 were able to reach agreement to strike the terms
17 of the Settlement Agreement, when it was two
18 business days late, which is only 48 hours.
19 There was ample opportunity for further
20 discussion.

21 Thank you.

22 CHAIRMAN GOLDNER: Okay. Thank you,
23 Attorney Schwarzer. Attorney Ralston?

24 MS. RALSTON: I would just echo

1 everything that Ms. Schwarzer just explained. It
2 is set forth in our letter.

3 In addition to DOE's January 19th
4 letter, the Company filed its own status update
5 on January 19th, also indicating that the Company
6 was willing to work with DOE on the two
7 recommendations that they have. So, again, there
8 was ample notice that these issues were being --
9 at least being considered by the parties. So,
10 there shouldn't -- it shouldn't be such a
11 surprise, I don't think, to anyone that this is
12 where we ended up.

13 CHAIRMAN GOLDNER: Okay.

14 MS. RALSTON: And our witness -- and I
15 would say also, our witness panel is prepared to
16 answer any questions that any party might have
17 about the terms of the Settlement Agreement, if
18 it is allowed into the record today.

19 CHAIRMAN GOLDNER: Okay. Very good.

20 MR. KREIS: Could I have an opportunity
21 to respond to that?

22 CHAIRMAN GOLDNER: Of course.

23 MR. KREIS: So, of course, the Company,
24 Eversource, has made clear to the Commission and

1 the parties that there are certain issues that
2 are important in this docket. And one of them is
3 the N-1 Planning Standard, and the other one has
4 to do with non-wires alternatives, and the extent
5 to which the Company either does or does not take
6 those into consideration in its planning process.
7 But the fact that those issues are significant
8 and contentious in this docket does not
9 substitute for giving parties adequate notice
10 that there has been a settlement of those issues
11 among or between the two most important parties
12 in the docket.

13 And, you know, there is a, what is it,
14 a four- or five-page single-spaced appendix to
15 the Settlement that lays out a "Eversource Energy
16 NWA Investigation Plan". That's a very elaborate
17 undertaking. And asking the parties to process
18 that, and determine whether that is something
19 reasonable and appropriate in such a short span
20 of time, just isn't appropriate.

21 I would also like to point out that the
22 Settlement Agreement is a faux, f-a-u-x,
23 settlement agreement, in that what it really does
24 is lay out a bunch of, I guess, terms and

1 conditions that might or might not be binding in
2 the future, even though the boilerplate at the
3 end of the Settlement itself, in Section 5.3,
4 says "This Settlement Agreement doesn't create
5 any precedent for anything."

6 So, in a way, the Settlement is really
7 just a publicity stunt, and really ought to be
8 ignored on that basis as well.

9 CHAIRMAN GOLDNER: All right. Okay. I
10 think, is there anything else anyone would like
11 to add?

12 Attorney Schwarzer.

13 MS. SCHWARZER: Thank you, Mr.
14 Chairman.

15 The Department certainly does not agree
16 with the representation that this is in any way a
17 "publicity stunt". The language Attorney Kreis
18 has quoted is standard settlement language.

19 I think the framework he's suggested
20 seems to allow the OCA to slam the door on
21 settlement, if it wishes, for all parties, as
22 soon as it decides not to participate, and that
23 would seem unfortunate.

24 Thank you.

1 CHAIRMAN GOLDNER: Would Attorney Kreis
2 be open to, I think there is a five-day rule,
3 right? So, that would put us on Thursday. Does
4 Attorney Kreis want to hear about the Settlement
5 on Thursday? Would that be a remedy that the OCA
6 would seek?

7 MR. KREIS: No.

8 CHAIRMAN GOLDNER: Okay. So, to
9 summarize you, your position is to ignore the --
10 let's call it the "late-filed Partial
11 Settlement", is your position?

12 MR. KREIS: That is my position. And I
13 would like to add that I certainly have no
14 objection to the witnesses, the Company or the
15 Department, talking about/offering testimony
16 about the N-1 standard, as well as non-wires
17 alternatives. As I said before, those issues are
18 clearly germane to this proceeding.

19 And the reason I don't recommend or
20 suggest just extending this hearing into Thursday
21 is, frankly, this docket has been pending, as I
22 said before, for two and a half years. And, you
23 know, life is complicated and busy, and a docket
24 like this should proceed in an orderly fashion.

1 So, I don't know about the other people in the
2 room, but I have other things I have on my
3 schedule for Thursday. I was not planning on
4 being in this hearing room all day Thursday
5 arguing about this Settlement Agreement.

6 I do not in any way suggest that it is
7 improper for two parties in a docket to enter
8 into a partial settlement agreement that resolves
9 some issues, and includes just those two parties,
10 and not other parties. That's fine. What I
11 object to is the disorder and surprise.

12 CHAIRMAN GOLDNER: Okay. Very good.
13 So, at this time, we will defer ruling on this
14 particular issue until later in the day. And
15 we'll proceed, in the spirit of getting
16 everything through by end of day Wednesday, to
17 the next topic.

18 So, the next housekeeping topic is the
19 witness list substitution. We see that a
20 proposed witness list was also filed on March
21 2nd, which included Eversource, DOE, OCA, and
22 Clean Energy New Hampshire witnesses. The
23 Commission also notes that Elli Ntakou is being
24 offered as a substitute for Tracy Gionfriddo, on

1 behalf of Eversource, due to unforeseen
2 circumstances.

3 Are there any objections to this
4 witness substitution?

5 MR. KREIS: Yes, there are, Mr.
6 Chairman.

7 And, to the extent that that witness
8 appears on a witness list that's characterized as
9 a "Joint Witness List", then it has been filed
10 under incorrect pretenses by whoever filed that
11 document, because we did not agree to any witness
12 substitution.

13 And, as I said in my letter, it's fine
14 that one of the witnesses that was originally
15 tendered isn't available. You know, that
16 happens, and that person has personal
17 circumstances that preclude the witness from
18 participating today.

19 But that doesn't give Eversource
20 license to just, you know, sub in other
21 witnesses. This is not a baseball game, where
22 you can pull people off the bench at will and
23 have them, you know, take their at-bats.

24 This is a contested administrative

1 proceeding, in which you file -- you present
2 prefiled direct written testimony by your
3 witnesses, and those witnesses are subject to
4 cross-examination. Not other witnesses at the
5 option and election of parties that want to do
6 substitutions as if this were some kind of a
7 baseball game.

8 It is Spring Training. That's why
9 baseball is on my mind.

10 CHAIRMAN GOLDNER: Very good. Attorney
11 Schwarzer, would you like to address?

12 MS. SCHWARZER: I would defer to the
13 Company first, and then I would like to make
14 remarks. Thank you.

15 CHAIRMAN GOLDNER: Okay.

16 MS. RALSTON: Thank you.

17 I would acknowledge -- well, first, I
18 would just say, I did file the updated witness
19 list. And, so, I apologize if it was misleading.
20 And the title of the document originally was
21 "Joint", but it was only -- the Company
22 unilaterally updated it to recognize the fact
23 that Mr. Gionfriddo had a death in her family and
24 is not able to be here today.

1 I can certainly acknowledge Mr. Kreis's
2 frustration with the last-minute change. But,
3 unfortunately, under the circumstances, a late
4 change was our only option. I did alert the
5 other counsel as soon as I was aware of the
6 situation that this is what we were facing.

7 And we have offered Ms. Ntakou, I'm
8 sorry, as a substitute, in an attempt to have a
9 more efficient hearing. The remainder of the
10 panel may be able to answer some of the questions
11 that otherwise would have been answered by Ms.
12 Gionfriddo. But the witness we are offering
13 today is a member of the Resilience and
14 Reliability Group, which is performing a climate
15 change study. And Ms. Gionfriddo was our
16 environmental impact witness originally. So, we
17 just felt there were some overlap in their areas
18 of expertise that might be beneficial to the
19 Commission and the other parties.

20 Ultimately, if the Commission wishes,
21 you know, just operate, go forward without Ms.
22 Gionfriddo or any other witness, the panel will
23 do its best to answer what it can, but there may
24 be some limitations with that particular subject

1 matter.

2 CHAIRMAN GOLDNER: Okay. Attorney
3 Kreis, any -- or, Attorney Schwarzer, please go
4 next.

5 MS. SCHWARZER: Thank you, Mr.
6 Chairman.

7 The Department has no objection to the
8 witness substitution. Certainly, life is
9 unpredictable, people move and take different
10 jobs. I assume, without knowing, that this
11 witness will be able to adopt some or all of
12 Ms. Gionfriddo's prefiled testimony. But, even
13 if that were not the case, there are tools
14 available to the Commission, such as record
15 requests, to pursue any items that is of concern
16 to the parties due to Ms. Gionfriddo's absence.
17 So, we have no objection.

18 CHAIRMAN GOLDNER: Okay. Thank you.
19 Attorney Emerson, I just want to make sure?

20 *[No verbal response.]*

21 CHAIRMAN GOLDNER: Okay. Attorney
22 Kreis.

23 MR. KREIS: Well, again, Mr. Chairman,
24 you know, Eversource has mischaracterized the

1 nature of this proceeding today. This is not a
2 free-wheeling inquiry, where the Commissioners or
3 anybody else in the room are free to just ask any
4 questions about anything that might occur to
5 them.

6 This is a trial-like proceeding that
7 must proceed in an orderly fashion. This is a
8 fully contested case. And bringing in whatever
9 witnesses you feel like, and answering whatever
10 questions you think might be interesting or
11 appropriate, that is not the way this process
12 works. This is supposed to be an orderly
13 process, where parties come into the room knowing
14 who's going to testify, what they're going to
15 testify to, what are the issues.

16 And, if Eversource can't meet its
17 burden of demonstrating to the Commission that
18 their Least Cost Integrated Resource Plan
19 complies with the statute, then that is their
20 problem. It is not my problem or your problem.

21 CHAIRMAN GOLDNER: Okay. Any other
22 comments on the topic?

23 *[No verbal response.]*

24 CHAIRMAN GOLDNER: Okay. Very good.

1 Having heard everything under the circumstances,
2 I'll allow the witness today, and we'll proceed
3 with the substitute witness.

4 Let's move to confidentiality. For
5 confidentiality, it's the Commission's
6 expectation that a ruling on confidentiality will
7 be embedded in the Commission's final order in
8 this proceeding.

9 In the meantime, we expect the parties
10 to abide by the requirements of Puc 203.08, and
11 alert the Commission to any potential discussion
12 regarding confidential material, and alert the
13 court reporter as well.

14 Okay. Moving on to scope. I'd like
15 Eversource to present the case in chief on the
16 LCIRP in general. That is the LCIRP meeting the
17 statutory standards for Commission approval,
18 followed by DOE, OCA, and CENH witnesses, with
19 full cross-examination for all parties.

20 I'll pause there and see if there's any
21 concerns with that approach today? I think
22 that's what we talked about.

23 Attorney Schwarzer.

24 MS. SCHWARZER: Mr. Chairman, I had

1 wanted to make a comment on a preliminary matter,
2 and I don't want to interrupt. But I just
3 wanted -- didn't want to proceed directly, if I
4 was out of turn.

5 CHAIRMAN GOLDNER: Absolutely. And I
6 will be sure, and, if we get to opening
7 statements and I have not addressed it yet,
8 please remind me again.

9 MS. SCHWARZER: Thank you.

10 CHAIRMAN GOLDNER: But I think I'm
11 still in sequence at this point. So, I wanted to
12 move to exhibits next, and I will take on those
13 additional matters here in a moment.

14 So, regarding the proposed exhibits, we
15 have 22 proposed exhibits, including the proposed
16 Exhibit 22, which is the late-filed Partial
17 Settlement Agreement.

18 Are there any objections to Exhibits 1
19 through 21 at the present time?

20 *[No verbal response.]*

21 CHAIRMAN GOLDNER: Everybody's okay
22 with Exhibits 2 through 21. Okay.

23 Okay. All right. Well, let's move
24 back to the additional issues.

1 So, Attorney Schwarzer, you wanted to
2 address the pending or a pending investigation?

3 MS. SCHWARZER: I do. I do. Thank
4 you, Mr. Chairman, and Commissioners Simpson and
5 Chattopadhyay.

6 I would like to bring to the
7 Commission's attention a preliminary matter that
8 is new, stemming from the Division of the PUC and
9 the DOE. As explained in our January 17th
10 technical statement, which is Exhibit 20 in this
11 docket, Bates Page 004, under the topic
12 "Interconnection Criteria for DERs", the New
13 Hampshire Legislature directed the Department to
14 open an investigation into interconnection for
15 distributed energy resources, or DER. We were
16 directed to do this by early December of 2022.
17 And the DOE docket is IP 22-001. A link to this
18 docket appears in the Settlement Agreement
19 attachment, Appendix A, Footnote 3, which
20 provides a scope of the matters to be considered
21 in that docket.

22 And, as a consequence, in this
23 particular docket, the Department has no position
24 on the N-1 interconnection standard as applied to

1 DER. We've taken a position on other -- the
2 application of an N-1 standard in other areas.

3 DOE's position is contingent upon the
4 outcome of that investigation as reported back to
5 the Legislature at a future date. And, so, we
6 wanted to bring this to the Commission's
7 attention, as I may raise this periodically
8 throughout testimony, or witnesses may respond
9 with respect to that concern.

10 CHAIRMAN GOLDNER: Okay.

11 MS. SCHWARZER: Thank you.

12 CHAIRMAN GOLDNER: Okay. That sounds
13 reasonable.

14 Let's move to the post-hearing brief
15 question. And I think -- and, yes, let's hear on
16 the post-hearing brief question.

17 Attorney Kreis, did you want to perhaps
18 lead with addressing the post-hearing brief
19 question that you brought up?

20 MR. KREIS: Well, as I said, that's
21 often an issue that gets addressed at the very
22 end of the hearing. I thought it would be
23 helpful if you address it at the beginning of the
24 hearing, because it would be useful perhaps to

1 the attorneys in the case, if not everybody else,
2 to know that that is what is at the end of this
3 particular rainbow.

4 This is unusual, this case, the way it
5 is being presented to the Commission, in that
6 it's fully contested. And, to be frank, there is
7 a high likelihood of rehearing, followed by
8 notice of appeal to the New Hampshire Supreme
9 Court. So, this is a docket in which it's
10 important for the parties and, ultimately, the
11 Commission, to dot all the t's *[sic]* and cross
12 all the i's *[sic]*. And, for that reason, I think
13 that level of precision and comprehensiveness at
14 the end of the hearing is appropriate.

15 CHAIRMAN GOLDNER: Thank you. Excuse
16 me. Attorney Kreis, I did hear you. I was able
17 to multiplex.

18 Would the other parties prefer
19 post-hearing briefs or would they prefer a
20 different path forward?

21 Attorney Emerson.

22 MR. EMERSON: I absolutely prefer a
23 post-hearing brief. I think it's easier for us
24 to present sort of a coherent case for the

1 Commission. And I actually think it's more
2 useful for the Commission, in that you will have
3 written submissions that may help base your
4 ultimate final order in the docket.

5 CHAIRMAN GOLDNER: Thank you, Attorney
6 Emerson. Attorney Schwarzer?

7 MS. SCHWARZER: Thank you, Mr.
8 Chairman.

9 Inasmuch as it's not clear to me what
10 the topics would be, perhaps there could be a
11 sequential order of post-hearing briefs, so that
12 there might be an opportunity for the Department
13 to respond to any concerns that the OCA may
14 anticipate raising.

15 CHAIRMAN GOLDNER: Attorney Ralston?

16 MS. RALSTON: The Company is amenable
17 to post-hearing briefs. I guess I would just
18 want to clarify. Would there be one set of
19 briefs or was Attorney Kreis anticipating initial
20 and reply briefs?

21 I think we would probably prefer reply
22 briefs. They don't have to be sequential, but an
23 opportunity to respond would be appreciated.

24 CHAIRMAN GOLDNER: Attorney Kreis?

1 MR. KREIS: That seems quite reasonable
2 to me in the circumstances.

3 CHAIRMAN GOLDNER: Okay. Very good.
4 And then, I think, just wrapping up on the
5 issues, before we move on to opening statements,
6 Attorney Emerson, I think you wanted to discuss
7 this question of a surrebuttal?

8 MR. EMERSON: Our request is for our
9 witness, Chris Skoglund, to be able to, prior to
10 cross-examination by the other parties, be able
11 to offer five to ten minutes of surrebuttal
12 testimony. It will be responsive to both the
13 supplemental and rebuttal testimony filed by
14 Eversource. And it will be limited to issues of
15 the interconnection, the N-1 standard that's
16 addressed in the supplemental and rebuttal
17 testimony.

18 I did discuss it with the parties. And
19 I'll let them speak for themselves whether they
20 object to it or not. But it was discussed prior
21 to the hearing today.

22 So, thank you.

23 CHAIRMAN GOLDNER: Okay. Would the
24 parties care to comment on the "surrebuttal"

1 concept by Attorney Emerson? Any comments?

2 [No verbal response.]

3 CHAIRMAN GOLDNER: Everyone's in
4 support?

5 Attorney Schwarzer.

6 MS. SCHWARZER: Thank you.

7 Mr. Chairman, the concern that the
8 Department has is that, given the IP 22-001
9 docket, where we are conducting an investigation
10 with regard to interconnection, the Department
11 will be both unable to comment substantively on
12 the substance of the testimony, although we don't
13 object, *per se*, to him making statements.

14 The larger concern is that I believe
15 the theme will be, which we discussed this
16 morning, that this docket should be enlarged to
17 expand the questions that Mr. Skoglund and Clean
18 Energy New Hampshire wish to raise. And, in the
19 opinion of the Department, although I'd
20 appreciate an opportunity to comment after his
21 surrebuttal, those substantive issues are best
22 resolved and have been assigned to the separate
23 IP 22-001 docket.

24 And it would be a strange entanglement

1 and inappropriate to expand this docket to
2 address, in a 2020 LCIRP, matters that have been
3 brought to the fore in a separate Department
4 investigation, investigatory docket.

5 So, I just want to make that point.
6 And perhaps, at the end of his testimony, I'll
7 have an opportunity to make further comment
8 legally.

9 Thank you.

10 MR. KREIS: Could I comment about that?

11 CHAIRMAN GOLDNER: Yes, please.

12 MR. KREIS: I appreciate that the
13 Department has an open investigation about
14 interconnection standards. I don't understand at
15 all what that has to do with what we are here to
16 do today.

17 Ultimately, the Commission faces a
18 "yes" or "no" decision: "Does it or does it not
19 accept this Company's Least Cost Integrated
20 Resource Plan?"

21 In it, I think, are embedded references
22 to the N-1 interconnection standard, which is
23 rather controversial, for reasons that I suppose
24 will be heard about today and tomorrow.

1 The fact that the Legislature has
2 directed the Department of Energy to conduct,
3 again, an informal investigation of the same
4 issue is, I think, neither here nor there. I
5 don't understand why the Department thinks it's
6 constrained from commenting on anything. And I
7 don't understand as well why that bears in any
8 real way on whether or not the Company has met
9 its burden to demonstrate to you, the Commission,
10 that it has complied with the Least Cost
11 Integrated Resource Planning statute.

12 So, I think this is a nonissue.

13 CHAIRMAN GOLDNER: Attorney Emerson?
14 Sorry. Attorney Emerson?

15 MR. EMERSON: I agree with all that.
16 His intent was not to make any legal arguments,
17 but really just to point out sort of information
18 that's been conveyed recently back to Clean
19 Energy New Hampshire from its members about the
20 impact, especially of cost allocation, from some
21 rather expensive interconnections. Which I
22 believe is helpful information for the Commission
23 to have, in order to make decisions in this
24 docket.

1 Clearly, the N-1 interconnection
2 standard has been raised and is an issue. And I
3 respect and understand the Department of Energy
4 may feel like it has sensitivities in taking
5 positions on that standard in this docket. But I
6 don't think that should constrain the other
7 parties from discussing something properly before
8 the Commission in this docket.

9 Thank you.

10 CHAIRMAN GOLDNER: Thank you, Attorney
11 Emerson.

12 Okay. For now, I'm going to take this
13 issue under advisement. What we'll do is we'll
14 go through the opening statements --

15 MS. RALSTON: Can I just add one thing?
16 Sorry.

17 CHAIRMAN GOLDNER: Of course. Yes.

18 MS. RALSTON: The Company doesn't
19 object to Clean Energy New Hampshire's request
20 for surrebuttal. But I did, and I raised this
21 with Attorney Emerson this morning, without
22 knowing what the new information, I did say that
23 the Company may request a short recess following
24 that surrebuttal, just so I can discuss with our

1 witnesses, before we begin any cross-examination
2 of Mr. Skoglund, if that would be acceptable to
3 the Commission?

4 CHAIRMAN GOLDNER: Very good. And I
5 think we can all expect numerous recesses today.

6 MS. RALSTON: Yes.

7 CHAIRMAN GOLDNER: So, that won't
8 impair the proceeding, and I think it will only
9 help the proceeding.

10 So, we'll tidy things up after the
11 break. What I'd like to do now is go to opening
12 statements. Then, we will take a short recess.
13 We'll tidy things up, and then we'll move into
14 Eversource's direct.

15 So, Attorney Schwarzer, before we move
16 to opening, one last comment.

17 MS. SCHWARZER: Thank you, Mr.
18 Chairman.

19 I did want to bring to the Commission's
20 attention that the OCA was frustrated that the
21 review of the 2020 LCIRP had taken what he termed
22 "an excessive amount of time", and yet, at this
23 moment, seems to be supporting enlarging the
24 scope of the docket to include interconnection

1 for N-1, enlarging the duration of the
2 proceeding.

3 So, I just thought that was somewhat
4 contradictory, and wanted to bring that to the
5 Commission's attention.

6 CHAIRMAN GOLDNER: But I think, and,
7 Attorney Schwarzer, you can comment on this
8 please, but I think the N-1 is already a part of
9 the LCIRP proceeding. So, I don't think it's
10 we're expanding anything. That's just part of
11 what the Commission needs to look at today,
12 either in the context of the Partial Settlement,
13 or not.

14 MS. SCHWARZER: I believe N-1 is new in
15 terms of distribution planning -- it's not new in
16 terms of distribution planning, but is new in
17 terms of DER. And I'm anticipating what I
18 believe Clean Energy New Hampshire's position
19 might be.

20 And, so, that's just a concern. It may
21 not be fruitful.

22 CHAIRMAN GOLDNER: Okay.

23 MS. SCHWARZER: Thank you.

24 CHAIRMAN GOLDNER: Okay. Thank you. I

1 understand your input.

2 Let's move to opening statements. And
3 then, again, we'll take a short recess after
4 opening statements.

5 MS. RALSTON: May I ask one tactical
6 question?

7 CHAIRMAN GOLDNER: Oh, of course. Yes.

8 MS. RALSTON: Sorry. I apologize. Do
9 you anticipate reaching a conclusion about the
10 Settlement Agreement when we take the recess? I
11 just want to know how to address it with the
12 witnesses during direct examination, if we should
13 address the Settlement or not?

14 CHAIRMAN GOLDNER: I think that's a
15 very good question. I don't know the answer.

16 So, let's do this. Let's take a recess
17 now. Then, we'll come back for opening
18 statements. And, so, that way, you can at least
19 have ten seconds to prepare.

20 MS. RALSTON: Yes. I appreciate that.

21 CHAIRMAN GOLDNER: All right. Thank
22 you. So, we'll take a quick recess, returning at
23 10:20, and beginning with opening statements.
24 Thank you. That's ten minutes.

1 *(Recess taken at 10:10 a.m., and the*
2 *hearing resumed at 10:24 a.m.)*

3 CHAIRMAN GOLDNER: Okay. Back on the
4 record.

5 As far as the briefs, the idea or the
6 proposal was to have a brief and a reply brief.
7 You know, we support that, I support that, and
8 we'll move forward with that. Before the end of
9 the proceeding, we'll provide a date for the
10 briefing date and the reply date. And, as a
11 preview of coming attractions, please think about
12 how much time you'd like for those briefs and
13 reply briefs, and we'll work through that before
14 the -- at the end of the proceeding.

15 As far as the -- as far as the
16 Settlement, we'll rule on that at the end of
17 today, or by the end of today. And, if we rule
18 in favor of hearing on the Settlement, we would
19 hear the Settlement tomorrow.

20 I want to confirm, there was some
21 question from counsel as far as the witness
22 substitution. So, I'll just confirm on the
23 record, the witness substitution is approved.

24 And, as far as the CENH surrebuttal,

1 that's also -- let's also move forward with that,
2 and we agree to the surrebuttal. So, thank you,
3 Mr. Emerson, for offering that.

4 And, if there is no questions, we can
5 move to opening statements? There is a question.

6 MS. SCHWARZER: Mr. Chairman, I
7 apologize.

8 But, to the extent that the Commission
9 would like to hear about the Settlement Agreement
10 tomorrow, does the Commission anticipate that the
11 parties will still testify to their positions on
12 NWA thresholds? Because the prefiled testimony
13 shows the parties with positions that have been
14 resolved in the Settlement in a particular way,
15 which I believe both sides now support.

16 CHAIRMAN GOLDNER: Yes. I think my
17 answer to that is that we'll bifurcate the
18 proceeding. So, this is -- the proceeding today
19 is really on the LCIRP and amendments that were
20 offered over the course of the proceeding. And,
21 if there is any discussion on the Settlement,
22 we'll defer that to tomorrow, if we agree to hear
23 it.

24 MS. SCHWARZER: I apologize, but it's

1 not clear to me. Prior to the Settlement
2 Agreement, the Department had concerns about the
3 Company's NWA thresholds. And I don't need to
4 reach them today, if the entire topic has been
5 deferred until tomorrow.

6 CHAIRMAN GOLDNER: I would encourage
7 you to bring up the topic today, because it might
8 not be heard tomorrow. So, in other words, the
9 LCIRP, in total, everything is in play. NWA is
10 in play, N-1 is in play, everything is in play
11 today, and we may or may not hear the Settlement
12 tomorrow.

13 MS. SCHWARZER: And could we have a
14 very brief, I'm sorry, just five minutes, to
15 confer with the Company?

16 CHAIRMAN GOLDNER: Of course.

17 MS. RALSTON: May I just ask a
18 clarifying question, I guess, as well?

19 CHAIRMAN GOLDNER: Sure.

20 MS. RALSTON: The terms of the proposed
21 Settlement Agreement are marked as "Exhibit 22",
22 and that information is not otherwise in the
23 record. And, so, I think part of what Ms.
24 Schwarzer may be struggling with is, I'm not sure

1 if my witnesses, if they get a question about
2 what the NWA thresholds are, if they should be
3 stating that they are what we have proposed in
4 Exhibit 22 or if we should be sticking with
5 what's in the record?

6 I guess we're just -- I'm a little bit
7 confused of, I don't want to have them
8 referencing an exhibit that you may be rejecting.
9 I just want to make sure, before we begin, I
10 don't want there to be a lot of objections or
11 confusion.

12 CHAIRMAN GOLDNER: Yes. I think the
13 idea is to move forward with Exhibits 1 through
14 21 today.

15 MS. RALSTON: Uh-huh.

16 CHAIRMAN GOLDNER: And, if we accept
17 Exhibit 22, that would be heard tomorrow.

18 MS. RALSTON: Okay.

19 CHAIRMAN GOLDNER: Any other questions,
20 concerns?

21 MR. KREIS: Mr. Chairman, at the risk
22 of belaboring this discussion, a sympathetic
23 colleague pointed out to me that, if I look at
24 Exhibit 21, which is a letter from the Department

1 of Energy to the Commission, it actually says
2 that the "Department did not anticipate filing a
3 settlement agreement."

4 So, you know, if the question is "was
5 anybody sandbagged by the filing of a settlement
6 agreement two days before the hearing, two
7 business days?" I would urge the Commission to
8 look at that letter.

9 CHAIRMAN GOLDNER: Okay.

10 MS. SCHWARZER: Mr. Chairman?

11 CHAIRMAN GOLDNER: Yes.

12 MS. SCHWARZER: I don't want to try the
13 Commission's patience on this topic. And I
14 apologize if I'm slow to pick up what your hope
15 is that we do.

16 Exhibit 21 was truthful on the date it
17 was filed. But it would be unfortunate if
18 companies were -- if parties were precluded from
19 reaching settlement based on a status report. I
20 believe that would be inappropriate.

21 And I hope that what the Commission --
22 what the Commission is asking us to do is not to
23 revert to our positions pre-Settlement? It's
24 just, I was not expecting to challenge

1 Eversource's position as it stood before the
2 filing of the Settlement Agreement, because we
3 had reached settlement. Is that what the
4 Commission wants us to do?

5 CHAIRMAN GOLDNER: I'm not sure I
6 understand your question. Try me one more time.

7 MS. SCHWARZER: Sure. Prior to filing
8 the Settlement Agreement, my understanding of the
9 Company's position was that they felt that an
10 NWA, non-wires alternative, threshold of
11 \$3 million dollars and three years before
12 investigation occurred was consistent with the
13 statute. And the Department felt that it was not
14 consistent with the statute.

15 However, having reached a settlement
16 agreement, which proposes an investigation to
17 move in a direction that the Department believes
18 will show that a lower threshold is better and
19 consistent, and that that process of
20 investigation, and using data periodically on
21 July 24th, July 25th, and December 27th, to shape
22 and refine the NWA thresholds and the definition
23 of the "Aging Project" category, we believe that
24 is consistent with the LCIRP.

1 However, if you are asking us and
2 directing us not to address any of the context in
3 Appendix A, I feel that, as the Department, I'm
4 left looking at the Company perhaps now asserting
5 or retroactively renewing its initial position
6 that the NWA threshold of \$3 million and three
7 years was correct, even though I believe they
8 have reached agreement to the contrary.

9 So, I apologize, but it is an awkward
10 position for the Department.

11 CMSR. SIMPSON: Could I just ask a
12 question?

13 CHAIRMAN GOLDNER: Please.
14 Commissioner Simpson.

15 CMSR. SIMPSON: So, in your view,
16 Attorney Schwarzer, is this a comprehensive
17 Settlement Agreement that you've entered in as
18 "Exhibit 22"?

19 MS. SCHWARZER: It is a comprehensive
20 Settlement Agreement with regard to NWA
21 thresholds and ongoing application of a process
22 to involve an appropriate standard.

23 CMSR. SIMPSON: And can you square that
24 issue with the issue you raised pertaining to the

1 ongoing investigation at the Department?

2 MS. SCHWARZER: Yes. Because the issue
3 in Docket 22-001 that we are carving out, not
4 commenting on at this time, but making it
5 contingent on the result of the investigation in
6 the parallel DOE docket, is distinct from, it has
7 only to do with how the N-1 interconnection
8 standard is applied to DER. And the Appendix A
9 has to do with the NWA thresholds and categories
10 the Company will apply to consider the viability
11 of NWA projects. And, so, that is the appendix,
12 the Settlement, is much larger in scope with
13 regard to the standards for the LCIRP, and the
14 little exclusion with regard to N-1 is applied
15 only to DER. That's the only thing we're
16 unwilling to address. It's just something upon
17 which we can express no opinion. But I see those
18 as pretty distinct.

19 CHAIRMAN GOLDNER: Attorney Kreis,
20 would you like to comment?

21 MR. KREIS: I would. I fear that we're
22 sort of wondering here into some kind of
23 alternative universe.

24 I just want to remind the Commission

1 that what is pending before you is the Company's
2 Least Cost "Integrated" Resource Plan. And the
3 question is "whether or not to approve that
4 Plan?" Which is, as far as I can tell, a "yes"
5 or "no" question.

6 And the word -- I'm going to highlight
7 the "i" word, "integrated". Which means that,
8 what the Commission is supposed to be looking at
9 is, in the totality, has this Company -- is this
10 Company planning correctly, and did it elect to
11 apply a set of options correctly in a least cost
12 fashion, in light of the state's energy policy?

13 And, so, you know, various parties are
14 seeking to lure you into some other kind of
15 inquiry; that is inappropriate. And I think the
16 Settlement Agreement is an attempt, essentially,
17 to distract you from the task you actually have
18 to perform, which is to determine whether to
19 approve the Eversource Least Cost Plan.

20 CHAIRMAN GOLDNER: All right. So,
21 we're going to move forward like this. So, I'll
22 say that the DOE needs to deal with the issue in
23 its own discretion. I agree with Attorney Kreis,
24 and let's move forward accordingly.

1 So, let's -- so, without any further
2 adieu, let's move to opening statements,
3 beginning with the Company.

4 MS. RALSTON: Sure. Thank you. I'll
5 keep it brief.

6 The record in this proceeding,
7 including the testimony from the Company's
8 witnesses that we're about to hear, will
9 demonstrate that the 2020 LCIRP, inclusive of the
10 October 2022 supplement, address and are
11 consistent with the statutory requirements of RSA
12 378:38 and 39.

13 I do expect that we will hear arguments
14 over the next two days from OCA and Clean Energy
15 New Hampshire that the 2020 -- the 2020 LCIRP is
16 insufficient and that its contents must be
17 expanded to address a variety of topics,
18 including grid modernization and electrification,
19 for example.

20 It will be important to keep in mind
21 that an LCIRP is a snapshot in time, but that the
22 Company's planning processes are always evolving
23 and changing. To that end, the Company has
24 acknowledged that the electric grid is undergoing

1 a period of transition, and has provided some
2 concrete examples for how the Company is
3 addressing that transition.

4 In the same way that the Company has
5 been able to work collaboratively with DOE to
6 propose adjustments to its non-wires alternative
7 framework ahead of the next LCIRP filing, the
8 Company has also proposed a working group to
9 receive and address stakeholder input regarding
10 how to account for this grid transition. How
11 best to address this transition is an important
12 consideration ahead of the next LCIRP filing, but
13 it should not preclude approval of the 2020
14 LCIRP.

15 Thank you.

16 CHAIRMAN GOLDNER: I just want to
17 clarify, Attorney Ralston, that you
18 acknowledge -- you mentioned "378:38 and 39", and
19 we're in agreement on that. The Order of Notice
20 also talked about "Commission Order 26,362", from
21 June 3rd, 2020. You would agree that was also
22 part of the proceeding?

23 MS. RALSTON: I would agree. Thank
24 you.

1 CHAIRMAN GOLDNER: Thank you. Okay.
2 Very good. The Department of Energy.

3 MS. SCHWARZER: Thank you, Mr.
4 Chairman.

5 The Department considers Eversource's
6 2020 LCIRP Plan, as supplemented in October to
7 address the 378:39 increases, as largely
8 compliant with the LCIRP statutes.

9 The Department takes exception to the
10 Company's NWA threshold as it currently is
11 defined, as a \$3 million project threshold. We
12 have concerns about the scope of projects the
13 Company considers eligible for NWA evaluation.

14 With that exception, the Department
15 supports what the Company has filed as compliant
16 with the statute.

17 Thank you.

18 CHAIRMAN GOLDNER: Thank you, Attorney
19 Schwarzer. And we'll move to the Office of the
20 Consumer Advocate.

21 MR. KREIS: Thank you, Mr. Chairman. I
22 am going to try to be extremely brief, because I
23 think it's time to hear some evidence.

24 On Thursday of this week, the House of

1 Representatives, over at the Statehouse, is going
2 to vote on a bill to repeal the entire Least Cost
3 Integrated Resource Planning statute. And
4 although I oppose the bill, I understand why the
5 Legislature is thinking of such a course of
6 action, because Least Cost Integrated Resource
7 Planning, and the Commission's enforcement of the
8 statute, has become a chaotic mess. And, as a
9 result, you have the situation we are in here
10 today; two and a half years into the Company's
11 filing of its 2020 LCIRP, we are still here
12 arguing about or looking at a plan that was
13 filed, and then amended, and then amended again.

14 And, even though the Commission has
15 entertained those amendments, the reality is that
16 this Company is still, I think with the
17 encouragement of the Commission, basically,
18 ignoring what the Least Cost Integrated Resource
19 Planning statute actually requires a utility to
20 do. This is not rocket science. Here is what a
21 utility is supposed to do.

22 I agree that -- I agree with Eversource
23 that an LCIRP is a snapshot in time. And what is
24 it a snapshot of? It is a snapshot of how the

1 Company intends to deploy its resources over the
2 period covered by the plan, in order to advance
3 the state's official energy policy, as
4 articulated in Section 37 of the statute.

5 That is not what this Company did here.
6 And we will present our witnesses, who will
7 explain, again, why the Company hasn't done that.
8 I was tempted to rehash or maybe preview those
9 points here, but I won't waste time doing that.

10 And, so, at the end of the day, the
11 Commission has to reject the Plan that has been
12 presented to it. The Department of Energy
13 implicitly concedes that you should reject the
14 Plan by characterizing it as "largely compliant."

15 Well, this is not a warm, fuzzy,
16 informal, amorphous review of something. As I've
17 now said at least twice already, and will now say
18 again, this presents a "yes" or "no" question to
19 the Commission: "Do you approve the Plan or do
20 you not approve the Plan?" And, in the opinion
21 of the OCA, you must reject the Least Cost
22 Integrated Resource Plan presented by this
23 utility.

24 Thank you.

1 CHAIRMAN GOLDNER: Thank you, Attorney
2 Kreis. Sorry. Thank you, Attorney Kreis.
3 Attorney Emerson.

4 MR. EMERSON: Thank you.

5 I first want to thank the Commission
6 for letting the Clean Energy New Hampshire
7 intervene late in this docket. We certainly
8 didn't have experience with the totality of the
9 process. We came in at the latter half of the
10 docket.

11 And I think, from Clean Energy New
12 Hampshire's observation, there were two main
13 concerns it had with the Plan. One was with the
14 Plan itself. It certainly did not take into
15 account the significant progress that New
16 Hampshire has made over the last couple of years,
17 when it came to both integrating DER and energy
18 efficiency into it. And I think the Company
19 acknowledges that, just based on the timing of
20 the filing.

21 The other thing that Clean Energy New
22 Hampshire was concerned about, and filed
23 testimony, is that a lot of the solutions to
24 constraints on the system or growth were

1 traditional utility solutions. They were not
2 non-wires alternatives. Things which are, you
3 know, by the terms of the statute, required to be
4 incorporated into their planning process. So,
5 that's the one, you know, the first major
6 concern.

7 The second was really focused on the
8 interconnection standard, and that is a shift
9 from what we recognize as a regional bulk
10 transmission standard, to one that's being
11 applied on the distribution level, and one that's
12 being applied to DER and other interconnected
13 facilities.

14 That's a concern mostly because it was
15 not a process which was really exposed to New
16 Hampshire, it was imposed on New Hampshire. The
17 implications of that are serious. It has large
18 and significant cost consequences for entities
19 that are attempting to interconnect to the
20 system. And systems or facilities that are
21 important for helping, in times of high electric
22 prices, can help moderate prices like that. So,
23 that's really the other major concern of the
24 Plan.

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 In testimony, Eversource has already
2 acknowledged that the Plan is out-of-date. And I
3 think the thought was "well, they can incorporate
4 all these other things into the next version of
5 it." But that is six of one or half a dozen of
6 the other.

7 The Plan that's before is out-of-date.
8 It doesn't reflect the current State of New
9 Hampshire. And Clean Energy New Hampshire thinks
10 it should be rejected.

11 Thank you.

12 CHAIRMAN GOLDNER: Thank you, Attorney
13 Emerson.

14 Okay. Well, let's move to the next
15 phase. And I'd like Mr. Patnaude to please swear
16 in the Company witnesses.

17 (Whereupon **Russel Johnson, Lavelle**
18 **Freeman, Gerhard Walker, Matthew**
19 **Cosgro, Elli Ntakou, Mina Moawad,** and
20 **James DiLuca** were duly sworn by the
21 Court Reporter.)

22 CHAIRMAN GOLDNER: Okay. Very good.
23 And, we'll begin with and Attorney Ralston, and
24 direct.

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 MS. RALSTON: Thank you.

2 **RUSSEL JOHNSON, SWORN**

3 **LAVELLE FREEMAN, SWORN**

4 **GERHARD WALKER, SWORN**

5 **MATTHEW COSGRO, SWORN**

6 **ELLI NTAKOU, SWORN**

7 **MINA MOAWAD, SWORN**

8 **JAMES DiLUCA, SWORN**

9 **DIRECT EXAMINATION**

10 BY MS. RALSTON:

11 Q I'm going to begin with Mr. Johnson. Would you
12 please state your full name, Company position,
13 and your responsibilities?

14 A (Johnson) Sure. My name is Russel Johnson. I am
15 the Director of Distribution Engineering for New
16 Hampshire. I'm responsible for optimizing the
17 performance of the distribution system assets in
18 New Hampshire, and ensuring that customer service
19 and reliability needs are met for those
20 customers.

21 Q And are you familiar with the exhibits that have
22 been marked as "Exhibit 1" through "6", which
23 provide the Company's 2020 LCIRP?

24 A (Johnson) Yes, I am.

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 Q And what parts of the Company's LCIRP are you
2 responsible for?

3 A (Johnson) My primary responsibilities with
4 respect to the Company's LCIRP are for
5 distribution line related projects and programs
6 needed to serve our customers safely and
7 reliably.

8 Q Are you also familiar with the exhibit marked as
9 "Exhibit 7", which is the Company's rebuttal
10 testimony that you co-sponsored with Mr. Freeman
11 and Mr. Walker, responding to direct testimony
12 filed by the Department of Energy, Office of
13 Consumer Advocate, and Clean Energy New
14 Hampshire?

15 A (Johnson) Yes, I am.

16 Q And are you familiar with the exhibit marked as
17 "Exhibit 8", which is the Company's supplemental
18 testimony and supporting attachments that you
19 co-sponsored with Mr. Freeman, Mr. Walker, Mr.
20 Cosgro, and Tracy Gionfriddo?

21 A (Johnson) Yes, I am.

22 Q And are you familiar with Exhibits 9 through 15,
23 which provide the Company's responses to data
24 requests issued by the Department of Energy and

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 Clean Energy New Hampshire, and that includes
2 responses you have sponsored?

3 A (Johnson) Yes, I am.

4 Q Do you have any corrections or amendments to
5 Exhibits 1 through 15?

6 A (Johnson) No, I do not.

7 Q And are you adopting those portions of Exhibit 1
8 through 15 that you have sponsored as part of
9 your sworn testimony today?

10 A (Johnson) Yes, I am.

11 Q Thank you. Mr. Freeman, would you please state
12 your full name, Company position, and
13 responsibilities?

14 A (Freeman) Good morning. My name is Lavelle
15 Freeman. I'm Director of Distribution System
16 Planning at Eversource. In that role, I'm
17 responsible for overseeing the system planning
18 and distributed energy resource interconnection
19 activities across our Company footprint,
20 including New Hampshire.

21 Q Are you familiar with the exhibits marked as
22 "Exhibit 1" through "6", which provide the
23 Company's 2020 LCIRP?

24 A (Freeman) Yes, I am.

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 Q And what parts of the Company's LCIRP are you
2 responsible for?

3 A (Freeman) My primary responsibilities with
4 respect to the Company's LCIRP are bulk
5 distribution system planning, including grid
6 needs assessment, joint use planning,
7 distribution planning criteria. It also includes
8 distributed energy resource planning, including
9 system impact studies, and interconnection
10 standards.

11 Q Are you also familiar with the exhibit marked as
12 "Exhibit 7", which is the Company's rebuttal
13 testimony that you co-sponsored with Mr. Johnson
14 and Mr. Walker, responding to direct testimony
15 filed by Department of Energy, Office of Consumer
16 Advocate, and Clean Energy New Hampshire?

17 A (Freeman) Yes, I am.

18 Q And are you familiar with the exhibit marked as
19 "Exhibit 8", which is the Company's supplemental
20 testimony and supporting attachments that you
21 co-sponsored with Mr. Johnson, Mr. Walker,
22 Mr. Cosgro, and Tracy Gionfriddo?

23 A (Freeman) Yes, I am.

24 Q And are you familiar with Exhibits 9 through 15,

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 which provide the Company's responses to data
2 requests issued by DOE and Clean Energy New
3 Hampshire, and include responses you have
4 sponsored?

5 A (Freeman) Yes, I am.

6 Q Do you have any corrections or amendments to
7 Exhibits 1 through 15?

8 A (Freeman) No, I do not.

9 Q And are you adopting those portions of
10 Exhibits 1 through 15 that you have sponsored as
11 part of your sworn testimony today?

12 A (Freeman) Yes, I am.

13 Q Thank you. Mr. Walker, would you please state
14 your full name, Company position, and
15 responsibilities?

16 A (Walker) Yes. Good morning. My name is Gerhard
17 Walker. I am the Manager for Advanced
18 Forecasting and Modeling at Eversource. I am
19 responsible for overseeing the advanced foresting
20 and modeling efforts to transition both the
21 forecasting and distribution planning process to
22 address long-term electrification impacts across
23 the footprint of the entire Company. As part of
24 the modeling process, I also oversee the

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 non-wires alternative screening and planning
2 process.

3 Q And are you familiar with the exhibits marked as
4 "Exhibits 1" through "6", which provide the
5 Company's 2020 LCIRP?

6 A (Walker) Yes, I am.

7 Q And what parts of the Company's LCIRP are you
8 responsible for?

9 A (Walker) My primary responsibilities with respect
10 to the Company's LCIRP are the NWA process,
11 including the NWA Framework and Toolset, as well
12 as the forecasting process.

13 Q Are you familiar with the exhibit marked as
14 "Exhibit 7", which is the Company's rebuttal
15 testimony that you co-sponsored with Mr. Johnson
16 and Mr. Freeman, responding to direct testimony
17 filed by DOE, OCA, and Clean Energy New
18 Hampshire?

19 A (Walker) Yes, I am.

20 Q And are you familiar with the exhibit marked as
21 "Exhibit 8", which is the Company's supplemental
22 testimony and supporting attachments you
23 co-sponsored with Mr. Johnson, Mr. Freeman, Mr.
24 Cosgro, and Ms. Gionfriddo?

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 A (Walker) Yes, I am.

2 Q And are you familiar with Exhibits 9 through 15,
3 which provide the Company's responses to data
4 requests issued by the Department of Energy and
5 Clean Energy New Hampshire, and include responses
6 that you have sponsored?

7 A (Walker) Yes, I am.

8 Q Do you have any corrections or amendments to
9 Exhibits 1 through 15?

10 A (Walker) I do not have any corrections, but I do
11 have a quick update.

12 In Exhibit 8, at Bates 23, the Company
13 stated that it would be deploying a program
14 called "GridTwin" in New Hampshire in 2023.
15 GridTwin allows property searches for solar
16 developers, in combination with hosting capacity
17 analysis and estimations of interconnection
18 costs.

19 GridTwin went live in New Hampshire as
20 of Monday last week. The Company is now in the
21 process of performing outreach and education to
22 ensure that developers are aware of the new tool
23 and able to fully use and understand it.

24 Q Thank you. And with this update, are you

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 adopting those portions of Exhibits 1 through 15
2 that you have sponsored as part of your sworn
3 testimony today?

4 A (Walker) Yes, I am.

5 Q Thank you. Mr. Cosgro, would you please state
6 your full name, Company position, and
7 responsibilities?

8 A (Cosgro) Yes. Good morning. My name is Matthew
9 Cosgro. I'm the Lead Engineer for New Hampshire
10 Distribution System Planning. I'm responsible
11 for the long-term planning and analysis of the
12 New Hampshire distribution system.

13 Q Are you familiar with the exhibits marked as
14 "Exhibits 1" through "6", which provide the
15 Company's 2020 LCIRP?

16 A (Cosgro) Yes, I am.

17 Q And what parts of the Company's LCIRP are you
18 responsible for?

19 A (Cosgro) My primary responsibilities with respect
20 to the Company's LCIRP is System Planning's
21 design criteria, activities, and studies.

22 Q Are you familiar with the exhibit marked as
23 "Exhibit 8", which is the Company's supplemental
24 testimony and supporting attachments that you

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 co-sponsored with Mr. Johnson, Mr. Freeman, Mr.
2 Walker, and Ms. Gionfriddo?

3 A (Cosgro) Yes, I am.

4 Q And are you also familiar with Exhibits 9 through
5 14, which provide the Company's responses to data
6 requests issued by the Department of Energy and
7 Clean Energy New Hampshire and include responses
8 you have sponsored?

9 A (Cosgro) Yes, I am.

10 Q And do you have any corrections or amendments to
11 Exhibits 1 through 6, 8, or 9 through 14?

12 A (Cosgro) No, I do not.

13 Q Are you adopting those portions of Exhibits 1
14 through 14 that you have sponsored as part of
15 your sworn testimony today?

16 A (Cosgro) Yes, I am.

17 Q Thank you. I will now move directly to my right,
18 with Ms. Ntakou. Would you please state your
19 full name, Company position, and your
20 responsibilities?

21 A (Ntakou) Good morning, everyone. My name is Elli
22 Ntakou. I'm the Manager of System Resiliency and
23 Reliability Planning. I'm responsible for
24 optimizing the performance of the distribution

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 system assets in New Hampshire that are operated
2 by the Company and to ensure the customer needs
3 for service and reliability are satisfied.

4 As part my role, I'm also performing a
5 climate change vulnerability study across the
6 three Eversource Energy states, including New
7 Hampshire.

8 Q Can you please provide a brief summary of your
9 education and professional experience?

10 A (Ntakou) I graduated from Boston University
11 College of Engineering with a Master's of Science
12 and a Ph.D., both in Systems Engineering.

13 *[Court reporter interruption.]*

14 **CONTINUED BY THE WITNESS:**

15 A (Ntakou) Prior to joining the Company in 2022, I
16 was employed by Quanta Technology in various
17 positions, including the most Senior Advisor. I
18 also worked for ESAI Power, LLC, leading their
19 Northeast wholesale power market modeling
20 efforts.

21 BY MS. RALSTON:

22 Q Are you familiar with the exhibit marked as
23 "Exhibit 8", which is the Company's supplemental
24 testimony and supporting attachments that were

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 co-sponsored by Mr. Johnson, Mr. Freeman, Mr.
2 Walker, Mr. Cosgro, and Ms. Gionfriddo?

3 A (Ntakou) Yes, I am.

4 Q And, due to Ms. Gionfriddo's unavailability
5 today, are you adopting those portions of
6 Exhibit 8 that Ms. Gionfriddo sponsored?

7 A (Ntakou) Yes, I am.

8 Q Do you have any corrections or amendments to
9 Exhibit 8?

10 A (Ntakou) No, I do not.

11 Q And are you adopting those portions of Exhibit 8
12 that Ms. Gionfriddo sponsored as part of your
13 sworn testimony today?

14 A (Ntakou) Yes. I am.

15 Q Thank you. Mr. Moawad, would you please state
16 your full name, Company position, and
17 responsibilities?

18 A (Moawad) Good morning, everyone. My name is --

19 *[Court reporter interruption.]*

20 **CONTINUED BY THE WITNESS:**

21 A (Moawad) Good morning, everyone. My name is Mina
22 Moawad. I'm a Lead Engineer of Distributed
23 Energy Resources Planning. I'm responsible for
24 leading the Engineering team that performs the

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 necessary distribution system planning activities
2 for the interconnection of distributed energy
3 resources to the Company's distribution system.

4 Q And could you please provide a brief summary of
5 your education and professional experience?

6 A (Moawad) Yes. I have a Bachelor of Engineering
7 degree from Dalhousie University in Electrical,
8 Electronics, and Power Systems Engineering.

9 Prior to joining the Company in 2021, I
10 worked for Nova Scotia Power for over eight years
11 in various positions, including Senior Project
12 Manager of Transmission Capital Projects and T&D
13 System Planning Engineer.

14 Q Thank you. And are you familiar with the
15 exhibits marked as "Exhibits 1" through "6",
16 which provide the Company's 2020 LCIRP?

17 A (Moawad) Yes, I am.

18 Q And what parts of the Company's LCIRP do you
19 support?

20 A (Moawad) My primary responsibilities with respect
21 to the Company's LCIRP are distributed energy
22 resource planning, including system impact
23 studies and interconnection standards.

24 Q And are you also familiar with Exhibit 15, which

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 provides the Company's responses to data requests
2 issued by Clean Energy New Hampshire, and include
3 responses that you have sponsored?

4 A (Moawad) Yes, I am.

5 Q Do you have any corrections or amendments to
6 Exhibit 15?

7 A (Moawad) No, I don't.

8 Q And are you adopting those portions of Exhibit 15
9 that you have sponsored as part of your sworn
10 testimony today?

11 A (Moawad) Yes, I am.

12 Q Thank you. And last, but not least, Mr. DiLuca,
13 would you please state your full name, Company
14 position, and responsibilities?

15 A (DiLuca) Good morning, everyone. My name is
16 James DiLuca, Junior. I'm Manager of New
17 Hampshire Distribution System Planning and
18 Distributed Energy Resources Planning for the New
19 Hampshire service territory. I'm responsible for
20 assessing the long-term reliability of the
21 distribution system and establishing any
22 alternatives that are needed to address those
23 needs, and also responsible for the DER planning
24 based on interconnection requirements and

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 standards.

2 Q Can you please provide a brief summary of your
3 education and professional experience?

4 A (DiLuca) I have a Bachelor's degree in Electrical
5 and Electronics Engineering from the University
6 of Massachusetts-Lowell. I also have a Master's
7 degree in Power System Analysis from the
8 University of Idaho.

9 And I have worked for Eversource for
10 over 27 years. I started out as an Electrical
11 Engineer at the Millstone Nuclear Power Plant
12 down in Connecticut, worked at the Design
13 Engineering group there, and also in the
14 Condition-based Maintenance Department. And
15 then, from there, I moved to a position within
16 Transmission System Planning at Eversource, and
17 was there for the last 22 years. And then,
18 recently, I assumed the current position as
19 Manager of the Distribution System Planning and
20 DER Planning for New Hampshire.

21 Q And are you familiar with the exhibits marked as
22 "Exhibit 1" through "6", which provide the
23 Company's 2020 LCIRP?

24 A (DiLuca) Yes, I am.

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 Q And what parts of the Company's LCIRP do you
2 support?

3 A (DiLuca) Primarily, responsibility is with
4 respect to the distribution system planning,
5 long-term, and also the DER planning and
6 interconnections.

7 Q And are you familiar with Exhibits 9 through 15,
8 which provide the Company's responses to data
9 requests issued by the Department of Energy and
10 Clean Energy New Hampshire, and include responses
11 that you and/or Richard Labrecque have sponsored?

12 A (DiLuca) Yes, I am.

13 Q And Mr. Labrecque has resigned from Eversource
14 Energy, is that correct?

15 A (DiLuca) That is correct.

16 Q And have you assumed Mr. Labrecque's
17 responsibilities?

18 A (DiLuca) Yes, I have.

19 Q And, so, as a result, are you adopting
20 Mr. Labrecque's responses to data requests this
21 morning?

22 A (DiLuca) Yes, I am.

23 Q Do you have any corrections or amendments to
24 Exhibits 1 through 15?

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 A (DiLuca) I do not.

2 Q And are you adopting those portions of Exhibits 1
3 through 15 that you or Mr. Labrecque have
4 sponsored as part of your sworn testimony today?

5 A (DiLuca) Yes, I am.

6 MS. RALSTON: Thank you. I just have a
7 few more questions for Mr. Lavelle [sic] and Mr.
8 Walker.

9 BY MS. RALSTON:

10 Q So, I will start with a few questions,
11 Mr. Lavelle -- Mr. Freeman, apologies, regarding
12 the Company's 2020 LCIRP and the October 2022
13 supplement. Mr. Freeman, is it your
14 understanding that RSA 378:38 requires that the
15 Company's LCIRP include a number of components,
16 to the extent that they are applicable to the
17 Company?

18 A (Freeman) Yes, it is.

19 Q And Exhibits 1 through 6 provide the Company's
20 2020 LCIRP. Can you point the Commission to
21 where there's an explanation of how the Company
22 addressed each of those components?

23 A (Freeman) Sure. If the Commission refers to
24 Exhibit 1, at Bates 047, it will see that there

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 is an Appendix A of the 2020 LCIRP. This
2 Appendix A provides a guide to how the Company
3 addresses each of the components listed in RSA
4 378:38. Appendix A also includes an explanation
5 of why the Company has not addressed certain
6 components of the statute that were deemed as not
7 applicable to Eversource at the time of filing.

8 Q Thank you. And is it your understanding that
9 RSA 378:39 is the statutory provision relevant to
10 how the Commission evaluates an LCIRP?

11 A (Freeman) Yes, it is.

12 Q Exhibit 16 is DOE's testimony filed in this
13 proceeding. Do you recall that, in its
14 testimony, DOE stated that the Company had not
15 addressed RSA 378:39 as part of its 2020 LCIRP
16 filing and recommended that the Company submit a
17 supplement?

18 A (Freeman) Yes, I do.

19 Q And did the Company address this recommendation
20 from DOE?

21 A (Freeman) Yes, the Company did. In Exhibit 7,
22 which is the Company's rebuttal testimony, the
23 Company explained that, while its planning and
24 project-authorization process inherently involves

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 evaluation of a range of considerations,
2 including the impacts described in RSA 378:39,
3 the Company did not include an express discussion
4 in the 2020 LCIRP to address RSA 378:39 in the
5 same way that the Company included Appendix A
6 previously referenced to address RSA 378:38.

7 The Company agreed that a supplement
8 would provide -- would improve the review process
9 for stakeholders and for the Commission. The
10 Company subsequently filed the supplement on
11 October 18th, 2022, to address RSA 378:39.

12 As explained in greater detail in
13 Exhibit 7, there are two key drivers of the
14 Company's discussion regarding the investment in
15 the distribution system. These two are, one, to
16 maintain and improve a reliability and the safety
17 of the distribution system for the benefit of all
18 customers; and, number two, accomplishing this
19 goal at a reasonable cost. On a
20 project-by-project basis, the Company considers a
21 range of attributes other than the impact on
22 reliability and cost. These include
23 constructability and, of course, environmental
24 considerations.

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 We consider public-health impacts to be
2 intertwined with environmental impacts.
3 Similarly, as discussed in the supplemental
4 testimony in Exhibit 8, reliability and
5 resiliency improvements have a direct nexus with
6 economic impacts.

7 Q And did the Company address any other
8 recommendations in its rebuttal testimony or the
9 supplemental filing?

10 A (Freeman) Yes. Both the OCA and Clean Energy New
11 Hampshire have made recommendations that relate
12 to the ongoing transition of the electric grid to
13 address increasing electrification and grid
14 modernization, among other things. The Company
15 has acknowledged that the transition of the
16 electric grid is occurring, and the Company
17 supports a working group to receive stakeholder
18 input in advance of the next LCIRP, and to
19 develop and submit an LCIRP subsequent to that
20 input.

21 It is also important to keep in mind,
22 and Attorney Jessica [sic] mentioned this
23 earlier, that the attorney -- that the LCIRP
24 represents a "snapshot in time". But the

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 Company's planning and project-evaluation
2 processes are always evolving. Since the time of
3 filing in 2020, the Company has made substantial
4 improvements in its planning process, in its
5 technology, and in the personnel deployed to
6 implement these plans.

7 In Exhibit 8, starting at Bates 20, the
8 Company has provided specific examples of how it
9 has begun to address the transition of the
10 electric grid in its planning process. And the
11 impacts of these adjustments to its planning
12 process will be captured in the next iteration of
13 the Company's LCIRP.

14 Q So, is it the Company's position that the 2020
15 LCIRP, inclusive of the October 2022 supplement,
16 meet the statutory requirements and should be
17 approved?

18 A (Freeman) Yes, it is.

19 Q Thank you. And then, finally, if I could just
20 turn your attention to the exhibit that has been
21 marked as "Exhibit 21". This is a letter filed
22 by the Department of Energy on January 19th, is
23 that correct?

24 A (Freeman) That is correct.

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 Q And, in that letter, DOE had two recommendations
2 regarding the Company's 2020 LCIRP. The two
3 recommendations were, one, that the Company's
4 2020 LCIRP should be approved, subject to the
5 DOE's pending investigation in Docket IP 22-001,
6 to consider modifications to interconnection
7 procedures; and, two, that the Company should
8 investigate revisions to its NWA threshold
9 criteria, is that correct?

10 A (Freeman) Yes, it is.

11 Q And, so, Mr. Freeman, have DOE and the -- has the
12 Company changed its position related to the
13 application of the N-1 Planning Standard to DER
14 interconnection?

15 A (Freeman) No, the Company has not changed its
16 position with regard to the application of the
17 N-1 standard. The N-1 Standard is a planning
18 standard that is industry-accepted. The Company
19 has been designing its distribution
20 infrastructure to accommodate the loss of a
21 single element at the substation level, without
22 impacting customers at the distribution level.

23 The Company has also been applying the
24 N-1 standard to distribution, to DER customers,

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1 for some time. And, in fact, records show that
2 over a decade ago the Company first applied the
3 N-1 Planning Standard to DER customers in New
4 Hampshire. And, in other operating areas, we
5 have been applying the N-1 standard even longer.
6 In 2020, the Company formalized the application
7 of the N-1 standard to DER customers in its
8 planning guide. And this N-1 standard represents
9 an evolution of our planning criteria, in the
10 face of increasing DER penetration, particularly
11 at key substations, we have continually evolved
12 our planning criteria over time, incorporating
13 new standards, incorporating new planning
14 methodologies, as they are applicable to the
15 impact of DER. This is just another step along
16 an evolutionary path.

17 And, so, the Company -- to the best of
18 the Company's knowledge, the Company's planning
19 standards do not need to be approved by the DOE
20 and the Commission. We are not attorneys, but
21 that is to the best of our knowledge. And, since
22 we have the obligation for safety and
23 reliability, we also have the obligation to
24 develop planning standards that are commensurate

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1 with the provision of that safety and
2 reliability.

3 And, so, therefore, that is our
4 position, that that standard is applicable for
5 the role that we play in New Hampshire.

6 Q Thank you. Does the Company, however, recognize
7 that DOE's position regarding the application of
8 the N-1 standard to DER interconnection is
9 contingent upon that pending investigation that
10 DOE has mentioned this morning?

11 A (Freeman) Yes. The Company has engaged with DOE,
12 because it believes that a collaborative approach
13 ahead of the next LCIRP will be beneficial to
14 DOE, to the Company, and to the Commission. And,
15 so, since the DOE has opened an investigation,
16 docketed as "IP 22-001", to investigate whether
17 modifications to the interconnection processes
18 are warranted, the Company recognizes that the
19 DOE's position regarding the N-1 Planning
20 Standard, as it applies to DER interconnections,
21 is contingent on the outcome of the DOE's pending
22 investigation. And the Company accepts that, and
23 we'll collaborate and is willing to work with the
24 DOE and stakeholders.

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 Q Thank you. And, Mr. Walker, I just have a few
2 questions regarding the NWA framework. What are
3 the current thresholds that the Company applies
4 to its NWA framework?

5 A (Walker) Currently, the Company applies three
6 thresholds. If one of which fails the NWA
7 framework or the NWA screening, it does not
8 proceed. Those three thresholds are, number one,
9 if the project is related to aging or failed
10 equipment; number two, if the project has to be
11 completed in less than three years; and, number
12 three, if a project's costs are less than
13 \$3 million.

14 Q Thank you. And does the Company think that it
15 would be appropriate to perform an investigation
16 regarding those thresholds ahead of its next
17 LCIRP filing?

18 A (Walker) Yes. The Company and the DOE have
19 agreed to an Investigation Plan pursuant to which
20 the Company would modify these thresholds and
21 report the results over a two-year period.
22 Specifically, the Company has agreed to perform
23 an NWA analysis for projects which would cost not
24 less than \$1 million, so, moving that from 3

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1 to 1, and for projects that are related for aging
2 equipment, on a case-by-case basis, with the
3 exception of projects where previous NWA analyses
4 have shown that there's a negative outcome.

5 Q Has the Company also agreed to investigate the
6 timing threshold?

7 A (Walker) No. The Company -- oh, wait. I'm
8 sorry. My bad.

9 Yes. The Company has agreed to look at
10 the timing threshold from 36 months, so, three
11 years, to 24 months, being two years.

12 Q Thank you. And will the results of this proposed
13 two-year investigation inform changes,
14 essentially, to the NWA framework ahead of the
15 next LCIRP?

16 A (Walker) Yes. The results of this two-year
17 investigation will inform any changes to the NWA
18 framework, if any changes are supported by the
19 data from the investigation. These changes will
20 be incorporated into the Company's next LCIRP.

21 DOE has agreed that it would not make
22 any further recommendations for modifications to
23 the NWA framework thresholds until after the
24 Company provides a final progress report in 2027.

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1 Q Thank you. And, so, in your respective opinions,
2 should these proposed resolutions to the DOE
3 recommendations be incorporated into the
4 Commission's approval of the 2020 LCIRP?

5 A (Walker) Yes.

6 A (Freeman) Yes. And, as I stated a few minutes
7 ago, the Company's 2020 LCIRP, inclusive of the
8 October 2020 supplement -- October 2022, sorry,
9 supplemental filing, meets all the statutory
10 requirements. The Settlement Agreement,
11 specifically the NWA Investigation Plan,
12 represents a thoughtful and collaborative way for
13 the DOE and the Company to work together ahead of
14 the Company's next LCIRP filing.

15 Thank you.

16 MS. RALSTON: Thank you. The witnesses
17 are now available for cross-examination. And I
18 appreciate everyone's patience as we sort of
19 fumbled through the end there to address DOE's
20 recommendations without the certainty regarding
21 the Settlement Agreement.

22 Thank you.

23 CHAIRMAN GOLDNER: Thank you, Attorney
24 Ralston. We'll begin with the Department of

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1 Energy.

2 MS. SCHWARZER: Mr. Chairman, because
3 the Department was not considering
4 cross-examination, if you could proceed with a
5 different party, and perhaps come back to me, I
6 would appreciate it?

7 CHAIRMAN GOLDNER: Okay. I'll consider
8 that. We'll move to Attorney Kreis.

9 MR. KREIS: Just give me a second here.

10 CHAIRMAN GOLDNER: Of course.

11 MR. KREIS: That differs from what you
12 expressed an intention to do.

13 CHAIRMAN GOLDNER: Attorney Kreis,
14 sorry, we were just playing Scrabble while you
15 were -- while we were waiting. So, --

16 MR. KREIS: Well, if you came up with
17 any good words, please let me know. I'm always
18 interested in good words.

19 CMSR. SIMPSON: I don't know if I'd
20 like to Scrabble against Attorney Kreis. He
21 always comes up and teaches me a few new words.

22 MR. KREIS: Yes. We can talk about
23 Scrabble some other time. But let's just say I'm
24 not very good at it, even though people expect me

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1 to be good at it, which is stress.

2 Okay. I'm going to start with Mr.

3 Johnson.

4 **CROSS-EXAMINATION**

5 BY MR. KREIS:

6 Q Mr. Johnson, I noticed on the Witness List that
7 you are the only witness today who is -- whose
8 title includes the word "Director". And, so,
9 therefore my question for you is, would it be
10 fair to say that you are the highest ranking
11 official from Eversource among the various
12 witnesses on the Witness List who are taking the
13 stand today?

14 A (Johnson) To correct you, Mr. Lavelle *[sic]*, to
15 my left, is also a Director. So, we are the
16 highest ranking Eversource employees here today.

17 Q Which of the witnesses report to you, if any?

18 A (Johnson) I'm sorry, that are here?

19 Q Yes.

20 A (Johnson) None of them.

21 Q So, and Mr. Lavelle -- excuse me. Everybody
22 wants to call him "Mr. Lavelle", even though
23 that's his first name.

24 A (Freeman) First name, yes.

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1 Q I guess it's because we like him. Mr. Freeman
2 doesn't report to you?

3 A (Johnson) He does not.

4 Q So, who is the official at Eversource who is
5 responsible for approving the Least Cost
6 Integrated Resource Plan in totality?

7 A (Johnson) Ultimately, it would be the --
8 *[Court reporter interruption.]*

9 **BY THE WITNESS:**

10 A (Johnson) Ultimately, it would be the president.

11 BY MR. KREIS:

12 Q And has the president approved the total LCIRP
13 plan?

14 A (Johnson) The president at the time that it was
15 filed has since left Eversource New Hampshire.
16 We have a new president, Mr. Foley. So,
17 directly, no, he has not. He has only been with
18 the Company for a matter of months. So, the
19 filing was done under a prior president.

20 Q So, I just want to make sure I understand your
21 testimony correctly. What you just said is that
22 the person at Eversource who is responsible for
23 approving the Least Cost Integrated Resource Plan
24 in its totality is the president of the Company.

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1 That president is now Mr. Foley. But, in fact,
2 he has not approved the LCIRP, even though it is
3 his responsibility to do so. Did I understand
4 your testimony correctly?

5 A (Johnson) I'm saying that the person that was
6 responsible, at the time of the LCIRP filing,
7 approved that, that LCIRP filing.

8 Q Okay. But what I'm trying to figure out is, who,
9 at Eversource, has approved the entire Least Cost
10 Integrated Resource Plan that is pending before
11 the Commission today? And I realize it's a hard
12 question, because the Plan has been sort of
13 parceled out to the Commission and the other
14 parties in a piecemeal fashion. And I realize
15 that there are personnel changes all the time at
16 utilities, including Eversource.

17 But I'm just trying to figure out, who
18 is the person at Eversource who's responsible for
19 making sure that this Plan is both integrated and
20 least cost?

21 A (Johnson) I'm not sure how to address your
22 question, other than the way that I have
23 addressed it. At the time of the filing, and of
24 the supplement, the president at that time

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1 approved of those filings and the supplement.

2 Q Okay. I won't belabor that point any further.

3 In Exhibit 7, which is your testimony from last
4 September, again I'm addressing Mr. Johnson, you
5 describe yourself, at Bates Page 003, as

6 "responsible for optimizing the performance of
7 the distribution system assets of Public Service
8 Company of New Hampshire". And, on the same
9 page, you say you're "also primarily responsible
10 for the Company's capital budgeting and project
11 approval process associated with distribution
12 line projects and programs."

13 So, my question is, are you responsible
14 for PSNH's overall capital budget?

15 A (Johnson) I assist in the development of the
16 overall budget. I'm specifically responsible for
17 developing the distribution line components of
18 it. But I do coordinate the assembly of the
19 entire distribution capital budget.

20 Q So, would it be fair to say that you don't have
21 the authority to approve distribution system
22 capital budgets or does somebody further up the
23 chain of command have that responsibility? I'm
24 just trying to figure out who is responsible for

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1 what?

2 A (Johnson) Ultimately, the president is
3 responsible for the approval of the capital
4 budget plan.

5 Q Would you say that it's your responsibility to
6 determine what every option the Company might
7 deploy in a given planning period, capital
8 projects, plus anything else? Is it your
9 responsibility to determine which of those
10 options to pursue?

11 A (Johnson) No. Not me, specifically, no.

12 Q Do you have any expertise in the field of utility
13 finance or economic principles?

14 A (Johnson) I am certainly familiar. I would not
15 claim myself to be an expert.

16 Q And given -- again, I'm just trying to understand
17 where the state of play is here. And given that
18 there have been various filings, and it's my
19 understanding that they collectively comprise the
20 LCIRP that is before the Commission for its
21 approval, I'd just like to know, what is the
22 planning period covered by the Integrated
23 Resource Plan that the Company is presenting for
24 approval here?

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1 A (Johnson) Well, the planning period, I may be a
2 little bit off on this, but I believe five years
3 is the intended, and at least, especially with
4 the follow-up that was provided to the original
5 filing, there were requests for information
6 extending out five years.

7 Q Mr. Freeman, is that also your understanding?
8 Because your testimony was that, I think it was
9 your testimony, that "the Company's planning
10 processes are evolving all the time", as they
11 should. So, I just want to make sure that the
12 Commission understands what planning period
13 you're actually covering by this Plan?

14 A (Freeman) So, first, I'd like to draw a
15 distinction between Mr. Russel Johnson's role and
16 mine.

17 Q Okay. But that wasn't my question.

18 A (Freeman) Well, I just --

19 Q Could you answer my question please?

20 A (Freeman) But that would help me answer your
21 question.

22 Q Okay. Please just answer my question.

23 MR. KREIS: Mr. Chairman, would you
24 instruct the witness to answer the question that

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1 I asked?

2 CHAIRMAN GOLDNER: Can you repeat your
3 question, Attorney Kreis?

4 MR. KREIS: I just asked Mr. Freeman if
5 he shares Mr. Johnson's understanding of the
6 planning period covered by the Least Cost
7 Integrated Resource Plan? Which requires, I
8 think, an answer like "five years" or "through
9 December of 2030", or something like that.

10 I didn't ask him about his role with
11 the Company, as it compares and contrasts to Mr.
12 Johnson's role.

13 And, if the Company wants to ask
14 further clarifying questions about that on
15 redirect, that's another issue.

16 CHAIRMAN GOLDNER: Please proceed, Mr.
17 Freeman.

18 **BY THE WITNESS:**

19 A (Freeman) In my role, --

20 CHAIRMAN GOLDNER: Mr. Freeman?

21 WITNESS FREEMAN: Yes.

22 CHAIRMAN GOLDNER: If you could, just
23 is it a 10-year planning horizon, a 5-year
24 horizon?

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1 **CONTINUED BY THE WITNESS:**

2 A (Freeman) Yes, I was going to say, for substation
3 planning, at the bulk substation level, we look
4 at a 10-year planning horizon. At the
5 distribution level, it's more near-term than ten
6 years.

7 CHAIRMAN GOLDNER: Thank you.

8 BY MR. KREIS:

9 Q Okay. The last part of your answer, can you
10 repeat it? I just didn't quite hear it.

11 A (Freeman) At the distribution level, where Mr.
12 Johnson operates, it tends to be more near-term.
13 They don't have a 10-year planning horizon. That
14 was the distinction I was trying to draw.

15 Q So, in other words, it wouldn't really be
16 possible for the Commission to make a
17 determination here, as to the Least Cost
18 Integrated Resource Plan, what planning period is
19 actually covered by the Plan. Because, if I
20 understood your last answer correctly, it
21 depends, basically, on what specific assets or
22 options or projects we're talking about?

23 A (Freeman) Is that a question for me?

24 Q Yes. I just want to make sure my understanding

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1 is correct.

2 A (Freeman) I disagree. I disagree. That the Plan
3 covers multiple applications: DER planning,
4 distribution line planning, substation planning.
5 They have different planning timeframes, and the
6 Plan discusses and covers each one of those
7 applications.

8 Q Okay. Mr. Freeman, you testified on direct about
9 your understanding of the Company's obligations
10 under the statute that covers Least Cost
11 Integrated Resource Planning. So, I'm going to
12 ask you a question about the statute. What does
13 the word "integrated" in that statute mean to
14 you?

15 A (Freeman) In that statute, and I can't speak for
16 the authors of the statute, I can only speak for
17 how I interpret it.

18 Q Indeed. That's my question.

19 A (Freeman) Okay. So, when I see the word
20 "integrated" in that context, it implies planning
21 with respect to the needs for distribution
22 customers, the need for DER customers, and taking
23 into account the transmission requirements to
24 meet the distribution infrastructure expansion

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1 needs.

2 Q Okay. Turning to either Exhibit 2 or Exhibit 1,
3 I've been looking at Exhibit 2, I don't have any
4 questions about confidential or punitively
5 confidential material. So, I don't think it
6 matters. And I think I'm sticking with Mr.
7 Freeman here.

8 At Bates Page 021 of Exhibit 2, it says
9 "After a trend forecast is produced for each
10 substation, the forecast is adjusted for energy
11 efficiency, DER, large customer projects, or
12 other material changes in load or supply."

13 I have correctly quoted from Bates
14 Page 021, I hope?

15 A (Freeman) I'm trying to find the spot. Yes.

16 Q Okay.

17 A (Freeman) I think I have it. Yes.

18 Q Okay. I want to understand what that means.
19 Does that mean that the way in which energy
20 efficiency is accounted for in the Least Cost
21 Plan is as an upfront adjustment to the forecast
22 demand at each substation?

23 A (Freeman) If you don't mind, Attorney Kreis, I
24 will defer to my colleague, Mr. Walker, who

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1 reports to me, and this is his purview.

2 Q Okay. I'd be happy to hear what Mr. Walker has
3 to say in response.

4 A (Walker) Sure. To quickly recap the question,
5 you're asking whether the energy efficiency is
6 being up-front integrated into the forecast by
7 station?

8 Q I'm just trying to make sure I understand and the
9 Commission understands the role that energy
10 efficiency actually plays in the Company's
11 integrated resource planning. And I think what I
12 got from Exhibit 2 is that you account for energy
13 efficiency as sort of an upfront adjustment to
14 your anticipated load?

15 A (Walker) Yes. So, to answer that question, in
16 terms of how the Company accounts for energy
17 efficiency in its LCIRP, there's two points where
18 those get accounted for. Number one, as Attorney
19 Kreis pointed out, that is correct, for our
20 substation forecasts, we have energy efficiency
21 projections, according to the current energy
22 efficiency plans, that get calculated into the
23 normal load projections of the station. Same as
24 we do with solar and other additional adders.

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1 In addition to that, energy efficiency,
2 above and beyond those programs that are
3 accounted for in the forecast, will be accounted
4 for, for example, in an NWA analysis, which looks
5 at additional programs that can be put in place
6 above and beyond what's known and existing.

7 Q And would it be fair to say that that second
8 flavor of energy efficiency you just mentioned --

9 A (Walker) Uh-huh.

10 Q -- is what I would call "geo-targeted energy
11 efficiency"? You're looking at the effect energy
12 efficiency could have on a particular substation
13 or circuit project, as opposed to a so-called
14 "wires alternative"?

15 A (Walker) Yes. One could phrase it that way.

16 Q Okay. And I think I'm going to stick with you,
17 Mr. Walker, --

18 A (Walker) Okay.

19 Q -- since you seem to be the person who knows
20 about energy efficiency. Again, on Bates Page
21 021 of Exhibit 2, or 1, it says that the
22 "Company-sponsored energy efficiency...is
23 proportionately applied to each substation in
24 proportion to historical peak demand at each

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1 substation."

2 My first question is, why is historical
3 peak demand the right way to determine the amount
4 of energy efficiency to be forecast for each
5 substation?

6 A (Walker) Well, the underlying assumption is that,
7 with energy efficiency, we are targeting a peak
8 reduction. And the more peak that is available
9 to look at, be it through lighting, HVAC systems,
10 or other load components, the more impact the
11 energy efficiency programs will have.

12 As an example, a station with a very
13 minimal residential load, compared to one with a
14 large residential load, the absolute magnitude in
15 megawatts is likely to be higher on the large
16 residential load, compared to the smaller
17 residential load.

18 Q With regard to the reference at Bates 021 to
19 "Company-sponsored energy efficiency", does the
20 phrase "Company-sponsored" really mean
21 "ratepayer-funded energy efficiency"?

22 A (Walker) In my understanding, that would cover
23 the energy efficiency programs as through what's
24 available in New Hampshire. And don't quote me

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1 on the specific name of the program.

2 Q So, you don't know the name of the specific
3 program through which Eversource offers energy
4 efficiency to its customers in New Hampshire?

5 A (Walker) No, I do not, at this point.

6 Q But, to your knowledge, does Eversource invest
7 any of its own capital in energy efficiency in
8 New Hampshire?

9 A (Walker) I would have to defer that question and
10 take that possibly as a record request, since I
11 am not the Manager for Energy Efficiency in the
12 State of New Hampshire.

13 Q I don't think that's necessary, because I think
14 the Commission is well aware that the answer to
15 that question is "no".

16 Does the Company contemplate doing any
17 investment in actual Company resources, meaning
18 capital in energy efficiency in the future,
19 Mr. Walker?

20 A (Walker) I cannot directly speak to what the
21 Company's strategic plans are to investigate --
22 invest into Company-owned energy efficiency.
23 But, as part of the NWA evaluation, the Company
24 does look at energy efficiency, in terms of it

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1 being the cheaper long-term option, compared to
2 traditional system investments.

3 It has not been clearly defined, you
4 know, "geo-targeted", as you called it, an energy
5 efficiency program would meet such criteria,
6 where the funds for those programs would come
7 from. Whether those would be from -- redirected
8 from existing programs or whether those would
9 come from other sources, those are not defined.

10 Q I think I might flip back to Mr. Freeman and see
11 how I do.

12 Could you describe the actual process
13 that Eversource uses to determine how to make
14 capital investments in New Hampshire?

15 A (Freeman) Sure, Attorney Kreis. So, the process
16 typically begins with the load forecast, which
17 Mr. Walker -- Dr. Walker has just been
18 describing. The load forecast allows us to
19 understand, over the 10-year planning horizon,
20 how the load is growing with respect to the
21 drivers, and, more importantly, allows us to
22 understand how each substation would be impacted
23 by this load growth.

24 With this forecast, and with detailed

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1 models of our system, we can do an analysis to
2 assess whether there are any violations of the
3 substation thermal capacity, violations with
4 respect to voltage, violations with respect to
5 power quality. And these violations are looked
6 at holistically.

7 And we used the term "integrated"
8 before. So, we have to look now at what are the
9 solutions that will address these violations in a
10 holistic manner. Is there DER at these stations?
11 Whatever solution we develop should also address
12 DER impact. Is it possible to bring some
13 transmission -- transmission in? That portends
14 different types of solutions. And, so, we
15 develop a range of alternatives that would
16 resolve the violation due to the load growth.

17 Along with the range of traditional
18 alternatives, we would also develop a non-wires
19 alternative, if it meets the suitability criteria
20 established for NWA.

21 Once we have developed these
22 alternatives, they then go through a process in
23 Eversource called the "Capital Project Approval
24 Process", where the project initiator, typically

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1 of Distribution System Planning, would take these
2 projects to a committee called a "Solution Design
3 Committee". And the Solution Design Committee is
4 comprised of subject matter experts from across
5 the Company from every engineering discipline.
6 And we would present what we think is the
7 preferred alternative, along with all the other
8 alternatives that would resolve that violation.
9 And the Committee opines and gives guidance, and
10 out of that process a decision is made on the
11 project or the best alternative to move forward
12 with.

13 Within that process, the various assets
14 and the impact of the project are considered.
15 The cost of the project, the environmental impact
16 of the solution, the constructability of the
17 various solutions, impact on losses, certainly,
18 the impact on reliability. The area-wide needs,
19 and the ability of the project to not just
20 address that substation, but address other
21 substation needs in the wider area. And then,
22 the ability of that solution to stand the test of
23 time, which means, as we go on, are there needs
24 that are going to develop later on that this

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1 project could address.

2 And, so, with this project, with the
3 alternatives, and with the various attributes of
4 the alternatives being adjudicated, for lack of a
5 better word, by the Solution Design Committee,
6 the preferred alternative would be identified.

7 And then, the project management team,
8 the various engineering teams, the cost
9 estimation team, will have an opportunity to do
10 engineering analysis to flesh out the
11 alternative, and then to take that alternative,
12 along with the cost estimate, to the Eversource
13 Project Approval Committee, called "EPAC". And
14 this EPAC Committee is the one that decides
15 whether that project should be funded. And, once
16 that project is funded, whether partially or
17 fully, it then gets into the capital plan.

18 The process I've just described is for
19 substation-related projects. There is a
20 different process for distribution line projects,
21 which Mr. Johnson can describe. But it goes
22 through different committees, state committees,
23 rather than the Eversource Project Approval
24 Committee.

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1 Q Thank you. That's very helpful. So, and it's
2 fair to assume that all of what you just
3 described is also described in the various
4 components of the LCIRP that's before the
5 Commission today, correct?

6 A (Freeman) Yes. Yes. In fact, the Project
7 Approval Process is attached, which delineates
8 completely the process, and describes what each
9 committee does and the responsibility of project
10 initiators and all of the engineering
11 disciplines.

12 Q So, it's ultimately, at least as to substation
13 projects, the EPAC Committee that actually has
14 the authority to make go/no go decisions about
15 distribution substation projects?

16 A (Freeman) I will say it's both committees. The
17 Solution Design Committee is more of a technical
18 tollgate, and the EPAC Committee is more of a
19 financial tollgate.

20 Q And then, you just mentioned that there's a whole
21 different process involving a different committee
22 that has to do with distribution line projects?

23 A (Freeman) Yes, sir.

24 Q What about other projects or options or programs

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1 that Eversource might undertake in New Hampshire?
2 And just so it's clear, when I use the term
3 "Eversource", I'm really using that as a proxy or
4 the equivalent of "Public Service Company of New
5 Hampshire", which is the official name of
6 Eversource's operating company here in New
7 Hampshire.

8 A (Freeman) So, I'll speak to one, and I'll let Mr.
9 Johnson speak to --

10 Q Well, I'm not asking Mr. Johnson. I'm asking
11 you.

12 A (Freeman) Yes. Okay. So, system planning, my
13 purview, we initiate projects that are in the
14 realm of reliability and capacity needs.
15 Projects that are asset health-driven, you know,
16 transformer is aging, it's gassing, obviously,
17 it's a safety and reliability risk, those would
18 be initiated by the asset management team. They
19 would go through the same process, but a
20 different initiator.

21 Transmission line projects would be
22 initiated by a different group. Go through the
23 same process, but, again, a different initiator.
24 And the same thing for distribution line

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1 projects.

2 In addition to this, there are programs
3 that have been established to address Company
4 needs that have been identified previously. For
5 example, --

6 *[Court reporter interruption.]*

7 **CONTINUED BY THE WITNESS:**

8 A (Freeman) -- oil circuit breakers, yes, which the
9 Company is trying to get rid of, because these
10 are -- it's an environmental issue, and they have
11 performance issues, they're oil circuit breakers.
12 So, there are programs to address oil circuit
13 breakers, we have programs to address things
14 like -- well, Mr. Johnson can speak to a lot more
15 of these programs, because they're more on the
16 distribution side. But, suffice it to say, these
17 programs, which I establish and funded, they
18 don't necessarily have to go through the same
19 capital project approval process as a new project
20 that's initiated by System Planning.

21 BY MR. KREIS:

22 Q Let's say that I work at Eversource, and I
23 thought it was a great idea to replace every
24 single meter that the Company has currently

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1 deployed with advanced meters, because I thought
2 that would save customers a lot of money. How
3 would that either be approved or not approved?

4 A (Freeman) So, to replace every single meter
5 across the Company would be an extensive program,
6 that, if that is an idea that an engineer has,
7 would have to be presented as a program idea to
8 the capital project approval process. It would
9 go through the same rigors as a project, but it
10 would be presented as a program.

11 And, once it goes through a Solution
12 Design Committee and the Eversource Project
13 Approval Committee, it could be established as a
14 program, with funding attached to it, that the
15 engineer can now address these needs under that
16 program.

17 Q Do you know which Committee would review a
18 proposal like that?

19 A (Freeman) Both committees. The Solution Design
20 Committee, if it's at the substation level, the
21 Solution Design Committee, and the Eversource
22 Project Approval Committee, if it's at the
23 distribution line level, it would be the New
24 Hampshire PAC, New Hampshire Project Approval

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1 Committee, which is a state PAC, and then would
2 also go to EPAC for funding.

3 Q What if I had an idea to adopt a new rate design
4 that would have the effect of saving both the
5 Company and customers a lot of money, say, I
6 don't know, a time-of-use rate proposal or
7 something like that?

8 That's not a capital project. So, what
9 I'm trying to figure out is how an initiative
10 like that would be considered, and either
11 approved or rejected by PSNH or Eversource?

12 A (Freeman) It's a good question. Unfortunately, I
13 don't have the expertise to be able to speak to
14 how those particular initiatives are developed
15 within the Company.

16 I could take a record request, if you
17 desire?

18 Q Mr. Johnson, do you know the answer to that
19 question?

20 A (Johnson) Not specifically. I believe that such
21 an effort would have to be done in a
22 regulatory-type proceeding and environment.

23 Q So, in other words, I just want to make sure I'm
24 understanding this correctly, there really is no

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1 role, at least you haven't described a role, and
2 Mr. Freeman hasn't described a role, where a
3 non-capital option like that could be brought to
4 bear on the Company's planning process?

5 A (Freeman) Yes. And that is because we are here
6 in our capacity as planners. And, as planners,
7 we deal with capital projects.

8 Q "We're here as planners", you mean "you're
9 testifying here today as planners"?

10 A (Freeman) Our role within the Company.

11 Q Okay. I think I'm going to stick with Mr.
12 Freeman, because he is being super helpful. And,
13 again, I'm still looking at Exhibits either 1
14 or 2.

15 At Bates Page 038, it says "customers
16 are becoming increasingly reliant on
17 uninterrupted electric service." My question is,
18 how do you know that? "You", meaning
19 "Eversource".

20 A (Freeman) And give me one second, Attorney Kreis,
21 to get to that page, so I can see the full
22 context of the statement.

23 Q Sure.

24 MS. RALSTON: Attorney Kreis, would you

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1 mind just repeating the page number? I missed
2 it.

3 MR. KREIS: I think it's 38.

4 MS. RALSTON: Of what? Of Exhibit 2
5 still?

6 MR. KREIS: Exhibit 2, yes.

7 MS. RALSTON: Thank you.

8 **BY THE WITNESS:**

9 A (Freeman) Can you point me to the paragraph,
10 Attorney Kreis?

11 BY MR. KREIS:

12 Q Let me take a look. I don't have Exhibit 2 open,
13 actually. I'm looking at my list of questions.
14 And it is possible --

15 A (Freeman) Okay. I see it.

16 Q Okay.

17 A (Freeman) Second paragraph.

18 "The distribution system is inherently
19 vulnerable to adverse weather conditions" --

20 *[Court reporter interruption.]*

21 WITNESS FREEMAN: Oh, sorry. I'm just
22 reading it.

23 MR. PATNAUDE: Yes, aloud you're
24 reading it.

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1 WITNESS FREEMAN: I shouldn't do that.

2 MR. KREIS: Right. I don't want to
3 drive the court reporter crazy.

4 BY MR. KREIS:

5 Q I was just quoting a line from that page that
6 says "customers are becoming increasingly reliant
7 on uninterrupted electric service." And my
8 question was "How does Eversource know that?"

9 A (Freeman) So, Eversource is aware of this through
10 a number of mechanisms. Number one, we hear from
11 customers all the time. Whenever there's an
12 interruption, whenever there's a reliability [?]
13 event, we hear from customers that they are
14 inconvenienced, that they're impacted. And we
15 proactively reach out to customers to understand
16 what their needs are and how they are impacted by
17 events.

18 We have performed surveys of customers.
19 In a recent survey, we tried to understand how
20 much a customer would pay for additional
21 reliability, how reliability impacts that
22 customer's cost.

23 And it is from these touch points, as
24 well as general industry knowledge and research

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1 that we have sponsored through universities, such
2 as UCONN, in Connecticut, that understand and are
3 confident in saying that customers are
4 increasingly vulnerable to uninterrupted
5 electrical service.

6 Now, I would defer to any of my
7 colleagues who -- either Ms. Ntakou or Mr.
8 Walker --

9 Q Except I haven't asked any questions of them. If
10 Eversource's attorney would like to ask them
11 similar questions on redirect, then that's
12 another issue.

13 A (Freeman) Fair enough.

14 Q But you've made a couple of interesting
15 observations. One, you referred to some research
16 that Eversource has been doing with the
17 University of Connecticut, you said "UCONN".
18 That doesn't cover New Hampshire, though. That
19 was research conducted, I think, of Connecticut
20 customers, yes?

21 A (Freeman) That is true. But customers are
22 customers.

23 Q Indeed. That was going to be my next question,
24 of, from your perspective, it's fair to assume

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1 that the reliability expectations of customers in
2 Connecticut is identical to the reliability
3 expectations of customers in New Hampshire, even
4 though New Hampshire is to the north of
5 Connecticut and more rural than Connecticut?

6 A (Freeman) Yes.

7 Q Okay. And you said that there had been surveys
8 to "determine how much a customer would be
9 willing to pay for additional reliability." Has
10 that information been brought to bear in or
11 reflected in the Least Cost Integrated Resource
12 Plan?

13 A (Freeman) That survey -- one of the surveys is
14 included in Exhibit 5, Attorney Kreis.

15 Q Does it play a role, though, in Company decisions
16 whether or not to invest further in reliability
17 for purposes of "the Plan"?

18 A (Freeman) That's a good question. Let me think
19 about it for a second.

20 So, if I were to paraphrase your
21 question, you're asking whether customers desire
22 a willingness to pay for reliability impacts our
23 planning for reliability?

24 Q Yes. Well, let me ask you this question. Would

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1 it be theoretically possible to design and build
2 a system that maybe isn't 100 percent reliable,
3 but could get pretty close to 100 percent
4 reliability? Could you do that?

5 A (Freeman) If you consider "reliability" as a
6 probability distribution, then you could say the
7 average reliability, you could design a system so
8 that, over an extended period of time, over a
9 number of years of observation, the average
10 reliability would be extremely high, yes.

11 Q Okay. So, what I'm trying to get to or figure
12 out is, for purposes of Least Cost Integrated
13 Resource Planning, how does Eversource know how
14 close to get to that point? Because you could,
15 as you just acknowledged, invest in your system
16 to get pretty close to that point. Maybe not
17 perfect reliability, but about as perfect as is
18 technologically feasible?

19 A (Freeman) So, that question has been the subject
20 of academic research over the years. And we know
21 that, as you invest in the system, reliability
22 tends to increase. And, so, there's a
23 relationship between cost and reliability, from
24 the utility's perspective, that, if you were to

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1 plot reliability on the X axis, and cost on the
2 Y axis, then, as cost increases, reliability
3 increases.

4 From the customer's point of view,
5 reliability and cost have also a positive
6 relationship. The higher the reliability, the
7 lower the cost for customers. Because every
8 interruption means something different to a
9 different type of customer. For residential
10 customers, it's inconvenience of not having
11 power. The longer the outage lasts, food might
12 spoil in the refrigerator. For a
13 commercial/industrial customer, the cost is
14 higher.

15 And, so, different researchers and
16 different utilities in other jurisdictions have
17 been trying to find that sweet spot, between
18 investing sufficient money so that you're not
19 incurring a significantly high cost on the
20 utility side, but driving reliability up to the
21 point where you're minimizing the costs for
22 customers.

23 But what is missing in this construct
24 is the risk factor, right? Reliability and the

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1 probability of outages is a stochastic event,
2 right? There is a probability that something
3 will happen. You can spend a significant amount
4 of money reinforcing your system. And then,
5 every -- in any given year, you can just have a
6 bad year where everything that comes along goes
7 wrong. Birds fly into your substations,
8 squirrels get into your transformers, storms
9 occur, which are not large enough to be excluded,
10 but large enough to impact the reliability
11 significantly. And all the money that you spend
12 still doesn't give you a high [sic] SAIDI/SAIFI.
13 But, over a long period of time, you will see the
14 evidence of that.

15 And, so, to say that you can design a
16 system that deterministically gives you a
17 reliability outcome is not correct. Systems are
18 aging, things are changing. And what we, as a
19 company, try to do is to keep on investing in the
20 system. Because, if we are not, if we are
21 standing still, we are moving backward, right?
22 So, we have to keep on investing in the system to
23 get us to a point where we can mitigate some of
24 those tail events. Either, you know, those days

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1 that are really, really bad, where you have a lot
2 of outcomes that, you know, that create high
3 SAIDIs and SAIFIs. And this is all an attempt to
4 mitigate and reduce the risk to customers.

5 Q So, that is super interesting. Could you very
6 briefly, hopefully, just comment on the extent to
7 which all of those insights, which were
8 considerable, are reflected in the Least Cost
9 Integrated Resource Plan that is before the
10 Commission today?

11 A (Freeman) So, in the Plan, we have discussed the
12 reliability performance that is a key indicator.
13 We have -- and remember, this Plan was filed in
14 2020.

15 Q I'm well aware of that.

16 A (Freeman) Yes. And one of the things that I --
17 we said both, our attorney and I, that it was a
18 "snapshot in time". And, since that time, we
19 have made significant improvements in our
20 processes. In fact, since that time, we have
21 on-boarded a Manager of Reliability and
22 Resiliency Planning and System Planning,
23 Dr. Ntakou, who did not -- that position and this
24 person did not exist at the time of the filing of

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1 the Plan.

2 And, so, the ability -- and we have, in
3 New Hampshire, adopted Synergy as a planning
4 tool, which we did not have in 2020. And I say
5 that, because the combination of those gives us
6 the ability to do the predictive modeling based
7 on the stochastic nature of reliability that we
8 can do now that we could not do back then. Back
9 then, we were looking at reliability based on the
10 history. And, so, you're looking back at the
11 history of failures, you understand the piece of
12 equipment that failed. And you can calculate
13 your SAIDI and SAIFI based on the failures that
14 you have seen in the past. But that gives you a
15 limited ability to predict that, if I did this,
16 or I did this, or I do this, how would it change
17 my reliability? We did not have the ability to
18 do scenario-based planning. Now, we have the
19 tools and we can do that.

20 So, the LCIRP of 2020 is not completely
21 reflective of everything I described, because we
22 didn't have the tools and the processes and the
23 personnel at that time to do that. The next
24 LCIRP would.

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1 Q Thank you. Again, super interesting.

2 CHAIRMAN GOLDNER: Sorry, Attorney
3 Kreis. Just a planning comment, I don't want to
4 slow your momentum. I'm thinking maybe take a
5 break in 20 minutes, something like that, for
6 lunch. And not cutting off your line of
7 questioning, but rather just extending it past
8 lunch.

9 Would that work for you or do you
10 prefer a different sequence?

11 MR. KREIS: No. Your wish is my
12 command.

13 CHAIRMAN GOLDNER: All right. Very
14 good.

15 So, let's go till 12:10, and then we
16 can come back with further questioning from the
17 Consumer Advocate after lunch.

18 MR. KREIS: Okay. I'm not watching my
19 wristwatch necessarily. So, please do interrupt
20 me when you decide it's time for lunch.

21 Just kind of moving ahead a little
22 faster now.

23 BY MR. KREIS:

24 Q Looking at Appendix A, which I think Mr. Freeman

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1 testified about earlier, so I'm just going to ask
2 him. I want to -- is it safe to assume that
3 Eversource's position is that it simply is no
4 longer required to conduct an assessment of
5 supply options, because it has divested all or
6 substantially all of its generation resources? I
7 just want to make sure I'm understanding what
8 Eversource's position is correctly.

9 A (Freeman) Yes. So, --

10 Q Well, this is a "yes" or "no" question.

11 A (Freeman) Yes.

12 Q Okay. On Bates Page 054, again, in Appendix A,
13 there's a reference to "Northern Pass", another
14 favorite subject. And, if I'm understanding what
15 that reference means, it seems to say that "Now
16 that Northern Pass is dead, the Company has no
17 plans to develop facilities that will impact
18 energy price and supply in New Hampshire."
19 That's a correct statement as to what it says at
20 Bates Page 054, yes?

21 A (Freeman) No. I think the implication was that
22 was provided as an example that, if that project
23 did come to fruition, it would have given us a
24 mechanism to impact --

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1 CMSR. SIMPSON: What exhibit are we on?

2 MR. KREIS: Two.

3 CMSR. SIMPSON: Bates 054?

4 MR. KREIS: I think so.

5 BY MR. KREIS:

6 Q And, again, I'm just trying to understand what
7 the Company's position is. Because it seemed to
8 be saying that "when we decide that we think it
9 would be cool to build some asset", through a
10 different affiliate, by the way, that's not
11 regulated in New Hampshire, "if we decide to
12 build a big transmission project that might have
13 an impact on supply, then, yes, then all of a
14 sudden that triggers the LCIRP obligation to
15 consider that. But, if we decide not to do that,
16 then we can decide that that part of the statute
17 doesn't apply to us."

18 Is that a correct understanding of what
19 Eversource's position is?

20 A (Freeman) Is that a "yes" or "no" question, or
21 can I elaborate?

22 Q It is a "yes" or "no" question.

23 A (Freeman) No.

24 Q Okay. I noticed at Bates Page 071 that the

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1 Distribution System Planning Guide is
2 copyrighted. Why is it copyrighted?

3 That might be a question maybe for Mr.
4 Johnson.

5 A *(Witness Johnson indicating in the negative).*

6 A (Freeman) No, because the Distribution Planning
7 Guide is my document.

8 Q Okay. Then, you can answer it.

9 A (Freeman) I'm not sure why it's copyrighted, to
10 be honest. I am not an attorney. That decision
11 was made internally by attorneys. I'm
12 responsible for the technical content.

13 Q Okay. Now, I'm going to switch over to
14 Exhibit 7, hopefully, briefly. And that is the
15 Johnson/Freeman/Walker testimony of September
16 30th of last year, just so everybody remembers
17 that. And, in that document, the Company
18 proposes an LCIRP Working Group, and it says that
19 "that working group would inform its next LCIRP
20 process." I'd like to know what the word
21 "inform" means as used there?

22 A (Walker) Can you refer us to the page?

23 Q It is the bottom of Page 10 and the top of
24 Page 11.

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1 Okay, I think that's a question for
2 Mr. Freeman.

3 A (Freeman) Yes, Attorney Kreis. I see the
4 reference.

5 So, "inform", in that context, means
6 that the collaboration with the DOE and
7 stakeholders in that working group would help to
8 determine the parameters, the guidelines, the
9 format of the next LCIRP document, and what
10 should be in the document. Which I think
11 addresses some of the questions that you're
12 asking about what's missing.

13 Q So, in other words, that working group would
14 actually decide what is going to be in the next
15 LCIRP?

16 A (Freeman) It would help to decide what will be in
17 the next LCIRP.

18 Q And who will be part of that working group?

19 A (Freeman) So, well, certainly, the DOE, the
20 Company, and Clean Energy New Hampshire, and I
21 think any other -- the OCA, any other stakeholder
22 that has a standing with respect to the LCIRP.

23 Q Okay. But, at Page 20 of Exhibit 7, it says that
24 "the working group would commit to filing a

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1 report setting forth recommendations for the
2 Company's next LCIRP." So, if I'm understanding
3 that correctly, the working group wouldn't
4 actually decide what goes into the LCIRP, it
5 would make recommendations to, I'm not sure to
6 whom, either the Commission or to the Company.
7 So, maybe you could clarify that?

8 A (Freeman) Yes. And I neglected to mention that
9 the working group would also include other
10 electric distribution companies in New Hampshire.
11 Because it is meant to be something that
12 encapsulates what we would all do. And, yes, we
13 would make recommendations to the Commission with
14 respect to the LCIRP.

15 Q And your vision is that this would apply to all
16 of the utilities subject to Least Cost Integrated
17 Resource Planning?

18 A (Freeman) Yes.

19 Q So, that's all of the electric and natural gas
20 utilities in New Hampshire, I think there are
21 five of them, at least investor-owned ones?

22 A (Freeman) Yes.

23 Q Okay. At Page 21, it refers to an intent to
24 incorporate the guidance from Order Number

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1 26,358. That is the big grid modernization order
2 that the Commission issued in 2020, I believe it
3 was. That order called for the hiring of an
4 independent professional engineer to help
5 stakeholders participate meaningfully in the IRP
6 process. Is Eversource endorsing that proposal
7 from Order 26,358?

8 A (Freeman) I cannot speak to whether Eversource is
9 or is not endorsing that proposal, Attorney
10 Kreis.

11 Q Mr. Johnson, do you happen to know the answer to
12 that question?

13 A (Johnson) Just give me a minute, because I want
14 to read it in context.

15 *[Short pause.]*

16 **CONTINUED BY THE WITNESS:**

17 A (Johnson) I'd request that we take that as a
18 record request, or that we be allowed to discuss
19 during recess before I provide a response to
20 that.

21 BY MR. KREIS:

22 Q Fair enough. I guess my question, what I'd like
23 to figure out is, what guidance does Eversource
24 actually plan to incorporate from that order,

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1 because that's an order of about 80 pages, and,
2 as you pointed out, it's a guidance document, so,
3 therefore, I think not necessarily binding, from
4 the Commission's perspective. So, I'm not sure
5 about what guidance is or is not covered by that,
6 and I'd like to know.

7 So, if you want to talk about that
8 during the break and come back with an answer,
9 that would be just swell, from my perspective.

10 A (Freeman) Sure.

11 Q Okay. Okay, just turning briefly to Exhibit 8.
12 I think I might be able to get through everything
13 before the lunch break, assuming it ends at
14 12:10.

15 Exhibit 8, I think at Page 12, refers
16 to the Company's goal of "carbon neutrality by
17 2030." Mr. Freeman, that is a companywide goal,
18 correct? It applies to Eversource at the parent
19 company level?

20 A (Freeman) Yes, it does.

21 Q So, it is not specific to PSNH?

22 A (Freeman) It is not. It is inclusive of PSNH.

23 Q So, would it theoretically be possible for the
24 Company to meet its goal of carbon neutrality by

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1 2030, while still leaving Public Service Company
2 of New Hampshire out of compliance with that
3 goal?

4 A (Freeman) I don't think that is possible,
5 Attorney Kreis. Because Public Service New
6 Hampshire is such a critical part of the
7 Company's operations, that, if PSNH is not
8 compliant, I don't see how we meet our goals.

9 Q It is true, though, that that the goal of "carbon
10 neutrality by 2030" is a -- it's not a binding
11 goal, it's basically a Company commitment that it
12 has made to itself?

13 A (Freeman) It's binding for us.

14 Q Because it's been approved by your management?

15 A (Freeman) It's a corporate initiative at the very
16 highest levels of the Company.

17 Q Understood. But not enforceable by the
18 Commission or some other regulator?

19 A (Freeman) Not to my knowledge.

20 Q Does the Company expect to report to the PUC,
21 here in New Hampshire, about the extent to which
22 it has met that goal, and whether, specifically,
23 PSNH has met that goal by 2030?

24 A (Freeman) I don't know if there are plans. I can

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1 certainly take a record request and find out.
2 But the Company does expect to report out on
3 these goals in its annual report, and in other
4 mechanisms, to report sustainability findings.

5 MR. KREIS: Okay, I think I'm almost
6 done.

7 *[Short pause.]*

8 MR. KREIS: In fact, I think I am done.
9 Those are all the questions that I have for this
10 distinguished group of Eversource witnesses. And
11 it's three minutes after 12:00, according to my
12 watch.

13 CHAIRMAN GOLDNER: Well done. So, I
14 think what we'll do is we'll take the break now.
15 You actually are not done, Attorney Kreis, I
16 don't often remind you of things, but I think
17 there's a pending question that you'll take when
18 we return from lunch.

19 MR. KREIS: Oh, yes. Thank you.

20 CHAIRMAN GOLDNER: And then, we'll move
21 to Mr. Emerson, Attorney Emerson, after that.

22 So, understanding that we do have
23 out-of-town guests, let's return one o'clock
24 sharp, and resume with Attorney Kreis's final

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1 question.

2 Thank you.

3 *(Lunch recess taken at 12:04 p.m., and*
4 *the hearing resumed at 1:02 p.m.)*

5 CHAIRMAN GOLDNER: Okay. We'll start
6 back up again here at one o'clock. And I think
7 there was one final question from Attorney Kreis,
8 and then we'll move to Attorney Emerson.

9 MR. KREIS: Good afternoon, Mr.
10 Chairman. Do you need me to restate that
11 question?

12 CHAIRMAN GOLDNER: That's always best,
13 sir.

14 MR. KREIS: Okay. So, the Company, in
15 one of its exhibits, basically said it "intended
16 to abide by the guidance of the Company's grid
17 modernization order." And, when I asked, I
18 forget whether it was Mr. Freeman or Mr. Johnson,
19 or maybe it was both of them, "Well, which parts
20 of that order, if any, do you actually intend to
21 adopt as guidance?" They said "We need to talk
22 about that over lunch, and we'll get back to
23 you."

24 And, so, they're here, presumably ready

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1 to answer that question.

2 CHAIRMAN GOLDNER: Very good. Please
3 proceed.

4 **BY THE WITNESS:**

5 A (Freeman) So, the Company is aware of the grid
6 mod. guidance. And the Company expects to
7 include facets of those guidance in the next
8 LCIRP. For example, electrification forecasts is
9 something that we would definitely include.
10 There are other components which we would
11 include, but I would ask that, if you would allow
12 us to respond to a record request, we can have a
13 fuller description of the grid modernization
14 components that we would address in the next
15 LCIRP.

16 MR. KREIS: Well, I guess I would say,
17 in response to that, that, if you -- what you
18 just said, Mr. Freeman, is "We would like there
19 to be a record request, so that we could respond
20 fully to the question of what aspects of that
21 grid mod. order we intend to incorporate or adopt
22 as guidance." That's fine.

23 But what you just said was somewhat
24 broader than that. And I guess I don't want to

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1 give the -- or, I wouldn't want to give the
2 Company a free-wheeling opportunity to create yet
3 another big document, with all kinds of
4 pontifications in it about with grid
5 modernization and the like.

6 CHAIRMAN GOLDNER: All right. So,
7 we'll take that as a pass on the record request.
8 And we'll move to Attorney Emerson, and please
9 proceed, sir.

10 MR. EMERSON: Thank you, Commissioners.
11 Is this loud enough?

12 *[Court reporter indicating in the*
13 *affirmative.]*

14 MR. EMERSON: So, my questions today
15 will be addressed at the panel. Whoever feels
16 like they can respond to it most appropriately,
17 that's fine. If you feel like multiple people
18 need to, that's fine as well.

19 BY MR. EMERSON:

20 Q First question is really about the N-1 standard.
21 Am I correct that that was initially a standard
22 applied to the bulk transmission grid?

23 A (Freeman) And you're talking about specifically
24 in Public Service New Hampshire?

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1 Q I guess I'm thinking more specifically within New
2 England, as a planning standard of ISO-New
3 England, for the bulk transmission grid?

4 A (Freeman) Then, I would say "yes". The N-1
5 Planning Standard has been applied at the bulk
6 distribution system level, probably prior to it
7 being applied at the distribution bulk system
8 level.

9 Q Okay. And I'm using the term "bulk
10 transmission", really, it's a way of
11 distinguishing between the bulk transmission
12 system, which are high voltage, serves, you know,
13 interstate, and then what's not in the bulk
14 transmission system. I'm a lawyer, not an
15 engineer. So, I'm sure I'm probably not using it
16 appropriately.

17 A (Freeman) No, you --

18 Q But that's how I'm choosing to use the term in
19 these questions. You, Mr. Freeman, earlier today
20 you testified that the first time N-1 standard
21 was applied in New Hampshire, not in a bulk
22 system scenario, was ten years ago, for an
23 interconnecting analysis for a generator? I'm
24 repeating back what I thought I heard, without

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1 the benefit of the transcript. So, I'm just
2 going to -- you can elaborate on that, if I got
3 any of that wrong. But is that correct?

4 A (Freeman) No, let me clarify. So, the first time
5 that the N-1 Planning Standard was applied
6 specifically to DER interconnections was about
7 twelve years ago during that impact study.

8 Q Yes.

9 A (Freeman) The N-1 Planning Standard applied to
10 distribution planning, specifically at the
11 substation, for the distribution load, we've been
12 doing that in New Hampshire for a long time.

13 Q What's "a long time"?

14 A (Freeman) I would defer to Mr. Russel *[sic]*, who
15 has more historical information than I do.

16 A (Johnson) I've been with the Company for 36
17 years, and we were doing it when I got here 36
18 years ago. And, you know, specifically at the 34
19 and a half kV interconnected system, which was
20 distribution.

21 Q And the distinguished -- what you've
22 distinguished in those two answers was that it
23 wasn't applied in an interconnection analysis at
24 that point, it was applied in distribution system

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1 planning?

2 A (Johnson) I don't think that's true. I can't --
3 I was not part of that Planning Department. But
4 I can tell you that that's back in time when the
5 large biomass plants were connecting. And, you
6 know, I recall that type of criteria being
7 applied. And, so, I -- I couldn't give a
8 specific reference.

9 Q But, when you say a "biomass plant", it's quite
10 possible that that was being evaluated under the
11 ISO-New England interconnection standards, as
12 opposed to local interconnection standards?

13 A (Johnson) That's true.

14 Q Okay. Thank you.

15 A (Johnson) That's true.

16 Q So, then, I think you also, Mr. Freeman, you also
17 said that the N-1 standard, as applied to the
18 distribution system planning and to
19 interconnection reviews, was formalized in 2020
20 in the Distribution System Planning Guide?

21 A (Freeman) That is correct.

22 Q And just to reiterate, that was applying the N-1
23 standard to both distribution system planning and
24 interconnection review?

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1 A (Freeman) So, let me clarify that statement. In
2 the Fall of 2020, the Distribution System
3 Planning Guide was adopted as a consistent
4 document for all of Eversource service territory.
5 And, in that document, the N-1 Planning Standard
6 was memorialized for distribution planning
7 specifically. Even though we had been doing
8 distribution planning with an N-1 standard for a
9 long time, we ensured that it was documented in
10 this document I mentioned.

11 The N-1 Planning Standard, as it
12 applies to DER, wasn't necessarily called out in
13 that document. But it is documented in a
14 separate document, the "DER Planning Guide". And
15 that document was not filed with the LCIRP. It
16 was actually -- it's actually still in "final
17 draft" mode. But it is meant to be consistent
18 with the DER Planning Guide.

19 Q That's helpful. So, there's been two, two
20 documents, two planning guides. One which has
21 been finalized, which is the Distribution System
22 Planning Guide. And then, there's a DER
23 System -- or, DER Planning Guide, which is still
24 in "draft" form, is that correct?

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1 A (Freeman) That's correct. The DER Planning Guide
2 is still in "draft" mode. But the standard, and
3 the application of the standard to DER, was
4 formalized in 2020.

5 Q And, so, would you say Fall of 2020 was when the
6 standard -- when Eversource started to a plan --
7 Eversource started to apply this N-1 standard to
8 interconnection studies?

9 A (Freeman) No.

10 Q Or was it before that?

11 A (Freeman) It was before that. And, in New
12 Hampshire, as documented in one of these -- I
13 forget which interrogatory, but we supplied a
14 copy of the interconnection study that shows that
15 twelve years ago we had applied an N-1 Planning
16 Standard for a study in New Hampshire. And, so,
17 even before the formalization of this planning
18 standard, we had been doing it in New Hampshire.

19 Q From the responses, it sounds like this has
20 been -- it's been a process over the past four or
21 five years of starting to implement the N-1
22 standard when doing an interconnection review.
23 And I make the exception that there, clearly, it
24 was applied for larger generators in the past,

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1 that likely were subject to the ISO-New England
2 interconnection standards?

3 A (Freeman) It was applied for larger generators in
4 the past that were distribution connected. I do
5 take exception with the characterization that
6 it's a "process". Since 2020, we have
7 consistently applied the N-1 standard to DER
8 interconnections.

9 Q Okay. Thank you. I use that term "process" more
10 because I wanted to identify a time period
11 really. So, we're talking about a four to five
12 year time period, leading up till today, when you
13 still have a draft planning guide for DER.

14 During that time period, did Eversource
15 discuss this planning standard or the change in
16 the planning standard with any regulator in New
17 Hampshire?

18 A (Freeman) Not to my knowledge.

19 Q Did Eversource discuss, the same question, but
20 with regard to what I'll call "stakeholders", did
21 Eversource ever discuss this change in the
22 planning standard with any stakeholders, and by
23 that I mean maybe the Office of the Consumer
24 Advocate, Clean Energy New Hampshire, developers

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1 of generation in New Hampshire?

2 A (Freeman) Not to my knowledge. However, if you
3 will allow me to elaborate a little bit? As I
4 mentioned earlier in direct testimony, our
5 planning standards have evolved over the years.
6 We have evolved from doing a simple check on
7 capacity, to looking at voltage, to looking at --
8 *[Court reporter interruption.]*

9 **CONTINUED BY THE WITNESS:**

10 A (Freeman) -- voltage flicker, power quality
11 analysis. We've evolved to doing transient
12 analysis with Clear Scan, when we are not doing
13 N-1 planning.

14 At every step along the way you could
15 ask the same question. Did we discuss that with
16 the Commission? Did we discuss it with
17 stakeholders?

18 We understand our obligation is to
19 provide safe, reliable service. And, so, we also
20 have the obligation to develop standards that
21 dictate how that safe, reliable service actually
22 occurs.

23 BY MR. EMERSON:

24 Q Okay. I guess I'm -- a little bit of leeway to

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1 elaborate. But I didn't ask -- I just asked
2 pretty simply "did you discuss these questions
3 with either the regulator" -- or, "did you
4 discuss the standard and its implementation with
5 the regulators or any stakeholders in New
6 Hampshire?" And I think the answer was "no",
7 correct?

8 A (Freeman) Yes. We didn't discuss the standard,
9 or any previous standard, that we've applied
10 since the inception of DER interconnection
11 studies.

12 Q So, I'll also call your attention to Exhibit 6.
13 I'm not sure you actually need to look it up or
14 look at it, but I'll give you an opportunity.
15 So, this is the "Eversource New Hampshire
16 Distribution System Assessment" that was
17 conducted by TRC.

18 And in this -- do you have it, so that
19 you're comfortable answering questions? It's
20 actually just one quick question anyways.

21 So, the question is, in this document,
22 does it discuss or analyze the costs or benefits
23 to either Eversource ratepayers or to
24 interconnecting customers of implementing the N-1

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1 standard?

2 A (Freeman) Is that a "yes" or "no" question?

3 Q If you don't feel like you can answer it "yes" or
4 "no". But the question is, does this discuss
5 costs or benefits to ratepayers from implementing
6 this standard or to interconnecting generators?

7 A (Freeman) Well, subject to check, and I haven't
8 read the entire document, I don't believe the
9 document discuss the costs and the benefits of
10 any standard that we've applied, for either
11 distribution system or DER planning.

12 Q And, just generally, has Eversource conducted a
13 cost/benefit analysis of implementing this
14 standard to either its own ratepayers or to
15 interconnecting customers that you're aware of?

16 A (Freeman) I'm not aware that we have conducted a
17 cost/benefit analysis of any standard that we've
18 applied to distribution or DER customers.

19 Q Did Eversource seek approval from any New
20 Hampshire regulator for implementing the N-1
21 standard, at either the distribution level or to
22 interconnection review?

23 A (Freeman) We have not sought approval of any
24 standard that we've applied --

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1 Q And --

2 A (Freeman) -- to DER or distribution
3 interconnections.

4 Q Yes, sorry for interrupting. Mr. Freeman, I
5 believe you testified earlier that it was
6 Eversource's position that it "did not need to
7 apply for approval of any interconnection
8 standard", is that correct?

9 A (Freeman) That's not correct. I said, to the
10 best of my knowledge, I'm not an attorney, --

11 Q Yes.

12 A (Freeman) -- but I am not aware that a company
13 needs to seek approval from the Commission for
14 formalization of standards.

15 Q And what is that understanding based on?

16 A (Freeman) It's just based on my experience. And
17 I haven't been with the Company very long, I'd
18 say two and a half years. So, it's based on my
19 limited experience and conversations with peers.

20 Q Thank you. And, when Eversource was implementing
21 this new standard, the N-1 standard, to the
22 interconnection procedures, did it discuss or
23 analyze any cost allocation methods, other than
24 the "cost-causer pays" principle? And I will

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1 assume you know what the "cost-causer pays"
2 principle is. But I'm happy to explain it, if
3 necessary.

4 A (Freeman) Sure. So, the "cost-causation"
5 principle essentially dictates that the project
6 or the customer that triggers an upgrade would
7 pay for the upgrade. That is the principle that
8 we have studied DER interconnections under in New
9 Hampshire. And, so, when we contemplated the N-1
10 standard, it was with that principle in mind.

11 In New Hampshire, we have not yet
12 considered another mechanism for cost allocation
13 of DER interconnection costs. But we are open to
14 consideration of other mechanisms.

15 MR. EMERSON: That's all the questions
16 I have. Thank you.

17 CHAIRMAN GOLDNER: Thank you. Attorney
18 Schwarzer, you had asked to potentially ask
19 questions after Attorney Emerson?

20 MS. SCHWARZER: Yes. Thank you, Mr.
21 Chairman. I do have a few.

22 CHAIRMAN GOLDNER: Okay. Please
23 proceed.

24 MS. SCHWARZER: These questions are

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1 generally directed to the panel. And whichever
2 of you feels best equipped to answer, please just
3 go ahead and answer.

4 BY MS. SCHWARZER:

5 Q On direct testimony, I believe you stated and
6 described a two-year investigation on NWA
7 thresholds. So, these questions have to do with
8 what you testified to earlier.

9 Will that NWA threshold include data
10 reports in June? And do you know the dates of
11 those reports?

12 A (Walker) Can you clarify the question? When you
13 are referring to "NWA thresholds", and how does
14 that relate to the reports?

15 Q I just -- your attorney asked you questions on
16 direct, where I believe Mr. Freeman and, Mr.
17 Walker, you described a "two-year investigation
18 for NWA thresholds".

19 A (Walker) Uh-huh.

20 Q And I just wanted to ask you a few details about
21 that.

22 A (Walker) Uh-huh.

23 Q Did that investigation include collecting data
24 during the two years?

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1 A (Walker) Oh. Okay, yes. I'm sorry, I was a bit
2 confused.

3 So, in terms of the investigation, how
4 we determined the original "threes" criteria,
5 that being the \$3 million for three years, and
6 the projects not related to asset condition and
7 health problems for the assets.

8 So, the Company determined those
9 projects based on information we have from
10 conversations with other industry partners, other
11 utilities. There has not been a study conducted
12 that has an official report that could be pointed
13 to.

14 Q No, I understand. And I'm sorry if my question
15 isn't clear. Your attorney asked you some
16 questions in which you described an investigation
17 going forward --

18 A (Walker) Oh.

19 Q -- for a two-year period. And I believe you said
20 that there were going to be data reports --

21 A (Walker) Yes.

22 Q -- coming out of that investigation. I just
23 wondered when those data reports were going to be
24 done?

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1 A (Walker) My understanding is that those would
2 then be done at the end of those two years. So,
3 within the -- I'd have to do math when that is.
4 So, the first year would be continuing with the
5 current proposed thresholds. Then, year two and
6 three would be the two years we would evaluate
7 the alternative thresholds. So, three years down
8 the road.

9 Q And, if you know, or if anyone else on the panel
10 knows, are there specific dates when you'd have
11 information about evaluating those first year
12 current threshold, and then your new threshold?

13 A (Walker) At this point, I don't have a specific
14 data for you. But, in order to really -- if
15 you're -- if we're looking at evaluating the
16 alternative thresholds, it would only ever make
17 sense to do that at the end of the two-year
18 period.

19 Q And, at the end of the two-year period, what
20 would you do with that data?

21 A (Walker) Well, if we find, for example, and this
22 is hypothetical, that, you know, the \$1 million
23 threshold is more appropriate than the \$3 million
24 threshold, we would update our screening criteria

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1 in the NWA process going forward, to permanently
2 reflect that.

3 Q And the same thing for the three-year threshold,
4 as opposed to the two-year threshold?

5 A (Walker) That is correct.

6 Q And, since the Company is applying a current
7 threshold now, so, from maybe April to next March
8 would be the first year?

9 A (Walker) I'm not going to fix myself on dates
10 when the first year would be. Using the current
11 thresholds for the purpose of, since this is a
12 new process and framework for the engineers to
13 get familiar with the current existing limits,
14 before we start changing those.

15 Q Okay. And then, after you have whatever the
16 hybrid criteria is, would there be a third report
17 at some point in time?

18 A (Walker) That is conceivably possible. I just
19 don't know whether that's in the plans right now
20 or not.

21 Q Okay. In terms of the data that you'd be
22 gathering, can you tell me what data you would be
23 including in the reports that you would do?

24 A (Walker) I can certainly list some of the items.

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1 It would definitely include others, this is
2 all-inclusive or not, there's definitely going to
3 be a few things missing.

4 But what we would most likely focus on
5 is to understand as, and this is my understanding
6 of the concerns with the thresholds, is that they
7 might exclude certain projects that have a high
8 potential for having a non-wires solution from
9 ever being screened. So, we would focus on the
10 projects, for example, in the 1 to 3 million
11 range, those would be the ones monitored.
12 Identify how many of those projects occurred in
13 that two-year timeframe, how many of those passed
14 the NWA screening effort, and how much resources
15 the Company invested into actually screening
16 those, to get a sense of a benefit-cost ratio for
17 that additional screening work. And to -- oh,
18 sorry.

19 Q Go ahead.

20 A (Walker) And to, because the reason why the
21 Company has those thresholds is to make sure
22 that, even with the framework and the toolset,
23 where the screening is very efficient and can be
24 done in a relatively short amount of time, in

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1 terms of system planning exercises. It does take
2 time, it does take resources. And, if we spend
3 those engineering time and resources on projects
4 that from the get-go have a very low probability
5 of succeeding, we don't feel that's a prudent way
6 of using engineering resources.

7 That's why those thresholds exist. And
8 that's what we'd be looking for in that report,
9 to see if lowering, from three to two years,
10 lowering from 3 to \$1 million. How many more
11 projects does that include? What is the
12 incremental use of resources to screen them? And
13 how many of those come to fruition? And what's
14 the value to the ratepayer, compared to the cost
15 to actually screen for those?

16 Q Would your data report include any changes to --
17 that the Company may have made in the NWA
18 analysis process and procedure?

19 A (Walker) Yes. So, of course, if we update the
20 tool, in the meantime, for other parameters, like
21 there's a whole lot of sets of information that
22 goes into the tool and different technologies
23 that goes into the tool, we would, of course,
24 make note of that.

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1 Q And would your data report, you've already said,
2 would include an analysis of the implementation
3 costs?

4 A (Walker) "Implementation costs" being --

5 Q For the different standards.

6 A (Walker) So, let me try to, just so I understand
7 this correctly, we would basically provide the
8 costs to screen those additional items that would
9 be in it. As well as, if one of them screens
10 positive for a non-wires alternative and the
11 solution is deployed, then, of course, the costs
12 and the benefit-cost ratio of that solution would
13 be included.

14 Q Thank you. Would the report also include the
15 frequency with which the Company has employed the
16 NWA analysis?

17 A (Walker) If by "frequency" you mean the total
18 amount of how often we have used it, on how many
19 projects it's been used, yes.

20 Q And you'd document the analysis results of the
21 NWA screening you initiated by project?

22 A (Walker) Yes.

23 Q And, in terms of documentation, you both document
24 your analysis and retain it, is that correct?

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1 A (Walker) Yes.

2 MS. SCHWARZER: Thank you. I don't
3 have any further questions.

4 CHAIRMAN GOLDNER: Okay. Thank you.
5 We'll move to Commissioner questions, beginning
6 with Commissioner Simpson.

7 CMSR. SIMPSON: Thank you, Mr.
8 Chairman. Thank you all for being here today.

9 So, first, I just want to set the
10 stage. I want to walk through the provisions of
11 the statute, and give you some context for what
12 we have to do, as Commissioners, in reviewing
13 your LCIRP. I'm not asking any of the witnesses
14 to opine on legal matters. And I welcome input
15 from the Company's attorney, to weigh in at any
16 point, if she or any of you feel that you need
17 some guidance.

18 BY CMSR. SIMPSON:

19 Q So, I'd first point everyone to RSA 378:39, the
20 Commission's evaluation of our plans. So, I'll
21 take some excerpts. "The commission shall
22 consider potential environmental, economic, and
23 health-related impacts of each proposed option",
24 with emphasis on the word "option". And, as we

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1 evaluate plans, I believe it's critical to
2 reflect on the fact that, in answering really any
3 question, there are multiple avenues that you can
4 take.

5 So, as we proceed here, I really hope
6 that you can shed light on the options that have
7 been evaluated by the Company. And, furthermore,
8 where we've determined that these "options have
9 equivalent financial, reliability, environmental,
10 economic, and health-related impacts", the order
11 directed to us for "energy policy priorities" by
12 the Legislature "guides our evaluation: [In]
13 energy efficiency and demand-side management
14 resources; renewable energy sources; and any
15 other energy RSA sources."

16 Turning to RSA 378:38, this is somewhat
17 of a checklist that the Company's LCIRP has to
18 meet. And I'd like to walk through each of these
19 elements, and ask you, all of you, and I say that
20 generally, any witnesses here from the Company to
21 weigh in, because we need to see that each of
22 these elements is in your Plan.

23 And the record is extensive, with an
24 update that's been filed by the Company, and

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1 thousands of pages in the record before us today.
2 So, I'm hoping that we can focus on the necessary
3 elements today, and that you can shed some light
4 and help to organize what you have submitted for
5 approval before us.

6 So, let's first start off with the
7 first Roman Numeral, "A forecast of future demand
8 for the utility's service [territory]." So,
9 please point to the Company's "forecast of future
10 demand for your service territory."

11 A (Freeman) Certainly, Commissioner. So, in
12 Exhibit 1, Section 5 of Exhibit 1. And I don't
13 have the Bates number, I apologize.

14 Q So, then, let me ask you, the first part of this
15 exhibit, who prepared these initial 44 pages,
16 give or take?

17 A (Walker) Are you referring to Exhibit 1?

18 Q Yes, sir.

19 A (Walker) Well, that is from 2020. So, it was
20 before my time. And I'd have to defer then to
21 Mr. Johnson.

22 A (Johnson) There were many people. That's why
23 I'm -- so, if you give me a moment to look
24 through the sections.

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1 Q Because, when I opened this first exhibit,
2 there's a lot of detail here, there's
3 conclusions, there's an overview. It would be
4 helpful if you could guide me through why this is
5 the introduction to your LCIRP, and what the
6 Company was intending to communicate by this
7 initial section?

8 A (Johnson) I believe that the intent was to give
9 some context, some background, to the Eversource
10 New Hampshire system, to, again, provide, you
11 know, address acronyms that are used throughout
12 the document, really just to provide that context
13 upon which the rest of the LCIRP details, you
14 know, address. They discuss the service
15 territory, they discuss the makeup of circuits
16 and voltages, and, again, just to give that
17 background and context for the service territory
18 that we provide.

19 It also goes into the load forecast and
20 provides detail on how that's developed. That
21 would have been created through our Distribution
22 Planning group.

23 And, again, it discusses -- I don't
24 want to go -- I don't think you want me to go

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1 through every single section of it. But,
2 effectively, there are certain fundamental pieces
3 that were requested as part of the LCIRP that
4 this background, I think, was important to
5 provide.

6 Q So, this, this isn't really a plan, or a plan or
7 part of the Plan, it's more context?

8 A (Johnson) Absolutely.

9 Q Okay. And you contributed to this,
10 Mr. Russel *[sic]*?

11 A (Johnson) I certainly had a piece of this, yes.
12 I do recall that.

13 Q And did any of the other witnesses?

14 A (Freeman) Yes. I contributed to it.

15 A (Cosgro) Yes. I believe I contributed as well.

16 A (Freeman) Yes.

17 Q Okay. Please proceed. Looking at the "forecast
18 of future demand", which I think you were saying
19 was in one of the appendices?

20 A (Freeman) Yes. So, to address -- to address your
21 first question about how did we -- how did we
22 comply with that first criterion, which is the
23 "Forecast", Section 5, which starts at Bates
24 Page 014, describes our load forecasting process.

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1 And Mr. Walker can describe that process. But it
2 also includes a table of the forecast from 2020
3 through 2029.

4 Q Which table is that? Table 1?

5 A (Freeman) That would be Table 1, which is Bates
6 Page 016. And it gives the 50/50 forecast and
7 the 90/10 forecast, which is intended to be a
8 more extreme forecast.

9 Q And can you explain what those two design load
10 forecasts mean, and why they're presented here?

11 A (Freeman) Yes. Mr. Walker, please.

12 A (Walker) Yes. And I'd like you to -- I'd like to
13 refer you to Bates 014 of the same document, that
14 is Exhibit 1. The last paragraph has that
15 description. And I'm going to quote here
16 quickly: "The 50/50 forecast is based off a
17 10-year normal weather and has a 50 percent
18 chance of being exceeded. The 90/10 forecast is
19 the extreme weather scenario that has a 10
20 percent chance of being exceeded."

21 So, we will look at historic weather
22 patterns, and determine what the 90th percentile
23 of that is, and the 50th, which would be the
24 average or normal condition.

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1 Q And what would be "abnormal weather conditions"
2 that would inform the 90/10 forecast?

3 A (Walker) Most of those is driven through what we
4 call our "temperature humidity index", so the
5 combination of high temperature and humidity,
6 that drives the significant part of the load.
7 So, at a 90/10, we are looking at hot and humid
8 days.

9 Q Okay. So, continue for describing the "forecast
10 of future demand". It sounds like this is --
11 you're setting the stage here.

12 A (Walker) Well, we can -- it depends on how much
13 you would like me to talk about this. I can walk
14 you through the entire process very briefly.

15 So, if we continue down to Bates 015,
16 that describes how the Company goes about doing
17 this. So, we do create an economic trend
18 forecast that looks at localized GDP data that we
19 collect from Moody's, to correlate load growth in
20 the region with the economic development. That
21 builds what we call the "trend forecast" over the
22 next ten years.

23 In addition to that, the Company adds
24 certain factors into it, which would include

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1 solar, rooftop/ground-mounted solar. This would
2 include energy efficiency, as we've discussed in
3 the morning. This includes electric vehicles in
4 the future. And, as we long-term start to
5 transition to an electric heating, through heat
6 pumps, it will also start including a heating
7 component as we transition to a winter peak.

8 It also includes step loads. So, large
9 load additions, any new development that's known
10 about gets planted.

11 Q Okay. So, this is high level, I'm sure there's
12 more in the record describing your overall
13 system --

14 A (Walker) Sure.

15 Q -- forecasts?

16 A (Walker) Okay. So, yes. And, so, that is
17 Chapter, as Mr. Freeman mentioned, that's Chapter
18 5.1 that describes the methodology. Mr. Freeman
19 also talked about Figure 1 and Table 1, which
20 shows our current -- the forecast from the filing
21 date for the territory.

22 And then, if we head to Attachments I
23 believe it is B and C of the same document, those
24 then include, let me go there, the

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1 station-by-station forecast data for the entire
2 territory.

3 Q And I'll point you to the order issued, 26,362,
4 in DE 19-139, Page 6. So, "The Settlement
5 further describes several elements that
6 Eversource will provide in its next LCIRP", which
7 is this LCIRP that's before us today, and "that
8 framework includes a ten-year, substation
9 breaker-level loading criteria and forecast; a
10 five-year forward-looking evaluation of planned
11 system investments and alternatives that were
12 considered, including any area planning studies
13 and Solution Selection Forms developed for that
14 period, and an assessment of the demand-side
15 management programs and their potential to defer
16 or avoid the need for capacity-related
17 investments."

18 So, that's really what I'm looking
19 to --

20 A (Walker) Uh-huh.

21 Q -- have you shed some light on is, is a real
22 system level, down to your substations
23 circuit-by-circuit, I'd like you to walk us
24 through that please? Show us that, that

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1 forecast?

2 A (Walker) So, then, I would defer you to the
3 Attachment of B and C of the same document, which
4 includes the forecasts for the ten years from
5 filing date at each of these stations.

6 Oh, yes. And the Bates number for this
7 starts at 052. My apologies. Again, Exhibit 1.

8 Q Okay. So, you have your system here broken down
9 by year, and you've divided it into regions:
10 "Northern", "Southern", "Western", "Central", and
11 "Eastern", correct?

12 A (Walker) That is correct.

13 Q And then, you break down your Northern region, it
14 looks like by substation, on the next Bates page,
15 correct?

16 A (Walker) That is correct.

17 Q Okay. So, explain this to us please? What are
18 the trends? What are you seeing? Put your
19 engineering hats on.

20 A (Walker) So, okay. At a high level, the first
21 thing that we will see, and just to validate that
22 I'm not misgiving that information, that we see a
23 continuous load growth on all stations, with a
24 CAGR value, so, average annual value from 0.3

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1 percent, all the way up to 0.6 by region. So,
2 all stations show a continued load growth over
3 the next ten years.

4 Q And that's represented in what you have of the
5 "Compound Area Growth Rate" in bottom of each
6 table?

7 A (Walker) Yes.

8 Q Correct?

9 A (Walker) Yes.

10 Q Okay. Continue.

11 A (Walker) I'm sorry. I'm not sure what else you
12 would like me to detail on this?

13 Q I just want you to explain these tables. I'd
14 like you to explain what the process was that you
15 used in developing the forecast that we have to
16 evaluate?

17 A (Walker) Okay.

18 Q We have some engineers up here, a non-engineer.
19 We just need to evaluate the record in front of
20 us for statutory compliance.

21 A (Walker) Okay. So, then, let's go through this
22 in detail, and we can use the information we got
23 from Chapter 5.1 and kind of detail this.

24 So, as mentioned, what the Company will

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1 do, we'll look at the historic values. We will
2 correlate that with the economic growth. And to
3 give you an example, just to go into a bit more
4 detail here, if, for example, we see 1 percent,
5 and this is purely figuratively speaking, over
6 the last ten years growth at the station, with a
7 2 percent economic development, GDP development
8 in that region, the correlation indicates that
9 you have a 2 percent -- a 1 percent growth, with
10 a 2 percent economic growth.

11 Those historical values will also
12 already capture a lot of, for example, rooftop
13 solar implications that might drive down loads
14 during peak hours or shift the loads towards the
15 evening. They will also capture any indirect
16 energy efficiency benefits that do not stem from
17 our programs. People swapping out the light
18 bulbs to LED on their own, people installing new
19 HVAC systems on their own. All of that is
20 already caught in that trend analysis of how the
21 load growth, relative to economic development.

22 Then, using the economic forecasts we
23 get, we use that correlation to project forward
24 what the trend is.

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1 In addition to that, we reduce that
2 forecast by what we've discussed earlier this
3 morning, our known energy efficiency incentives
4 and programs. Those get allocated by station,
5 depending on the peak load, again, as was
6 discussed this morning. The assumption being,
7 the higher the load, the more energy efficiency
8 can be gathered there.

9 Q How granular is that process? Are you tracking
10 on a customer-by-customer basis? Or, are you
11 averaging your overall program across your load
12 statewide?

13 A (Walker) So, for the forecast, it is -- it is not
14 by a customer-by-customer basis, because we
15 cannot foresee two or three years down which
16 customer will pick up the energy efficiency
17 program and participate in it. So, we have to
18 make some assumptions. And those assumptions
19 here is that we have our statewide targets, and
20 those get broken down by station, relative to
21 their peak load.

22 Q Okay. So, these -- I'm looking at Bates
23 Pages 052 through --

24 A (Walker) I believe it is 063.

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1 Q -- 063.

2 A (Walker) Yes.

3 Q This is your forecast of future demand for the
4 utility's service area, correct?

5 A (Walker) That is correct.

6 Q Okay. So, now explain how this, from your
7 perspectives, informs your planning over the long
8 term? I mean, I would presume that you perform
9 this type of analysis not purely for compliance
10 with your regulatory requirements and the
11 statutory requirements here, but, presumably,
12 you've performed these types of analyses for
13 decades prior to these types of statutes
14 existing.

15 So, as planning engineers, explain why
16 this is relevant? Why you've done it and why
17 you've organized it in this manner?

18 A (Walker) Sure. And I'll start this off, and then
19 I'll pass to my colleagues who --

20 Q That's great.

21 A (Walker) -- have the day-to-day system planning
22 and operation.

23 So, as the Company looks out on the
24 ten-year horizon, we do know what our station

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1 capacities are, and we keep a very close eye on
2 when we are coming close to exceeding or coming
3 close to the station capacity. And, at which
4 point, System Planning starts initiating a
5 project.

6 And I think at this point,
7 Mr. Lavelle *[sic]*, do you want to pick up?

8 A (Freeman) I'll start, and then I'll let Matt talk
9 about some details.

10 So, what Mr. Walker just described is
11 the starting gate for the assessment of grid
12 needs, right? And, with this ten-year forecast,
13 what Mr. Cosgro would do then is to take this and
14 do a ten-year system impact study to understand
15 how the forecast impacts the substation loading.
16 And, by driving that down to the distribution
17 feeders, we can also get an assessment of line
18 needs. But our purview in distribution planning
19 is mostly the substations.

20 This results in a study that was
21 included in Exhibit 12, which is a "2020 Design
22 Violation Summary Report". And I would ask Mr.
23 Cosgro to kind of walk through that.

24 And I apologize up front, Commission,

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1 because I realize that it is not a leading
2 narrative. We are kind of jumping you around,
3 but I hope you can stick with us.

4 So, the Exhibit 7 [Exhibit 12?] is the
5 "2020 Design Violations Summary Report". And
6 then, back in Exhibit 1, there is a grid needs
7 assessment, which is the result of that study,
8 and looking at our planning criteria, and
9 understanding what needs to be done to upgrade
10 various substations to meet the load that
11 Mr. Gerhard -- Mr. -- Dr. Walker is forecasting,
12 and also to meet the planning criteria in the
13 Distribution System Planning Guide.

14 So, with that, Mr. Cosgro, if you would
15 please elaborate on our planning process and the
16 Design Violation Summary Report.

17 A (Cosgro) Yes. Thank you. So, yes. Using the
18 forecast that we were just discussing in
19 Exhibit 1, using that, combined with the design
20 criteria that's also in Exhibit 1, Bates
21 Page 064, the Distribution System Planning Guide,
22 we do a ten-year analysis of the distribution
23 system station-by-station, utilizing base case
24 and contingency scenarios. And that results in

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1 the report that you see in Exhibit 2 -- nope,
2 sorry, Exhibit 3, Part 1, Bates Page 087.

3 Q Just a moment.

4 A (Cosgro) Yes.

5 [Short pause.]

6 **CONTINUED BY THE WITNESS:**

7 A (Cosgro) So, you should be seeing a "2020 to 2029
8 Load Flow Study", --

9 BY CMSR. SIMPSON:

10 Q Uh-huh.

11 A (Cosgro) -- dated "July 1st", and "Revised
12 December 2nd, 2020".

13 Q And you do this every year, correct? You do a
14 Load Flow Study every single year?

15 A (Cosgro) Yes.

16 Q So, this is "2020 to 2029". Presumably, you have
17 the '23 through 2032 that you're working on or
18 have just completed?

19 A (Cosgro) We will be starting a new analysis. We
20 ended up taking a pause on our ten-year analysis,
21 just because of the change in the load flow
22 software we've been utilizing.

23 Q Okay.

24 A (Cosgro) So, while we learn and acquaint

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1 ourselves with the new software, we took a year
2 off. But we have been monitoring loads, to make
3 sure we don't have any immediate concerns.

4 Q Okay. Thank you. Continue.

5 A (Cosgro) Yup. So, we produced this ten-year
6 study that identifies system needs. We also have
7 a alternative format of those distribution
8 results. So, the original report is a
9 year-by-year analysis. And it was found that it
10 did help some readers that a location-by-location
11 analysis was beneficial. So, that report is also
12 included in Exhibit 3, Part 1, of Bates Page 196.

13 So, people that are more familiar with
14 the geographic parts of the state can look at
15 this report and see the needs on a
16 location-by-location basis.

17 Q And are these breaker-by-breaker?

18 A (Cosgro) Substation-by-substation. But we do do
19 an analysis of the different components of the
20 planning criteria.

21 Q Okay.

22 A (Cosgro) So, base loading, you know, contingent
23 loss of a transformer of a feeder breaker or of a
24 bus section.

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1 Q Okay.

2 A (Cosgro) So, we do this analysis to identify the
3 needs. The report documents what those needs
4 are. And then, we go into the next step, which
5 is to do initial funding for a localized study on
6 that particular location. So, we reconfirm the
7 needs, and then start developing the solution
8 alternatives.

9 So, I believe the initial funding
10 requests, I believe there are examples of those
11 also in Exhibit 3, might be Part 2.

12 A (Freeman) Sorry, just to interject a little bit,
13 Commissioner, because I know one of the
14 requirements you read was for us to look at the
15 distribution breaker level.

16 Q Yes. That's from a prior order.

17 A (Freeman) Correct. And, so, in the table that
18 Mr. Cosgro is referencing, you would see we list
19 substation, and then we list circuit, and each
20 circuit has a breaker. And, so, the circuit
21 violations are meant to indicate -- align with
22 the requirement that we look at each circuit at
23 the sub -- each breaker at the substation.

24 Q Could you give us a Bates page, and show us an

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1 example of that please?

2 A (Freeman) Yes. So, Bates Page, let's see, 097,
3 these are the Northern Region Base Case
4 Violations, you see it lists "Substation: White
5 Lake", it lists "Circuit", there are line
6 ratings, and there are "Circuit Violations". In
7 this case, there are no circuit violations. But,
8 if there were, they would be listed there.

9 A (Cosgro) So, an example would be, on Bates
10 Page 098, there is a circuit violation noted.

11 Q So, is that breaker-level loading criteria?

12 A (Cosgro) For this example, it's highlighting a
13 voltage concern on the distribution system, for
14 the 32W4 feeder.

15 A (Freeman) But, yes, that is breaker-level.
16 Because that circuit has a breaker at the
17 substation.

18 Q Uh-huh. Probably more than one?

19 A (Cosgro) Correct.

20 A (Freeman) Yes. If there's one breaker feed
21 circuit, yes.

22 Q So, is that breaker-level?

23 A (Freeman) Yes.

24 Q So, I'm looking at Bates Page 098, "Southern

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1 Region - Base Case Violations". I see
2 "Substation: South Milford". So, let's just
3 take that substation, for example. You have a
4 transformer there. It looks like one
5 transformer. Do you have breaker-level loading
6 criteria with a forecast for that in this record?

7 A (Cosgro) In the document that we're looking at
8 right now, no.

9 Q Or any other exhibit?

10 A (Cosgro) Yes. So, the location-by-location
11 report that I mentioned, --

12 Q Yes.

13 A (Cosgro) -- does go into the breaker-by-breaker
14 analysis.

15 Q Do have a Bates page and an exhibit?

16 A (Cosgro) I'm scrolling through.

17 Q Take your time.

18 A (Cosgro) Yup.

19 Q And I'm not trying to provide trick questions.

20 I'm just thinking about this as a rubric, and
21 trying to check off every requirement.

22 Understand what's in the record, and make sure
23 that we meet our statutory obligations.

24 A (Freeman) Completely understand.

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1 A (Cosgro) All right. I will have to retract that.
2 It looks like this report only covers
3 transformers. Commissioner?

4 Q Yes.

5 A (Cosgro) May I point out, so, I'm actually -- I
6 switched over to Exhibit 4, the confidential
7 version of Exhibit 3.

8 Q Okay. Just a moment.

9 A (Cosgro) So, --

10 Q Part 1 or Part 2?

11 A (Cosgro) Part 1.

12 Q Okay.

13 A (Cosgro) So, I am looking at the appendix of the
14 original ten-year study report.

15 Q Bates --

16 A (Cosgro) Bates Page 195.

17 Q Okay.

18 A (Cosgro) And that does show that we have looked
19 at each transformer bus and feeder or circuit.
20 So, each feeder would be a breaker of the
21 substation.

22 Q Okay.

23 A (Cosgro) So, while we might not necessarily note
24 the particular loading of that station, the

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1 report only calls out design violations. But
2 this appendix shows that we have looked at those
3 different scenarios or different pieces of
4 equipment.

5 Q Okay. So, you're not aware of, in the record,
6 substation breaker-level loading criteria having
7 been provided?

8 A (Cosgro) If it was not a violation, it was not
9 included in this report. If it was within our
10 design criteria, it was not mentioned as being an
11 issue.

12 A (Freeman) So, just to understand your question,
13 Commissioner.

14 Q Uh-huh.

15 A (Freeman) So, the loading criteria is explained
16 in the Distribution System Planning Guide, where
17 each circuit should not be loaded more than 100
18 percent of its normal rating.

19 Q Okay.

20 A (Freeman) So, that's explained in the
21 Distribution System Planning Guide. And then,
22 that criterion is used to assess the circuit
23 loading based on the forecast.

24 Q Uh-huh.

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1 A (Freeman) And, if it is a violation, as Mr. -- as
2 Mr. Cosgro said, if it's not a violation, it is
3 not listed.

4 Q Okay. So, I would understand you to start with
5 historical data, and then current state. So,
6 looking at that Order 26,362, in the Settlement
7 for your last LCIRP, to satisfy RSA 378:38, the
8 Company agreed that, in your subsequent LCIRP,
9 so, this one, there would be "a ten-year,
10 substation breaker-level loading criteria and
11 forecast."

12 So, that's all I'm trying to
13 understand, so that we can better understand
14 Part I of the statute, a future demand forecast
15 of your service area. So, you have your ten-year
16 outlook, at a substation breaker level, that's
17 all I'm just trying to find. I'm just trying to
18 find that in the record, hoping that someone can
19 point me to that?

20 A (Freeman) If you give us a few minutes to confer,
21 Commissioner?

22 CMSR. SIMPSON: Sure. Mr. Chairman, do
23 you want to take just five? Or, do you want
24 to -- do you think you can do it while we're --

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1 WITNESS FREEMAN: I think we can do it
2 now.

3 CMSR. SIMPSON: Okay. That's fine. I
4 retract that request.

5 *[Witnesses conferring.]*

6 WITNESS FREEMAN: Okay. We have
7 discussed.

8 CMSR. SIMPSON: Okay. Great.

9 **BY THE WITNESS:**

10 A (Freeman) So, the forecast that was provided is
11 at the substation level.

12 BY CMSR. SIMPSON:

13 Q And be specific for us, the exhibit and the Bates
14 page?

15 A (Freeman) So, the Exhibit 1, Bates -- Appendices
16 B and C, which are Bates Pages 052 and to 063.

17 Q Okay. Just a moment. Okay. So, these tables
18 are at the substation level?

19 A (Freeman) So, those tables are at the substation
20 level.

21 Q Okay.

22 A (Freeman) And the process that we employ is that
23 we take the substation level forecasts, and we
24 allocate it down to the distribution feeders.

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1 Q Uh-huh.

2 A (Freeman) And, so, that would be the breaker
3 level forecast.

4 Q Yes.

5 A (Freeman) And then, we conduct a study to
6 understand the loading at each transformer and at
7 each circuit. We did not provide, in all
8 transparency, that circuit level allocation.

9 Q For the substation breaker level?

10 A (Freeman) For the breaker level, correct. But,
11 for the substation, we did not provide it for the
12 breaker level. We did use it in the studies.
13 And, whenever the studies showed a violation of
14 the feeder loading, we noted that in Exhibit 4,
15 Exhibit 3 is the redacted version, starting at
16 Page Number, I think, --

17 A (Cosgro) So, that would be the Report starting on
18 Page -- Bates 087, Exhibit 3.

19 A (Freeman) So, Bates 087 --

20 Q Which exhibit?

21 A (Freeman) Exhibit 3, starting on Bates Page 087,
22 we have noted whenever a substation transformer
23 is overloaded, based on that forecast, and
24 whenever a distribution circuit is overloaded or

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1 has a voltage violation issue again, based on the
2 forecast, pushed down to the breaker level. So,
3 those are the results.

4 Q So, this is your -- this is your planning study?
5 That is your ten-year load flow?

6 A (Freeman) Yes. And the only thing that's missing
7 is we did not provide the data that shows the
8 breakdown to the breaker level, which we used in
9 the studies. And we can supplement that. That
10 was a miss, I guess.

11 Q Okay. So, we'll go to number (2). So, "a
12 five-year forward-looking evaluation of planned
13 system alternatives" -- "investments and
14 alternatives that were considered, including any
15 area planning studies and solution selections
16 forms developed for that period."

17 Can you point me to that please?

18 A (Cosgro) Yes, I can. Just I need a minute to
19 locate them in the filing, in the exhibits.

20 Q Take your time.

21 *[Short pause.]*

22 BY CMSR. SIMPSON:

23 Q And again, going back to Roman I of 378:38, we're
24 still trying to break down the "forecast of

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1 future demand for your service area." So, you
2 have it at a substation level, but not at a
3 breaker level, with loading criteria for this
4 forecast at this time. But I'm just trying to
5 understand how the forecast is developed. What
6 that forecast was? How it's developed? Because
7 that leads us to your plan, --

8 A (Freeman) Correct.

9 Q -- what your plans are.

10 A (Freeman) So, let me add. So, do you understand
11 now how the forecast was developed? Because
12 that's the discussion that Mr. Walker had with
13 you, about how the forecast is developed for each
14 bulk substation. And then, we take that forecast
15 and we drive it down to the breaker level, which
16 we did, but it's not included here. And then, we
17 used that for the planning study to develop the
18 violations.

19 Q At a general level, I do.

20 A (Freeman) Okay.

21 Q But I would like to understand, because I know
22 there's a lot of capital investment that's
23 contemplated in this Plan, distribution
24 automation, protection. You have a lot in here

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1 that presumably would inform those forecasts more
2 granularly, from a temporal, a locational
3 perspective in the future, which may be today,
4 since this was two and a half years ago that this
5 Plan was filed. You've probably deployed many of
6 those investments at this time.

7 I want to understand the data sources
8 that the Company utilizes in developing that
9 forecast, even below the breaker level. You
10 don't have to provide -- you didn't have to
11 provide them per your last settlement agreement.
12 But I want to understand what those are and what
13 data they provide to you as planning engineers?

14 A (Walker) A quick second to briefly confer?

15 Q Go ahead. That's fine.

16 *[Witnesses conferring.]*

17 MR. KREIS: Mr. Chairman,
18 Commissioners, while the witnesses are
19 conferring, I am loath to object to questions
20 posed from the Bench. Any competent lawyer would
21 know better than to do that.

22 But I just would like to point out,
23 respectfully, that what Commissioner Simpson is
24 essentially doing here is writing the Company's

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1 Least Cost Integrated Resource Plan for it. And,
2 really, it's the Company's job to prepare that
3 plan. It isn't the Commission's job to tease
4 such a plan out of a utility.

5 CHAIRMAN GOLDNER: You can't argue,
6 though, that this is not a cost-effective
7 solution. He's doing it for free.

8 MR. KREIS: Indeed. Well, he's not
9 doing it for free, because the ratepayers are
10 paying for --

11 CMSR. SIMPSON: I'm not -- I am not
12 writing the Company's Plan. I'm trying to meet
13 my burden under the statute to ensure that the
14 Company has met their requirements under the
15 prior orders of the Commission and RSA 378.

16 MR. KREIS: Understood. And I guess I
17 am concerned about that, because you aren't
18 the -- you, the Commission, aren't the only
19 people in the room with a burden. This Company
20 had a burden, which it isn't meeting. And your
21 questions demonstrate, in part, why that is.

22 CMSR. SIMPSON: I don't understand, and
23 I don't agree with that characterization. I'm
24 not writing the Company's Plan. I'm trying to

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1 understand what the Company has filed, so that I
2 can determine whether or not what is on the
3 record complies with the statute and prior
4 orders.

5 CHAIRMAN GOLDNER: Let's proceed with
6 the witness.

7 **BY THE WITNESS:**

8 A (Freeman) Okay. So, thank you. So, I don't --
9 maybe we weren't as elaborate in the discussion
10 of the forecast, and we can certainly revisit
11 that. But I just want to make sure that we are
12 clear that the forecast is the starting point,
13 right? And, once we develop the forecast down to
14 the bulk substation level, we use that to do the
15 planning analysis for the substations and the
16 feeders, right? So, we don't push it down, we
17 don't do a forecast at the circuit level. But we
18 take the substation level forecast and we push it
19 down to the feeders.

20 And, if that process of developing a
21 forecast is not satisfactory, we will certainly
22 revisit and have that discussion. But I just
23 want to make sure that you are satisfied with the
24 discussion of how we came up with those numbers

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1 that are so critical to the planning study going
2 forward? So, let's start there.

3 BY CMSR. SIMPSON:

4 Q So, I'm not going to opine on whether or not I'm
5 satisfied with the discussion. I'm trying to
6 understand what's on the record before us here
7 today, and to contextualize the various devices
8 and system improvements that are outlined in the
9 record, and how those relate to least cost
10 integrated resource planning? Why the Company
11 has described them here? Why they're relevant?
12 That's what I'm trying to understand.

13 A (Freeman) Okay. So, having developed the
14 forecast, the ten-year planning study, I think,
15 is the crux of the whole matter.

16 Q Okay.

17 A (Freeman) And that's what Mr. Cosgro has
18 described. That ten-year planning study results
19 in violations at the substation and at the
20 circuit level. And then, understanding of those
21 violations, we then develop solutions that are
22 documented in the Solution Selection Forms. And,
23 so, and that, I think, was one of the
24 requirements that you just read that we should

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1 have.

2 So, I will allow Mr. Cosgro, who has
3 already described the ten-year planning study,
4 and described the violations, which are in
5 Exhibit 4 and Exhibit 3, starting on Bates 097,
6 for each substation and each circuit. And, now,
7 if you don't mind, describe some of the Solution
8 Selection Forms that resulted from those studies.

9 A (Johnson) Can I just interject something first
10 that might of help?

11 What we've been talking about here is
12 the planning side of it. But, to provide, you
13 know, to demonstrate the accuracy of their
14 planning models, we have put in numerical relays
15 in substations that give us real-time data to PI.

16 Q Uh-huh.

17 A (Johnson) We have, you know, implemented pole-top
18 DSCADA devices that, again, provide instantaneous
19 feedback, it's all stored in PI, all with loading
20 data. So, you know, not only do we do the
21 planning side of it, but we have that real-time
22 visibility into the system. And we recognize the
23 loading. We know real-time what the loading is
24 on those circuits.

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1 And, if, in fact, you know, again, the
2 distribution planning piece deals with the
3 interconnected 34 and a half kV system or
4 interconnected 12 kV system. You know, beyond
5 that in the system, it's my group that looks at
6 the actual circuit loading deeper into the
7 system. And we're looking at that, you know,
8 those real-time loads, and identifying the need
9 for any upgrades that are needed beyond that.

10 So, you know, from a circuit
11 forecasting perspective, beyond that, I mean,
12 yes, we start with that base forecast that they
13 have. But, you know, when you get deeper into
14 the system, you really have to look at those
15 individual spot loads in a much more defined way
16 than they need to at that higher level. I mean,
17 we have to look at, you know, the individual URDs
18 going in, the individual commercial buildings
19 going in, deeper into the system to identify the
20 system needs at that point. And they have really
21 been talking about that larger, higher level,
22 ten-year kind of system planning.

23 Q Uh-huh.

24 A (Johnson) So, you know, and even when they

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1 identify a circuit, you know, a interconnected 34
2 kV violation, say, a loading violation that
3 creeps into their arrangement, they have the
4 ability to go in and actually pull real PI data
5 to evaluate that, and accurately establish what
6 the system needs are.

7 Q Is that information before us today?

8 A (Johnson) It is not. I think there was a
9 misunderstanding about, you know, to us, it was
10 implied, in that all of the violations were
11 identified in what was provided. The loading, by
12 circuit breaker, was not, as far as I can see,
13 you know, included in the record. You know,
14 which is, you know, if you're talking by breaker
15 level -- how many breaker-level circuits do we
16 have? Two fifty (250), something like that, 250.
17 So, okay.

18 Q Okay. So, you identified at a substation level
19 the future demand. And I think there was a
20 statement that there may be a gap from what the
21 Company has provided, relative to what the
22 Company agreed to in your last Settlement
23 Agreement, with respect to the substation level
24 breaker data. It doesn't appear to be here.

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1 So, --

2 A (Freeman) Correct.

3 Q Okay.

4 A (Freeman) But the results are there. But the
5 actual data that was used to produce those
6 results is not there.

7 Q Okay. So, then, --

8 A (Freeman) At the breaker level.

9 Q Okay. Thank you. So, then, the next sections of
10 the statute speak to the "assessment" that the
11 Company is doing. So, you forecasted your
12 demand. And then, you have to assess different
13 options, in order to meet that future demand. Do
14 you share that understanding?

15 A (Freeman) Yes.

16 Q Okay. So, those assessments include "demand-side
17 energy management programs, including
18 conservation, efficiency, load management";
19 "Supply options, including capacity, market
20 procurements, renewable energy, and distributed
21 energy resources"; "distribution/transmission
22 requirements, an assessment of the benefits and
23 the costs of "smart grid" technologies, the
24 institution or extension of electric utility

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1 programs designed to ensure a more reliable and
2 resilient grid to prevent or minimize power
3 outages, including but not limited to,
4 infrastructure automation and technologies."

5 So, those three categories speak to
6 "infrastructure". Would you agree?

7 A (Freeman) They speak to initiatives and programs,
8 not necessarily -- because, like, demand-side
9 management and energy efficiency, I wouldn't
10 classify those as "infrastructure". They are
11 programs and initiatives.

12 Q And what do you need in order to implement those
13 programs?

14 A (Freeman) You need communication.

15 Q What do you need to communicate?

16 A (Freeman) You either need wireless communication
17 or wired communication, which I guess could be
18 described as "communication infrastructure".
19 But, when we talk about "infrastructure", we're
20 normally talking about "electrical
21 infrastructure".

22 In a general sense, if that's your
23 point, then I take it, yes.

24 Q So, in order to meet your future demand, --

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1 A (Freeman) Uh-huh.

2 Q -- you have to compare options of different
3 investment strategies?

4 A (Freeman) Yes.

5 Q Okay. So, explain to me how the demand forecast,
6 that's in Exhibit 1, maps to an evaluation of
7 these different options?

8 A (Freeman) So, let's start with the demand-side
9 management and energy efficiency, which is
10 described in Exhibit 1, Section 11. And I will
11 have Mr. Walker talk through how the Company
12 administers its demand-side and energy efficiency
13 programs, how those impact the forecasts, and how
14 those could be used for planning purposes going
15 forward, --

16 Q Okay.

17 A (Freeman) -- including non-wires alternatives
18 analysis.

19 A (Walker) Yes. So, as mentioned earlier, for the
20 forecasts, all the known energy efficiency
21 programs and historical energy efficiency trends
22 are included in that forecasted data. The same
23 thing goes for demand response. So, we already
24 have the impact of those programs inherently

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1 present in our forecasts. Our normal economic
2 trend load forecasts would be higher without
3 those baked in.

4 Then, in addition to that, and that's
5 described in Exhibit 3, Appendix A-1 and A-2,
6 with the NWA framework.

7 Q Just a moment.

8 A (Walker) Yes. No worries.

9 [Short pause.]

10 **CONTINUED BY THE WITNESS:**

11 A (Walker) And the NWA framework is on -- starts on
12 Exhibit -- so, this is Exhibit 3, Part 1,
13 Bates 002, that's where the NWA framework starts.
14 That then allows us to evaluate energy efficiency
15 and demand response, as an alternative to a
16 traditional capacity investment, in form of a
17 non-wires alternative. So, those would be above
18 and beyond existing energy efficiency impacts,
19 demand response programs, energy efficiency
20 programs, as I think was termed earlier,
21 geo-targeted solutions.

22 BY CMSR. SIMPSON:

23 Q Okay. So, explain how, in this case, your
24 non-wires alternatives framework maps to the load

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1 forecast, as described in Exhibit 1, for each of
2 the -- each of the forecasted loads?

3 A (Walker) So, let me first, just so we are all on
4 the same page, put a bit of a clarification
5 around what a "non-wires alternative" is.

6 So, traditionally, we would change the
7 assets to match the load; with a non-wires
8 alternative, we are essentially changing the load
9 to match the asset that is there. That is,
10 conceptually, the idea.

11 So, with a non-wires alternative, that
12 can include anything from energy efficiency,
13 demand response, storage systems, local
14 generation, being it renewable, PV, local
15 generation, that's generators, gas/diesel,
16 there's a lot of alternatives there.
17 Conservation voltage reduction programs, there's
18 a wide array of options that allow us to change
19 the load to match the existing asset.

20 Now, when we look at the load we need
21 to change, that's our forecast. So, if we have
22 our station level forecast, as we've described,
23 we can look at our station capacity, and we
24 determine then the projected load is above

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1 station capacity.

2 Now, the process here would then tell
3 us to go in and say "By how much are we above it?
4 Is it one megawatt? Is it two megawatts? By
5 when are we above? Is it 2025? 2027? How much
6 time do we have to accommodate this?"

7 And then, the next big question we have
8 to answer is not just by how much, but,
9 essentially, "How long?" Is it a very short
10 violation? Is it a long violation? Does it
11 happen once a year? Does it happen 20 times a
12 year? Thirty (30) times a year?" That goes into
13 the design of the solution.

14 Generically speaking, a non-wires
15 alternative has a higher rate of success, if it's
16 a smaller violation that doesn't occur that
17 often, compared to a more expensive, traditional
18 solution.

19 Violations that we see, you know, say,
20 80 percent of the time throughout the year that
21 are of large magnitude are very hard to address
22 with flexible solutions, because they either
23 require customer participation through demand
24 response programs, they are dependent on weather

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1 patterns, if you're looking at solar, and there's
2 a lot of variance in there.

3 So, we do a 24-hour load profile
4 analysis. So, we do have an actual projected
5 load profile. We look at how solar might change
6 that load profile, how energy efficiency might
7 change that load profile. We look at what demand
8 response can do, if it is triggered at peak load,
9 and how it might pull that down. We look at, you
10 know, preconditioning and snapback effect from
11 demand response.

12 And we create alternative load profiles
13 based on different solutions that we're looking
14 at in the NWA screening process. So, one example
15 could be I deploy solar storage, how does that
16 change my future load profile? And, when I say
17 "future load profile", that is the forecasted
18 profile. That already includes economic trends,
19 it already includes what we are projecting as
20 naturally growing solar in the region. And, so,
21 what's the normal adoption going to look like?

22 If we go into the NWA process and look
23 at alternatives, we will go above and beyond
24 that. So, if the forecast says you're deploying

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1 20 megawatts of solar there already, the load
2 curve we ingest into this process already has
3 what you would call the "duck curve", right? It
4 already has the dip in the middle. We already
5 have all of that in that profile baked in.

6 And then, we look at what else we can
7 add. And our tools allow us to add solar, and
8 change the profile again of the load. It will
9 allow us to do storage, and I will simulate the
10 dispatch for storage. And that will give us, you
11 know, an indication if these solutions are
12 technically viable, to modify and set the load
13 shape sufficiently enough to get it below the
14 asset's capacity.

15 And, so, that's basically the way we
16 look at this. And I really do want to make this
17 clear that there is a portion of what we
18 forecast, then, when we look at alternative
19 solutions, that has nothing to do what's in the
20 forecast, because that's done and there is a
21 profile for that, a load profile. Everything we
22 look at alternatives is incremental above and
23 beyond.

24 What can, of course, in this scenario

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1 happen is that, with what's baked in the
2 forecast, we've already avoided an upgrade. And
3 say the normal load growth would get us past
4 capacity, but we also project 20 megawatts of
5 solar growing in the region, and 4 megawatts of
6 energy efficiency. And I'm making these numbers
7 up. And that brings the forecast back down again
8 in the station capacity.

9 So, distributed resources, energy
10 efficiency, and demand response, just inherently,
11 in how we create the forecast, have already
12 deferred a capital project. They have already
13 got rid of it, and pushed it out past the
14 ten-year horizon.

15 But, if that's not enough, and we still
16 project the load to grow, then we go and look at
17 incremental above and beyond. And that's what
18 the NWA process looks like, and that's what I've
19 just described.

20 Q Okay. Thank you. So, with your load forecast,
21 you evaluate whether or not the infrastructure
22 that makes up your system today, or back in 2020,
23 was capable of serving the load as you
24 forecasted, correct?

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1 A (Witness Freeman indicating in the affirmative).

2 A (Walker) Yes. Well, one clarification on that
3 point.

4 If we have a forecast for a station,
5 for example, and we have a known capital project
6 at that station to expand capacity, --

7 Q Uh-huh.

8 A (Walker) -- even if that's not completed, and
9 that does not represent 2020 status of the
10 station, say it's scheduled for 2024, we will
11 consider that in our evaluation, of course,
12 because we do know that the capacity will expand.
13 So, any future load that's forecasted past that
14 point will be mapped against the new capacity of
15 the station at that point.

16 So, we do take existing capital
17 projects into consideration.

18 Q So, can you explain and point to where the
19 Company has identified the areas of your system
20 that did not meet the planning criteria to serve
21 your forecast load?

22 A (Walker) I would defer that to Mr. Cosgro.

23 A (Cosgro) You have the -- the areas that would be
24 in violation wouldn't have the capacity to meet

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1 the system needs, that is the report in Exhibit
2 3, Part 1, Bates Page 087. So, that's that
3 ten-year study identifying the system needs.

4 Q Okay. So, what were your results? Explain the
5 results to us please? What were the gaps?

6 A (Cosgro) So, this report identifies capacity and
7 voltage deficiencies in the system. And it goes
8 into a location-by-location transformer, circuit,
9 or feeder, breaker line issues. And this
10 document identifies all of the locations across
11 the State of New Hampshire.

12 Q That the Company identified as "insufficient" to
13 meet your load forecast?

14 A (Cosgro) Load forecast, yes. Yes.

15 Q Okay. So, I would expect that each of these
16 items identified would have an evaluation of
17 options, looking at 378:38, II, III, and IV, that
18 you say your assessment, your load forecast, says
19 that these elements of your system would require
20 upgrades in order to meet your forecast.

21 Subsequently, we've evaluated various options in
22 order to address that issue.

23 Do you agree with that?

24 A (Cosgro) Yes. That report that I referenced

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1 initiates that detailed analysis of solution
2 alternatives, including the NWA screening.

3 Q Okay. So, let's take the first one, the "310-345
4 Circuit Tie". So, describe your assessment of
5 demand-side energy management programs, supply
6 options, and T&D requirements to serve that need?

7 MS. SCHWARZER: I apologize. Could you
8 please give us a Bates Page for the --

9 CMSR. SIMPSON: I'm looking at
10 Exhibit 3, Bates Page 091.

11 MS. SCHWARZER: Ninety-one (91). Thank
12 you.

13 **BY THE WITNESS:**

14 A (Cosgro) Yes. I believe the Commissioner is
15 referencing the first bullet point under the year
16 "2020".

17 BY CMSR. SIMPSON:

18 Q That's correct.

19 A (Cosgro) So, with a identified need from the
20 ten-year study, we would identify either capacity
21 upgrades or, if it's reliability-based, you know,
22 Contingency N-1 concern, we would identify
23 solution alternatives like a circuit tie, or
24 maybe perhaps reconductoring of the line or

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1 creating a automated circuit tie for where a
2 manual one presently exists. So, this ten-year
3 document identifies high-level initial
4 solutions, --

5 Q Uh-huh.

6 A (Cosgro) -- with possible -- it identifies a
7 need, with a possible solution. This is not
8 going to be the guaranteed solution or the
9 solution that would be eventually built. It just
10 gives some guidance for the continuation of this
11 ten-year study to continue, saying that, in 2020,
12 we're assuming that a circuit tie is built
13 between the 310 and 345 circuits. And that
14 allows the ten-year study to carry on with its
15 analysis, assuming something is done to address
16 that need.

17 So -- sorry, do have a question,
18 Commissioner?

19 Q So, -- yes. So, explain how you evaluated
20 solutions against this identified issue?

21 A (Cosgro) So, at -- sorry. At this point, the
22 review of alternatives has not happened. This is
23 just identifying needs. So, once the ten-year
24 study has been concluded, we then take those

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1 needs, and then perform a specific system
2 analysis of that location. So, we do a specific
3 study, you know, in other examples, of a
4 substation location that we've identified needs.
5 In this case, the 310-345 circuit tie, some of
6 the alternatives may be taking a manual circuit
7 tie and automating it, constructing a circuit tie
8 from Point A to Point B.

9 Q Uh-huh.

10 A (Cosgro) Or, in this case, you know, providing a
11 specific location from the posts and location
12 referenced in this document. So, the solution
13 alternatives, along with an NWA screening today,
14 are then compared.

15 And, in terms of other alternatives,
16 I'll refer to Mr. Walker.

17 A (Walker) Yes. So, as Mr. Cosgro mentioned,
18 right, that just states the need. The actual
19 solution design hasn't been done yet. But, just
20 looking at this type of specific project, based
21 on the criteria we discussed in the direct
22 examination earlier this morning, would probably
23 not be screened for a non-wires alternative,
24 given its overall size of project, probably below

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1 the 3 million mark.

2 Q What about being evaluated against demand-side
3 management programs, supply -- I'm just reading
4 from the statute.

5 A (Walker) Yes. No, no. So, from demand-side
6 management programs, those all follow the NWA
7 analysis. And, based on that threshold, where we
8 are proposing to investigate a lower threshold
9 over that three-year period, would not be
10 considered here.

11 Q Okay. What about the next category? "Supply
12 side options, including owned capacity, market
13 procurements, renewable energy, and DER"?

14 A (Walker) So, DER, as they would offset local load
15 would follow the NWA, if they are not part of the
16 forecast, right? So, again, back to my original
17 explanation. If we have a forecast that includes
18 DER, that's inherently included. If we have to
19 go above and beyond that as a non-wires
20 alternative, based on the size of the project, we
21 would either screen it in the NWA process or not.

22 Q Do you have that screening process articulated
23 here? To say that this, this particular issue,
24 your 310-345 circuit tie, that here's your test

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1 for whether something should be considered within
2 a demand-side management program? It doesn't
3 meet that test. So, go to the next one. And, if
4 this one, this issue, doesn't meet our criteria
5 for distributed energy resources, which you're
6 referring to generally as a "non-wire
7 alternative", it didn't meet that. So, we go to
8 the next one. Is that here?

9 A (Freeman) Yes. So, I'll let Mr. Walker continue.
10 But, on that second bucket of possible solutions,
11 it's important to note that Eversource does not
12 own generation. And, so, therefore, Eversource
13 owned generation is not a solution alternative
14 that we would consider for a distribution need.

15 Now, Mr. Walker did make the point that
16 a distributed energy resource, that's maybe owned
17 by a third party, could be considered part of an
18 NWA. But, then, it would have to be a
19 distribution asset that we control. And, if we
20 don't have operational control of it, then it is
21 not a dependable asset and cannot substitute for
22 distribution criteria.

23 Q Are you aware of New Hampshire RSA 374-G?

24 A (Freeman) I can't say that I am, no.

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1 Q It's a New Hampshire law that enables a pathway
2 for the regulated distribution companies to
3 invest in distributed energy resources.

4 A (Freeman) Then, to the extent that we do have a
5 mechanism for building distributed energy
6 resources, that's utility owned and controlled,
7 then, yes. That would be something we would
8 consider.

9 Q Okay. But you didn't evaluate this particular
10 issue against a DER option?

11 A (Walker) So, to get back to this specific 310-345
12 circuit tie.

13 Q Yes.

14 A (Walker) And, if I understood Mr. Cosgro
15 correctly, is we haven't gotten to the point of
16 that evaluation yet. So, once we come to the
17 final solution design, yes, they will be
18 evaluated. Yes, distributed generation, as part
19 of the non-wires alternative process, will be
20 evaluated.

21 And, to your question, where that
22 specific process is outlined in the filing, I
23 would refer you to Exhibit 3, Appendix A-1.
24 That's Bates 002 of Exhibit 3.

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1 Q Just a moment. Exhibit 2?

2 A (Walker) Bates 002.

3 Q What exhibit, I'm sorry?

4 A (Walker) Oh. Exhibit 3, Bates 002. That is the
5 NWA framework that outlines how we would evaluate
6 any distributed generation, energy efficiency
7 programs, or other methods we have to adjust the
8 load to match the need.

9 Q Uh-huh. Did you apply that framework against
10 this tie line issue?

11 A (Walker) No. As Mr. Cosgro mentioned, we haven't
12 gotten to that point for this project yet.

13 Q Mr. Johnson.

14 A (Johnson) For the record, I mean, I just need to
15 correct that. That project was completed back in
16 2020. So, it was prior to the recent framework
17 that we have.

18 Q Uh-huh.

19 A (Johnson) And, again, it was purely a
20 reliability-driven job. It was a circuit tie,
21 less than a million dollars. So, even by the
22 framework criteria that we have, --

23 Q Uh-huh.

24 A (Johnson) -- it would not have been one that

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1 would have been reviewed. But it was completed
2 prior to the framework that we have been
3 discussing here, going forward.

4 Q Yes. I understand that. I think your load
5 forecast, fundamentally, at what we're trying to
6 achieve here is, you perform a load forecast.
7 Through that load forecast, you identify system
8 needs. Those system needs are then evaluated
9 against multiple options. And the Company
10 determines whether or not each option is the most
11 economic.

12 That's all I'm trying to understand
13 here, is whether that exercise has been
14 performed, and what the results were.

15 A (Johnson) Of course.

16 A (Freeman) And I know Mr. Walker said this, but
17 all of these -- all of these projects that are
18 listed are in various stages of development. Mr.
19 Johnson just mentioned one that's complete.
20 There are others that are ongoing, for which we
21 have performed an analysis of alternatives, that
22 has been documented in an SSF, for example. So,
23 they are not all presented in this document, with
24 all the alternatives. Because, at the time that

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1 it was filed, they had been discovered,
2 identified, but then the process of developing
3 the alternatives was not complete. It's a moving
4 target. Because some of these, the need is maybe
5 five years down the road, and then we would
6 develop a plan moving towards that in-service
7 date.

8 A (Walker) Commissioner, would it make sense, we
9 have, in Exhibit 3, Part 1, Bates 047, a detailed
10 report of exactly one of those comparisons that
11 you were looking for for that specific circuit
12 tie. Now, that's a different project. But,
13 perhaps, if we walk through that step-by-step, it
14 would answer a lot of the questions that have
15 been asked. Perfect.

16 Q Just a moment. What you're about to address,
17 does it evaluate the circuit tie issue against
18 non-wires alternatives?

19 A (Walker) This is for a different project. This
20 is not for the specific circuit tie. This is for
21 the option to upgrade at Loudon --

22 Q Okay.

23 *[Court reporter interruption.]*

24 **CONTINUED BY THE WITNESS:**

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1 A (Walker) Sorry. That is for a different project.
2 This would have been for Loudon Station to
3 compare a transformer upgrade against different
4 options.

5 BY CMSR. SIMPSON:

6 Q So, can one of you refresh my memory what Bates
7 page the list of projects was? I think
8 Mr. Cosgro had initially pointed it to me, where
9 we first looked at those 2020-2021 issues
10 identified?

11 CMSR. CHATTOPADHYAY: I think 087.

12 **BY THE WITNESS:**

13 A (Cosgro) Eighty-seven (087).

14 MS. SCHWARZER: I'm sorry, did you say
15 "070"? I couldn't hear your answer.

16 WITNESS COSGRO: I was advised it was
17 Bates Page 087.

18 MS. SCHWARZER: Thank you.

19 BY CMSR. SIMPSON:

20 Q It was Bates Page 091 of Exhibit 3. If we go
21 further through this list of projects, are we
22 going to be able to identify an evaluation for
23 each of these projects that maps to the
24 requirements of the statute for each requirement?

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1 A (Cosgro) So, Loudon was provided as an example.
2 It would not have been --

3 Q Which Bates page is that? I don't see that in
4 this list of planning projects.

5 A (Cosgro) So, Loudon was not included in the
6 original ten-year study, due to the original
7 ten-year study focusing on the bulk power system,
8 distribution system. Loudon is a non-bulk
9 substation, --

10 Q Uh-huh.

11 A (Cosgro) -- which is supplied by the distribution
12 system. So, that was not originally located in
13 this ten-year study. It was located -- the need
14 was identified outside of this ten-year study
15 report.

16 Q Okay.

17 A (Freeman) So, I think what might be helpful is if
18 we go through each one of these projects, Mr.
19 Cosgro, and give the Commission an indication of
20 the status, where was it --

21 Q I'm really more interested in the evaluation.
22 I'm more interested in seeing an evaluation, as
23 required by the statute, against the projects
24 that the Company identified that are necessary to

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1 meet your load forecast.

2 A (Freeman) Right. And that's my intention.

3 Because most of these, when we filed this in
4 2020, they were not at the stage where we could
5 produce an evaluation. Loudon is an example of
6 the evaluation.

7 Q And I just struggle with that, because the
8 statute has been in place for years that has
9 required this evaluation.

10 A (Freeman) These were identified by the ten-year
11 study --

12 Q Uh-huh.

13 A (Freeman) -- at the time, and the ten-year study,
14 that was done in 2020, says that these projects
15 are needed after 2020. And, so, when we filed
16 the LCIRP, it was meant to indicate that these
17 are the projects that we're going to plan for and
18 develop alternatives in the future. So, when we
19 filed the LCIRP, we hadn't done that work yet to
20 develop alternatives. We have subsequently done
21 that work. But it wasn't available at the time
22 of filing.

23 Q Is that in the record?

24 A (Freeman) The work that was done subsequent to

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1 the filing?

2 Q Yes.

3 A (Freeman) No. But we did provide some Solution
4 Selection Forms that -- for projects that were
5 available, that were further along at the time of
6 filing.

7 Q Okay.

8 A (Freeman) And, so, those are in the record. And
9 the Loudon was provided as an example. Because,
10 just to set some more context, when we did this
11 LCIRP, the NWA framework had just been developed.
12 It was finalized in 2020, I think, in that same
13 fourth quarter of 2020. So, the Company did not
14 have a formal tool or framework for NWA analysis.
15 So, when we did the analysis, and identified
16 these projects, we knew going forward that we
17 would perform a non-wires alternative assessment
18 for each one of these that were suitable, that
19 met the suitability criteria.

20 Q Uh-huh. But it's more than just non-wires
21 alternatives. It's much broader.

22 A (Freeman) Correct. Correct. Yes, of course, we
23 would do the traditional analysis. For the
24 non-wires alternatives to look at energy

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1 efficiency, demand response, we would do that.
2 Supply options, those are also included in
3 non-wires alternatives.

4 So, when we say "non-wires
5 alternatives", it's actually pretty broad. It
6 encompasses a lot of the things that are
7 mentioned in the statute that should be
8 considered, in addition to traditional
9 alternatives.

10 Q So, then, what -- okay. Let's talk about
11 traditional.

12 A (Freeman) Yes.

13 Q That's IV. So, "an assessment of distribution
14 and transmission requirements, including an
15 assessment of the benefits and costs of "smart
16 grid" technologies, and the institution or
17 extension of electric utility programs designed
18 to ensure a more reliable and resilient grid to
19 prevent or minimize power outages, including but
20 not limited to, infrastructure automation and
21 technologies."

22 Can you point me to that evaluation?

23 A (Freeman) Yes. So, in --

24 Q And let's stay on the circuit tie, the 310-345

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1 circuit tie.

2 A (Freeman) We don't have that evaluation for the
3 circuit tie.

4 Q Okay.

5 A (Freeman) Because, as mentioned --

6 Q What about the "Lost Nation Substation
7 Transformer"?

8 A (Freeman) It's not in the record.

9 Q Okay.

10 A (Freeman) Because it wasn't done at the time that
11 this was filed.

12 CMSR. SIMPSON: Okay. Thank you all
13 for your testimony today.

14 Mr. Chairman, I don't have any further
15 questions.

16 CHAIRMAN GOLDNER: Okay. Let's take a
17 short break, returning at 3:00. And we'll pick
18 up with Commissioner Chattopadhyay's questions at
19 that time. Thank you.

20 *(Recess taken at 2:49 p.m., and the*
21 *hearing resumed at 3:10 p.m.)*

22 CHAIRMAN GOLDNER: Okay. We will
23 continue with Commissioner questions, and
24 Commissioner Chattopadhyay.

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1 CMSR. CHATTOPADHYAY: Just give me a
2 minute. Let me set it up.

3 WITNESS FREEMAN: Commissioner Simpson,
4 is it possible for me to clear up a
5 misunderstanding from the previous question,
6 before we go forward?

7 CHAIRMAN GOLDNER: Yes, please.

8 WITNESS FREEMAN: Okay.

9 **BY THE WITNESS:**

10 A (Freeman) So, I had stated that, for the projects
11 that we were discussing, those list of projects
12 that were identified from the 2020 study, --

13 BY CMSR. SIMPSON:

14 Q Yes.

15 A (Freeman) -- the analysis of alternatives, those
16 were not in the record, because those projects
17 were just being initiated. However, in March of
18 2021, we did file a supplement, with detailed
19 information on projects that were initiated prior
20 to the LCIRP being filed. And those included
21 documentation of information on those projects.

22 Q Uh-huh.

23 A (Freeman) And that's in Exhibit 4, which is the
24 confidential version, which may be the same as

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1 Exhibit 3, starting on Bates Page -- on
2 Bates 415. So, it's Exhibit 4, Part 2, Bates
3 415. And, in that appendix, we provide initial
4 funding request forms for several substation
5 projects, Ashland, Bridge Street, film Chestnut
6 Hill, Derry distribution.

7 But, more to the point, we also
8 provided several Solution Selection Forms. So,
9 for example, on Bates Page -- Bates 435, the
10 White Lake SSF is presented.

11 Q Four thirty five (435)?

12 A (Freeman) Bates 435, yes. And that is a
13 substation project that was initiated prior to
14 the LCIRP, that had gone through our capital
15 project approval process to the point that it was
16 being presented to the Solution Design Committee.

17 Q Uh-huh.

18 A (Freeman) And, so, the SSF, it documents the
19 solutions, the alternatives that we presented to
20 the Solution Design Committee. And, as part of
21 that evaluation, we would have looked at whether
22 a non-wires alternative would have been an
23 option. But, given that this was an asset
24 condition project, was initiated because

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1 equipment was failing that needed to be replaced,
2 it was determined at the time that demand
3 response, energy efficiency, supply side options
4 were not applicable for this project.

5 Q Uh-huh.

6 A (Freeman) So, I just wanted to point out that.

7 Q Yes.

8 A (Freeman) And we do have that for three projects:
9 Cocheco Substation, similarly, starts at
10 Bates 448, and the Monadnock Substation starts at
11 Bates 452. All these three have very
12 comprehensive Solution Selection Forms that
13 document how we develop the alternatives for each
14 of those projects.

15 And, then, following that, there are
16 several PAFs, which are "Project Authorization
17 Forms", that is the documentation that goes to
18 the EPAC Committee for funding. And, again,
19 those include a description of the cost estimates
20 and the engineering that was done for those
21 projects.

22 So, I just didn't want to leave it on
23 the record that we didn't document any project
24 design process. We just didn't do it for those

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1 projects that were initiated right after the
2 LCIRP, because we didn't have the time to do that
3 yet, if that makes sense.

4 Q Were those -- so, you're referring to projects in
5 2020 that are listed in Exhibit 3?

6 A (Freeman) That's correct. The ones that we were
7 discussing prior to the break, that we said were
8 generated by the system assessment that was done
9 in 2020. Those projects were newly initiated,
10 and they would be taken through the same process
11 as these projects that I just discussed; initial
12 funding requests, Solution Selection Form.

13 Q Uh-huh.

14 A (Freeman) But, at the time when we filed the
15 LCIRP, we had just started the process. So, we
16 don't have the documentation yet.

17 Q What about like the '21 projects?

18 A (Freeman) Projects like --

19 Q Like the "Weirs Regulator Upgrade"? Because how
20 I understand the LCIRP is to be a forward-looking
21 instrument, that you would perform a forecast of
22 your system.

23 A (Freeman) Yes.

24 Q And you would identify gaps in order to serve

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1 load that you're forecasting. And, when you
2 identify those gaps, you identify certain
3 projects that require upgrade.

4 And I think what the Least Cost
5 Integrated Resource Planning statute is intended
6 to require is that, when you identify a system
7 need, that you evaluate that need against
8 potential alternatives. That, when you have a
9 substation issue, you have a transformer that
10 might be overloaded, that you think about "what's
11 causing that overloading? What loads are driving
12 that?" And that you're considering "Could I do
13 something else, other than upgrading that
14 transformer? Could I do something else other
15 than upgrading that regulator? And, if I do
16 that, what's the cost of that alternative? Is it
17 a lower cost than doing the traditional upgrade?"

18 That was really what I was trying to
19 understand.

20 A (Freeman) Yes. And you are completely correct.
21 But, remember, the LCIRP is a snapshot in time.

22 Q Uh-huh.

23 A (Freeman) And, so, if you take a snapshot of
24 2020, when we filed it, all of those projects

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1 that we just discussed, including that Weirs
2 project, --

3 Q Yes.

4 A (Freeman) -- they were not at the stage yet where
5 we have done that analysis that you just
6 described.

7 Q Yes.

8 A (Freeman) But projects that were initiated prior
9 to 2020, which are the ones in Exhibit 4, those
10 ones we have done that analysis of alternatives,
11 and understood what we need to do in order to
12 meet the forecast.

13 Q Okay. So, Monadnock?

14 A (Freeman) Yes.

15 Q That's the one that you brought up, I think,
16 originally, right?

17 A (Freeman) Correct.

18 Q So, going back to the first three assessments,
19 following your load forecast of future demand,
20 can you point to where you evaluated replacing
21 those two 62 and a half MVA transformers against
22 a demand-side management program or a different
23 supply-side option, like a DER, or other T&D
24 investments?

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1 A (Freeman) And it just so happens that Monadnock
2 is not a great example of that.

3 Q And why not?

4 A (Freeman) Because it was an asset condition
5 project.

6 A (Walker) And, to clarify on this, when we talked
7 before the break, the way we defined the
8 "non-wires alternatives", which includes energy
9 efficiency, demand response, local-sited, is to
10 modify the load shape to match the asset.

11 And, if we have an asset condition
12 project, there isn't a problem with the asset's
13 loading, it's a problem with the asset. And I
14 can do as much changing of the load profile as I
15 can think of, --

16 Q Uh-huh.

17 A (Walker) -- and I will still not be able to
18 address that. That's why that exclusion. And my
19 understanding is it's also -- that is written in
20 the Solution Selection Form, --

21 Q Yes.

22 A (Walker) -- that's what's in the document, was
23 not preceded there, and then these are the
24 prescreening criteria that early on we were

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1 talking about, which disqualified any further
2 steps there.

3 Q Yes.

4 A (Walker) So, to the statute, yes, the Company has
5 the process. Yes, the Company did look at those
6 solutions, but determined, due to the type of
7 project we are looking at, that no further
8 investigation of non-wires alternatives is
9 needed.

10 Q And that's an important evaluation to conduct.
11 But would you agree that a non-wires alternative
12 is just one type of alternative to this
13 particular system issue?

14 For example, could you have implemented
15 conservation voltage reduction on the circuits
16 that that transformer serves, to lower the
17 overall demand on that circuit, and alleviate the
18 issue that you're facing in that? I don't know.

19 A (Walker) So, yes. So, I mean, yes -- so, the
20 answer to that question is "yes and no". And let
21 me try to split that out a little bit.

22 Q Sure.

23 A (Walker) So, non-wires alternatives in and of
24 themselves are not the only options.

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1 Distribution planning looks at various options
2 that are traditional solutions, and could be a
3 transformer upgrade, it could be VVO [?]
4 conducting to push loads to other substations.
5 There is a whole array of options that we have
6 that we look at.

7 Under the umbrella of "non-wires
8 alternatives" falls everything that doesn't
9 address the capacity of the asset, but changes
10 the load to match that, including conservation
11 voltage reduction.

12 Now, if the project is an asset
13 condition project, right, if I design a non-wires
14 alternative, it's changing the load. But I have
15 a problem that my asset is old and failing.

16 Q Is that this case here, for Monadnock?

17 A (Johnson) Yes.

18 Q It was an old transformer?

19 A (Walker) Yes.

20 Q Okay. Or, two transformers.

21 A (Walker) And that is the reason why we did not
22 continue with the NWA analysis, including all of
23 the technologies that fall under it, demand
24 response, --

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1 Q Uh-huh.

2 A (Walker) -- energy efficiency, conservation
3 voltage reduction, local generation siting,
4 because doing so would change the load profile,
5 but it would not make the transformers younger,
6 so to speak.

7 Q Uh-huh. Okay.

8 A (Walker) So, that's why, in that Solution
9 Selection Form it was disqualified, and we moved
10 forward with a traditional solution.

11 Q So, with --

12 A (Freeman) Could I --

13 Q No, go ahead.

14 A (Freeman) I'm sorry. For the documentation, can
15 I refer you to Bates Page 365 --

16 Q Of what exhibit?

17 A (Freeman) Exhibit 4, Part 2.

18 Q Just a moment.

19 A (Freeman) That's the same Monadnock SSF. So,
20 Bates --

21 Q Just a moment.

22 A (Freeman) Yes. I'm sorry. I was just repeating
23 it. Bates 365, Exhibit 4, Part 2.

24 Q Okay.

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1 A (Freeman) Okay. So, that's under the heading
2 "Solution Needs and Options". And it talks about
3 "The above planning criteria is intended to
4 maintain safe, reliable operation." And then, it
5 says we can address it with the following
6 measures: We can "reduce the load or increase
7 the capacity to address the LCC", which is the
8 "Load Carrying Capability", "deficit", and we can
9 "reduce the load or increase the transformer
10 capacity to address the STE deficit", which is
11 the "Short-Term Emergency" rating deficit. We
12 show the two violations that were identified
13 based on the forecast.

14 And then, on Bates 366, it goes on,
15 under the topic of "Preferred and Alternative
16 Solutions", to say that "Ultimately, there are
17 two possible solutions to increase the contingent
18 capacity at Monadnock Substation."

19 Q Let me just stop you there. I thought this issue
20 was an asset management issue, it was driven by
21 life of the transformer?

22 A (Freeman) Correct. So, it's documented that, on
23 the top of the page, that "the possibility to
24 address capacity deficits by reducing the

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1 existing load including non-traditional
2 solutions", which are the ones that we
3 described, --

4 Q Yes.

5 A (Freeman) -- "such as battery storage, solar,
6 energy efficiency, and demand response, as well
7 as increasing capacity with traditional
8 solutions" were considered. "Unfortunately, due
9 to the combination of the immediate need, and the
10 poor condition of the transformer, the Long Term
11 Health Index being over 0.5...non-wires solutions
12 will not be considered."

13 And, so, that documented the fact that,
14 because it's an asset condition project, with an
15 immediate need, and an aging, unsafe transformer,
16 we could not look at battery storage, demand
17 response, energy efficiency, or any supply
18 option, to alleviate this need. But we did
19 consider those as alternatives.

20 A (DiLuca) And if I could, just to build on what my
21 colleagues have referenced?

22 Q Please.

23 A (DiLuca) Also, in Exhibit 4, Part 2, Page 449,
24 similar to what Mr. Freeman has just referenced,

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1 there's a non-wires write-up, a short paragraph
2 though it may be, and, if this would be done
3 under today's toolset for NWA, it would probably
4 be much more thorough. But at least it is
5 referencing why energy efficiency/distributed
6 generation would not likely fix this problem,
7 even if it wasn't an asset condition, because
8 this was with Cocheco Street, and that was also
9 an asset condition.

10 So, just citing another example.

11 Q Uh-huh. So, it was really asset management that
12 drove this. And then, because of it, you
13 evaluated -- or, at least you said you evaluated
14 against energy efficiency/demand-side management?

15 A (DiLuca) Correct.

16 Q I guess, with this particular project, is it
17 driven by your future demand forecast?

18 A (Freeman) Yes. It was a combination of asset
19 condition --

20 Q Okay.

21 A (Freeman) -- and future demand. But the asset
22 condition took precedence, because it became
23 safety issue, and safety always takes precedence.

24 Q Okay. What about South Milford?

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1 A (Cosgro) So, at the time of the LCIRP filing,
2 South Milford was in a "draft" state. That study
3 is still ongoing. And today's version of the
4 report does have an NWA analysis. However, that
5 was not included in the LCIRP at the time that
6 the filing was made.

7 Q What drove South Milford?

8 A (Cosgro) South Milford is a capacity project.

9 Q Okay. So, can you show me the evaluation for
10 that transformer, like we just walked through for
11 Monadnock?

12 A (Cosgro) So, there is no Solution Selection Form,
13 because that project has not reached that stage
14 yet. However, there is a study in the
15 attachments.

16 Q Uh-huh. Okay. Where is that? Can you give me a
17 Bates page please?

18 A (Cosgro) Yes. I just need one minute.

19 Q Take your time.

20 MS. SCHWARZER: Excuse me,
21 Commissioner? In an effort to be helpful, there
22 is a reference to South Milford in Exhibit 4,
23 Part 2, at Bates 376.

24 WITNESS COSGRO: You just beat me to

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1 it. Thank you.

2 MS. SCHWARZER: Sure.

3 BY CMSR. SIMPSON:

4 Q Okay. Bates 4 --

5 A (Cosgro) Exhibit 4, Bates 376.

6 Q Okay. Just a moment.

7 A (Cosgro) If it helps, Commissioner, it's *pdf*
8 Page 40.

9 Q Yes. My computer, I have so many large *pdfs*
10 open, it struggles here. So, okay.

11 So, I'm looking through, this is a
12 report for South Milford.

13 A (Cosgro) Correct. So, this is an example of a
14 localized study --

15 Q Uh-huh.

16 A (Cosgro) -- that we would do to reconfirm the
17 need that we've identified from the ten-year
18 study, and also to compare alternatives. So, at
19 the time that this report was included in the
20 LCIRP, an NWA analysis had not been completed
21 yet.

22 Q And then, what about like other distribution and
23 transmission options?

24 A (Cosgro) Traditional wire solutions were included

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1 in this report. Since the report was filed,
2 other alternatives have also been included.

3 Q Okay. Can you -- can you just point us to that
4 assessment, the traditional wires assessments?

5 A (Cosgro) Bates Page 390 is the start of the
6 traditional solution analysis to identify what
7 traditional components would resolve the needs.

8 Q Okay. So, you're saying "Reduce load at the
9 transformer, increase system capacity", and then
10 "reduce load or increase [two] feeder
11 capacities", right?

12 A (Cosgro) Correct.

13 Q So, did you identify what the costs would be of
14 each of those options?

15 A (Cosgro) I believe there are order of magnitude
16 costs included in this. However, the project,
17 overall, has not reached that stage yet where
18 it's looking at costs.

19 Q And then, map this to -- from Exhibit 1, the
20 tables that you had, let's see. So, Exhibit 1,
21 starting on 52, Bates 052, which table would
22 identify the Compound Area Growth Rate that drove
23 your future need?

24 A (Cosgro) So, South Milford is covered in the

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1 table on Bates Page 054, which includes the
2 Southern Region.

3 Q Okay. So, your forecast identified that you
4 would have a capacity issue there, right?

5 A (Cosgro) Correct.

6 Q Okay. And then, what about the assessment for
7 various environmental impacts?

8 A (Cosgro) The South Milford project has not
9 reached that stage yet.

10 Q Okay. And, the last criteria, the "plan
11 integration and consistency with the state energy
12 strategy", did you identify how this project
13 aligns?

14 A (Freeman) I'm sorry, can you repeat that,
15 Commissioner Simpson?

16 Q Did you identify how this project would align
17 with the state energy strategy? I'm just going
18 down the statute.

19 A (Freeman) Yes. Can you -- if you don't mind, can
20 you read the statute?

21 Q Absolutely. It's VII of 378:38: "An assessment
22 of plan integration", so, overall plan
23 integration, "and consistency with the state
24 energy strategy."

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1 A (Freeman) Give me a second, I'm turning to that.

2 A (Walker) I don't believe it specifically, I mean,
3 while you look it up, but subject to what Mr.
4 Freeman is checking, I don't believe it
5 specifically calls that out. But, this project
6 specifically, as it would increase the capacity
7 of the station would support further
8 electrification on the load side, be that
9 electric vehicles, heat pumps, --

10 Q Uh-huh.

11 A (Walker) -- as well as increase the hosting
12 capacity of the system. So, it will provide for
13 more capacity for either commercial DER
14 development or rooftop residential DER
15 development.

16 Q Uh-huh.

17 A (Walker) And I think that applies broadly to
18 almost all capacity projects that do get through
19 the screening process and they provide those
20 capabilities.

21 And, especially since, if you allow me
22 to comment, if we're looking at the long-term
23 forecasts, which we did mention that we're
24 starting to do now in New Hampshire, and will

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1 include in the next LCIRP filing, we're
2 expecting, at a minimum, a doubling of the system
3 load over the next 20 to 30 years as
4 electrification progresses.

5 So, yes. That's how these projects,
6 specifically this one, support those objectives.

7 Q So, I just want to return to the list of projects
8 that we were going through. Which was in
9 Exhibit 3, yes, Bates -- starting on Bates 091.

10 I mean, this, to me, is your plan.
11 This represents what should be your long-term
12 plan. These are the items that you feel are
13 necessary in order to address -- in order to meet
14 your demand forecast. Would you agree?

15 A (Freeman) Those items, along with -- so, going
16 forward, yes. If you take a snapshot in time, --

17 Q Yes.

18 A (Freeman) -- going forward, these are the items
19 that we need to address in order to comply with
20 our obligation for safe, reliable service, yes.

21 Q Uh-huh.

22 A (Freeman) But that also includes projects that we
23 initiated before the LCIRP, which are in process.

24 Q And, if each of these elements, you know, the

[Johnson|Freeman|Walker|Cosgro|Ntakou|Moawad|DiLuca]

1 statute says "assessment of plan integration",
2 I'm looking at V, VI, and VII. So, if each
3 individual project was not evaluated or assessed,
4 I should use the term "assess", against these
5 three final elements of the statute collectively,
6 explain how you assessed each of these grouped?

7 A (Freeman) Well, so, each of those projects will
8 be assessed individually. And the compliance
9 with V and VI, and maybe VII, I think, are the
10 subject of the supplemental filing from October
11 of 2022, which I think is Exhibit 8.

12 Q Okay.

13 A (Freeman) Where we describe that the Company,
14 when we look at environmental impacts, --

15 Q Uh-huh.

16 A (Freeman) -- we do this on a project-by-project
17 basis. And we have developed a matrix that
18 includes not only looking at the costs of the
19 projects, and the reliability of each project,
20 we're looking at the environmental impacts.

21 Q Uh-huh.

22 A (Freeman) And that is done by another, the
23 Environmental group within Eversource, that, for
24 each project, identifies whether there are

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1 wetlands impacts or whether there are other
2 environmental issues. And then, that goes --
3 that is documented in a matrix, which was also
4 provided along with Attachment 8 [Exhibit 8?],
5 as -- in our appendix, an evaluation matrix that
6 shows how that applies to the Resistance
7 Substation project, for example.

8 And, so, those are how some of those
9 externalities are taken into account.

10 Q So, just let's map those Exhibit 3 projects to
11 that matrix, if you would please? What Bates
12 page is the matrix on in Exhibit 8?

13 A (Freeman) Bates Page -- sorry, give me one
14 second.

15 Q Take your time.

16 A (Freeman) 140.

17 Q Okay.

18 A (Freeman) So, on that Page 140, you see the
19 matrix, which scores the substation based on a
20 number of -- scores the substation project based
21 on a number of weighted attributes. Whether the
22 project meets the distribution planning
23 guidelines?

24 Q Uh-huh.

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1 A (Freeman) Whether there are -- how many megawatts
2 are at risk? And, if you scroll down, you see
3 there's impact of "Headroom Capacity",
4 "Distribution System Loss". And halfway or so
5 down the page, there's "Constructability" and
6 "Environmental Impact", which are two of the
7 really important elements, whether the substation
8 can be constructed, whether there's enough
9 physical space, and whether there is
10 environmental impact, that would impact the
11 construction of the project eventually.

12 Q Are these the same projects that are in
13 Exhibit 3?

14 A (Freeman) No. This is a project that was further
15 along. It's a more recent project. We provided
16 this as an example of the matrix that we're using
17 now.

18 At the time -- at the time this LCIRP
19 snapshot was taken in 2020, we were not using
20 this matrix. We have since then evolved our
21 process. And any project that we present to the
22 SDC going forward would go through this
23 evaluation criteria.

24 Q So, these projects were not in your original

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1 LCIRP, as filed?

2 A (Freeman) The ones on the list that you are
3 talking about?

4 Q In this Exhibit 8.

5 A (Freeman) Oh, in this exhibit, right. This
6 project, this Resistance project was not in the
7 original LCIRP, correct.

8 Q Okay.

9 A (Freeman) Yes. But it's provided as an example
10 of the more rigorous analysis of our
11 environmental impact.

12 Q So, this is -- this is for one project, correct?

13 A (Freeman) Correct.

14 Q And what project is that?

15 A (Freeman) The Resistance project, Resistance
16 Substation upgrade.

17 Q Okay. But, at the time, you did not apply this
18 evaluation?

19 A (Freeman) At the time --

20 Q When you originally filed?

21 A (Freeman) When we originally filed, this
22 evaluation was not in place. It was --

23 Q When you filed this update, why didn't you
24 perform this analysis against the projects that

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1 you had included in your original LCIRP?

2 A (Freeman) The supplemental that was filed in
3 October?

4 Q Yes.

5 A (Freeman) Because the purpose of the
6 supplemental filing was to explain how the
7 Company takes into account the compliance
8 element, I think it's 7 [VII?], and how that --
9 how the project-by-project analysis complies with
10 that requirement in 378:38.

11 We do understand that the projects that
12 are listed in the LCIRP, they would go through
13 the evaluation process. And, as they go through,
14 they would be subject to this evaluation
15 criteria. But we haven't done that evaluation
16 for all of those projects. And we did not have
17 it available for the supplemental.

18 Q Okay.

19 A (Freeman) And that was not the reason for the
20 supplemental filing.

21 Q All right. So, I'm just looking back at Exhibit
22 3, Bates 092, the '24 and '25 projects, South
23 Milford, White Lake, and the Cocheco Street
24 Substation. For those projects, have you applied

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1 that type of environmental analysis against them?

2 A (Cosgro) So, for Monadnock, that project has
3 progressed past the point where we would do this
4 design -- this decision matrix.

5 Q Because it's -- is it in service?

6 A (Cosgro) It's going to be starting construction
7 fairly soon. So, just the maturity of the
8 project itself, it's reached the point where we
9 would not go back and do that analysis.

10 Q What about Emerald Street?

11 A (Cosgro) That project is in service. Which list
12 are you referencing at the moment?

13 Q I'm looking at Exhibit 3, Bates 091 and 092.

14 A (Cosgro) Okay.

15 Q My understanding is that this is the list of
16 projects that your load forecast identified as
17 necessary?

18 A (Cosgro) Correct.

19 Q Okay.

20 A (Cosgro) So, at the time of the LCIRP filing,
21 yes, these needs were identified.

22 Q Yes. And you're pursuing several of them still?

23 A (Cosgro) Yes.

24 Q Okay. I guess I was just asking, when you filed

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1 your supplement, and you were addressing what the
2 Company said had been a gap in your initial
3 submission of an analysis of environmental
4 impact, why you elected not to perform that
5 evaluation against the future projects in your
6 identification?

7 A (Cosgro) If it's for a future project, the study
8 has not progressed to the point where we would be
9 doing that evaluation yet.

10 Q Okay. So, when would you apply the evaluation?

11 A (Cosgro) When we're comparing our design
12 alternatives.

13 Q I guess I'm lost. If you can't apply it to
14 future projects, when would you apply it?

15 A (Cosgro) During the study process of that
16 particular design violation of need. So, after
17 we identify the needs, we then do a localized
18 study on that particular design violation system
19 need. And, when we do that singular study on
20 that location, that's when we look at the
21 alternatives, we look at the environmental impact
22 of those alternatives. And we look at the
23 non-wires solution as part of the suite of, you
24 know, solution alternatives for that, that system

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1 need.

2 Q So, what was the Company trying to communicate in
3 your supplemental testimony?

4 A (Freeman) The Company was trying to communicate
5 that we do consider environmental, even though
6 our prior matrix, and there was a prior process
7 that documented solution alternatives, and it did
8 not explicitly include a section for
9 environmental impact.

10 But the Company wanted to communicate a
11 couple of things. One, that we do always look at
12 the environmental impact as part of the
13 assessment of alternatives. It's part of the
14 constructability review. It's part of the --
15 when we look at -- when we do a walk-down of the
16 site, --

17 Q Uh-huh.

18 A (Freeman) -- we always look at whether there is
19 an environmental issue. It just wasn't
20 documented in the matrix of the selection of
21 alternatives, and that matrix has since then been
22 revised.

23 We also wanted to communicate that
24 environmental compliance is taken into account in

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1 the way we design our system to accommodate
2 distributed energy resource projects. Those are
3 important for meeting the state's clean energy
4 goals. We have integrated 435 megawatts of DER
5 since we are started doing this. And every year
6 we are seeing an acceleration of DER projects.

7 If we don't design our systems with
8 that in mind, we would be doing our customers a
9 disservice, but we would also be slowing down the
10 meeting of the state's clean energy goals, which
11 is part of the environmental impact that we are
12 trying to support. And, so, those two things we
13 wanted to bring out in the supplemental filing.

14 I do understand your question. And the
15 question is, for clarity, Mr. Cosgro, is that,
16 when we look at those projects on Bates 091, how
17 many of those projects would be subject to that
18 new, more rigorous matrix that includes
19 environmental impact? And, if we had done it,
20 why didn't we submit any of them with the
21 supplemental filing? And I suspect the answer
22 is, we haven't planned to do those projects at
23 this point.

24 Some of them have progressed beyond the

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1 point, including White Lake. And then, some of
2 them are not at that point yet.

3 Q So, like Cocheco, that's in here, it says it was
4 planned for '25, well, in-service date of
5 December '24. When does that get to the point
6 where it no longer would, by your standards, meet
7 a need to go through that environmental analysis?

8 A (Cosgro) So, presently, the Cocheco Street or
9 Dover Substation project is still under its
10 alternatives review. And it's having its
11 environmental impacts studied with that
12 alternative review.

13 Q It just isn't here, in front of us, in these
14 exhibits?

15 A (Cosgro) Correct. At the time of the LCIRP
16 filing, it was not at that stage.

17 CMSR. SIMPSON: Okay. In the interest
18 of time, I think I'm going to yield the floor to
19 my colleagues. It's getting late in the day.

20 Thank you for the clarifications. No
21 further questions at this time, Mr. Chairman.

22 CHAIRMAN GOLDNER: Commissioner
23 Chattopadhyay.

24 CMSR. CHATTOPADHYAY: It's been a long

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1 day.

2 So, the first thing I will point out
3 is, you know, a docket going on for such a long
4 time, it's kind of painful. But I'm happy to
5 hear that I, and at least one of the witnesses,
6 is, you know, in the same boat, in terms of being
7 able to say "In 2020, I wasn't there." So, that
8 is a good situation.

9 On the other hand, I'm surrounded by
10 engineers here. And I don't feel very safe.

11 *[Laughter.]*

12 BY CMSR. CHATTOPADHYAY:

13 Q So, let's just go to the topic that we were right
14 now on. So for example, Bates Page 091, I think
15 it's Exhibit 3, the "Cocheco Street (Dover)
16 Substation Transformer Upgrade", says "The
17 existing Substation transformers TB22 and TB55",
18 I won't read everything, "will be replaced with
19 two 62.5 MVA transformers." So, you've already
20 decided what you're going to do it with, right?

21 A (Cosgro) At this point in the ten-year study, the
22 study has provided a suggestion. It utilizes
23 that solution to then carry on with the
24 continuation of the ten-year analysis. But that

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1 solution is technically not final. It actually
2 has to go through the capital budget process,
3 which is going through the solution alternative
4 development, going through an NWA screening and
5 solution alternatives development, and then it
6 goes to the Solution Design Committee. And
7 that's, ultimately, where the final decision of
8 what the final project or solution to meet the
9 need is determined.

10 Q So, just give me a sense of how the LCIRP works?
11 You identify needs. Then, you look for
12 solutions. So, you look for different solutions.
13 The LCIRP is providing a snapshot of the
14 different solutions that are possibly going to
15 be, you know, in the fray, and then you choose
16 one?

17 A (Freeman) I would say the LCIRP documents our
18 process, and the results are for studies. It
19 also documents the results of the search for
20 solutions, which would be the SSF forms that we
21 submit to the Solution Design Committee. And
22 documents the ultimate solution that's selected,
23 if the project is at that stage.

24 So, the intent is to provide all of the

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1 information that, where you can trace from the
2 forecasts, to the violation, to the alternatives
3 of a solution, to the preferred. Unfortunately,
4 it's in different exhibits. Yes, lesson learned.
5 It could be much more organized.

6 Q So, when you say "planned projects", and I'm
7 looking at Bates Page 091, --

8 A (Freeman) Yes.

9 Q It's still -- it's not given that they will be
10 built, right? Or, should I read it as "these
11 projects are going to be there definitely"?

12 A (Freeman) So, basically, 091 identifies a need.
13 So, there's a need that has to be met, and that
14 need is a violation of planning criteria. In
15 this case, Cocheco is a need to provide more
16 capacity.

17 The presumptive solution is that we
18 upgrade the transformers. But, as Mr. Cosgro
19 said, that doesn't have to be the final solution.
20 Because we go through a process where we have to
21 look at alternatives, and document why we prefer
22 the alternative of upgrading the transformers.

23 Q Okay. So, anybody who is in the panel is free to
24 respond to the other questions that I'm going to

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1 ask. And you will know who is an expert on it.

2 So, let's begin with one question I
3 have is in the forecasting. So, you have -- I
4 understand what was being described. The
5 forecast currently sort of includes all of the
6 measures, like energy efficiency,
7 behind-the-meter, you know, like solar
8 photovoltaics and all that, they're all included.
9 So, you are just taking the load, and then you're
10 doing a forecasting. When you talk about
11 incrementally adding the elements that I just
12 talked about, it's the ones that are truly
13 incremental, meaning that they're not in the mix
14 yet, that's what you were describing.

15 A (Walker) That's correct.

16 Q Can you give me a sense of, when you're trying to
17 measure how some of those elements are on their
18 own going to increase, because that's why you
19 have a trend in everything, so, you might have a
20 trend in energy efficiency on its own, how is
21 that modeled?

22 A (Walker) Sure. We can do that. So, let's take
23 two examples. We'll take energy efficiency,
24 because you specifically had mentioned it, and

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1 I'll take ground-mounted solar as another topic.

2 So, when we -- when, and I'm going to
3 start with the ground-mounted solar side, so,
4 when we model the solar forecast component of the
5 station forecasts, what happens is it is a
6 combination of top-down and bottom-up forecast
7 modeling, meaning we will look at projections
8 from the New England ISO, we look at our historic
9 trends of adoption in the state.

10 And then, starting now, what I
11 mentioned in the morning, we have a tool called
12 "GridTwin", which let's us look at every single
13 piece of property in the State of New Hampshire,
14 and basically rank that on an economic rate of
15 return for potential projects. That will
16 include, you know, projected interconnection
17 costs, size, cost of the property, what does it
18 cost to develop, and then rank those.

19 So, if we are at the state level, from
20 looking at the ISO data, have a projection there
21 that says, I'm going to take a random number,
22 it's 100 megawatts next year, then the parcel
23 data will help us inform where we are going to
24 put those 100 megawatts on each station. That's

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1 ground-mounted solar.

2 Rooftop solar, slightly different, but
3 we're not looking at properties, we're looking at
4 where people have roofs, they will show up in
5 different areas. Where there's a lot of roofs,
6 typically, no ground-mounted shows up, and vice
7 versa.

8 For the energy efficiency, there's two
9 components to energy efficiency. There's the
10 naturally occurring energy efficiency, and then
11 there's the one we incentivize through our
12 program. The naturally occurring one is what we
13 capture in our econometric model, right? So,
14 that looks at the last ten years of peak load.
15 And, if that peak load, for example, has stayed
16 flat, while we had an economic growth, there
17 might be several reasons why that's that way. It
18 might be because a lot of people put rooftop
19 solar in place. That might drive down the peak.
20 It might be that a lot of people, you know, did
21 their own energy efficiency measures, swapping
22 out the light bulbs, new HVAC systems.

23 We, without -- we don't precisely know
24 what's happening in each of those customer

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1 levels, we only see the aggregate results. So,
2 our forecast will automatically bake that rooftop
3 solar, that energy efficiency into it, because
4 we'll see, for example, a 2 percent economic
5 growth, with a flat substation load. So, if we
6 continue forecasting 2 percent growth, we'll
7 assume it's a flat substation load, even though
8 the load might be growing, you know, people put
9 more solar on the roof and will do more of their
10 own energy efficiency.

11 Then, on top of that flat forecast, we
12 say "Well, we have an energy efficiency program
13 with X millions of dollars. We are expected to
14 do this much load reduction across the
15 territory", and we break that done, as discussed
16 in the morning, by station. Now, that gets
17 subtracted out of that forecast. So, what was a
18 flat forecast might now be trending down, because
19 there is another program on top of it that
20 reduces that.

21 And now, comes the third thing is,
22 when we do the solution evaluation, as outlined
23 before the break, we will look at that
24 resulting profile. And we will evaluate what

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1 happens if we do a geo-targeted energy
2 efficiency right on top of that. Same thing
3 could go for rooftop solar/ground-mounted solar
4 solutions, *et cetera*.

5 So, that's kind of how that works. I
6 know that -- does that answer the question?

7 Q Yes. But, really, so, there is -- you take a
8 look at those individually, for the naturally
9 occurring, for example, you know, energy
10 efficiency, it is based on some data, historical
11 data, or not?

12 A (Walker) Well, like I said, it is based on the
13 historical peaks, which will show that naturally
14 occurring energy efficiency. We don't have the
15 ability to splice out what each individual
16 customer is doing. And, so, if --

17 Q Let me just -- let me clarify where I'm trying to
18 go. So, you have three or four different kinds
19 of, you know, for example, we talked about energy
20 efficiency, we can also talk about electric
21 vehicle load, okay, all of that. Do you have
22 enough visibility as to how those can be behaving
23 differently, and how that might impact things in
24 the future? That was my intent.

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1 A (Walker) When you --

2 Q So, do you rely on some data from somewhere? Or,
3 are you simply, like you described, I'm just
4 looking at overall what's going on, and let's
5 see, just draw a line, okay, to an ordinary least
6 square regression, figure out how things are
7 going to progress, then let's worry about
8 adjusting for the utility's additional energy
9 efficiency programs, as well as what you might
10 consider NWA otherwise.

11 A (Walker) Uh-huh.

12 Q So, that was my question. Do you have enough
13 visibility into different components at this
14 stage?

15 A (Walker) So, and it depends on the components,
16 right? So, we know where rooftop solar is going.
17 That goes right into our interconnection process.
18 So, we're fairly familiar with that data. We
19 know where ground-mounted solar is going, we're
20 very familiar with that data.

21 Energy efficiency, again, I do not know
22 who is screwing out which light bulb, and putting
23 in a new one. That I don't have the visibility.
24 That is a linear regression model, but that's

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1 different.

2 So, it depends a bit on the technology
3 we're looking at here, and just in terms of what
4 data do we have access.

5 Electric vehicles is, again, very
6 interesting question. Right now, we don't have
7 access to RMV [sic] databases to see where
8 electric vehicles are going, for example. So, we
9 have to use different models to estimates that.

10 Rooftop solar, again, we control that
11 process. We have the data.

12 CMSR. CHATTOPADHYAY: Okay. I'll try
13 to make it easier for you, Chair Goldner. So,
14 I'm just trying to stick with fewer questions
15 than I originally planned.

16 BY CMSR. CHATTOPADHYAY:

17 Q Do you have visibility on distributed storage
18 opportunities?

19 A (Walker) Can you clarify, "distributed storage"
20 is -- what are you looking at, large-scale
21 systems or that behind-the-meter?

22 Q Yes. Let's talk about both of them.

23 A (Walker) So, I would like to defer to Mr. Moawad.
24 We get interconnection requests for both large

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1 and small-scale storage, right?

2 A (Moawad) Correct. We mainly get --

3 WITNESS MOAWAD: Sorry. Can you guys
4 hear me?

5 CMSR. CHATTOPADHYAY: Yes.

6 WITNESS MOAWAD: Sorry.

7 **CONTINUED BY THE WITNESS:**

8 A (Moawad) So, we do get quite a few
9 interconnection requests for small storage
10 systems, 100 kilowatt and less. We do not have
11 interconnection requests for large storage
12 systems, at least volumewise, we don't have a
13 lot. We may have a few that's currently in
14 process. But we have not had a lot of those
15 larger systems greater than 100 kilowatt.

16 BY CMSR. CHATTOPADHYAY:

17 Q Are you just talking about New Hampshire or are
18 you talking about your other jurisdictions as
19 well?

20 A (Moawad) No. This is specifically for New
21 Hampshire.

22 A (Walker) And the other jurisdictions have seen a
23 significant uptick in large-scale storage
24 development. And, to clarify, we see all of the

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1 interconnections. It's just a question of how
2 many interconnections are being requested. And
3 that's, on the large-scale solar -- storage, just
4 not that much yet.

5 A (Moawad) Correct.

6 Q So, let's go to Exhibit 1, and Bates Page 050.
7 Sort of a general question, but I want to get a
8 sense. Let me know when you're there.

9 A (Walker) Uh-huh. I'm there.

10 Q Okay. So, at the end of that, at the end of the
11 page, there is a discussion about "Eversource
12 developed a list of potential NWS solution
13 candidates that was shared with the Staff and the
14 OCA in August 2020." Okay. Is that part of the
15 record?

16 A (Walker) I would have to defer to my colleagues.
17 As you mentioned, and I, clearly, that was before
18 my time.

19 A (Freeman) I believe that is in the record. If
20 you give me a second, Commissioner, we will try
21 to find the reference to that list.

22 WITNESS FREEMAN: May we confer? Is
23 that okay?

24 CMSR. CHATTOPADHYAY: Absolutely.

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1 WITNESS FREEMAN: Okay.

2 [Witnesses conferring.]

3 **CONTINUED BY THE WITNESS:**

4 A (Freeman) So, Commissioner, we conferred, and we
5 believe, subject to check, that the list was not
6 included. We did -- the list did settle on
7 Loudon as the location that met all the criteria
8 that we had agreed to. And that I do have a list
9 that shows Loudon at the top.

10 But I don't believe that the actual
11 list of all the stations was submitted into the
12 record.

13 BY CMSR. CHATTOPADHYAY:

14 Q And I understand that this docket is going on for
15 a long time. So, when you say, later in that
16 page, "Given the additional discovery from the
17 Staff, and other considerations pertaining to the
18 NWS candidates, as of the date of this
19 submission, the Company, Staff and OCA have not
20 yet identified the candidate that would be the
21 focus of the more detailed analysis." When you
22 talk about "Loudon", is that the identified
23 candidate?

24 A (Freeman) That is the identified candidate,

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1 Commissioner.

2 A (Walker) Yes. And the report that we did with
3 the detailed study in Loudon is in Exhibit 3,
4 Appendix 2-A.

5 Q Okay. Just out of curiosity, if you go to
6 Exhibit 2, Bates Page 108, let me know when
7 you're there.

8 A (Walker) This is for -- I'm sorry, exhibit?

9 Q Exhibit 2.

10 A (Walker) Okay. Okay.

11 Q What is "ENTS"? "The ENTS builds its screening
12 process." And, again, I'm --

13 A (Walker) Oh. I think that was a very old
14 abbreviation for the Eversource non-wires
15 screening tool set.

16 Q Okay.

17 A (Walker) "Eversource Non-wires screening", and
18 then "Tool Set".

19 Q Okay.

20 A (Walker) So, I think that has since been dropped
21 out of this. That was an old abbreviation we
22 used.

23 Q So, let's -- please confirm that I understand
24 this correct. So, if you have more than two

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1 years to deal with an exigent situation, I mean,
2 more than two years is probably not exigent, but
3 assume it is, that's when you can actually take
4 care of -- you can look at an NWA, right? Just,
5 you know, I'm just trying to get it intuitively.
6 But, if it's less than two years, you --

7 A (Walker) Are you referring to a specific cite on
8 the page here?

9 Q No. But this was just on the ENTS. But I'm
10 just --

11 A (Walker) Yes. So, --

12 Q I think that is discussed somewhere, so just bear
13 with me, I think.

14 A (Walker) So, -- yes. So, --

15 Q I'm talking about the criteria.

16 A (Walker) So, as I've mentioned in the beginning
17 of today, our original criteria were for three
18 years.

19 Q Three years.

20 A (Walker) Three years, \$3 million, and not related
21 to asset health or asset condition. Now, again,
22 as I said -- I have agreed to take that down to
23 two years as an evaluation, and as well go down
24 from three years to \$1 million and -- \$3 million

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1 to \$1 million, and include asset health by a
2 case-by-case basis.

3 Q Yes. The number, generally, is not the focus for
4 me. What I'm trying to understand is, typically,
5 as you were doing it until now, which is you said
6 "three years".

7 A (Walker) Uh-huh.

8 Q When will you look at other solutions? Let me
9 put it differently. When you find some issues,
10 when you're trying to plan into the future, do
11 you usually get anything beyond three years?

12 A (Walker) Yes. So, typically, these are the
13 larger substation projects, all right.
14 Substation upgrades that are required due to
15 forecasted capacity issues. And that's why we do
16 forecasts ten years out.

17 And perhaps a bit of context here.
18 And, so, our substation projects take a long time
19 to plan, permit, and build. That's a multiyear
20 process. That's why we forecast and that's why
21 we plan. And, pardon me, but, if we could, you
22 know, snap our fingers and a substation is there,
23 we wouldn't need forecasting, because we could
24 build instantaneously. For the distribution

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1 side, feeders, that horizon is smaller, because
2 it's much easier to point than a large
3 substation.

4 So, when we talk about that three-year
5 limit, essentially, that focuses the NWA effort
6 on the large and expensive capital projects --
7 I'm sorry, substations. Based on our experience,
8 experience across the country, those are the
9 projects that have the highest probability of
10 succeeding as an NWA. And you have something
11 that's a very expensive station upgrade, because,
12 otherwise, alternative solutions do cost money.
13 Developing a battery storage or an energy
14 efficiency program comes with upfront costs, and,
15 for most of those solutions, it comes with --

16 *[Court reporter interruption.]*

17 **CONTINUED BY THE WITNESS:**

18 A (Walker) -- running costs, that are significantly
19 above what a traditional solution is like. So,
20 you have to be deferring a very expensive
21 traditional solution.

22 And, to avoid the unnecessary overhead
23 of, basically, going through every \$100,000
24 project, doing an NWA comparison, full well

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1 knowing that a deferral value of \$100,000 is
2 \$20,000 maybe, we're not going to do an NWA
3 project for that amount of money, that isn't
4 going to fly. And we are much faster deploying
5 the traditional solution and much more
6 cost-effective. That's why that cutoff exists.

7 And, again, our original number was
8 "three years", but we've agreed to take a look at
9 the two years, to see how many more projects
10 would be then included. And, of those number of
11 projects, call them X, included, how many of
12 those pass the screening positive, and then make
13 a decision on the viability of that move.

14 So, to put this in a bit of context,
15 say, 100 additional projects are included, and we
16 spend two man-days, each one, so we spend 200
17 man-days evaluating that, that's an engineer
18 full-time a whole year, and one of them comes to
19 fruition. Now, you have to figure is that worth
20 the investment or not. But, if 40 come to
21 fruition, and the deferred value that was
22 captured is in the tens of millions, good. And
23 we will move the limit up.

24 BY CMSR. CHATTOPADHYAY:

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1 Q Going to Exhibit 16, this is the Department of
2 Energy's testimony, I mean, you don't need to
3 necessarily go there, I'm just trying to -- there
4 was a mention in the testimony that "CVR has yet
5 to be implemented in New Hampshire."

6 Can you give me a sense of whether you
7 are pursuing CVR in New Hampshire at all? And
8 also give me a sense of what is going on in the
9 other states that Eversource is in?

10 A (Walker) Yes. So, --

11 A (Freeman) I'll speak to New Hampshire here, and
12 then I'll let Mr. Walker speak to the other
13 states.

14 So, this goes back to the question that
15 Attorney Kreis had asked about grid
16 modernization. And we consider VVO, Volt-Var
17 Optimization, to be one of those key grid
18 modernization projects that would be accelerated,
19 and allow us to adopt quickly with a grid
20 modernization program. And this is how it was
21 done in Massachusetts, which Mr. Walker will
22 speak about.

23 We do understand that we have a duty to
24 modernize the system. We are not standing still.

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1 We are trying to rate base as many grid mod.
2 programs as we can within the confines of the
3 budget. So, that is how we were able to do DMS
4 in Massachusetts. That was how we were able to
5 do PowerClerk, that is how we were able to get
6 Synergy in Massachusetts.

7 VVO is one of those things that we are
8 looking at. It requires the communication
9 infrastructure, it requires the intelligence, it
10 requires us to deploy a significant amount of
11 capacitors, upgrade regulators, upgrade the LDC
12 controls, and be able to tie them all back into
13 central server, so we can flatten the voltage and
14 drop it down through VVO.

15 You know this. I'm just kind of
16 describing it for the layperson. We would love
17 to do that in New Hampshire. But, to the extent
18 that we can fit that into the rate base is
19 something that we can consider. But, given the
20 grid modernization program, we can accelerate
21 adoption of these technologies much faster.

22 With respect to the other states, Mr.
23 Walker.

24 A (Walker) I can basically speak, for example, in

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1 Massachusetts. VVO and, by extension, CVR, is
2 part of the grid modernization program and being
3 deployed at key stations. With everything that
4 Mr. Freeman said, VVO and CVR, not to confuse it,
5 but, essentially, based on the same technology,
6 you need to have a VVO scheme in place to conduct
7 CVR. CVR is another objective function of VVO.
8 So, yes.

9 Q Go ahead.

10 A (Johnson) I just want to correct, Mr. Freeman
11 just misspoke slightly when he talked about DMS.
12 We're doing DMS in New Hampshire. And, really,
13 for the reliability benefits of doing a
14 Distribution Management System, which allows for
15 a more automated response of your distributed
16 automation. We're not requiring a dispatcher to
17 interact. So, that's actually in the process of
18 being implemented right now.

19 And also, we've continued with a
20 certain level of deployment of, you know, DSCADA
21 devices, pole-top automated devices, some level
22 of replacement of old electromechanical relays
23 with numerical, but, you know, at a very limited
24 pace, because of the funding that's available.

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1 Just, again, we are doing what we can,
2 really, to put the base infrastructure in place
3 upon which some of these other technologies
4 require. I mean, you need to have, for example,
5 all those electromechanicals replaced with
6 numericals, in order to be able to do, you know,
7 VVO and those types of things effectively.

8 Q So, some of them will be used soon?

9 A (Johnson) Well, we use, not for VVO or
10 conservation voltage, but, I mean, for example,
11 numerical relays, you know, they provide us
12 greater flexibility, as far as settings for
13 protection schemes. They allow us to interrogate
14 those devices at the time that we have an event
15 to locate fault locations. And we're using them
16 in DMS, both to identify, at some point, fault
17 locations, but also to automatically, you know,
18 do switching to self-heal the system. Right now
19 it's in an advisory mode. But, yes.

20 Q But those same systems can be used to reduce load
21 in the future?

22 A (Johnson) Right.

23 Q Okay.

24 A (Johnson) They would be part of a VVO system,

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1 because you need that intelligence.

2 CMSR. CHATTOPADHYAY: Yes. I think
3 that's all I have. And, Chairman Goldner, you
4 are eager to go. So, let's start.

5 CHAIRMAN GOLDNER: Okay. So, we
6 probably won't get all the way through
7 Commissioner questions today. So, we should plan
8 tomorrow on the -- I will have some questions
9 before we run out of time. But the Eversource
10 witnesses should plan on coming back tomorrow
11 morning. And we'll begin again with Commissioner
12 questions. I don't think it will take long
13 tomorrow, and then we'll move to redirect with
14 Attorney Ralston. So, just to set expectations.

15 So, I'll ask some questions, and we'll
16 see how far we get, and then -- but we'll adjourn
17 sometime between 4:30 and 4:45.

18 Okay. So, I'll start with, you know,
19 this should have been the perfect time to have an
20 LCIRP review. It's actually the inverse,
21 Attorney Kreis, no offense, of what Attorney
22 Kreis said. What I mean by that is that, this
23 was set in 2020. The Company could have come in
24 here today and shown us, "Hey, we got these

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1 programs, we've executed these programs. Look,
2 one fell off the end of the bus or the end of the
3 ship, but everything else was executed, and look
4 how smoothly we executed." And, you know,
5 honestly, I'm not getting that feeling today.

6 So, it was a great chance to build
7 credibility in the forecasting process. And I'll
8 just say I think the Company fell a little short.

9 So, with that -- with that, I'll kind
10 of start into some questions.

11 BY CHAIRMAN GOLDNER:

12 Q You know, I wonder -- I wonder, when you present
13 to your president, what do you show him? I don't
14 think you show him a thousand pages of details,
15 right? And, to be fair, you know, the Commission
16 asked you for a lot of detail. So, you supplied
17 what the Commission asked for.

18 But, when you present to your
19 president, I assume, when he's approving a plan,
20 you know, there's some executives that go in,
21 they present to him. There's, you know, 15, 20,
22 30 pages of slides, he reviews your, you know,
23 LCIRP, for lack of a better description. I also
24 assume that he wants to know what that turns

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1 into, your capital plan. How much, what does
2 this mean for us from a rate base, from a capital
3 plan, from an overhead expense? You look at the
4 whole picture.

5 So, my first question is, what are you
6 showing your executive management? And why
7 doesn't the Commission and the Parties see
8 something similar?

9 A (Johnson) I'll take that one. And the timing is
10 appropriate, because we're approaching the time
11 of year right now where we create our long-range
12 plan, which is five-year plan.

13 As far as what is presented to the
14 president, each of the areas of, whether it's
15 asset management, load growth, system planning,
16 you know, all of those departments, you know,
17 produce what they anticipate the need is over the
18 next five years, including grid mod., including
19 all of those various elements.

20 And this is the time right now where we
21 meet regularly and meld that into the five-year
22 plan. And, you know, admittedly, you know, the
23 system planning items are easier to forecast out
24 into the later years, because of the lead time

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1 that you need on the distribution line side,
2 because they're such shorter term, we tend to be
3 quite specific in the very first year, the second
4 year, but beyond that, it's, frankly, it's a more
5 plugged-in approach. But identifying the needs,
6 and you don't exactly what your needs are going
7 to be for --

8 [*Court reporter interruption.*]

9 WITNESS JOHNSON: I'm sorry, I'm
10 talking way too fast. Sorry.

11 **CONTINUED BY THE WITNESS:**

12 A (Johnson) We don't know, at the distribution
13 line, because it is such a localized issue, with
14 a URD development going in, you know, a
15 commercial customer going in, or coming off the
16 system, can drastically drive what we need to do
17 there.

18 And, also, looking at reliability,
19 every year we have a new worst-performing circuit
20 list that is driving what we develop for
21 solutions to address those circuits that are
22 performing poorly.

23 So, those are all elements that come
24 into and determine what we propose for the

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1 upcoming year.

2 BY CHAIRMAN GOLDNER:

3 Q What does your executive suite see, though, when
4 you're presenting to them? I assume that it may
5 be the VPs go in, or maybe at the director level,
6 there's presentations to the president, and
7 you're going through what you're going to present
8 to the parties and the Commission, and you're
9 getting alignment. What does that look like? I
10 assume your president is looking at pretty
11 high-level data?

12 A (Johnson) Yes. Initially, it's very high-level.
13 Throughout the year, though, as we move forward
14 with the Plan, and we get into the fall and
15 actually establish the following year's capital
16 budget, it's at that point that projects are
17 going through the approval processes. And they
18 have talked quite a bit about substation projects
19 going through the Solution Design Committee, and
20 going through EPAC.

21 For the distribution line projects,
22 it's a state-level body called the "New Hampshire
23 Project Approval Committee", which I chair. But,
24 again, it's all the directors and managers in New

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1 Hampshire. And, with us, they come in for
2 initial filing, and, typically, a full funding
3 Project Authorization Form. But each of those
4 forms goes to the president. And, in fact,
5 depending on the dollar level for delegation of
6 authority, require his sign-off in our -- in
7 Power Plan, which is the delegation of authority
8 system that's --

9 Q He probably sees everything above a million or
10 something?

11 A (Johnson) For him, it's -- I want to say it's --
12 I think it's 3 million.

13 Q Three million, okay.

14 A (Johnson) Right.

15 Q And who has like a million authority? Like, how
16 does that work within your system?

17 A (Johnson) So, I think I have up to 500,000.

18 Q Okay.

19 A (Johnson) And then, from there, it really jumps
20 for his approval.

21 Q Okay.

22 A (Johnson) And, above that, it actually has to go
23 to the Chief Operating Officer of Eversource
24 to --

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1 Q So, you have five -- I'm sorry. You have 500,
2 the president has 3 million. And then, above
3 that, it goes to somebody at Eversource
4 corporate?

5 A (Johnson) Yes.

6 Q Okay. Okay. That makes sense. So, my
7 encouragement for future LCIRPs is to really
8 assume that the Commission is like your -- you
9 know, you're presenting to the same sort of -- in
10 the same sort of way, where, you know, you're
11 painting with a broad stroke, at a high level.
12 And then, yes, all the details are necessary, we
13 require a lot of the details; totally understand
14 that. But, really, start with a higher level.

15 I know a lot of the people in this room
16 weren't associated with the original draft. But,
17 you know, frankly, it's pretty weak.

18 Okay. So, one of the other things I
19 was expecting to see, this was based on prior
20 orders, was a capital plan spend by year. Now, I
21 did find one in Mr. Dudley's testimony, but not
22 in the Eversource testimony. So, that's kind of
23 weird.

24 But I'm hoping you can kind of walk me

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1 through your view of the five-year capital plan,
2 and how that relates to the forecast? Which I'm
3 looking at on Bates 016, Exhibit 1. And kind of
4 help me understand, big picture, what's happening
5 here.

6 And what I'm looking at -- sorry,
7 Mr. Patnaude, I'll slow down. What I'm looking
8 at is a load forecast that we've spent a lot of
9 time talking about today, that's going up at
10 about 0.4 percent per year, and a capital plan
11 that's going up at something like 3 and a half
12 percent per year, or 3 percent per year. Those
13 are quite different. And I'm just trying to
14 grasp what's going on in the Company? Why isn't
15 the forecast that we spent a lot time talking
16 about more in line with your capital plan?

17 A (Johnson) If I can, I'll start, and others can
18 add, if they would like.

19 But it's actually a relatively small
20 percentage of our capital plan that is
21 load-driven.

22 Q It looks like it's mostly reliability, right?

23 A (Johnson) Well, actually, most of it is
24 nondiscretionary, you know, service to new

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1 customers, obsolescence, in other words, outage
2 response, work for New Hampshire DOT, some third
3 party work that's non-reimbursable. There are
4 lots of annuals.

5 I mean, for example, just the
6 transformer annual, to buy and pre-capitalize
7 overhead transformers is on the order of 14
8 million. New service annual is anywhere between
9 15 and 20 million. So, I mean, those annual
10 buckets eat up a lot of it.

11 And, then, yes, reliability, and within
12 that reliability, that includes reliability for
13 projects, which include asset condition in
14 right-of-way, street-side, and substation
15 projects in there.

16 Q It makes sense. And I'm looking at Bates 111 of
17 Mr. Dudley and Mr. Willoughby's testimony, and I
18 know it's not your testimony, but it's an
19 Eversource slide. 111 -- or, Exhibit 17, sorry.

20 And it's a really nice slide that shows
21 your capital forecast. And this is where I had
22 the idea that reliability was the primary driver,
23 because, if you look at that chart, it's the
24 biggest portion of the chart.

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1 And I won't talk about the numbers,
2 because it's confidential. But I'm just trying
3 to get a handle on, you know, you've got about --
4 let me ask you this. Is your total capital
5 number a confidential number? I'm looking at the
6 confidential sheet.

7 CHAIRMAN GOLDNER: Do you know if
8 that's confidential, Attorney Ralston? I'm
9 looking at Exhibit 17. And I'm looking at Bates
10 Page 135. I'm moving on you a little bit here.

11 MS. RALSTON: And which number are you
12 asking about?

13 CHAIRMAN GOLDNER: I am asking about
14 your "Net Utility Plant Number, on Line 3 of 135
15 of Exhibit 17. I don't think it is, but I'm not
16 sure.

17 MS. RALSTON: I don't -- I don't think
18 so.

19 CHAIRMAN GOLDNER: Okay.

20 BY CHAIRMAN GOLDNER:

21 Q So, your net utility plant number was about
22 1.7 billion, and it shows it growing to about
23 2 billion, on a relatively flat customer base, a
24 relatively flat load. And, so, you know, just

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1 it's -- in a capital-intensive business, which is
2 where I come from as well, you know, usually
3 you've got massive depreciation roll-off, you're
4 replacing that depreciation roll-off with new
5 investment. And, if you have a flat customer
6 base, in a lot of businesses, you're driving to a
7 pretty flat what you would call here a "net
8 utility plant".

9 So, I'm just trying to understand, in
10 the big picture, what's really driving this
11 growth? And, to me, this is a big portion of the
12 value of an LCIRP process, like, big picture,
13 what's going on. You have plans for the future.
14 You share that with the parties and with the
15 Commission, and we get our heads around kind of
16 what you're trying to do. So that, when you come
17 in for a rate case, it's not, you know, DEFCON 1.

18 So, that's what I'm trying to get my
19 head around. And maybe somebody can share the
20 Company's philosophy or thinking with respect to
21 net utility plant and the customer base, and even
22 the load being flat. We talked a little bit
23 before, I think, Dr. Walker, you mentioned in the
24 next 20 or 30 years there will be a significant

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1 increase in the electrical load. And, you know,
2 that's probably true. But, in the next nine
3 years, according to your own forecast, it's
4 pretty flat.

5 A (Johnson) So, if I may, a few, a couple of
6 things.

7 Number one, there's a time in our
8 history, as I think you know, that we spent very,
9 very little, because of certain things that were
10 going on in our capital investment, was hardly
11 anything into the system. And, so, for the last,
12 probably, 15 years, we have been investing
13 heavily, to catch up with some very aging
14 infrastructure. We still have, you know, our
15 lines in right-of-way are typically 1935/1940
16 vintage. So, there's a lot of investment going
17 there. A lot of our non-volt substations are
18 1950 vintage. So, yes, there's been a lot of
19 investment due to -- due to that.

20 There's also been, as you know, as part
21 of REP, back in 2010 through 2000 whatever, you
22 know, we started with a \$10 million Reliability
23 Enhancement Program, it got bumped up to \$40
24 million dollars to address things, because our

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1 reliability was getting progressively worse for
2 many years, and that additional spending has
3 helped us to turn the tide. So, you know, as far
4 as -- that's a little bit of the history of
5 how wide the increase has been.

6 Let me talk briefly about load growth.
7 It is true that, when you look across and you
8 aggregate the entire load within New Hampshire,
9 it's relatively flat. With that said, there are
10 still pockets of growth. And not just that
11 address higher-level issues, such as bulk
12 stations, but, locally, I can tell you that a lot
13 of our system is spent beyond step transformers,
14 where, as we built out the system, we took a 34.5
15 out and then we put in step transformers to feed
16 the older, lower voltage areas. You know, we are
17 seeing tremendous growth out beyond those areas.
18 And, so, especially this past year, which isn't
19 even included in here, but we had a couple
20 summers of hot weather. You had the COVID
21 situation, you had a lot more work from home.
22 We've seen significant growth beyond our step
23 transformers, and which result in a significant
24 number of projects to have to -- to address that.

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1 So, while at the global level, load
2 growth is relatively flat. There are certainly
3 pockets where there is significant growth. And
4 there's growth within, if you've been to
5 Portsmouth, you see it; if you go out to Pease,
6 you see it. There are pockets of continued
7 growth. It's just not -- it's just not
8 everywhere.

9 And the other thing I'll just add, just
10 anecdotally, we used to put in a 25 kVA to feed
11 three decent-size homes. My home is fed, there's
12 three homes my size that are fed by a single 25
13 kVA. We're having to put in 50 kVAs for single
14 houses today. And you would be amazed the number
15 of four or 5,000-foot -- square foot houses, with
16 two EV chargers in it, with, you know, tons of
17 central air.

18 So, anyway, my point is, there are
19 pockets that require investment by the Company to
20 address that growth piece of it.

21 Q And that's the -- I'm sorry. And that's the
22 benefit of an LCIRP plan, is that, if you need to
23 ramp up something for what sound like good
24 reasons, it's going to roll over at some point,

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1 at some point you're going to be "Ah, yes, we're
2 caught up." And then, the Commission and the
3 parties can see, you know, "Yes, okay, we need
4 three or four more years of growth", and then it
5 rolls off and everything levels out.

6 That's, again, the benefit of
7 helping -- bringing everyone up to speed. So, I
8 think, for the future, that would be something
9 important to recognize.

10 And then, when forecasting capital, you
11 do have some cuts in here, again, it's in
12 Mr. Dudley's testimony, not Eversource testimony.
13 So, I would encourage it to be in your own
14 testimony moving forward. But, you know,
15 different cuts of data that are sort of obvious.
16 You know, for example, if you're trying to help
17 people understand what you're investing in grid
18 mod. -- or, smart grid, rather, you have an
19 enhanced system visibility, you'd have automation
20 technologies, you could have optimization
21 technologies. You'd have those broken out, so
22 people can see "Oh, okay. This is what
23 Eversource is doing to help come up to speed in
24 this particular area."

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1 So, that kind of visibility, just
2 simple tables, simple graphs, like what was in
3 Mr. Dudley's testimony, extremely helpful to
4 bring people up to speed. I don't mean to beat
5 that dead horse, but just referring to it.

6 A (Johnson) No, no, no. If I may, that, what he
7 submitted was the long-range plan from our --
8 that we produced.

9 Q Right. Right. It was just kind of odd that it
10 was in his testimony, and not Eversource's. But
11 I'm glad it's in there. So, in the end, we have
12 what we need.

13 But, you know, my encouragement would
14 be, and, you know, maybe even in this docket,
15 we'll see, about giving the parties and the
16 Commission a cut of data that's helpful, and
17 helps explain what the Company is trying to
18 accomplish.

19 This question I think might have been
20 asked earlier, but I didn't -- I'm not sure I
21 followed the answer. So, relative to various DER
22 implementations, for example, hooking up a
23 residential solar array, do you have discrete,
24 you know, cost-benefit analysis? So, "Okay, we

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1 have a residential array. We know it's going to
2 cost this much to set it up. The benefits look
3 like this." Is there -- do you have a discrete
4 analysis that shows what happens with each DER?

5 A (Walker) So, in terms of the forecast, is what
6 you're asking?

7 Q Yes. Yes. Yes.

8 A (Walker) So, going forward, and this will then be
9 fully included in the next LCIRP, we are
10 building, and we can go into more details on the
11 forecast here, what's called "adoption rate" or
12 "adoption propensity" models. And they will look
13 at the economics of rooftop solar for customers.
14 That will include cost of equipment, cost of
15 installation, of course, those will be average
16 numbers for the state, that will include average
17 cost of energy. And then, we will look at
18 consumption values for the customers, and
19 basically create an understanding of -- we will
20 basically sort the customers by type or class,
21 going way more detailed than "residential" and
22 "commercial", you know, defining different types
23 of behavior, is it a single-family/multi-family
24 home, there's a low/high/medium consumption, X,

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1 Y, Z. And then, build, basically, a rate of
2 return model for them.

3 And the idea is to say, if 100
4 megawatts of solar are interconnected a year,
5 where do they go? And the obvious choice would
6 be to, in our model, would be to say "well, we
7 will take the customers with the fastest rate of
8 return on the rate of investment." Is that two
9 or three years, as opposed to the one that has
10 five years or six years?

11 So, that's how we would go about it.
12 And, yes, so that would be -- it's being modeled,
13 and we're rolling that out to New Hampshire this
14 or next year to have that ability.

15 Q Okay. Very good. And I think, you know, a
16 one-pager on those kinds of things, very helpful,
17 right? "Here's the benefit. Here's the cost.
18 Here's how it looks to Eversource." Helping
19 people understand what it is or how you're
20 looking at it. I know there are three or four
21 cuts in there. So, maybe it's a three or
22 four-pager. But you know what I mean, something
23 high level.

24 All the detail, it's fine, put them on

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1 Page 1004. But, you know, give us kind of a
2 high-level view, please, in the next time around,
3 so we can understand what you're doing. Because
4 that analysis is great, that's just what we want
5 to see.

6 A (Walker) Yes. And it's not a three or
7 four-pager, that is correct. But, in Exhibit 1,
8 under Chapter 5.1, we do outline what we are
9 planning to implement. And I'm looking for the
10 direct Bates number, please give me a second
11 here. I'm scrolling as fast as my laptop allows
12 me.

13 I will find it before we're done.

14 Q Take your time.

15 A (Walker) Yes. So, this is -- starts bottom page,
16 Bates 016. "In addition to the process described
17 above" --

18 Q I'm sorry, the Bates page again?

19 A (Walker) Sixteen (016).

20 Q Oh, 016. Okay. I thought -- I was on 300
21 hundred and something.

22 A (Walker) Oh, no, no. Exhibit 1, Bates 016.

23 Q Okay.

24 A (Walker) The last two lines is where it starts:

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1 "In addition to the process described above,
2 Eversource will be adopting adoption-rate
3 forecasts for specific technologies."

4 Q Yes. Okay.

5 A (Walker) And then, we go into a bit of a
6 description of how that works. Granted, this is
7 a paragraph, it's not three or four pages. But
8 we do have a little bit there.

9 CHAIRMAN GOLDNER: And that's why
10 Commissioner Simpson was earlier asking about
11 prior dockets and prior orders, to make sure that
12 what we ask for ends up in the order. And, so,
13 that's -- not to put too fine a point on it, but
14 it's important that, when the Company makes a
15 commitment, that it ends up in the LCIRP.

16 All right. So, just in the spirit of
17 time, I think we should pause here for the day.
18 I have a few more questions, the Commissioners
19 might have a few more tomorrow.

20 I will say that I personally spent a
21 decade as a planner. And I can tell you that I
22 know that, if your forecast is good and it works
23 and it's right, everyone is like "yes, that's
24 what you were supposed to do." And, when it's

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1 wrong, you get blamed, right? So, it's a tough
2 profession. And I appreciate the testimony
3 today, because I know it's a difficult task.

4 So, let's do this. We didn't get as
5 far today as I think maybe any of us wanted, or
6 it's at least more than I anticipated -- or, less
7 than I anticipated. So, I'm going to again defer
8 this question of the late-filed Partial
9 Settlement.

10 I'll ask, Attorney Ralston, if you
11 could -- maybe we could lead off tomorrow, if you
12 still want to move forward with that Settlement,
13 and you could let us know if you still want to,
14 and then we can work on dispositioning it.

15 The hearing time was set somewhat
16 unusually for this hearing, in tomorrow at 9:30.
17 I'm not quite sure why, honestly, but that's the
18 time that was set. So, we have it up at 9:30.

19 Again, as a reminder, the Eversource
20 witnesses should remain available.

21 And I'll just do a check-in before we
22 adjourn, if there's any other issues before we
23 adjourn?

24 *[No verbal response.]*

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1 CHAIRMAN GOLDNER: No? Okay. Very
2 good. We'll thank everybody. I'll thank the
3 witnesses in particular, a very long day, and
4 appreciate everything. And we are adjourned
5 until tomorrow.

6 ***(Whereupon the hearing was adjourned at***
7 ***4:40 p.m.; and the hearing to resume on***
8 ***March 8, 2023, commencing at 9:30 a.m.)***

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