1		STATE OF NEW HAMPSHIRE
2		PUBLIC UTILITIES COMMISSION
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4	21 South Fru)22 - 9:19 a.m. it Street
5	Suite 10 Concord, NH	
6		
7	RE:	DG 17-152 LIBERTY UTILITIES (ENERGYNORTH
8		NATURAL GAS) CORP. d/b/a LIBERTY UTILITIES:
9		Least Cost Integrated Resource Plan.
L 0	PRESENT:	Chairman Daniel C. Goldner, Presiding Commissioner Carleton B. Simpson
L1		Michael Haley, Esq., Asst. Atty. General (N.H. Department of Justice)
L 2		[Present from 9:19 a.m. to 10:15 a.m.]
L 3		Tracey Russo, Clerk
L 4		
L 5	APPEARANCES:	Reptg. Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
L 6		Utilities: Michael J. Sheehan, Esq.
L 7		Reptg. the Conservation Law Foundation:
L 8		Nicholas A. Krakoff, Esq.
L 9		Reptg. Terry Clark: Richard M. Husband, Esq.
20		Richard M. Husband, Esq.
21		
22		
23	Court Repo	orter: Steven E. Patnaude, LCR No. 52
2 4		

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2	APPEARANCES:	(Continued)
3		Reptg. Residential Ratepayers: Donald M. Kreis, Esq., Consumer Adv.
4		Julianne Desmet, Esq. Office of Consumer Advocate
5		Reptg. New Hampshire Dept. of Energy:
6		Mary E. Schwarzer, Esq. Faisal Deen Arif, Director/Gas Group
7		(Regulatory Support Division)
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4	1	Least Cost Integrated Resource	premarked
5		Plan {CONFIDENTIAL VERSION} (10-02-17)	
6	2	Redacted Least Cost Integrated Resource Plan	premarked
7		[REDACTED - For PUBLIC Use]	
8		(10-02-17)	
9	3	Direct Testimony of William Killeen, with Attachments (04-3-19)	premarked
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11	4	Testimony of Paul J. Hibbard, with Attachments, Testimony of Sherrie Trefry, and Testimony	premarked
12		of Eric M. Stanley, with Attachments $(06-28-19)$	
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3	EXHIBIT NO.	DESCRIPTION	PAGE NO.
4	10	Rebuttal Testimony of Francisco C. DaFonte, William R.	premarked
5		Killeen, James M. Stephens, and Kim N. Dao, with Attachments;	
6		Rebuttal Testimony of William R. Killeen, William J. Clark,	
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11	11	Rebuttal Testimony of Francisco C. DaFonte, William R.	premarked
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15		Testimony of Paul J. Hibbard $(10-25-19)$	
16		[REDACTED - For PUBLIC Use]	
17	12	Settlement Agreement (07-20-22)	premarked
18	13	New Hampshire 10-Year State Energy Strategy, New Hampshire	premarked
19		Department of Energy (July 2022)	
20	14	Liberty's response to Clark DR 5-9 (08-23-19)	premarked
21			
22	15	Liberty advertising at issue (Intervenor, Terry Clark's, Response to Settlement	premarked
23		Agreement, Attachment "B")	
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3	EXHIBIT NO.	DESCRIPTION	PAGE NO.
4	16	Testimony of Francisco C. DaFonte and William R.	premarked
5		Killeen Submitted in Docket No. DG 21-008 (01-20-21)	
6		[REDACTED - For PUBLIC Use]	
7	17	IPCC publication "The evidence is clear, etc." referenced in	premarked
8		Clark's Position statement (Tab 115) p. 9, Footnote 22	
9		(04-04-22)	
10	18	Pre-Filed Direct Testimony of William R. Killeen and	premarked
11		James M. Stephens, Bates Nos. 169-171, filed in Docket	
12		No. DG 17-198 (12-21-17) [REDACTED - For PUBLIC Use]	
13	19	Transcript of hearing (Morning	premarked
14		Session Only) filed in Docket No. DG 21-008 (10-06-21)	
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PROCEEDING

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I'm Commissioner Goldner. I'm joined today by
Commissioner Simpson. This is the final hearing
on DG 17-152, Liberty-gas LCIRP review
proceeding. We note that there is a Settlement
Agreement that has been presented by some of the
parties to this proceeding, specifically the
Company, the Office of Consumer Advocate, the
Department of Energy, filed on the evening of
July 19th, 2022.

We further note that the Conservation
Law Foundation and Mr. Terry Clark did not sign
the Settlement Agreement, and made filings
indicating their respective opposition to the
Agreement. Also, three other parties to this
proceeding, the Pipe Line Awareness Network of
the Northeast, the United Steel Workers Local
12012, and the Department of Environmental
Services have been silent on the question of the
Settlement Agreement.

The Commission needs to develop an approach to today's hearing that makes sense and that is administratively efficient. Our first

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         step is to take a roll call of appearances today,
 2.
         and then suggest our approach for today's
 3
         hearing.
 4
                   So, let's take appearances, beginning
 5
         with the Company.
 6
                   MR. SHEEHAN: Good morning,
 7
         Commissioners. Mike Sheehan, for Liberty
         Utilities (EnergyNorth Natural Gas).
                   CHAIRMAN GOLDNER: Okay. Thank you.
 9
10
         Conservation Law Foundation?
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                   MR. KRAKOFF: Good morning, Chairman
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         Goldner and Commissioner Simpson. For
         Conservation Law Foundation, this is Nick
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         Krakoff.
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                   CHAIRMAN GOLDNER: Okay. And Terry
         Clark and Richard Husband?
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                   MR. HUSBAND: Good morning. Attorney
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         Richard Husband, with my client, Terry Clark.
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                   CHAIRMAN GOLDNER: Thank you. Just a
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         moment please.
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                    [Short pause.]
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                   CHAIRMAN GOLDNER: Okay. And the
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         Office of Consumer Advocate?
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                   MR. KREIS: Good morning. I'm Donald
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         Kreis, the Consumer Advocate. With me today is
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         our Staff Attorney, Julianne Desmet. And, of
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         course, our job, by statute, is to represent the
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         interests of residential utility customers.
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                    CHAIRMAN GOLDNER: Okay. And the New
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         Hampshire Department of Energy?
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                   MS. SCHWARZER: Good morning, Mr.
         Chairman and Commissioner Simpson. I'm Mary
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         Schwarzer, the Staff Attorney with the Department
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         of Energy.
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                   CHAIRMAN GOLDNER: Okay. Are there any
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         other parties here today?
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                    [No verbal response.]
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                    CHAIRMAN GOLDNER: Okay. Seeing none.
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         Okay. Just a moment please.
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                    [Short pause.]
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                   CHAIRMAN GOLDNER: Okay. As a
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         preliminary matter, in the Settlement, there was
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         a clause, Section 2.2, that says "Without making
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         any specific findings as to the LCIRP's
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         compliance with the specific provisions of RSA
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         378:38 or 39", we'd like to sort of begin, as a
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         preliminary matter, of getting the parties'
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         comments as to how they see the Commission
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accepting this Settlement Agreement?

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MR. SHEEHAN: I can start. I think the other parties to the Settlement Agreement will have more input on it.

It is the Company's position that the Commission can make findings to conclude that the Company's 2017 LCIRP should be approved. And the record evidence already in, plus the testimony today, will provide the Commission with enough evidence to make those findings.

It's simply a -- so, that's the Company's position. I'll leave it to DOE and OCA to explain why this language that you just referenced is in the Settlement.

CHAIRMAN GOLDNER: Okay. Thank you. Attorney Kreis.

MR. KREIS: Thank you, Mr. Chairman.

The Least Cost Integrated Resource Plan that is before you in this docket covers a period that ends, I believe, in November of this year. And my perspective, as we worked to negotiate a settlement of this docket, which I've been working on with the Company for I think a period that really can be measured in years at this

point, is that it really just doesn't make any sense for the Commission to make any affirmative findings about whether -- whether the Company has adequately planned for a period that is now almost entirely in the past.

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And, so, from the OCA's perspective, the Settlement Agreement kind of sidesteps the issues of whether or not this LCIRP that's pending now meets the requirements of the statute. So, it's not surprising to me that you raised this as the first thing that you want some clarity about. Because, in a sense, the Settlement Agreement is deliberately vague on this subject. So, I'm acknowledging that.

I'm really not in a position to tell
you that you should not do or you should not
accept the position that the utility has just
laid out for you through Mr. Sheehan. I'm just
telling you that, from my perspective, as the
Consumer Advocate, I just don't think it serves
any useful purpose, from a public interest
perspective, for any of us to spend any time
really analyzing what's in a least cost
integrated resource plan that plans the past.

1 I hope that's helpful. 2. CHAIRMAN GOLDNER: Thank you. 3 Attorney Schwarzer. was. 4 MS. SCHWARZER: Thank you, Mr. 5 Chairman. 6 The Department shares the perspective 7 expressed by the Office of Consumer Advocate. 8 is, as well stated, that planning the past is problematic. We certainly agree with Liberty 9 10 that the record evidence would allow the 11 Commission to make findings that would satisfy 12 the statutory requirements in this lengthy case, 1.3 with a complex history. 14 There are just a few months to go. 15 this Settlement was an effort to reach agreement 16 in the most expeditious way possible on this 17 lengthy docket, as briefly discussed at the 18 status conference earlier. 19 CHAIRMAN GOLDNER: Okay. Thank you, 20 Attorney Schwarzer. 2.1 Just a moment, while we briefly caucus. 2.2 [Chairman Goldner, Commissioner 23 Simpson, and Atty. Haley conferring.] CHAIRMAN GOLDNER: Okay. So, we'll ask 24

the parties this question then.

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What is the purpose or the practical effect of approving an LCIRP for a period of time that is over? We'd like to hear your comments on that.

MR. SHEEHAN: The Company has three goals through today's hearing. And I think all three are embodied in the Settlement Agreement.

One is to approve the 2017 Plan; the second is to provide guidance for the next plan, and the third is to give us more time to prepare the next plan.

All three of those pieces are embodied in the Settlement.

To answer your question, "what's the purpose of approving the 2017 Plan?" As we discussed at the status conference, absent an approved plan or one actively under consideration, the companies cannot change rates. And we, obviously, have a step adjustment hearing we just went through. We have a cost of gas coming up. And, if the Commission were to extend the due date for the next one, there may be more rate changes in that interim period. So, that's probably the most important mechanical reason to

act on the 2017 Plan.

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I can say that, if you look at prior

IRP orders, sometimes the Commission will,

itself, kind of sidestep some issues and "accept"

an LCIRP with guidance for the next plan. And

that seems to be a way sometimes the Commission

has, again, reading between the lines, decided

not to maybe resolve some issues in that

particular IRP, we will accept it, and that has

not prevented the Company from rate changes

thereafter. So, that's another option, I think.

CHAIRMAN GOLDNER: Attorney Kreis.

MR. KREIS: Thank you, Mr. Chairman.

So, framing this in terms of objectives, the way Mr. Sheehan just did, we have several. One is to avoid regulatory chaos. And that goes to the RSA 378:40 problem that Mr. Sheehan just alluded to. In other words, I don't want to put this utility in a position where it literally is statutorily forbidden from increasing any of its rates in circumstances where it, obviously, needs to do that.

I mean, the Office of Consumer Advocate is never happy with rate increases. But we

acknowledge that, on occasion, they become a, I guess, necessary evil. And to forbid a company from increasing its rates would raise a raft of constitutional and statutory and practical issues that I think it would be in all of our interests to avoid. So, I'm trying to address RSA 378:40.

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Another objective from the perspective of the Office of the Consumer Advocate is to avoid setting precedents that will come back to haunt us in other LCIRP dockets. So, that is why I was very intent on Section 2.1 of this Settlement Agreement, because -- or, 2.2, excuse me, of the Settlement Agreement, because I didn't want to agree to anything that could then be kind of thrown back in my face, to be frank, in other dockets.

And the other issue that I have, and this goes to something else I wanted to say by way of a preliminary matter, I and I assume everybody else in the room is aware that, on August 8th, ten days ago, the Commission issued Order Number 26,664 in a different LCIRP docket involving the state's other natural gas utility, I'm talking about Docket DG 19-126, that's the

Northern Utilities' LCIRP docket.

It, too, dealt with a -- that docket also dealt with a long-ago filed LCIRP. It's in a different procedural posture. We filed a Motion for Rehearing of that order, I believe it was yesterday. And our position now is that, because a -- because rehearing proceedings are pending in that docket, that order is of no significance here. And I mention that, because the Settlement Agreement before you today, I think it's fair to say, is not easily squared with Order Number 26,664.

So, that brings me around to my last objective, which is to advance some of the approaches to least cost integrated resource planning that I think are in the public interest, that are laid out in the Settlement Agreement, and that are consistent with what the Commission, unfortunately, rejected in 19-126.

CHAIRMAN GOLDNER: Thank you. Attorney Schwarzer.

MS. SCHWARZER: Thank you, Mr.

Chairman.

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The Department would, in the first

instance, focus on the statutory requirement of 378:39, which requires the Commission to review LCIRP plans. This is certainly made problematic in light of the idea of trying to plan the past, which has four months to go, perhaps, that that is challenging. Nonetheless, the statute says that they shall be reviewed.

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And there is, of course, we believe that this Settlement provides specificity with regard to Liberty's next LCIRP, in a way that has been elusive in the past. But which, as the OCA has raised, is perhaps somewhat less clear, in light of the recent Order 26,664 in that other docket.

I guess, hypothetically, with regard to a thought experiment, the concern with RSA 378:40, which prevents utilities from seeking rate increases in the absence of a plan on file, might be of short duration were the Commission to take this LCIRP Settlement under consideration, until such time as the new plan was filed, sort of triggering a reboot, if you will, although that is purely hypothetical, and I have no idea for sure how the statute would apply in that

case. But RSA 378:40 does seem to suggest that, so long as the utility has an LCIRP on file with the Commission, pending review in the ordinary course of business, that the prohibition on a rate increase may no longer apply.

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Nonetheless, I believe the original question was "what the benefit of a settlement in this docket would be?" And, in order to avoid regulatory chaos, to comply with the Commission's obligations under RSA 378:39 and to -- and 40, and to achieve the granularity that this Settlement provides us, at least with, you know, acknowledging the other order, that is why the DOE believes it's important to be here today and to continue with this process.

CHAIRMAN GOLDNER: Okay. Yes, I think RSA 378 is pretty clear, in terms of the filing deadlines, and it says that the next -- that the next LCIRP for Liberty is "due October 2nd", I believe, which is only six weeks away. So, I would say not "four months", but six weeks.

And, just in terms of the other matters that are before us, in terms of other dockets and so forth, you know, there's not much, if any, you

know, sort of overlap here, or not much -- not much of a gap. If the Company were to file its LCIRP timely, on October 2nd, then all of these sort of "regulatory chaos" issues would go away.

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Just a moment, Attorney Schwarzer. So,

I would like to ask what the effect on the

parties would be if the Commission were to have

the parties turn their focus to the next LCIRP

and close this docket in the next six weeks?

MR. SHEEHAN: If we can get around the rate change issue, we would have no objection with that. A thought was just in my head and it just disappeared.

Yes. And to also underscore the statute, it prevents rate decreases as well. So, which, if we get into the winter, and we're having the cost of gas adjustments, we wouldn't be able to lower them either.

But, yes, if the Commission were to somehow keep this docket pending, until we file the next, and avoid the 378:40 issue, that's certainly an option.

Our concerns would be two-fold: We would not have received guidance on how to do the

next one. We would do our best. And we would not have the time to finish what we want to do.

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And, again, as you indicated during the structuring conference, you encouraged us to file something on time, and supplement as necessary, which would be the course we would have to take.

And I can certainly tell you, Josh and his team have been working incredibly hard for the last months putting together a plan. The core of it is the same, but there's a few turns that might happen that would require some additional work, depending on what those turns are.

CHAIRMAN GOLDNER: Okay. Thank you, Attorney Sheehan. Attorney Kreis.

MR. KREIS: If the Commission were to take that action, it would be, I think, inevitably rejecting the Settlement Agreement that's pending. And the general provisions of the Settlement Agreement, in Section 3.1, give us, and any other signatory to the Settlement Agreement, the right to notify the Commission within five business days of our disagreement with any changes, conditions, or findings. And, at that point, the Agreement would be withdrawn,

and we would, in essence, be back to the status quo ante.

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I, by negotiating this Settlement

Agreement, basically got the utility to commit to what I might characterize as a bit of a "reset", in terms of its approach to least cost integrated resource planning.

I, as the Chairman pointed out, that
October deadline is just a few weeks away. And I
would be really surprised if the Company were
able to create a Least Cost Integrated Resource
Plan in six weeks that meets all of the
parameters laid out in the Settlement Agreement.

So, I guess what I'm really saying is that, if that's the result of today's hearings, I would take the next five business days to evaluate whether I need to invoke the OCA's right to withdraw from the Settlement Agreement, and, basically, inform the Commission that what is pending is the original Petition to approve the Liberty LCIRP. And then, it would be our position that the original LCIRP does not warrant approval under the statute.

CHAIRMAN GOLDNER: Okay. Thank you,

Attorney Kreis. Attorney Schwarzer.

MS. SCHWARZER: Thank you, Mr.

Chairman.

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In my prior answer, with regard to the Commission's question, and the hypothetical I asserted, I certainly did not mean to suggest that the Settling Parties do not support Paragraph 2.7 of the Settlement Agreement, which says that "good cause exists for the Commission to extend the deadline for Liberty's next LCIRP." It is -- I also want to say that the parties worked -- the parties to the Settlement Agreement, the Settling Parties, spent significant time and effort on achieving the granularity in Paragraph 2.3. It is important to the parties with regard to Liberty's next filing.

And full rejection of the Settlement
Agreement would, as the OCA has suggested, put
everyone back to where we were prior to the
recent status conference. It seems to create
enormous questions in this docket, which might
best be avoided, with regard to the meaning and
application of the Settlement, and whether the
2017 to 2022 Plan, now almost with four months to

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         go, --
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                   CHAIRMAN GOLDNER: I'm sorry, Attorney
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         Schwarzer. You keep saying "four months". What
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         do you mean by that?
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                   MS. SCHWARZER: Well, I'm sorry, "four
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         months" is perhaps inaccurate, if there's an
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         extended deadline. But it is now August of 2022,
         and the LCIRP began in 2017. So, certainly, and
         I think it's fair --
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                   CHAIRMAN GOLDNER: It was October 2nd.
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                   MS. SCHWARZER: Yes, October of 2017.
                   CHAIRMAN GOLDNER: Yes.
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                   MS. SCHWARZER: So, I think it's fair
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         to say it's an "aged LCIRP". And we are trying
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         to plan the past.
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                   CHAIRMAN GOLDNER: Okay. I see.
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                   MS. SCHWARZER: So, that is
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         problematic.
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                   CHAIRMAN GOLDNER: Okay. But you agree
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         it's only six weeks until the next LCIRP is due,
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         correct?
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                   MS. SCHWARZER: I can take no position
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         on that, given the Settlement Agreement, which
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         says that the parties believes good cause exists
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to extend that deadline, and we are bound by that Agreement.

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Certainly, I agree with the date, it's in Paragraph 2.7. Certainly, I agree with the factual matter that this LCIRP was filed in October of 2017, and five years from October 2017 is, indeed, October of 2022.

CMSR. SIMPSON: Could you elaborate on why the Department feels that the Commission has the ability to extend the Company's due date for their subsequent LCIRP?

And I see a reference to "RSA 378:38-a". But RSA 378:40 is where it's described "plans being required", and the ability of the company to seek rate changes with a pending review.

So, I'm just confused as to how the Commission extending a deadline would really materially impact the next plan, and the Company's general position of seeking rate changes?

MS. SCHWARZER: Commissioner Simpson, with regard to your first question, about why the Department is supporting -- believe good cause

exists to support extending the deadline in light of the statutory provisions, I think it is a question of statutory interpretation. Certainly, RSA 378:40 says that no rate change shall be approved if the entity does not have a plan on file that has been approved. And the next sentence says that "Nothing contained in this subdivision shall prevent the commission from approving a change, otherwise permitted by statute or agreement, where the utility has made the required plan filing in compliance with RSA 378:38 and the process of review is proceeding in the ordinary course."

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So, heretofore, I believe this docket is proceeding in the ordinary course, and, presumably, in the docket, I mean, one would think that the next LCIRP would doubtless proceed in the ordinary course as well.

I believe the statutory question arises when you're looking at RSA 378:38, and there's a phrase that says, five lines down, describing plans will be filed "with the commission within two years of the commission's final order regarding the utility's prior plan, and in all

cases within five years of the filing date of the prior plan."

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And, certainly, I understand the Chairman's reference to that phrase. However, in the waiver statute, and this is certainly open, good people can read it both ways, the "Waiver by Commission" says — statute, RSA 378:38—a, says "The commission, by order, may waive for good cause any requirement under RSA 378:38." Now, whether the Legislature intended to include the five-year plan in "any requirement" is reasonably construed extremely broadly, and the five-year planning period is a requirement under 378:38, which one can argue the waiver clause allows to be made.

And I hope I've answered your question.

If not, if it was a compound question, if you

would repeat it, I'm happy to answer those others
as well.

CHAIRMAN GOLDNER: If I could,

Commissioner Simpson, I think Attorney Kreis

would like to weigh in on this matter.

MR. KREIS: Thank you. I'm sorry -- oh. Thank you. I'm sorry if I was making too

many faces there.

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I think I was able to follow everything that Attorney Schwarzer just said on behalf of the Department. And I further think I agree with everything she just said.

I have been, over the last few days, up to my neck in the canons of statutory interpretation. And they become germane here, frankly, because what we have is a statute that is not a model of clarity and precision when it comes to statutory drafting. So, I think the way the pinball bounces through the machine is that the waiver statute, Section 38-a, allows the Commission to waive any of the provisions of RSA 378:38. And I think those two provisions have to be read in conjunction with each other.

And those two provisions have to be read in conjunction with Section 40, because the rules of statutory construction say that, really, we all have to kind of work together to achieve rational, reasonable results, because we have to assume that that's what the Legislature intended to happen, and that provisions have to be harmonized with each other, rather than be

construed in a way that creates irresolvable conflicts.

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And on top of all of that is a practical reality here. And that is that, institutionally speaking, all the parties in this room, including the Commission, bear some responsibility for the fact that we are now five years into this docket. And, so, we're approaching the end of the planning period that was covered by the LCIRP that Liberty originally filed back in October of 2017.

And, so, it is a regulatory and legislative thicket that we endeavor to find our way out of by crafting the terms of this

Settlement Agreement. And, so, I guess what I want to say, in as friendly and respectful a way as I can, is I really hope that the Commission would kind of play along with us here.

We're really -- because what we have is a utility, a gas utility, that is willing, ready, and able to think about how a gas utility should comply and can comply with a statute that was originally written for electric utilities, and that doesn't fit very neatly into the natural gas

industry's realities. And, yet, they have agreed to some innovative approaches to that, we've agreed to some innovative approaches to that.

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And I don't think it would serve any useful purpose to say "well, you know, there's no way around the fact that, notwithstanding the Settlement Agreement, this utility must file a new Least Cost Integrated Resource Plan this coming October, because, if it doesn't, it can't change any of its rates." I just -- that is such an irrational, absurd outcome that I just can't bring myself to think that that is what the General Court of this state expected all of us to do.

CHAIRMAN GOLDNER: Let's give Attorney
Sheehan a chance to weigh in. And then,
Commissioner Simpson, if you'd like to follow up.

MR. SHEEHAN: Sure. My reading of the statute is it's a no-brainer. The 38-a says you can change any provision of 38, and 38 is where the five-year deadline is. So, to me, it's clear authority to waive the five-year deadline -- or, to change the five-year deadline on a showing of good cause.

CHAIRMAN GOLDNER: Okay. Any follow-up, Commissioner Simpson?

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I can -- let me jump in, I'll jump back in. And then, if you'd like to continue to follow up, we'll have plenty of opportunity.

So, recognizing what the parties just said, but still, quoting Yogi Berra, "if you come to a fork in the road, take it." If the Commission were to require the parties to file an LCIRP on October 2nd or 3rd, with just sort of the fundamentals, you know, supply and demand, you know, basic capital plan, compliance with 378, understanding that it would require more work, I'd like to get the parties' comment on that, that proposal?

MR. SHEEHAN: So, again, the folks you see on the witness stand, Josh Tilbury, Kim Dao, and Adam Perry, Kim and Adam are consultants, the three of them have been neck-deep in the plan for months now. So, we will file something October 2, unless that deadline is changed.

However, as I mentioned before, there will be some gaps. The core will be there, the demand forecast, the contracts and supplies we

have to meet that demand forecast, etcetera, will be there.

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The pieces that have confounded us, and everyone in this room for five years, is "what does it mean to do an environmental assessment?"

We have to do it, it's part of the statute. But there's not clarity on how we do that.

The evidence we presented in this case, mostly through the testimony filed in the Summer of '19, Exhibit 4, and the rebuttal testimony we filed later, did a lot of that. And we presented, we think, a very strong case of an appropriate assessment of the environmental health.

But, again, what we will file in

October, again, we'll be taking a stab in the

dark of what the Commission expects in that

regard. We have some guidance. You know, we

would certainly look at the Northern order. We

would look at what we had done in the past. So,

that's where we are.

And I'm sure the filing would be accompanying a motion to extend our requirement to dot the last few i's and cross the

last few t's.

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CMSR. SIMPSON: With respect to the nine recommendations in the Settlement Agreement, in the Company's view, do those provide adequate guidance to the Company to help answer part of the ambiguities that you've just addressed?

MR. SHEEHAN: Yes. And I think you're aware of this, that recommendation came about from a process where the Commission said to the parties "Go out and figure out how we do this? And how do we measure environmental impacts, health impacts?" And the parties in that case came up with those recommendations.

And I, informally talking to those folks, they spent a lot of time on that, so that's, frankly, why borrowed it. It made sense to us. It gave us some targets to -- some metrics to use.

Again, we don't know those are the metrics yet, and, of course, the order of last week changed that. So, that's back where we are, and we're not quite sure what we're doing on those pieces of it.

CHAIRMAN GOLDNER: Okay. But sort of,

{DG 17-152}

if you throw out sort of the more difficult clauses of 378, the rest of it you feel pretty good about. You would have, though, some holes, as you suggested.

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MR. SHEEHAN: Yes. And I'm sure the folks up there would love some more time to do it. But, you know, we've known of this deadline for five years. So, we will, if we have to, we will file something on October 2.

CHAIRMAN GOLDNER: Very good. Attorney Kreis.

MR. KREIS: Well, Yogi Berra also said
"It ain't over till it's over." And, to
reiterate something I said earlier, I absolutely
reserve the rights that I reserved to the OCA in
Section 3.1 of the Settlement Agreement. I will
take my five business days to determine whether I
wish to file with the Commission a notification
that I'm withdrawing the OCA's support from the
Settlement Agreement. If I do that, then what's
pending before the Commission is a Least Cost
Integrated Resource Plan that, in my opinion,
does not warrant approval under the statute.
There will be no LCIRP that is being evaluated by

the Commission in due course. Which means that, pursuant to Section 40 of the statute, the Company can't change its rates between now and at least October 1st.

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I guess I hear the Company saying they're willing to file something on October 1st. We'll certainly review that, if that's the way this sugars off.

I also heard the Company say that it will consider the effect of the Northern order, by which I assume Mr. Sheehan means "Order Number 26,664". And, as I said earlier, as far as I'm concerned, that order is of no force and effect presently, because it's the subject of rehearing proceedings. And I predict that it will not be of any force and effect by the time early October rolls around, because, frankly, I think there's a considerable possibility of appellate proceedings involving that order.

So, this is quite the thicket. And I think approving the Settlement Agreement still offers everybody in the room the path of least resistance leading to a reasonable and rational approach, at least for this utility, to the

future of least cost integrated resource planning.

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CHAIRMAN GOLDNER: Attorney Schwarzer.

MS. SCHWARZER: Mr. Chairman, the

Department is not prepared to take a position as
to what our response would be were the Settlement
to be rejected at this time. That was not
contemplated as a possible topic here today.

Certainly, the Department would regret the loss of the granularity that is provided in this Settlement Agreement, and the agreement reached among parties that might otherwise take very disparate views about what the next LCIRP should do or address.

CHAIRMAN GOLDNER: But what if it were only a preliminary plan, with sort of the fundamentals, that is then like a kernel, and then it's built on from October 2nd? How would the Department respond to that?

MS. SCHWARZER: Well, Mr. Chairman, I thought the original question was "what would the Department's position be were the Settlement to be rejected?" And, so, we are in agreement and ourselves proposed that reasonable minds could

read the "five-year" requirement differently, but that the waiver paragraph does seem to permit waiver. If the Commission is not inclined to grant that, --

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CHAIRMAN GOLDNER: I understand that.

I understand that. But I'm just saying, if, as

Attorney Sheehan proposes, the Company were to

propose a plan on October 2nd, that wasn't -
didn't have everything, everyone understood that,

but then the Company built on that over some

months, would the Department of Energy have any

objection to that path forward?

MS. SCHWARZER: Well, I think our concern would be that this is the cost of gas season. And, between today and August [October?]

CHAIRMAN GOLDNER: Let's assume for a moment that the Commission was able to resolve that six-week gap.

 $\mbox{MS. SCHWARZER: Well, I'm sorry, I} \\ \mbox{think I'm not understanding your question.} \\$

CHAIRMAN GOLDNER: So, your concern is what Attorney Kreis called "regulatory chaos", meaning that the Company is in a period where it

can't file for rate changes. So, I'm suggesting, if the Commission were to somehow resolve that, just assume that we can, would the Department of Energy have any objection to a plan filed on October 2nd by the Company, that maybe doesn't have everything in it, but at least is a solid starting point?

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MS. SCHWARZER: And, Mr. Chairman, perhaps I should take that as a record request, because I simply don't have guidance from leadership, I'm sorry. I can't answer that at this time.

I can say, even if the Commission were able to resolve the "regulatory chaos" piece, this Settlement does achieve agreement around certain components of specificity that, if removed, would continue to perhaps haunt the process into the next LCIRP, and result in additional efforts.

CMSR. SIMPSON: So, I'm very mindful of the work that the Settling Parties have put into this Settlement Agreement. And the recommendations appear to be somewhat comprehensive.

I struggle to see how I can abdicate my duties under RSA 378:37 through 39, as contemplated in Section 2.2 of the Settlement Agreement, based on the evidence in front of me today.

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With that being said, it's clear that the parties seek guidance from the Commission.

And the Company has stated today that they're working diligently on their next LCIRP. And I believe the Consumer Advocate and the Department have stated that the recommendations in the Settlement address some of the ambiguity, and would help to guide the Company in a collaborative process moving forward.

So, then, I'm curious, if the

Commission were to hypothetically adopt all of

the nine recommendations, does that make the next

LCIRP planning process crystal clear for

everybody, and do the parties foresee a direct

path in their next -- in the next LCIRP, based on

those recommendations?

MR. SHEEHAN: I can take a first stab at that.

"Crystal clear", obviously, is never

something we say in this room, because it never exists. But it goes a long way, obviously. It gives us metrics, it gives us, not just the metrics, but other parties in the room who agreed with that. So, when we file it, and assuming we meet those metrics, we won't hear from DOE that we fell short, for example. So, that's the benefit of it.

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And I have to say, despite this conversation, we are here fully in support of the Settlement Agreement, and believe it is the right way to go. We're answering these question in good faith, should the Commission decide something else.

October 2, and then supplement thereafter", we still have the question as "what are we doing with that supplement?" We still don't have the guidance of -- that's provided in the Settlement Agreement. And then, again, we are left in the position of "Do we look to the Settlement Agreement? Do we look to the August 8 order?

Or, do we do our best, based on something else?"

You know, so, we would do something.

We will do something that we think is compliant, but others may disagree. And that's the box we've been in for five years now.

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MR. KREIS: Might I speak to that?
CHAIRMAN GOLDNER: Mr. Kreis.

CMSR. SIMPSON: Please.

MR. KREIS: So, Commissioner Simpson used the phrase "crystal clear". And I'm going to do for Commissioner Simpson what Attorney

Desmet typically does to me, which is she reviews my drafts, and crosses out the adjectives. So, I guess I wouldn't use the adjective "crystal", but I would say "clear". I do think the Settlement Agreement offers up a clear path for this utility to follow, and, frankly, the other utility potentially to follow, with respect to how it ought to approach least cost integrated resource planning.

You know, so, on the question of "abdicating one's responsibilities", I'm sympathetic to that concern. Because, obviously, we like it when Commissioners are diligent in complying with their statutory responsibilities.

But, you know, nothing happens in a

vacuum. And the fact is that the Commission, meaning, essentially, predecessors to the Commissioners who are sitting on the Bench today, really allowed this docket to sort of languish for something like two years, and, arguably, that shouldn't have happened. And, arguably, the fault for that can be distributed throughout the room, amongst the parties and the Commission as an institution. So, in a sense, the Commission abdicated — has already abdicated some of its responsibilities. And we are doing our best, as parties, to help the Commission get back on track with this process.

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Well, with respect to the possibility of filing a kind of a -- some kind of "bare bones" plan in October, that the Commission could then flesh out? You know, my side hustle is being a law professor. And I sometimes look at the least cost integrated resource planning statute as a big homework assignment for utilities. And the statute doesn't say "Well, first, you file an outline, and then the professor gives you feedback on the outline, and then you get to file a draft, and then you get

feedback on the draft, and then you file your final paper, and then you get a grade from the Commission." That is not the way the Legislature set this up.

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The Legislature set this up and said

"Hey, utility, you file your final paper on a

date certain, and then we'll give you a grade by

the Commission's adjudicative process." So, I'm

very queasy about this "Hey, just file a "bare

bones" plan, and then you'll have a chance

through the course of the docket to flesh it

out."

CHAIRMAN GOLDNER: Attorney Schwarzer.
MS. SCHWARZER: Thank you.

I have a concern, not with regard to the substantive content, which I understand Commissioner Simpson is hypothetically addressing, were the Commission to order that.

But to reflect upon the container in which that substantive content is given us is significant.

Because the Settlement Agreement contains a number of provisions that do not require the parties to -- well, 3.2, 3.3 and 3.4, just look at the standard framework that "this Settlement"

Agreement shall not be construed to represent any concession by any Settling Party with regard to positions taken" or are "deemed to foreclose any Settling Party in the future from taking any position in any subsequent proceeding."

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Were the Commission to reject the

Settlement Agreement and export the substantive
recommendations into some order, that framework
would be lost. And I think they're -- so, I have
concerns around that, because the agreement
reached was reached within the framework of a
settlement agreement. But, certainly, if the
Commission were to approve, would be enforceable,
but only as a settlement, and under the terms
expressed.

And, so, I think, to sort of go back to some of the comments the OCA made about these very strange circumstances that the Commission finds itself in with regard to an extraordinary lapse of time, the change from the PUC structure to the PUC/DOE structure, the significant change in actual people, both at the Commission and at the DOE, and perhaps among some of the parties.

Bad facts make bad law, and there's a

way in which the cleanest approach seems, to the Department, to be, and again, we are here to support the Settlement Agreement, would be to approve the Settlement Agreement, and move forward with the gifts of granularity that it provides for the next LCIRP in the context provided, and I guess anticipate some sort of filing in October, based upon the Company's statement.

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CMSR. SIMPSON: Thank you. I think we have a couple of parties in the room that didn't sign the Settlement Agreement.

CHAIRMAN GOLDNER: So, we're moving -
CMSR. SIMPSON: I'd like to hear if

they might indulge us in some of their reactions.

CHAIRMAN GOLDNER: Let's move to

Mr. Krakoff. And, Mr. Krakoff, please expand on
any of the questions that you heard and provide
your comments.

MR. KRAKOFF: Thank you, Commissioners.

So, first off, I want to address the question about, you know, whether the Commission needs to decide on the current LCIRP. You know, as outlined in CLF's June 1st, 2022, you know,

position statement, you know, it's our position that Liberty has not complied with several of the provisions in the LCIRP statutes. That being said, however, you know, given where we are, you know, in the planning cycle, you know, at the end of the five-year term, you know, we agree, you know, we agree with Section 2.2 of the Settlement that, you know, the Commission does not need to make a determination, you know, on whether Liberty has complied with the LCIRP statutes.

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I think Mr. Sheehan might have, you know, might have suggested that there were -there were some precedents for this. And I would point the Commission's attention to Order Number 25,762, issued on February 9th, 2015, which was actually the decision on Liberty's last LCIRP.

And, you know, in that last LCIRP, you know, it occurred shortly after the Legislature had amended the LCIRP statutes, so that they would apply not just to electric utilities, which had been the case in the past, but also to natural gas utilities. And, in that decision, the Commission, you know, there was a question about whether Liberty had complied with all of

the provisions of the LCIRP statutes, and there, you know, the Commission basically said, you know, "We're not going to decide that issue.

We're going to wait until, you know, this current LCIRP."

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know, at the end of the five-year planning cycle, you know, I think the Commission could do something similar here, and not make a decision on whether Liberty has complied with all of the provisions of the LCIRP statutes. And I think, you know, not just sort of where we are in the five-year term, but also, you know, given that a lot of events have changed, that Liberty is no longer proposing the Granite Bridge Project, which was a major component of its, you know, of the current LCIRP. You know, I think it makes sense to not make a decision on whether Liberty has complied or not.

You know, the other thing that I'd like to address is, CLF is kind of in a strange position to some extent, in that, you know, we're not a signatory of the Settlement Agreement. And those reasons are outlined in our response to the

Settlement that was filed last week, mainly due to the lack of criteria on electrification within the Settlement.

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That being said, I do think that there are provisions in the Settlement Agreement, you know, that could help solve some of the issues that have, you know, that have sort of made the LCIRP planning statutes difficult. In that, we've had differences of opinion on how, you know, how the statutes should be applied. And I think there are several provisions in the Settlement that would, you know, ensure Liberty's compliance with the LCIRP statutes for its next LCIRP.

And, in my opinion, there's nothing,
you know, similar -- you know, particularly the
provisions on environmental and public health
impacts, and on energy efficiency, those
provisions of the Settlement, I don't think they
go further than what's already required by the
LCIRP statutes. But I do think they provide some
specificity to Liberty in drafting its next LCIRP
that I think can help ensure that it complies
with those provisions of the -- of the LCIRP

statutes.

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So, those are kind of my main -- my main points. But, if you have any specific questions, I'd be happy to answer those as well.

CHAIRMAN GOLDNER: Okay. Let's give Mr. Husband a chance, and then we might circle back. Thank you, Mr. Krakoff.

MR. HUSBAND: Thank you again, Mr. Chairman.

I'll start with 2.2, which is the beginning of the conversation. I think I have the same concerns that Commissioner Simpson does, in that I don't see any possible way that the Commission can approve the LCIRP before it in consonance with RSA 378:38 and 39. The statutes are clear that there has to be an adequate review of the filings for the LCIRP, and that means that there have to be adequate filings. And then, ultimately, there has to be an approval, which specifically finds that the planning is consistent with RSA 378:37.

None of those things have been done in this docket. And it's very clear, on the face of the record, that the Plan is unapprovable in that

light.

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I don't see anything in the statutes, as Attorney Kreis said earlier, is essentially that he objected to the notion that there could be a "bare bones" plan initially filed, and then something fleshed out later, because the statutes don't provide that. Well, by the same token, the statutes clearly do not provide for approval of a plan because some complications and the unlawfulness of the plan have arisen through the docket, and/or the -- you know, the utility wants to get a rate increase.

As the Commission has noted, the utility could get a rate increase only a little over a month from now, and should, if it actually follows what it's supposed to do in the statutes in filing its new plan.

I absolutely -- obviously, Mr. Clark's positions are numerous and set forth on the record, so this is just directed to this discussion. But I, obviously, do not see how the Commission could approve this plan. I could see it closing the docket, with findings -- with, hopefully, findings consistent with what Mr.

Clark has requested in his position statement, probably to the CLF as well, the Conservation Law Foundation, to give guidance in future proceedings, and including starting out of the gate with Mr. Clark's, you know, preeminent position that expansion at this point in time by the utility is unlawful. That's guidance that's necessary.

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And, even if the Commission doesn't agree with that position, it could flesh out, in, you know, in its order closing the docket. What it does feel about Liberty's planning that does, if anything, that does have to be changed to actually bring it in as lawful planning under the statutes and under the public interest standard.

So, I think what the Commission could do, it could close the docket with those findings, and then, you know, Liberty could open up the new one, and Liberty could flesh out its planning going forward, sort of as it did this last docket. There were, you know, there were supplemental submissions, two have filed under this docket, which turned out to be very helpful. But, minimally, the Commission would, obviously,

have to include the Keene Project in the next LCIRP as well under its order closing the docket, as the Keene Project has never been, you know, examined under RSA 378:37 and 39. It's never been approved under those statutes. It has to be reviewed and approved to go forward.

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I think that is a path forward I could see the Commission doing, as opposed to, you know, approving the Settlement Agreement, with the terms Mr. Clark has proposed in his response to the Settlement Agreement, and still subject to his claims as a whole as to the problems with approvability.

I guess I just don't see what the objections from the other parties are to proceeding in that way. And I do want to emphasize, though, that, to the other parties, I think that the recommendations in 2.3 of the Settlement Agreement are very, very good recommendations that should be followed. And I wouldn't agree that the Commission could just -- I don't agree, you know, that those should be struck -- stricken from the Settlement Agreement at all. They should stay in there. In the

proposed terms that Mr. Clark gave, he did tie one of his recommendations or proposed terms to an analysis under 2.3. That that could be taken out, if the Commission wanted, you could just put a period right before where it says, you know, attaches the analysis to 2.3, and take it out. But I do think that the Commission should keep this kind of analysis in for the utility going forward.

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And I'll just -- one last thing. The Commission has got to start thinking, as I'm sure Liberty is itself, some of the stuff that's been recommended, in terms of examining electrification and other alternatives to natural gas, are really in the Company's own best interest under RSA 378:37, in terms of protecting the financial stability of the Company. There is a transition underway, it's clear, and it's going to be rapid. The Company has got to get onboard, or it may be looking at getting squeezed out here in another decade or so. So, it really needs to be looking at these issues to figure out how it can beef up its portfolio going forward to stay in business.

1 Thank you. 2. CHAIRMAN GOLDNER: Thank you. Any 3 additional questions, Commissioner Simpson, in 4 this phase of preliminary matters? 5 CMSR. SIMPSON: Not at this point. 6 Thank you. 7 CHAIRMAN GOLDNER: Okay. What I would suggest at this point is we take a brief recess, 8 9 and let the Commissioners consult, and return at 10 10:30. 11 So, give us a moment, and we'll return in fifteen minutes. Thank you. 12 1.3 (Recess taken at 10:15 a.m., and the 14 hearing resumed at 10:42 a.m.) 15 CHAIRMAN GOLDNER: Okay. Next, I think we'd like to turn our focus -- the Commission 16 would like to turn the focus to the nine 17 18 recommendations in the Settlement. We have -- we 19 have witnesses here today that can help us --20 help us understand those recommendations, and 2.1 that would be helpful to us, and as well as, I 2.2 think, all the other parties. 23 Is there -- would anyone have any

concerns or comments, before we move to the

24

witnesses?

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MR. SHEEHAN: No. Certainly, I had thought of doing some preliminary stuff, but we've been doing a lot of that already. So, at some point, whatever the Commission decides it's going to do, we need to get documents into the evidence and testimonies and all of that.

I did have a question, and I think others, with the Commission's practice of adopting testimony for folks who aren't here, that's been an issue that's been discussed in prior years. Liberty will have enough people here today to adopt all the testimonies, I think all of them, but we also ask the Commission to simply accept the testimonies as exhibits for those who aren't here. For example, Mr. Stanley is not here, and he offered a piece of testimony.

Yes. But. I guess, to the extent the Commission has questions on the Settlement

Agreement, I had planned to go through it first, but there's no reason you guys can't dive in and target your questions, rather than hearing my questions.

CHAIRMAN GOLDNER: Okay. Very good.

1	Any other comments?
2	MS. SCHWARZER: Mr. Chairman, I did
3	want to bring to the Commission's attention that
4	the Department has introduced Exhibit 5, which is
5	the prefiled testimony from formally PUC Staff,
6	who might now be seen as DOE Staff. However, our
7	witness, Mr. Arif, is not adopting that
8	testimony. He's here to testify on the
9	Settlement.
LO	CHAIRMAN GOLDNER: Okay. Thank you.
L 1	Okay. Very good. Well, let's swear in
L 2	the witnesses, Mr. Patnaude.
L 3	(Whereupon Joshua Tilbury, Kim N. Dao,
L 3	(Whereupon Joshua Tilbury, Kim N. Dao, Adam J. Perry, and Faisal Deen Arif
L 4	Adam J. Perry, and Faisal Deen Arif
L 4 L 5	Adam J. Perry, and Faisal Deen Arif were duly sworn by the Court Reporter.)
L 4 L 5 L 6	Adam J. Perry, and Faisal Deen Arif were duly sworn by the Court Reporter.) CHAIRMAN GOLDNER: And, Mr. Sheehan,
L 4 L 5 L 6 L 7	Adam J. Perry, and Faisal Deen Arif were duly sworn by the Court Reporter.) CHAIRMAN GOLDNER: And, Mr. Sheehan, will you be conducting direct on behalf of all
L4 L5 L6 L7	Adam J. Perry, and Faisal Deen Arif were duly sworn by the Court Reporter.) CHAIRMAN GOLDNER: And, Mr. Sheehan, will you be conducting direct on behalf of all the Settling Parties?
L4 L5 L6 L7 L8	Adam J. Perry, and Faisal Deen Arif were duly sworn by the Court Reporter.) CHAIRMAN GOLDNER: And, Mr. Sheehan, will you be conducting direct on behalf of all the Settling Parties? MR. SHEEHAN: The plan was for me to
L4 L5 L6 L7 L8	Adam J. Perry, and Faisal Deen Arif were duly sworn by the Court Reporter.) CHAIRMAN GOLDNER: And, Mr. Sheehan, will you be conducting direct on behalf of all the Settling Parties? MR. SHEEHAN: The plan was for me to conduct the direct of the three
L4 L5 L6 L7 L8	Adam J. Perry, and Faisal Deen Arif were duly sworn by the Court Reporter.) CHAIRMAN GOLDNER: And, Mr. Sheehan, will you be conducting direct on behalf of all the Settling Parties? MR. SHEEHAN: The plan was for me to conduct the direct of the three Liberty-affiliated witnesses. My understanding

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can ask questions of him afterwards.
 1
 2
         understand he's essentially supporting the
 3
         Agreement, being a relative newcomer to all of
 4
         this.
 5
                   So, I'd be happy to introduce the
 6
         witnesses. And, again, I can walk through it
 7
         with them, or I can just introduce them and have
 8
         you ask your questions. I'm not sure which you'd
         prefer?
 9
10
                   CHAIRMAN GOLDNER: And I think, yes, we
11
         would do cross before the Commissioner questions.
12
         But, yes, whatever you're comfortable with.
13
         We've read the Settlement, I think we understand
14
         it. But, to the extent that you can illuminate
15
         any issues you think are important, that would,
16
         of course, be helpful.
17
                   MR. SHEEHAN: Okay. We had prepared an
18
         outline. I'll maybe move along quicker than what
19
         I had anticipated. How about that?
20
                   CHAIRMAN GOLDNER: Okay. Sure.
                                                     Thank
21
         you.
22
                   MR. SHEEHAN: It's still morning. Good
23
         morning. I'm going to start with you, Mr.
24
         Tilbury.
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1		JOSHUA TILBURY, SWORN
2		KIM N. DAO, SWORN
3		ADAM J. PERRY, SWORN
4		FAISAL DEEN ARIF, SWORN
5		DIRECT EXAMINATION
6	BY M	R. SHEEHAN:
7	Q	Could you please state your name and your job
8		title with Liberty?
9	А	(Tilbury) I'm Joshua Tilbury. And I'm the
10		Director of Energy Procurement with Liberty
11		Utilities.
12	Q	And how long have you been with Liberty?
13	А	(Tilbury) I started with Liberty in March of this
14		year.
15	Q	Prior to March, did you work in the utility
16		gas utility industry?
17	А	(Tilbury) I did. I've been in the natural gas
18		utility business since 2006.
19	Q	And did you, in your prior jobs, work on IRPs?
20	А	(Tilbury) I did. I was with my former
21		employer was New Mexico Gas Company, where I was
22		the Director of Gas Management, and oversaw the
23		IRP for the 2016 and the 2020 filings.
2 4	Q	Mr. Tilbury, obviously, you did not participate

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1
         in drafting any of the documents that are marked
 2
         as exhibits today. But you are here willing to
 3
         adopt the testimonies of prior Company witnesses,
 4
         is that correct?
 5
         (Tilbury) Yes.
 6
         And, in particular, Exhibit 3 is Testimony of
 7
         William Killeen, that was filed in April of '19.
 8
         Have you reviewed Mr. Killeen's written
 9
         testimony?
10
         (Tilbury) Yes.
11
         And are you willing to adopt his testimony today?
12
         (Tilbury) Yes.
13
         And the same with Exhibit 10 and 11, which is the
    Q
14
         rebuttal testimony filed by the Company. There
15
         were three pieces of rebuttal testimony that were
16
         combined into those two exhibits, one
17
         confidential, the other redacted. And the two
18
         folks to your left were also involved in those
19
         testimonies. But have you read those, the
20
         Rebuttal Testimony of Mr. DaFonte, Killeen,
21
         Stephens, and Ms. Dao, and the Rebuttal Testimony
22
         of Mr. Killeen, Clark, Stanley, Stephens, and
23
         Perry?
24
    Α
         (Tilbury) I have.
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1
               And, to the extent you have knowledge of
         Okay.
 2
         those testimonies, are you willing to adopt those
 3
         testimonies here today?
         (Tilbury) Yes.
 4
 5
         Last, the Settlement Agreement, Exhibit 12, were
 6
         you involved in the discussions, maybe not with
 7
         the other parties, but the internal discussions
 8
         surrounding those Settlement terms, as they were
 9
         being discussed amongst the parties?
10
         (Tilbury) Yes.
11
         And, as the Director of Gas Procurement, right,
12
         for Liberty, --
13
         (Witness Tilbury indicating in the affirmative).
14
         -- you are a central person at the Company who
15
         has to live with the terms of the Settlement
16
         Agreement, is that fair?
17
    Α
         (Tilbury) Yes.
18
         Okay. And you are, in fact, preparing the next
    Q
19
         IRP as we speak, is that right?
20
         (Tilbury) Yes.
    Α
21
         And is it your position that the terms of the
    Q
22
         Settlement Agreement are reasonable and
23
         appropriate, and the Company is willing to abide
24
         by them, if approved by the Commission?
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1 (Tilbury) Yes. 2 Ms. Dao, could you please introduce yourself? 3 Α (Dao) Yes. I'm Kim Dao. I'm a Director at 4 ScottMadden. 5 Q And, Ms. Dao, have you been assisting the Company 6 with the current IRP that's underway? 7 Α (Dao) Yes. 8 And you also have assisted the Company with the 9 2017 IRP, is that correct? 10 Α (Dao) Yes. 11 And did you play a role in the work that resulted 12 in the IRP itself? 13 (Dao) Yes. Α 14 And with your colleague, Mr. Perry, and with 15 others at your firm, is that correct? 16 (Dao) That's correct. Α 17 Q And you participated, not only in the IRP itself, 18 but in the rebuttal testimony filed in October of 19 '19, is that correct? 20 (Dao) That's correct. Α 21 Do you have any -- and your testimony is the Q 22 first of those three testimonies. What was the 23 subject matter of that testimony that you 24 participated in?

1 (Dao) It is the policy and gas supply piece of 2 testimony. 3 Q And do you have any changes to that testimony 4 you'd like to bring to the Commission's attention 5 today, other than what may have happened from the 6 passage of time? 7 Α (Dao) No. 8 And do you adopt that testimony today? 9 Α (Dao) I do. 10 And were you also -- have you also reviewed the 11 Settlement Agreement? 12 Α (Dao) I have. 13 And are you prepared to answer questions Q 14 regarding the Settlement Agreement this morning? 15 Α (Dao) Yes. 16 Thank you. Mr. Perry, same questions. Could you Q 17 please introduce yourself? 18 (Perry) I am Adam Perry. I'm a Director with Α 19 ScottMadden. 20 I just called you "Scott Perry", didn't I? I'm 21 sorry. 22 Mr. Perry, you've also, along with 23 Ms. Dao, been working with the Company since 24 2016ish on what became the 2017 IRP, is that

```
1
         correct?
 2
          (Perry) That's correct.
         And you're also working with the Company on the
 3
 4
         upcoming IRP?
 5
          (Perry) That's correct.
 6
         And what is your area of focus on the IRP, both
 7
         old and new?
 8
         (Perry) I've been overseeing the development of
 9
         the demand forecast.
10
         Okay. You authored testimony with others, again,
11
         part of the October '19 testimony, Exhibits 10
12
             Your testimony was with Mr. Killeen, Clark,
13
         Stanley, and Stephens. What was the basic
14
         subject matter of that testimony?
15
         (Perry) That was in response to certain issues
    Α
         related to the demand forecast.
16
17
    Q
         And in response to testimonies by the other
18
         parties that had been filed roughly a month
19
         earlier, is that right?
20
         (Perry) That's correct.
    Α
21
         And do you have any changes to your portions of
    Q
22
         that testimony, again, aside from what may be the
23
         result of simply the passage of time?
24
    Α
          (Perry) No, I do not.
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1
         And do you adopt that testimony today?
 2
         (Perry) Yes.
         And you also are familiar with the terms of the
 3
 4
         Settlement Agreement?
 5
         (Perry) I'm familiar with them, yes.
 6
         Last, we marked the 2017 Plan itself as
 7
         "Exhibits 1", confidential, and "2", redacted.
         There's no testimonies associated with that Plan.
 9
         But, Mr. Tilbury, that is the IRP that we filed
10
         in this docket almost five years ago, is that
11
         correct?
12
         (Tilbury) Yes.
13
         If we could turn to the Settlement Agreement, we
14
         can walk through it quickly.
                    At Section 2.2, it talks about the
15
16
         recommendation that "the Commission approve the
17
         Settlement". Obviously, that's the position of
18
         all three of you, is it not, that you are
19
         recommending that the Commission approve the
20
         Settlement Agreement?
21
         (Tilbury) Yes.
    Α
22
    Q
         And, of course, the Commission has to review the
23
         evidence and determine for itself that the 2017
24
         IRP meets the statutory standards. Is it your
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1
         opinion that there is -- the Plan itself, as
 2
         supplemented by all these testimonies, does
 3
         provide the Commission enough information to find
 4
         the Plan compliant?
 5
          (Tilbury) I do.
 6
         The statute, 378:38, the first three subsections
 7
         require the Company to include "a forecast of
         future demand", "an assessment of demand-side
 8
 9
         energy management programs, including
10
         conservation, efficiency, and load management",
11
         and, third, "an assessment of supply options".
12
         Does the 2017 Plan include those, discussion of
13
         those three items?
14
         (Tilbury) Yes.
    Α
15
         And, Ms. Dao and Mr. Perry, you were both heavily
16
         involved in the preparation of that information
17
         in the 2017 Plan?
18
          (Perry) Yes. That's correct.
    Α
19
          (Dao) Yes. That's correct.
    Α
20
         And you're comfortable that was addressed
21
         appropriately in the 2017 Plan?
2.2
    Α
         (Dao) Yes.
23
    Α
          (Perry) Yes.
24
         The next two sections, V and VI -- I'm sorry,
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1
         Section IV is the one that clearly applies only
 2.
         to electric utilities. So that the next
 3
         Subsection of V is "an assessment of plan
 4
         integration...and compliance with the Clean Air
 5
         Act", "an assessment of the plan's environmental,
 6
         economic, and energy price...impact". Is it fair
 7
         to say that these topics were covered by the
 8
         testimony of Mr. Hibbard, is that your
         understanding?
 9
10
         (Perry) Yes. That's correct.
11
         (Dao) Yes.
                   MR. SHEEHAN: For the Commission's --
12
1.3
                   MR. HUSBAND: Objection. Personal
14
         knowledge.
                   MR. SHEEHAN: For the Commission's
15
16
         benefit, Mr. Hibbard will be here this afternoon,
17
         if it's necessary to --
18
                   MR. HUSBAND: Well, this witness can't
19
         testify as to his opinions of Mr. Hibbard's
20
         opinions, of whether he thinks Mr. Hibbard's
21
         opinions are correct. He's not an expert.
22
                   MR. SHEEHAN: I'll withdraw the
23
         question.
24
                   For the Commission's benefit,
```

```
1
         Mr. Hibbard will be here this afternoon.
 2
    BY MR. SHEEHAN:
 3
         The next part of the -- so, this first, Section
 4
         2.2, is again the term that -- where the Settling
 5
         Parties recommend approval. And, Mr. Tilbury,
 6
         again, it's your opinion that the evidence in
 7
         this docket is sufficient for the Commission to
 8
         make the necessary findings to approve the IRP,
 9
         is that your position?
10
         (Tilbury) Yes.
11
         Going to the recommendations themselves, have you
12
         reviewed those recommendations carefully,
13
         Mr. Tilbury?
14
          (Tilbury) I have.
15
         And, if we just go through them guickly,
16
         Recommendation 1 is to "Evaluate energy
17
         efficiency as a potential resource alternative",
18
         I won't read all the rest of it. Is the Company
19
         planning to evaluate energy efficiency impacts on
20
         its upcoming -- in its upcoming plan?
21
          (Tilbury) Yes, we are.
    Α
         And, Mr. Perry, that's a topic that you cover
22
    Q
23
         pretty carefully, is that correct?
24
    Α
          (Perry) That's correct.
```

```
1
         And, Mr. Tilbury, you know, without reading the
 2
         whole paragraph, it's the Company's intent to
 3
         comply with Recommendation 1 in its October plan,
         or later as a supplement, is that correct?
 4
 5
         (Tilbury) It is.
 6
         Recommendation 2 is to "Evaluate RNG and other
 7
         non-fossil fuels". Is the Company planning to
         evaluate RNG and other possible non-fossil fuels?
 8
 9
    Α
         (Tilbury) We are.
10
         And, in fact, there's currently a docket pending
11
         seeking approval of an RNG contract, is that
12
         right?
13
         (Tilbury) Yes. That's my understanding.
    Α
14
         As an aside, there's a new statute that may slow
15
         that docket down a bit, but that's something the
16
         Company is committed to pursuing, is that
17
         correct?
18
         (Tilbury) That is correct.
    Α
19
         Recommendation 3 is to "Evaluate ways to optimize
20
         existing pipeline capacity." Can you tell us
21
         what that means, Mr. Tilbury?
22
    Α
         (Tilbury) Yes. I believe, when I interpret that,
23
         that's to evaluate and optimize existing
24
         capacities before looking at other projects.
```

```
1
         Looking at potential RNG locations on our system
 2
         that would allow for gas to come on the system
 3
         without additional pipeline infrastructure and
 4
         other things like that.
 5
         Can you give us an example of what the Company is
 6
         looking at for such a possible RNG injection
 7
         point that may avoid more expensive pipeline
 8
         upgrades?
         (Tilbury) Well, anytime you can bring RNG onto
 9
10
         the system, you can inject it, you can avoid
11
         interstate pipeline costs, you can bring it onto
         the system -- onto your distribution system
12
13
         already, benefiting the customer.
14
                   As to the specifics, I apologize, I
15
         don't know the specific case you're referring to.
16
         Conceptually, RNG is -- well, RNG, in fact, is
17
         delivered as compressed gas, is that correct?
18
         (Tilbury) That's correct.
19
         And you can inject the compressed gas wherever
20
         you may need pressure, in addition to gas, on
21
         your system, is that correct?
22
    Α
         (Tilbury) That's correct.
23
         So, if you can get high-pressure gas at the end
24
         of the system, you may not need to build a bigger
```

```
1
         pipe to reach that remote part of the system, is
 2.
         that correct?
 3
    Α
          (Tilbury) That's correct.
 4
         And those are the kind of things that this
 5
         paragraph is covering that the Company will look
         at those kinds of options, is that correct?
 6
 7
          (Tilbury) Correct.
    Α
 8
         Thank you. Recommendation 4 and 5 provides some
 9
         of the metrics by which the Company would assess
10
         the environmental and health impacts of the
11
         options the Company is facing, is that correct?
12
         (Tilbury) Yes.
1.3
         And I trust you're not the expert on those
14
         assessments, but these are assessments the
15
         Company will perform, if the Commission approves
16
         these conditions, is that correct?
17
    Α
          (Tilbury) That is correct.
18
         And, even without approving this Settlement
    Q
19
         Agreement, we will have to perform some form of
20
         assessment as required by the statute, is that
21
         correct?
2.2
    Α
          (Tilbury) Correct.
23
         And Recommendation 6 is, again, the assessment of
24
         economic impacts, again, maybe outside your
```

```
1
         expertise, but it is something that the Company
 2
         will either follow as described here, or
 3
         otherwise, if the Commission does not approve the
 4
         Agreement, is that correct?
 5
         (Tilbury) That's correct.
         Number 8 talks about looking at "Non-Pipeline
 6
 7
         Alternatives". What's your understanding of what
 8
         that would require the company to do?
         (Tilbury) I looked at Recommendation 8 a lot like
 9
10
         Recommendation 3. It's exploring other
11
         opportunities, prior to looking at reinforcements
12
         or other pipeline costs. You know, such as
13
         projects like RNG or direct access to those type
14
         of things, or really lump anything, other than
15
         reinforcements or pipelines that would typically
16
         come first.
17
         So, the bread-and-butter of a gas utility is,
18
         frankly, putting pipe in the ground, is that
19
         correct?
20
         (Tilbury) Correct.
21
         And this is saying "we will look at other options
    Q
22
         before making those decisions"?
23
    Α
         (Tilbury) Correct. And I would lump in energy
24
         efficiency into that as well.
```

```
1
         Recommendation 9 really focuses on making the
 2.
         next IRP easier to read, for lack of a better
 3
         phrase. And you folks are going to make a good
 4
         effort in that regard, is that correct?
 5
         (Tilbury) We are. We've had several discussions
 6
         on that already.
 7
    Q
         Okay. Recommendation 10 isn't on there, but
 8
         we've considered it as "10", and that is the
 9
         Commission's directive, during our status
10
         conference, to include a capital plan, is that
11
         correct?
12
         (Tilbury) That is correct.
13
         And does the Company intend to include a capital
    Q
14
         plan as part of its IRP?
15
    Α
         (Tilbury) We do.
16
         The next few sections of the Settlement Agreement
17
         discuss how the parties can help even further
18
         refine some of the metrics discussed above, and
19
         what benchmarks we could agree on, etcetera.
20
         Those are all efforts that the Company is
21
         committed to undertake upon approval of this
         Settlement Agreement, is that correct?
22
23
    Α
         (Tilbury) That's correct.
24
         And the last substantive part is referring to the
```

```
1
         extension of the deadline we've had plenty of
 2
         discussion about this morning. But, Mr. Tilbury,
 3
         could you tell me, in the normal course, if you
 4
         were asked to do an IRP, and someone asked you
 5
         "how long is it going to take to prepare it?"
 6
         What would your answer be?
 7
         (Tilbury) Nine months to a year.
    Α
 8
         And is it fair to say that time has been
 9
         compressed for the '22?
10
         (Tilbury) It has.
11
         And would you prefer to have more time past
12
         October 2 to file the IRP?
13
         (Tilbury) Yes, I would.
         And what kinds of things do you think will be
14
15
         missed or not covered in an October 2 filing that
16
         you would like more time to prepare?
17
    Α
         (Tilbury) Right. So, right now, we're working on
18
         all of the basics of the IRP, getting the demand
19
         forecast, the supply and everything put together
20
         to meet our October 2nd deadline. Pending this,
21
         and the Settlement Agreement, and getting an
22
         order out of it, and getting precise direction,
23
         you know, we're moving towards it. But, given
24
         that we've gotten this, I believe, within the
```

```
last month timeframe, I could be off on that,
 1
 2
         we're starting in that direction, but want to
 3
         make sure that we do a good job and a thorough
 4
         job to get it done to meet all the requirements
 5
         that are listed on here.
 6
                    So, I have concerns that the
 7
         October 2nd deadline, having what you saw in '17,
         sure, some of these, getting everything together
 8
 9
         in an order may provide a challenge.
10
                    MR. SHEEHAN: Thank you. Those are all
11
         the questions I had as preliminaries. Thank you.
12
                    CHAIRMAN GOLDNER: Attorney Schwarzer,
1.3
         would you like to begin with direct with your
14
         witness?
15
                   MS. SCHWARZER:
                                    Thank you.
16
    BY MS. SCHWARZER:
17
         Would you please state your name and job title
18
         for the record?
19
         (Arif) Sure. My name is Faisal Deen Arif. I am
    Α
20
         employed by the New Hampshire Department of
21
         Energy as the Director of Gas in its Regulatory
22
         Division.
23
         And how long have you been employed by the
24
         Department of Energy?
```

1 (Arif) Approximately two and a half months now. 2 I joined the Department on June 3rd, 2022. 3 Q As the Gas Division Director, what are your 4 general responsibilities? 5 (Arif) I'm responsible for performing due 6 diligence in every docket filed related to the 7 regulation of gas utilities and in the State of New Hampshire. Additionally, I am also 8 responsible for performing some administrative 9 10 responsibilities to ensure that the Department 11 receives the support necessary for it to perform 12 its duties as a state agency. 13 Mr. Arif, could you describe just a few of your Q 14 more specific responsibilities with regard to 15 dockets generally? 16 (Arif) I'd be happy to. And just for the remark, 17 this is not an exhaustive list, but most 18 pertinent ones probably for the Commission and 19 for everybody else here. 20 I'm responsible -- my responsibilities 21 include advising the Department of Energy on 22 regulatory enforcement and policy issues, and 23 technical factors involved in cases, and other 24 matters under consideration affecting the

regulated utilities. Also responsible for monitoring developments and trends in gas industry planning, regulation, ratemaking, general engineering, economics, and accounting issues to stay current, and implement and/or initiate any legislation changes or DOE policy and/or procedural changes. Responsible for preparing, presenting, and defending written testimonies in adjudicatory hearings before the Commission and other regulatory agencies, as required.

I'm also responsible for analyzing data and reports submitted by utilities and other stakeholders concerning rate cases and other gas industry issues; preparing and supervising the preparation of detailed economic reports, market forecasts, engineering and safety studies; and financial assessments advising the Commissioner of DOE on the economic impacts of proposed regulatory actions, and presenting testimony to communicate and defend DOE regulatory positions.

And, finally, last, but not the least, monitoring regulatory issues at the federal and wholesale levels, and recommending issues for DOE

```
1
         comment and/or involvement.
 2
         Thank you. Could you please give us a quick
 3
         summary of your educational background?
 4
         (Arif) I'm an economist by training. I have a
 5
         Ph.D. in Economics from the Joint Doctoral
 6
         Program in Economics between the University of
 7
         Ottawa and Carleton University in Ottawa, Canada.
         At the doctoral level, I attained specialization
         in two areas: Regulatory Economics and
 9
10
         International Trade and Finance.
11
                   Most pertinent to my current role is my
12
         specialization in Regulatory Economics.
1.3
         specialization required that I take numerous
14
         graduate-level courses on topics, such as Firms
15
         and Markets, Competition Policy, Regulation of
16
         Public Enterprises, Game Theory and application,
17
         and the aspects of Firm Behavior.
18
                    I also spent a year at the University
19
         of Guelph, where I specialized in quantitative
20
         modeling, particularly Game Theory and
21
         Econometrics.
22
    Q
         Mr. Arif, could you please look briefly at the
23
         document that's been marked "Exhibit 6"?
24
    Α
          (Arif) Yes. That is my CV.
```

Q Thank you. And could you please summarize your professional background prior to joining DOE, just quickly?

1.3

A (Arif) Prior to joining the Department of Energy,

I was employed for 15 years by the Federal Public

Service of Canada. In various capacities there,

I worked in four separate departments and/or

agencies that included the Department of

Employment and Social Development, the

Competition Bureau of Canada, the Department of

Industry; and the Treasury Board of Canada

Secretariat.

My past work experience that is most relevant to my current role are two. I worked at the Competition Bureau of Canada, commensurate to the Federal Trade Commission here in the United States, as an Economist in their Economic Policy and Enforcement Branch. I worked there -- my work there focused on cases related to the various provisions of the Federal Competition Act, that included, but was not limited to, civil matters, such as mergers and acquisitions and abuse of dominance. In that role, I developed the government's position on different cases

```
1
         through, among other things, market studies,
 2
         significant quantitative and qualitative
 3
         analysis, strategy planning sessions, and
 4
         developing testimonies.
 5
                    I also worked at the Federal Department
 6
         of Industry in the Marketplace Framework Policy
 7
         Branch on the policy side of market regulation.
 8
         There, as a Policy Analyst, I worked on a number
         of government initiatives, including, but not
 9
10
         limited to, the Competition Act, the Patent Act,
11
         the Copyright Act, and the Investment Canada Act.
         Mr. Arif, have you previously testified before
12
         the Public Utilities Commission here in New
13
14
         Hampshire?
15
         (Arif) I have not.
    Α
16
         I would like to ask you a few questions now
17
         directed towards the Settlement Agreement that is
18
         filed in this docket. And before we turn to
19
         those more specific questions, could you look
20
         briefly at the document that's been marked
21
         "Exhibit 5" that's open on your computer?
22
    Α
         (Arif) I'm just going there. Yes, it is.
23
         Can you identify what that document is?
24
          (Arif) Those are prefiled testimonies by, I
```

```
1
         believe, consultants and former PUC Staff, before
 2
         the split between the Commission and --
 3
    Q
         Thank you. Could you --
 4
         (Arif) -- and Department of Energy.
 5
         Could you please summarize your role in DG
 6
         17-152, this LCIRP?
 7
         (Arif) As I stated earlier, I joined the
    Α
 8
         Department of Energy in June of this year. So,
 9
         my direct role in this docket has been quite
10
         limited. Specifically, I was involved in
11
         settlement discussions that led to the Settlement
12
         Agreement that is before the Commission today.
13
         And that's Exhibit 12, correct, the Settlement
    Q
14
         Agreement?
15
    Α
         (Arif) Yes. I believe so.
16
         And does the Department of Energy view the
17
         Settlement, as filed, as just, reasonable, and in
18
         the public interest?
19
         (Arif) Yes.
    Α
20
         And why, in your opinion, is that the case?
21
         (Arif) Because the current Settlement Agreement
22
         requires the subject utility, in this case
23
         Liberty, to meet a number of recommendations, as
24
         is set out in Section 2.3 for its next LCIRP
```

1	submission.
2	In my opinion, and that of the
3	Department of Energy leadership, the specificity
4	of items Liberty is required to address will
5	improve the LCIRP process, the quality of
6	Liberty's next LCIRP submission, and goals of the
7	LCIRP statutes.
8	For those reasons, the Settlement
9	Agreement, I believe, is just, reasonable and in
LO	the public interest.
L1	MS. SCHWARZER: Thank you. No further
L 2	questions.
L 3	CHAIRMAN GOLDNER: Thank you. And,
L 4	Attorney Kreis, understanding that you signed the
L 5	Settlement, you probably have no questions for
L 6	the witnesses, but I'd like to afford you the
L 7	opportunity if you do?
L 8	MR. KREIS: Actually, I do have a few
L 9	questions, that hopefully are aimed toward
2 0	bolstering the case for approval of the
21	Settlement Agreement. And this will just take a
22	couple of minutes.
23	I certainly don't have any the
2 4	Settlement itself indicates that the signatories

1 waive cross-examination on issues raised in the 2. prefiled testimony, and I don't have any 3 questions about any of the prefiled testimony. 4 I just have a few questions for 5 Mr. Tilbury, though, and maybe a question or two 6 for Ms. Dao and Mr. Perry. 7 CROSS-EXAMINATION 8 BY MR. KREIS: First of all, Mr. Tilbury, in your colloquy with 9 10 Attorney Sheehan, you talked about "options" that 11 you and your colleagues at Liberty are evaluating 12 as you work on the next Least Cost Integrated 1.3 Resource Plan. Do you remember when you said 14 that? 15 (Tilbury) Yes, sir. Α 16 What do you mean by "options"? And here's what I 17 specifically want to know. By "options", do you 18 include only capital deployment options or are 19 you talking about options in addition to 20 investing capital? 21 (Tilbury) Yes. When we look at our demand Α 2.2 forecast and how to meet that demand forecast, I 23 believe we look at all of our options and weigh 24 all of our options to provide least cost

Whether that's a capital project, or 1 services. 2 trying to subscribe for additional capacity on a 3 pipeline, or on-site RNG, we'll evaluate all of 4 those and determine what's the least cost and in 5 the best interest for reliable service to our 6 customers. 7 Q Does that include options that might exist on the 8 demand side of the seesaw? 9 (Tilbury) Yes, it does. When we look at energy 10 efficiency, or if there's new technology out 11 there that would create better efficiencies, 12 sure. 13 Indeed. And I wanted to zero in in that regard Q 14 on Recommendation 1, and make sure it's clear at 15 least what the Company thinks Recommendation 1 is 16 all about. 17 First of all, with respect to the 18 NHSaves Programs that are funded for gas 19 utilities through the LDAC charge, you would 20 agree with me, would you not, that the utilities 21 themselves, including your company, don't place 22 any capital at risk or don't invest any capital

in energy efficiency through the NHSaves

23

24

Programs?

1 (Tilbury) I apologize. I don't know about the 2 NHSaves Program yet. 3 Q Would you agree with me that the NHSaves Programs 4 are limited in their scope by a statutory cap on 5 the available funding for those programs? 6 (Tilbury) I don't feel comfortable answering that 7 question, because I don't, again, don't know all 8 of the requirements around NHSaves. We do -- I have engaged our Energy Efficiency Manager in 9 10 this, and had several meetings with them on what 11 we need to do to make sure that we are compliant with Recommendation Number 1. 12 13 With respect to your understanding of Q 14 recommendation under 1, it says "Evaluate energy 15 efficiency as a potential resource alternative, 16 incremental to any customer-funded programs 17 offered via NHSaves." Could you elaborate on what the word "incremental" means in the context 18 19 of that sentence? 20 (Tilbury) Yes. I believe it's evaluating all Α 21 energy efficiency to offset potential projects 22 and other things that would come from growth on 23 your system, and reviewing any sort of energy 24 efficiency programs that would help prolong your

```
1
         current system.
 2
         Would you agree that "incremental" means "in
 3
         addition to the programs offered via NHSaves"?
 4
         (Tilbury) Yes. That's how I would read that.
 5
         And would you further agree that, at least
 6
         theoretically possible, that some of those
 7
         incremental energy efficiency opportunities might
         be locationally specific, in the sense of being
 8
         least cost in relation to specific supply side
 9
10
         investments the Company might need to make in
11
         specific locations in its service territory?
12
         (Tilbury) Can you repeat that please, I'm sorry?
13
         Well, I'm just wondering if there's any potential
14
         for energy efficiency initiatives that are
15
         incremental, within the meaning of Recommendation
16
         1, is it theoretically possible that some of
17
         those incremental opportunities could be least
18
         cost in relation to supply-side investments the
19
         Company might need to make in specific areas of
20
         its service territory, again, just theoretically?
21
         (Tilbury) Yes.
    Α
22
    Q
         And would you agree with me, assuming, subject to
23
         check, that the resources available under NHSaves
24
         are capped by a statutory limitation, it is
```

```
1
         possible, theoretically, that either programs or
 2
         investments in energy efficiency could,
 3
         additionally to the NHSaves Programs, be least
 4
         cost in relation to other options the Company
 5
         might consider?
 6
         (Tilbury) Yes. I'm just thinking about that
 7
         question, making sure.
 8
         Okay. Well, I'll accept "yes" as an answer.
 9
         (Tilbury) Yes.
10
         Okay. Just a question or two for Ms. Dao and
11
         Mr. Perry. And you, as between the two of you,
12
         can decide whether -- which of you answers, or
13
         both of you are willing to answer.
14
                    I just would like to take an
15
         opportunity to clarify what exactly
16
         ScottMadden -- ScottMadden's charge is with
17
         respect to its work for the subject utility here.
18
         And I guess I want to distinguish between
19
         drafting an LCIRP, a document, and helping the
20
         Company actually plan which options it wants to
21
         opt for in its -- as it plans what it is going to
22
         do over the period covered by the LCIRP. And I'd
23
         like to know which of those two things
24
         ScottMadden actually does for the Company?
```

```
1
          (Dao) We've help to draft the LCIRP, so
 2
         developing the demand forecast, as well as
 3
         compiling information that goes into the relevant
 4
         sections related to the demand forecast, with
 5
         respect to, you know, the Company's resource
         decisions, you know, if the Company were to seek,
 6
 7
         you know, guidance, in terms of, you know, how to
 8
         evaluate, we can offer, based on our consulting
         experiences, and judgments and experience, you
 9
10
         know, some, you know, quidance, in terms of how
11
         to analyze. And we've done that, not for this
12
         specific LCIRP, but we have done that for other
13
         LDCs.
14
         So, your task is to help the Company draft its
    Q
15
         written Least Cost Integrated Resource Plan?
16
         (Dao) Yes. In this docket, yes.
17
         Do you have any involvement in the actual
18
         planning decisions that the utility makes, as it
19
         evaluates which options, among those that are
20
         available, it actually pulls the trigger on?
21
         (Dao) We've provided some of the context for the
    Α
22
         regional market dynamics, so, the planning
23
         environment. So, some context with respect to
24
         the environment in which the Company plans.
```

```
1
         we did not provide specific guidance on the
 2
         actual resources and supplies.
 3
    Q
         And you weren't involved in the actual
 4
         decision-making, presumably?
 5
         (Dao) No.
                    MR. KREIS: Thank you. Those are all
 6
 7
         the questions I have, Mr. Chairman.
 8
                    CHAIRMAN GOLDNER: Okay. Thank you,
 9
         Attorney Kreis.
10
                    We can move to Attorney Krakoff for
11
         cross.
12
                    MR. KRAKOFF: Thank you. Initially, I
13
         note that I have some questions from
14
         Mr. Hibbard's testimony. So, it will be best to
15
         wait until this afternoon to ask those questions?
16
                    CHAIRMAN GOLDNER: That would be fine.
17
         Thank you.
18
                    MR. KRAKOFF: Okay. So, I have some
19
         questions for Mr. Arif.
20
    BY MR. KRAKOFF:
21
         Mr. Arif, it says on your CV, which has been
22
         identified as "Exhibit 6", and specifically on
23
         Bates 003, that you "Provide input in developing
24
         the New Hampshire Energy Policy", is that right?
```

```
1
          (Arif) Yes.
                      Yes.
 2
         And is that the New Hampshire Energy Strategy or
 3
         is this a particular policy or just general
 4
         policy?
 5
         (Arif) It is one of -- it is recognizing what
 6
         is -- my role is. And I am in the state of
 7
         involving myself more and more into the process.
 8
         Okay. And there's no, you know, there's no
    Q
 9
         specific policy in New Hampshire called the "New
10
         Hampshire Energy Policy", is there?
11
         (Arif) I am aware of a document. If you are
    Α
12
         referring to the "Energy Strategy", --
13
         Okay.
    Q
14
         -- I am aware of that document.
15
         Okay. So, there's not a separate document called
16
         the "New Hampshire Energy Policy", there's just
17
         the "New Hampshire Energy Strategy", is that
18
         correct?
19
         (Arif) Not that I'm aware of at this point in
    Α
20
         time.
21
         Okay. Thank you. Now, in your role in this
    Q
22
         docket, you are familiar with the New Hampshire
23
         LCIRP statutes, specifically -- specifically, RSA
24
         378:37 through 378:39, are you not?
```

```
(Arif) I have taken a read and note of that RSA.
 1
 2
         Okay. And you'd agree that, under RSA 37 -- RSA
 3
         378:37, in addition to being the state energy
 4
         policy to "meet the energy needs of its citizens
 5
         and businesses...at the lowest reasonable cost",
 6
         it is also the state energy policy to "provide
 7
         for the reliability and diversity of energy
         sources", correct?
         (Arif) Could specify the RSA one more time?
 9
10
         Sure. RSA 378:37.
11
                   MS. SCHWARZER: Just to the extent
12
         Mr. Krakoff is reading the statute, I mean,
1.3
         certainly, he's read it correctly, I'm not sure
14
         if there's a legal question or -- does
15
         Mr. Arif -- can he see a copy of the statute?
16
                   CHAIRMAN GOLDNER: Attorney Krakoff,
17
         you just read the statute, correct?
18
                   MR. KRAKOFF: Correct.
19
                   CHAIRMAN GOLDNER: Okay. So, I think
20
         it's a reading of the statute. And then, what
21
         was your question, Attorney Krakoff?
22
                   MR. KRAKOFF: My question was just
23
         merely an acknowledgement that that is the
24
         language of the statute.
```

```
1
    BY THE WITNESS:
 2.
         (Arif) And, for the purposes of my involvement
 3
         into this docket, I have taken somewhat of a read
 4
         of RSA 378. I believe your question is related
 5
         to "RSA 377:8", is that correct?
 6
    BY MR. KRAKOFF:
 7
         That's "RSA 378:37".
 8
                   MS. SCHWARZER: Mr. Chairman, if I
 9
         might approach with a paper copy of that statute
10
         just for Mr. --
11
                    CHAIRMAN GOLDNER: Sure. Of course.
12
         Thank you.
1.3
                    MR. KRAKOFF: And I can repeat the
14
         question.
    BY MR. KRAKOFF:
15
16
         Mr. Arif, my question was simply that, in
17
         addition to it being part of the state's energy
18
         policy to meet the state's energy needs at the
19
         lowest reasonable cost, it is also one of the
20
         state's energy policies to increase the diversity
21
         and reliability of energy sources or to provide
22
         for the reliability and diversity of energy
23
         sources?
24
         (Arif) I just took a quick read. And, based on
```

the reading, I would agree with you. 1 2 Okay. Thank you. And, as the Director of the 3 Gas Division at DOE, are you familiar with the 4 New Hampshire 10-Year State Energy Strategy that 5 was recently revised? 6 Α (Arif) I am aware of the existence of that 7 document. 8 Okay. Now, this document has been marked in the Q 9 record as "Exhibit 13". So, I'm going to ask you 10 a few questions about that document. And just 11 please let me know once you've located that 12 document on your computer. 13 (Arif) Yes. I am there. Α 14 Okay. So, on Page 12, Bates Page 012 of this Q 15 document, it states, at the end of that page, 16 that "More than 80 percent of New Hampshire homes 17 are heated by either propane, oil or natural 18 gas." And that's the second sentence in the 19 "Heating" section on that page there. Do you see 20 that? 21 (Arif) I do. Α 22 Q Do you have anything, you know, do you know of 23 anything to doubt that figure, that "80 percent" 24 of New Hampshire's heating needs comes from

```
1
         propane, natural gas, and heating oil?
 2
         (Arif) I don't.
 3
         Thank you. Now, could you look at Page 39
 4
         please? Just let me know, once you've found
 5
         that.
 6
         (Arif) Yes, I'm there.
 7
    Q
         And that says "Fuel Diversity", correct, that
 8
         section, Section 3?
          (Arif) That is correct.
 9
    Α
10
         Okay. And then, turning to Page 58, that
11
         subsection is titled "Heating", correct?
12
         (Arif) I see it.
13
         And would you agree that that "Heating"
    Q
         subsection falls under the "Fuel Diversity"
14
15
         section of the New Hampshire State Energy
16
         Strategy?
17
    Α
         (Arif) Could you repeat your question please?
18
         Sure. My question is simply, is there a
    Q.
19
         subsection on "Heating" within the section of
20
          "Fuel Diversity" in the New Hampshire State
21
         Energy Strategy?
22
    Α
         (Arif) I believe so.
         Thank you. So, based on -- based on those
23
    Q
24
         sections and subsections, wouldn't you agree that
```

```
1
         the State Energy Strategy promotes fuel diversity
 2
         for heating?
 3
    Α
         (Arif) I would say that what the Energy Policy
 4
         promotes are the stated goals, which are
 5
         identified in Bates Page 007 of that document.
 6
    Q
         So, but even though there's a subsection on
 7
         "Heating" within the section on "Fuel Diversity",
         you don't think that is the state's energy --
 8
 9
         part of the state's Energy Strategy to promote
10
         fuel diversity in heating?
11
         (Arif) I would respectfully repeat that what I
12
         believe, and for that of the leadership of DOE
13
         believes, in terms of the Energy Strategy are the
14
         stated goals as identified on Bates Page 007.
15
         So, despite something being within the State
    0
16
         Energy Strategy, your position is, unless it's
17
         one of the stated explicit goals, it's not part
18
         of the State Energy Strategy, is that what you're
19
         saying?
20
         (Arif) I wouldn't agree with that statement.
21
         Would you agree that what's included in the State
    Q
22
         Energy Strategy is part of the State Energy
23
         Strategy?
24
          (Arif) Could you clarify your question please?
    Α
```

```
1
         I'm not sure what there is to clarify.
 2
         question is merely, if something is included
 3
         within the State Energy Strategy, would it be
 4
         fair to say that's part of the state's energy
 5
         strategy?
 6
         (Marx) The whole document, in its entirety,
 7
         identifies the state's energy strategy.
 8
    Q
         Thank you. Now, look at Page 59. This is the
 9
         third paragraph on Page 59. It states that "In
10
         some circumstances, heat pumps make sense as a
11
         replacement for high-cost carbon intensive
12
         systems." Do you see that?
13
         (Arif) I do.
    Α
14
         And it says, moreover, "Put in the simplest
15
         terms, heat pumps function the same as an air
16
         conditioning unit works, except run in reverse.
17
         Heat pumps are very efficient and technological
18
         improvements have largely overcome the issues
19
         with keeping homes warm on the coldest days of
20
         the year." Do you see that? Is that in there?
21
         (Arif) I do.
    Α
22
    Q
         So, would you agree that the New Hampshire State
23
         Energy Strategy recognizes that, in some
         circumstances, "heat pumps make sense as a
24
```

```
1
         replacement for high-cost carbon intensive
 2
         systems"?
 3
                   MS. SCHWARZER: And, Mr. -- I'm sorry,
 4
         you're quoting the document, is that correct?
 5
                   MR. KRAKOFF:
                                  That is correct.
 6
                   WITNESS ARIF: Could you repeat your
 7
         question please?
    BY MR. KRAKOFF:
 8
         Based on what I just read to you from Page 59 of
 9
10
         the New Hampshire State Energy Strategy, would it
11
         be fair to -- would it be fair to say that the
12
         New Hampshire State Energy Strategy recognizes
13
         that "In some circumstances, heat pumps make
14
         sense as a replacement for high-cost carbon
15
         intensive systems"?
16
         (Arif) What I'd like to emphasize is that,
17
         reading of particular subsection does not take
18
         away the emphasis from identified goal, as
19
         identified on Bates Page 007 of this document, as
20
         the overall energy strategy for the State of New
21
         Hampshire.
22
    Q
         Okay. I'm not asking you whether that paragraph
23
         there is a "goal", it's one of the nine or ten
24
         enumerated goals. What I'm merely asking you is
```

```
1
         does it state here that "in some circumstances,
 2
         heat pumps may make sense as a replacement for
 3
         high-cost carbon intensive systems"?
 4
         (Arif) That is the reading of that paragraph,
 5
         yes.
 6
    Q
         Thank you. And then, turning to Page 21, it's
 7
         the very end of Page 21 and the top of Page 22 of
         that strategy, beginning with "The current move
 8
         toward electrification", on the page -- bottom of
 9
10
         Page 21, it says "The current move toward
11
         electrification, replacing fossil fuels with
12
         electricity to power our economy, is gaining
13
         momentum in many aspects of our everyday lives
14
         from building comfort to transportation.
15
         promises lower emissions of air pollutants, a
16
         more decentralized grid, greater customer choice
17
         and potential cost savings, but grid security and
18
         the pace of integration will affect how quickly
19
         and cost-effectively electrification is adopted."
20
         It states that, correct?
21
         (Arif) It does.
    Α
22
    Q
         Would you agree, from that paragraph, which I
23
         just quoted to you, that the State Energy
24
         Strategy recognizes certain benefits associated
```

```
1
         with electrification and certain instances,
 2
         including building electrification?
         (Arif) It does recognize it. So does the reading
 3
    Α
 4
         of that particular paragraph.
 5
         And it also recognizes, in certain circumstances,
 6
         that electrification can result in cost savings,
 7
         right?
 8
         (Arif) It would appear that way so.
 9
         Thank you. Now, this next question you may not
    Q
10
         have any knowledge of, and, you know, please just
11
         let me know if, you know, you lack any knowledge
12
         of this.
13
                    Now, are you aware that the recently
14
         enacted Anti-Inflation Act, which was passed two
15
         days ago, that awards $4.275 billion to states
16
         for a high-efficiency electric home rebate
17
         program?
18
         (Arif) I am not aware.
19
         Okay. And are you aware that this -- that this
20
         Act that was recently enacted, recently signed
21
         into law, it includes up to $8,000 per households
22
         and grant funding for electric heat pumps for
23
         space heating or cooling?
24
         (Arif) I'm not aware.
    Α
```

```
1
         Okay. And are you aware that funds are only
 2
         awarded to states, under this program that was
 3
         recently set up, if state energy offices develop
 4
         a plan, apply for funding, and the application is
 5
         approved?
         (Arif) I'm sorry. Unfortunately, I'm not aware.
 6
 7
         Okay. And do you have any -- strike that.
    Q
 8
                   MR. KRAKOFF: I have no further
 9
         questions for this witness, or for the other
10
         witnesses. But would like to reserve some time
11
         to question Mr. Hibbard this afternoon.
12
                   CHAIRMAN GOLDNER: Okay. Very good,
13
         Mr. Krakoff. Attorney Husband?
14
                   MR. HUSBAND: No questions at this
15
         time. Thank you.
16
                   CHAIRMAN GOLDNER: Okay. Very good.
17
         Just a moment.
                    [Chairman Goldner and Commissioner
18
19
                   Simpson conferring.]
20
                   CHAIRMAN GOLDNER: Okay. We'll begin
21
         with Commissioner questions from Commissioner
22
         Simpson.
23
                   CMSR. SIMPSON: Thank you, Mr.
24
         Chairman.
```

So, I'd like to go back to Section 2.3 1 2. of the Settlement Agreement, and some of the 3 recommendations that are outlined here by the 4 Settling Parties. And I'll ask these to the 5 panel. Please feel free, any of the witnesses, 6 to weigh in. 7 BY CMSR. SIMPSON: 8 So, Recommendation Number 1, the Consumer Advocate had asked some questions with respect to 9 10 the "incremental energy efficiency resource 11 alternatives". Could any of you provide some examples as to what you'd view as "incremental 12 1.3 energy efficiency alternatives" that could be 14 included in the Company's LCIRP that are outside 15 of the NHSaves Programs? 16 (Tilbury) I believe we would evaluate that as an 17 alternative, if looking at an energy efficiency 18 potential incremental to what it was was still 19 the least-cost alternative. As to specifics of 20 what that is? I don't know what that is right 21 now. 22 But, when we're looking at least cost 23 service to our customers, if an energy efficiency 24 program were to reduce the need for a pipeline

```
1
         expansion or something like that, because the
 2
         customer is more efficiently using the commodity,
 3
         well, then that would be something that we would
 4
         put in there and evaluate.
 5
         Can you think of any system operational
 6
         investments that result in the more efficient
 7
         delivery of natural gas?
 8
         (Tilbury) I can think of, like, on-system RNG,
 9
         which would be, you know, when you move gas
10
         across an interstate pipeline, you're charged
11
         fuel and fees and stuff like that. And, so, what
12
         you're purchasing and what's delivered at the
13
         door is less than what you originally purchased.
14
         If you're looking at an on-system commodity
15
         coming onto your system, such as RNG, that
16
         becomes, you know, you're not using pipeline fuel
17
         on compression upstream of your distribution
18
         system and whatnot, and being consumed that way.
19
         It would be coming directly onto our system.
20
         And, therefore, efficiently, that would be a more
21
         efficient way of gas coming onto the system.
22
    Q
         Okay. Thank you. And then, the second half of
23
         that recommendation "look for opportunities for
24
         Commercial and Industrial customer fuel
```

```
1
         switching." Can you explain that further please?
 2
         (Tilbury) I don't have enough knowledge right now
 3
         with the type of commercial/industrial customers
 4
         that we have currently on our system. It would
 5
         be something that we would evaluate the
 6
         opportunities to see if that was something that
 7
         existed on our system.
                   But, right now, I don't have a great
 8
 9
         answer for you in the regards of, because I just
10
         don't know what type of industrial/commercial
11
         customers we have.
12
         Okay. Can you comment on why, in this
13
         recommendation, the "Commercial" and "Industrial"
14
         customer types are specifically noted?
15
    Α
         (Tilbury) They're, typically, your large -- your
16
         large consumers of natural gas on your system.
17
         And, so, by looking at them, and having potential
18
         fuel-switching, you may prolong your need for
19
         system enhancements.
20
         Okay. And can you explain the concept of
21
         "fuel-switching" in general, and how that might
22
         be in line with the Company's business practices
23
         today?
24
         (Tilbury) That's something we can take back as a
```

```
1
         data request, and take a look at it and get a
 2
         better answer for you.
 3
    Q
         Okay. Let's jump to Recommendation Number 2.
 4
         "Evaluating renewable natural gas and other
 5
         non-fossil fuels as alternatives to traditional
 6
         fossil fuel-based supply." Can you elaborate on
 7
         the universe of possibilities of non-fossil
 8
         alternatives to supply?
 9
    Α
         (Tilbury) The "universe"? Are you talking about
10
         the different types of RNG that are available?
11
    Q
         Yes.
12
         (Tilbury) Okay. Yes. I mean, so, I mean, we
13
         would evaluate landfill gas potentially,
14
         biomethane from cattle manure. There's also talk
15
         about a byproduct from, and I'm not as familiar
16
         with this one, but byproducts of wood and that
17
         process that's seen in New Hampshire. And then,
18
         we also have on here "Certified Gas" as well.
19
                    Those would be the ones that come to
20
         mind when I thought -- when you ask about RNG.
21
         And then, hydrogen is another part of that.
22
    Q
         Dig in a little be more on the hydrogen aspect,
23
         if you might?
24
    Α
         (Tilbury) I think hydrogen is in the early
```

```
1
         stages. And, you know, while it's on the
 2
         horizon, I don't know that, to my knowledge, I
 3
         don't know of any hydrogen plans at this point.
 4
         Okay. And then, with respect to "Certified Gas",
 5
         in your role as the Director of Energy
 6
         Procurement, can you explain the current state of
 7
         Certified Gas programs, and the availability of
         those certifications for the fuels that you
 9
         purchase today?
10
         (Tilbury) Sure. So, I've looked as Certified Gas
11
         in my previous role, prior to coming to Liberty
12
         Utilities. And worked in some regards with some
13
         of the companies that provide the certification.
14
         And, so, essentially, it's putting equipment out
15
         on the wellhead or production area, before it
16
         gets to the gathering system, to monitor
17
         emissions, and track those emissions, and have
18
         some sort of qualifying criteria that it meets,
19
         and then that would be Certified Gas,
20
         low-emission gas that you would get. We refer to
21
         it as "CLEG", or "Certified Low-Emissions Gas",
22
         here in this, as we're providing Certified Gas.
                   And have not purchased any of that, but
23
24
         I am aware of companies going out for RFP for
```

```
1
         Certified Gas. In previous roles, we've
 2.
         participated in that. And we were not successful
 3
         in that. So, I don't know what that market
 4
         entails yet. But that's my information on
 5
         "Certified Gas".
 6
    Q
         And are you aware of standards in place for
 7
         Certified Gas?
 8
         (Tilbury) I'm not, I do not know the exact
 9
         qualifications that would be what would qualify
10
         as "certified" versus "non-certified". I don't
11
         know what the limits are for emissions, if that's
12
         what you're asking.
         Are you aware of whether there are -- whether
1.3
    Q
14
         standards exist? I'm not asking about the
15
         specific requirements within a standard for
16
         Certified Gas, but whether there are standards
17
         that exist to verify and back up claims of
18
         Certified Gas?
19
         (Tilbury) My understanding is "yes".
    Α
20
         Okay. Recommendation 3: "Evaluate ways to
    0
21
         optimize existing pipeline capacity." Can you
22
         elaborate that on a bit further? And we can --
23
         I'm really looking conceptually, it's not
         specific to --
24
```

1 (Tilbury) Sure. 2 -- the Company's current supply portfolio or utilization of pipeline capacity, just in 3 4 general. 5 (Tilbury) I think, in general, when you're 6 looking at a least cost integrated resource plan, 7 you're going to evaluate your system, and to make 8 sure that you're utilizing it as the most 9 effective way to move the most gas across that 10 system. You know, you're always subject to 11 pipeline pressures, upstream pressures, delivery 12 pressures that come to you, and your ability to 13 take gas. 14 So, I think, when we look at our 15 existing system, we want to make sure that we're 16 optimizing it, and that we've checked that box, 17 before we move on to looking at what we need to 18 do to be able to continue to deliver reliable gas 19 service to our customers. 20 Okay. Thank you. Moving to Recommendation 21 Number 4: "Assess resources in terms of the 22 environmental impacts by documenting the 23 greenhouse gas impacts of evaluated resources in 24 terms of emissions", and I believe the metric is

```
1
         "million tons of CO2 equivalent", is that
 2
         correct?
 3
    Α
         (Tilbury) "MMT CO2"?
         "e".
 4
 5
         (Tilbury) "e".
 6
         Is that -- am I interpreting that correctly,
 7
         "million tons of CO2 equivalent"?
 8
         (Tilbury) That would be my understanding, but I
 9
         agree. I'm not a --
10
         So, nobody is sure? Or, does somebody agree that
11
         that's correct? I'm just trying to understand
12
         what that unit means?
13
         (Dao) Yes. Based on my understanding, that is
    Α
14
         correct.
15
         Okay. Can anyone elaborate on why you view that
    Q
16
         metric as relevant? Why it's included in the
17
         Settlement Agreement?
18
         (Tilbury) No. I would have to rely on who we
    Α
19
         would need to bring in for the environmental
20
         impact study.
21
         Then, can you explain why this is included in the
    Q
22
         Settlement Agreement?
23
    Α
         (Tilbury) Because I believe it provides more
24
         clarity to the Company on what we need to provide
```

```
1
         in our environmental portion of our LCIRP.
 2
         to the extent of the units, no.
 3
    Q
         Okay. Recommendation Number 5: "Assessing
 4
         public health impacts in terms of the health
 5
         effects of local air quality impacts of evaluated
 6
         resources by documenting sulfur oxides, nitrous
 7
         oxides, and particular matter emissions
 8
         projecting health impacts." And it's a similar
         question. Just why are those the metrics put
 9
10
         forth in this recommendation? Just trying to
11
         understand the thinking.
12
         (Tilbury) Yes. Again, I would have to say that
13
         I'm more focused on the energy procurement side
14
         of things, as opposed to the environmental
15
         impacts. And I would be, again, looking for, as
16
         we go to address Recommendation Number 5, working
17
         with our environmental and public health side of
18
         things to make sure that we met those.
19
                   MR. SHEEHAN: If I may interject,
20
         Commissioner Simpson? We always have the issue
21
         of getting the right people on the stand to
22
         answer your questions, and you're seeing some
23
         limitations now.
24
                    I can tell you that, as a general
```

1	matter, we did look carefully at the Northern
2	Working Group Report, and that's where all of
3	this comes from. And, with general expertise or
4	general knowledge, we thought these made sense.
5	And, of course, I can't testify, but that's
6	the that's why they're here. Why we chose
7	this number, instead of that number, is, frankly,
8	because the Northern group did a lot of the
9	homework. And the benefit we saw was "here's a
10	number that we can look at and measure and we
11	know what we're shooting for", rather than
12	that has some careful work behind it.
13	CMSR. SIMPSON: Okay. So, it wasn't
14	just from negotiations of the Settlement. You
15	brought them in from another effort?
16	MR. KREIS: Yes. And if I might
17	interject, with apologies to Mr. Sheehan.
18	That effort, in that other docket, was
19	conducted with the assistance of an outside
20	consulting firm, and was the result of a very
21	long series of careful, deliberative,
22	collaborative meetings. The Commission purported
23	to reject those recommendations, or at least
24	modify them, in its order in the Northern docket.

It did that without conducting a hearing, without hearing from any of the people who developed those recommendations, and in a manner that really isn't authorized by statute. That's the reason I filed the rehearing motion in that docket.

But it's a problem here for exactly the reason that you are drawing out from the witnesses. We adopted those well-developed recommendations from that other docket and inserted them here for good reason. And I'm frustrated, because the Commission appears to be giving them the back of its hand, in another docket, in a way that is impactful in this docket.

MR. SHEEHAN: And the other part of our thinking was, it would make sense to have both utilities doing the same thing. And, again, relying on all that hard work, why recreate the wheel and come up with slightly numbers, we accepted those as good numbers. And the Consumer Advocate and DOE were in those conversations, we weren't. But we thought we could benefit from them and have both utilities shooting for the

```
1
         same targets.
 2
                    CMSR. SIMPSON: Okay. Thank you.
 3
    BY CMSR. SIMPSON:
         Moving on to Recommendation Number 6: "Assessing
 4
 5
         the economic development impacts by estimating
 6
         direct, indirect and induced jobs created from a
 7
         resource and the associated economic development
         impact."
 8
 9
                    So, can the witnesses explain what's
10
         intended by "indirect and induced jobs created
11
         from a resource"?
                    MR. SHEEHAN: I don't want to answer
12
13
         for them. If they can't, it's the same answer.
14
         These provisions were directly lifted from the
15
         Working Group Report, and, again, relying on
16
         their work.
17
                    For the folks who do that analysis,
18
         those are probably terms of art that make sense,
19
         and maybe Mr. Hibbard can answer some of those
20
         questions. I think he isn't in that field as
21
         well.
22
                    But that's, again, the source of these.
23
         And why they were included here is piggybacking
24
         on hard work by others.
```

```
1
                                    Okay. And just for
                    CMSR. SIMPSON:
 2
         planning purposes, when will he be here this
 3
         afternoon?
 4
                    MR. SHEEHAN: He was to come at one
 5
         o'clock.
 6
                    CMSR. SIMPSON: Okay. All right.
 7
         Folks can kind of see, I'm just trying to walk
 8
         through these, and understand why they're present
         in the Settlement Agreement, and understand
 9
10
         what's intended by each of them.
11
    BY CMSR. SIMPSON:
         So, Recommendation Number 7: "Expand evaluation
12
1.3
         methods to include review of environmental,
14
         public health, and economic development impacts
         of resource alternatives."
15
16
                    Can anyone enlighten me on possible
17
         "evaluation methods"?
18
                    [Short pause.]
    BY CMSR. SIMPSON:
19
20
         I quess I'll move on.
21
                    MR. SHEEHAN: Again, the thinking here
22
         is, when we're going to look at a project, we
23
         evaluate dollars cost. But this is going to say
24
         "also evaluate what are those impacts."
```

If we're going to put a -- and we don't 1 2 build diesel generators, if we were going to put 3 a diesel generator next to a school, we would 4 evaluate not just the cost of the generator, but 5 what impact could it have on that school when the 6 kids play in the yard. 7 So, it's really to look at more than 8 just putting in a 2-inch pipe versus a 4-inch 9 pipe, you know, --10 CMSR. SIMPSON: Uh-huh. 11 MR. SHEEHAN: As a not very good 12 example. 1.3 But it's just again to look at these 14 broader impacts, which is -- again, goes back to 15 the statute, that says we should make assessments 16 of environmental impacts as we make decisions. 17 And this is putting some definitions around 18 those, helping us better understand how to do 19 that. 20 CMSR. SIMPSON: Okay. Thank you. 21 MS. SCHWARZER: And just a brief 22 comment. I don't have my statute book before me 23 either. But, I believe, when Liberty's last IRP 24 was, prior to this one, was developed, the

1	statutory language with regard to 378:39 directs
2	the Commission to review with regard to certain
3	categories, public health, environmental,
4	economic. And there was some debate initially
5	among, I believe, utilities and the Department as
6	to whether the utilities had to provide the
7	underlying data that would enable the Commission
8	to make an assessment, or if the utilities were
9	to just simply focus on the 378:37. But, again,
10	I don't have my statute book before me.
11	But I believe one of the things this
12	recommendation does is clearly direct the utility
13	to consider to consider and provide
14	information that would allow the Commission to
15	make the evaluation that the Commission is
16	requires to make in that other statutory section.
17	CMSR. SIMPSON: Okay. Thank you,
18	Attorney Schwarzer. That's helpful.
19	MR. HUSBAND: May I interject?
20	And I'm obviously not testifying, but
21	just I think that the Commission is concerned
22	with basically the value of these
23	recommendations. And, specifically, in terms of
24	7, I would point out that, if you start placing

pipelines or infrastructure in a place near a school or something that's going to cause a public outcry, there's obviously a lot money that's going to be associated with those costs for the utility.

So, it does make a lot of sense, in terms of saving them money, to take a look at these things up front, before they start on a project that's just going to end up being, you know, ended at some point, because of the public problems.

CMSR. SIMPSON: Okay. Thank you,
Attorney Husband. And I would just distinguish,
I'm trying to understand what the recommendations
intend. That's why I'm trying to walk through
them, to fully understand the salient terms in
each of the recommendations. Because I'm
interpreting these recommendations as an effort
to provide more clarity to the Company moving
forward, from the perspective of the Settling
Parties, in how they may develop a thorough,
robust, and ultimately successful LCIRP in the
future. Is that a fair assessment?

MR. KREIS: Yes.

```
1
                   MR. SHEEHAN: Yes.
 2
                   MS. SCHWARZER: Yes.
 3
                   CMSR. SIMPSON: Thank you. Okay.
 4
                   And, for completeness, let's go through
 5
         the last two.
 6
                    [Laughter.]
 7
    BY CMSR. SIMPSON:
 8
         Recommendation Number 8, you mention
 9
         "Non-Pipeline Alternatives". Can you explain to
10
         me what might be considered as "Non-Pipeline
11
         Alternatives"?
12
         (Tilbury) Yes. Again, here, I think energy
1.3
         efficiency would fall into that one as well, as a
14
         non-pipeline alternative. I think also looking
15
         at -- looking at your system and seeing if
16
         there's opportunities for on-system gas or
17
         storage potentially to come on to boost your
18
         system.
19
                   We know we have challenges with
20
         interstate pipelines and capacities and stuff
21
         like that. So, as we see our system grow,
22
         traditionally, looking at pipeline, increasing
23
         pipe diameter and size, this one would be where
24
         you look at opportunities maybe to boost
```

```
1
         low-pressure areas of your system, allowing for
 2
         the system to continue to grow and meet
 3
         customers' demand.
 4
         Okay. Thank you. And then, the final
 5
         recommendation, Number 9: "Incorporate new
 6
         material relating to the recommendations listed
 7
         above into Liberty's LCIRP document in a logical
         manner and look for opportunities to label
         narrative sections more clearly to guide the
 9
         reader", or, did I read that right? Yes, "to
10
11
         more clearly guide the reader."
12
                   MR. KREIS: You could reject that on
13
         the ground that it is a split infinitive.
14
    BY CMSR. SIMPSON:
15
         So, "logical manner", what do the Settling
16
         Parties view as a "logical manner" in terms of
17
         listing recommendations into an LCIRP?
18
         (Tilbury) When I reviewed the 2017, you know, I
    Α
19
         went through it and read it prior to seeing this,
20
         and I had some questions about how it was laid
21
         out. And, as a reader from the outside, I
22
         thought that there was ways that we could also
23
         restructure how it is to help people that aren't
24
         engrained in the industry, and the acronyms, and
```

everything like that, to allow a -- in other words, in kind of layman's terms, so that people can read it from front to back and understand it. And, so, we've been working on that.

So, when I saw this come out as a recommendation, and we saw this, I thought it made sense, to be honest, to incorporate that.

So, that way, when people read it, it tells the story, you know. So, that's how interpreted Recommendation Number 9.

11 Q Okay.

- 12 A (Arif) If -- I'm sorry. Commissioner Simpson, --
- 13 Q Please.

A (Arif) -- if I may add a little bit, and being new to this whole set up, I will -- I'll put it out there first.

I think one of the things that is related to your question, Recommendation 7, you emphasized on "evaluation method", but there it is also written "expand evaluation method", and then "logical" -- your point here, a "logical manner". So, all of these are intended, to an extent, to make the readability and the contents as clear as possible for, hopefully, all the

```
1
         readers, when an LCIRP has been submitted, and
 2
         help, from the perspective of Department of
 3
         Energy, understand it better to develop their
 4
         position.
 5
                   CMSR. SIMPSON: Thank you.
 6
                   So, I think I will stop here and wait
 7
         for the afternoon to ask any further questions to
         Mr. Hibbard.
 9
                   CHAIRMAN GOLDNER: Okay.
10
                   CMSR. SIMPSON: Thank you.
11
                   CHAIRMAN GOLDNER: That sounds good.
12
         I'll just ask maybe 10 or 15 minutes' worth of
1.3
         questions. We can take a break, come back in the
14
         afternoon for the remaining witness, if
15
         everyone's okay with that? And I'm seeing "nods"
16
         up and down.
17
                   Okay. Let's see, if I boldly go
18
         forward, am I splitting my infinitive, Mr. Kreis?
19
                   MR. KREIS: You are not. Thank you for
20
         asking.
21
                    [Laughter.]
22
                   CHAIRMAN GOLDNER: All right. Very
23
         good.
24
                    I'll go in the same order as
```

```
Commissioner Simpson, with one exception.
 1
 2
         one thing I would say, on Recommendation 9, in
 3
         the Company's next filing, I would definitely
 4
         encourage an executive summary, in terms of, you
 5
         know, there's hundreds of pages of documents, and
 6
         all are necessary, I'm sure, but it would be very
 7
         helpful to sort of see just a high-level
 8
         executive summary of the key points up front.
 9
         So, --
10
                   CMSR. SIMPSON: That's probably even
11
         helpful in petitions outside of the LCIRP.
12
                   CHAIRMAN GOLDNER: That could be.
13
         these are the biggest. So, very good. That is
14
         right.
15
    BY CHAIRMAN GOLDNER:
16
         So, moving back to Number 1. So, I'll just read
17
         it back. It says "Evaluate energy efficiency as
18
         a potential resource alternative, incremental to
19
         any customer-funded programs offered via
20
         NHSaves."
21
                   And, Mr. Tilbury, I understand that
22
         you're relatively new. And, so, I won't -- I
23
         won't ask any detailed questions. But I would
24
         like to know, the implication of the word
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"incremental", and this is the third time going
 1
 2.
         around on the word "incremental", so you can
 3
         probably sense its importance. Does that imply
 4
         that there's insufficient funding in NHSaves to
 5
         do energy efficiency? What's the implication of
 6
         that word "incremental"?
 7
         (Tilbury) The way I took that was just that we
    Α
 8
         would evaluate all things, you know. And, when
         we look at incremental energy efficiency, if
 9
10
         that's the least cost, then that would be
11
         something that we would present.
12
         And this is what's baffling to me. Because
1.3
         NHSaves, and I would welcome comments from the
14
         parties on this, but, you know, that you're doing
15
         things, like you're insulating windows, you're
16
         doing these kinds of things. And I think, as
17
         Attorney Kreis said, there's no capital involved
18
         in NHSaves.
19
                   So, I kind of don't get what's going on
20
         here in Recommendation 1, given that there's no
21
         capital involved with NHSaves?
22
                   MR. SHEEHAN: I could jump in.
23
         concept is that we may be able to solve a problem
24
         without capital. So, we've got a pipe brought
```

into a neighborhood. It's not big enough. We have four more houses being built. What if we spent money insulating all those houses, so we didn't have to put in a bigger pipe, and that's less than putting in a bigger pipe.

This is saying we should ask that question. So, we spend 100 grand on insulating 20 houses, and we don't spend a million on a new pipe. So, we would put that, that would be -- we would seek recovery of the 100 grand, it's not capital, it's an expense that we incurred to avoid a bigger cost.

CHAIRMAN GOLDNER: And would that be -- how would that work? Being funded through

NHSaves, how would that --

MR. SHEEHAN: The incremental piece is outside of NHSaves. It would be a project cost, just like repairing something. You know, it's a way that we could serve this.

Now, obviously, if that -- those houses were served through NHSaves, we wouldn't have to do that. But the "incremental" part is, NHSaves a waiting list, they haven't gotten to these customers, we can do it above and beyond.

1	And on the topic, in discussions with
2	other EE folks, the other thing they're looking
3	at, rather than creating new programs, is just,
4	you know, providing more funding for existing
5	programs. All the structure is there. And,
6	again, using insulating houses as an example, we
7	already have all the metrics to show it's
8	cost-effective. And, so, why not just use \$100
9	from outside NHSaves to accomplish that goal.
10	That's the thinking of, as I understand it,
11	"incremental EE".
12	CHAIRMAN GOLDNER: Okay. Mr. Kreis, I
13	think I see you'd like to comment?
14	MR. KREIS: Again, sorry to be making
15	so many faces.
16	First, I just want to clarify something
17	I said earlier, because, Mr. Chairman, you just
18	alluded to it. I didn't mean to suggest that
19	there's "no capital involved in NHSaves". What I
20	meant to say is "there's no utility capital
21	involved in NHSaves." All the money from NHSaves
22	comes from customers.
23	Now, you know, customers are not
24	business entities, or at least residential

1.3

customers are not. So, when I pay the System

Benefits Charge or the LDAC Charge on my electric

or natural gas bill, I don't book it somewhere as

capital.

But the fact is that that money goes into energy efficiency expenditures that look like capital, right? When you weatherize a home, that is an additional capital investment in that home that increases its value, and, you know, should affect its resale value, among other things.

And, so, this relates back to the question that Commissioner Simpson asked earlier. He wanted the witnesses to talk about what are examples of this so-called "incremental energy efficiency". And, as Mr. Sheehan just said, it might be as simple as basically more of what NHSaves is already funding.

And, to give a very concrete example, this isn't testimony, this is me just alluding to things that are patent and administratively noticeable by the Commission. The requirement that the Commission has imposed via its interpretation of House Bill 549, that electric

```
savings be limited -- or, that the electric
 1
 2.
         programs be limited to things that achieve 65
 3
         percent electric savings, both annual and
 4
         lifetime, that will mean, essentially, the end of
 5
         residential weatherization programs funded by
 6
         NHSaves, other than for low-income customers.
 7
                    So, incremental energy efficiency might
 8
         be that weatherization effort, that is no longer
 9
         eligible for funding from NHSaves, but might be
10
         least cost in relation to other programs and
11
         investments that either an electric utility or a
12
         gas utility might undertake. And it's that
1.3
         incremental effort, on the demand side of the
14
         equation, that is important to be considered in
         the LCIRP context. That's what Recommendation 1
15
16
         is getting at.
17
                    CHAIRMAN GOLDNER: Would anyone else
18
         like to comment on Recommendation 1 or this line
19
         of questioning?
20
                    [No indication given.]
21
                    CHAIRMAN GOLDNER: Okay. Not so far.
2.2
    BY CHAIRMAN GOLDNER:
23
         Okay. I'd like to -- this was alluded to
24
         earlier, but I'd like to understand more on this,
```

1 what is the Company's motivation to move C&I 2 customers away from its core business? Why would 3 it do such a thing? 4 (Tilbury) I don't think it's our goal to move 5 them away from our core business. However, I do 6 think, you know, when you're evaluating your 7 system and the integrity of your system, if it's 8 growing more rapidly than your system can handle, 9 you have to explore other options, and sometimes 10 that would be fuel-switching or other least-cost 11 options available. So, we would review all of 12 those types of options when we look at that. 13 To the extent of, do we have to put in 14 a large diameter pipe, that's going to run ten 15 miles, and that's going to cost a million dollars 16 a mile, or \$10 million, or, is there an 17 alternative that would help our system and 18 prolong or offset that kind of project? 19 How does that -- how does that work as a Q 20 practice? So, you do some mathematics, we have 21 an LCIRP, you determine that this large C&I 22 customer, who's currently using gas, would be better served, from a least-cost perspective, to 23 24 move to, let's just say, electric? How does that

work?

Do you knock on the door and say "Hey, you know, we'd like to convert you to electric, and then there's some funding"? I mean, how does it actually work? What are the mechanics?

- A (Tilbury) Yes. To that extent, I haven't been at Liberty long enough to be able to explain all of the mechanics.
- Q In New Mexico, how would you do it?
 - A (Tilbury) In New Mexico, we would model the system, and we would take a look at the system and we would run a hydraulic model on it, and make sure and see what we -- we plug our design day in there. We'd run our models to see where the system broke, or, if it did break, given that demand. And then, we would take a look at what we would need to do.

My focus on New Mexico was really on transmission pipeline. We own roughly 1,600 miles of transmission pipeline. And, so, mine was getting it to the distribution centers. And, so, ours wasn't looking at switching customers from fuel-switching. Ours would have been, put pipe in the ground or compression, to be able to

make sure that we could get it to the distribution system, because at that point we're having a distribution issue.

But we did -- so, when we look at it this way, I struggle answering that, internally, how we would take a look at that, just not knowing all of our internal processes.

Yes, I think, you know, it's important to be intellectually honest as we look through the recommendations. If there's no path forward on incremental, or there's no path forward on C&I fuel-switching, then, you know, to me, it's intellectually dishonest to include those. But, if there's good reason to include them, then, certainly, the Commission would like to hear that.

CMSR. SIMPSON: I would ask, when the parties contemplated offering this recommendation, thinking about customer fuel-switching, is it intended that such an effort would be a permanent effort or is it for a peak event? Is it an interruption, like a demand response type of program? Just explain further what was meant.

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Yes. MR. SHEEHAN: It's the latter. And I -- you know, what's in this Agreement is what we will be doing in the future. We don't necessarily have concrete plans. But the concept is, we have that large industrial customer at the end of the line, who's about to put on a new shift and increase their load. We can't quite handle it. So, instead of, we will help you buy an electric generator to just take that peak off. You're still a customer. So, we're not losing our business. And, with decoupling, we're indifferent to how much you use. So, the fuel-switching is a way for us to help the customer keep running the second shift. We don't have to put a new pipe in to serve that customer. We are still made whole because they remain a gas customer, and, decoupling, we are allowed to recover dollars per customer. And, so, we'll sell them, maybe not more gas, but we're still okay financially. So, that's the concept. A lot of existing customers are already there, and most hospitals have backup systems. And that's a ripe

area for us. So, the hospital still has plenty

of gas, but there's a new business going in next door. Okay, let's talk to the hospital, see if we can make a firm arrangement, where they agree to switch to their alternate fuel on coldest days. And, again, that avoids having to upgrade.

So, those are the concepts that we are thinking of. So, we're not losing a customer, and we're either avoiding or delaying that upgraded pipe by -- it's basically "peak reduction" on the electric side. It's the same concept.

CHAIRMAN GOLDNER: Anything else, Commissioner Simpson?

interesting conversation. And, on the electric side, like I can think of instances how to run the electric grid more efficiently through investment, like adding auto-transformers or something like conservation voltage reduction, where you're incrementally, in a small amount, reducing the voltage on a circuit, which subsequently reduces the power delivered, so you're running the grid more efficiently.

And I'm genuinely trying to understand,

are there analogous ways to operate the gas system more efficiently? And is that contemplated by this recommendation?

MR. SHEEHAN: Here, I probably can turn to Mr. Tilbury, is there, you know, can you change valves and move pipes to get the gas from Point A to B more efficiently? That's the modeling, I assume, you're referring to.

WITNESS TILBURY: And, to my knowledge, no. I mean, you have customer demands, you know when it sets in. You know, at four o'clock in the morning, people start waking up, and they start taking showers, their thermostats kick on, if they're programmable. You have an increased peak load during that period of time, and then people start to go to work. I mean, and then you repeat this cycle.

The whole design of a distribution and transmission system is to be big enough to handle that, because you know your customers don't take gas ratably all day long, they don't use the same amount of gas, you know, one MMBtu or one unit throughout the entire day.

So, it's not only meeting your design

day demand with your system, but it's also building a system that can handle those peaks and valleys and have a chance to recharge itself or rebuild that existing line back. So, by looking at this fuel-switching concept, it's allowing to take off just enough load to help your system maintain its integrity, and be able to rebuild. So, that way, in the evening, when that customer demand comes back up, you're prepared. You know, and, so, it's looking at those as alternatives to what would initially, you know, what historically has been "Let's just run a parallel line in the ground. We have more capacity now, and at X cost." And, so, I think it's comparing those.

So, I think —

MR. KREIS: Could I just leap in?

Because you're not going to hear a gas utility

come in here and say this, but the Commission

should be aware that, you know, when the question

of "fuel-switching" comes up in an LCIRP context

with a gas utility, you do have to consider

electricity. Now, you know, I know that at least

one of the utilities, and maybe both of them,

believe that they would be exceeded the four

corners of their franchise if they somehow were investing in efforts to cause their customers to use electricity, you know, if they were, say, investing, helping customers deploy heat pumps in their homes. You know, there is an argument that, really, that's the electric utility's job, not the gas utility's job.

But, you know, it's the Commission's job, and maybe it's the state's job, to try to optimize people's use of fuel. And, you know, I know that gas utilities, in general, are looking at optimization strategies, whereby you, as a customer of this utility, might switch at different times of the day to electric heat or electric hot water, or electricity for something else that you're currently using gas for, and that that might be least cost and in the public interest generally.

And, you know, I don't know whether I will be able to nudge the gas utilities to look at that seriously in future LCIRPs, but I'm optimistic. I think they're educatable. And what I see, from both companies, is a willingness to think down those roads and at least consider

those possibilities. 1 2 They shouldn't have to commit to them 3 now just by committing to these areas of inquiry 4 in the future. But that's the basis of my 5 enthusiasm, and that's why my signature is on the 6 Settlement Agreement. Because these 7 possibilities now are actually coming up for at 8 least consideration. And, yes, we'll have lots of arguments with these utilities in the future 9 10 about the extent to which they should embrace 11 these creative alternatives. But at least 12 they're willing to have those arguments with us, 1.3 and, I presume, with you. 14 CMSR. SIMPSON: Thanks for letting me 15 jump in, Mr. Chairman. Sorry. 16 MR. KREIS: And thank you for letting 17 me jump in on top of everybody else jumping in. 18 CHAIRMAN GOLDNER: No worries. As long 19 as you don't mind a late lunch. 20 BY CHAIRMAN GOLDNER: 21 Mr. Tilbury, I just want to -- I'm just curious 22 from a mechanics perspective. So, you know, 23 you're going to -- is the resistance in 24 your pipes -- I assume that's a big issue, right?

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1
         So, L over KA --
 2
                    [Court reporter interruption.]
 3
                   CHAIRMAN GOLDNER: Oh, I knew that was
 4
         going to happen, Mr. Patnaude.
 5
    BY CHAIRMAN GOLDNER:
 6
         So, length divided by the constant times the area
 7
         is the resistance of in your pipe, right? So, if
 8
         you increase the diameter of your pipe, you can
 9
         flow more gas through it, etcetera. So, you guys
10
         are probably -- I assume you're working on, when
11
         you're looking at your pipeline expansion, you're
12
         analyzing the diameter of your pipe to explore
13
         the resistance parameters. Or, can you maybe,
14
         just to help us understand, what you mean by
15
         "modeling" and what you're doing?
16
         (Tilbury) Well, and I -- sorry. Again, I think
17
         before you asked me what we were doing at New
18
         Mexico Gas, as opposed to what we are doing here.
19
         If that's helpful.
    Q
20
         (Tilbury) Yes. And I think, you know, I mean, we
21
         look at a lot of different factors when we
22
         examine our systems. And I don't presume to
23
         speak for our Engineering Department and all of
24
         their practices that they do here to ensure.
                                                        But
```

it is one thing that we have to look at when we are looking at a Least Cost Integrated Resource Plan is, we can get -- we have the resources to get the gas to our system, if we have the gas that can show up to our system at our doors, but, if our pipelines can't move it across that system to our customers, so, that's part of it. And that's what we do every day when we look at how we are set up, to make sure that we can feed gas to all of our customers on a daily basis.

And I think, to the extent of pipeline diameter and size, you also have pressure.

What's your upstream pressure? How much is coming in? What's your minimum operating pressures that are — the pipelines are feeding you? So, I think it's a complex, you know, modeling effort, when you look at your system and maintaining the integrity.

But, you know, for what we do here, I would have to defer that, and, you know, provide that at a later time, and engage our Engineering group to how they model and take care of things.

No problem. Thank you. No, I think it would be helpful, under confidentiality, because I realize

1.3

that some of these topics are, you know, probably not best distributed widely. But, you know, knowing where the bottlenecks were, knowing what you're doing to address the bottlenecks, these kind of issues, I think, would be important for all the parties to understand under confidentiality, and, certainly, the Commission, so we can understand why you're doing what you're doing. So, I would just —

CHAIRMAN GOLDNER: Mr. Sheehan?

MR. SHEEHAN: Yes. The Commission recently has held status conferences, which I think would be a way to do this. Find the appropriate docket, maybe it's an IRP, and ask for our Engineering group to come in, and they have these fancy maps, with color-coded where the pressures are, where they're not. And they can explain "Okay, here's our problem area, and here's the plan to fix it." And, of course, as part of the IRP, what we considered before we decided to build a pipe, or we decided not to build a pipe, because we could get the big manufacturer to fuel-switch.

So, we'd be happy to, at your request,

1	come in and make some presentations.
2	CHAIRMAN GOLDNER: Okay. I think that
3	would be helpful. You have the Commission's two
4	engineers on the docket that I assume they have
5	maybe different questions than are customary.
6	Okay. Very good. Thank you. We'll
7	just proceed on for a little while here, and then
8	I'll probably cut myself off and take some lunch.
9	I know there's folks here from
10	out-of-town and so forth. Mr. Sheehan, when we
11	get to lunchtime, would you like to take an hour,
12	45 minutes? What would be what would you
13	prefer?
14	MR. SHEEHAN: My main preference is to
15	make sure we finish today. So, I think
16	Mr. Hibbard shouldn't be too long, and I don't
17	think there are any other witnesses. So, I think
18	an hour lunch would probably be accommodatable.
19	CHAIRMAN GOLDNER: That's fine. And
20	Mr. Husband, did you want to provide a witness
21	today, or no?
22	MR. HUSBAND: I do not have a witness
23	today. I have submitted the testimony of
2 4	Mr. Clark, which has been agreed to. He really

doesn't have anything to add to that. And, on 1 2 the Settlement Agreement itself, of course, is 3 the response to the Settlement Agreement, which 4 it's a pleading, it provides the evidence, it is 5 on the record, and we would rely on that. 6 Really, it's a recitation of what's on the 7 record. It's not really appropriate witness 8 testimony. It's for argument, really, which I'll 9 do in closing argument. 10 CHAIRMAN GOLDNER: Thank you. Thank 11 you, Attorney Husband. I appreciate that. 12 just wanted to check in. 13 Okay. Well, moving right along, we'll 14 just go on for a few more minutes here, and then 15 we'll stop. 16 BY CHAIRMAN GOLDNER: 17 So, we talked about Recommendation 2. I wanted 18 to ask, and maybe it has to be in a different 19 hearing or a different docket, but I wanted to 20 understand the Certified Gas a little bit better. 21 Is there a middleman in this process or is 22 there -- is it something Liberty would do direct 23 with a provider? And, I mean, how do you assure 24 that this Certified Gas is the lowest cost

1 option? 2 (Tilbury) So, I think two parts to that question. 3 The first one is, there is a third party that 4 usually comes in, to my understanding, that will 5 install monitoring equipment on the wells that 6 will provide the data on those wells. And, so, 7 you know, we would buy gas from a producer, they 8 would -- we would have a third party monitoring that potential gas flow coming out of there, the 9 10 emissions, and certifying that it is, indeed, 11 low-emissions gas. As far as "least cost", it may not be 12 13 the least cost, you know, and that's something 14 that we would have to evaluate when we look at 15 our resource plan, and when we go out to bid for 16 those resources. And, so, you know, 17 understanding that we have the obligation to 18 provide at least cost, that it may not be the 19 least cost, and that's something that we would 20 have to take into consideration. 21 Is the Certified Gas, to your knowledge, Q 22 available via pipeline or via truck, or what's 23 the mode of transport?

(Tilbury) The gas that I was looking at was via

24

Α

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1
         pipeline.
 2
         Okay.
 3
         (Tilbury) It was production gas that would have
 4
         equipment installed on it. And it would be
 5
         delivered into the gathering system and delivered
 6
         into the interstate pipelines for delivery.
 7
                   And they may have other ways of doing
 8
         it, but that's what I was looking at previously.
         And is the Certified Gas, is it something where
 9
    Q
10
         they test their gas supply, and they say "Ah-ha,
11
         this one looks really good. This is certified.
         We can sell this as Certified Gas." Or, are they
12
13
         actually doing something to the gas? Are they
14
         cleaning it somehow?
15
    Α
         (Tilbury) My understanding is it's based on
16
         emissions of a production well that's coming up.
17
         Not necessarily cleaning the gas, but making sure
18
         that it's being produced in a way that's
19
         producing low emissions.
20
         Okay. So, it's -- they're testing it. It comes
21
         out cleaner, but --
22
    Α
         (Tilbury) It's all going to be pipeline quality.
23
    Q
         Okay.
24
          (Tilbury) It's pipeline quality gas that's coming
```

```
1
         onto the pipe, right, it's going to have to meet
 2
         the specs, the specifications of the interstate
 3
         pipelines that are delivering that gas, right?
 4
         I see.
 5
         (Tilbury) Really, what they're measuring, is our
 6
         understanding, is any emissions that are
 7
         associated with the production of that gas.
 8
    Q
         Okay. Yes, just looking at it at 10,000 feet, it
 9
         seems like the gas that's being produced, it's
10
         being sold, they're cordoning off part of it and
11
         calling it "certified", probably selling it for a
         higher price. But, in the end, the same amount
12
13
         of gas is coming. So, it doesn't really change,
14
         if you look at it from a national perspective,
15
         doesn't really change the quality of the gas.
16
         It's just somebody gets to sell some of it for
17
         more?
18
         (Tilbury) Yes. I would say that it does not
    Α
19
         increase the amount of production. It's just
20
         taking wells that are either producing, or new
21
         wells, and certifying that their emissions are
22
         below a certain level when they produce that.
23
    Q
         Okay.
                Thank you, sir. That's very helpful.
24
                    I'm going to take the bold step of
```

```
1
         skipping a recommendation, and skim
 2
         Recommendation 3, I think that's been fully
 3
         covered. And maybe we'll just go through 4
 4
         and 5, and then take a break.
 5
                    So, Recommendation 4, I'll just read it
 6
         back, was "Assess resources in terms of
 7
         environmental impacts by documenting the
 8
         greenhouse gas impacts of evaluated resources in
         terms of emissions with the CO2 created or
 9
10
         avoided."
11
                   So, my question is, what would the
12
         Company do with that? So, now, it's quantified,
13
         and it's there, what do you do with it? How is
14
         that helpful, to any -- either the parties or the
15
         Commission?
16
         (Tilbury) To me, it establishes a baseline that
17
         you can go forward and compare how your -- it
18
         gives you something to evaluate, if you're not
19
         necessarily doing that already.
20
         And let's say that you -- you draw your baseline,
21
         I understand that, and that emissions go up by 10
22
         percent next year. Then, what do you do?
23
                   And my questioning is not to put you on
24
         the spot. It's just to understand what's
```

actionable and what's not actionable. And, so,

I'm just trying to grapple with what went in here
in terms of what -- what's going on is
actionable? What can be done with the data?

That's the reason I'm asking.

- A (Tilbury) Yes. And I think that would have to be established as we go forward what that criteria would be. I mean, to establish a baseline is one thing. But, then, what is actionable or not, and how your programs are either well, hopefully, lowering, you know, through, you know, pipeline replacement or rebuilds and stuff like that, that you are having an effect on what your emissions are.
- And then, probably the -- let me just ask the question. So, I certainly understand leakage, and that that leakage is something that all the parties would be interested in, and lower leakage is better, and there's probably some threshold at which leakage is acceptable, and so forth. So, when you say "greenhouse gas impacts", are you talking about the gas that's burned at the residential house or at the C&I customer, or are you talking about gas leakage?

And if ScottMadden would like to 1 2 answer, that's fine, too. Anyone who knows the 3 answer would be fine, or the DOE, anyone. 4 I'm just trying to understand what 5 we're talking about in Recommendation 4. MR. SHEEHAN: Well, I can offer 6 7 something. 8 All of these impacts, health, 9 environmental, the concept is, if we have two 10 options on the table, we look at them on a number 11 of levels; one is cost, one is environmental 12 impact, one is health impact. And let's assume the cost is the same. Build a pipeline here or 1.3 14 not build a pipeline, but the environmental 15 impact is different, and that would be the 16 tie-breaker, for lack of a better word. 17 So, it's just another nondollar cost 18 that goes into the mix. Or you could even argue 19 that there's a value to the health impact. 20 if we have ten more asthma cases, that's a dollar 21 amount, and that can be plugged into the 2.2 cost-benefit analysis. 23 So, I think those are the concepts. 24 suspect Mr. Hibbard can be more eloquent on it.

```
But that's -- the whole purpose of all of these
 1
 2
         is -- least cost planning is, we have options,
 3
         why do we decide one instead of the other.
 4
         Instead of just costs, we're looking at some of
 5
         these other factors.
 6
                   CHAIRMAN GOLDNER: So, you're -- I know
 7
         you're not a witness --
                   MR. SHEEHAN: I'm not testifying.
 8
                   CHAIRMAN GOLDNER: -- and not
 9
10
         testifying, but it's helpful nonetheless. So,
11
         if -- so, you're suggesting it's really a
12
         project-by-project analysis. So, you are
13
         thinking about extending a pipeline. And, so,
14
         you need to look at the trade-offs. So, one of
15
         the trade-offs you look at is Recommendation 4,
16
         and that helps you decide, you know, kind of "tie
17
         goes to the runner". And, if it is a tie, then
18
         this one has a lower environmental impact. Is
19
         that --
20
                   MR. SHEEHAN: Yes. And the statute
21
         actually says that.
22
                   CHAIRMAN GOLDNER: Right.
23
                   MR. SHEEHAN: You know, it has the
24
         criteria of what the first tiebreaker is, which I
```

think is energy efficiency. And, obviously, the 1 2 difficult part of this is "can you take this kind 3 of balancing down to a \$200,000 project?" I 4 don't know. 5 The last IRP, the big question was "do 6 we build Granite Bridge or do we pay Tennessee to 7 upgrade their pipeline?" So, those are huge 8 projects, with differences. And, so, that was 9 one of the things that we were asked to look at, is what are the relative environmental impacts of 10 those two big options. So, that's the concept, 11 12 and it gives us another benchmark to decide 13 Option A or Option B. 14 CHAIRMAN GOLDNER: Thank you. And we 15 have no physicists here today, but I always 16 wonder if there's such a thing as tie. But 17 that's another question for another day. Maybe 18 we can get that in closing. 19 Okay. Very good. That is helpful, on 20 Recommendation 4. 21 And then, a final question maybe before

say "45 minutes" would be sufficient?

22

23

24

the break. And, I'm sorry, Mr. Sheehan, did you

MR. SHEEHAN: I actually said "an

```
hour", but --
 1
 2
                   CHAIRMAN GOLDNER: No, I'm sorry.
 3
         sorry. I misprocessed the data. So, yes, we'll
 4
         take an hour. I'll just ask one more question.
 5
    BY CHAIRMAN GOLDNER:
 6
         So, Recommendation 5, I won't read the whole
 7
         thing -- well, I'll just read the whole thing
         into the record. So, "Assess public impacts in
 8
         terms of the health effects of local air quality
 9
10
         impacts of evaluated resources by documenting
11
         sulfur oxides, nitrous oxides, and particulate
12
         matter, projecting health impacts."
                   So, I think the answer to this is the
13
14
         same as the answer to 4, which is it establishes
15
         a baseline for this sort of project analysis, in
16
         terms of helping you determine what to do, if you
17
         have that established baseline, then it helps you
18
         decide in the event of a tie, is that -- I should
19
         probably ask the witness, I'm sorry, Mr. Sheehan.
20
         But nodding up and down is --
21
         (Tilbury) Yes.
    Α
22
         -- that's not in the record.
23
    Α
         (Tilbury) That's my understanding.
24
         Okay. Thank you, sir. Thank you. And I'm
```

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

sorry, I want to come back to this last question on 5, and maybe I just didn't understand the answer before. But nitrous oxides, sulfur oxides, those are all from burning things. And, so, I'm just trying to understand the position, and maybe if it's a better question for the DOE, that would be helpful. But I think what we're talking about here is the distribution utility is delivering gas to the end point, that end point is getting burned, and that we're measuring the impact of those environmental effects at the end point. Is that how to read Recommendation 5? (Arif) I would say we wanted to include this, that is a remanent of the -- as we have identified in numerous discussion today, in another docket, and we -- and there was a significant amount of work that went into. wanted to get benefited from that work. And, if my recollection is correct, in that docket, there were examples provided, and discussion ensued, and the recommendation made their way into this docket from that one. So, I don't think it's appropriate for me to say that it's at the only end-user level.

1 But what it does is to put a marker to 2 acknowledge that, in their next LCIRP filing, the 3 Company has to take this particular impact, and 4 question the health impact into account in 5 providing the least-cost option for us to 6 evaluate it. 7 Okay. Yes, because, clearly, these elements, Q 8 SOx, NOx and particulate matter are emissions 9 from burning something. So, really, the 10 recommendation from the parties is to measure the 11 gas that's distributed to the end point, and what 12 its particular matter, SOx, and NOx are. But 13 then, how do you know what the efficiency is of 14 the burner? 15 I'm just trying to figure out, how do 16 quantify this? So, you could be in a 5 percent 17 efficient burner, you could be in a 95 percent 18 efficient burner. Like, how you do you know what 19 this is? 20 CHAIRMAN GOLDNER: And perhaps, 21 Attorney Sheehan, that working session is 22 probably what I choose to be thinking about now. 23 So, okay, I'm not trying to put anybody on the 24 spot. I'm just trying to understand.

MR. SHEEHAN: Again, I think the concept is not so much to trace the gas to the burner and measure that, but to say, if you burn natural gas, it produces X amount of these pollutants. And what if one of the options we have is energy efficiency that's not going to burn — it's going to burn less gas. So, now, you have a delta in the emissions, it's either burning at 100 or burning 90, but the energy efficiency route is a little bit more expensive dollarwise. So, again, it gives you different ways to measure Option A to Option B.

To your point, all the gas is burned, and it would be a nightmare to be tracking efficiencies in that, but it's really -- this is one of many factors that may be exactly the same. We may choose between two different pipeline options that will result in the exact same amount of gas being burned, so there's no difference.

Or, there may be a situation, like I said, with energy efficiency, where there could be a difference, and these emissions, which could be factored into the calculus of do we do this project or that project.

```
1
                   CHAIRMAN GOLDNER: Okay. Thank you,
 2.
         Mr. Sheehan. That's very helpful.
 3
                   Does anybody have anything they would
 4
         like to add before we move to break?
 5
                    [No indication given.]
 6
                   CHAIRMAN GOLDNER: No. Okay. Very
 7
         good. Well, let's -- I'm looking at the clock,
         it says "12:40". So, let's return at 1:40, and
         resume then with Mr. Hibbard. Thank you.
 9
                    I have a few more questions for this
10
11
         witness -- sorry. I have a few more questions
12
         for this group as well, but very few. Thank you.
1.3
                    (Lunch recess taken at 12:40 p.m., and
14
                   the hearing resumed at 1:45 p.m.)
15
                   CHAIRMAN GOLDNER: Okay. We'll resume.
16
         I think Commissioner Simpson covered very well
17
         the rest of the recommendations. So, I won't ask
18
         any additional questions at this time.
19
                   Mr. Sheehan, would we be prepared to
20
         swear in Mr. Hibbard?
21
                   MR. SHEEHAN: Sure. If this group is
22
         done, we can move to that step, sure.
23
                   CHAIRMAN GOLDNER: I think we'd like to
24
         keep them available.
```

1	MR. SHEEHAN: Okay.
2	CHAIRMAN GOLDNER: So, how would you
3	like to proceed?
4	MR. SHEEHAN: We could have Mr. Hibbard
5	sit next to me and do it from there.
6	CHAIRMAN GOLDNER: That would be
7	that would be great. Thank you.
8	Mr. Patnaude, would you please swear in
9	the new witness.
10	(Whereupon Paul J. Hibbard was duly
11	sworn by the Court Reporter, and
12	testified separately from the
13	Settlement Panel of witnesses.)
14	CHAIRMAN GOLDNER: All right. Then,
15	Mr. Sheehan, would you like to do direct, and
16	then we'll give the parties a chance at cross?
17	MR. SHEEHAN: Sure. And understand
18	that we did not plan to have Mr. Hibbard testify
19	in support of the Settlement Agreement. Some of
20	the parties asked to make him available, so, thus
21	we're doing that. So, I will walk through the
22	preliminaries, and then turn him over.
23	PAUL J. HIBBARD, SWORN
24	DIRECT EXAMINATION

```
1
    BY MR. SHEEHAN:
 2.
         Mr. Hibbard, please introduce yourself, your
 3
         name, and who you work for?
 4
          (Hibbard) My name is Paul Hibbard. I'm a
 5
         Principle with a consulting firm called "Analysis
 6
         Group", headquartered in Boston, Mass.
 7
         And, Mr. Hibbard, you authored testimony in this
    Q
 8
         docket filed in the Summer of 2019, that has been
 9
         marked as "Exhibit 4". And do you recall that
10
         testimony?
11
          (Hibbard) I do.
    Α
12
         And, aside from things that may have changed due
1.3
         to the passage of time, do you have any
14
         corrections to that testimony?
15
          (Hibbard) I do not.
    Α
16
         Do you adopt that testimony as your sworn
17
         testimony here today?
18
         (Hibbard) I do.
    Α
19
         And, at the very high level, what did the Company
20
         ask you to do that's embodied in Exhibit 4?
21
          (Hibbard) The Company asked me to look at the
    Α
2.2
         alternatives that it presented in the Least Cost
23
         Integrated Resource Plan, and evaluate them on
24
         the basis of greenhouse gas emissions and air
```

```
1
         pollutants.
 2
         And the options that were central to the 27
 3
         IRP -- 2017 IRP were the proposed Granite Bridge
 4
         Project versus the proposed expansion of the
 5
         Concord Lateral, is that correct?
 6
         (Hibbard) Correct. And I also compared them to a
 7
         status quo.
 8
         Okay. And, since filing your testimony in the
    Q
 9
         Summer of '19, have you had any involvement with
10
         this case?
11
         I have not.
    Α
12
         And, so, I called you a couple of weeks ago,
1.3
         right?
14
         (Hibbard) Yes.
15
                   MR. SHEEHAN: Okay. That's all I have,
16
         and Mr. Hibbard is available for questioning.
17
                    CHAIRMAN GOLDNER: Okay. Thank you.
18
         Let's begin with, Ms. Schwarzer, do you have any
19
         questions for the witness?
20
                   MS. SCHWARZER: Thank you,
21
         Mr. Commissioner. No. We support the
2.2
         Settlement. We don't have any cross-examination
23
         for this witness.
24
                   CHAIRMAN GOLDNER: Okay. Mr. Kreis,
```

```
1
         Attorney Kreis?
 2.
                    MR. KREIS: Ditto for the OCA.
 3
         questions for this witness.
 4
                    CHAIRMAN GOLDNER: Okay. Very good.
 5
         Attorney Krakoff?
 6
                    MR. KRAKOFF: Yes. I'd like to ask
 7
         some questions of this witness. Thank you.
 8
                    Mr. Hibbard, I have some fairly general
 9
         questions about your testimony today.
10
                       CROSS-EXAMINATION
11
    BY MR. KRAKOFF:
12
         So, if I understand correctly, the purpose of
1.3
         your direct testimony was to provide additional
14
         analysis of the environmental and public health
         impacts of Liberty's preferred resource
15
16
         alternatives, as required under RSA 378:38 and
17
         RSA 378:39. Is that an accurate statement?
18
         (Hibbard) Yes.
19
         And this included an analysis pursuant to RSA
20
         378:38, which requires "an assessment of the
21
         plan's long- and short-term environmental...
2.2
         impact on the state", right?
23
    Α
         (Hibbard) That sounds right, yes.
24
         Okay. And then, this also included analysis
```

```
1
         pursuant to RSA 378:39, that states "In deciding
 2
         whether to approve a plan, the Commission shall
 3
         consider potential environmental, economic, and
 4
         health-related impacts of each proposed option."
 5
         Is that right, too?
 6
         (Hibbard) Correct.
 7
    Q
         Okay. And then, I have a question about Page 12,
         that's been marked as Bates Page "016" of your
 8
 9
         testimony. Is it correct that you -- and I can
10
         identify it for you. I guess, the second -- the
11
         second sentence there, you mention "Section
         378:38 and 378:39". And you wrote "The sections"
12
13
         -- or, you testified, "The sections apply to both
14
         electric and natural gas utilities, and need to
15
         be interpreted and applied by the Commission on a
16
         case-by-case basis." Is that correct?
17
    Α
         (Hibbard) That sounds familiar. Can you point me
18
         to the page again? I apologize.
19
         Sure. It's Exhibit 4, what's been marked as
    Q
20
         Bates "016". And it's the -- yes, the very
21
         first -- or, sorry, the second sentence on that
22
         page. Just where it begins with "The sections
         apply to both electric and natural gas
23
24
         utilities."
```

```
1
          (Hibbard) I see that.
                                Yup. That's accurate.
 2
         Okay. So, would it be fair to say that the
 3
         statutory requirements of RSA 378:38 and RSA
 4
         378:39 quided your testimony on the public health
 5
         and environmental impacts of the Liberty Plan?
 6
         (Hibbard) They were certainly the impetus for my
 7
         analysis.
 8
         Okay. Now, as part of your analysis of the
 9
         public health and environmental impacts of
10
         Liberty's Plan, I want to draw your attention to
11
         what's been marked as Bates Page "026" of your
12
         testimony, your direct testimony, that's
1.3
         Exhibit 4.
                    It's really that last paragraph which I
14
15
         want to ask you about. It begins with "The
16
         service needs". You see that paragraph,
17
         Mr. Hibbard?
18
         (Normand) I do. Yes.
19
         So, you testified that "The service needs of New
20
         Hampshire's residential, commercial, and
21
         industrial customers require consumption of oil,
22
         propane, natural gas, biomass, or electricity.
23
         The use of such fuels, in turn, leads to
24
         emissions that affect public health and the
```

```
1
         environment within New Hampshire (with associated
 2.
         costs to the state and its residents), and
         contribute to the risks associated with climate
 3
 4
         change due to emissions of greenhouse gases."
 5
         You wrote -- you testified to that, correct?
 6
    Α
         (Hibbard) Say that again? I'm sorry.
 7
    Q
         Was that part of your testimony?
 8
         (Hibbard) Yes.
 9
         Okay. And that, on the next page as part of your
    Q
10
         testimony, your analysis of these environmental
11
         and public health impacts, you say that, on Bates
12
         Page 027, and this is, I think, the fourth -- the
1.3
         fourth sentence on that page. So, it's Lines 5
14
         and 6 on Bates 027, you testified that "CO2 (and
15
         other GHGs involved in energy production and use,
16
         such as methane) contribute to the risks
17
         associated with climate change." That's what --
18
         that's what you testified, correct?
19
         (Hibbard) Correct.
    Α
20
         And then, on Page -- Bates 029, Lines 1 and 2,
21
         very first -- the very first sentence, you stated
22
         "Emissions of greenhouse gases contribute to the
23
         social, economic, and environmental risks
24
         associated with climate change." Is that what
```

```
1
         you said?
 2
         (Hibbard) Yes. That's correct.
 3
         So, based on these last three statements in your
 4
         testimony, would it be fair to say that you would
 5
         agree that climate change poses a threat to New
 6
         Hampshire?
 7
    Α
         (Hibbard) I agree.
                             Yes.
 8
         And, so, your analysis of the environmental
 9
         impacts conducted pursuant to those LCIRP
10
         statutes, which we just discussed, that included
11
         an analysis of the greenhouse gas emissions
12
         resulting from Liberty's preferred resource
13
         alternatives?
14
         (Hibbard) Yes. It included an analysis of
15
         impacts associated with greenhouse gas emissions.
16
         Thanks.
                 Now, regarding the public health
17
         impacts, looking back at Bates Page 20 -- I'm
18
         sorry, Bates Page 027, and this is Lines 3
19
         through 5, you testified that "Meeting customer
20
         service needs can result in local and regional
21
         health impacts. This is because the combustion
2.2
         of fuel to meet home and business heating (and
23
         other service needs) is a source of harmful
24
         pollutants, including NOx, SO2, PM, Hg, and CO2."
```

```
1
         Did you not?
 2
         (Hibbard) That's accurate.
 3
         Okay. And could you just inform the Commission
 4
         here what "NOx", "SO2", "PM", and "Hq", what they
 5
         stand for?
         (Hibbard) "NOx" is "nitrogen oxides", "SO2" is
 6
 7
         "sulfur dioxide", "PM" is "particulate matter",
         and "Hq" is "mercury".
 8
         Thank you. And then, in the last sentence in
 9
    Q
10
         that paragraph, still on Bates 027, this is
11
         following that previous sentence about "CO2", you
         stated that "The rest", this is at Lines 7
12
13
         through 9, you stated that "The rest of the
14
         pollutants can have local and regional impacts,
15
         and can lead to or exacerbate premature deaths,
16
         asthma, and other major health problems for the
17
         state's residents." Did you testify to that?
18
         (Hibbard) Yup. Yes.
    Α
19
         And, so, when you analyzed the public health
20
         impacts and the environmental impacts, pursuant
21
         to the LCIRP statutes, that included an analysis
22
         of the impacts from the combustion of natural gas
23
         sold by Liberty, correct?
24
         (Hibbard) I analyzed both the combustion and the
    Α
```

```
1
         upstream emissions associated with each of the
 2
         fuels.
 3
    Q
         So, when you conducted your analysis, you thought
 4
         that the -- the analysis of emissions resulting
 5
         from combustion was germane to your analysis
 6
         under the statutes?
 7
          (Hibbard) In order to compare the different
    Α
 8
         options, and compare them to the status quo,
 9
         which includes either burning gas for home
10
         heating and other service needs, or, burning oil
11
         or wood or propane, I think it was important to
12
         be able to compare the impacts of all of those
1.3
         fuels across all of the pollutants we've been
14
         discussing.
15
         And including combustion, right?
    0
16
          (Hibbard) Including combustion, for the analysis,
17
         comparing it to the status quo.
18
         Thank you.
    Q
19
          (Hibbard) If I were just comparing the gas
20
         options, the Concord Lateral or the Granite
21
         Bridge, then it wouldn't -- you would essentially
2.2
         the same combustion impacts of those two
23
         alternatives.
24
         And you thought that --
```

```
1
                    MR. KRAKOFF: I have no further
         questions. Thank you.
 2.
 3
                    CHAIRMAN GOLDNER: Okay. Thank you.
 4
         Attorney Husband.
 5
                    MR. HUSBAND: Thank you, Chairman
 6
         Goldner.
 7
                    Good afternoon, Mr. Hibbard. I'm
 8
         Attorney Richard Husband. I'm here with my
 9
         client, Terry Clark.
10
                    WITNESS HIBBARD: Good afternoon.
11
    BY MR. HUSBAND:
         We'll stick with the same exhibit, same Exhibit 4
12
1.3
         please. Would you turn to Page 53, the Bates
         number 053 of Exhibit 4?
14
15
         (Hibbard) I'm there.
    Α
16
         Okay. Would you please take a look at Table 5,
17
         and tell me if this provides the greenhouse gas
18
         emissions analysis that you just testified to
19
         Attorney Krakoff about?
20
         (Hibbard) Table 5 represents the aggregate
    Α
21
         cumulative emission estimates over the long term,
22
         for each of the options that I evaluated.
23
         And the "long term" under this estimate is 20
24
         years, correct?
```

```
1
          (Hibbard) Correct.
    Α
 2
         This is a 20-year emissions estimate that you
 3
         provided?
 4
          (Hibbard) Correct.
 5
         And, looking at the figures in Table 5, can you
 6
         tell me what the projected decrease in emissions
 7
         would be from using the Concord Lateral option,
 8
         as opposed to the status quo, over the 20-year
 9
         period?
10
          (Hibbard) I'm sorry, Mr. Husband. For which
11
         pollutants?
         If you were -- I'm sorry. If you're looking at
12
         Table 5, if you wanted to calculate the actual
1.3
14
         percentage of decrease in emissions that would be
15
         achieved using the Concord Lateral option, as
16
         opposed to maintaining the status quo, how would
17
         you do that?
18
          (Hibbard) For any of these pollutants, you would
    Α
19
         take --
20
         Well, looking specifically at Table 5, and
21
         focusing on the CO --
2.2
    Α
         (Hibbard) CO2.
23
         -- CO2 emissions at the bottom?
24
          (Hibbard) Okay. So, you would take the value for
```

```
1
         the status quo, which is "5,558,784" tons CO2
 2
         equivalent, and you would subtract from that the
 3
         Concord Lateral option quantity, which is
          "4,126,312" tons.
 4
 5
         Do you have a calculator with you?
 6
         (Hibbard) There's probably one on my phone.
 7
         Probably be faster if someone has a calculator
 8
         open, but --
         Well, I would like you to please run us through
 9
10
         the analysis and tell us what the final
11
         percentage of reduction would be?
12
                    [Short pause.]
1.3
    BY THE WITNESS:
          (Hibbard) What I get is 1,432,472 tons of CO2
14
15
         equivalent as the difference between the status
16
         quo and the Concord Lateral.
17
    BY MR. HUSBAND:
18
         Okay. And taking that figure, would you tell me
19
         what the percentage increase -- percentage
20
         decrease in emissions would be from using the
21
         Concord Lateral, as opposed to the status quo?
22
                    [Short pause.]
23
    BY THE WITNESS:
24
          (Hibbard) Subject to verification, I think it
```

```
1
         looks like approximately 26 percent.
 2
    BY MR. HUSBAND:
         I'll represent to you, I came up with about 25.7
 3
 4
         percent, does that sound right?
 5
          (Hibbard) Yes. I rounded up.
 6
         Okay. And this is pursuant to what GWP, Global
 7
         Warming Potential, did you use for methane in
         making these calculations?
 8
 9
          (Hibbard) In this case, I used, I believe, the
10
         100-year Global Warming Potential for methane.
11
         And that would be a GWP of 25, correct, that you
    Q
12
         used?
1.3
          (Hibbard) To my recollection, that's --
14
    0
         Yes.
15
          (Hibbard) -- that sounds correct.
    Α
16
         All right. And I'm sorry, let me -- I lost my
17
         questions here.
18
                    Why did you consider it proper to use
19
         the 100-year GWP for your analysis, instead of a
20
         20-year GWP, even though you were doing a 20-year
21
         analysis?
2.2
    Α
          (Hibbard) It represents the -- the 100-year GWP
23
         is, at the time I was doing the analysis, was the
24
         one most often used in regulatory settings.
```

```
1
         Let me back up a little. Were you aware of
 2.
         20-year GWPs for methane at the time you did this
 3
         analysis?
 4
         (Hibbard) Yes.
 5
         Okay. And, even though you were doing an
 6
         analysis for a 20-year period, and you had a
 7
         20-year GWP for methane before you, you thought
 8
         it was inappropriate to use that, because you
 9
         were doing a regulatory analysis, is that
10
         correct?
11
         (Hibbard) No, no. I don't think there's a
         correlation between the number of years that I
12
1.3
         was analyzing emission reductions for, which is
14
         the 20 years, and what the right number --
15
         whether you're doing a 5-year or a 20-year or
16
         100-year analysis of CO2 equivalent emissions, of
17
         methane emissions, regardless of the term of the
18
         number of years of emissions you're analyzing,
19
         you have to pick a Global Warming Potential.
20
                    And the Global Warming Potential most
21
         often used, regardless of the timeframe of
2.2
         analysis done in regulatory settings was the --
23
         was the 100-year number. So, that's why I used
24
         it.
```

1 And, as I think I responded in one of 2 the discovery requests, you can do the analysis 3 using the 20-year, and I think I provided that 4 analysis as well. 5 Right. But, if you're talking about doing a 6 20-year analysis, why do you consider it would be 7 more appropriate to use a 100-year GWP, which is 84, instead of the -- I'm sorry, strike that. 8 I understand that a 100-year analysis 9 10 is most often used with a regulatory review. 11 why, when you were doing a specific 20-year 12 analysis, and you have a 20-year GWP that you 13 could apply, which is fair different and would 14 provide a different result than a 100-year GWP, 15 would you go with the 100-year GWP? 16 (Hibbard) Again, there's no -- the fact that --17 the 20-year analysis is looking at what are 18 methane emissions over 20 years. It's the time 19 period of when the emissions are happening. 20 The GWP factor you use isn't 21 necessarily related to the timeframe of the 22 quantity of emissions that you're calculating 23 for. So, it's not -- that's not a -- that's like

24

not a causal link between the two. Regardless of

2.

1.3

whether you're doing a 100-year -- 100 years of emissions, 20 years of emissions, or 5 years of emissions, you still have to make the decision

"Am I going to use the 20-year Global Warming

Potential or the 100-year Global Warming

Potential of methane?" And regulatory agencies have used both, regardless of the time period of the emissions that are being studied. So, there's no -- there's no reason, if I'm doing a 20-year analysis that you would use the 20-year number.

Now, as I said in my discovery response, I'm well aware that there's a huge amount of debate on what the proper number is to use for methane. And the only reason I selected that one in my direct testimony was because that's the one that the New Hampshire Department of Environmental Services, EPA, and, at the time, the IPCC were recommending as the appropriate number to use for regulatory analysis. It was nothing more than that. So, in response to discovery requests, I provided the numbers using the alternative value.

And I don't agree with your

```
1
         characterization. I actually think it doesn't
 2.
         change my conclusions to use the 20-year number,
 3
         as opposed to the 100-year number. It changes
 4
         quantitatively what the numbers are, I agree with
 5
         that. But it doesn't -- it didn't change my
 6
         opinion.
 7
         And that's all I said. It would result in a
    Q
 8
         vastly different number, --
 9
         (Hibbard) I would not --
10
         -- would it not, if you used a 20-year versus a
11
         100-year GWP?
12
         (Hibbard) I wouldn't say "vastly". It leads to a
         different number.
1.3
         Well, you did -- you did the calculations in this
14
         case for a 20-year GWP, and we'll get to that in
15
16
         a minute. But let's still stay on why you chose
17
         the 100-year GWP in this case.
18
                   Would you agree that there is only one
19
         appropriate GWP that applies to the impact of
20
         methane emissions released over a 20-year period,
21
         it's either going to 84 or 25, not both?
2.2
    Α
         (Hibbard) No, I wouldn't. You know, I'm not a
23
         climate scientist. So, it's not -- I realize
24
         there's a very large amount of debate regarding
```

```
1
         what is the appropriate methane number to use.
 2
         But I picked the 84 GWP, because that reflects
 3
         the global warming impact during that first
 4
         20-year period, it's 84 times more than carbon
 5
         dioxide, correct?
 6
         (Hibbard) Say that again?
 7
         Isn't the 20-year GWP of 84 reflective of the
 8
         fact that, during that first 20 years of release
 9
         of methane, it has 84 times more the global
10
         warming impact of carbon dioxide?
11
         (Hibbard) That's a, you know, a roughly accurate
12
         way of saying what the Global Warming Potential
13
         factor is.
         Yes. And the 25 GWP for a 100-year period
14
15
         reflects that the Global Warming Potential for
16
         methane release is spread out over a 100-year
17
         period, evens out or averages out to 25, is that
18
         correct?
19
         (Hibbard) It means that, if you looked at -- if
    Α
20
         you compared the global warming impact of one ton
21
         of methane to one ton of CO2, and you looked at
22
         that global warming over a 100-year period,
23
         that's the relationship between the two.
24
         Over a 100-year period?
```

```
1
          (Hibbard) Over a 100-year period, yes.
 2
         Right. But, over a 20-year period, the
 3
         relationship would be 84 to 1?
 4
         (Hibbard) That's what I understand that means,
 5
         yes. But that doesn't --
 6
         Okay. Thank you.
 7
         (Hibbard) I mean, what you're leaving out is
 8
         what's the additional global warming impact from
 9
         year 20 to year 100, relatively --
10
         And that wasn't in your analysis.
11
         (Hibbard) -- relatively between the two
12
         pollutants.
         But that wasn't in your analysis, was it? You
13
         weren't evaluating years 20 to 100 in your
14
15
         analysis?
16
         (Hibbard) No. I was evaluating 20 years of
17
         emissions. So, in year 20, when methane is
18
         emitted, it still has a global warming impact --
19
         well, it has a global warming impact for at least
20
         20 years beyond that. Carbon dioxide, in year
21
         20, has a global warming impact for 100 years, on
22
         average, beyond that.
23
                   So, the 20 years is one of the years
24
         where there are emissions that I'm comparing.
```

```
1
         The selection of 20 versus 100-year Global
 2.
         Warming Potential for methane is just a different
 3
         measure of over what time these pollutants have
 4
         impacts over a much longer period of time than
 5
         just when the emissions happen. And, so,
 6
         that's -- there's no -- that's why I'm saying,
 7
         there's no relationship between analyzing 20
         years of emissions and selecting the Global
 8
         Warming Potential number.
 9
10
         Well, the GWP for 100- and 20-year use reflect
11
         two different ways of analyzing the emissions,
         either over a 20-year or 100-year period.
12
1.3
         they aren't reflective of two identical GWPs that
14
         methane releases can have at one point in time,
15
         especially during the first 20 years, are they?
16
         (Hibbard) I didn't understand the question.
17
                    MR. HUSBAND: Can you read it back to
18
         him?
19
                    MR. PATNAUDE: No.
20
                    MR. HUSBAND: No?
                                      Okav.
21
    BY THE WITNESS:
2.2
          (Hibbard) Well, I'll restate what I think you
23
                 I think you're suggesting that "the
24
         20-year analysis should use a 20-year Global
```

Warming Potential." And I'm saying there's no 1 relation there. The decision about what 2. 3 potential to use is related to over what time 4 period are you comparing the impacts of 5 emissions. 6 BY MR. HUSBAND: 7 And you were using a 20-year analysis. So, why wouldn't you use the 20-year? 8 9 (Hibbard) No. I was analyzing the emissions that 10 occur over 20 years. And what I was trying to 11 characterize is the total global warming impacts 12 of the pollutants. And I --1.3 Well, there's -- there's only one 20-year global Q 14 warming impact for methane, right, and it's 84? (Hibbard) Scientists estimate that the Global 15 Α 16 Warming Potential of methane, compared to carbon 17 dioxide, if you -- if a ton were emitted in year 18 one, and you looked at the global warming impact 19 of a ton of methane and a ton of carbon dioxide, 20 every single year, when you emit carbon dioxide 21 in year one, it has impacts in year one, year 2.2 two, year three, out to year 100. And methane, 23 it's the same thing. One ton emitted in year one 24 doesn't only warm the planet in year one, it

1 warms it over some time period. So, the Global 2 Warming Potential is comparing that. 3 When you compare that, because methane 4 is shorter lived in the atmosphere, it's going to 5 have a higher Global Warming Potential the 6 shorter the time period is. So, it doesn't have 7 to be either 20 or 100, it can be 30, 40, 50, or 60. 8 9 But the reason that -- the reason I 10 selected the one I did is because, in regulatory 11 settings, that has been the number that's 12 particularly used for evaluating public policies 13 related to greenhouse gas emissions. 14 All right. If you were doing an analysis for a Q. 15 20-year emissions impact of methane, other than 16 for a regulatory review, would you use a 20-year 17 GWP for methane? 18 (Hibbard) You know, again, I'm not testifying on Α 19 which is the correct one to use. I understand 20 that there's debate in the literature. And I 21 looked at it. And I understand why --22 I asked you a question, sir. 23 Α (Hibbard) If you give me a minute, I'll answer 24 it.

```
1
                    [Multiple parties speaking at the
 2
                    same time.]
 3
    BY MR. HUSBAND:
 4
         It's a very specific question, sir.
 5
                    CHAIRMAN GOLDNER: Excuse me, Mr.
 6
         Husband.
                   The Commission is very interested in
 7
         the witness's response.
 8
                    MR. HUSBAND: Okay.
                    CHAIRMAN GOLDNER: So, if you could
 9
10
         please allow him to answer, that would be helpful
11
         to us.
                 Thank you.
12
                    WITNESS HIBBARD: Now I forget what I
13
         was answering.
14
    BY MR. HUSBAND:
         Well, my question again. If you were going to do
15
16
         a 20-year analysis of the Global Warming
17
         Potential methane impact for anything other than
18
         regulatory review, wouldn't you use a 20-year
19
         GWP?
20
         (Hibbard) No, I wouldn't come to that conclusion.
21
         I think the -- let me try again. My
22
         understanding of the debate is, let's just say
23
         we're only comparing emission of -- today, for
24
         today, one ton of carbon dioxide versus one ton
```

1.3

2.2

Q

That one ton of carbon dioxide, on average, will warm the planet every year for the next 100 years, or 120 years, something like that.

Methane will warm the planet only for about 20 years or 30 years. And, so, the purpose of a Global Warming Potential is to say "what is the total lifetime damage associated with that emission?" And, so, how do you, on an apples-to-apples basis, compare methane and carbon dioxide?

The debate in the scientific community is "what is the right number to use?" Do we -- when we're deciding on policy, do we want to make our policy decisions based on damages that occur over 100 years? Or, do we only want to base our decision on damages that occur just for the next 20 years? And, so, that's why I'm saying "it's apples-to-oranges". The fact that I'm using 20 years of emissions, doesn't mean I should use a 20-year Global Warming Potential for methane. But, if you wanted to use something that reflected the actual 20-year impact of methane, you would use the 20-year GWP?

```
1
          (Hibbard) If someone said to me "we want to know
    Α
 2.
         what the global warming impact is of carbon
 3
         dioxide versus methane over just the next 20
 4
                  Then, the right number to use would be
 5
         the 20-year, the 20-year Global Warming Potential
 6
         number.
 7
                    But, again, that's not -- it has
         nothing to do with the 20-year analysis I did in
 8
 9
         my study, which was an analysis of "what are the
10
         emissions over 20 years?
11
         All right. Will you please take a look at
12
         Exhibit 14.
13
                    MR. SHEEHAN: I can pull it up for you.
14
    BY MR. HUSBAND:
         And, after you've had a minute to take a look at
15
16
         this, is this the 20-year analysis that we've
17
         been talking about that you did?
18
         (Hibbard) This looks like the discovery response
    Α
19
         that I was referring to earlier.
20
         All right. Now, turning to Sensitivity Figure 3,
21
         I believe that reflects the 20-year GWP analysis,
22
         correct?
23
    Α
         (Hibbard) This is -- these are the values, if
24
         using a Global Warming Potential of 84 for
```

```
1
         methane. Yes.
 2
         All right. And, so, to derive the percentage in
 3
         reduction, under the GWP of 84, would you please
 4
         run me through the same analysis as to what that
 5
         would be, using this Sensitivity Table 2, I
 6
         guess, right?
 7
                    MR. SHEEHAN: And, if I may, if
 8
         Mr. Husband has already done the math, maybe he
 9
         can offer it, and my client can answer that it
10
         may be reasonable or not.
11
                    MR. HUSBAND: I don't have it handy.
12
    BY MR. HUSBAND:
1.3
         But, well, let me just ask you, it's the same
14
         thing, right? Excuse me.
15
         (Hibbard) It would be the same process.
    Α
16
         Right. You start with the --
17
         (Hibbard) You start with the same numbers, then
18
         divided by the original number, and you get
19
         roughly a percentage. Right.
20
         All right. And, if I represent that I came out
21
         with a number of 11.something, would that seem
22
         accurate to you? 11.something percent?
23
    Α
         (Hibbard) That looks like that's probably in the
24
         right ballpark.
```

```
1
                     Thanks. Are you familiar with the
    Q
         All right.
 2.
         IPCC's goals, the Intergovernmental Panel on
 3
         Climate Change goals, specifically in terms of
         emissions reductions?
 4
 5
         (Hibbard) I'm not sure which goals you're
 6
         referring to, which IPCC report. I've read IPCC
 7
         reports. And I know that they express
         preferences for how quickly and by how much
 8
         greenhouse gases need to be reduced to avoid
 9
10
         certain levels of impact on the climate.
11
                    So, if that's what you're referring to,
12
         I'm aware generally of those reports.
1.3
         That there has to be a 43 percent reduction in
14
         greenhouse gas emissions, as well as a one-third
15
         reduction in methane use by 2030. Are you aware
16
         of those goals?
17
    Α
         (Hibbard) Not off the top of my head.
18
         And are you aware of the 2050 net zero goal, net
19
         zero emissions?
20
         (Hibbard) Well, not specifically. But I'm
21
         definitely aware that the IPCC does recommend
2.2
         getting to net zero CO2 emissions globally by
23
         2050, in order to avoid exceeding certain levels
24
         of temperature increase.
```

```
1
         Looking at Exhibit 14 again then, back on the
 2.
         Sensitivity Table 2, and the 11 percent reduction
 3
         figure that we agree would be the reductions,
 4
         11 percent reduction over a 20-year period using
 5
         a GWP of 84. And I represent that would be an
 6
         Exhibit 11 percent reduction, and you indicated
 7
         that that sounded right to you, correct?
 8
         (Hibbard) Correct.
 9
         Is that 11 percent reduction consistent with IPCC
10
         emission reduction goals, as you know them?
11
         (Hibbard) I wouldn't compare them that way.
12
         What do you mean you wouldn't compare them that
1.3
         way? Can you elaborate please?
14
         (Hibbard) The IPCC focuses on total global
15
         emissions of greenhouse gases. What I'm doing in
16
         this analysis is comparing three alternatives.
17
         Status quo, where emissions would be associated
18
         with the burning of oil, propane, wood, and then
19
         the Concord Lateral and the Granite Bridge
20
         Option. So, it's a comparison of three
21
         alternatives that were discussed in the Company's
2.2
         LCIRP.
23
                    It's not -- I don't think this reflects
24
         an effort to achieve any sort of particular
```

```
1
                              The point of the analysis is
         emissions standard.
 2
         to demonstrate that, of these three alternatives,
 3
         the lowest possible outcome was Granite Bridge.
 4
         And, under the Concord Lateral option, you would
 5
         end up with lower greenhouse gas emissions than
 6
         under the status quo option.
 7
    Q
         No, I understand that. I'm not asking if that
 8
         was the point of your analysis. I'm simply
 9
         asking, is an 11 percent reduction in greenhouse
10
         gas emissions over a 20-year period, starting
11
         2019 to 2039, is that consistent with IPCC
12
         emission goals?
1.3
         (Hibbard) It may be. We're looking at a very
14
         specific sector and a specific location.
15
         IPCC goals and recommendations are related to
16
         global greenhouse gas emissions, it's not
17
         emissions for a particular sector.
18
         You're just not familiar enough, really, with the
    Q
19
         IPCC goals to make --
20
         (Hibbard) No. That's not what I said. What I
21
         was saying is that the IPCC goals are -- or,
22
         recommendations relate to total global emissions
23
         of greenhouse gases. They don't have
24
         recommendations about what reductions need to be
```

```
1
         achieved in any individual sector. Whether it be
 2.
         heating, electricity generation, and industry.
 3
                    So, they're not -- there's no relation
 4
         between the percent reduction you're providing
 5
         here and the IPCC goals.
 6
    Q
         But, if a utility wanted to be supportive of IPCC
 7
         goals, would it not run its business in a manner
         that achieves the same emission reductions as the
 8
 9
         IPCC goals?
10
          (Hibbard) I wouldn't draw that conclusion.
11
         Did you use roughly, if you recall at this point,
12
         a 3 percent renewable rate for all of your
         emissions calculations?
1.3
14
         (Hibbard) I'm not sure.
15
         You can't remember at this point?
    0
16
         (Hibbard) Yes, I can't. It's been a while.
17
    Q
         It's so deeply buried in there, I don't even want
18
         to go back and try to find it. So, I'll skip
19
         that question.
20
          (Hibbard) Okay.
    Α
21
                    MR. HUSBAND: I have no further
2.2
         questions. Thank you.
23
                    CHAIRMAN GOLDNER: Thank you. We'll
24
         turn to Commissioner Simpson.
```

```
1
                   CMSR. SIMPSON:
                                    Thank you, Mr.
 2
         Chairman. Hello, Mr. Hibbard. How are you?
 3
                   WITNESS HIBBARD: Fine. Thank you.
 4
    BY CMSR. SIMPSON:
 5
         Are you familiar with Exhibit 12, which is the
 6
         proposed Settlement Agreement in this proceeding?
 7
         (Hibbard) I am, yes. I read it last week.
    Α
 8
         Okay. Very good. I'm hoping that you might be
 9
         able to help elaborate on some of the
10
         recommendations that are provided or suggested to
11
         the Commission, starting on Page 3, Section 2.3.
12
         And I'll give you a moment to get there.
13
         (Hibbard) I'm there.
    Α
14
         Great. Thank you. Looking specifically at
    Q
         Recommendation Number 4, which reads: "Assess
15
16
         resources in terms of environmental impacts by
17
         documenting the greenhouse gas impacts of
18
         evaluated resources in terms of emissions created
19
         or avoided." And the emissions figure, I
20
         believe, means "million tons of carbon dioxide
21
         equivalent". Can you confirm that for me?
2.2
    Α
         (Hibbard) I believe so. A million metric tons, I
23
         think.
24
         "A million metric tons", okay. Thank you. Can
```

1 you describe what that metric means, and why 2. that's a reasonable suggestion from the Settling 3 Parties, to analyze environmental impacts by 4 greenhouse gas emissions, million metric tons of 5 CO2 equivalent? 6 (Hibbard) Yes. You know, million metric tons of 7 CO2 equivalent is, really, I think the reason that would be included in this provision is just 8 9 to be specific about what the metric is that 10 should be analyzed. And "CO2 equivalent" 11 references the fact that the analysis should not 12 just be based on CO2 emissions, but based on CO2 1.3 emissions and any other greenhouse gases that 14 might be included. And the "million metric tons" 15 is just, you know, what is the actual value that 16 you're measuring, when you're comparing 17 alternatives. 18 Can you explain for us how CO2 equivalent is Q 19 derived, based on what seems like a variety of 20 greenhouse gases? 21 (Hibbard) Yes. And this is -- reflects back on Α 2.2 part of the discussion I was just having with Mr. 23 Husband. The simplest way I can explain it is, 24 when different gases, that are considered

2.

1.3

2.2

greenhouse gases, have different levels of absorption of the Earth's heat when they're in the atmosphere. So, methane will trap -- one ton of methane will trap more heat that's radiated from the Earth than one ton of carbon dioxide in a given moment.

And, so, when people talk about "CO2 equivalent", it's to capture what is the total global warming impact of all of the gases that are greenhouse gases. But you don't compare them on a ton-for-ton basis, because they have different levels of absorption, heat absorption capability. And, so, that's why the scientific community recommends that you use different Global Warming Potential numbers for different greenhouse gases, so that you can put them all --you can compare them as much as possible on an apples-to-apples basis.

I think what you probably just heard in the discussion with Mr. Husband is there's some disagreement about what that number should be, depending upon over what timeframe you're trying to estimate the total global warming impact or total damages from climate change.

2.

1.3

2.2

- And, seemingly, you can pick a window over which you are determining the relative impact of some timeframe of emissions?
- A (Hibbard) Yes. It's not -- I wouldn't phrase it in a way that makes it sound arbitrary. There's an incredible amount of scientific thought that has gone into this. And, in theory, you could pick a -- you could say I'm going to analyze the global warming impacts of emissions in year one over a very long timeframe, and then you would know exactly what that number should be for every single greenhouse gas.

But, for regulatory purposes, different agencies have considered that, for policymaking purposes, we should be looking at the total impact of emissions over some set timeframe, 20 years or 30 years or 40 years. And, so, it's not — all I'm trying to say is, it's not that arbitrary. I think the science is very well established about the relative climate impact of different greenhouse gases. And it's sort of up to the policymaker to decide what's the most appropriate number to use.

Q Okay. And I want to distinguish what I

2.

1.3

2.2

Α

understand from this recommendation in the Settlement, as proposed, from some of the elements of your testimony that we just heard you walk through with Attorney Husband.

There's no prescription here on the timeframe over which the Settling Parties are recommending that possible greenhouse gas impacts of future Liberty/EnergyNorth projects might be viewed, but that a standardized unit of measurement, by which the Company might assess greenhouse gas impacts, would be million metric tons of CO2 equivalent, and that's what's being recommended as a future measure here. Is that fair?

(Hibbard) I think so, if I understood the question. The way I interpreted this, and, again, I haven't spoken with the Company about this, I've just read it once myself. So, you know, please take it with a grain of salt. But my interpretation of this was that the important recommendation made in the Settlement Agreement is that, when considering the appropriate forward investments the Company makes in an LCIRP, it should consider the impacts associated with

1 emissions of greenhouse gases.

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And this recommendation is really just that. It just says "Consider those impacts, measure greenhouse gases for all greenhouse gases, not just carbon dioxide, so, use CO2 equivalent. You know, measure it, provide the information in million metric tons."

And then, I think later in the

Settlement, maybe under Section 2.4, it suggests

that the Settling Parties will get together to

try to figure out "okay, what's the right

analytic method?" And, presumably, they would

propose that to the Commission, and the

Commission would have to accept the way the

information was being used by the Company in its

next LCIRP.

So, I don't think it's -- you know, it, obviously, would be, in the end, up to commissions to decide, you know, what's the appropriate way to do the analysis.

Q Okay. Thank you. And then, moving onto
Recommendation Number 5, which seems like would
be a somewhat similar analysis. But, in
Recommendation 4, we're looking at "environmental

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impacts", and, in Recommendation Number 5, we'd be looking at "public health impacts" of different sources of emissions, "sulfur oxides, nitrous oxides, and particulate matter".

Can you comment on why those specific emission sources are recommended for review in subsequent LCIRPs?

(Hibbard) Yes. The way I would interpret this is that sulfur dioxide, nitrogen oxides, and particulate matter of 2.5, it's sort of well established that they have local health impacts, premature deaths, sickness, hospital visits, and all that. And the relationship between the use of natural gas and emissions of these pollutants is well known, as is the -- you know, there are -- there's extensive literature on exactly what the health impacts of these pollutants when they're emitted locally, and the impacts that they have on people's health and hospital visits, and that sort of thing can be quantified. And, so, it's in -- you know, that's why they're on the National Ambient Air Quality Standards List, and regulated by EPA. And I think I would just interpret this as being a recommendation that

1 those important health impacts be studied in 2 future LCIRPs. 3 Q And thinking about the types of investments that 4 might be part of a company's LCIRP, we certainly 5 are faced with a variety of projects, in terms of 6 size, capacity, financial cost, environmental 7 impact. When we compare something like a 8 compressor or a valve replacement, versus a 9 project like Granite Bridge, how might you 10 suggest we gauge the depth and scope of analysis, 11 when comparing relative size of projects? 12 (Hibbard) Commissioner, I think it's entirely up to the Commission to determine what's the 1.3 14 appropriate interpretation of the statutes, 15 what's the appropriate energy policy for the 16 State of New Hampshire. 17 When I was sitting in your seat in 18 Massachusetts, we went through the same sort of 19 thing, and sort of wrung our hands about, we had 20 information provided to us from all different 21 parties related to environmental impacts, and had 2.2 to look at our statutes, our regulations, 23 precedent, and consider the interest of the 24 Commission, and decide what do we think is the

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right level -- the right emphasis to place on cost versus reliability versus environmental impacts versus health impacts. I mean, all of these things are things that I think you need to weigh on a case-by-case basis.

And the Settlement itself, as I viewed it, was just an opportunity to provide more information to the Commission to be making that decision in future LCIRPs, without saying what's the relative importance you should be putting on each of those important factors.

Agreement, which recommends to the Commission, from the Settling Parties, that, in the future, meetings would be convened with interested stakeholders "to consider recommendations regarding the monetary values of the impacts referenced above", SOx, NOx, presumably particulate matter, etcetera.

How would you suggest we frame

"monetary value" of those types of impacts?

(Hibbard) It's a great question. You know,

there's extensive literature, and sort of

extensive precedent amongst public utility

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commissions in the country for -- and other regulatory agencies, for, you know, how do you take something like an air pollutant impact, and quantify it and put it dollar terms? Because, if you knew exactly what the dollar impact was of emissions of a ton of sulfur dioxide, then you could be comparing things on an apples-to-apples basis. You know, what Option B saves consumers? Ten million dollars, but it leads to \$20 million of health impacts. So, it would give you something that would allow you to base your decision on.

Ultimately, I view this recommendation as -- what I would recommend is that the Settling Parties be given guidance to look at the literature on monetization of health impacts, and to consider qualitatively those impacts that haven't been quantified, and provide the Commission with, you know, an agreed upon assessment of what different values could be used by the Commission or could be considered by the Commission in thinking about future LCIRP options.

1 Commission to decide what you think is 2. appropriate in the comparison of options, and 3 what emphasis you place on it. And there's 4 uncertainty in the literature about what is the 5 dollar impact of different pollutants. 6 So, the guidance I would give to the 7 Settling Parties is to think about what the range 8 of numbers might be, and provide you that 9 information, and then you ultimately decide, you 10 know, what's appropriate for considering in the 11 context of an LCIRP. 12 And what sources come to mind, in terms of 1.3 particularly relevant quantifications, whether 14 perhaps IPCC has developed some assessments in 15 this space, EPA, etcetera, do you have some that 16 come to mind? 17 Α (Hibbard) Yes. There's, you know, EPA has 18 documented extensively, and probably DES as well, 19 has used in its own regulatory processes 20 estimates of the cost of health impacts 21 associated with criteria pollutants. So, when 2.2 talking about NOx and SO2 and particulate matter,

it's a lot easier, because the literature is so

deep that it can be relied upon for regulatory

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purposes. And EPA and departments of environmental protection in every state have relied on a fairly significant body of literature, to use actual numbers and considering the benefits and costs of air pollution regulations. So, for those pollutants, the data are extensive.

For greenhouse gases, I think you would, you know, what I would want the Settling Parties to do is provide information on the extent to which the various organizations, international and national, there's a -- the IPCC is one of them, there's multiagency task force that developed, you know, Global Warming -- cost of greenhouse gas impacts, I'm forgetting the name of the agency, but we can provide that afterwards. But it was a multiagency effort at the federal level, and they came up with actual values for -- to be used in regulatory settings when considering greenhouse gas impacts.

But it's a lot less certain for global warming. And, so, I would want the Settling Parties to provide sort of the established literature on criteria pollutants, but then to

1 provide information from, you know, reputable 2. sources on what the monetary value of emissions 3 associated with greenhouse gases might be. And, 4 ultimately, you'll have to look at that and say 5 "Is this solid enough evidence to be used in 6 making regulatory decisions or not? 7 Q And, in your experience as a regulator, how might 8 you suggest weighing evidence that is seemingly 9 contradictory or might lead to a different 10 conclusion? 11 (Hibbard) I think with -- so, when you think 12 about -- again, I'll break it down between 1.3 climate change and criteria pollutants. I think, 14 when you think about criteria pollutants, it's 15 not very challenging to think about -- without 16 sort of doing a direct monetary comparison, if 17 you're comparing a couple of options, and one 18 option leads to a certain amount more emissions 19 of SOx and NOx and particulate matter, there are 20 a lot of impacts of those pollutants, and only 21 some of them have been monetized. And I think 2.2 probably what I would do is use the well 23 established monetary values that have been 24 developed associated with those pollutants.

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Again, not, you know, when we've done this in regulatory proceedings in Massachusetts when I was on the Commission, we didn't actually do a specific cost-benefit analysis, comparing costs versus estimated health impacts in dollar terms. But it did help us inform, well, if there is a difference between two alternatives, it could be enough -- strong enough evidence for you to choose one over the other, without it being a very specific numerical comparison.

What I would recommend with global warming, you know, I think, ultimately, it will depend heavily on what the statutory and regulatory laws are in New Hampshire at the time you're making decisions, and what is the policy preference that's built into the statutes and your regulations, and the opinions of the Commissioners, to think about "Well, if someone gives me a value for carbon dioxide that's \$50 per ton, and that's backed up by IPCC and federal and other regulatory agencies as being a decent number for what the damages are associated with a ton of CO2 equivalent", then you give that a lot of weight, but there's more uncertainty there.

I'd want the Settling Parties, if they 1 2. recommended a number, to try to characterize the 3 uncertainty in the numbers that they're giving 4 And then, you'll ultimately have to decide, 5 you know, what's the right number to use. 6 Okay. Thank you. And looking at Section 2.5 of Q 7 the Settlement Agreement, which relies on 8 guidance from Recommendations 4 and 5, which we just went through, it would seem to me that 9 10 what's suggested here, listed in numbers (1), 11 (2), and (3), so, "a status quo alternative on 12 the continued reliance of heating oil and/or 1.3 propane" to serve the utility's customers; "an 14 enhanced energy efficiency alternative"; and "any 15 RNG or Certified Gas alternative contemplated as 16 part of Recommendation Number 2." 17 This "analysis of alternatives", is it 18 fair to say that maybe the criteria outlined here 19 and suggested by the Settling Parties isn't the 20 same as what you did when reviewing status quo, 21 Concord Lateral, and Granite Bridge Project, but 2.2 the intent is similar? That the utility would be 23 presenting to us a variety of scenarios, 24 including what they are proposing in their LCIRP,

1 and demonstrating what the relative impacts of 2 the ultimate outcome might be? 3 Α (Hibbard) Yes, I think it's very similar to what 4 I did in my testimony. The -- in principle, 5 exactly as you say. And I don't read this as 6 being limiting to the Company or to the 7 Commission. In other words, the Company could provide three different options that aren't on 9 this list. I read this as saying "well, in 10 addition, a company's LCIRP should consider the 11 relative cost and environmental impacts 12 associated with energy efficiency, and, to the 1.3 extent they're available, alternative sources of 14 qas." 15 And, of course, you're going to weigh 16 that against everything else associated with 17 those alternatives, costs, you know, economic and 18 technical feasibility. I mean, all of those 19 things will be important. 20 But I just read this as the Settling 21 Parties agreeing it would be helpful to the 2.2 Commission to provide this additional 23 information, so that you have a broader context 24 for your decision.

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                    CMSR. SIMPSON:
                                    Okay. Thank you,
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         Mr. Hibbard.
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                    I don't have any further questions for
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         the witness, Mr. Chairman.
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                    CHAIRMAN GOLDNER: Okay. Very good.
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    BY CHAIRMAN GOLDNER:
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         So, now, Mr. Hibbard, I see that you have an
         impressive technical background. I wanted to
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         know how you got from nuclear reactor design, to
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         your current position as -- in terms of what
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         we're talking about today?
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         (Hibbard) That's a great question. And I'll give
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         you the answer.
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                   You know, I actually wanted to study
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         nuclear engineering in graduate school, and, you
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         know, was interested in nuclear physics from my
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         first year of college. So, I was kind of a geek.
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                   But, when I was in my first year of the
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         Ph.D. program in nuclear engineering, my mother
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         got really sick. I was in California, I moved
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         back to Massachusetts. The next thing I know, I
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         was married, I had kids, and I was working at the
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         Public Utility Commission.
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                   So, that was it. It's not a great
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answer.

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Right. Very good, sir. And I was looking at, I think it's on Page 12, you have many of the same graphs, I'll just choose one, so we're all looking at the same thing, in your testimony, Exhibit 4. And just, you know, the simple interpretation of the graph is you were comparing the status quo, as you, I think, highlighted earlier, you know, propane and different fuel oils and so forth, and compared to the Concord Lateral and the Granite Bridge Option. And there's a pretty sizable reduction in each of the categories, based on your analysis.

And then, interestingly, the Concord

Lateral and the Granite Bridge Option are the

same, the graphs are the same height. Meaning

that, you know, gas is gas, you're burning gas,

and, you know, it has the same emissions no

matter how you burn it.

And I'm curious as to this, and this goes to that Recommendation 5 that Commissioner Simpson was alluding to, these sulfur oxides and nitrous oxides and so forth, you know, there's, you know, that implies that the gas is getting

1 burned, which, of course, it is, but that the 2. distribution utility is taking ownership of that 3 process of burning the natural gas. I'm sort of 4 not following the logic, if you can help me with 5 Like, why -- why are we monitoring SOx and 6 NOx for a distribution gas utility? 7 (Hibbard) You mean at the burner tip? Basically, Α 8 why, for a distribution gas utility, you're 9 delivering gas to -- I'm restating the question 10 to make sure I understand it. 11 Thank you. No, I appreciate it. Q 12 (Hibbard) You're distributing gas and the same 1.3 quantity of gas is being used by customers, so 14 what's the point in considering? 15 In this chart, there actually is a 16 difference in the emissions, even though it's not 17 noticeable between the two options. And the 18 reason -- the reason there's a difference is 19 because, with the Granite Bridge Project, there 20 was more opportunity for customers to convert 21 from oil and propane to natural gas. So, in both 2.2 cases, there are opportunities for existing 23 customers to convert and to increase the number 24 of customers using gas, so that you displace the

emissions associated with oil and propane. And so, that's the drop from the blue, down to the orange and green.

The difference between the orange and green, though, is that, with Granite Bridge, there would have been towns that would now have access to natural gas that didn't previously, and that wouldn't with the Concord Lateral Option.

Q Okay.

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A (Hibbard) And, so, in that case, you're increasing the number of customers that would get off of oil and propane and burn gas. So, there is a small difference between those two, and that was why we, you know, I felt it useful to compare them from the same perspective here.

I understand your question, you know,

"why are you considering, for the same set of

customers, getting the same molecules and burning

them, and ending up with the same pollutants, why

would you want to compare them?" And I think, in

that case, there's not a regulatory need to

compare them, because the DES is considering the

total emissions associated with combustion of all

fuels.

1 What may be relevant in the context of 2. the Settlement is that, if you were comparing 3 this to RNG alternatives and energy efficiency 4 alternatives, you might see a big difference. 5 Because, ultimately, it could lead to reductions 6 in total gas consumption through efficiency, and 7 the actual emissions associated with alternative 8 fuels might be different, could be different, 9 when you take into account the upstream impacts 10 as well. 11 Okay. Okay, and just, you know, I'll return to Q 12 your background question again. You said before 1.3 that you're -- obviously, you're very, very 14 skilled at the analysis in this field. You sort 15 of became an expert on that sort of through 16 experience from nuclear reactors on, and feel 17 good about that. But, then, you also said you 18 "weren't a climate scientist" earlier in your 19 testimony. So, I'm just trying to understand the 20 expertise that you're representing today. Can 21 you maybe expand on that a little bit? 2.2 Α (Hibbard) Sure. In my testimony, I have since, 23 actually, in graduate school, I have done 24 environmental analysis, and have spent a lot of

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time, both in my work with the Public Utilities

Commission and with the Department of

Environmental Protection, in Massachusetts,

always been involved in analyses that look at

emissions and the public health impacts of

emissions, and all of that. So, very comfortable

with that, and that's what's included in the

testimony and my report.

When I said I "wasn't a climate scientist", we were having a discussion about "what is the actual heat-trapping capability of a molecule of methane versus a molecule of carbon dioxide, and what is the timeframe for those gases staying in the atmosphere?" I've read the IPCC reports and other reports on this. I understand what the difference is and how they think about it. But it's not something that I've studied, you know, the heat-trapping capability of different gases. So, that's the distinction I was making.

Q Okay. Thank you for that. And what could you recommend to the Commission, as we sort of move forward, and we're looking at, you know, for example, an understanding of, you know, this heat

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absorption impact, and, you know, water vapor
versus carbon dioxide, versus, you know, NOx and
SOx and so forth? Is there someplace that you
would point us to, in terms of what you would
recommend to educate us on that as much as
possible?

A (Hibbard) Yes. Absolutely. And this may be --

may be a bit of a cop-out, but I know that, when I was on the Commission, questions like this, I would turn to our Department of Environmental Protection. You know, I'd want to get their input, number one. But I would also look to what's relied upon by environmental regulatory agencies. You know, as a public utility commission, it's not our bailiwick to be thinking about what the right Global Warming Potential is for different gases.

But there are experts in this field, and regulators have interpreted the scientific literature to come up with conclusions that they're using in policymaking decisions. And, so, that's what I would do, I would turn to the DES, I think it is, in New Hampshire, I would look to EPA, and I would just try to get their

1	input, and base the decision on their expertise,
2	since it's their field of expertise, rather than
3	thinking that, as a public utility commissioner,
4	I could figure out what the right answer is.
5	CHAIRMAN GOLDNER: We're not afraid of
6	anything, but that is that is a big task.
7	Okay. Very good. Yes, appreciate your
8	coming today and providing testimony. That's
9	very much appreciated.
10	Commissioner Simpson, did you have
11	anything you'd like to follow up on?
12	CMSR. SIMPSON: No. Thank you.
13	WITNESS HIBBARD: Thank you,
14	Commissioners.
15	CHAIRMAN GOLDNER: Okay. Thank you.
16	All right. We can move, at this point,
17	I think, to redirect. And do you have any
18	remaining redirect for the rest of your witnesses
19	or redirect for
20	MR. SHEEHAN: Actually, I don't. I
21	have my list, and slowly checking things off as
22	we went in circles. So, I think we're all set.
23	CHAIRMAN GOLDNER: Okay. Okay.
2 4	Attorney Schwarzer, did you have any additional

1	or redirect for your witness?
2	MS. SCHWARZER: I don't, Mr. Chairman.
3	Thank you.
4	CHAIRMAN GOLDNER: Okay, very
5	good.
6	MR. SHEEHAN: Let me just cross one "t"
7	I forget. Mr. Hibbard authored a second piece of
8	testimony I didn't ask him about. But, just for
9	the record, he also filed rebuttal testimony.
L 0	And I ask that he does he adopt that here
L1	today?
L 2	WITNESS HIBBARD: I do.
L 3	MR. SHEEHAN: Thank you.
L 4	CHAIRMAN GOLDNER: Thank you. Okay.
L 5	Now, we can release all the witnesses. So, thank
L 6	you. Thank you. We didn't have any additional
L 7	questions. Appreciate your sticking around.
L 8	Okay. So, without objection, we can
L 9	strike ID on Exhibits 1 through 19, admit them as
2 0	full exhibits.
21	And it's ten minutes till three. Would
22	the parties like to proceed with a oral closing
23	or would the parties prefer a written closing?
2 4	MR. SHEEHAN: I would prefer oral.

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                   CHAIRMAN GOLDNER:
                                       Okay.
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                   MS. SCHWARZER: Agreed.
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                   CHAIRMAN GOLDNER: Agreed?
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                   MR. KRAKOFF: Agreed.
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                   MR. KREIS: I love oral.
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                   CHAIRMAN GOLDNER: Excellent.
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         Excellent.
                   MR. HUSBAND: Agreed.
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                   CHAIRMAN GOLDNER: All right. Great.
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         We're five for five. It's a good day. Okay.
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         Very good.
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                   MS. SCHWARZER: Mr. Chairman, if I
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         might?
                   CHAIRMAN GOLDNER:
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                   MS. SCHWARZER: Could we take a brief
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         recess perhaps, for people to get a drink of
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         water, before we do these closings?
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                   CHAIRMAN GOLDNER: Of course, yes. So,
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         let's -- we can pick up pretty quick, would three
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         o'clock be okay?
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                   MS. SCHWARZER: Absolutely.
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                   CHAIRMAN GOLDNER: Okay. All right.
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         Very good. We'll return at 3:00.
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                    (Recess taken at 2:50 p.m., and the
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hearing resumed at 3:02 p.m.)

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CHAIRMAN GOLDNER: Okay. We can move onto closing. And begin, if it's okay with you, Mr. Krakoff, with CLF.

MR. KRAKOFF: Absolutely.

As discussed in CLF's response to the Settlement Agreement that was filed last week, CLF does not support the Settlement Agreement, because it does not require Liberty to consider electrification alternatives to its future gas expansion plans and does not require Liberty to compare the environmental and public health impacts of its preferred resource alternative to the impacts from a strategic electrification alternative.

However, CLF also wishes to reiterate that the Settlement Agreement contains several provisions that will help ensure that Liberty's next LCIRP complies with the LCIRP statutes.

First, the Settlement Agreement

contains terms that will help Liberty's next

LCIRP serve its intended purpose. The Commission

has previously recognized that a well crafted

LCIRP allows the Commission the opportunity for

input regarding a utility's current planning processes, procedures, criteria, and planned investments, and provides a regular snapshot of the factors supporting a utility's investment decisions.

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However, given that Liberty filed its

LCIRP in this docket nearly five years ago, the

Commission has already issued decisions regarding

Liberty's gas expansion plans in other dockets,

including DG 21-008, and Liberty's next LCIRP is

due soon, this docket does not serve its intended

purpose. The provision in the Settlement

Agreement in which Liberty agrees to propose to

the Commission a procedural and hearing schedule

whereby the hearing on the LCIRP would occur

within one year of Liberty's filing of the LCIRP

would help enable the Commission the opportunity

for input regarding Liberty's planning processes

and planned investments.

Additionally, the Settlement Agreement contains a number of terms that will help ensure Liberty's compliance with the substantive provisions of the LCIRP statutes. First, Section 2.3, Recommendation 1, will require Liberty to

evaluate energy efficiency as a potential resource alternative incremental to any customer-funded programs offered via NHSaves. This merely requires Liberty to satisfy the provisions in RSA 378:37 through 39 relating to energy efficiency, and particularly the provisions in RSA 378:37, which states that it is the State's energy policy to maximize energy efficiency, maximize energy efficiency. provision was added to RSA 378:37 by the Legislature in 2014, and it signaled back then the Legislature's intention that energy efficiency and other demand-side resources should play as essential a role in accomplishing the state's energy needs as the other policies outlined in RSA 378:37, including the requirement that energy needs to be provided at the lowest reasonable cost.

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The terms in the Settlement Agreement will also help ensure Liberty's compliance with the provisions in RSA 378:37 through 39 relating to Liberty's assessment of the environmental and public health impacts of its plan.

Recommendation 4 would require Liberty

to assess resources in terms of environmental impacts by documenting the greenhouse gas impacts of evaluated resources in terms of emissions created or avoided. Given that climate change represents the gravest environmental threat to New Hampshire today, it is axiomatic that an assessment of environmental impacts pursuant to the requirements of RSA 378:37 through 39 would require Liberty to conduct an assessment of the greenhouse gas emissions resulting from the natural gas sold by Liberty.

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In fact, as detailed in Mr. Hibbard's testimony, Liberty recognized that the environmental assessment requirements of RSA 378:37 through 39 required it to analyze the greenhouse gas emissions resulting from the natural gas it sells, when it conducted analysis of such emissions.

Moreover, a full analysis of the greenhouse gas emissions impacts requires an analysis of the emissions caused by the combustion of natural gas, i.e., the natural gas emissions from the burner tip, which Liberty similarly recognized when it included it in its

analysis of the greenhouse gas emissions. An assessment of greenhouse gas emissions, as outlined in the Settlement, is not only required by the environmental provisions in the LCIRP statutes, but also does not represent a change from how Liberty already approaches its analysis, you know, with respect to the fact that it already conducts analysis of natural gas emissions from the burner tip.

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Further, the terms in the Settlement
Agreement will ensure Liberty's compliance with
the public health impact requirements of the
LCIRP statutes. These statutes require Liberty
to perform an analysis of the public health
impacts of its plan. Recommendation 4, which
would require Liberty to assess the public health
impacts of local air quality evaluated resources
by documenting sulfur oxides, nitrous oxides, and
particulate matters, as well as the health
impacts of these, would merely require Liberty to
follow the public health assessment requirements
of the LCIRP statutes.

Finally, the requirement in Section 2.5 that would require Liberty to compare the

environmental and public health impacts of its preferred resource alternatives to (1) a status quo alternative; (2) an enhanced energy efficiency alternative; and (3) an RNG or Certified Gas alternative, would merely enable the Commission to consider the potential environmental, economic, and health-related impacts of each proposed option, as required by RSA 378:39.

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While the Settlement Agreement contains a number of terms that will help ensure that Liberty follows the requirements of the LCIRP statutes, I want to briefly discuss the reasons why we are not signing onto the Settlement Agreement. This is because it does not contain any provisions relating to heating electrification. RSA 378:37 states that, in addition to it being the State's energy policy to meet energy needs at the lowest reasonable cost, it is also the State energy policy to provide for the reliability and diversity of energy sources. Electrification would help increase diversity of New Hampshire's resources, especially in light of the fact that 80 percent of our heating resources

come from fossil fuels.

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Further, RSA 378:38 requires an LCIRP to be consistent with the State Energy Strategy; as supported by the evidence in the hearing today, the State Energy Strategy promotes fuel diversity for heating; finds that heat pumps make sense as a replacement for high-cost carbon intensive heating systems in certain circumstances; and that heat pumps have lower emissions of air pollutants and provide potential cost savings.

Despite this, the Settlement Agreement would not require Liberty to analyze electrification alternatives. Similarly, CLF does not support the Settlement Agreement because it does not require Liberty to compare the public health and environmental impacts of its preferred resource alternative to an electrification alternative, as required by RSA 378:39. In sum, CLF is unable to join the Settlement Agreement because it does not require Liberty to explore electrification alternatives, with such a requirement supported by both the language of RSA 378:37 through 39, as well as the State Energy

Strategy.

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Finally, CLF wishes to address the elephant in the room in this hearing today, mainly why the Commission should issue an order that differs from its order in the Northern Utilities' LCIRP docket, DG 19-126. While that order focused on the language in RSA 378:37 that it is State energy policy to meet the energy needs of the citizens and businesses of the state at the lowest reasonable cost, it ignored the remaining language in RSA 378:37, and failed to address any of the requirements in RSA 378:38 and 39. More specifically, the order ignored the language in RSA 378:37 through 39 involving energy efficiency and public health and environmental impacts.

Many of the Settlement Agreement terms here would merely require Liberty to comply with provisions that are already in the LCIRP statutes. Conversely, an order here that is similar to or mirrors the order in the Northern Utilities' LCIRP docket would weaken Liberty's requirements under its next LCIRP, and violate the provisions in RSA 378:37 through 39 involving

energy efficiency and environmental and public health impacts.

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Husband.

Accordingly, the Commission should approve the Settlement Agreement terms, as well as further require Liberty to analyze electrification alternatives, as argued by CLF throughout this hearing and in its filings in this docket.

Thank you for your time today.

CHAIRMAN GOLDNER: Okay. Thank you,

Attorney Krakoff. We'll move to Attorney

MR. HUSBAND: Thank you, Mr. Chairman.

The Commission's final decision in this matter must take into account not only the testimony and exhibits offered today, but the entire record of the proceedings. The record before the Commission reveals not only the legal impediments, procedural, and other flaws precluding settlement and LCIRP approval raised on the record by Clark and others, but also the substantial evidence of fraud or other improper conduct used to further Liberty's planning that is otherwise established on the record under

Clark's response to the proposed Settlement Agreement and otherwise.

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Mr. Clark's foremost position, as noted in his position statement, Position 1, is that Liberty's planning is unlawful and not approvable on the merits, under the proposed Settlement Agreement or otherwise, as it is inconsistent with the state's official energy policy under RSA 378:37, and contrary to the public interest, since it plans for substantially increasing, rather than decreasing the utility's natural gas methane emissions in conflict with Paris Climate Accord/IPCC emissions reduction goals. As noted in Clark's position statement, Liberty not only does not dispute the propriety of adhering to those goals, which is indisputable on the established science and other facts of the case, but professes to adopt them as its standard of service, and, therefore, should be held to that standard, under RSA 374:1 and otherwise.

If Liberty is unwilling or unable to meet this standard, a moratorium on Liberty's future expansion should be imposed, as Clark urged at the outset of the case in his Motion to

Dismiss. Beyond that, there are substantial deficiencies and errors in Liberty's filings and procedural issues discussed in Clark's position statement and pleadings, and the pleadings of others, as noted in Clark's position statement, that preclude approval.

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But there is also the substantial evidence of fraud previously mentioned, which also precludes approval absent appropriate corrective/remedial terms. This evidence includes as follows: Before Liberty even submitted its emissions analysis in this matter on June 28, 2019, Clark twice made clear that curbing methane emissions and our reliance on natural gas that causes them is critical to climate action because methane has an extremely high initial 20-year Global Warming Potential, or GWP, then estimated to be 86, which makes it inconsistent with responsible climate action at this point in time. Clark noted this in Paragraph 13 of his March 6, 2018 Petition to Intervene, which is under Tab 7, and again in Paragraph 9 of his Motion to Dismiss, under Tab 16, which was filed on May 15th.

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emissions impact analyses on June 28th, 2019, it used a 100-year GWP of 25 for methane, as shown in hearing Exhibit 11, Bates Number 209, Lines 5-7, even though the analysis was for a 20-year timeframe. I would note that it was also confirmed through the testimony of Mr. Hibbard today. A 20-year GWP was clearly more appropriate, as Clark explained in both Paragraph 5(D) of his July 8th, 2019 response to Liberty's submission, which is under Tab 45, and in his September 6, 2019 testimony, which is hearing Exhibit 7, at Bates 18 to 20, the latter noting that the recently released IPCC 5th Assessment Report assigned methane a GWP of 84.

Yet, when Liberty submitted its

Nonetheless, Liberty was made aware of the actual 20-year emissions impact of its planning by August 6 [16?], 2019, as shown by hearing Exhibit 14, which is Liberty's response to Clark's Data Request 5-9, providing the proper 20-year GWP analysis. That impact, as discussed in Clark's response to the Settlement Agreement, and confirmed by Mr. Hibbard's testimony, was/is only roughly an 80 -- only roughly an 11 percent

decrease in emissions over a 20-year period.

However, even by its own improper 100-year GWP calculations, Liberty asserts only about a 26 percent reduction in emissions over a 20-year period, as Mr. Hibbard testified. Whether it's

6 11 percent or 26 percent over 20 years, it does

7 not support IPCC emission reduction goals.

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Yet, notwithstanding this knowledge of its actual emissions reductions, which fall far short of the responsible emissions goals of the IPCC shown in hearing Exhibit 17, Liberty engaged in the fraudulent "green" advertising and Commission conduct discussed in Clark's response to the Settlement Agreement, and further evidenced or otherwise established by the hearing exhibits already noted, as well as hearing Exhibits 2, 8, 9, 13, 15, 16, 18, and 19, and such other hearing exhibits as may be referenced in Clark's response to the Settlement Agreement.

So, when the Commission considers the entire record of these proceedings, the result must be denial, denial of approval of the Settlement Agreement, denial of approval of Liberty's LCIRP, but hopefully guidance on future

LCIRP proceedings in accordance with Clark's position statement. And I say "hopefully", but that would be something that Mr. Clark would insist on.

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Moreover, as Liberty has not sufficiently rebutted the evidence of fraud and has not agreed to Clark's proposed corrective/remedial terms or proposed other appropriate corrective/remedial terms, if the Commission does not properly address the matter itself in its final order, it should immediately refer the matter to the Attorney General's Office for action under RSA 374:41, as there are certainly more than ample evidence for such a referral.

A few final matters. First, Clark reminds the Commission that his pending amended motion to condition the Keene Project on RSA 378 consistency and compliance and related relief is still to be decided. Although the motion was filed in this proceeding, Prayer D of the motion requests relief as is just, reasonable, and proper, and it is Clark's position that, at this time, as Liberty never submitted any RSA 378:38

1 to 39 filings for Keene in this proceeding, or 2. otherwise, Liberty's planned conversion and 3 expansion for Keene may only go forward, if at 4 all, and Clark contends that it may not, for the 5 reasons he has put forth of record, if it is to 6 go forth at all, it must be included and approved 7 under the next and all appropriate LCIRP 8 proceedings. The Commission has as such indicated as -- the Commission has -- the 9 Commission as much as indicated in its Order 10 11 Number 26,613, entered in the Keene case, Docket 12 Number DG 17-068, that Keene's development would 1.3 be included in all appropriate LCIRPs going 14 forward, as the Commission noted at Page 4 of 15 that opinion that "Any aspect of Liberty's 16 conversion project that requires Commission 17 approval will continue to take place in other 18 dockets, including review of Liberty's LCIRPs, 19 such as that filed in DG 17-152." Again, as 20 Keene was never approved under this proceeding or 21 otherwise, it falls under that order. 2.2 Sort of housekeeping note, as I mentioned, Exhibit 18 that you have is an excerpt 23

of testimony from the Granite Bridge proceeding,

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Docket Number DG 17-198, which shows Liberty's projections for that option under its LCIRP for the Commission's reference in considering

Mr. Clark's claims respecting the fraud issue.

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And, finally, I would note, as noted in Clark's response to the Settlement Agreement, Footnote 3, the GWP for methane may have been subsequently lowered by the IPCC or may be in the process of being lowered to 81.2. I've also seen recently a range of 81 to 83 for the change they're considering for the GWP of methane for the 20-year period. I'm not sure if that's still being considered or has gone through, or what. But the GWP was 84 at the time of Clark's testimony, which is referenced in the testimony, and the small potential change likely does not materially change the results, and certainly not the impropriety of the Liberty conduct complained To the extent, I'd note, though, of. Commissioners, that the -- you know, that there is that change that should be considered in relation to Mr. Clark's testimony. It's also referred to again in Footnote 3 of Mr. Clark's response to the Settlement Agreement.

And I have nothing further, except to thank all of the parties in this proceeding, and the Commissioners for their time and patience today.

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CHAIRMAN GOLDNER: Okay. Thank you, Attorney Husband.

Let's move to Attorney Kreis.

MR. KREIS: Thank you. Mr. Chairman.

Thank you, Commissioner Simpson. Thank you for a very interesting, edifying, and even stimulating hearing today.

Having listened carefully to all of the testimony adduced today, and all of the questions and concerns that were raised, the Office of the Consumer Advocate remains convinced that approval of the pending Settlement Agreement is in the public interest, and represents an extremely fair and thoughtful way of winding up what has been a very, very, very long, and even tortured, PUC proceeding.

I was noticing this morning how much personnel turnover there has been since this docket was filed five years ago. I think

Mr. Sheehan and I might be the only people left

from the very beginning of the docket. And I mention that, because I just want to -- I want to make sure that the Commission knows that the OCA has been working very diligently, and communicating pretty constantly over those five years with this utility, about how to get this whole thing right. How to get us to the place that we need to be, as a state, with respect to least cost integrated resource planning generally, and how to get it to the right place with respect to least cost integrated resource planning specifically as to natural gas utilities. And no utility has been more cooperative in exploring those questions than this utility has. And that sense of openmindedness and cooperativeness deserves to be rewarded.

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Now, I'd like to comment briefly on a couple of things that I heard from the closings that you heard previously.

I was very interested in hearing what Conservation Law Foundation has to say. And my response to the concerns that they raised, and the reasons that they gave for not signing onto

the Settlement Agreement, is that nothing the

Conservation Law Foundation is proposing is
actually precluded by the Settlement Agreement.

And it is possible, and plausible, for any gas
utility in its next Least Cost Integrated

Resource Plan to address the question of
electrification. The OCA thinks that would be a
very good idea. But, for reasons we heard today,
it is a controversial proposition. There is a
colorable argument to be made, I don't happen to
agree with it, but I acknowledge its
colorability, that electrification is outside the
four corners of a natural gas utility's
franchise, and therefore out-of-bounds to such a
utility.

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So, the point is, though, that approval of the Settlement Agreement doesn't mean that the Commission is rejecting or has no interest in the issues that you heard about in Mr. Krakoff's closing.

As to Mr. Clark, I respectfully disagree that there is anything of record here that suggests that there is any fraud that is germane to what the Commission is required to

decide here today. I addressed the fraud allegations in the pleading I addressed to the Commission previously in this docket. It is Tab 129.

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I just want to reiterate here, that, if I thought there were any fraud going on, I most assuredly would bring that not only to the attention of the Commission, but potentially to other authorities as well. And I just -- I do not think that the Commission even needs to address that issue in whatever order it issues in response to the Settlement Agreement. And I take that position, in part, because the question of "fraud" simply isn't germane to what is at issue in a proceeding like this.

Okay. I want to say that I take very seriously, as I said before, the concern that Commissioner Simpson expressed about whether approving the Settlement Agreement, and, in particular, approving Section 2.2 of the Settlement Agreement, would amount to an abdication of the responsibility that the Commissioners have to assure that there is full compliance with the LCIRP statute. Because, as

we all know now, Section 2.2 asks the Commission to essentially avoid the key question, and not really make a definitive ruling on whether the LCIRP that's pending here meets all of the standards that are laid out in Sections 37, 38, and 39 of RSA 378.

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And, as I said earlier, to the extent that abdication is an issue, I think that that abdication has already taken place, in the form of commissioners who, for whatever reason, and I think, in some ways, there were some good reasons, allowed this docket to linger on the list of active cases for as long as it had.

There was a long period of quiescence here that, had it not happened, could have meant that the Commission could have ruled on the pending LCIRP, I don't know, something like two, maybe even three, years ago.

And, so, the Commission, I agree, has been placed in a difficult position now. The Settlement Agreement represents a decent framework for addressing the problem, and for the reasons I've already given. It would be absurd for this, or any other commission, to approve a

planning document that really talks about things that have already transpired in the past. And it would also be absurd to really hold the Company's feet to the fire about this LCIRP, because I'm concerned that it wouldn't really warrant approval under a full application of the approval standards. And, yet, I don't think it would be fair, in fact, I do think it would be absurd, to put the Company in a position where it is statutorily precluded under Section 40 of the statute from changing any of its rates. Because, as we all know, the Company's rates do need to change, for a variety of reasons, and fairly soon. So, I just don't want to see that outcome.

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With respect to Section 2.7 of the Settlement Agreement, which describes or I guess requests, on behalf of the Settling Parties, a deadline extension with respect to the filing of the next LCIRP by the Company, in my respectful opinion, there's really no way that this company can get this right by October 2nd. And the statute, again, with respect, really doesn't contemplate a utility filing an incomplete least cost integrated resource plan, and then being

allowed, over the course of the adjudicative proceeding that that filing triggers, to allow the utility to backfill their filing.

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I realize the Commission has indulged that in past LCIRP dockets. But I don't think that's what the LCIRP statute actually instructs either the utilities or the Commission to do, and I don't think the Commission should allow that to happen, or even suggest that should happen here.

Now, that brings me to Section 2.3 of the Settlement, which lays out the substantive recommendations about the next least cost integrated resource plan that this utility will have to file, at what point or another. And, as you've already heard, there are nine recommendations. Those recommendations are, essentially, cut-and-paste out of the Northern docket, Docket Number 19-126. And I continue to believe, and suggest to the Commission that it conclude, that those nine recommendations comprise a -- excuse me -- a sensible framework for least cost integrated resource planning to go forward on the part of a gas utility.

Now, I know there's a lot of concern

about Recommendation 1, which concerns energy efficiency. And I want to make sure that everybody understands what Recommendation 1 really does. And I endeavored to explain what I think Recommendation 1 really does in the rehearing motion that I filed yesterday in Docket Number 19-126, and I would urge folks to take a look at that pleading, if they'd like a written explanation. And here's a recapitulation of that explanation.

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By virtue of House Bill 549, that the Governor signed into law in February, and by virtue of the decisions that the Commission has made implementing that bill, there are now extreme limits on what the NHSaves Programs can do, because there are extreme limits on how much money the NHSaves Programs can collect from customers to fund their programs. So, because of the way the Commission has ruled on the previous Triennial Plan, the era of the Energy Efficiency Resource Standard is over, and it's no longer the public policy of this state that we are asking our utilities or directing our utilities to pursue all cost-effective energy efficiency.

1 Instead, we're actually leaving, we are 2. knowingly leaving cost-effective energy 3 efficiency on the table, unused, because the 4 NHSaves utilities do not have the budget to buy 5 that cost-effective energy efficiency. And, 6 again, for the reasons I explained before, that 7 problem is exacerbated by the way the Commission 8 has interpreted the 65 percent requirement, 9 65 percent electric savings requirements in the 10 context of the electric utilities' NHSaves 11 That determination will have the Programs. 12 effect of all but wiping out residential 1.3 weatherization, other than for low-income households. 14

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The result of all of that is that there is energy efficiency potentially left on the table that would be least cost, in relation to other options that this or any other utility must consider as it conducts least cost integrated resource planning. And all Recommendation 1 asks the Commission to allow utilities to do, or to direct utilities to do, is to take a look at, not necessarily adopt, but take a look at and analyze the extent to which there is energy efficiency

available to be purchased that will be least cost, in relation to supply-side options. That's all it does.

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So, in terms of the themes that are present here, I just want to say to the Commission that, while I take least cost integrated resource planning really seriously on behalf of residential customers, I think it is unhelpful and arguably simplistic to assume that "least cost" inevitably has to mean "reduced costs". It can mean that. But, in an inflationary period, and in relation to things that require a future orientation with regard to future costs and future impacts, it really is a misapplication of the LCIRP statute to say that "Whatever you do, utility, what you come up with in your Least Cost Integrated Resource Plan has to reflect a reduction in cost."

Now, having said that, I want to stress that there are certain things about what the Commission has been saying recently about least cost integrated resource planning that the Office of the Consumer Advocate really, really likes, and hopes to see flourish. One is, that the

Commission obviously gets it that least cost integrated resource planning is super important. It is probably — it could be the most important thing that utilities do as regulated entities, and review of least cost integrated resource plans might be the most important thing that the Commission does as a regulatory agency.

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That's a message that I think the Commission has embraced in its recent orders.

And I would be very pleased to see an order in this docket that reinforces that idea of how seriously the Commission has come to take least cost integrated resource planning.

The Commission now understands, in a way that its predecessors didn't, I think, that least cost integrated resource planning, and review of LCIRPs, is not about how a utility makes its resource allocation choices. It's about the actual decisions that utilities make. How — what options the utility evaluates, which options it chooses, in light of the State energy policy stated in Section 37, and whether the totality of those choices are least cost, and that is "least cost" from the perspective of

customers. It's not an idle phrase. It's important to protect the interests of customers and their wallets. That's the reason the phrase "least cost" is in the statute, and it should be taken seriously, but, again, in the context of the State's energy policy.

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The recommendations in the Settlement Agreement are sensible and well considered. They have their roots in the Northern docket. In the Northern docket, a working group labored, as I said, very diligently, with consulting help. And the result of the working group, and the result of this Settlement Agreement here, are actually two natural gas utilities that are willing to be future-oriented and creative, in respect to their discharge of their statutory responsibilities to be least-cost planners.

The recommendations take the State energy policy and the approval criteria seriously. They create a framework for getting these least cost integrated resource plans from being something other than the rote homework assignment that they used to be, to being a useful and important and impactful public policy

tool. And altogether, I think the inevitable determination to be made by the Commission is that the public interest warrants approval of the Settlement Agreement.

I thank the Commissioners for their attention. I thank Liberty Utilities for its willingness to dance this particular dance, with us and other interested parties. And I respectfully look forward to an order approving our Settlement Agreement.

Thank you.

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CHAIRMAN GOLDNER: Thank you, Attorney Kreis. We'll move to Attorney Schwarzer.

MS. SCHWARZER: Thank you, Mr.

Chairman, Commissioner Simpson.

The Department of Energy supports the Settlement Agreement as filed today. We certainly acknowledge there's a very challenging framework and lengthy history that presents this Commission in a new time, and that responsibilities for the delay, and some of the unique challenges here, lie with the Commission's predecessor and all the parties here having a shared responsibility for those delays, that

strangely results in our reviewing a 2017 and 2022 LCIRP to plan for what is now past, or in the very immediate future soon will be.

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We acknowledge that other LCIRP orders, including the February 2015 order on Liberty's prior LCIRP, also dealt with somewhat challenging circumstances, and that the statutory language had recently changed, and, so, the Commission had to address a perhaps not unsimilar disconnect between some statutory language and what was possible to review, and the scope or depth of the approval that it gave.

The Department certainly feels that the granularity and the framework of the Settlement Agreement is important and helpful with regard to the future process of assessing Liberty's next LCIRP in a productive and uncontentious manner, or at least minimizing the contention that has been identified to date in many important areas.

Based on the exhibits and the testimony that have been provided here today, the Commission, consistent with Paragraph 2.2, certainly may approve Liberty's LCIRP without making any specific findings as to the LCIRP's

compliance with specific provisions of the LCIRP statute. And we share the OCA's view that in no way would this abdicate the Commission's responsibility. It would rather more precisely reflect the highly unusual and challenging circumstances faced in resolving this LCIRP at this late date.

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DOE's position is that the Settlement Agreement is just and reasonable, and in the public interest.

We thank you for your time. We thank the parties here, both those who eventually reached a Settlement Agreement with the Department, and those who otherwise, in good faith, engaged in conversations and work, which was not, perhaps, allowing them to join us, but which moved the ball further down the field.

Thank you very much.

CHAIRMAN GOLDNER: Thank you, Attorney Schwarzer. And, after four years, ten months, sixteen days, batting cleanup, Attorney Sheehan.

MR. SHEEHAN: Thank you.

I will add to the list of folks who have been here from the beginning are the two

people to my right. They actually start on it before I did, doing the hard work. And the gentleman taking the notes today has been here since the beginning, too.

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First, I want to address Mr. Husband's blatantly ridiculous claims fraud. "Fraud" is a loaded word, it is a dangerous word, and it is simply wrong to be applied here.

His claim is that our local representatives echoed "net zero 2050" targets by our corporate parent. We are part of a large family. That family has made that commitment.

And each component of that family will contribute towards the overall "net zero".

and, of course, we are a subsidiary of Algonquin, traded on both New York and Toronto Stock

Exchanges, they don't take these things lightly.

The opening page has a statement "We are proud to establish a goal of net zero by 2050." You click on the button, and up comes a two- or three-page high-level description of the efforts made, the efforts to be made. They note that we have already achieved substantial savings. That the

Company is roughly divided in half. Half is unregulated power development, solar, wind, hydro. The other half is about 30 small to medium-size regulated utilities.

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On the generation side, it's almost 3,000 megawatts of renewable power that they have built in the last ten years, and going up.

And, so, this whole picture is what's "net zero by 2050", not necessarily EnergyNorth.

EnergyNorth will do its share, and that's part of the discussion today.

But, for the New Hampshire president to say that "Liberty is on a path to net zero by 2050" is entirely true, and as far from fraud as possible. And, frankly, I hope the Commission doesn't even mention that in the order, to cause any more attention to it than has already been paid.

Second, Mr. Husband's comment about Keene; yes, the next IRP will address Keene.

And, now, to the merits for today. As I mentioned, there were three goals for Liberty all contained in the Settlement Agreement. First is approval of the 2017 Plan. The Settlement

recommends approval without necessarily making the underlying findings. But I submit that you can make the underlying findings.

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If you look at the statutory requirements, and you go one-by-one, we have checked all the boxes. The demand forecast, and the assessment of our resources to meet that demand, is contained in the Plan, it's contained in the rebuttal testimony, because some party says we didn't do that. And, in fact, the Staff witnesses testified that our demand forecast was good, that our assessment of options was good. And, so, there's agreement there.

The next part of the Plan was, and I'm oversimplifying, is the assessments that we spent so much time talking about today. Going back to the history of that, our prior plan was filed in '13. The statute adding gas utilities to the IRP statute was '14, 2014. So, when we filed the 2013 Plan, we were not subject to the statute, we were subject to a series of Commission orders that say "This is what you do." So, the 2013 Plan was filed prior to the statute. The order was issued after, in 2015, and that order

acknowledges that. And says "We understand Liberty filed before. We are nonetheless evaluating it." And, basically, said we did meet most of the obligations. And, to the extent we were short, "you need to do it on your next plan", and most of it being the environmental/health assessments.

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So, we filed the Plan in 2017, taking our best shot of what that should be. Because, at that point, there had been no Commission order saying "This is how you do it, how you meet the environmental, the health."

In response, I think was Mr. Husband's Motion to Dismiss. There's a Commission order in early '19. So, had been a year of discovery, and some litigation. And that order comes out and, basically, denies a Motion to Dismiss, but told the Company we need to do more. And they gave us a deadline to supplement our filing. Again, that order did not say what "more" meant. It simply said "you need" -- I don't have the quote here, but "You need to do a better job of describing the environmental and health assessment."

So, that resulted in the Killeen

testimony of the Spring of '19, Exhibit 3. After that was filed, we had technical sessions, conversations with the parties. It's clear the parties still weren't satisfied with what we had done. So, we acknowledged that, and said we will supplement further. And that's the testimony that was filed in the summer, included Mr. Hibbard's testimony, Mr. Stanley testified about the energy efficiency pieces, a woman named Sherrie Trefry, who was an environmental consultant, was working on the Granite Bridge Project, offered testimony on the environmental side.

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And then, in rebuttal testimony, a lot of this was recaps, because we're responding to what the parties filed in September, our rebuttal testimony was in October of '19.

So, if you were to look at Mr. Hibbard's original testimony, and then the Company's rebuttal testimony, you will see more than enough evidence that shows that the '17 Plan was compliant. And you could make findings that we did comply, and thus you can approve the 2017 Plan.

And the other piece of Staff testimony, which was filed again late '19, the Liberty

Consulting, oddly named, their witnesses

supported our demand forecast and those core

pieces. And Mr. Iqbal, on behalf of Commission

Staff, testified that our environmental/health

assessment was adequate as well. So, there was

agreement on that piece as well, at least as

among Staff and the Company.

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So, as to Goal Number 1, I think there's more than sufficient evidence to approve the 2017 Plan. As a last thought on that, the Northern Settlement, the order that came out a year or two ago approving their Settlement, also approved their plan. And, if you look at their plan, and you compare it to ours, ours is at least as robust as theirs. And the Commission approved that plan, finding that it had satisfied all the requirements. I submit ours was a step better than that.

So, there's a precedent there. It's, obviously, not easy to compare them side-by-side. But a review of their environmental/health assessments will show that ours was at least as

good, and, again, warranting approval.

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The second goal, of course, is guidance for the next IRP. Those are the recommendations in the Settlement Agreement. I don't need to repeat any of them. We have discussed them at length. We agree with the other parties in this room, that they are good, they are helpful, and giving us structure for how to prepare the next plan. They are consistent with the statute.

And it's -- and appreciate the compliments from Mr. Kreis. We're happy to go down that road with him, only because, frankly, it's the right way to go, in part, to comply with the statute, in part to help our Company meet its net zero goals.

And, last is the -- once more a plea for more time. No need to say much more there as well. Mr. Tilbury described all the work they're doing. And, especially, to the extent that we don't have direction still on what to do. We -- again, the core pieces are known. It's the part in the Settlement Agreement that's not defined. We started working on the working group recommendations, thinking that would be a logical

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         place to go. We, frankly, expected the
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         Commission to largely approve them. And we
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         figured, there was a lot of work behind them, and
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         it makes sense for us to be doing the same thing.
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                   We didn't go very far that road,
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         because we didn't know. So, the additional time
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         would allow us to do that work as well.
                   And that's all I have. Thank you.
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                   CHAIRMAN GOLDNER: Okay. Thank you,
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         Attorney Sheehan.
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                   Let's -- is there anything else that we
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         need to cover today?
                   MR. SHEEHAN: I'm sorry. There's one
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         more, on the very top of my list, there was -- on
         confidentiality. We filed a motion for some of
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         the -- I filed a Motion for Confidential
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         Treatment of data responses. And there's also
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         pending from 2019 a Motion for Confidential
         Treatment of one of the testimonies that hasn't
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         been acted on. So, we just ask that the
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         Commission tie up those loose ends.
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                   CHAIRMAN GOLDNER: Okay. Thank you.
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         Okay. Anything else?
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                    [No verbal response.]
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                    CHAIRMAN GOLDNER: No? Okay. Very
                We'll take the matter under advisement and
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          good.
          issue an order. We are adjourned. Thank you.
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                    (Whereupon the hearing was adjourned
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                    at 3:50 p.m.)
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