

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION

June 11, 2020 - 10:05 a.m.  
[Remote hearing conducted via Webex]

RE: DG 19-126  
NORTHERN UTILITIES, INC.  
2019-2024 IRP  
(Hearing on Settlement Agreement)

PRESENT: Chairwoman Dianne Martin, Presiding  
Commissioner Kathryn M. Bailey  
Commissioner Michael S. Giaimo

Jody Carmody, Clerk  
Eric Wind, PUC Remote Hearing Host

APPEARANCES: Reptg. Northern Utilities, Inc.  
Patrick H. Taylor, Esq.  
  
Rptg. Office of Consumer Advocate:  
Christa Shute, Esquire  
  
Reptg. PUC Staff:  
Lynn Fabrizio, Esq.

Court Reporter: Susan J. Robidas, NH LCR No. 44

## I N D E X

1  
2  
3 WITNESSES: ROBERT S. FURINO  
4 PRADIP CHATTOPADHYAY  
5 AL-AZAD IQBAL  
6

7	EXAMINATION	PAGE
8	Direct Examination by Mr. Taylor	13
9	Direct Examination by Ms. Shute	16
10	Direct Examination by Ms. Fabrizio	17
11	Direct Examination by Mr. Taylor cont'd	20
12	Direct Examination by Ms. Shute cont'd	28
13	Direct Examination by Ms. Fabrizio cont'd)	32

14  
15 INTERROGATORIES BY COMMISSIONERS:

16	By Commissioner Bailey	39
17	By Commissioner Giaimo	48
18	By Chairwoman Martin	63

19  
20 CLOSING STATEMENTS

21	By Ms. Shute	66
22	By Ms. Fabrizio	67
23	By Mr. Taylor	69

## E X H I B I T S

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

EXHIBIT NO.		PAGE NO.
1	CONFIDENTIAL VERSION Northern Utilities 2019-2024 IRP filed 7/22/19	Premarked
2	REDACTED VERSION Northern Utilities 2019-2024 IRP filed 7/22/19	Premarked
3	CONFIDENTIAL VERSION Northern Utilities 2019-2024 Revised IRP filed 2/24/20	Premarked
4	REDACTED VERSION Northern Utilities 2019-2024 Revised IRP filed 2/24/20	Premarked
5	OCA Testimony of Dr. Pradip Chattopadhyay and attachments filed 4/10/20	Premarked
6	Staff Testimony of Al-Azad Iqbal and attachments filed 4/10/20	Premarked
7	Settlement Agreement of the Parties filed 5/27/20	Premarked

## P R O C E E D I N G S

1  
2 CHAIRWOMAN MARTIN: Good  
3 morning, everyone. All right. We're here this  
4 morning in Docket DG 19-126 for a hearing  
5 regarding the Northern Utilities, Inc. Petition  
6 for Approval of its 2019 Least Cost Integrated  
7 Resource Plan. A settlement agreement has been  
8 filed. I need to make some necessary findings  
9 because we're doing this hearing remotely, so  
10 I'll do that now.

11 As Chairwoman of the Public  
12 Utilities Commission, I find that due to the  
13 state of emergency declared by the Governor  
14 as a result of the COVID-19 pandemic, and in  
15 accordance with the Governor's Emergency  
16 Order No. 12, pursuant to Executive Order  
17 2020-04, this public body is authorized to  
18 meet electronically. Please note that there  
19 is no physical location to observe and listen  
20 contemporaneously to this hearing, which was  
21 authorized pursuant to the Governor's  
22 Emergency Order. However, in accordance with  
23 the Emergency Order, I am confirming that we  
24 are utilizing Webex for this electronic

{DG 19-126} [LCIRP HEARING] {06-11-2020}

1 hearing; all members of the Commission have  
2 the ability to communicate contemporaneously  
3 during the hearing through this platform; and  
4 the public has access to contemporaneously  
5 listen and, if necessary, participate. We  
6 previously gave notice to the public of the  
7 necessary information for accessing the  
8 hearing in the Order of Notice. If anybody  
9 has a problem during the hearing, please call  
10 (603)271-2431. In the event the public is  
11 unable to access the hearing, the hearing  
12 will be adjourned and rescheduled.

13 Okay. Couple ground rules.  
14 You may have heard some of these already from  
15 Mr. Wind. First, if you're not talking,  
16 please be sure to mute yourself. It really  
17 does help with the audio. If you need to be  
18 recognized for something other than an  
19 objection, please put your hand up. I will  
20 do my best to recognize you as soon possible.  
21 But feel free to start waving at me if I  
22 don't see you. If you're making an  
23 objection, feel free to speak that out at any  
24 time. You don't need to wait to be

1 recognized. For confidential information,  
2 please be careful not to talk about  
3 confidential information inadvertently. If  
4 you can just point to the document and page  
5 number where the information is contained, we  
6 will all look at it together. If it is  
7 absolutely necessary to identify confidential  
8 information on the record today, please let  
9 me know first so that we can make sure only  
10 those who should have access to that  
11 information are still on the line. Please  
12 speak slowly and leave time for others to  
13 consider a response before proceeding.  
14 Because of the remote platform, we need to  
15 give time for people to respond and for me to  
16 recognize them. If you need a recess, please  
17 let me know. Any party who takes a recess  
18 should make sure to mute yourselves and turn  
19 off the video. And lastly, this is a formal  
20 proceeding, so please don't do anything you  
21 wouldn't otherwise do in a hearing.

22 All right. Let's start by  
23 taking a roll-call attendance of the  
24 Commission. When each Commissioner states

1           their presence, please also state where you  
2           are located and if anyone else is with you.

3                       My name's Dianne Martin. I'm  
4           the Chairwoman of the Public Utilities  
5           Commission. I am located at my home in  
6           Deerfield, New Hampshire, and no one is in  
7           the room with me.

8                       Commissioner Bailey.

9                       COMMISSIONER BAILEY: Good  
10          morning. I'm Commissioner Kathryn Bailey. I  
11          am located at my home in Bow, New Hampshire,  
12          and no one is with me.

13                      CHAIRWOMAN MARTIN: Commissioner  
14          Giaimo.

15                      COMMISSIONER GIAIMO: Good  
16          morning. Mike Giaimo. I am at the Commission  
17          Office, in my office by myself.

18                      CHAIRWOMAN MARTIN: Okay. Let's  
19          take appearances from the parties, please.  
20          Mr. Taylor.

21                      MR. TAYLOR: Good morning. Can  
22          you hear me?

23                      CHAIRWOMAN MARTIN: Yes.

24                      MR. TAYLOR: Good morning. This

1 is Patrick Taylor, on behalf of Northern  
2 Utilities, Inc. I am appearing from my home in  
3 Concord, New Hampshire, a stone's throw from  
4 the Commission. With me today are Rob Furino,  
5 our Director of Energy Contracts. He will be  
6 appearing as a witness today. We will also  
7 have Fran Wells, or Francis Wells, and Dan  
8 Goodwin. They typically would be sitting to my  
9 right at the table, and they are here in a  
10 support role.

11 CHAIRWOMAN MARTIN: Okay. Thank  
12 you.

13 Ms. Shute.

14 MS. SHUTE: Thank you,  
15 Chairwoman Martin. My name is Christa Shute.  
16 I'm here on behalf of the Office of Consumer  
17 Advocate as a staff attorney. And I am going  
18 to mute my computer. Hold on. (Pause)

19 And we represent the  
20 residential ratepayers. With me today is Dr.  
21 Pradip Chattopadhyay. And I am in Hinesburg,  
22 Vermont, and there's no one else in this  
23 room.

24 CHAIRWOMAN MARTIN: Thank you.

1 Ms. Fabrizio.

2 MS. FABRIZIO: Thank you,  
3 Chairwoman Martin. My name's Lynn Fabrizio.  
4 I'm a staff attorney at the Commission. With  
5 me today will be Al-Azad Iqbal, utility analyst  
6 with the Commission's Gas and Water Division.  
7 He will be testifying today. And also  
8 available as needed is Steve Frink, Director of  
9 the Gas and Water Division here at the  
10 Commission. Thank you.

11 CHAIRWOMAN MARTIN: Okay. Do we  
12 have preliminary matters to address before we  
13 swear in the witnesses?

14 MR. TAYLOR: I just wanted to  
15 raise one issue before the hearing today. The  
16 Company submitted a motion for confidential  
17 treatment in connection with attachments to  
18 four discovery responses that were submitted  
19 during the course of this proceeding. As the  
20 Commission knows, Commission Rule 203.08(d)  
21 permits respondents to submit confidential  
22 materials in discovery accompanied by a  
23 statement that a motion will be filed at or  
24 before the hearing in the matter. The Company

1 submitted its discovery responses, accompanied  
2 by such a statement, and we filed a motion this  
3 morning in advance of the hearing to comply  
4 with that rule. And so I certainly don't  
5 expect the Commission is going to take that  
6 motion up today, but I just wanted to bring it  
7 to the Commission's attention that we did file  
8 that motion this morning.

9 And then perhaps another issue  
10 just to raise is that the Company submitted a  
11 revised Integrated Resource Plan during the  
12 course of this docket. The confidential and  
13 redacted versions of that revised IRP are  
14 included as Exhibits 3 and 4 for this  
15 hearing. The Commission had already granted  
16 a motion for confidential treatment in  
17 connection with the Company's initial LCIRP  
18 filing, and when the Company filed its  
19 revised LCIRP, the assumption was that the  
20 confidential treatment carried over to that  
21 same document because it was merely a  
22 revision of the originally filed document.  
23 So I would request that the confidential  
24 treatment afforded to the original filing be

1 extended to the revised filing as well. If,  
2 however, the Commission would like the  
3 Company to file a separate motion as a  
4 procedural matter, we're certainly willing to  
5 do that.

6 CHAIRWOMAN MARTIN: Okay. Let's  
7 take that in two parts. First, the request to  
8 apply the confidential treatment to the revised  
9 version of the plan. Is there any objection to  
10 that?

11 [No verbal response]

12 MS. FABRIZIO: Staff does not  
13 object.

14 CHAIRWOMAN MARTIN: Ms. Shute?

15 MS. SHUTE: The OCA does not  
16 object.

17 CHAIRWOMAN MARTIN: Okay. Then  
18 I think we can grant that request now.

19 As for the newly filed motion,  
20 we won't rule on that right now, but we'll  
21 issue -- or it will be part of the order that  
22 we issue from this hearing. But we will  
23 treat everything that is currently marked as  
24 confidential as confidential during this

1 hearing.

2 Yes, Ms. Shute.

3 MS. SHUTE: Just for  
4 clarification, how long does our office have to  
5 review the motion? Is that the ten-day --

6 CHAIRWOMAN MARTIN: You have,  
7 yes, the standard amount of time to respond.  
8 But obviously, if you could respond as quickly  
9 as possible, it would be appreciated.

10 MS. SHUTE: Absolutely.

11 CHAIRWOMAN MARTIN: Is Staff in  
12 the same position of wanting to review the  
13 motion before responding?

14 MS. FABRIZIO: Yes, we would  
15 like to review it. We don't expect it to take  
16 very long. Thank you.

17 CHAIRWOMAN MARTIN: Thank you.

18 Okay. And then exhibits. We  
19 have Exhibits 1 through 7 which are premarked  
20 and prefiled for identification. So other  
21 than that, is there anything else we need to  
22 discuss before swearing in the witnesses?

23 [No verbal response]

24 CHAIRWOMAN MARTIN: Okay.

1           Seeing nothing, Ms. Robidas, would you mind  
2           swearing in the witnesses.

3                       (WHEREUPON, ROBERT S. FURINO and  
4                       AL-AZAD IQBAL were duly sworn and  
5                       cautioned by the Court Reporter.)

6                       ROBERT S. FURINO, SWORN

7                       AL-AZAD IQBAL, SWORN

8                               CHAIRWOMAN MARTIN: Okay. Thank  
9                       you, everyone. Mr. Taylor. Oh, you're on  
10                      mute.

11                              MR. TAYLOR: Thank you. So I'll  
12                      start by doing the witness qualification for  
13                      Mr. Furino.

14                              DIRECT EXAMINATION

15           BY MR. TAYLOR:

16           Q.    Could you please give your name and position  
17                with the Company.

18           A.    (Furino) Yes. Good morning. Robert S.  
19                Furino, Director of Energy Contracts for  
20                Unitil Service Corp., who provides  
21                professional services to its affiliated  
22                companies, including Northern Utilities.

23           Q.    Mr. Furino, have you previously testified  
24                before the Commission?

1 A. (Furino) Yes, I have testified to the  
2 Company's prior integrated resource plans  
3 that have been filed since Unitil acquired  
4 Northern Utilities in 2008. Last year I  
5 testified to the Company's petition for  
6 preapproval of the -- (connectivity issue)  
7 (Court Reporter interrupts.)

8 CHAIRWOMAN MARTIN: Excuse me.  
9 Could you just hold up for a moment. The Court  
10 Reporter couldn't hear you.

11 A. (Furino) In support of the Company's petition  
12 for preapproval of a pipeline contract as  
13 part of the Westbrook XPress Project.

14 Q. Mr. Furino, hearing Exhibits 1 and 2 are the  
15 Company's initially filed Least Cost  
16 Integrated Resource Plan and appendices in  
17 confidential and redacted versions,  
18 respectively. And Exhibits 3 and 4 are the  
19 Company's revised Least Cost Integrated  
20 Resource Plan, also in confidential and  
21 redacted form. Were these -- were the IRP  
22 and appendices prepared by you or under your  
23 direction?

24 A. (Furino) Yes, they were.

1 Q. And are there any corrections to these  
2 exhibits that are not already incorporated in  
3 the revised IRP that you'd like to note on  
4 the record today?

5 A. (Furino) No. Thank you.

6 Q. And is the information presented in these  
7 exhibits true and accurate to the best of  
8 your knowledge and belief?

9 A. (Furino) Yes.

10 MR. TAYLOR: I have no further  
11 questions for Mr. Furino in the qualification.  
12 I do have some direct for him. Given that  
13 we're doing this as a panel, do the Staff and  
14 the OCA want to do their witnesses now, or  
15 should I proceed with my direct?

16 CHAIRWOMAN MARTIN: What's the  
17 preference of the parties?

18 MS. FABRIZIO: Staff would  
19 prefer to introduce our witness and then  
20 proceed as a collective.

21 CHAIRWOMAN MARTIN: Ms. Shute,  
22 is that okay with you? Ms. Shute?

23 MS. SHUTE: I was on mute. Yes.

24 DIRECT EXAMINATION

1 BY MS. SHUTE:

2 Q. So, Dr. Chattopadhyay, could you please  
3 introduce yourself and your position with the  
4 OCA.

5 A. (Chattopadhyay) Yes. My name is Pradip  
6 Chattopadhyay, and I'm the Assistant Consumer  
7 Advocate.

8 Q. And did you file testimony in this docket  
9 that's been entered into the record as  
10 Exhibit 5, and was that testimony prepared by  
11 you or under your direction?

12 A. (Chattopadhyay) Yes to both parts.

13 Q. Do you have any changes or corrections to  
14 your testimony?

15 A. (Chattopadhyay) Yes, I do. Line 18 of Bates  
16 Page 007 should be corrected to replace  
17 "EnergyNorth" with "Northern Utilities." I  
18 had inadvertently written EnergyNorth there  
19 while I meant Northern Utilities.

20 Q. And do you adopt this testimony for this  
21 proceeding?

22 A. (Chattopadhyay) I do.

23 CHAIRWOMAN MARTIN: Excuse me.  
24 Ms. Shute, just to confirm for the record,

1 that's Exhibit 6; is that correct?

2 MS. FABRIZIO: I believe that's  
3 Exhibit 5.

4 MS. SHUTE: Yes, I thought it  
5 was Exhibit 5, but I will doublecheck.

6 CHAIRWOMAN MARTIN: I'm  
7 doublechecking, too. I just want to make sure  
8 we have it right. Yes, Exhibit 5. Sorry about  
9 that.

10 MS. SHUTE: Okay. I have a  
11 couple direct questions that I will follow up  
12 with at the appropriate time.

13 CHAIRWOMAN MARTIN: Okay. Thank  
14 you.

15 Ms. Fabrizio.

16 MS. FABRIZIO: Thank you.

17 DIRECT EXAMINATION

18 BY MS. FABRIZIO:

19 Q. Good morning, Mr. Iqbal. Could you please  
20 state your full name for the record.

21 A. (Iqbal) My name is Al-Azad Iqbal.

22 Q. And what is your position at the Commission?

23 A. (Iqbal) I'm an analyst in gas, Water and Gas  
24 Division.

1 Q. And in that capacity, were you the lead  
2 analyst responsible for reviewing Northern's  
3 LCIRP in this proceeding, premarked as  
4 confidential Exhibits 1 and 3?

5 A. (Iqbal) Yes.

6 CHAIRWOMAN MARTIN: Ms.  
7 Fabrizio, can I interrupt for a second? I  
8 apologize. Can you turn down your computer  
9 speaker? We're getting a lot of echo. And I  
10 know that's usually my issue.

11 MS. FABRIZIO: Okay.

12 DR. CHATTOPADHYAY: And Christa,  
13 you might be unmuted.

14 MS. FABRIZIO: Eric, will  
15 turning back my speaker under "Connections"  
16 work? Does that sound better?

17 CHAIRWOMAN MARTIN: I think so.  
18 Go ahead and keep going and we'll see how it  
19 goes.

20 MS. FABRIZIO: Okay.

21 BY MS. FABRIZIO:

22 Q. Mr. Iqbal, in your capacity as a utility  
23 analyst at the Commission, were you the lead  
24 analyst responsible for reviewing Northern's

1 initial and revised LCIRP, premarked as  
2 confidential Exhibits 1 and 3?

3 A. (Iqbal) Yes.

4 Q. Have you previously testified before the  
5 Commission?

6 A. (Iqbal) Yes.

7 Q. Did you prepare testimony filed on behalf of  
8 Staff on April 10th, marked as Exhibit 6 in  
9 this docket?

10 A. (Iqbal) Yes.

11 Q. And are there any corrections to your  
12 testimony that you would like to make for the  
13 record at this time?

14 A. (Iqbal) No.

15 Q. Thank you.

16 MS. FABRIZIO: The witness is  
17 available for questions.

18 CHAIRWOMAN MARTIN: Did anyone  
19 else just lose the video on Mr. Taylor? Mr.  
20 Taylor, are you there?

21 [No verbal response]

22 CHAIRWOMAN MARTIN: Mr. Taylor?  
23 Let's go off the record for a minute, Ms.  
24 Robidas.

1 (Pause in proceedings.)

2 CHAIRWOMAN MARTIN: Okay. Ms.  
3 Robidas, back on the record. Thank you.

4 Mr. Taylor, it was your turn  
5 to start with examination.

6 MR. TAYLOR: Thank you.

7 DIRECT EXAMINATION (cont'd)

8 BY MR. TAYLOR:

9 Q. Mr. Furino, can you please give a brief,  
10 high-level overview of the Company's  
11 five-year Least Cost Integrated Resource  
12 Plan?

13 A. (Furino) Yes. Thank you.

14 The Company filed its 2019 Least Cost  
15 Integrated Resource Plan in July 2019, which  
16 set forth its long-term projected resource  
17 needs for the coming five-year period from  
18 2019-2020 through 2023-2024 and to review the  
19 planning process used to develop its natural  
20 gas portfolio which it relies upon to provide  
21 Northern's customers reliable service at a  
22 reasonable cost. At a high level, the 2019  
23 IRP provides detail regarding the development  
24 of the demand forecast, a system throughput

1 forecast under design weather conditions and  
2 conversion of that demand forecast into the  
3 Company's long-term planning load  
4 requirements. The IRP also describes the  
5 Company's current portfolio of long-term  
6 assets and compares the supplies available  
7 from the portfolio to that long-term planning  
8 load requirement forecast in order to assess  
9 its incremental resource needs, which is  
10 something we refer to as the "resource  
11 balance."

12 The IRP then goes on to address  
13 potential supply alternatives and the  
14 Company's long-term resource decision-making  
15 process. This is the first IRP that the  
16 Company has submitted to evaluate resources  
17 under the current framework set forth in RSA  
18 378:38 and 39. As part of that, the Company  
19 added resource impact categories to be able  
20 to describe its current resource portfolio  
21 and also evaluate its incremental supply  
22 options in those categories.

23 We also introduced an expanded planning  
24 environment which describes the regulatory

1 framework in the two states where we serve  
2 customers, introduces some environmental  
3 background that hadn't been in our prior  
4 integrated resource plans, and generally  
5 provides updates as to our Retail Choice  
6 Program and other operating environments.  
7 And we also added some comprehensive pipeline  
8 maps that actually show each system the  
9 Company takes service from and tracing of the  
10 specific capacity paths that we have service  
11 on.

12 Q. Mr. Furino, can you also please summarize the  
13 revisions to the IRP that the Company  
14 submitted earlier this year?

15 A. (Furino) Yes. The Company revised the IRP in  
16 February to address issues raised at a  
17 technical session in December 2019 and to  
18 make certain corrections that the Company  
19 identified. Among the changes, we had  
20 updates to various tables, including some  
21 transposed data, for example, of some  
22 weather-related tables. We updated and  
23 expanded the discussion of the resource  
24 impact categories which I just spoke about.

1 We restated energy efficiency costs to remove  
2 participant costs. We updated our resource  
3 options section on our resource impact  
4 summary, added some discussion there. And  
5 then lastly, we expanded and clarified our  
6 Qualitative Assessment category to more  
7 generally state the environmental impact,  
8 economic development, and health and safety  
9 aspects as part of our qualitative  
10 assessment.

11 Q. Thank you. Mr. Furino, can you please give a  
12 brief overview of the settlement agreement  
13 among the Company, the Staff and the Office  
14 of Consumer Advocate?

15 A. (Furino) Yes. Sure. First of all, we  
16 appreciate the collaborative efforts of the  
17 Staff and the OCA in this docket, and  
18 certainly with the settlement.

19 The settling parties recommend that the  
20 Commission accept the 2019-2020 IRP as  
21 adequate pursuant to RSA 378:39. The parties  
22 also recommend establishing a working group  
23 to discuss potential approaches to the  
24 recommendations regarding assessment of

1 environmental, economic and health-related  
2 impact as required under RSA 378:37 to 40.  
3 The scope of those discussions would include  
4 exploration of various alternative resources,  
5 whether revisions to Northern's future Least  
6 Cost IRP planning processes are feasible and  
7 practical, and what the cost and impact of  
8 possible revisions to both Maine and New  
9 Hampshire would be. The settling parties  
10 recommend that the working group begin within  
11 three months of an order in this docket  
12 approving the settlement agreement and the  
13 IRP. The focus of initial meetings will be  
14 to define a reasonable scope of study and  
15 desired outcomes. The settling parties agree  
16 to provide the working group recommendations  
17 to the Commission by June 1st, 2021, for a  
18 Commission order that would provide guidance  
19 regarding future expectations for compliance  
20 under RSA 378:37 to 40 for Northern's future  
21 IRPs.

22 Submittal of Northern's next IRP would  
23 be due 12 months from the date of the  
24 Commission's order responding to the working

1 group recommendations. The working group  
2 would ultimately provide a report to the  
3 Commission regarding whether and how  
4 Northern's future IRPs would further  
5 incorporate assessments of environmental,  
6 economic and health-related impact into our  
7 least cost planning, including consideration  
8 of alternative resources. Specifically, the  
9 working group recommendations would address  
10 three things: Statutory interpretation of  
11 RSA 378:37 to 40, recommended criteria for  
12 evaluation of least cost resources to meet  
13 the applicable statutory requirements, and  
14 the content and presentation of Northern's  
15 future IRP filings.

16 Finally, Northern has been conducting an  
17 internal evaluation of Monte Carlo-based  
18 weather distribution which the settling  
19 parties had interest in. And Northern has  
20 agreed to provide its analysis and findings  
21 with the working group.

22 Q. Thank you, Mr. Furino. Have there been any  
23 significant changes in the Company's resource  
24 portfolio as presented in Chapter 6 of the

1           IRP since the IRP was filed?

2    A.   (Furino) No changes.  However, as the  
3           Commission's aware, the Company's WXP  
4           proposal, the Westbrook XPress Project  
5           proposal, was approved by both the Maine and  
6           New Hampshire Commissions.  So in the filing  
7           itself we presented that as a proposed  
8           resource, and now we consider it a pending  
9           resource.  That's the only change.

10   Q.   Thank you.  In the Company's last New  
11          Hampshire LCIRP docket, which was 15-033, and  
12          what I will call a companion docket, Docket  
13          15-009, which looked at allocation issues  
14          between Maine and New Hampshire, there's a  
15          significant amount of attention paid to the  
16          Retail Choice Program design differences in  
17          New Hampshire and Maine, as well as related  
18          planning challenges.  Have those issues been  
19          resolved and reflected in the current LCIRP?

20   A.   (Furino) Yes, they have.  And we provide a  
21          discussion and history in that Planning  
22          Environment section that I mentioned.  I  
23          think it's Section 3 of the IRP.

24                 But briefly, in the prior IRP which we

1 filed in 2015, there was significant  
2 uncertainty that was triggered by the design  
3 of the Maine delivery service terms and  
4 conditions because those terms and conditions  
5 did not include capacity assignment at a  
6 hundred percent -- (connectivity issue)

7 (Court Reporter interrupts.)

8 A. (Furino) Did not include capacity assignment  
9 at a hundred percent of customer  
10 requirements. So as a consequence, in the  
11 2015 IRP, the Company was faced with  
12 uncertainty and presented three alternative  
13 planning load forecasts that reflected  
14 different paradigms. Those issues have all  
15 been resolved. The State of Maine -- our  
16 Maine division now has 100 percent capacity  
17 assignment, similar to the New Hampshire  
18 division. That was approved and became  
19 effective in November 2019. And so now the  
20 Company is operating under very similar  
21 capacity assignment regimes in both states.  
22 And in the current filing, we were able to  
23 present a single planning load forecast. And  
24 that's a great improvement from our

1 perspective.

2 Q. Thank you. Is it your belief that the  
3 settlement agreement that's been presented to  
4 the Commission is reasonable and in the  
5 public interest?

6 A. (Furino) I do. It is, yes. Thank you.

7 MR. TAYLOR: I have no  
8 additional questions for Mr. Furino at this  
9 time.

10 CHAIRWOMAN MARTIN: Thank you.  
11 Ms. Shute.

12 MS. SHUTE: I do not have any  
13 questions for Mr. Furino, but I can proceed  
14 with Dr. Chattopadhyay.

15 CHAIRWOMAN MARTIN: Yes, please.

16 DIRECT EXAMINATION (cont'd)

17 BY MS. SHUTE:

18 Q. Would you explain why -- (connectivity issue)

19 CHAIRWOMAN MARTIN: We're having  
20 trouble hearing you. Let's go off the record.

21 (Discussion off the record)

22 CHAIRWOMAN MARTIN: Let's go  
23 back on the record, please.

24 MS. SHUTE: Thank you.

1 BY MS. SHUTE:

2 Q. Dr. Chattopadhyay, could you please describe  
3 why you filed testimony in this docket.

4 A. (Chattopadhyay) Yes, I can. As should be  
5 evident from the OCA's testimony, our focus  
6 in this docket has been limited to sort of  
7 opining under Northern's IRPs going forward.  
8 As stated in my testimony, the OCA  
9 predominantly wanted to prompt a process  
10 going forward wherein the stakeholders  
11 develop some recommendations for the  
12 Commission's consideration to allow it to  
13 provide guidance to the gas utility as to how  
14 to internalize considerations of  
15 environmental and health impacts, and perhaps  
16 accommodate non-gas alternatives like demand  
17 response and load management efforts. Even  
18 as traditional resources are continued to be  
19 considered in the resource portfolio mix for  
20 the least cost integrated planning purpose,  
21 the OCA filed its testimony in this docket  
22 primarily to see whether we can reach  
23 agreement with the parties to enable us to  
24 request the Commission allow us to proceed

1 with such a process. The parties agree that  
2 additional guidance from the Commission will  
3 be helpful going forward into the future  
4 IRPs.

5 Q. And did you participate in the development of  
6 the settlement agreement entered into by the  
7 parties?

8 A. (Chattopadhyay) Yes, I did.

9 Q. And could you please explain why you support  
10 the terms of the settlement agreement and  
11 find it to be just and reasonable and in the  
12 public interest?

13 A. (Chattopadhyay) Yes. First of all, I will  
14 just point out that we are on the same page  
15 as the Staff is as to whether we consider the  
16 Company's 2019 IRP to be adequate pursuant to  
17 RSA 378:39. Again, as noted previously, with  
18 the inclusion of gas utilities into the IRP  
19 statute under RSA 378, the OCA believes there  
20 is a need for Commission's guidance on how  
21 environmental impacts and non-gas  
22 alternatives will be considered in developing  
23 the Company's least cost integrated resource  
24 plans going forward.

1           As I've noted in my testimony, we wanted  
2           to prompt the parties to work collaboratively  
3           in providing some recommendations to the  
4           Commission to help shape its guidance, to the  
5           extent the Commission can provide that, for  
6           future IRPs. The settlement allows us to  
7           request the Commission to do that. While  
8           traditional solutions will continue to be  
9           considered, to the extent the new statutory  
10          requirements on environmental and health  
11          impacts and non-gas alternatives require a  
12          different approach to future IRPs, the  
13          working group will endeavor collectively to  
14          come up with recommendations for the  
15          Commission's consideration.

16                 We, as the OCA, would respectfully urge  
17                 the Commission to approve this settlement to  
18                 allow that process to start later this year.

19    Q.    Thank you.

20                         MS. SHUTE: I have no further  
21                         questions.

22                         CHAIRWOMAN MARTIN: Okay. Ms.  
23                         Fabrizio.

24                         MS. FABRIZIO: Thank you. I

1           have no questions at this time for either  
2           Northern or OCA witnesses. I will proceed  
3           directly to Mr. Iqbal.

4                           DIRECT EXAMINATION (cont'd)

5 BY MS. FABRIZIO:

6 Q.   Mr. Iqbal, what is your overall impression of  
7       the Northern resource planning process? I  
8       believe you're still on mute, Mr. Iqbal.

9 A.   (Iqbal) Overall impression of the Company's  
10     IRP, I would say they prepared a  
11     well-organized and structured,  
12     well-documented plan. And they have showed a  
13     clear understanding of the planning process  
14     and the overall goal of why we do IRP. Each  
15     issue, they analyze it and analyze completely  
16     and conclusion arrives after examining  
17     alternatives and with adequate support. For  
18     example, there was a discussion about what is  
19     normal weather. In New Hampshire we are  
20     using 30 years for a long time. But recent  
21     years, people are talking about that 30 years  
22     is too long because of climate change and  
23     other impact. And Northern did a very good  
24     job of that. They analyzed all these options

1 and concluded that, although there are some  
2 concern about climate change, that 30 years'  
3 weather normalization is still valid for  
4 Northern's purpose, particularly in New  
5 Hampshire.

6 And alternatively, they did a very good  
7 job of analyzing the alternative resources  
8 with a clear understanding of planning  
9 horizon, system demand and resource type.

10 It is important to understand why we do  
11 this exercise and why it is five years. The  
12 planning -- there is a common  
13 misunderstanding of planning horizon and the  
14 contract duration aspect, that sometimes  
15 these two are combined together and used as  
16 the same. But that's not true, because one  
17 contract might be 15 or 20 years, but  
18 planning horizon could be 5 years. And  
19 Northern really understood that concept. And  
20 although a recent contract, the contract  
21 duration is 15 years, but they meet their  
22 immediate demand in four years, three to four  
23 years. And so the short-term and long-term  
24 goals are identified, and mix of these are

1 also discussed properly. And limitation on  
2 their resource availability and options is  
3 also discussed clearly. And I would say the  
4 planning process is a reasonable expectation  
5 for future supply needs and standard demand  
6 forecast without any unsupported out-of-model  
7 adjustment. That is important. Sometimes we  
8 find that some of the out-of-model  
9 adjustments might look reasonable. But if it  
10 is not supported with analysis, then it is  
11 not -- it should not be included in any  
12 forecasting.

13 So I said that the Company utilizes an  
14 elaborate analytic framework to inform its  
15 portfolio decisions regarding adequacy of its  
16 portfolio and preparedness of potentially  
17 available incremental resources to meet its  
18 identified resource needs.

19 And Company take a very good approach.  
20 I think this is unique to Northern. I  
21 haven't seen that before in other companies,  
22 not only in New Hampshire, but other  
23 companies, particularly when they try to --  
24 we always talk about the balance between cost

1 and planning period and how to optimize  
2 those. And Company did a very good job. And  
3 they mention it in their resource planning,  
4 that Northern's long-term resource data are  
5 well-sized to satisfy identified resource  
6 needs and provide for considerable  
7 utilization as soon as it is brought into  
8 service. I think that is very important.  
9 That's what goes back to that planning  
10 horizon and contract period, that ultimately  
11 we are contracting for 15 years doesn't mean  
12 that we should be covering our needs for 15  
13 years, end of 15 years. Sometimes that is  
14 automatic (undecipherable) in our mind. We  
15 are contracting for 15 years. Why don't we  
16 meet the need for 15 years? But that is  
17 usually, most of the time, is not  
18 cost-effective for the customers because they  
19 will be carrying capacity or demand of those  
20 resources for the duration of the time, but  
21 they will use that at end of the period. So  
22 I find it very interesting and very  
23 (undecipherable). I find the Company to take  
24 that approach, that they are looking at how

1 we are going to use this new source when it  
2 is in service; are we going to sit on this  
3 for a long period of time, and the ratepayers  
4 are paying for it for a long period of time  
5 without utilizing it?

6 So these type of things, that's why I  
7 said that I appreciate what Company did and  
8 hope they keep doing it in the future.

9 Q. Thank you, Mr. Iqbal. Did you participate in  
10 the settlement discussions that resulted in  
11 the settlement agreement that had been  
12 premarked today as Exhibit 7?

13 A. (Iqbal) Yes, I did.

14 Q. Thank you. And what concerns did you have  
15 regarding Northern's plan and process when  
16 you prepared your testimony, and how does the  
17 settlement agreement address those concerns?

18 A. (Iqbal) As discussed in my testimony, the  
19 statutory requirement requiring utilities to  
20 assess the environmental, economic and  
21 health-related impacts, which are new for gas  
22 utilities, as Mr. Chattopadhyay and Mr.  
23 Furino also talked about it, those are new  
24 for gas utilities. And that is new for all

1 of us. I believe from our perspective the  
2 revised plan is responsive to this statutory  
3 requirement, but it is subject to  
4 interpretation in the absence of clear  
5 guidelines. So what I understand and Staff  
6 understand, what OCA understand, maybe some  
7 other parties understand what it should be,  
8 that's up to our interpretation. The parties  
9 in this docket will have the opportunity to  
10 work with each other and with other  
11 interested parties in the working group to  
12 address the issue of how gas utilities can  
13 meet the new statutory expectation and  
14 develop a common understanding of that, so in  
15 future there will be no ambiguity among the  
16 parties what is expected. And that will help  
17 all of us. And I would say that was only  
18 concern I expressed in my testimony. And the  
19 settlement agreement actually addressed that  
20 adequately.

21 Q. Thank you. And based on your comments just  
22 now, as well as your review of Northern's  
23 plan and the settlement presented today, do  
24 you believe the plan adequately addresses the

1 relevant statutory requirements as directed  
2 by Commission Order No. 26,027, which  
3 approved Northern's prior LCIRP?

4 A. (Iqbal) Yes, as I said in my previous  
5 response and in my testimony. Yes, from  
6 our -- we believe that the revised plan meets  
7 those requirements adequately.

8 Q. Thank you, Mr. Iqbal.

9 MS. FABRIZIO: I have no further  
10 questions for Mr. Iqbal at this time.

11 CHAIRWOMAN MARTIN: Okay. Thank  
12 you.

13 Do the parties intend to have  
14 additional cross, or are we going straight to  
15 the Commissioners?

16 MR. TAYLOR: I have no cross for  
17 the OCA or Staff witnesses.

18 MS. SHUTE: I have no cross.

19 MS. FABRIZIO: And Staff has no  
20 cross. Thank you.

21 CHAIRWOMAN MARTIN: Okay.  
22 Commissioner Bailey.

23 COMMISSIONER BAILEY: Thank you.  
24

1 INTERROGATORIES BY COMMISSIONERS:

2 BY COMMISSIONER BAILEY:

3 Q. Mr. Furino, are you confident that Northern  
4 will have the supply it needs to meet the  
5 peak demand whenever it occurs?

6 A. (Furino) Well, as we explained in the plan,  
7 the Company has a multi-year peaking supply  
8 arrangement in place for the next several  
9 years. At some point that's going to need to  
10 be replaced either with a similar resource or  
11 perhaps a different resource that will  
12 provide that peaking supply.

13 Q. And you expect to do that through liquid  
14 natural gas?

15 A. (Furino) That's one option that the Company  
16 is exploring, yes.

17 Q. And does the peaking supply need to be  
18 addressed before the next five years?

19 A. (Furino) I would say it would, yes.

20 Q. So when will you have to figure out the  
21 solution for that? By when?

22 A. (Furino) First of all, to speak first about  
23 the timing of the Company's next IRP filing,  
24 so the Company filed in June of 2019, would

1 typically file three years later, which would  
2 be June of 2022. What we've requested in the  
3 settlement agreement is to provide the  
4 working group recommendations in June of  
5 2021, and then, you know, the IRP be due a  
6 year after the Commission's decision on those  
7 guidelines, or those recommendations. So we  
8 would anticipate filing our next IRP sometime  
9 perhaps in late 2022. But as far as a  
10 five-year, you know, time frame, that puts  
11 that into perspective. As far as, you know,  
12 the end of our current peaking supply, that  
13 would need to be replaced for I believe the  
14 2024-2025 winter. So, well in advance of  
15 that we would have to make some decision. If  
16 it ends up being a long-term resource, we  
17 would bring that to the Commission for their  
18 review and approval. If it ends up being a  
19 delivered supply resource for, you know,  
20 several years, but not a long-term  
21 commitment, the Company would, you know, look  
22 to enter into that without bringing that to  
23 the Commission.

24 Q. With respect to the guidance that you're

1 hoping to get from the Commission after your  
2 working group relating to environmental and  
3 health impact and non-gas alternatives, is it  
4 possible that one of the solutions is going  
5 to be for you to reduce demand so that it's  
6 significant enough to reduce the peak?

7 A. (Furino) I think the magnitude of the unmet  
8 peak demand relative to, you know, the  
9 long-term portfolio is so great that I don't  
10 believe, you know, a demand/response approach  
11 would be sufficient for the entire piece.  
12 The question is whether it can be part of the  
13 solution. And that's certainly something  
14 that we would explore.

15 Q. Do you think that the statute is -- the  
16 policy behind the statute is suggesting that  
17 you do that, that you eliminate gas demand  
18 significantly?

19 A. (Furino) Well, I mean, I read the statute as,  
20 you know, directing the Company to seek the  
21 most effective resource while considering all  
22 the impacts. So, you know, in addition to  
23 traditional metrics that we would look at,  
24 such as cost or liability, you know, we're

1 now trying to also, relative to the statutory  
2 requirement, assess the impact on the  
3 environment, you know, what are the options  
4 available. But I don't think the statute is  
5 directing us to not provide sufficient  
6 supply. And I think that's sort of where we  
7 are. Among the resources that meet the  
8 demand that we have from our customers, you  
9 know, what are the most effective, including  
10 environmental considerations.

11 Q. So you think that this -- you can make your  
12 plan effectively address the statutory  
13 requirements?

14 A. (Furino) Yes, we believe that.

15 You know, as to my prior comment on the  
16 capability of demand response, I mean, first  
17 of all, you know, the Company's portfolio,  
18 assuming all of the current portfolio, you  
19 know, stays in place and all the contracted  
20 incremental capacity goes into service, you  
21 know, the Company would have approximately  
22 100,000 decatherms a day of capacity on their  
23 contract. And our peak day is approximately  
24 150,000. So, you know, on an accrual basis

1 we have very good coverage, as reflected in  
2 the filing. But during, you know, the peak  
3 period, and certainly on our peak day, you  
4 know, we have one third of our capacity  
5 requirement that currently is being met with  
6 short-term resources. And that's the  
7 concern. And so demand response seems to me  
8 unlikely to cut away one third of the  
9 Company's peak day requirement.

10 Q. Mr. Iqbal or Dr. Chattopadhyay, do you have  
11 anything to add about what kind of guidance  
12 you are expecting the Commission to provide  
13 and whether the statute is either  
14 inapplicable slightly to gas companies or  
15 there's a way to deal with it? Dr.  
16 Chattopadhyay.

17 A. (Chattopadhyay) I think one of the reasons  
18 why we want to have this working group is to  
19 come to a common understanding of what  
20 (connectivity issue) interpret the statute.  
21 So personally, I don't have the knowledge  
22 bandwidth to sort of talk about what kind of  
23 demand response resources might help. But  
24 certainly we will be exploring those.

1           I would, however, point out that I agree  
2           with what was previously mentioned by  
3           Mr. Furino, that given specifically the  
4           situation with Northern utilities, they rely  
5           on, you know, a big chunk. They rely on a  
6           big chunk of short-term supplies to meet  
7           their peaking needs. And I, at this point,  
8           without having gone through further analysis,  
9           I would be concluding that it would be very  
10          unlikely that that can be met through just  
11          demand response. Of course there are other  
12          considerations. So it's a matter of  
13          interpretation: What do we mean by  
14          environmental impacts? And while there is  
15          some guidance in the statute, again, as OCA,  
16          we want to have a more vigorous discussion  
17          and help the parties, and more importantly  
18          the utility, to come up with something that  
19          we can then all support and provide that to  
20          the Commission for its consideration in terms  
21          of what kind of guidance we think might help.  
22          So we are at this point also, you know, in  
23          the dark, really, I mean in some sense.

24        Q.    Thank you.

1           Mr. Iqbal.

2    A.   (Iqbal) I agree what Mr. Chattopadhyay just  
3       said, and I would add one thing, that it is  
4       very difficult for anyone to prescribe  
5       something without knowing the context and the  
6       situation of the Company. I give you an  
7       example.

8           Like Northern, for Northern IRP, they  
9       are talking about incremental growth and  
10      incremental capacity acquiry [sic]. And  
11      everybody understand, like Mr. Chattopadhyay  
12      just mentioned, and Mr. Furino also mentioned  
13      that, that they are relying on their supply.  
14      Almost 43 percent of their supply currently  
15      is delivered supply. So they will be looking  
16      for opportunity to buy new resources, which  
17      will reduce the cost. We all know that  
18      delivered supply are short term and usually  
19      costlier. So I agree that Northern has very  
20      limited option to reduce their usage, the  
21      customer usage, from current level to  
22      downwards. It's almost impossible. But what  
23      they can do, the growth per customer basis or  
24      some other way, growth per customer usage

1           might be reduced by energy efficiency and  
2           other resources, other demand response  
3           activities.

4           But the point I was trying to make, that  
5           each company has different situation they  
6           have to address. Northern is trying to move  
7           from short-term contract towards a long-term  
8           and less costly contract. There is not much  
9           difference environmentally or health-wise if  
10          you think that way. But if another company  
11          come up with a big project which has lots of  
12          environmental and health impact, then if it  
13          is too prescriptive, what we are looking  
14          for -- I'm not looking for any prescriptive  
15          ideas from the Commission. But I'm looking  
16          for guidance which gives us, gives each  
17          utilities to decide what to do about -- what  
18          to do regarding the health and environmental  
19          aspects of their resource acquisition  
20          strategy. A bigger project has more  
21          elaborate environmental and economic and  
22          health impact. But the smaller steps  
23          Northern is taking might not need that level  
24          of details.

1           So this is the struggle we are having at  
2           this moment. That's why one of the reasons  
3           we are talking about only Northern's -- the  
4           working group working with Northern. All  
5           other utilities is dealing with IRP-related  
6           issues we are dealing with. So we should be  
7           including all utilities in New Hampshire  
8           because it will be more general guidelines.  
9           But we understand that general guidelines  
10          might be not right in this situation because  
11          each company has its own reality. That's why  
12          we thought it is better to deal with company  
13          by company and use this working group to  
14          understand -- to create common understanding  
15          what is expected from IRP for that particular  
16          company. If it is some electrical utility or  
17          it's another gas company, their situation  
18          might be totally different and requires  
19          different level of environmental and health  
20          assessment. So that's the only thing I add  
21          to what is already said.

22                           COMMISSIONER BAILEY: Okay.  
23           Thank you. I think that's all I have.

24                           CHAIRWOMAN MARTIN: Commissioner

1           Giaimo.

2   BY COMMISSIONER GIAIMO:

3   Q.   Good morning.  I guess I have a question.  If  
4       the latest version was in February,  
5       pre-COVID, would the plans change if they are  
6       rerun in the new environment?  I'm  
7       particularly looking at the two percent, the  
8       one and a half to two percent annual growth  
9       forecast.  Is that still accurate?

10   A.   (Furino) Commissioner Giaimo, great question.  
11       You know, the Company I think has to be  
12       patient and see just how things evolve a  
13       little bit.  You know, we also, in addition  
14       to what we've been experiencing in the last  
15       three to four months with the COVID pandemic  
16       situation and associated business closures  
17       which has impacted our actual delivered  
18       demands, that type of thing, we also had just  
19       come off a very warm winter.  Very, very warm  
20       winter.  And so I think we'll want to be  
21       seeing, you know, how does our throughput  
22       look in the next winter.  You know, I think  
23       at some point we'll be moving beyond the  
24       COVID-19 situation.  There will be a vaccine

1 and there will be what have you. But what's  
2 not clear is, you know, what remnants of what  
3 we're doing, for example, right now by having  
4 a video hearing, you know, how that's going  
5 to impact the utilization of commercial real  
6 estate, for example, you know, things like  
7 that. So I think that, you know, as we look  
8 forward, I think our process will be the  
9 same. You know, I think it remains to be  
10 seen, you know, how material the impacts  
11 on -- you know, what customers end up doing  
12 and then consequently how it impacts or  
13 resource decisions.

14 COMMISSIONER GIAIMO: Madam  
15 Chair --

16 CHAIRWOMAN MARTIN: I'm sorry,  
17 Commissioner Giaimo.

18 COMMISSIONER GIAIMO: We have a  
19 request from Mr. Iqbal. Madam Chair, is that  
20 okay to recognize Mr. Iqbal?

21 CHAIRWOMAN MARTIN: Absolutely.  
22 You can recognize anyone you want.

23 Mr. Iqbal, yes, you're off  
24 mute now.

1 A. (Iqbal) On that point, I would add one thing,  
2 that this is a five-year plan. But Company  
3 has to do their yearly plan, too, on cost of  
4 gas and other things. So we understand  
5 Commissioner concern about COVID. Those will  
6 be reflected in the annual plan.

7 BY COMMISSIONER GIAIMO:

8 Q. That sounds great.

9 Looking at the settlement agreement, do  
10 we know who specifically -- is it just the  
11 Company and the parties involved in this  
12 docket that will be part of the work group?  
13 Are you going to expand it? Is there general  
14 consensus within the settling parties as to  
15 who will be in the working group?

16 A. (Furino) I will start and say that my  
17 understanding is it will be the settling  
18 parties and that the settling parties will  
19 begin by defining a scope, scope of issues,  
20 scope of work. And as part of that, we'll  
21 identify whether there's issues that are  
22 raised that are beyond the technical  
23 expertise of the settling parties. And if  
24 that's the case, we could look for a

1 consultant or an advisor to further inform  
2 the group. That's my understanding.

3 Q. And is the Company comfortable with what I  
4 would visualize as a nine-month working group  
5 time frame before the next -- before the  
6 recommendation would be due? You know, I  
7 visualize it as, you know, if an order came  
8 out in the next month or two, that it would  
9 still be just nine months to get something  
10 out. Is that okay?

11 A. (Furino) You know, given what we know today,  
12 I think that is reasonable. And, you know,  
13 we'll see where that scope takes us, any  
14 subsequent engagements, where those take us  
15 and certainly report back. But as a starting  
16 point, I think that is sufficient.

17 Q. Okay. One of the identified purposes of the  
18 work group, according to the settlement, is  
19 that the work group would specifically work  
20 on the statutory interpretations of 387 --  
21 I'm sorry -- 378:37 through 40.

22 Has research been done by the Company or  
23 others as to what they think the legislative  
24 intent is? And if there's no understanding

1 as to the legislative intent, would there be  
2 any desire to go back to the legislature and  
3 say what did you mean by this? I guess I  
4 would hope the Company could answer first and  
5 then Mr. Iqbal.

6 A. (Furino) Sure. And this is -- I don't have  
7 any specific guidance, you know, of the  
8 legislative process, as far as what went into  
9 the statute. What I have is really my own  
10 interpretation. But certainly the settling  
11 parties wanted to, you know, review that in  
12 more detail. As I think I mentioned earlier,  
13 my view is that it instructs the Company to,  
14 while it's making decisions, resource  
15 decisions, to consider a broader set of  
16 impacts on customers in our local environment  
17 when making those commitments.

18 Q. And Mr. Furino, before we turn to Mr. Iqbal,  
19 your interpretation would be that the  
20 legislature -- that the statute itself does  
21 not implicitly state that the Company should  
22 reduce gas consumption in its service  
23 territory.

24 A. (Furino) I guess I'd have to -- (connectivity

1 issue)

2 (Court Reporter interrupts.)

3 CHAIRWOMAN MARTIN: Can we pause  
4 for a moment? Ms. Robidas can't hear you.

5 MR. FURINO: Okay. Is  
6 everyone -- am I coming through okay?

7 CHAIRWOMAN MARTIN: You are now.  
8 We lost Mr. Chattopadhyay, though. Let's go  
9 off the record a minute.

10 (Pause in proceedings)

11 CHAIRWOMAN MARTIN: Back on the  
12 record. He was answering a question I think.

13 Mr. Taylor, go ahead.

14 MR. TAYLOR: This is Pat Taylor  
15 from Unitil. I just wanted to pipe up, if I  
16 may, because, you know, Mr. Furino's being  
17 asked to answer questions about statutory  
18 interpretation. And I just wanted to --  
19 because I think this probably falls more to me  
20 than Mr. Furino, the question of has any sort  
21 of legislative intent been done. And I will  
22 confess that it's been over a year now since we  
23 first entered into the process of developing  
24 our IRP. And so, you know, as of today I can't

1 recall specifically if we did what you would  
2 consider to be a legislative intent research,  
3 where we would go into some of the records of  
4 the legislature.

5 As for whether, you know, we  
6 would go back to the legislature, I don't  
7 know that that's something we've discussed at  
8 this point for them to clarify their intent  
9 when they passed this statute. So I think  
10 it's an interesting point and an interesting  
11 question, but I did want to answer  
12 Commissioner Giaimo's question directly as to  
13 whether we had done a legislative intent.  
14 And candidly, I think we'd have to go back  
15 and look through our records to see if we had  
16 done that. But, you know, with legislative  
17 intent, they can sometimes be fruitful and  
18 sometimes not. (ct) So, you know, we will  
19 certainly look into that if we haven't done  
20 so already.

21 COMMISSIONER GIAIMO: Mr.  
22 Taylor, that's a perfect answer to my question.  
23 I appreciate it. And Mr. Furino's off the  
24 hook. He doesn't have to opine any further.

1 BY COMMISSIONER GIAIMO:

2 Q. I had one question about the Monte Carlo  
3 analysis. The settlement seems to suggest  
4 that the Company might have at one time been  
5 resistant and now seems not to be resistant  
6 to doing a Monte Carlo-like analysis. Do I  
7 have that right?

8 (Connectivity issues)

9 A. (Furino) Okay? We were just experiencing a  
10 little static there. But if you can hear me,  
11 I'll proceed.

12 So the idea of a Monte Carlo analysis --  
13 and really the context is in trying to  
14 establish a distribution of weather data.  
15 You know, currently the Company applies a  
16 normal distribution. And, you know, the  
17 question is does that remain appropriate. So  
18 a document that was filed we provided to the  
19 parties, and I believe it was part of -- it  
20 became an attachment to the OCA's testimony,  
21 so it's in the record, which is an audit that  
22 was conducted of our gas supply management  
23 functions at the direction of the Maine  
24 Public Utilities Commission. And that was

1 the audit report from Liberty Consultants.  
2 And in that report, one of the items was a  
3 possible suggestion for the Company to begin  
4 to explore or pursue a Monte Carlo analysis  
5 in trying to establish that distribution. So  
6 the Company hasn't had any resistance to  
7 that. We just didn't view it as --  
8 initially, if you heard -- if you see any  
9 discord there or notes of discord, we just  
10 didn't view it as, you know, part of an  
11 inquiry that needed to be part of the  
12 settlement itself. But given the suggestion,  
13 the Company has committed to explore that in  
14 response to the audit recommendation in the  
15 first instance. And so when I say we're  
16 willing to share that with the group, that's  
17 certainly -- or the working group that gets  
18 established, that's something that we would  
19 already be undertaking.

20 Q. Thank you, Mr. Furino.

21 I just want to make sure. Mr. Iqbal,  
22 you haven't had your hand up, and I didn't  
23 want to lose track of the fact that you did  
24 have something to say. Are you okay now

1 or --

2 A. (Iqbal) Yeah. What I wanted to say, and I'm  
3 not going into the legal matters, as an  
4 analyst, how I look at it, that I think there  
5 are two layers of your question. One is that  
6 whether the Northern should be expanding,  
7 getting more customers, or should it be the  
8 customers reducing their usage. These are  
9 two different questions, that if Commission  
10 wants Northern to expand, get more customers,  
11 by that reducing overall gas uses in New  
12 Hampshire, that is one way to look at it.  
13 But then question becomes that, okay, what  
14 are the alternatives? Is it a good idea to  
15 move from oil heating to natural gas heating,  
16 all these other aspect that we have to deal  
17 with? That's one way to look at it.

18 The other way to look at is that whether  
19 Company try to reduce the per customer or  
20 (indecipherable) in current or future  
21 customer base. That will give us totally  
22 different answer to the question of  
23 legislative intent. Okay. Are you trying to  
24 reduce the overall greenhouse gas impact or

1 some other Clean Air Act, all these things?

2 So what I am trying to say, the answer  
3 would depend on what question we are asking.  
4 And that is also struggle we have, that what  
5 question are the legislative branches asking  
6 us to look at. That should be -- there could  
7 be other way to look at it. But these are  
8 the two example. And these two example give  
9 you totally different answer to that  
10 question.

11 So as I said it before, that it should  
12 not be too prescriptive, that, hey, you have  
13 to look at all these things, but at least  
14 guideline of what you should be looking at.  
15 Are you trying to say that reduce per capita  
16 usage or reduce overall usage? So those type  
17 of things, that big-picture ideas we are  
18 expecting from the Commission.

19 Q. Mr. Iqbal, while your mic's live, I guess I'd  
20 like to ask you a question.

21 You note in your testimony that the  
22 Company selected a planning basis which  
23 resulted in a probability, and you used the  
24 word of "only about 2.5 percent," and that

1 the selected value would be exceeded in  
2 projected years. Is it your opinion that  
3 that criteria is too low? Is it too  
4 aggressive? I know, for example,  
5 transmission planning generally goes at a  
6 90/10 or a 10 percent probability. Is a  
7 2-1/2 percent probability a standard which  
8 you have actually issues with?

9 A. (Iqbal) No. I think that's almost standard  
10 in IRP studies.

11 Q. Okay.

12 A. (Iqbal) So Company is using a standard  
13 approach.

14 Q. And I do understand that, and I understand  
15 that's a standard approach. I was just  
16 wondering if you think the standard in  
17 general may be too aggressive. And it sounds  
18 like you're saying no.

19 A. (Iqbal) I think that depends on the planning  
20 horizon we are talking about. The five  
21 years' planning horizon actually effectively  
22 is two to three years planning horizon for  
23 the companies in New Hampshire. So for three  
24 to five years' planning horizon, I think that

1 standard is fine.

2 Q. Okay. Thank you. Just about done. I think  
3 I have one question for the Consumer  
4 Advocate, but I also have a comment.

5 Mr. Chattopadhyay, I appreciate your  
6 testimony. In a way, it actually enlightened  
7 me to many of the challenges the Company  
8 would have with factoring in environmental  
9 challenges. You know, if you increase energy  
10 efficiency -- if you increase efficiency and  
11 increase demand, it might create more  
12 electrification, which might cause different  
13 generation -- the need for generation to turn  
14 on and use gas. So your testimony helped me  
15 further understand and appreciate how complex  
16 it is. So thank you for that.

17 But I'm going to turn to the last page  
18 of your testimony and just ask you to comment  
19 on it. And I'm on Page 11, starting at  
20 Line 9, where it says, "There may be  
21 opportunities for the Company to better  
22 manage its portfolio by optimizing the use of  
23 newly available pipeline capacity in  
24 conjunction with new LNG based on storage

1 capacity. The OCA would encourage the  
2 Company to explore those opportunities."

3 A. (Chattopadhyay) Can you just give me 30  
4 seconds? I'm try to... so you are at  
5 Page 11.

6 Q. Yes.

7 A. (Chattopadhyay) Yeah, and line number?

8 Q. Nine.

9 A. (Chattopadhyay) Nine. Yeah, go ahead.  
10 Sorry. I had to reboot everything so I'm  
11 getting it on the screen here. Yeah, go  
12 ahead.

13 Q. I certainly appreciate that.

14 My question to you is, and maybe you can  
15 comment a little more, in that in it you  
16 talked about optimizing new capacity  
17 utilizing LNG and storage. And I'm  
18 wondering, is it your suggestion that that  
19 would be layered on top of existing legacy  
20 contracts? Would it be used to replace  
21 retiring contracts? Would it be a  
22 combination of the two? It's a very  
23 interesting comment that I was hoping you  
24 might comment on a little more.

1 A. (Chattopadhyay) The way I was looking at it  
2 was when you see the long-term contracts, the  
3 recent ones that the Company is -- for  
4 example, today Mr. Furino talked about the  
5 pending contract. Something like that for  
6 like 10,000 decatherms per day, those are  
7 going to be very useful in winter. But  
8 you're getting it even in summer. So for  
9 summer, if you're getting those resources, it  
10 might be helpful to have an LNG facility  
11 somewhere and be able to store that. So you  
12 can actually reduce the use of short-term,  
13 you know, peaking resources by replacing them  
14 by the gas that you have saved in the LNG  
15 tank. So I was really thinking in those  
16 terms. And it stems from the report that the  
17 Company had shared with us -- and I have that  
18 in my testimony -- which Liberty Consultants  
19 had done. Take a look at it. That is one of  
20 the aspects that the consultants had raised.  
21 And especially given the situation with this  
22 company, that is a -- at the outset, it  
23 appears to be an attractive option. So, you  
24 know, that's what I was trying to indicate,

1           that there are ways to also use the existing  
2           capacities or the pending ones to have LNG be  
3           part of the story and give a better solution  
4           to the ratepayers. So that is a lower cost  
5           option.

6                           COMMISSIONER GIAIMO: Madam  
7           Chair, those are the only questions I have. I  
8           thank the witnesses and turn it back to you.

9                           CHAIRWOMAN MARTIN: All right.  
10          Thank you. I just have one question left.

11       BY CHAIRWOMAN MARTIN:

12       Q.    Mr. Iqbal had testified that the 30-year  
13           weather norm has been used for a long time in  
14           New Hampshire. But the Company looked at all  
15           of the options and concluded that it's still  
16           valued for purposes of New Hampshire. Could  
17           someone explain why that conclusion was  
18           reached?

19       A.    (Furino) Excuse me. Yes. Thank you for the  
20           question. You know, first of all, I wanted  
21           to point out that in the filing the Company  
22           provided a table, which is available in  
23           Exhibit 3 at Bates Page 85.

24                           In any case, this table presents the

1 weather histories that the utilities in the  
2 region use and also the planning standards  
3 that they use. And oftentimes it's the  
4 design day planning standard that drives  
5 capacity commitments. And in this table  
6 we're listing, I don't know, Bay State Gas  
7 Company, Bircher Gas, a bunch of the  
8 Massachusetts utilities, as well as Liberty  
9 Utilities, EnergyNorth and others, as well as  
10 our affiliate in Northern Utilities. And  
11 really what we show in this table is that we  
12 have selected -- or there's no -- there's  
13 very few parties using anything like a  
14 shorter period of history and/or combined  
15 with a planning standard that's as low as  
16 ours. So I just want to point that out. I  
17 think that people think about the wording  
18 that we've seen over the last several  
19 decades, and we've seen it as we've gone  
20 through time, as being the only part of the  
21 equation. But there's also the planning  
22 standard itself that plays largely into it.  
23 So some utilities are planning to a standard  
24 of 1 in 50-year occurrence; whereas, Northern

1 is planning to a 1 in 30-year occurrence. As  
2 to the research, I'm not seeing it at the  
3 moment, but I know we filed it.

4 But the general conclusion that Mr.  
5 Iqbal was referring to was a series of  
6 climate data research that we conducted and  
7 provided. And what we were showing and  
8 seeing is that, in New Hampshire, for the  
9 last three decades, complete decades, there  
10 has been no reduction in the heating degree  
11 days that we've seen. And so that's sort of  
12 the primary conclusion that suggests that 30  
13 years is still appropriate. Now, we have  
14 seen warming in the Maine data, but that's  
15 begun to stabilize as well. And the  
16 decrease -- you know, the escalation of  
17 warming, I guess, if that makes sense, has  
18 begun to slow in Maine as well. So those  
19 factors are what's sort of embodied in the  
20 data that we present in the resource plan.

21 Q. Thank you for that.

22 CHAIRWOMAN MARTIN: Do any of  
23 the parties have redirect they'd like to ask?

24 [No verbal response]

1 CHAIRWOMAN MARTIN: Okay.  
2 Seeing none, before we sum up then, we'll  
3 strike the I.D. on Exhibits 1 through 7 without  
4 objection and admit them as full exhibits.

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

7 MS. FABRIZIO: Chairwoman  
8 Martin, I think I neglected to confirm my  
9 location. I am in my office at the Commission  
10 building, and no one has been here for the  
11 duration of this hearing.

12 CHAIRWOMAN MARTIN: Thank you.  
13 I assumed you were from the background.

14 Okay. If there's nothing  
15 else, let's start with Ms. Shute.

16 MS. SHUTE: Thank you. The  
17 Office of Consumer Advocate supports the  
18 settlement agreement and the adequacy of the  
19 LCIRP submitted under the current guidance. We  
20 appreciate the willingness of the Company to  
21 work with the parties to evaluate whether there  
22 are additional ways to incorporate the  
23 statutory requirements of RSA 378:37 through 40  
24 for environmental, economic and health-related

1 impacts. We're especially keen to include in  
2 those discussions further explorations of those  
3 environmental impacts of traditional resources  
4 and potential options for non-gas and non-  
5 pipeline alternatives. We do believe that the  
6 working group will result in valuable  
7 recommendations for the Commission to consider  
8 in developing any future guidance for future  
9 LCIRPs under 378:37 to 40.

10 So for the reasons outlined  
11 above, we respectfully recommend that the  
12 Commission approve this settlement agreement  
13 as proposed. Thank you.

14 CHAIRWOMAN MARTIN: Thank you.

15 Ms. Fabrizio.

16 MS. FABRIZIO: Thank you. Staff  
17 also recommends approval of Northern's revised  
18 Least Cost Integrated Resource Plan, as well as  
19 the settlement entered into by Northern, the  
20 Office of the Consumer Advocate and Staff as  
21 presented today. Staff believes that Northern  
22 has prepared a well-reasoned and well-supported  
23 plan that meets the applicable requirements of  
24 RSA 378. The Company's plan is based on a

1 reasonable forecast of future demand in its  
2 service area and includes a balanced array of  
3 supply options and demand site energy programs.  
4 It includes a reasonable assessment of system  
5 requirements at this time, as well as utility  
6 obligations under evolving economic and  
7 environmental regulations and policies, all  
8 while taking into account potential impacts on  
9 ratepayers. Staff considers Northern's  
10 approach to resource planning to be sound in  
11 terms of gas distribution system planning in  
12 New Hampshire. Staff also supports approval of  
13 the settlement presented today which proposes  
14 an appropriate avenue to explore ways for  
15 Northern to meet evolving requirements under  
16 state law and policy, while carefully  
17 considering ratepayer interests.

18 Staff therefore proposes that  
19 the Commission approve the plan and the  
20 settlement before it today and initiate a  
21 separate proceeding for interested parties to  
22 investigate the issues and options relevant  
23 to gas utilities in New Hampshire under RSA  
24 378.

1                   Staff thanks both the Company  
2                   and the OCA for their cooperative efforts in  
3                   this proceeding, and the Commission for its  
4                   consideration of the results of those  
5                   efforts. Thank you.

6                   CHAIRWOMAN MARTIN: Thank you.

7                   Mr. Taylor. Mr. Taylor,  
8                   you're on mute.

9                   MR. TAYLOR: Thanks. I'd like  
10                  to thank the Commission for its time and the  
11                  Commissioner's thoughtful questions today,  
12                  particularly under the circumstances. I do  
13                  look forward to seeing you all again in person  
14                  in the hearing room. I'd also like to thank  
15                  Commission Staff and the Office of the Consumer  
16                  Advocate for their effort and their input in  
17                  this docket.

18                  The settlement agreement  
19                  before the Commission is very much the  
20                  product of a collaborative effort. And so  
21                  like the Staff and the Consumer Advocate, the  
22                  Company recommends that the Commission  
23                  approve the settlement in the Company's Least  
24                  Cost IRP. The Company's Least Cost IRP as

1 revised is consistent with and adequate under  
2 the statutory requirements of RSA 378, and we  
3 do think it should be approved by the  
4 Commission.

5 As the Commission's aware,  
6 this is the first IRP in which the Company  
7 has addressed the statutory requirements in  
8 RSA 378:37 through 40, which require, among  
9 many other things, an assessment of demand  
10 site energy management programs. The Company  
11 invested a significant amount of effort in  
12 addressing these statutory requirements. We  
13 believe that the LCIRP meets the Commission's  
14 directive from its order in DG 15-033 to  
15 provide more detailed evidence of the  
16 reliability, environmental, economic and  
17 health-related impacts of the Company's  
18 portfolio. We believe that our planning  
19 processes result in the adoption of least  
20 cost options that meet the standards  
21 articulated in RSA 378:39. But nevertheless,  
22 the Company is committed to continuing this  
23 work and looks forward to collaborating with  
24 the Staff and the Consumer Advocate in the

1 working group process to develop potential  
2 additional recommendations regarding the  
3 statutory requirements.

4 And so with that, I thank you  
5 for your time. We do recommend that the  
6 settlement agreement and the IRP be accepted  
7 and approved by the Commission. Thanks.

8 CHAIRWOMAN MARTIN: All right.  
9 Well, thank you, everyone. We very much  
10 appreciate all the efforts that went into  
11 reaching a settlement in this case. We will  
12 take the matter under advisement. And we are  
13 done. Thank you.

14 And thank you, Mr. Wind and  
15 Ms. Robidas, for your help today.

16 (Hearing concluded at 11:41 a.m.)

17  
18  
19  
20  
21  
22  
23  
24

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

C E R T I F I C A T E

I, Susan J. Robidas, a Licensed Shorthand Court Reporter and Notary Public of the State of New Hampshire, do hereby certify that the foregoing is a true and accurate transcript of my stenographic notes of these proceedings taken at the place and on the date hereinbefore set forth, to the best of my skill and ability under the conditions present at the time.

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

The foregoing certification of this transcript does not apply to any reproduction of the same by any means unless under the direct control and/or direction of the certifying reporter.

---

Susan J. Robidas, LCR/RPR  
Licensed Shorthand Court Reporter  
Registered Professional Reporter  
  
N.H. LCR No. 44 (RSA 310-A:173)

	<b>addition (2)</b> 41:22;48:13	<b>50:9;66:18;67:12; 69:18;71:6</b>	<b>appears (1)</b> 62:23	<b>assignment (4)</b> 27:5,8,17,21
[	<b>additional (5)</b> 28:8;30:2;38:14; 66:22;71:2	<b>ahead (4)</b> 18:18;53:13;61:9, 12	<b>appendices (2)</b> 14:16,22	<b>Assistant (1)</b> 16:6
[No (4) 11:11;12:23;19:21; 65:24	<b>address (8)</b> 9:12;21:12;22:16; 25:9;36:17;37:12; 42:12;46:6	<b>Air (1)</b> 58:1	<b>applicable (2)</b> 25:13;67:23	<b>associated (1)</b> 48:16
[sic] (1) 45:10	<b>addressed (3)</b> 37:19;39:18;70:7	<b>Al-Azad (4)</b> 9:5;13:4,7;17:21	<b>applies (1)</b> 55:15	<b>assumed (1)</b> 66:13
<b>A</b>	<b>addresses (1)</b> 37:24	<b>allocation (1)</b> 26:13	<b>apply (1)</b> 11:8	<b>assuming (1)</b> 42:18
<b>ability (1)</b> 5:2	<b>addressing (1)</b> 70:12	<b>allow (3)</b> 29:12,24;31:18	<b>appreciate (8)</b> 23:16;36:7;54:23; 60:5,15;61:13;66:20; 71:10	<b>assumption (1)</b> 10:19
<b>able (3)</b> 21:19;27:22;62:11	<b>adequacy (2)</b> 34:15;66:18	<b>allows (1)</b> 31:6	<b>appreciated (1)</b> 12:9	<b>attachment (1)</b> 55:20
<b>above (1)</b> 67:11	<b>adequate (4)</b> 23:21;30:16;32:17; 70:1	<b>Almost (3)</b> 45:14,22;59:9	<b>approach (7)</b> 31:12;34:19;35:24; 41:10;59:13,15; 68:10	<b>attachments (1)</b> 9:17
<b>absence (1)</b> 37:4	<b>adequately (3)</b> 37:20,24;38:7	<b>alternative (4)</b> 24:4;25:8;27:12; 33:7	<b>approaches (1)</b> 23:23	<b>attendance (1)</b> 6:23
<b>absolutely (3)</b> 6:7;12:10;49:21	<b>adjusted (1)</b> 5:12	<b>alternatively (1)</b> 33:6	<b>appropriate (4)</b> 17:12;55:17;65:13; 68:14	<b>attention (2)</b> 10:7;26:15
<b>accept (1)</b> 23:20	<b>adjustment (1)</b> 34:7	<b>alternatives (8)</b> 21:13;29:16;30:22; 31:11;32:17;41:3; 57:14;67:5	<b>approval (4)</b> 4:6;40:18;67:17; 68:12	<b>attorney (2)</b> 8:17;9:4
<b>accepted (1)</b> 71:6	<b>admit (1)</b> 66:4	<b>although (2)</b> 33:1,20	<b>approve (4)</b> 31:17;67:12;68:19; 69:23	<b>attractive (1)</b> 62:23
<b>access (3)</b> 5:4,11;6:10	<b>adopt (1)</b> 16:20	<b>always (1)</b> 34:24	<b>approved (5)</b> 26:5;27:18;38:3; 70:3;71:7	<b>audit (3)</b> 55:21;56:1,14
<b>accessing (1)</b> 5:7	<b>adoption (1)</b> 70:19	<b>ambiguity (1)</b> 37:15	<b>approving (1)</b> 24:12	<b>authorized (2)</b> 4:17,21
<b>accommodate (1)</b> 29:16	<b>advance (2)</b> 10:3;40:14	<b>amount (3)</b> 12:7;26:15;70:11	<b>approximately (2)</b> 42:21,23	<b>automatic (1)</b> 35:14
<b>accompanied (2)</b> 9:22;10:1	<b>advisement (1)</b> 71:12	<b>analysis (7)</b> 25:20;34:10;44:8; 55:3,6,12;56:4	<b>April (1)</b> 19:8	<b>availability (1)</b> 34:2
<b>accordance (2)</b> 4:15,22	<b>advocate (9)</b> 8:17;16:7;23:14; 60:4;66:17;67:20; 69:16,21;70:24	<b>analyst (6)</b> 9:5;17:23;18:2,23, 24;57:4	<b>area (1)</b> 68:2	<b>available (7)</b> 9:8;19:17;21:6; 34:17;42:4;60:23; 63:22
<b>according (1)</b> 51:18	<b>affiliate (1)</b> 64:10	<b>analytic (1)</b> 34:14	<b>arrangement (1)</b> 39:8	<b>avenue (1)</b> 68:14
<b>account (1)</b> 68:8	<b>affiliated (1)</b> 13:21	<b>analyze (2)</b> 32:15,15	<b>array (1)</b> 68:2	<b>aware (2)</b> 26:3;70:5
<b>accrual (1)</b> 42:24	<b>afforded (1)</b> 10:24	<b>analyzed (1)</b> 32:24	<b>arrays (1)</b> 32:16	<b>away (1)</b> 43:8
<b>accurate (2)</b> 15:7;48:9	<b>again (3)</b> 30:17;44:15;69:13	<b>analyzing (1)</b> 33:7	<b>articulated (1)</b> 70:21	<b>back (10)</b> 18:15;20:3;28:23; 35:9;51:15;52:2; 53:11;54:6,14;63:8
<b>acquired (1)</b> 14:3	<b>aggressive (2)</b> 59:4,17	<b>and/or (1)</b> 64:14	<b>aspect (2)</b> 33:14;57:16	<b>background (2)</b> 22:3;66:13
<b>acquire (1)</b> 45:10	<b>agree (5)</b> 24:15;30:1;44:1; 45:2,19	<b>annual (2)</b> 48:8;50:6	<b>aspects (3)</b> 23:9;46:19;62:20	<b>Bailey (7)</b> 7:8,9,10;38:22,23; 39:2;47:22
<b>acquisition (1)</b> 46:19	<b>agreed (1)</b> 25:20	<b>anticipate (1)</b> 40:8	<b>assess (3)</b> 21:8;36:20;42:2	<b>balance (2)</b> 21:11;34:24
<b>Act (1)</b> 58:1	<b>agreement (16)</b> 4:7;23:12;24:12; 28:3;29:23;30:6,10; 36:11,17;37:19;40:3;	<b>apologize (1)</b> 18:8	<b>Assessment (6)</b> 23:6,10,24;47:20; 68:4;70:9	<b>balanced (1)</b> 68:2
<b>activities (1)</b> 46:3	<b>appearances (1)</b> 7:19	<b>appearances (1)</b> 7:19	<b>assessments (1)</b> 25:5	<b>bandwidth (1)</b> 43:22
<b>actual (1)</b> 48:17	<b>appearing (2)</b> 8:2,6	<b>assets (1)</b> 21:6	<b>assets (1)</b> 21:6	<b>base (1)</b>
<b>actually (6)</b> 22:8;37:19;59:8, 21;60:6;62:12				<b>B</b>
<b>add (4)</b> 43:11;45:3;47:20; 50:1				
<b>added (3)</b> 21:19;22:7;23:4				

57:21 <b>based (3)</b> 37:21;60:24;67:24 <b>basis (3)</b> 42:24;45:23;58:22 <b>Bates (2)</b> 16:15;63:23 <b>Bay (1)</b> 64:6 <b>became (2)</b> 27:18;55:20 <b>becomes (1)</b> 57:13 <b>begin (3)</b> 24:10;50:19;56:3 <b>begun (2)</b> 65:15,18 <b>behalf (3)</b> 8:1,16;19:7 <b>behind (1)</b> 41:16 <b>belief (2)</b> 15:8;28:2 <b>believes (2)</b> 30:19;67:21 <b>best (2)</b> 5:20;15:7 <b>better (4)</b> 18:16;47:12;60:21; 63:3 <b>beyond (2)</b> 48:23;50:22 <b>big (3)</b> 44:5,6;46:11 <b>bigger (1)</b> 46:20 <b>big-picture (1)</b> 58:17 <b>Bircher (1)</b> 64:7 <b>bit (1)</b> 48:13 <b>body (1)</b> 4:17 <b>both (5)</b> 16:12;24:8;26:5; 27:21;69:1 <b>Bow (1)</b> 7:11 <b>branches (1)</b> 58:5 <b>brief (2)</b> 20:9;23:12 <b>briefly (1)</b> 26:24 <b>bring (2)</b> 10:6;40:17 <b>bringing (1)</b> 40:22 <b>broader (1)</b> 52:15 <b>brought (1)</b> 35:7	<b>building (1)</b> 66:10 <b>bunch (1)</b> 64:7 <b>business (1)</b> 48:16 <b>buy (1)</b> 45:16  <b>C</b>  <b>call (2)</b> 5:9;26:12 <b>came (1)</b> 51:7 <b>can (26)</b> 6:4,9;7:21;11:18; 18:7,8;20:9;22:12; 23:11;28:13;29:4,22; 31:5;37:12;41:12; 42:11;44:10,19; 45:23;49:22;53:3; 54:17;55:10;61:3,14; 62:12 <b>candidly (1)</b> 54:14 <b>capability (1)</b> 42:16 <b>capacities (1)</b> 63:2 <b>capacity (16)</b> 18:1,22;22:10; 27:5,8,16,21;35:19; 42:20,22;43:4;45:10; 60:23;61:1,16;64:5 <b>capita (1)</b> 58:15 <b>careful (1)</b> 6:2 <b>carefully (1)</b> 68:16 <b>Carlo (3)</b> 55:2,12;56:4 <b>Carlo-based (1)</b> 25:17 <b>Carlo-like (1)</b> 55:6 <b>carried (1)</b> 10:20 <b>carrying (1)</b> 35:19 <b>case (3)</b> 50:24;63:24;71:11 <b>categories (3)</b> 21:19,22;22:24 <b>category (1)</b> 23:6 <b>cause (1)</b> 60:12 <b>cautioned (1)</b> 13:5 <b>certain (1)</b> 22:18	<b>certainly (11)</b> 10:4;11:4;23:18; 41:13;43:3,24;51:15; 52:10;54:19;56:17; 61:13 <b>Chair (3)</b> 49:15,19;63:7 <b>CHAIRWOMAN (52)</b> 4:2,11;7:4,13,18, 23;8:11,15,24;9:3,11; 11:6,14,17;12:6,11, 17,24;13:8;14:8; 15:16,21;16:23;17:6, 13;18:6,17;19:18,22; 20:2;28:10,15,19,22; 31:22;38:11,21; 47:24;49:16,21;53:3, 7,11;63:9,11;65:22; 66:1,7,12;67:14; 69:6;71:8 <b>challenges (3)</b> 26:18;60:7,9 <b>change (4)</b> 26:9;32:22;33:2; 48:5 <b>changes (4)</b> 16:13;22:19;25:23; 26:2 <b>Chapter (1)</b> 25:24 <b>Chattopadhyay (25)</b> 8:21;16:2,5,6,12, 15,22;18:12;28:14; 29:2,4;30:8,13; 36:22;43:10,16,17; 45:2,11;53:8;60:5; 61:3,7,9;62:1 <b>Choice (2)</b> 22:5;26:16 <b>Christa (2)</b> 8:15;18:12 <b>chunk (2)</b> 44:5,6 <b>circumstances (1)</b> 69:12 <b>clarification (1)</b> 12:4 <b>clarified (1)</b> 23:5 <b>clarify (1)</b> 54:8 <b>Clean (1)</b> 58:1 <b>clear (4)</b> 32:13;33:8;37:4; 49:2 <b>clearly (1)</b> 34:3 <b>climate (3)</b> 32:22;33:2;65:6 <b>closures (1)</b> 48:16 <b>collaborating (1)</b>	70:23 <b>collaborative (2)</b> 23:16;69:20 <b>collaboratively (1)</b> 31:2 <b>collective (1)</b> 15:20 <b>collectively (1)</b> 31:13 <b>combination (1)</b> 61:22 <b>combined (2)</b> 33:15;64:14 <b>comfortable (1)</b> 51:3 <b>coming (2)</b> 20:17;53:6 <b>comment (6)</b> 42:15;60:4,18; 61:15,23,24 <b>comments (1)</b> 37:21 <b>commercial (1)</b> 49:5 <b>Commission (49)</b> 4:12;5:1;6:24;7:5, 16;8:4;9:4,10,20,20; 10:5,15;11:2;13:24; 17:22;18:23;19:5; 23:20;24:17,18;25:3; 28:4;29:24;30:2; 31:4,5,7,17;38:2; 40:17,23;41:1;43:12; 44:20;46:15;55:24; 57:9;58:18;66:9; 67:7,12;68:19;69:3, 10,15,19,22;70:4; 71:7 <b>Commissioner (22)</b> 6:24;7:8,9,10,13, 15;38:22,23;39:2; 47:22,24;48:2,10; 49:14,17,18;50:5,7; 54:12,21;55:1;63:6 <b>Commissioners (2)</b> 38:15;39:1 <b>Commissioner's (1)</b> 69:11 <b>Commissions (1)</b> 26:6 <b>Commission's (10)</b> 9:6;10:7;24:24; 26:3;29:12;30:20; 31:15;40:6;70:5,13 <b>commitment (1)</b> 40:21 <b>commitments (2)</b> 52:17;64:5 <b>committed (2)</b> 56:13;70:22 <b>common (4)</b> 33:12;37:14;43:19; 47:14	<b>communicate (1)</b> 5:2 <b>companies (5)</b> 13:22;34:21,23; 43:14;59:23 <b>companion (1)</b> 26:12 <b>Company (66)</b> 9:16,24;10:10,18; 11:3;13:17;20:14; 21:16,18;22:9,13,15, 18;23:13;27:11,20; 34:13,19;35:2,23; 36:7;39:7,15,24; 40:21;41:20;42:21; 45:6;46:5,10;47:11, 12,13,16,17;48:11; 50:2,11;51:3,22;52:4, 13,21;55:4,15;56:3,6, 13;57:19;58:22; 59:12;60:7,21;61:2; 62:3,17,22;63:14,21; 64:7;66:20;69:1,22; 70:6,10,22 <b>Company's (23)</b> 10:17;14:2,5,11,15, 19;20:10;21:3,5,14; 25:23;26:3,10;30:16, 23;32:9;39:23;42:17; 43:9;67:24;69:23,24; 70:17 <b>companies (1)</b> 21:6 <b>complete (1)</b> 65:9 <b>completely (1)</b> 32:15 <b>complex (1)</b> 60:15 <b>compliance (1)</b> 24:19 <b>comply (1)</b> 10:3 <b>comprehensive (1)</b> 22:7 <b>computer (2)</b> 8:18;18:8 <b>concept (1)</b> 33:19 <b>concern (4)</b> 33:2;37:18;43:7; 50:5 <b>concerns (2)</b> 36:14,17 <b>concluded (3)</b> 33:1;63:15;71:16 <b>concluding (1)</b> 44:9 <b>conclusion (4)</b> 32:16;63:17;65:4, 12 <b>Concord (1)</b> 8:3
---	---	---	--	---

<p><b>conditions (3)</b> 21:1;27:4,4</p> <p><b>conducted (2)</b> 55:22;65:6</p> <p><b>conducting (1)</b> 25:16</p> <p><b>confess (1)</b> 53:22</p> <p><b>confident (1)</b> 39:3</p> <p><b>confidential (16)</b> 6:1,3,7;9:16,21; 10:12,16,20,23;11:8, 24,24;14:17,20;18:4; 19:2</p> <p><b>confirm (2)</b> 16:24;66:8</p> <p><b>confirming (1)</b> 4:23</p> <p><b>conjunction (1)</b> 60:24</p> <p><b>connection (2)</b> 9:17;10:17</p> <p><b>Connections (1)</b> 18:15</p> <p><b>connectivity (6)</b> 14:6;27:6;28:18; 43:20;52:24;55:8</p> <p><b>consensus (1)</b> 50:14</p> <p><b>consequence (1)</b> 27:10</p> <p><b>consequently (1)</b> 49:12</p> <p><b>consider (6)</b> 6:13;26:8;30:15; 52:15;54:2;67:7</p> <p><b>considerable (1)</b> 35:6</p> <p><b>consideration (5)</b> 25:7;29:12;31:15; 44:20;69:4</p> <p><b>considerations (3)</b> 29:14;42:10;44:12</p> <p><b>considered (3)</b> 29:19;30:22;31:9</p> <p><b>considering (2)</b> 41:21;68:17</p> <p><b>considers (1)</b> 68:9</p> <p><b>consistent (1)</b> 70:1</p> <p><b>consultant (1)</b> 51:1</p> <p><b>Consultants (3)</b> 56:1;62:18,20</p> <p><b>Consumer (9)</b> 8:16;16:6;23:14; 60:3;66:17;67:20; 69:15,21;70:24</p> <p><b>consumption (1)</b> 52:22</p> <p><b>contained (1)</b></p>	<p>6:5</p> <p><b>cont'd (3)</b> 20:7;28:16;32:4</p> <p><b>contemporaneously (3)</b> 4:20;5:2,4</p> <p><b>content (1)</b> 25:14</p> <p><b>context (2)</b> 45:5;55:13</p> <p><b>continue (1)</b> 31:8</p> <p><b>continued (1)</b> 29:18</p> <p><b>continuing (1)</b> 70:22</p> <p><b>contract (10)</b> 14:12;33:14,17,20, 20;35:10;42:23;46:7, 8;62:5</p> <p><b>contracted (1)</b> 42:19</p> <p><b>contracting (2)</b> 35:11,15</p> <p><b>Contracts (5)</b> 8:5;13:19;61:20, 21;62:2</p> <p><b>conversion (1)</b> 21:2</p> <p><b>cooperative (1)</b> 69:2</p> <p><b>Corp (1)</b> 13:20</p> <p><b>corrected (1)</b> 16:16</p> <p><b>corrections (4)</b> 15:1;16:13;19:11; 22:18</p> <p><b>Cost (21)</b> 4:6;14:15,19; 20:11,14,22;24:6,7; 25:7,12;29:20;30:23; 34:24;41:24;45:17; 50:3;63:4;67:18; 69:24,24;70:20</p> <p><b>cost-effective (1)</b> 35:18</p> <p><b>costlier (1)</b> 45:19</p> <p><b>costly (1)</b> 46:8</p> <p><b>costs (2)</b> 23:1,2</p> <p><b>Couple (2)</b> 5:13;17:11</p> <p><b>course (3)</b> 9:19;10:12;44:11</p> <p><b>Court (5)</b> 13:5;14:7,9;27:7; 53:2</p> <p><b>coverage (1)</b> 43:1</p> <p><b>covering (1)</b> 35:12</p>	<p><b>COVID (2)</b> 48:15;50:5</p> <p><b>COVID-19 (2)</b> 4:14;48:24</p> <p><b>create (2)</b> 47:14;60:11</p> <p><b>criteria (2)</b> 25:11;59:3</p> <p><b>cross (4)</b> 38:14,16,18,20</p> <p><b>ct (1)</b> 54:18</p> <p><b>current (10)</b> 21:5,17,20;26:19; 27:22;40:12;42:18; 45:21;57:20;66:19</p> <p><b>currently (4)</b> 11:23;43:5;45:14; 55:15</p> <p><b>customer (6)</b> 27:9;45:21,23,24; 57:19,21</p> <p><b>customers (9)</b> 20:21;22:2;35:18; 42:8;49:11;52:16; 57:7,8,10</p> <p><b>cut (1)</b> 43:8</p>	<p>15</p> <p><b>declared (1)</b> 4:13</p> <p><b>decrease (1)</b> 65:16</p> <p><b>Deerfield (1)</b> 7:6</p> <p><b>define (1)</b> 24:14</p> <p><b>defining (1)</b> 50:19</p> <p><b>degree (1)</b> 65:10</p> <p><b>delivered (4)</b> 40:19;45:15,18; 48:17</p> <p><b>delivery (1)</b> 27:3</p> <p><b>demand (21)</b> 20:24;21:2;29:16; 33:9,22;34:5;35:19; 39:5;41:5,8,17;42:8, 16;43:7,23;44:11; 46:2;60:11;68:1,3; 70:9</p> <p><b>demand/response (1)</b> 41:10</p> <p><b>demands (1)</b> 48:18</p> <p><b>depend (1)</b> 58:3</p> <p><b>depends (1)</b> 59:19</p> <p><b>describe (2)</b> 21:20;29:2</p> <p><b>describes (2)</b> 21:4,24</p> <p><b>design (4)</b> 21:1;26:16;27:2; 64:4</p> <p><b>desire (1)</b> 52:2</p> <p><b>desired (1)</b> 24:15</p> <p><b>detail (2)</b> 20:23;52:12</p> <p><b>detailed (1)</b> 70:15</p> <p><b>details (1)</b> 46:24</p> <p><b>develop (4)</b> 20:19;29:11;37:14; 71:1</p> <p><b>developing (3)</b> 30:22;53:23;67:8</p> <p><b>development (3)</b> 20:23;23:8;30:5</p> <p><b>DG (2)</b> 4:4;70:14</p> <p><b>Dianne (1)</b> 7:3</p> <p><b>difference (1)</b> 46:9</p>	<p><b>differences (1)</b> 26:16</p> <p><b>different (10)</b> 27:14;31:12;39:11; 46:5;47:18,19;57:9, 22;58:9;60:12</p> <p><b>difficult (1)</b> 45:4</p> <p><b>DIRECT (9)</b> 13:14;15:12,15,24; 17:11,17;20:7;28:16; 32:4</p> <p><b>directed (1)</b> 38:1</p> <p><b>directing (2)</b> 41:20;42:5</p> <p><b>direction (3)</b> 14:23;16:11;55:23</p> <p><b>directive (1)</b> 70:14</p> <p><b>directly (2)</b> 32:3;54:12</p> <p><b>Director (3)</b> 8:5;9:8;13:19</p> <p><b>discord (2)</b> 56:9,9</p> <p><b>discovery (3)</b> 9:18,22;10:1</p> <p><b>discuss (2)</b> 12:22;23:23</p> <p><b>discussed (4)</b> 34:1,3;36:18;54:7</p> <p><b>discussion (6)</b> 22:23;23:4;26:21; 28:21;32:18;44:16</p> <p><b>discussions (3)</b> 24:3;36:10;67:2</p> <p><b>distribution (5)</b> 25:18;55:14,16; 56:5;68:11</p> <p><b>Division (5)</b> 9:6,9;17:24;27:16, 18</p> <p><b>Docket (15)</b> 4:4;10:12;16:8; 19:9;23:17;24:11; 26:11,12,12;29:3,6, 21;37:9;50:12;69:17</p> <p><b>document (4)</b> 6:4;10:21,22;55:18</p> <p><b>done (8)</b> 51:22;53:21;54:13, 16,19;60:2;62:19; 71:13</p> <p><b>doublecheck (1)</b> 17:5</p> <p><b>doublechecking (1)</b> 17:7</p> <p><b>down (1)</b> 18:8</p> <p><b>downwards (1)</b> 45:22</p> <p><b>Dr (7)</b></p>
		<b>D</b>		
		<p><b>Dan (1)</b> 8:7</p> <p><b>dark (1)</b> 44:23</p> <p><b>data (6)</b> 22:21;35:4;55:14; 65:6,14,20</p> <p><b>date (1)</b> 24:23</p> <p><b>day (6)</b> 42:22,23;43:3,9; 62:6;64:4</p> <p><b>days (1)</b> 65:11</p> <p><b>deal (3)</b> 43:15;47:12;57:16</p> <p><b>dealing (2)</b> 47:5,6</p> <p><b>decades (3)</b> 64:19;65:9,9</p> <p><b>decatherms (2)</b> 42:22;62:6</p> <p><b>December (1)</b> 22:17</p> <p><b>decide (1)</b> 46:17</p> <p><b>decision (2)</b> 40:6,15</p> <p><b>decision-making (1)</b> 21:14</p> <p><b>decisions (4)</b> 34:15;49:13;52:14,</p>		

8:20;16:2;18:12; 28:14;29:2;43:10,15 <b>drives (1)</b> 64:4 <b>due (4)</b> 4:12;24:23;40:5; 51:6 <b>duly (1)</b> 13:4 <b>duration (4)</b> 33:14,21;35:20; 66:11 <b>during (6)</b> 5:3,9;9:19;10:11; 11:24;43:2	35:13,21;40:12; 49:11 <b>endeavor (1)</b> 31:13 <b>ends (2)</b> 40:16,18 <b>Energy (7)</b> 8:5;13:19;23:1; 46:1;60:9;68:3;70:10 <b>EnergyNorth (3)</b> 16:17,18;64:9 <b>engagements (1)</b> 51:14 <b>enlightened (1)</b> 60:6 <b>enough (1)</b> 41:6 <b>enter (1)</b> 40:22 <b>entered (4)</b> 16:9;30:6;53:23; 67:19 <b>entire (1)</b> 41:11 <b>environment (5)</b> 21:24;26:22;42:3; 48:6;52:16 <b>environmental (20)</b> 22:2;23:7;24:1; 25:5;29:15;30:21; 31:10;36:20;41:2; 42:10;44:14;46:12, 18,21;47:19;60:8; 66:24;67:3;68:7; 70:16 <b>environmentally (1)</b> 46:9 <b>environments (1)</b> 22:6 <b>equation (1)</b> 64:21 <b>Eric (1)</b> 18:14 <b>escalation (1)</b> 65:16 <b>especially (2)</b> 62:21;67:1 <b>establish (2)</b> 55:14;56:5 <b>established (1)</b> 56:18 <b>establishing (1)</b> 23:22 <b>estate (1)</b> 49:6 <b>evaluate (3)</b> 21:16,21;66:21 <b>evaluation (2)</b> 25:12,17 <b>Even (2)</b> 29:17;62:8 <b>event (1)</b> 5:10	<b>everybody (1)</b> 45:11 <b>everyone (4)</b> 4:3;13:9;53:6;71:9 <b>evidence (1)</b> 70:15 <b>evident (1)</b> 29:5 <b>evolve (1)</b> 48:12 <b>evolving (2)</b> 68:6,15 <b>EXAMINATION (7)</b> 13:14;15:24;17:17; 20:5,7;28:16;32:4 <b>examining (1)</b> 32:16 <b>example (9)</b> 22:21;32:18;45:7; 49:3,6;58:8,8;59:4; 62:4 <b>exceeded (1)</b> 59:1 <b>Excuse (3)</b> 14:8;16:23;63:19 <b>Executive (1)</b> 4:16 <b>exercise (1)</b> 33:11 <b>Exhibit (8)</b> 16:10;17:1,3,5,8; 19:8;36:12;63:23 <b>Exhibits (11)</b> 10:14;12:18,19; 14:14,18;15:2,7; 18:4;19:2;66:3,4 <b>existing (2)</b> 61:19;63:1 <b>expand (2)</b> 50:13;57:10 <b>expanded (3)</b> 21:23;22:23;23:5 <b>expanding (1)</b> 57:6 <b>expect (3)</b> 10:5;12:15;39:13 <b>expectation (2)</b> 34:4;37:13 <b>expectations (1)</b> 24:19 <b>expected (2)</b> 37:16;47:15 <b>expecting (2)</b> 43:12;58:18 <b>experiencing (2)</b> 48:14;55:9 <b>expertise (1)</b> 50:23 <b>explain (3)</b> 28:18;30:9;63:17 <b>explained (1)</b> 39:6 <b>exploration (1)</b>	24:4 <b>explorations (1)</b> 67:2 <b>explore (5)</b> 41:14;56:4,13; 61:2;68:14 <b>exploring (2)</b> 39:16;43:24 <b>expressed (1)</b> 37:18 <b>extended (1)</b> 11:1 <b>extent (2)</b> 31:5,9	<b>Finally (1)</b> 25:16 <b>find (5)</b> 4:12;30:11;34:8; 35:22,23 <b>findings (2)</b> 4:8;25:20 <b>fine (1)</b> 60:1 <b>First (14)</b> 5:15;6:9;11:7; 21:15;23:15;30:13; 39:22,22;42:16;52:4; 53:23;56:15;63:20; 70:6 <b>five (4)</b> 33:11;39:18;59:20, 24 <b>five-year (4)</b> 20:11,17;40:10; 50:2 <b>focus (2)</b> 24:13;29:5 <b>follow (1)</b> 17:11 <b>forecast (8)</b> 20:24;21:1,2,8; 27:23;34:6;48:9;68:1 <b>forecasting (1)</b> 34:12 <b>forecasting (1)</b> 27:13 <b>form (1)</b> 14:21 <b>formal (1)</b> 6:19 <b>forth (2)</b> 20:16;21:17 <b>forward (7)</b> 29:7,10;30:3,24; 49:8;69:13;70:23 <b>four (4)</b> 9:18;33:22,22; 48:15 <b>frame (2)</b> 40:10;51:5 <b>framework (3)</b> 21:17;22:1;34:14 <b>Fran (1)</b> 8:7 <b>Francis (1)</b> 8:7 <b>free (2)</b> 5:21,23 <b>Frink (1)</b> 9:8 <b>fruitful (1)</b> 54:17 <b>full (2)</b> 17:20;66:4 <b>functions (1)</b> 55:23 <b>Furino (50)</b>
<b>E</b>			<b>F</b>	
<b>earlier (2)</b> 22:14;52:12 <b>echo (1)</b> 18:9 <b>economic (8)</b> 23:8;24:1;25:6; 36:20;46:21;66:24; 68:6;70:16 <b>effective (3)</b> 27:19;41:21;42:9 <b>effectively (2)</b> 42:12;59:21 <b>efficiency (4)</b> 23:1;46:1;60:10,10 <b>effort (3)</b> 69:16,20;70:11 <b>efforts (5)</b> 23:16;29:17;69:2, 5;71:10 <b>either (3)</b> 32:1;39:10;43:13 <b>elaborate (2)</b> 34:14;46:21 <b>electrical (1)</b> 47:16 <b>electrification (1)</b> 60:12 <b>electronic (1)</b> 4:24 <b>electronically (1)</b> 4:18 <b>eliminate (1)</b> 41:17 <b>else (6)</b> 7:2;8:22;12:21; 19:19;66:5,15 <b>embodied (1)</b> 65:19 <b>emergency (4)</b> 4:13,15,22,23 <b>enable (1)</b> 29:23 <b>encourage (1)</b> 61:1 <b>end (4)</b>			<b>Fabrizio (24)</b> 9:1,2,3;11:12; 12:14;15:18;17:2,15, 16,18;18:7,11,14,20, 21;19:16;31:23,24; 32:5;38:9,19;66:7; 67:15,16 <b>faced (1)</b> 27:11 <b>facility (1)</b> 62:10 <b>fact (1)</b> 56:23 <b>factoring (1)</b> 60:8 <b>factors (1)</b> 65:19 <b>falls (1)</b> 53:19 <b>far (3)</b> 40:9,11;52:8 <b>feasible (1)</b> 24:6 <b>February (2)</b> 22:16;48:4 <b>feel (2)</b> 5:21,23 <b>few (1)</b> 64:13 <b>figure (1)</b> 39:20 <b>file (4)</b> 10:7;11:3;16:8; 40:1 <b>filed (17)</b> 4:8;9:23;10:2,18, 22;11:19;14:3,15; 19:7;20:14;26:1; 27:1;29:3,21;39:24; 55:18;65:3 <b>filing (9)</b> 10:18,24;11:1; 26:6;27:22;39:23; 40:8;43:2;63:21 <b>filings (1)</b> 25:15	



<p><b>introduces (1)</b> 22:2</p> <p><b>invested (1)</b> 70:11</p> <p><b>investigate (1)</b> 68:22</p> <p><b>involved (1)</b> 50:11</p> <p><b>Iqbal (40)</b> 9:5;13:4,7;17:19, 21,21,23;18:5,22; 19:3,6,10,14;32:3,6, 8,9;36:9,13,18;38:4, 8,10;43:10;45:1,2; 49:19,20,23;50:1; 52:5,18;56:21;57:2; 58:19;59:9,12,19; 63:12;65:5</p> <p><b>IRP (34)</b> 10:13;14:21;15:3; 20:23;21:4,12,15; 22:13,15;23:20;24:6, 13,22;25:15;26:1,1, 23,24;27:11;30:16, 18;32:10,14;39:23; 40:5,8;45:8;47:15; 53:24;59:10;69:24, 24;70:6;71:6</p> <p><b>IRP-related (1)</b> 47:5</p> <p><b>IRPs (6)</b> 24:21;25:4;29:7; 30:4;31:6,12</p> <p><b>issue (12)</b> 9:15;10:9;11:21, 22;14:6;18:10;27:6; 28:18;32:15;37:12; 43:20;53:1</p> <p><b>issues (10)</b> 22:16;26:13,18; 27:14;47:6;50:19,21; 55:8;59:8;68:22</p> <p><b>items (1)</b> 56:2</p>	<p>43:11,22;44:21</p> <p><b>knowing (1)</b> 45:5</p> <p><b>knowledge (2)</b> 15:8;43:21</p> <p><b>knows (1)</b> 9:20</p>	<p>41:24</p> <p><b>Liberty (3)</b> 56:1;62:18;64:8</p> <p><b>limitation (1)</b> 34:1</p> <p><b>limited (2)</b> 29:6;45:20</p> <p><b>line (4)</b> 6:11;16:15;60:20; 61:7</p> <p><b>liquid (1)</b> 39:13</p> <p><b>listen (2)</b> 4:19;5:5</p> <p><b>listing (1)</b> 64:6</p> <p><b>little (4)</b> 48:13;55:10;61:15, 24</p> <p><b>live (1)</b> 58:19</p> <p><b>LNG (5)</b> 60:24;61:17;62:10, 14;63:2</p> <p><b>load (5)</b> 21:3,8;27:13,23; 29:17</p> <p><b>local (1)</b> 52:16</p> <p><b>located (3)</b> 7:2,5,11</p> <p><b>location (2)</b> 4:19;66:9</p> <p><b>long (7)</b> 12:4,16;32:20,22; 36:3,4;63:13</p> <p><b>long-term (12)</b> 20:16;21:3,5,7,14; 33:23;35:4;40:16,20; 41:9;46:7;62:2</p> <p><b>look (18)</b> 6:6;34:9;40:21; 41:23;48:22;49:7; 50:24;54:15,19;57:4, 12,17,18;58:6,7,13; 62:19;69:13</p> <p><b>looked (2)</b> 26:13;63:14</p> <p><b>looking (9)</b> 35:24;45:15;46:13, 14,15;48:7;50:9; 58:14;62:1</p> <p><b>looks (1)</b> 70:23</p> <p><b>lose (2)</b> 19:19;56:23</p> <p><b>lost (1)</b> 53:8</p> <p><b>lot (1)</b> 18:9</p> <p><b>lots (1)</b> 46:11</p> <p><b>low (2)</b></p>	<p>59:3;64:15</p> <p><b>lower (1)</b> 63:4</p> <p><b>Lynn (1)</b> 9:3</p>	<p>16:19</p> <p><b>meet (11)</b> 4:18;25:12;33:21; 34:17;35:16;37:13; 39:4;42:7;44:6; 68:15;70:20</p> <p><b>meetings (1)</b> 24:13</p> <p><b>meets (3)</b> 38:6;67:23;70:13</p> <p><b>members (1)</b> 5:1</p> <p><b>mention (1)</b> 35:3</p> <p><b>mentioned (5)</b> 26:22;44:2;45:12, 12;52:12</p> <p><b>merely (1)</b> 10:21</p> <p><b>met (2)</b> 43:5;44:10</p> <p><b>metrics (1)</b> 41:23</p> <p><b>mic's (1)</b> 58:19</p> <p><b>might (14)</b> 18:13;33:17;34:9; 43:23;44:21;46:1,2,3; 47:10,18;55:4;60:11, 12;61:24;62:10</p> <p><b>Mike (1)</b> 7:16</p> <p><b>mind (2)</b> 13:1;35:14</p> <p><b>minute (2)</b> 19:23;53:9</p> <p><b>misunderstanding (1)</b> 33:13</p> <p><b>mix (2)</b> 29:19;33:24</p> <p><b>moment (4)</b> 14:9;47:2;53:4; 65:3</p> <p><b>Monte (5)</b> 25:17;55:2,6,12; 56:4</p> <p><b>month (1)</b> 51:8</p> <p><b>months (4)</b> 24:11,23;48:15; 51:9</p> <p><b>more (13)</b> 23:6;44:16,17; 46:20;47:8;52:12; 53:19;57:7,10;60:11; 61:15,24;70:15</p> <p><b>morning (11)</b> 4:3,4;7:10,16,21, 24;10:3,8;13:18; 17:19;48:3</p> <p><b>most (3)</b> 35:17;41:21;42:9</p> <p><b>motion (10)</b></p>
	<b>L</b>		<b>M</b>	
<p style="text-align: center;"><b>J</b></p> <p><b>job (3)</b> 32:24;33:7;35:2</p> <p><b>July (1)</b> 20:15</p> <p><b>June (4)</b> 24:17;39:24;40:2,4</p>	<p><b>largely (1)</b> 64:22</p> <p><b>Last (6)</b> 14:4;26:10;48:14; 60:17;64:18;65:9</p> <p><b>lastly (2)</b> 6:19;23:5</p> <p><b>late (1)</b> 40:9</p> <p><b>later (2)</b> 31:18;40:1</p> <p><b>latest (1)</b> 48:4</p> <p><b>law (1)</b> 68:16</p> <p><b>layered (1)</b> 61:19</p> <p><b>layers (1)</b> 57:5</p> <p><b>LCIRP (9)</b> 10:17,19;18:3; 19:1;26:11,19;38:3; 66:19;70:13</p> <p><b>LCIRPs (1)</b> 67:9</p> <p><b>lead (2)</b> 18:1,23</p> <p><b>Least (15)</b> 4:6;14:15,19; 20:11,14;24:5;25:7, 12;29:20;30:23; 58:13;67:18;69:23, 24;70:19</p> <p><b>leave (1)</b> 6:12</p> <p><b>left (1)</b> 63:10</p> <p><b>legacy (1)</b> 61:19</p> <p><b>legal (1)</b> 57:3</p> <p><b>legislative (9)</b> 51:23;52:1,8; 53:21;54:2,13,16; 57:23;58:5</p> <p><b>legislature (4)</b> 52:2,20;54:4,6</p> <p><b>less (1)</b> 46:8</p> <p><b>level (4)</b> 20:22;45:21;46:23; 47:19</p> <p><b>liability (1)</b></p>	<p><b>line (4)</b> 6:11;16:15;60:20; 61:7</p> <p><b>liquid (1)</b> 39:13</p> <p><b>listen (2)</b> 4:19;5:5</p> <p><b>listing (1)</b> 64:6</p> <p><b>little (4)</b> 48:13;55:10;61:15, 24</p> <p><b>live (1)</b> 58:19</p> <p><b>LNG (5)</b> 60:24;61:17;62:10, 14;63:2</p> <p><b>load (5)</b> 21:3,8;27:13,23; 29:17</p> <p><b>local (1)</b> 52:16</p> <p><b>located (3)</b> 7:2,5,11</p> <p><b>location (2)</b> 4:19;66:9</p> <p><b>long (7)</b> 12:4,16;32:20,22; 36:3,4;63:13</p> <p><b>long-term (12)</b> 20:16;21:3,5,7,14; 33:23;35:4;40:16,20; 41:9;46:7;62:2</p> <p><b>look (18)</b> 6:6;34:9;40:21; 41:23;48:22;49:7; 50:24;54:15,19;57:4, 12,17,18;58:6,7,13; 62:19;69:13</p> <p><b>looked (2)</b> 26:13;63:14</p> <p><b>looking (9)</b> 35:24;45:15;46:13, 14,15;48:7;50:9; 58:14;62:1</p> <p><b>looks (1)</b> 70:23</p> <p><b>lose (2)</b> 19:19;56:23</p> <p><b>lost (1)</b> 53:8</p> <p><b>lot (1)</b> 18:9</p> <p><b>lots (1)</b> 46:11</p> <p><b>low (2)</b></p>	<p><b>Madam (3)</b> 49:14,19;63:6</p> <p><b>magnitude (1)</b> 41:7</p> <p><b>Maine (10)</b> 24:8;26:5,14,17; 27:3,15,16;55:23; 65:14,18</p> <p><b>makes (1)</b> 65:17</p> <p><b>making (3)</b> 5:22;52:14,17</p> <p><b>manage (1)</b> 60:22</p> <p><b>management (3)</b> 29:17;55:22;70:10</p> <p><b>many (2)</b> 60:7;70:9</p> <p><b>maps (1)</b> 22:8</p> <p><b>marked (2)</b> 11:23;19:8</p> <p><b>MARTIN (51)</b> 4:2;7:3,13,18,23; 8:11,15,24;9:3,11; 11:6,14,17;12:6,11, 17,24;13:8;14:8; 15:16,21;16:23;17:6, 13;18:6,17;19:18,22; 20:2;28:10,15,19,22; 31:22;38:11,21; 47:24;49:16,21;53:3, 7,11;63:9,11;65:22; 66:1,8,12;67:14; 69:6;71:8</p> <p><b>Massachusetts (1)</b> 64:8</p> <p><b>material (1)</b> 49:10</p> <p><b>materials (1)</b> 9:22</p> <p><b>matter (4)</b> 9:24;11:4;44:12; 71:12</p> <p><b>matters (2)</b> 9:12;57:3</p> <p><b>may (4)</b> 5:14;53:16;59:17; 60:20</p> <p><b>maybe (2)</b> 37:6;61:14</p> <p><b>mean (6)</b> 35:11;41:19;42:16; 44:13,23;52:3</p> <p><b>meant (1)</b></p>	<p><b>meetings (1)</b> 24:13</p> <p><b>meets (3)</b> 38:6;67:23;70:13</p> <p><b>members (1)</b> 5:1</p> <p><b>mention (1)</b> 35:3</p> <p><b>mentioned (5)</b> 26:22;44:2;45:12, 12;52:12</p> <p><b>merely (1)</b> 10:21</p> <p><b>met (2)</b> 43:5;44:10</p> <p><b>metrics (1)</b> 41:23</p> <p><b>mic's (1)</b> 58:19</p> <p><b>might (14)</b> 18:13;33:17;34:9; 43:23;44:21;46:1,2,3; 47:10,18;55:4;60:11, 12;61:24;62:10</p> <p><b>Mike (1)</b> 7:16</p> <p><b>mind (2)</b> 13:1;35:14</p> <p><b>minute (2)</b> 19:23;53:9</p> <p><b>misunderstanding (1)</b> 33:13</p> <p><b>mix (2)</b> 29:19;33:24</p> <p><b>moment (4)</b> 14:9;47:2;53:4; 65:3</p> <p><b>Monte (5)</b> 25:17;55:2,6,12; 56:4</p> <p><b>month (1)</b> 51:8</p> <p><b>months (4)</b> 24:11,23;48:15; 51:9</p> <p><b>more (13)</b> 23:6;44:16,17; 46:20;47:8;52:12; 53:19;57:7,10;60:11; 61:15,24;70:15</p> <p><b>morning (11)</b> 4:3,4;7:10,16,21, 24;10:3,8;13:18; 17:19;48:3</p> <p><b>most (3)</b> 35:17;41:21;42:9</p> <p><b>motion (10)</b></p>
<p style="text-align: center;"><b>K</b></p> <p><b>Kathryn (1)</b> 7:10</p> <p><b>keen (1)</b> 67:1</p> <p><b>keep (2)</b> 18:18;36:8</p> <p><b>kind (3)</b></p>	<p><b>largely (1)</b> 64:22</p> <p><b>Last (6)</b> 14:4;26:10;48:14; 60:17;64:18;65:9</p> <p><b>lastly (2)</b> 6:19;23:5</p> <p><b>late (1)</b> 40:9</p> <p><b>later (2)</b> 31:18;40:1</p> <p><b>latest (1)</b> 48:4</p> <p><b>law (1)</b> 68:16</p> <p><b>layered (1)</b> 61:19</p> <p><b>layers (1)</b> 57:5</p> <p><b>LCIRP (9)</b> 10:17,19;18:3; 19:1;26:11,19;38:3; 66:19;70:13</p> <p><b>LCIRPs (1)</b> 67:9</p> <p><b>lead (2)</b> 18:1,23</p> <p><b>Least (15)</b> 4:6;14:15,19; 20:11,14;24:5;25:7, 12;29:20;30:23; 58:13;67:18;69:23, 24;70:19</p> <p><b>leave (1)</b> 6:12</p> <p><b>left (1)</b> 63:10</p> <p><b>legacy (1)</b> 61:19</p> <p><b>legal (1)</b> 57:3</p> <p><b>legislative (9)</b> 51:23;52:1,8; 53:21;54:2,13,16; 57:23;58:5</p> <p><b>legislature (4)</b> 52:2,20;54:4,6</p> <p><b>less (1)</b> 46:8</p> <p><b>level (4)</b> 20:22;45:21;46:23; 47:19</p> <p><b>liability (1)</b></p>	<p><b>line (4)</b> 6:11;16:15;60:20; 61:7</p> <p><b>liquid (1)</b> 39:13</p> <p><b>listen (2)</b> 4:19;5:5</p> <p><b>listing (1)</b> 64:6</p> <p><b>little (4)</b> 48:13;55:10;61:15, 24</p> <p><b>live (1)</b> 58:19</p> <p><b>LNG (5)</b> 60:24;61:17;62:10, 14;63:2</p> <p><b>load (5)</b> 21:3,8;27:13,23; 29:17</p> <p><b>local (1)</b> 52:16</p> <p><b>located (3)</b> 7:2,5,11</p> <p><b>location (2)</b> 4:19;66:9</p> <p><b>long (7)</b> 12:4,16;32:20,22; 36:3,4;63:13</p> <p><b>long-term (12)</b> 20:16;21:3,5,7,14; 33:23;35:4;40:16,20; 41:9;46:7;62:2</p> <p><b>look (18)</b> 6:6;34:9;40:21; 41:23;48:22;49:7; 50:24;54:15,19;57:4, 12,17,18;58:6,7,13; 62:19;69:13</p> <p><b>looked (2)</b> 26:13;63:14</p> <p><b>looking (9)</b> 35:24;45:15;46:13, 14,15;48:7;50:9; 58:14;62:1</p> <p><b>looks (1)</b> 70:23</p> <p><b>lose (2)</b> 19:19;56:23</p> <p><b>lost (1)</b> 53:8</p> <p><b>lot (1)</b> 18:9</p> <p><b>lots (1)</b> 46:11</p> <p><b>low (2)</b></p>	<p><b>Madam (3)</b> 49:14,19;63:6</p> <p><b>magnitude (1)</b> 41:7</p> <p><b>Maine (10)</b> 24:8;26:5,14,17; 27:3,15,16;55:23; 65:14,18</p> <p><b>makes (1)</b> 65:17</p> <p><b>making (3)</b> 5:22;52:14,17</p> <p><b>manage (1)</b> 60:22</p> <p><b>management (3)</b> 29:17;55:22;70:10</p> <p><b>many (2)</b> 60:7;70:9</p> <p><b>maps (1)</b> 22:8</p> <p><b>marked (2)</b> 11:23;19:8</p> <p><b>MARTIN (51)</b> 4:2;7:3,13,18,23; 8:11,15,24;9:3,11; 11:6,14,17;12:6,11, 17,24;13:8;14:8; 15:16,21;16:23;17:6, 13;18:6,17;19:18,22; 20:2;28:10,15,19,22; 31:22;38:11,21; 47:24;49:16,21;53:3, 7,11;63:9,11;65:22; 66:1,8,12;67:14; 69:6;71:8</p> <p><b>Massachusetts (1)</b> 64:8</p> <p><b>material (1)</b> 49:10</p> <p><b>materials (1)</b> 9:22</p> <p><b>matter (4)</b> 9:24;11:4;44:12; 71:12</p> <p><b>matters (2)</b> 9:12;57:3</p> <p><b>may (4)</b> 5:14;53:16;59:17; 60:20</p> <p><b>maybe (2)</b> 37:6;61:14</p> <p><b>mean (6)</b> 35:11;41:19;42:16; 44:13,23;52:3</p> <p><b>meant (1)</b></p>	<p><b>meetings (1)</b> 24:13</p> <p><b>meets (3)</b> 38:6;67:23;70:13</p> <p><b>members (1)</b> 5:1</p> <p><b>mention (1)</b> 35:3</p> <p><b>mentioned (5)</b> 26:22;44:2;45:12, 12;52:12</p> <p><b>merely (1)</b> 10:21</p> <p><b>met (2)</b> 43:5;44:10</p> <p><b>metrics (1)</b> 41:23</p> <p><b>mic's (1)</b> 58:19</p> <p><b>might (14)</b> 18:13;33:17;34:9; 43:23;44:21;46:1,2,3; 47:10,18;55:4;60:11, 12;61:24;62:10</p> <p><b>Mike (1)</b> 7:16</p> <p><b>mind (2)</b> 13:1;35:14</p> <p><b>minute (2)</b> 19:23;53:9</p> <p><b>misunderstanding (1)</b> 33:13</p> <p><b>mix (2)</b> 29:19;33:24</p> <p><b>moment (4)</b> 14:9;47:2;53:4; 65:3</p> <p><b>Monte (5)</b> 25:17;55:2,6,12; 56:4</p> <p><b>month (1)</b> 51:8</p> <p><b>months (4)</b> 24:11,23;48:15; 51:9</p> <p><b>more (13)</b> 23:6;44:16,17; 46:20;47:8;52:12; 53:19;57:7,10;60:11; 61:15,24;70:15</p> <p><b>morning (11)</b> 4:3,4;7:10,16,21, 24;10:3,8;13:18; 17:19;48:3</p> <p><b>most (3)</b> 35:17;41:21;42:9</p> <p><b>motion (10)</b></p>

<p>9:16,23;10:2,6,8, 16;11:3,19;12:5,13 <b>move (2)</b> 46:6;57:15 <b>moving (1)</b> 48:23 <b>much (3)</b> 46:8;69:19;71:9 <b>multi-year (1)</b> 39:7 <b>mute (8)</b> 5:16;6:18;8:18; 13:10;15:23;32:8; 49:24;69:8 <b>myself (1)</b> 7:17</p>	<p>66:2 <b>non-gas (5)</b> 29:16;30:21;31:11; 41:3;67:4 <b>norm (1)</b> 63:13 <b>normal (2)</b> 32:19;55:16 <b>normalization (1)</b> 33:3 <b>Northern (28)</b> 4:5;8:1;13:22; 14:4;16:17,19;25:16, 19;32:2,7,23;33:19; 34:20;39:3;44:4; 45:8,8,19;46:6,23; 47:4;57:6,10;64:10, 24;67:19,21;68:15 <b>Northern's (17)</b> 18:2,24;20:21; 24:5,20,22;25:4,14; 29:7;33:4;35:4; 36:15;37:22;38:3; 47:3;67:17;68:9 <b>note (3)</b> 4:18;15:3;58:21 <b>noted (2)</b> 30:17;31:1 <b>notes (1)</b> 56:9 <b>notice (2)</b> 5:6,8 <b>November (1)</b> 27:19 <b>number (2)</b> 6:5;61:7</p>	<p>21;48:19;49:23;53:9; 54:23 <b>Office (9)</b> 7:17,17;8:16;12:4; 23:13;66:9,17;67:20; 69:15 <b>oftentimes (1)</b> 64:3 <b>oil (1)</b> 57:15 <b>one (25)</b> 7:6,12;8:22;9:15; 33:16;39:15;41:4; 43:4,8,17;45:3;47:2; 48:8;50:1;51:17; 55:2,4;56:2;57:5,12, 17;60:3;62:19;63:10; 66:10 <b>ones (2)</b> 62:3;63:2 <b>only (9)</b> 6:9;26:9;34:22; 37:17;47:3,20;58:24; 63:7;64:20 <b>operating (2)</b> 22:6;27:20 <b>opine (1)</b> 54:24 <b>opining (1)</b> 29:7 <b>opinion (1)</b> 59:2 <b>opportunities (2)</b> 60:21;61:2 <b>opportunity (2)</b> 37:9;45:16 <b>optimize (1)</b> 35:1 <b>optimizing (2)</b> 60:22;61:16 <b>option (4)</b> 39:15;45:20;62:23; 63:5 <b>options (10)</b> 21:22;23:3;32:24; 34:2;42:3;63:15; 67:4;68:3,22;70:20 <b>Order (13)</b> 4:16,16,22,23;5:8; 11:21;21:8;24:11,18, 24;38:2;51:7;70:14 <b>original (1)</b> 10:24 <b>originally (1)</b> 10:22 <b>others (3)</b> 6:12;51:23;64:9 <b>otherwise (1)</b> 6:21 <b>ours (1)</b> 64:16 <b>out (8)</b> 5:23;30:14;39:20;</p>	<p>44:1;51:8,10;63:21; 64:16 <b>outcomes (1)</b> 24:15 <b>outlined (1)</b> 67:10 <b>out-of-model (2)</b> 34:6,8 <b>outset (1)</b> 62:22 <b>over (3)</b> 10:20;53:22;64:18 <b>overall (6)</b> 32:6,9,14;57:11, 24;58:16 <b>overview (2)</b> 20:10;23:12 <b>own (2)</b> 47:11;52:9</p>	<p>53:14 <b>paths (1)</b> 22:10 <b>patient (1)</b> 48:12 <b>Patrick (1)</b> 8:1 <b>Pause (4)</b> 8:18;20:1;53:3,10 <b>paying (1)</b> 36:4 <b>peak (7)</b> 39:5;41:6,8;42:23; 43:2,3,9 <b>peaking (6)</b> 39:7,12,17;40:12; 44:7;62:13 <b>pending (3)</b> 26:8;62:5;63:2 <b>people (3)</b> 6:15;32:21;64:17 <b>per (5)</b> 45:23,24;57:19; 58:15;62:6 <b>percent (9)</b> 27:6,9,16;45:14; 48:7,8;58:24;59:6,7 <b>perfect (1)</b> 54:22 <b>perhaps (4)</b> 10:9;29:15;39:11; 40:9 <b>period (8)</b> 20:17;35:1,10,21; 36:3,4;43:3;64:14 <b>permits (1)</b> 9:21 <b>person (1)</b> 69:13 <b>personally (1)</b> 43:21 <b>perspective (3)</b> 28:1;37:1;40:11 <b>Petition (3)</b> 4:5;14:5,11 <b>physical (1)</b> 4:19 <b>piece (1)</b> 41:11 <b>pipe (1)</b> 53:15 <b>pipeline (4)</b> 14:12;22:7;60:23; 67:5 <b>place (2)</b> 39:8;42:19 <b>Plan (23)</b> 4:7;10:11;11:9; 14:16,20;20:12,15; 32:12;36:15;37:2,23, 24;38:6;39:6;42:12; 50:2,3,6;65:20;67:18, 23,24;68:19</p>
<b>N</b>				
<p><b>name (5)</b> 8:15;13:16;16:5; 17:20,21 <b>name's (2)</b> 7:3;9:3 <b>natural (3)</b> 20:19;39:14;57:15 <b>necessary (4)</b> 4:8;5:5,7;6:7 <b>need (14)</b> 4:8;5:17,24;6:14, 16;12:21;30:20; 35:16;39:9,17;40:13; 46:23;60:13;66:5 <b>needed (2)</b> 9:8;56:11 <b>needs (8)</b> 20:17;21:9;34:5, 18;35:6,12;39:4;44:7 <b>neglected (1)</b> 66:8 <b>nevertheless (1)</b> 70:21 <b>New (30)</b> 7:6,11;8:3;24:8; 26:6,10,14,17;27:17; 31:9;32:19;33:4; 34:22;36:1,21,23,24; 37:13;45:16;47:7; 48:6;57:11;59:23; 60:24;61:16;63:14, 16;65:8;68:12,23 <b>newly (2)</b> 11:19;60:23 <b>next (8)</b> 24:22;39:8,18,23; 40:8;48:22;51:5,8 <b>nine (3)</b> 51:9;61:8,9 <b>nine-month (1)</b> 51:4 <b>non- (1)</b> 67:4 <b>none (1)</b></p>	<p style="text-align: center;"><b>O</b></p> <p><b>object (2)</b> 11:13,16 <b>objection (4)</b> 5:19,23;11:9;66:4 <b>obligations (1)</b> 68:6 <b>observe (1)</b> 4:19 <b>obviously (1)</b> 12:8 <b>OCA (14)</b> 11:15;15:14;16:4; 23:17;29:8,21;30:19; 31:16;32:2;37:6; 38:17;44:15;61:1; 69:2 <b>OCA's (2)</b> 29:5;55:20 <b>occurrence (2)</b> 64:24;65:1 <b>occurs (1)</b> 39:5 <b>off (8)</b> 6:19;19:23;28:20,</p>	<p><b>ones (2)</b> 62:3;63:2 <b>only (9)</b> 6:9;26:9;34:22; 37:17;47:3,20;58:24; 63:7;64:20 <b>operating (2)</b> 22:6;27:20 <b>opine (1)</b> 54:24 <b>opining (1)</b> 29:7 <b>opinion (1)</b> 59:2 <b>opportunities (2)</b> 60:21;61:2 <b>opportunity (2)</b> 37:9;45:16 <b>optimize (1)</b> 35:1 <b>optimizing (2)</b> 60:22;61:16 <b>option (4)</b> 39:15;45:20;62:23; 63:5 <b>options (10)</b> 21:22;23:3;32:24; 34:2;42:3;63:15; 67:4;68:3,22;70:20 <b>Order (13)</b> 4:16,16,22,23;5:8; 11:21;21:8;24:11,18, 24;38:2;51:7;70:14 <b>original (1)</b> 10:24 <b>originally (1)</b> 10:22 <b>others (3)</b> 6:12;51:23;64:9 <b>otherwise (1)</b> 6:21 <b>ours (1)</b> 64:16 <b>out (8)</b> 5:23;30:14;39:20;</p>	<b>P</b>	

<p><b>planning (36)</b> 20:19;21:3,7,23; 24:6;25:7;26:18,21; 27:13,23;29:20;32:7, 13;33:8,12,13,18; 34:4;35:1,3,9;58:22; 59:5,19,21,22,24; 64:2,4,15,21,23;65:1; 68:10,11;70:18</p> <p><b>plans (4)</b> 14:2;22:4;30:24; 48:5</p> <p><b>platform (2)</b> 5:3;6:14</p> <p><b>plays (1)</b> 64:22</p> <p><b>Please (21)</b> 4:18;5:9,16,19;6:2, 8,11,16,20;7:1,19; 13:16;16:2;17:19; 20:9;22:12;23:11; 28:15,23;29:2;30:9</p> <p><b>point (14)</b> 6:4;30:14;39:9; 44:1,7,22;46:4; 48:23;50:1;51:16; 54:8,10;63:21;64:16</p> <p><b>policies (1)</b> 68:7</p> <p><b>policy (2)</b> 41:16;68:16</p> <p><b>portfolio (13)</b> 20:20;21:5,7,20; 25:24;29:19;34:15, 16;41:9;42:17,18; 60:22;70:18</p> <p><b>position (4)</b> 12:12;13:16;16:3; 17:22</p> <p><b>possible (5)</b> 5:20;12:9;24:8; 41:4;56:3</p> <p><b>potential (5)</b> 21:13;23:23;67:4; 68:8;71:1</p> <p><b>potentially (1)</b> 34:16</p> <p><b>practical (1)</b> 24:7</p> <p><b>Pradip (2)</b> 8:21;16:5</p> <p><b>preapproval (2)</b> 14:6,12</p> <p><b>pre-COVID (1)</b> 48:5</p> <p><b>predominantly (1)</b> 29:9</p> <p><b>prefer (1)</b> 15:19</p> <p><b>preference (1)</b> 15:17</p> <p><b>prefiled (1)</b> 12:20</p>	<p><b>preliminary (1)</b> 9:12</p> <p><b>premarked (4)</b> 12:19;18:3;19:1; 36:12</p> <p><b>prepare (1)</b> 19:7</p> <p><b>prepared (5)</b> 14:22;16:10;32:10; 36:16;67:22</p> <p><b>preparedness (1)</b> 34:16</p> <p><b>prescribe (1)</b> 45:4</p> <p><b>prescriptive (3)</b> 46:13,14;58:12</p> <p><b>presence (1)</b> 7:1</p> <p><b>present (2)</b> 27:23;65:20</p> <p><b>presentation (1)</b> 25:14</p> <p><b>presented (8)</b> 15:6;25:24;26:7; 27:12;28:3;37:23; 67:21;68:13</p> <p><b>presents (1)</b> 63:24</p> <p><b>previous (1)</b> 38:4</p> <p><b>previously (5)</b> 5:6;13:23;19:4; 30:17;44:2</p> <p><b>primarily (1)</b> 29:22</p> <p><b>primary (1)</b> 65:12</p> <p><b>prior (5)</b> 14:2;22:3;26:24; 38:3;42:15</p> <p><b>probability (3)</b> 58:23;59:6,7</p> <p><b>probably (1)</b> 53:19</p> <p><b>problem (1)</b> 5:9</p> <p><b>procedural (1)</b> 11:4</p> <p><b>proceed (6)</b> 15:15,20;28:13; 29:24;32:2;55:11</p> <p><b>proceeding (7)</b> 6:13,20;9:19; 16:21;18:3;68:21; 69:3</p> <p><b>proceedings (2)</b> 20:1;53:10</p> <p><b>process (13)</b> 20:19;21:15;29:9; 30:1;31:18;32:7,13; 34:4;36:15;49:8; 52:8;53:23;71:1</p> <p><b>processes (2)</b></p>	<p>24:6;70:19</p> <p><b>product (1)</b> 69:20</p> <p><b>professional (1)</b> 13:21</p> <p><b>Program (2)</b> 22:6;26:16</p> <p><b>programs (2)</b> 68:3;70:10</p> <p><b>Project (4)</b> 14:13;26:4;46:11, 20</p> <p><b>projected (2)</b> 20:16;59:2</p> <p><b>prompt (2)</b> 29:9;31:2</p> <p><b>properly (1)</b> 34:1</p> <p><b>proposal (2)</b> 26:4,5</p> <p><b>proposed (2)</b> 26:7;67:13</p> <p><b>proposes (2)</b> 68:13,18</p> <p><b>provide (15)</b> 20:20;24:16,18; 25:2,20;26:20;29:13; 31:5;35:6;39:12; 40:3;42:5;43:12; 44:19;70:15</p> <p><b>provided (3)</b> 55:18;63:22;65:7</p> <p><b>provides (3)</b> 13:20;20:23;22:5</p> <p><b>providing (1)</b> 31:3</p> <p><b>Public (9)</b> 4:11,17;5:4,6,10; 7:4;28:5;30:12;55:24</p> <p><b>purpose (2)</b> 29:20;33:4</p> <p><b>purposes (2)</b> 51:17;63:16</p> <p><b>pursuant (4)</b> 4:16,21;23:21; 30:16</p> <p><b>pursue (1)</b> 56:4</p> <p><b>put (1)</b> 5:19</p> <p><b>puts (1)</b> 40:10</p>	<p style="text-align: center;"><b>R</b></p> <p><b>raise (2)</b> 9:15;10:10</p> <p><b>raised (3)</b> 22:16;50:22;62:20</p> <p><b>ratepayer (1)</b> 68:17</p> <p><b>ratepayers (4)</b> 8:20;36:3;63:4; 68:9</p> <p><b>reach (1)</b> 29:22</p> <p><b>reached (1)</b> 63:18</p> <p><b>reaching (1)</b> 71:11</p> <p><b>read (1)</b> 41:19</p> <p><b>real (1)</b> 49:5</p> <p><b>reality (1)</b> 47:11</p> <p><b>really (7)</b> 5:16;33:19;44:23; 52:9;55:13;62:15; 64:11</p> <p><b>reasonable (9)</b> 20:22;24:14;28:4; 30:11;34:4,9;51:12; 68:1,4</p> <p><b>reasons (3)</b> 43:17;47:2;67:10</p> <p><b>reboot (1)</b> 61:10</p> <p><b>recall (1)</b> 54:1</p> <p><b>recent (3)</b> 32:20;33:20;62:3</p> <p><b>recess (2)</b> 6:16,17</p> <p><b>recognize (4)</b> 5:20;6:16;49:20,22</p> <p><b>recognized (2)</b> 5:18;6:1</p> <p><b>recommend (5)</b> 23:19,22;24:10; 67:11;71:5</p> <p><b>recommendation (2)</b> 51:6;56:14</p> <p><b>recommendations (11)</b> 23:24;24:16;25:1, 9;29:11;31:3,14; 40:4,7;67:7;71:2</p> <p><b>recommended (1)</b> 25:11</p> <p><b>recommends (2)</b> 67:17;69:22</p> <p><b>record (14)</b> 6:8;15:4;16:9,24; 17:20;19:13,23;20:3; 28:20,21,23;53:9,12;</p>	<p>55:21</p> <p><b>records (2)</b> 54:3,15</p> <p><b>redacted (3)</b> 10:13;14:17,21</p> <p><b>redirect (1)</b> 65:23</p> <p><b>reduce (10)</b> 41:5,6;45:17,20; 52:22;57:19,24; 58:15,16;62:12</p> <p><b>reduced (1)</b> 46:1</p> <p><b>reducing (2)</b> 57:8,11</p> <p><b>reduction (1)</b> 65:10</p> <p><b>refer (1)</b> 21:10</p> <p><b>referring (1)</b> 65:5</p> <p><b>reflected (4)</b> 26:19;27:13;43:1; 50:6</p> <p><b>regarding (9)</b> 4:5;20:23;23:24; 24:19;25:3;34:15; 36:15;46:18;71:2</p> <p><b>regimes (1)</b> 27:21</p> <p><b>region (1)</b> 64:2</p> <p><b>regulations (1)</b> 68:7</p> <p><b>regulatory (1)</b> 21:24</p> <p><b>related (1)</b> 26:17</p> <p><b>relating (1)</b> 41:2</p> <p><b>relative (2)</b> 41:8;42:1</p> <p><b>relevant (2)</b> 38:1;68:22</p> <p><b>reliability (1)</b> 70:16</p> <p><b>reliable (1)</b> 20:21</p> <p><b>relies (1)</b> 20:20</p> <p><b>rely (2)</b> 44:4,5</p> <p><b>relying (1)</b> 45:13</p> <p><b>remain (1)</b> 55:17</p> <p><b>remains (1)</b> 49:9</p> <p><b>remnants (1)</b> 49:2</p> <p><b>remote (1)</b> 6:14</p> <p><b>remotely (1)</b></p>
		<p style="text-align: center;"><b>Q</b></p> <p><b>qualification (2)</b> 13:12;15:11</p> <p><b>Qualitative (2)</b> 23:6,9</p> <p><b>quickly (1)</b> 12:8</p>		

<p>4:9 <b>remove (1)</b> 23:1 <b>replace (2)</b> 16:16;61:20 <b>replaced (2)</b> 39:10;40:13 <b>replacing (1)</b> 62:13 <b>report (5)</b> 25:2;51:15;56:1,2; 62:16 <b>Reporter (5)</b> 13:5;14:7,10;27:7; 53:2 <b>represent (1)</b> 8:19 <b>request (6)</b> 10:23;11:7,18; 29:24;31:7;49:19 <b>requested (1)</b> 40:2 <b>require (2)</b> 31:11;70:8 <b>required (1)</b> 24:2 <b>requirement (6)</b> 21:8;36:19;37:3; 42:2;43:5,9 <b>requirements (15)</b> 21:4;25:13;27:10; 31:10;38:1,7;42:13; 66:23;67:23;68:5,15; 70:2,7,12;71:3 <b>requires (1)</b> 47:18 <b>requiring (1)</b> 36:19 <b>rerun (1)</b> 48:6 <b>rescheduled (1)</b> 5:12 <b>research (4)</b> 51:22;54:2;65:2,6 <b>residential (1)</b> 8:20 <b>resistance (1)</b> 56:6 <b>resistant (2)</b> 55:5,5 <b>resolved (2)</b> 26:19;27:15 <b>Resource (40)</b> 4:7;10:11;14:2,16, 20;20:11,15,16;21:9, 10,14,19,20;22:4,23; 23:2,3;25:23;26:8,9; 29:19;30:23;32:7; 33:9;34:2,18;35:3,4, 5;39:10,11;40:16,19; 41:21;46:19;49:13; 52:14;65:20;67:18; 68:10</p>	<p><b>resources (16)</b> 21:16;24:4;25:8, 12;29:18;33:7;34:17; 35:20;42:7;43:6,23; 45:16;46:2;62:9,13; 67:3 <b>respect (1)</b> 40:24 <b>respectfully (2)</b> 31:16;67:11 <b>respectively (1)</b> 14:18 <b>respond (3)</b> 6:15;12:7,8 <b>respondents (1)</b> 9:21 <b>responding (2)</b> 12:13;24:24 <b>response (9)</b> 6:13;29:17;38:5; 42:16;43:7,23;44:11; 46:2;56:14 <b>response] (4)</b> 11:11;12:23;19:21; 65:24 <b>responses (2)</b> 9:18;10:1 <b>responsible (2)</b> 18:2,24 <b>responsive (1)</b> 37:2 <b>restated (1)</b> 23:1 <b>result (3)</b> 4:14;67:6;70:19 <b>resulted (2)</b> 36:10;58:23 <b>results (1)</b> 69:4 <b>Retail (2)</b> 22:5;26:16 <b>retiring (1)</b> 61:21 <b>review (7)</b> 12:5,12,15;20:18; 37:22;40:18;52:11 <b>reviewing (2)</b> 18:2,24 <b>revised (13)</b> 10:11,13,19;11:1, 8;14:19;15:3;19:1; 22:15;37:2;38:6; 67:17;70:1 <b>revision (1)</b> 10:22 <b>revisions (3)</b> 22:13;24:5,8 <b>right (10)</b> 4:3;6:22;8:9; 11:20;17:8;47:10; 49:3;55:7;63:9;71:8 <b>Rob (1)</b> 8:4</p>	<p><b>ROBERT (3)</b> 13:3,6,18 <b>Robidas (5)</b> 13:1;19:24;20:3; 53:4;71:15 <b>role (1)</b> 8:10 <b>roll-call (1)</b> 6:23 <b>room (3)</b> 7:7;8:23;69:14 <b>RSA (13)</b> 21:17;23:21;24:2, 20;25:11;30:17,19; 66:23;67:24;68:23; 70:2,8,21 <b>Rule (3)</b> 9:20;10:4;11:20 <b>rules (1)</b> 5:13</p>	<p>13:20;20:21;22:9, 10;27:3;35:8;36:2; 42:20;52:22;68:2 <b>services (1)</b> 13:21 <b>session (1)</b> 22:17 <b>set (3)</b> 20:16;21:17;52:15 <b>settlement (28)</b> 4:7;23:12,18; 24:12;28:3;30:6,10; 31:6,17;36:10,11,17; 37:19,23;40:3;50:9; 51:18;55:3;56:12; 66:18;67:12,19; 68:13,20;69:18,23; 71:6,11 <b>settling (9)</b> 23:19;24:9,15; 25:18;50:14,17,18, 23;52:10 <b>several (3)</b> 39:8;40:20;64:18 <b>shape (1)</b> 31:4 <b>share (1)</b> 56:16 <b>shared (1)</b> 62:17 <b>short (1)</b> 45:18 <b>shorter (1)</b> 64:14 <b>short-term (5)</b> 33:23;43:6;44:6; 46:7;62:12 <b>show (2)</b> 22:8;64:11 <b>showed (1)</b> 32:12 <b>showing (1)</b> 65:7 <b>Shute (24)</b> 8:13,14,15;11:14, 15;12:2,3,10;15:21, 22,23;16:1,24;17:4, 10;28:11,12,17,24; 29:1;31:20;38:18; 66:15,16 <b>significant (5)</b> 25:23;26:15;27:1; 41:6;70:11 <b>significantly (1)</b> 41:18 <b>similar (3)</b> 27:17,20;39:10 <b>single (1)</b> 27:23 <b>sit (1)</b> 36:2 <b>site (2)</b> 68:3;70:10</p>	<p><b>sitting (1)</b> 8:8 <b>situation (8)</b> 44:4;45:6;46:5; 47:10,17;48:16,24; 62:21 <b>slightly (1)</b> 43:14 <b>slow (1)</b> 65:18 <b>slowly (1)</b> 6:12 <b>smaller (1)</b> 46:22 <b>solution (3)</b> 39:21;41:13;63:3 <b>solutions (2)</b> 31:8;41:4 <b>someone (1)</b> 63:17 <b>sometime (1)</b> 40:8 <b>sometimes (5)</b> 33:14;34:7;35:13; 54:17,18 <b>somewhere (1)</b> 62:11 <b>soon (2)</b> 5:20;35:7 <b>Sorry (4)</b> 17:8;49:16;51:21; 61:10 <b>sort (6)</b> 29:6;42:6;43:22; 53:20;65:11,19 <b>sound (2)</b> 18:16;68:10 <b>sounds (2)</b> 50:8;59:17 <b>source (1)</b> 36:1 <b>speak (3)</b> 5:23;6:12;39:22 <b>speaker (2)</b> 18:9,15 <b>specific (2)</b> 22:10;52:7 <b>Specifically (5)</b> 25:8;44:3;50:10; 51:19;54:1 <b>spoke (1)</b> 22:24 <b>stabilize (1)</b> 65:15 <b>staff (23)</b> 8:17;9:4;11:12; 12:11;15:13,18;19:8; 23:13,17;30:15;37:5; 38:17,19;67:16,20, 21;68:9,12,18;69:1, 15,21;70:24 <b>stakeholders (1)</b> 29:10</p>
		<b>S</b>		
		<p><b>safety (1)</b> 23:8 <b>same (5)</b> 10:21;12:12;30:14; 33:16;49:9 <b>satisfy (1)</b> 35:5 <b>saved (1)</b> 62:14 <b>saying (1)</b> 59:18 <b>scope (6)</b> 24:3,14;50:19,19, 20;51:13 <b>screen (1)</b> 61:11 <b>second (1)</b> 18:7 <b>seconds (1)</b> 61:4 <b>section (3)</b> 23:3;26:22,23 <b>Seeing (6)</b> 13:1;48:21;65:2,8; 66:2;69:13 <b>seek (1)</b> 41:20 <b>seems (3)</b> 43:7;55:3,5 <b>selected (3)</b> 58:22;59:1;64:12 <b>sense (2)</b> 44:23;65:17 <b>separate (2)</b> 11:3;68:21 <b>series (1)</b> 65:5 <b>serve (1)</b> 22:1 <b>Service (10)</b></p>		

<b>standard (12)</b> 12:7;34:5;59:7,9, 12,15,16;60:1;64:4, 15,22,23	<b>studies (1)</b> 59:10	8:9;63:22,24;64:5, 11	8:3	25:2;35:10
<b>standards (2)</b> 64:2;70:20	<b>study (1)</b> 24:14	<b>tables (2)</b> 22:20,22	<b>timing (1)</b> 39:23	<b>unable (1)</b> 5:11
<b>start (7)</b> 5:21;6:22;13:12; 20:5;31:18;50:16; 66:15	<b>subject (1)</b> 37:3	<b>talk (3)</b> 6:2;34:24;43:22	<b>today (19)</b> 6:8;8:4,6,20;9:5,7, 15;10:6;15:4;36:12; 37:23;51:11;53:24; 62:4;67:21;68:13,20; 69:11;71:15	<b>uncertainty (2)</b> 27:2,12
<b>starting (2)</b> 51:15;60:19	<b>submit (1)</b> 9:21	<b>talked (3)</b> 36:23;61:16;62:4	<b>together (2)</b> 6:6;33:15	<b>undecipherable (1)</b> 35:23
<b>state (8)</b> 4:13;7:1;17:20; 23:7;27:15;52:21; 64:6;68:16	<b>Submittal (1)</b> 24:22	<b>talking (5)</b> 5:15;32:21;45:9; 47:3;59:20	<b>top (1)</b> 61:19	<b>under (18)</b> 14:22;16:11;18:15; 21:1,17;24:2,20; 27:20;29:7;30:19; 66:19;67:9;68:6,15, 23;69:12;70:1;71:12
<b>stated (1)</b> 29:8	<b>submitted (7)</b> 9:16,18;10:1,10; 21:16;22:14;66:19	<b>tank (1)</b> 62:15	<b>totally (3)</b> 47:18;57:21;58:9	<b>understood (1)</b> 33:19
<b>statement (2)</b> 9:23;10:2	<b>subsequent (1)</b> 51:14	<b>Taylor (24)</b> 7:20,21,24;8:1; 9:14;13:9,11,15; 15:10;19:19,20,22; 20:4,6,8;28:7;38:16; 53:13,14,14;54:22; 69:7,7,9	<b>towards (1)</b> 46:7	<b>undertaking (1)</b> 56:19
<b>states (3)</b> 6:24;22:1;27:21	<b>sufficient (3)</b> 41:11;42:5;51:16	<b>technical (2)</b> 22:17;50:22	<b>tracing (1)</b> 22:9	<b>unique (1)</b> 34:20
<b>static (1)</b> 55:10	<b>suggest (1)</b> 55:3	<b>ten-day (1)</b> 12:5	<b>track (1)</b> 56:23	<b>Unitil (3)</b> 13:20;14:3;53:15
<b>statute (11)</b> 30:19;41:15,16,19; 42:4;43:13,20;44:15; 52:9,20;54:9	<b>suggesting (1)</b> 41:16	<b>term (1)</b> 45:18	<b>traditional (4)</b> 29:18;31:8;41:23; 67:3	<b>unlikely (2)</b> 43:8;44:10
<b>Statutory (16)</b> 25:10,13;31:9; 36:19;37:2,13;38:1; 42:1,12;51:20;53:17; 66:23;70:2,7,12;71:3	<b>suggestion (3)</b> 56:3,12;61:18	<b>terms (6)</b> 27:3,4;30:10; 44:20;62:16;68:11	<b>transmission (1)</b> 59:5	<b>unmet (1)</b> 41:7
<b>stays (1)</b> 42:19	<b>suggests (1)</b> 65:12	<b>territory (1)</b> 52:23	<b>transposed (1)</b> 22:21	<b>unmuted (1)</b> 18:13
<b>stems (1)</b> 62:16	<b>sum (2)</b> 66:2,6	<b>testified (5)</b> 13:23;14:1,5;19:4; 63:12	<b>treat (1)</b> 11:23	<b>unsupported (1)</b> 34:6
<b>steps (1)</b> 46:22	<b>summarize (1)</b> 22:12	<b>testifying (1)</b> 9:7	<b>treatment (5)</b> 9:17;10:16,20,24; 11:8	<b>up (15)</b> 5:19;10:6;14:9; 17:11;31:14;37:8; 40:16,18;44:18; 46:11;49:11;53:15; 56:22;66:2,6
<b>Steve (1)</b> 9:8	<b>summary (1)</b> 23:4	<b>testimony (21)</b> 16:8,10,14,20;19:7, 12;29:3,5,8,21;31:1; 36:16,18;37:18;38:5; 55:20;58:21;60:6,14, 18;62:18	<b>triggered (1)</b> 27:2	<b>updates (2)</b> 22:5,20
<b>still (7)</b> 6:11;32:8;33:3; 48:9;51:9;63:15; 65:13	<b>summer (2)</b> 62:8,9	<b>thanks (3)</b> 69:1,9;71:7	<b>trouble (1)</b> 28:20	<b>upon (1)</b> 20:20
<b>stone's (1)</b> 8:3	<b>supplies (2)</b> 21:6;44:6	<b>therefore (1)</b> 68:18	<b>true (2)</b> 15:7;33:16	<b>urge (1)</b> 31:16
<b>storage (2)</b> 60:24;61:17	<b>supply (16)</b> 21:13,21;34:5; 39:4,7,12,17;40:12, 19;42:6;45:13,14,15, 18;55:22;68:3	<b>thinking (1)</b> 62:15	<b>try (3)</b> 34:23;57:19;61:4	<b>usage (6)</b> 45:20,21,24;57:8; 58:16,16
<b>store (1)</b> 62:11	<b>supported (1)</b> 34:10	<b>third (2)</b> 43:4,8	<b>trying (9)</b> 42:1;46:4,6;55:13; 56:5;57:23;58:2,15; 62:24	<b>use (9)</b> 35:21;36:1;47:13; 60:14,22;62:12;63:1; 64:2,3
<b>story (1)</b> 63:3	<b>supports (2)</b> 66:17;68:12	<b>though (1)</b> 53:8	<b>turn (7)</b> 6:18;18:8;20:4; 52:18;60:13,17;63:8	<b>used (5)</b> 20:19;33:15;58:23; 61:20;63:13
<b>straight (1)</b> 38:14	<b>sure (7)</b> 5:16;6:9,18;17:7; 23:15;52:6;56:21	<b>thought (2)</b> 17:4;47:12	<b>turning (1)</b> 18:15	<b>useful (1)</b> 62:7
<b>strategy (1)</b> 46:20	<b>swear (1)</b> 9:13	<b>thoughtful (1)</b> 69:11	<b>two (12)</b> 11:7;22:1;33:15; 48:7,8;51:8;57:5,9; 58:8,8;59:22;61:22	<b>uses (1)</b> 57:11
<b>strike (1)</b> 66:3	<b>sworn (3)</b> 13:4,6,7	<b>three (9)</b> 24:11;25:10;27:12; 33:22;40:1;48:15; 59:22,23;65:9	<b>type (4)</b> 33:9;36:6;48:18; 58:16	<b>using (3)</b> 32:20;59:12;64:13
<b>structured (1)</b> 32:11	<b>system (5)</b> 20:24;22:8;33:9; 68:4,11	<b>throughput (2)</b> 20:24;48:21	<b>typically (2)</b> 8:8;40:1	<b>usually (3)</b> 18:10;35:17;45:18
<b>struggle (2)</b> 47:1;58:4	<b>T</b>	<b>throw (1)</b>	<b>U</b>	<b>Utilities (24)</b> 4:5,12;7:4;8:2;
	<b>table (5)</b>		<b>ultimately (2)</b>	

13:22;14:4;16:17,19; 30:18;36:19,22,24; 37:12;44:4;46:17; 47:5,7;55:24;64:1,8, 9,10,23;68:23 <b>utility (6)</b> 9:5;18:22;29:13; 44:18;47:16;68:5 <b>utilization (2)</b> 35:7;49:5 <b>utilizes (1)</b> 34:13 <b>utilizing (3)</b> 4:24;36:5;61:17	57:12,17,18;58:7; 60:6;62:1 <b>ways (3)</b> 63:1;66:22;68:14 <b>weather (7)</b> 21:1;25:18;32:19; 33:3;55:14;63:13; 64:1 <b>weather-related (1)</b> 22:22 <b>Webex (1)</b> 4:24 <b>well-documented (1)</b> 32:12 <b>well-organized (1)</b> 32:11 <b>well-reasoned (1)</b> 67:22 <b>Wells (2)</b> 8:7,7 <b>well-sized (1)</b> 35:5 <b>well-supported (1)</b> 67:22 <b>Westbrook (2)</b> 14:13;26:4 <b>What's (3)</b> 15:16;49:1;65:19 <b>whenever (1)</b> 39:5 <b>whereas (1)</b> 64:24 <b>wherein (1)</b> 29:10 <b>WHEREUPON (1)</b> 13:3 <b>willing (2)</b> 11:4;56:16 <b>willingness (1)</b> 66:20 <b>Wind (2)</b> 5:15;71:14 <b>winter (5)</b> 40:14;48:19,20,22; 62:7 <b>within (2)</b> 24:10;50:14 <b>without (6)</b> 34:6;36:5;40:22; 44:8;45:5;66:3 <b>witness (4)</b> 8:6;13:12;15:19; 19:16 <b>witnesses (7)</b> 9:13;12:22;13:2; 15:14;32:2;38:17; 63:8 <b>wondering (2)</b> 59:16;61:18 <b>word (1)</b> 58:24 <b>wording (1)</b> 64:17	<b>work (10)</b> 18:16;31:2;37:10; 50:12,20;51:18,19, 19;66:21;70:23 <b>working (20)</b> 23:22;24:10,16,24; 25:1,9,21;31:13; 37:11;40:4;41:2; 43:18;47:4,4,13; 50:15;51:4;56:17; 67:6;71:1 <b>written (1)</b> 16:18 <b>WXP (1)</b> 26:3	<b>15 (7)</b> 33:17,21;35:11,12, 13,15,16 <b>150,000 (1)</b> 42:24 <b>15-009 (1)</b> 26:13 <b>15-033 (2)</b> 26:11;70:14 <b>18 (1)</b> 16:15 <b>19-126 (1)</b> 4:4 <b>1st (1)</b> 24:17	70:2 <b>378:37 (7)</b> 24:2,20;25:11; 51:21;66:23;67:9; 70:8 <b>378:38 (1)</b> 21:18 <b>378:39 (3)</b> 23:21;30:17;70:21 <b>387 (1)</b> 51:20 <b>39 (1)</b> 21:18
<b>V</b>		<b>X</b>	<b>2</b>	<b>4</b>
<b>vaccine (1)</b> 48:24 <b>valid (1)</b> 33:3 <b>valuable (1)</b> 67:6 <b>value (1)</b> 59:1 <b>valued (1)</b> 63:16 <b>various (2)</b> 22:20;24:4 <b>verbal (4)</b> 11:11;12:23;19:21; 65:24 <b>Vermont (1)</b> 8:22 <b>version (2)</b> 11:9;48:4 <b>versions (2)</b> 10:13;14:17 <b>video (3)</b> 6:19;19:19;49:4 <b>view (3)</b> 52:13;56:7,10 <b>vigorous (1)</b> 44:16 <b>visualize (2)</b> 51:4,7		<b>XPress (2)</b> 14:13;26:4	<b>2 (1)</b> 14:14 <b>2.5 (1)</b> 58:24 <b>20 (1)</b> 33:17 <b>2008 (1)</b> 14:4 <b>2015 (2)</b> 27:1,11 <b>2019 (8)</b> 4:6;20:14,15,22; 22:17;27:19;30:16; 39:24 <b>2019-2020 (2)</b> 20:18;23:20 <b>2020-04 (1)</b> 4:17 <b>2021 (2)</b> 24:17;40:5 <b>2022 (2)</b> 40:2,9 <b>2023-2024 (1)</b> 20:18 <b>2024-2025 (1)</b> 40:14 <b>203.08d (1)</b> 9:20 <b>2-1/2 (1)</b> 59:7 <b>26,027 (1)</b> 38:2	4 (2) 10:14;14:18 <b>40 (7)</b> 24:2,20;25:11; 51:21;66:23;67:9; 70:8 <b>43 (1)</b> 45:14
		<b>Y</b>		<b>5</b>
		<b>year (5)</b> 14:4;22:14;31:18; 40:6;53:22 <b>yearly (1)</b> 50:3 <b>years (21)</b> 32:20,21,21;33:11, 17,18,21,22,23; 35:11,13,13,15,16; 39:9,18;40:1,20;59:2, 22;65:13 <b>years' (3)</b> 33:2;59:21,24	<b>2008 (1)</b> 14:4 <b>2015 (2)</b> 27:1,11 <b>2019 (8)</b> 4:6;20:14,15,22; 22:17;27:19;30:16; 39:24 <b>2019-2020 (2)</b> 20:18;23:20 <b>2020-04 (1)</b> 4:17 <b>2021 (2)</b> 24:17;40:5 <b>2022 (2)</b> 40:2,9 <b>2023-2024 (1)</b> 20:18 <b>2024-2025 (1)</b> 40:14 <b>203.08d (1)</b> 9:20 <b>2-1/2 (1)</b> 59:7 <b>26,027 (1)</b> 38:2	<b>5 (5)</b> 16:10;17:3,5,8; 33:18 <b>50-year (1)</b> 64:24
		<b>0</b>		<b>6</b>
		<b>007 (1)</b> 16:16		<b>6 (3)</b> 17:1;19:8;25:24 <b>603271-2431 (1)</b> 5:10
		<b>1</b>		<b>7</b>
		<b>1 (7)</b> 12:19;14:14;18:4; 19:2;64:24;65:1;66:3 <b>10 (1)</b> 59:6 <b>10,000 (1)</b> 62:6 <b>100 (1)</b> 27:16 <b>100,000 (1)</b> 42:22 <b>10th (1)</b> 19:8 <b>11 (2)</b> 60:19;61:5 <b>11:41 (1)</b> 71:16 <b>12 (2)</b> 4:16;24:23	<b>2021 (2)</b> 24:17;40:5 <b>2022 (2)</b> 40:2,9 <b>2023-2024 (1)</b> 20:18 <b>2024-2025 (1)</b> 40:14 <b>203.08d (1)</b> 9:20 <b>2-1/2 (1)</b> 59:7 <b>26,027 (1)</b> 38:2	<b>7 (3)</b> 12:19;36:12;66:3
<b>W</b>			<b>3</b>	<b>8</b>
<b>wait (1)</b> 5:24 <b>wants (1)</b> 57:10 <b>warm (2)</b> 48:19,19 <b>warming (2)</b> 65:14,17 <b>Water (3)</b> 9:6,9;17:23 <b>waving (1)</b> 5:21 <b>way (9)</b> 43:15;45:24;46:10;				<b>85 (1)</b> 63:23
				<b>9</b>
				<b>9 (1)</b> 60:20 <b>90/10 (1)</b> 59:6

**In Re:**

*DG 19-126 NORTHERN UTILITIES, INC.  
2019-2024 INTEGRATED RESOURCE PLAN*

---

*HEARING ON SETTLEMENT AGREEMENT  
June 11, 2020*

---

*SUSAN J. ROBIDAS, N.H. LCR  
30 James Pollock Drive  
Manchester, New Hampshire 03102  
(603) 540-2083  
shortrptr@comcast.net*

Original File 061120 DG19-126 hrg.txt

Min-U-Script® with Word Index

Page 1

1 STATE OF NEW HAMPSHIRE  
2 PUBLIC UTILITIES COMMISSION  
3  
4 June 11, 2020 - 10:05 a.m.  
5 [Remote hearing conducted via Webex]  
6  
7 RE: DG 19-126  
8 NORTHERN UTILITIES, INC.  
9 2019-2024 IRP  
10 (Hearing on Settlement Agreement)  
11  
12 PRESENT: Chairwoman Dianne Martin, Presiding  
13 Commissioner Kathryn M. Bailey  
14 Commissioner Michael S. Giaimo  
15 Jody Carmody, Clerk  
16 Eric Wind, PUC Remote Hearing Host  
17  
18 APPEARANCES: Reptg. Northern Utilities, Inc.  
19 Patrick H. Taylor, Esq.  
20 Rptg. Office of Consumer Advocate:  
21 Christa Shute, Esquire  
22  
23 Reptg. PUC Staff:  
24 Lynn Fabrizio, Esq.  
  
Court Reporter: Susan J. Robidas, NH LCR No. 44  
  
{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 2

1 I N D E X  
2  
3 WITNESSES: ROBERT S. FURINO  
4 PRADIP CHATTOPADHYAY  
5 AL-AZAD IQBAL  
6  
7 EXAMINATION PAGE  
8 Direct Examination by Mr. Taylor 13  
9 Direct Examination by Ms. Shute 16  
10 Direct Examination by Ms. Fabrizio 17  
11 Direct Examination by Mr. Taylor cont'd 20  
12 Direct Examination by Ms. Shute cont'd 28  
13 Direct Examination by Ms. Fabrizio cont'd) 32  
14  
15 INTERROGATORIES BY COMMISSIONERS:  
16 By Commissioner Bailey 39  
17 By Commissioner Giaimo 48  
18 By Chairwoman Martin 63  
19  
20 CLOSING STATEMENTS  
21 By Ms. Shute 66  
22 By Ms. Fabrizio 67  
23 By Mr. Taylor 69  
24  
{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 3

1 E X H I B I T S  
2  
3 EXHIBIT NO. PAGE NO.  
4 1 CONFIDENTIAL VERSION Northern Utilities 2019-2024 IRP  
5 filed 7/22/19 Premarked  
6 2 REDACTED VERSION Northern Utilities 2019-2024 IRP  
7 filed 7/22/19 Premarked  
8 3 CONFIDENTIAL VERSION Northern Utilities 2019-2024  
9 Revised IRP filed 2/24/20 Premarked  
10 4 REDACTED VERSION Northern Utilities 2019-2024  
11 Revised IRP filed 2/24/20 Premarked  
12 5 OCA Testimony of Dr. Pradip Chattopadhyay and attachments  
13 filed 4/10/20 Premarked  
14 6 Staff Testimony of Al-Azad Iqbal and attachments filed 4/10/20 Premarked  
15 7 Settlement Agreement of the Parties filed 5/27/20 Premarked  
16  
17  
18  
19  
20  
21  
22  
23  
24  
  
{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 4

1 P R O C E E D I N G S  
2 CHAIRWOMAN MARTIN: Good  
3 morning, everyone. All right. We're here this  
4 morning in Docket DG 19-126 for a hearing  
5 regarding the Northern Utilities, Inc. Petition  
6 for Approval of its 2019 Least Cost Integrated  
7 Resource Plan. A settlement agreement has been  
8 filed. I need to make some necessary findings  
9 because we're doing this hearing remotely, so  
10 I'll do that now.  
11 As Chairwoman of the Public  
12 Utilities Commission, I find that due to the  
13 state of emergency declared by the Governor  
14 as a result of the COVID-19 pandemic, and in  
15 accordance with the Governor's Emergency  
16 Order No. 12, pursuant to Executive Order  
17 2020-04, this public body is authorized to  
18 meet electronically. Please note that there  
19 is no physical location to observe and listen  
20 contemporaneously to this hearing, which was  
21 authorized pursuant to the Governor's  
22 Emergency Order. However, in accordance with  
23 the Emergency Order, I am confirming that we  
24 are utilizing Webex for this electronic  
  
{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 5

1 hearing; all members of the Commission have  
 2 the ability to communicate contemporaneously  
 3 during the hearing through this platform; and  
 4 the public has access to contemporaneously  
 5 listen and, if necessary, participate. We  
 6 previously gave notice to the public of the  
 7 necessary information for accessing the  
 8 hearing in the Order of Notice. If anybody  
 9 has a problem during the hearing, please call  
 10 (603)271-2431. In the event the public is  
 11 unable to access the hearing, the hearing  
 12 will be adjourned and rescheduled.

13 Okay. Couple ground rules.  
 14 You may have heard some of these already from  
 15 Mr. Wind. First, if you're not talking,  
 16 please be sure to mute yourself. It really  
 17 does help with the audio. If you need to be  
 18 recognized for something other than an  
 19 objection, please put your hand up. I will  
 20 do my best to recognize you as soon possible.  
 21 But feel free to start waving at me if I  
 22 don't see you. If you're making an  
 23 objection, feel free to speak that out at any  
 24 time. You don't need to wait to be

{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 6

1 recognized. For confidential information,  
 2 please be careful not to talk about  
 3 confidential information inadvertently. If  
 4 you can just point to the document and page  
 5 number where the information is contained, we  
 6 will all look at it together. If it is  
 7 absolutely necessary to identify confidential  
 8 information on the record today, please let  
 9 me know first so that we can make sure only  
 10 those who should have access to that  
 11 information are still on the line. Please  
 12 speak slowly and leave time for others to  
 13 consider a response before proceeding.  
 14 Because of the remote platform, we need to  
 15 give time for people to respond and for me to  
 16 recognize them. If you need a recess, please  
 17 let me know. Any party who takes a recess  
 18 should make sure to mute yourselves and turn  
 19 off the video. And lastly, this is a formal  
 20 proceeding, so please don't do anything you  
 21 wouldn't otherwise do in a hearing.

22 All right. Let's start by  
 23 taking a roll-call attendance of the  
 24 Commission. When each Commissioner states

{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 7

1 their presence, please also state where you  
 2 are located and if anyone else is with you.

3 My name's Dianne Martin. I'm  
 4 the Chairwoman of the Public Utilities  
 5 Commission. I am located at my home in  
 6 Deerfield, New Hampshire, and no one is in  
 7 the room with me.

8 Commissioner Bailey.  
 9 COMMISSIONER BAILEY: Good  
 10 morning. I'm Commissioner Kathryn Bailey. I  
 11 am located at my home in Bow, New Hampshire,  
 12 and no one is with me.

13 CHAIRWOMAN MARTIN: Commissioner  
 14 Giaimo.  
 15 COMMISSIONER GIAIMO: Good  
 16 morning. Mike Giaimo. I am at the Commission  
 17 Office, in my office by myself.

18 CHAIRWOMAN MARTIN: Okay. Let's  
 19 take appearances from the parties, please.  
 20 Mr. Taylor.  
 21 MR. TAYLOR: Good morning. Can  
 22 you hear me?  
 23 CHAIRWOMAN MARTIN: Yes.  
 24 MR. TAYLOR: Good morning. This

{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 8

1 is Patrick Taylor, on behalf of Northern  
 2 Utilities, Inc. I am appearing from my home in  
 3 Concord, New Hampshire, a stone's throw from  
 4 the Commission. With me today are Rob Furino,  
 5 our Director of Energy Contracts. He will be  
 6 appearing as a witness today. We will also  
 7 have Fran Wells, or Francis Wells, and Dan  
 8 Goodwin. They typically would be sitting to my  
 9 right at the table, and they are here in a  
 10 support role.

11 CHAIRWOMAN MARTIN: Okay. Thank  
 12 you.  
 13 Ms. Shute.  
 14 MS. SHUTE: Thank you,  
 15 Chairwoman Martin. My name is Christa Shute.  
 16 I'm here on behalf of the Office of Consumer  
 17 Advocate as a staff attorney. And I am going  
 18 to mute my computer. Hold on. (Pause)  
 19 And we represent the  
 20 residential ratepayers. With me today is Dr.  
 21 Pradip Chattopadhyay. And I am in Hinesburg,  
 22 Vermont, and there's no one else in this  
 23 room.  
 24 CHAIRWOMAN MARTIN: Thank you.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 9

1 Ms. Fabrizio.  
 2 MS. FABRIZIO: Thank you,  
 3 Chairwoman Martin. My name's Lynn Fabrizio.  
 4 I'm a staff attorney at the Commission. With  
 5 me today will be Al-Azad Iqbal, utility analyst  
 6 with the Commission's Gas and Water Division.  
 7 He will be testifying today. And also  
 8 available as needed is Steve Frink, Director of  
 9 the Gas and Water Division here at the  
 10 Commission. Thank you.  
 11 CHAIRWOMAN MARTIN: Okay. Do we  
 12 have preliminary matters to address before we  
 13 swear in the witnesses?  
 14 MR. TAYLOR: I just wanted to  
 15 raise one issue before the hearing today. The  
 16 Company submitted a motion for confidential  
 17 treatment in connection with attachments to  
 18 four discovery responses that were submitted  
 19 during the course of this proceeding. As the  
 20 Commission knows, Commission Rule 203.08(d)  
 21 permits respondents to submit confidential  
 22 materials in discovery accompanied by a  
 23 statement that a motion will be filed at or  
 24 before the hearing in the matter. The Company

{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 10

1 submitted its discovery responses, accompanied  
 2 by such a statement, and we filed a motion this  
 3 morning in advance of the hearing to comply  
 4 with that rule. And so I certainly don't  
 5 expect the Commission is going to take that  
 6 motion up today, but I just wanted to bring it  
 7 to the Commission's attention that we did file  
 8 that motion this morning.  
 9 And then perhaps another issue  
 10 just to raise is that the Company submitted a  
 11 revised Integrated Resource Plan during the  
 12 course of this docket. The confidential and  
 13 redacted versions of that revised IRP are  
 14 included as Exhibits 3 and 4 for this  
 15 hearing. The Commission had already granted  
 16 a motion for confidential treatment in  
 17 connection with the Company's initial LCIRP  
 18 filing, and when the Company filed its  
 19 revised LCIRP, the assumption was that the  
 20 confidential treatment carried over to that  
 21 same document because it was merely a  
 22 revision of the originally filed document.  
 23 So I would request that the confidential  
 24 treatment afforded to the original filing be

{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 11

1 extended to the revised filing as well. If,  
 2 however, the Commission would like the  
 3 Company to file a separate motion as a  
 4 procedural matter, we're certainly willing to  
 5 do that.  
 6 CHAIRWOMAN MARTIN: Okay. Let's  
 7 take that in two parts. First, the request to  
 8 apply the confidential treatment to the revised  
 9 version of the plan. Is there any objection to  
 10 that?  
 11 [No verbal response]  
 12 MS. FABRIZIO: Staff does not  
 13 object.  
 14 CHAIRWOMAN MARTIN: Ms. Shute?  
 15 MS. SHUTE: The OCA does not  
 16 object.  
 17 CHAIRWOMAN MARTIN: Okay. Then  
 18 I think we can grant that request now.  
 19 As for the newly filed motion,  
 20 we won't rule on that right now, but we'll  
 21 issue -- or it will be part of the order that  
 22 we issue from this hearing. But we will  
 23 treat everything that is currently marked as  
 24 confidential as confidential during this

{DG 19-126} [LCIRP HEARING] {06-11-2020}

Page 12

1 hearing.  
 2 Yes, Ms. Shute.  
 3 MS. SHUTE: Just for  
 4 clarification, how long does our office have to  
 5 review the motion? Is that the ten-day --  
 6 CHAIRWOMAN MARTIN: You have,  
 7 yes, the standard amount of time to respond.  
 8 But obviously, if you could respond as quickly  
 9 as possible, it would be appreciated.  
 10 MS. SHUTE: Absolutely.  
 11 CHAIRWOMAN MARTIN: Is Staff in  
 12 the same position of wanting to review the  
 13 motion before responding?  
 14 MS. FABRIZIO: Yes, we would  
 15 like to review it. We don't expect it to take  
 16 very long. Thank you.  
 17 CHAIRWOMAN MARTIN: Thank you.  
 18 Okay. And then exhibits. We  
 19 have Exhibits 1 through 7 which are premarked  
 20 and prefiled for identification. So other  
 21 than that, is there anything else we need to  
 22 discuss before swearing in the witnesses?  
 23 [No verbal response]  
 24 CHAIRWOMAN MARTIN: Okay.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 13

1 Seeing nothing, Ms. Robidas, would you mind  
2 swearing in the witnesses.  
3 (WHEREUPON, ROBERT S. FURINO and  
4 AL-AZAD IQBAL were duly sworn and  
5 cautioned by the Court Reporter.)  
6 ROBERT S. FURINO, SWORN  
7 AL-AZAD IQBAL, SWORN  
8 CHAIRWOMAN MARTIN: Okay. Thank  
9 you, everyone. Mr. Taylor. Oh, you're on  
10 mute.  
11 MR. TAYLOR: Thank you. So I'll  
12 start by doing the witness qualification for  
13 Mr. Furino.  
14 DIRECT EXAMINATION  
15 BY MR. TAYLOR:  
16 Q. Could you please give your name and position  
17 with the Company.  
18 A. (Furino) Yes. Good morning. Robert S.  
19 Furino, Director of Energy Contracts for  
20 Unitil Service Corp., who provides  
21 professional services to its affiliated  
22 companies, including Northern Utilities.  
23 Q. Mr. Furino, have you previously testified  
24 before the Commission?

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 14

1 A. (Furino) Yes, I have testified to the  
2 Company's prior integrated resource plans  
3 that have been filed since Unitil acquired  
4 Northern Utilities in 2008. Last year I  
5 testified to the Company's petition for  
6 preapproval of the -- (connectivity issue)  
7 (Court Reporter interrupts.)  
8 CHAIRWOMAN MARTIN: Excuse me.  
9 Could you just hold up for a moment. The Court  
10 Reporter couldn't hear you.  
11 A. (Furino) In support of the Company's petition  
12 for preapproval of a pipeline contract as  
13 part of the Westbrook XPress Project.  
14 Q. Mr. Furino, hearing Exhibits 1 and 2 are the  
15 Company's initially filed Least Cost  
16 Integrated Resource Plan and appendices in  
17 confidential and redacted versions,  
18 respectively. And Exhibits 3 and 4 are the  
19 Company's revised Least Cost Integrated  
20 Resource Plan, also in confidential and  
21 redacted form. Were these -- were the IRP  
22 and appendices prepared by you or under your  
23 direction?  
24 A. (Furino) Yes, they were.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 15

1 Q. And are there any corrections to these  
2 exhibits that are not already incorporated in  
3 the revised IRP that you'd like to note on  
4 the record today?  
5 A. (Furino) No. Thank you.  
6 Q. And is the information presented in these  
7 exhibits true and accurate to the best of  
8 your knowledge and belief?  
9 A. (Furino) Yes.  
10 MR. TAYLOR: I have no further  
11 questions for Mr. Furino in the qualification.  
12 I do have some direct for him. Given that  
13 we're doing this as a panel, do the Staff and  
14 the OCA want to do their witnesses now, or  
15 should I proceed with my direct?  
16 CHAIRWOMAN MARTIN: What's the  
17 preference of the parties?  
18 MS. FABRIZIO: Staff would  
19 prefer to introduce our witness and then  
20 proceed as a collective.  
21 CHAIRWOMAN MARTIN: Ms. Shute,  
22 is that okay with you? Ms. Shute?  
23 MS. SHUTE: I was on mute. Yes.  
24 DIRECT EXAMINATION

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 16

1 BY MS. SHUTE:  
2 Q. So, Dr. Chattopadhyay, could you please  
3 introduce yourself and your position with the  
4 OCA.  
5 A. (Chattopadhyay) Yes. My name is Pradip  
6 Chattopadhyay, and I'm the Assistant Consumer  
7 Advocate.  
8 Q. And did you file testimony in this docket  
9 that's been entered into the record as  
10 Exhibit 5, and was that testimony prepared by  
11 you or under your direction?  
12 A. (Chattopadhyay) Yes to both parts.  
13 Q. Do you have any changes or corrections to  
14 your testimony?  
15 A. (Chattopadhyay) Yes, I do. Line 18 of Bates  
16 Page 007 should be corrected to replace  
17 "EnergyNorth" with "Northern Utilities." I  
18 had inadvertently written EnergyNorth there  
19 while I meant Northern Utilities.  
20 Q. And do you adopt this testimony for this  
21 proceeding?  
22 A. (Chattopadhyay) I do.  
23 CHAIRWOMAN MARTIN: Excuse me.  
24 Ms. Shute, just to confirm for the record,

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 17

1 that's Exhibit 6; is that correct?  
 2 MS. FABRIZIO: I believe that's  
 3 Exhibit 5.  
 4 MS. SHUTE: Yes, I thought it  
 5 was Exhibit 5, but I will doublecheck.  
 6 CHAIRWOMAN MARTIN: I'm  
 7 doublechecking, too. I just want to make sure  
 8 we have it right. Yes, Exhibit 5. Sorry about  
 9 that.  
 10 MS. SHUTE: Okay. I have a  
 11 couple direct questions that I will follow up  
 12 with at the appropriate time.  
 13 CHAIRWOMAN MARTIN: Okay. Thank  
 14 you.  
 15 Ms. Fabrizio.  
 16 MS. FABRIZIO: Thank you.  
 17 DIRECT EXAMINATION  
 18 BY MS. FABRIZIO:  
 19 Q. Good morning, Mr. Iqbal. Could you please  
 20 state your full name for the record.  
 21 A. (Iqbal) My name is Al-Azad Iqbal.  
 22 Q. And what is your position at the Commission?  
 23 A. (Iqbal) I'm an analyst in gas, Water and Gas  
 24 Division.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 18

1 Q. And in that capacity, were you the lead  
 2 analyst responsible for reviewing Northern's  
 3 LCIRP in this proceeding, premarked as  
 4 confidential Exhibits 1 and 3?  
 5 A. (Iqbal) Yes.  
 6 CHAIRWOMAN MARTIN: Ms.  
 7 Fabrizio, can I interrupt for a second? I  
 8 apologize. Can you turn down your computer  
 9 speaker? We're getting a lot of echo. And I  
 10 know that's usually my issue.  
 11 MS. FABRIZIO: Okay.  
 12 DR. CHATTOPADHYAY: And Christa,  
 13 you might be unmuted.  
 14 MS. FABRIZIO: Eric, will  
 15 turning back my speaker under "Connections"  
 16 work? Does that sound better?  
 17 CHAIRWOMAN MARTIN: I think so.  
 18 Go ahead and keep going and we'll see how it  
 19 goes.  
 20 MS. FABRIZIO: Okay.  
 21 BY MS. FABRIZIO:  
 22 Q. Mr. Iqbal, in your capacity as a utility  
 23 analyst at the Commission, were you the lead  
 24 analyst responsible for reviewing Northern's

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 19

1 initial and revised LCIRP, premarked as  
 2 confidential Exhibits 1 and 3?  
 3 A. (Iqbal) Yes.  
 4 Q. Have you previously testified before the  
 5 Commission?  
 6 A. (Iqbal) Yes.  
 7 Q. Did you prepare testimony filed on behalf of  
 8 Staff on April 10th, marked as Exhibit 6 in  
 9 this docket?  
 10 A. (Iqbal) Yes.  
 11 Q. And are there any corrections to your  
 12 testimony that you would like to make for the  
 13 record at this time?  
 14 A. (Iqbal) No.  
 15 Q. Thank you.  
 16 MS. FABRIZIO: The witness is  
 17 available for questions.  
 18 CHAIRWOMAN MARTIN: Did anyone  
 19 else just lose the video on Mr. Taylor? Mr.  
 20 Taylor, are you there?  
 21 [No verbal response]  
 22 CHAIRWOMAN MARTIN: Mr. Taylor?  
 23 Let's go off the record for a minute, Ms.  
 24 Robidas.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 20

1 (Pause in proceedings.)  
 2 CHAIRWOMAN MARTIN: Okay. Ms.  
 3 Robidas, back on the record. Thank you.  
 4 Mr. Taylor, it was your turn  
 5 to start with examination.  
 6 MR. TAYLOR: Thank you.  
 7 DIRECT EXAMINATION (cont'd)  
 8 BY MR. TAYLOR:  
 9 Q. Mr. Furino, can you please give a brief,  
 10 high-level overview of the Company's  
 11 five-year Least Cost Integrated Resource  
 12 Plan?  
 13 A. (Furino) Yes. Thank you.  
 14 The Company filed its 2019 Least Cost  
 15 Integrated Resource Plan in July 2019, which  
 16 set forth its long-term projected resource  
 17 needs for the coming five-year period from  
 18 2019-2020 through 2023-2024 and to review the  
 19 planning process used to develop its natural  
 20 gas portfolio which it relies upon to provide  
 21 Northern's customers reliable service at a  
 22 reasonable cost. At a high level, the 2019  
 23 IRP provides detail regarding the development  
 24 of the demand forecast, a system throughput

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 21

1 forecast under design weather conditions and  
 2 conversion of that demand forecast into the  
 3 Company's long-term planning load  
 4 requirements. The IRP also describes the  
 5 Company's current portfolio of long-term  
 6 assets and compares the supplies available  
 7 from the portfolio to that long-term planning  
 8 load requirement forecast in order to assess  
 9 its incremental resource needs, which is  
 10 something we refer to as the "resource  
 11 balance."  
 12 The IRP then goes on to address  
 13 potential supply alternatives and the  
 14 Company's long-term resource decision-making  
 15 process. This is the first IRP that the  
 16 Company has submitted to evaluate resources  
 17 under the current framework set forth in RSA  
 18 378:38 and 39. As part of that, the Company  
 19 added resource impact categories to be able  
 20 to describe its current resource portfolio  
 21 and also evaluate its incremental supply  
 22 options in those categories.  
 23 We also introduced an expanded planning  
 24 environment which describes the regulatory

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 22

1 framework in the two states where we serve  
 2 customers, introduces some environmental  
 3 background that hadn't been in our prior  
 4 integrated resource plans, and generally  
 5 provides updates as to our Retail Choice  
 6 Program and other operating environments.  
 7 And we also added some comprehensive pipeline  
 8 maps that actually show each system the  
 9 Company takes service from and tracing of the  
 10 specific capacity paths that we have service  
 11 on.  
 12 Q. Mr. Furino, can you also please summarize the  
 13 revisions to the IRP that the Company  
 14 submitted earlier this year?  
 15 A. (Furino) Yes. The Company revised the IRP in  
 16 February to address issues raised at a  
 17 technical session in December 2019 and to  
 18 make certain corrections that the Company  
 19 identified. Among the changes, we had  
 20 updates to various tables, including some  
 21 transposed data, for example, of some  
 22 weather-related tables. We updated and  
 23 expanded the discussion of the resource  
 24 impact categories which I just spoke about.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 23

1 We restated energy efficiency costs to remove  
 2 participant costs. We updated our resource  
 3 options section on our resource impact  
 4 summary, added some discussion there. And  
 5 then lastly, we expanded and clarified our  
 6 Qualitative Assessment category to more  
 7 generally state the environmental impact,  
 8 economic development, and health and safety  
 9 aspects as part of our qualitative  
 10 assessment.  
 11 Q. Thank you. Mr. Furino, can you please give a  
 12 brief overview of the settlement agreement  
 13 among the Company, the Staff and the Office  
 14 of Consumer Advocate?  
 15 A. (Furino) Yes. Sure. First of all, we  
 16 appreciate the collaborative efforts of the  
 17 Staff and the OCA in this docket, and  
 18 certainly with the settlement.  
 19 The settling parties recommend that the  
 20 Commission accept the 2019-2020 IRP as  
 21 adequate pursuant to RSA 378:39. The parties  
 22 also recommend establishing a working group  
 23 to discuss potential approaches to the  
 24 recommendations regarding assessment of

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 24

1 environmental, economic and health-related  
 2 impact as required under RSA 378:37 to 40.  
 3 The scope of those discussions would include  
 4 exploration of various alternative resources,  
 5 whether revisions to Northern's future Least  
 6 Cost IRP planning processes are feasible and  
 7 practical, and what the cost and impact of  
 8 possible revisions to both Maine and New  
 9 Hampshire would be. The settling parties  
 10 recommend that the working group begin within  
 11 three months of an order in this docket  
 12 approving the settlement agreement and the  
 13 IRP. The focus of initial meetings will be  
 14 to define a reasonable scope of study and  
 15 desired outcomes. The settling parties agree  
 16 to provide the working group recommendations  
 17 to the Commission by June 1st, 2021, for a  
 18 Commission order that would provide guidance  
 19 regarding future expectations for compliance  
 20 under RSA 378:37 to 40 for Northern's future  
 21 IRPs.  
 22 Submittal of Northern's next IRP would  
 23 be due 12 months from the date of the  
 24 Commission's order responding to the working

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 25

1 group recommendations. The working group  
 2 would ultimately provide a report to the  
 3 Commission regarding whether and how  
 4 Northern's future IRPs would further  
 5 incorporate assessments of environmental,  
 6 economic and health-related impact into our  
 7 least cost planning, including consideration  
 8 of alternative resources. Specifically, the  
 9 working group recommendations would address  
 10 three things: Statutory interpretation of  
 11 RSA 378:37 to 40, recommended criteria for  
 12 evaluation of least cost resources to meet  
 13 the applicable statutory requirements, and  
 14 the content and presentation of Northern's  
 15 future IRP filings.

16 Finally, Northern has been conducting an  
 17 internal evaluation of Monte Carlo-based  
 18 weather distribution which the settling  
 19 parties had interest in. And Northern has  
 20 agreed to provide its analysis and findings  
 21 with the working group.

22 Q. Thank you, Mr. Furino. Have there been any  
 23 significant changes in the Company's resource  
 24 portfolio as presented in Chapter 6 of the

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 26

1 IRP since the IRP was filed?

2 A. (Furino) No changes. However, as the  
 3 Commission's aware, the Company's WXP  
 4 proposal, the Westbrook XPress Project  
 5 proposal, was approved by both the Maine and  
 6 New Hampshire Commissions. So in the filing  
 7 itself we presented that as a proposed  
 8 resource, and now we consider it a pending  
 9 resource. That's the only change.

10 Q. Thank you. In the Company's last New  
 11 Hampshire LCIRP docket, which was 15-033, and  
 12 what I will call a companion docket, Docket  
 13 15-009, which looked at allocation issues  
 14 between Maine and New Hampshire, there's a  
 15 significant amount of attention paid to the  
 16 Retail Choice Program design differences in  
 17 New Hampshire and Maine, as well as related  
 18 planning challenges. Have those issues been  
 19 resolved and reflected in the current LCIRP?

20 A. (Furino) Yes, they have. And we provide a  
 21 discussion and history in that Planning  
 22 Environment section that I mentioned. I  
 23 think it's Section 3 of the IRP.

24 But briefly, in the prior IRP which we

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 27

1 filed in 2015, there was significant  
 2 uncertainty that was triggered by the design  
 3 of the Maine delivery service terms and  
 4 conditions because those terms and conditions  
 5 did not include capacity assignment at a  
 6 hundred percent -- (connectivity issue)  
 7 (Court Reporter interrupts.)

8 A. (Furino) Did not include capacity assignment  
 9 at a hundred percent of customer  
 10 requirements. So as a consequence, in the  
 11 2015 IRP, the Company was faced with  
 12 uncertainty and presented three alternative  
 13 planning load forecasts that reflected  
 14 different paradigms. Those issues have all  
 15 been resolved. The State of Maine -- our  
 16 Maine division now has 100 percent capacity  
 17 assignment, similar to the New Hampshire  
 18 division. That was approved and became  
 19 effective in November 2019. And so now the  
 20 Company is operating under very similar  
 21 capacity assignment regimes in both states.  
 22 And in the current filing, we were able to  
 23 present a single planning load forecast. And  
 24 that's a great improvement from our

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 28

1 perspective.

2 Q. Thank you. Is it your belief that the  
 3 settlement agreement that's been presented to  
 4 the Commission is reasonable and in the  
 5 public interest?

6 A. (Furino) I do. It is, yes. Thank you.

7 MR. TAYLOR: I have no  
 8 additional questions for Mr. Furino at this  
 9 time.

10 CHAIRWOMAN MARTIN: Thank you.  
 11 Ms. Shute.

12 MS. SHUTE: I do not have any  
 13 questions for Mr. Furino, but I can proceed  
 14 with Dr. Chattopadhyay.

15 CHAIRWOMAN MARTIN: Yes, please.

16 DIRECT EXAMINATION (cont'd)

17 BY MS. SHUTE:

18 Q. Would you explain why -- (connectivity issue)

19 CHAIRWOMAN MARTIN: We're having  
 20 trouble hearing you. Let's go off the record.  
 21 (Discussion off the record)

22 CHAIRWOMAN MARTIN: Let's go  
 23 back on the record, please.

24 MS. SHUTE: Thank you.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 29

1 BY MS. SHUTE:  
2 Q. Dr. Chattopadhyay, could you please describe  
3 why you filed testimony in this docket.  
4 A. (Chattopadhyay) Yes, I can. As should be  
5 evident from the OCA's testimony, our focus  
6 in this docket has been limited to sort of  
7 opining under Northern's IRPs going forward.  
8 As stated in my testimony, the OCA  
9 predominantly wanted to prompt a process  
10 going forward wherein the stakeholders  
11 develop some recommendations for the  
12 Commission's consideration to allow it to  
13 provide guidance to the gas utility as to how  
14 to internalize considerations of  
15 environmental and health impacts, and perhaps  
16 accommodate non-gas alternatives like demand  
17 response and load management efforts. Even  
18 as traditional resources are continued to be  
19 considered in the resource portfolio mix for  
20 the least cost integrated planning purpose,  
21 the OCA filed its testimony in this docket  
22 primarily to see whether we can reach  
23 agreement with the parties to enable us to  
24 request the Commission allow us to proceed

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 30

1 with such a process. The parties agree that  
2 additional guidance from the Commission will  
3 be helpful going forward into the future  
4 IRPs.  
5 Q. And did you participate in the development of  
6 the settlement agreement entered into by the  
7 parties?  
8 A. (Chattopadhyay) Yes, I did.  
9 Q. And could you please explain why you support  
10 the terms of the settlement agreement and  
11 find it to be just and reasonable and in the  
12 public interest?  
13 A. (Chattopadhyay) Yes. First of all, I will  
14 just point out that we are on the same page  
15 as the Staff is as to whether we consider the  
16 Company's 2019 IRP to be adequate pursuant to  
17 RSA 378:39. Again, as noted previously, with  
18 the inclusion of gas utilities into the IRP  
19 statute under RSA 378, the OCA believes there  
20 is a need for Commission's guidance on how  
21 environmental impacts and non-gas  
22 alternatives will be considered in developing  
23 the Company's least cost integrated resource  
24 plans going forward.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 31

1 As I've noted in my testimony, we wanted  
2 to prompt the parties to work collaboratively  
3 in providing some recommendations to the  
4 Commission to help shape its guidance, to the  
5 extent the Commission can provide that, for  
6 future IRPs. The settlement allows us to  
7 request the Commission to do that. While  
8 traditional solutions will continue to be  
9 considered, to the extent the new statutory  
10 requirements on environmental and health  
11 impacts and non-gas alternatives require a  
12 different approach to future IRPs, the  
13 working group will endeavor collectively to  
14 come up with recommendations for the  
15 Commission's consideration.  
16 We, as the OCA, would respectfully urge  
17 the Commission to approve this settlement to  
18 allow that process to start later this year.  
19 Q. Thank you.  
20 MS. SHUTE: I have no further  
21 questions.  
22 CHAIRWOMAN MARTIN: Okay. Ms.  
23 Fabrizio.  
24 MS. FABRIZIO: Thank you. I

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 32

1 have no questions at this time for either  
2 Northern or OCA witnesses. I will proceed  
3 directly to Mr. Iqbal.  
4 DIRECT EXAMINATION (cont'd)  
5 BY MS. FABRIZIO:  
6 Q. Mr. Iqbal, what is your overall impression of  
7 the Northern resource planning process? I  
8 believe you're still on mute, Mr. Iqbal.  
9 A. (Iqbal) Overall impression of the Company's  
10 IRP, I would say they prepared a  
11 well-organized and structured,  
12 well-documented plan. And they have showed a  
13 clear understanding of the planning process  
14 and the overall goal of why we do IRP. Each  
15 issue, they analyze it and analyze completely  
16 and conclusion arrives after examining  
17 alternatives and with adequate support. For  
18 example, there was a discussion about what is  
19 normal weather. In New Hampshire we are  
20 using 30 years for a long time. But recent  
21 years, people are talking about that 30 years  
22 is too long because of climate change and  
23 other impact. And Northern did a very good  
24 job of that. They analyzed all these options

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 33

1 and concluded that, although there are some  
 2 concern about climate change, that 30 years'  
 3 weather normalization is still valid for  
 4 Northern's purpose, particularly in New  
 5 Hampshire.

6 And alternatively, they did a very good  
 7 job of analyzing the alternative resources  
 8 with a clear understanding of planning  
 9 horizon, system demand and resource type.

10 It is important to understand why we do  
 11 this exercise and why it is five years. The  
 12 planning -- there is a common  
 13 misunderstanding of planning horizon and the  
 14 contract duration aspect, that sometimes  
 15 these two are combined together and used as  
 16 the same. But that's not true, because one  
 17 contract might be 15 or 20 years, but  
 18 planning horizon could be 5 years. And  
 19 Northern really understood that concept. And  
 20 although a recent contract, the contract  
 21 duration is 15 years, but they meet their  
 22 immediate demand in four years, three to four  
 23 years. And so the short-term and long-term  
 24 goals are identified, and mix of these are

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 34

1 also discussed properly. And limitation on  
 2 their resource availability and options is  
 3 also discussed clearly. And I would say the  
 4 planning process is a reasonable expectation  
 5 for future supply needs and standard demand  
 6 forecast without any unsupported out-of-model  
 7 adjustment. That is important. Sometimes we  
 8 find that some of the out-of-model  
 9 adjustments might look reasonable. But if it  
 10 is not supported with analysis, then it is  
 11 not -- it should not be included in any  
 12 forecasting.

13 So I said that the Company utilizes an  
 14 elaborate analytic framework to inform its  
 15 portfolio decisions regarding adequacy of its  
 16 portfolio and preparedness of potentially  
 17 available incremental resources to meet its  
 18 identified resource needs.

19 And Company take a very good approach.  
 20 I think this is unique to Northern. I  
 21 haven't seen that before in other companies,  
 22 not only in New Hampshire, but other  
 23 companies, particularly when they try to --  
 24 we always talk about the balance between cost

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 35

1 and planning period and how to optimize  
 2 those. And Company did a very good job. And  
 3 they mention it in their resource planning,  
 4 that Northern's long-term resource data are  
 5 well-sized to satisfy identified resource  
 6 needs and provide for considerable  
 7 utilization as soon as it is brought into  
 8 service. I think that is very important.  
 9 That's what goes back to that planning  
 10 horizon and contract period, that ultimately  
 11 we are contracting for 15 years doesn't mean  
 12 that we should be covering our needs for 15  
 13 years, end of 15 years. Sometimes that is  
 14 automatic (indecipherable) in our mind. We  
 15 are contracting for 15 years. Why don't we  
 16 meet the need for 15 years? But that is  
 17 usually, most of the time, is not  
 18 cost-effective for the customers because they  
 19 will be carrying capacity or demand of those  
 20 resources for the duration of the time, but  
 21 they will use that at end of the period. So  
 22 I find it very interesting and very  
 23 (undecipherable). I find the Company to take  
 24 that approach, that they are looking at how

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 36

1 we are going to use this new source when it  
 2 is in service; are we going to sit on this  
 3 for a long period of time, and the ratepayers  
 4 are paying for it for a long period of time  
 5 without utilizing it?

6 So these type of things, that's why I  
 7 said that I appreciate what Company did and  
 8 hope they keep doing it in the future.

9 Q. Thank you, Mr. Iqbal. Did you participate in  
 10 the settlement discussions that resulted in  
 11 the settlement agreement that had been  
 12 premarked today as Exhibit 7?

13 A. (Iqbal) Yes, I did.

14 Q. Thank you. And what concerns did you have  
 15 regarding Northern's plan and process when  
 16 you prepared your testimony, and how does the  
 17 settlement agreement address those concerns?

18 A. (Iqbal) As discussed in my testimony, the  
 19 statutory requirement requiring utilities to  
 20 assess the environmental, economic and  
 21 health-related impacts, which are new for gas  
 22 utilities, as Mr. Chattopadhyay and Mr.  
 23 Furino also talked about it, those are new  
 24 for gas utilities. And that is new for all

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 37

1 of us. I believe from our perspective the  
2 revised plan is responsive to this statutory  
3 requirement, but it is subject to  
4 interpretation in the absence of clear  
5 guidelines. So what I understand and Staff  
6 understand, what OCA understand, maybe some  
7 other parties understand what it should be,  
8 that's up to our interpretation. The parties  
9 in this docket will have the opportunity to  
10 work with each other and with other  
11 interested parties in the working group to  
12 address the issue of how gas utilities can  
13 meet the new statutory expectation and  
14 develop a common understanding of that, so in  
15 future there will be no ambiguity among the  
16 parties what is expected. And that will help  
17 all of us. And I would say that was only  
18 concern I expressed in my testimony. And the  
19 settlement agreement actually addressed that  
20 adequately.  
21 Q. Thank you. And based on your comments just  
22 now, as well as your review of Northern's  
23 plan and the settlement presented today, do  
24 you believe the plan adequately addresses the

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 38

1 relevant statutory requirements as directed  
2 by Commission Order No. 26,027, which  
3 approved Northern's prior LCIRP?  
4 A. (Iqbal) Yes, as I said in my previous  
5 response and in my testimony. Yes, from  
6 our -- we believe that the revised plan meets  
7 those requirements adequately.  
8 Q. Thank you, Mr. Iqbal.  
9 MS. FABRIZIO: I have no further  
10 questions for Mr. Iqbal at this time.  
11 CHAIRWOMAN MARTIN: Okay. Thank  
12 you.  
13 Do the parties intend to have  
14 additional cross, or are we going straight to  
15 the Commissioners?  
16 MR. TAYLOR: I have no cross for  
17 the OCA or Staff witnesses.  
18 MS. SHUTE: I have no cross.  
19 MS. FABRIZIO: And Staff has no  
20 cross. Thank you.  
21 CHAIRWOMAN MARTIN: Okay.  
22 Commissioner Bailey.  
23 COMMISSIONER BAILEY: Thank you.  
24

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 39

1 INTERROGATORIES BY COMMISSIONERS:  
2 BY COMMISSIONER BAILEY:  
3 Q. Mr. Furino, are you confident that Northern  
4 will have the supply it needs to meet the  
5 peak demand whenever it occurs?  
6 A. (Furino) Well, as we explained in the plan,  
7 the Company has a multi-year peaking supply  
8 arrangement in place for the next several  
9 years. At some point that's going to need to  
10 be replaced either with a similar resource or  
11 perhaps a different resource that will  
12 provide that peaking supply.  
13 Q. And you expect to do that through liquid  
14 natural gas?  
15 A. (Furino) That's one option that the Company  
16 is exploring, yes.  
17 Q. And does the peaking supply need to be  
18 addressed before the next five years?  
19 A. (Furino) I would say it would, yes.  
20 Q. So when will you have to figure out the  
21 solution for that? By when?  
22 A. (Furino) First of all, to speak first about  
23 the timing of the Company's next IRP filing,  
24 so the Company filed in June of 2019, would

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 40

1 typically file three years later, which would  
2 be June of 2022. What we've requested in the  
3 settlement agreement is to provide the  
4 working group recommendations in June of  
5 2021, and then, you know, the IRP be due a  
6 year after the Commission's decision on those  
7 guidelines, or those recommendations. So we  
8 would anticipate filing our next IRP sometime  
9 perhaps in late 2022. But as far as a  
10 five-year, you know, time frame, that puts  
11 that into perspective. As far as, you know,  
12 the end of our current peaking supply, that  
13 would need to be replaced for I believe the  
14 2024-2025 winter. So, well in advance of  
15 that we would have to make some decision. If  
16 it ends up being a long-term resource, we  
17 would bring that to the Commission for their  
18 review and approval. If it ends up being a  
19 delivered supply resource for, you know,  
20 several years, but not a long-term  
21 commitment, the Company would, you know, look  
22 to enter into that without bringing that to  
23 the Commission.  
24 Q. With respect to the guidance that you're

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 41

1 hoping to get from the Commission after your  
2 working group relating to environmental and  
3 health impact and non-gas alternatives, is it  
4 possible that one of the solutions is going  
5 to be for you to reduce demand so that it's  
6 significant enough to reduce the peak?  
7 A. (Furino) I think the magnitude of the unmet  
8 peak demand relative to, you know, the  
9 long-term portfolio is so great that I don't  
10 believe, you know, a demand/response approach  
11 would be sufficient for the entire piece.  
12 The question is whether it can be part of the  
13 solution. And that's certainly something  
14 that we would explore.  
15 Q. Do you think that the statute is -- the  
16 policy behind the statute is suggesting that  
17 you do that, that you eliminate gas demand  
18 significantly?  
19 A. (Furino) Well, I mean, I read the statute as,  
20 you know, directing the Company to seek the  
21 most effective resource while considering all  
22 the impacts. So, you know, in addition to  
23 traditional metrics that we would look at,  
24 such as cost or liability, you know, we're

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 42

1 now trying to also, relative to the statutory  
2 requirement, assess the impact on the  
3 environment, you know, what are the options  
4 available. But I don't think the statute is  
5 directing us to not provide sufficient  
6 supply. And I think that's sort of where we  
7 are. Among the resources that meet the  
8 demand that we have from our customers, you  
9 know, what are the most effective, including  
10 environmental considerations.  
11 Q. So you think that this -- you can make your  
12 plan effectively address the statutory  
13 requirements?  
14 A. (Furino) Yes, we believe that.  
15 You know, as to my prior comment on the  
16 capability of demand response, I mean, first  
17 of all, you know, the Company's portfolio,  
18 assuming all of the current portfolio, you  
19 know, stays in place and all the contracted  
20 incremental capacity goes into service, you  
21 know, the Company would have approximately  
22 100,000 decatherms a day of capacity on their  
23 contract. And our peak day is approximately  
24 150,000. So, you know, on an accrual basis

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 43

1 we have very good coverage, as reflected in  
2 the filing. But during, you know, the peak  
3 period, and certainly on our peak day, you  
4 know, we have one third of our capacity  
5 requirement that currently is being met with  
6 short-term resources. And that's the  
7 concern. And so demand response seems to me  
8 unlikely to cut away one third of the  
9 Company's peak day requirement.  
10 Q. Mr. Iqbal or Dr. Chattopadhyay, do you have  
11 anything to add about what kind of guidance  
12 you are expecting the Commission to provide  
13 and whether the statute is either  
14 inapplicable slightly to gas companies or  
15 there's a way to deal with it? Dr.  
16 Chattopadhyay.  
17 A. (Chattopadhyay) I think one of the reasons  
18 why we want to have this working group is to  
19 come to a common understanding of what  
20 (connectivity issue) interpret the statute.  
21 So personally, I don't have the knowledge  
22 bandwidth to sort of talk about what kind of  
23 demand response resources might help. But  
24 certainly we will be exploring those.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 44

1 I would, however, point out that I agree  
2 with what was previously mentioned by  
3 Mr. Furino, that given specifically the  
4 situation with Northern utilities, they rely  
5 on, you know, a big chunk. They rely on a  
6 big chunk of short-term supplies to meet  
7 their peaking needs. And I, at this point,  
8 without having gone through further analysis,  
9 I would be concluding that it would be very  
10 unlikely that that can be met through just  
11 demand response. Of course there are other  
12 considerations. So it's a matter of  
13 interpretation: What do we mean by  
14 environmental impacts? And while there is  
15 some guidance in the statute, again, as OCA,  
16 we want to have a more vigorous discussion  
17 and help the parties, and more importantly  
18 the utility, to come up with something that  
19 we can then all support and provide that to  
20 the Commission for its consideration in terms  
21 of what kind of guidance we think might help.  
22 So we are at this point also, you know, in  
23 the dark, really, I mean in some sense.  
24 Q. Thank you.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 45

1 Mr. Iqbal.  
 2 A. (Iqbal) I agree what Mr. Chattopadhyay just  
 3 said, and I would add one thing, that it is  
 4 very difficult for anyone to prescribe  
 5 something without knowing the context and the  
 6 situation of the Company. I give you an  
 7 example.  
 8 Like Northern, for Northern IRP, they  
 9 are talking about incremental growth and  
 10 incremental capacity acquiry [sic]. And  
 11 everybody understand, like Mr. Chattopadhyay  
 12 just mentioned, and Mr. Furino also mentioned  
 13 that, that they are relying on their supply.  
 14 Almost 43 percent of their supply currently  
 15 is delivered supply. So they will be looking  
 16 for opportunity to buy new resources, which  
 17 will reduce the cost. We all know that  
 18 delivered supply are short term and usually  
 19 costlier. So I agree that Northern has very  
 20 limited option to reduce their usage, the  
 21 customer usage, from current level to  
 22 downwards. It's almost impossible. But what  
 23 they can do, the growth per customer basis or  
 24 some other way, growth per customer usage

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 46

1 might be reduced by energy efficiency and  
 2 other resources, other demand response  
 3 activities.  
 4 But the point I was trying to make, that  
 5 each company has different situation they  
 6 have to address. Northern is trying to move  
 7 from short-term contract towards a long-term  
 8 and less costly contract. There is not much  
 9 difference environmentally or health-wise if  
 10 you think that way. But if another company  
 11 come up with a big project which has lots of  
 12 environmental and health impact, then if it  
 13 is too prescriptive, what we are looking  
 14 for -- I'm not looking for any prescriptive  
 15 ideas from the Commission. But I'm looking  
 16 for guidance which gives us, gives each  
 17 utilities to decide what to do about -- what  
 18 to do regarding the health and environmental  
 19 aspects of their resource acquisition  
 20 strategy. A bigger project has more  
 21 elaborate environmental and economic and  
 22 health impact. But the smaller steps  
 23 Northern is taking might not need that level  
 24 of details.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 47

1 So this is the struggle we are having at  
 2 this moment. That's why one of the reasons  
 3 we are talking about only Northern's -- the  
 4 working group working with Northern. All  
 5 other utilities is dealing with IRP-related  
 6 issues we are dealing with. So we should be  
 7 including all utilities in New Hampshire  
 8 because it will be more general guidelines.  
 9 But we understand that general guidelines  
 10 might be not right in this situation because  
 11 each company has its own reality. That's why  
 12 we thought it is better to deal with company  
 13 by company and use this working group to  
 14 understand -- to create common understanding  
 15 what is expected from IRP for that particular  
 16 company. If it is some electrical utility or  
 17 it's another gas company, their situation  
 18 might be totally different and requires  
 19 different level of environmental and health  
 20 assessment. So that's the only thing I add  
 21 to what is already said.  
 22 COMMISSIONER BAILEY: Okay.  
 23 Thank you. I think that's all I have.  
 24 CHAIRWOMAN MARTIN: Commissioner

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 48

1 Giaimo.  
 2 BY COMMISSIONER GIAIMO:  
 3 Q. Good morning. I guess I have a question. If  
 4 the latest version was in February,  
 5 pre-COVID, would the plans change if they are  
 6 rerun in the new environment? I'm  
 7 particularly looking at the two percent, the  
 8 one and a half to two percent annual growth  
 9 forecast. Is that still accurate?  
 10 A. (Furino) Commissioner Giaimo, great question.  
 11 You know, the Company I think has to be  
 12 patient and see just how things evolve a  
 13 little bit. You know, we also, in addition  
 14 to what we've been experiencing in the last  
 15 three to four months with the COVID pandemic  
 16 situation and associated business closures  
 17 which has impacted our actual delivered  
 18 demands, that type of thing, we also had just  
 19 come off a very warm winter. Very, very warm  
 20 winter. And so I think we'll want to be  
 21 seeing, you know, how does our throughput  
 22 look in the next winter. You know, I think  
 23 at some point we'll be moving beyond the  
 24 COVID-19 situation. There will be a vaccine

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 49

1 and there will be what have you. But what's  
 2 not clear is, you know, what remnants of what  
 3 we're doing, for example, right now by having  
 4 a video hearing, you know, how that's going  
 5 to impact the utilization of commercial real  
 6 estate, for example, you know, things like  
 7 that. So I think that, you know, as we look  
 8 forward, I think our process will be the  
 9 same. You know, I think it remains to be  
 10 seen, you know, how material the impacts  
 11 on -- you know, what customers end up doing  
 12 and then consequently how it impacts or  
 13 resource decisions.

14 COMMISSIONER GIAIMO: Madam  
 15 Chair --

16 CHAIRWOMAN MARTIN: I'm sorry,  
 17 Commissioner Giaimo.

18 COMMISSIONER GIAIMO: We have a  
 19 request from Mr. Iqbal. Madam Chair, is that  
 20 okay to recognize Mr. Iqbal?

21 CHAIRWOMAN MARTIN: Absolutely.  
 22 You can recognize anyone you want.

23 Mr. Iqbal, yes, you're off  
 24 mute now.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 50

1 A. (Iqbal) On that point, I would add one thing,  
 2 that this is a five-year plan. But Company  
 3 has to do their yearly plan, too, on cost of  
 4 gas and other things. So we understand  
 5 Commissioner concern about COVID. Those will  
 6 be reflected in the annual plan.

7 BY COMMISSIONER GIAIMO:

8 Q. That sounds great.

9 Looking at the settlement agreement, do  
 10 we know who specifically -- is it just the  
 11 Company and the parties involved in this  
 12 docket that will be part of the work group?  
 13 Are you going to expand it? Is there general  
 14 consensus within the settling parties as to  
 15 who will be in the working group?

16 A. (Furino) I will start and say that my  
 17 understanding is it will be the settling  
 18 parties and that the settling parties will  
 19 begin by defining a scope, scope of issues,  
 20 scope of work. And as part of that, we'll  
 21 identify whether there's issues that are  
 22 raised that are beyond the technical  
 23 expertise of the settling parties. And if  
 24 that's the case, we could look for a

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 51

1 consultant or an advisor to further inform  
 2 the group. That's my understanding.

3 Q. And is the Company comfortable with what I  
 4 would visualize as a nine-month working group  
 5 time frame before the next -- before the  
 6 recommendation would be due? You know, I  
 7 visualize it as, you know, if an order came  
 8 out in the next month or two, that it would  
 9 still be just nine months to get something  
 10 out. Is that okay?

11 A. (Furino) You know, given what we know today,  
 12 I think that is reasonable. And, you know,  
 13 we'll see where that scope takes us, any  
 14 subsequent engagements, where those take us  
 15 and certainly report back. But as a starting  
 16 point, I think that is sufficient.

17 Q. Okay. One of the identified purposes of the  
 18 work group, according to the settlement, is  
 19 that the work group would specifically work  
 20 on the statutory interpretations of 387 --  
 21 I'm sorry -- 378:37 through 40.

22 Has research been done by the Company or  
 23 others as to what they think the legislative  
 24 intent is? And if there's no understanding

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 52

1 as to the legislative intent, would there be  
 2 any desire to go back to the legislature and  
 3 say what did you mean by this? I guess I  
 4 would hope the Company could answer first and  
 5 then Mr. Iqbal.

6 A. (Furino) Sure. And this is -- I don't have  
 7 any specific guidance, you know, of the  
 8 legislative process, as far as what went into  
 9 the statute. What I have is really my own  
 10 interpretation. But certainly the settling  
 11 parties wanted to, you know, review that in  
 12 more detail. As I think I mentioned earlier,  
 13 my view is that it instructs the Company to,  
 14 while it's making decisions, resource  
 15 decisions, to consider a broader set of  
 16 impacts on customers in our local environment  
 17 when making those commitments.

18 Q. And Mr. Furino, before we turn to Mr. Iqbal,  
 19 your interpretation would be that the  
 20 legislature -- that the statute itself does  
 21 not implicitly state that the Company should  
 22 reduce gas consumption in its service  
 23 territory.

24 A. (Furino) I guess I'd have to -- (connectivity

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 53

1 issue)  
 2 (Court Reporter interrupts.)  
 3 CHAIRWOMAN MARTIN: Can we pause  
 4 for a moment? Ms. Robidas can't hear you.  
 5 MR. FURINO: Okay. Is  
 6 everyone -- am I coming through okay?  
 7 CHAIRWOMAN MARTIN: You are now.  
 8 We lost Mr. Chattopadhyay, though. Let's go  
 9 off the record a minute.  
 10 (Pause in proceedings)  
 11 CHAIRWOMAN MARTIN: Back on the  
 12 record. He was answering a question I think.  
 13 Mr. Taylor, go ahead.  
 14 MR. TAYLOR: This is Pat Taylor  
 15 from Unitol. I just wanted to pipe up, if I  
 16 may, because, you know, Mr. Furino's being  
 17 asked to answer questions about statutory  
 18 interpretation. And I just wanted to --  
 19 because I think this probably falls more to me  
 20 than Mr. Furino, the question of has any sort  
 21 of legislative intent been done. And I will  
 22 confess that it's been over a year now since we  
 23 first entered into the process of developing  
 24 our IRP. And so, you know, as of today I can't

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 54

1 recall specifically if we did what you would  
 2 consider to be a legislative intent research,  
 3 where we would go into some of the records of  
 4 the legislature.  
 5 As for whether, you know, we  
 6 would go back to the legislature, I don't  
 7 know that that's something we've discussed at  
 8 this point for them to clarify their intent  
 9 when they passed this statute. So I think  
 10 it's an interesting point and an interesting  
 11 question, but I did want to answer  
 12 Commissioner Giaimo's question directly as to  
 13 whether we had done a legislative intent.  
 14 And candidly, I think we'd have to go back  
 15 and look through our records to see if we had  
 16 done that. But, you know, with legislative  
 17 intent, they can sometimes be fruitful and  
 18 sometimes not. (ct) So, you know, we will  
 19 certainly look into that if we haven't done  
 20 so already.  
 21 COMMISSIONER GIAIMO: Mr.  
 22 Taylor, that's a perfect answer to my question.  
 23 I appreciate it. And Mr. Furino's off the  
 24 hook. He doesn't have to opine any further.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 55

1 BY COMMISSIONER GIAIMO:  
 2 Q. I had one question about the Monte Carlo  
 3 analysis. The settlement seems to suggest  
 4 that the Company might have at one time been  
 5 resistant and now seems not to be resistant  
 6 to doing a Monte Carlo-like analysis. Do I  
 7 have that right?  
 8 (Connectivity issues)  
 9 A. (Furino) Okay? We were just experiencing a  
 10 little static there. But if you can hear me,  
 11 I'll proceed.  
 12 So the idea of a Monte Carlo analysis --  
 13 and really the context is in trying to  
 14 establish a distribution of weather data.  
 15 You know, currently the Company applies a  
 16 normal distribution. And, you know, the  
 17 question is does that remain appropriate. So  
 18 a document that was filed we provided to the  
 19 parties, and I believe it was part of -- it  
 20 became an attachment to the OCA's testimony,  
 21 so it's in the record, which is an audit that  
 22 was conducted of our gas supply management  
 23 functions at the direction of the Maine  
 24 Public Utilities Commission. And that was

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 56

1 the audit report from Liberty Consultants.  
 2 And in that report, one of the items was a  
 3 possible suggestion for the Company to begin  
 4 to explore or pursue a Monte Carlo analysis  
 5 in trying to establish that distribution. So  
 6 the Company hasn't had any resistance to  
 7 that. We just didn't view it as --  
 8 initially, if you heard -- if you see any  
 9 discord there or notes of discord, we just  
 10 didn't view it as, you know, part of an  
 11 inquiry that needed to be part of the  
 12 settlement itself. But given the suggestion,  
 13 the Company has committed to explore that in  
 14 response to the audit recommendation in the  
 15 first instance. And so when I say we're  
 16 willing to share that with the group, that's  
 17 certainly -- or the working group that gets  
 18 established, that's something that we would  
 19 already be undertaking.  
 20 Q. Thank you, Mr. Furino.  
 21 I just want to make sure. Mr. Iqbal,  
 22 you haven't had your hand up, and I didn't  
 23 want to lose track of the fact that you did  
 24 have something to say. Are you okay now

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 57

1 or --  
2 A. (Iqbal) Yeah. What I wanted to say, and I'm  
3 not going into the legal matters, as an  
4 analyst, how I look at it, that I think there  
5 are two layers of your question. One is that  
6 whether the Northern should be expanding,  
7 getting more customers, or should it be the  
8 customers reducing their usage. These are  
9 two different questions, that if Commission  
10 wants Northern to expand, get more customers,  
11 by that reducing overall gas uses in New  
12 Hampshire, that is one way to look at it.  
13 But then question becomes that, okay, what  
14 are the alternatives? Is it a good idea to  
15 move from oil heating to natural gas heating,  
16 all these other aspect that we have to deal  
17 with? That's one way to look at it.  
18 The other way to look at is that whether  
19 Company try to reduce the per customer or  
20 (indecipherable) in current or future  
21 customer base. That will give us totally  
22 different answer to the question of  
23 legislative intent. Okay. Are you trying to  
24 reduce the overall greenhouse gas impact or

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 58

1 some other Clean Air Act, all these things?  
2 So what I am trying to say, the answer  
3 would depend on what question we are asking.  
4 And that is also struggle we have, that what  
5 question are the legislative branches asking  
6 us to look at. That should be -- there could  
7 be other way to look at it. But these are  
8 the two example. And these two example give  
9 you totally different answer to that  
10 question.  
11 So as I said it before, that it should  
12 not be too prescriptive, that, hey, you have  
13 to look at all these things, but at least  
14 guideline of what you should be looking at.  
15 Are you trying to say that reduce per capita  
16 usage or reduce overall usage? So those type  
17 of things, that big-picture ideas we are  
18 expecting from the Commission.  
19 Q. Mr. Iqbal, while your mic's live, I guess I'd  
20 like to ask you a question.  
21 You note in your testimony that the  
22 Company selected a planning basis which  
23 resulted in a probability, and you used the  
24 word of "only about 2.5 percent," and that

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 59

1 the selected value would be exceeded in  
2 projected years. Is it your opinion that  
3 that criteria is too low? Is it too  
4 aggressive? I know, for example,  
5 transmission planning generally goes at a  
6 90/10 or a 10 percent probability. Is a  
7 2-1/2 percent probability a standard which  
8 you have actually issues with?  
9 A. (Iqbal) No. I think that's almost standard  
10 in IRP studies.  
11 Q. Okay.  
12 A. (Iqbal) So Company is using a standard  
13 approach.  
14 Q. And I do understand that, and I understand  
15 that's a standard approach. I was just  
16 wondering if you think the standard in  
17 general may be too aggressive. And it sounds  
18 like you're saying no.  
19 A. (Iqbal) I think that depends on the planning  
20 horizon we are talking about. The five  
21 years' planning horizon actually effectively  
22 is two to three years planning horizon for  
23 the companies in New Hampshire. So for three  
24 to five years' planning horizon, I think that

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 60

1 standard is fine.  
2 Q. Okay. Thank you. Just about done. I think  
3 I have one question for the Consumer  
4 Advocate, but I also have a comment.  
5 Mr. Chattopadhyay, I appreciate your  
6 testimony. In a way, it actually enlightened  
7 me to many of the challenges the Company  
8 would have with factoring in environmental  
9 challenges. You know, if you increase energy  
10 efficiency -- if you increase efficiency and  
11 increase demand, it might create more  
12 electrification, which might cause different  
13 generation -- the need for generation to turn  
14 on and use gas. So your testimony helped me  
15 further understand and appreciate how complex  
16 it is. So thank you for that.  
17 But I'm going to turn to the last page  
18 of your testimony and just ask you to comment  
19 on it. And I'm on Page 11, starting at  
20 Line 9, where it says, "There may be  
21 opportunities for the Company to better  
22 manage its portfolio by optimizing the use of  
23 newly available pipeline capacity in  
24 conjunction with new LNG based on storage

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 61

1 capacity. The OCA would encourage the  
 2 Company to explore those opportunities."  
 3 A. (Chattopadhyay) Can you just give me 30  
 4 seconds? I'm try to... so you are at  
 5 Page 11.  
 6 Q. Yes.  
 7 A. (Chattopadhyay) Yeah, and line number?  
 8 Q. Nine.  
 9 A. (Chattopadhyay) Nine. Yeah, go ahead.  
 10 Sorry. I had to reboot everything so I'm  
 11 getting it on the screen here. Yeah, go  
 12 ahead.  
 13 Q. I certainly appreciate that.  
 14 My question to you is, and maybe you can  
 15 comment a little more, in that in it you  
 16 talked about optimizing new capacity  
 17 utilizing LNG and storage. And I'm  
 18 wondering, is it your suggestion that that  
 19 would be layered on top of existing legacy  
 20 contracts? Would it be used to replace  
 21 retiring contracts? Would it be a  
 22 combination of the two? It's a very  
 23 interesting comment that I was hoping you  
 24 might comment on a little more.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 62

1 A. (Chattopadhyay) The way I was looking at it  
 2 was when you see the long-term contracts, the  
 3 recent ones that the Company is -- for  
 4 example, today Mr. Furino talked about the  
 5 pending contract. Something like that for  
 6 like 10,000 decatherms per day, those are  
 7 going to be very useful in winter. But  
 8 you're getting it even in summer. So for  
 9 summer, if you're getting those resources, it  
 10 might be helpful to have an LNG facility  
 11 somewhere and be able to store that. So you  
 12 can actually reduce the use of short-term,  
 13 you know, peaking resources by replacing them  
 14 by the gas that you have saved in the LNG  
 15 tank. So I was really thinking in those  
 16 terms. And it stems from the report that the  
 17 Company had shared with us -- and I have that  
 18 in my testimony -- which Liberty Consultants  
 19 had done. Take a look at it. That is one of  
 20 the aspects that the consultants had raised.  
 21 And especially given the situation with this  
 22 company, that is a -- at the outset, it  
 23 appears to be an attractive option. So, you  
 24 know, that's what I was trying to indicate,

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 63

1 that there are ways to also use the existing  
 2 capacities or the pending ones to have LNG be  
 3 part of the story and give a better solution  
 4 to the ratepayers. So that is a lower cost  
 5 option.  
 6 COMMISSIONER GIAIMO: Madam  
 7 Chair, those are the only questions I have. I  
 8 thank the witnesses and turn it back to you.  
 9 CHAIRWOMAN MARTIN: All right.  
 10 Thank you. I just have one question left.  
 11 BY CHAIRWOMAN MARTIN:  
 12 Q. Mr. Iqbal had testified that the 30-year  
 13 weather norm has been used for a long time in  
 14 New Hampshire. But the Company looked at all  
 15 of the options and concluded that it's still  
 16 valued for purposes of New Hampshire. Could  
 17 someone explain why that conclusion was  
 18 reached?  
 19 A. (Furino) Excuse me. Yes. Thank you for the  
 20 question. You know, first of all, I wanted  
 21 to point out that in the filing the Company  
 22 provided a table, which is available in  
 23 Exhibit 3 at Bates Page 85.  
 24 In any case, this table presents the

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 64

1 weather histories that the utilities in the  
 2 region use and also the planning standards  
 3 that they use. And oftentimes it's the  
 4 design day planning standard that drives  
 5 capacity commitments. And in this table  
 6 we're listing, I don't know, Bay State Gas  
 7 Company, Bircher Gas, a bunch of the  
 8 Massachusetts utilities, as well as Liberty  
 9 Utilities, EnergyNorth and others, as well as  
 10 our affiliate in Northern Utilities. And  
 11 really what we show in this table is that we  
 12 have selected -- or there's no -- there's  
 13 very few parties using anything like a  
 14 shorter period of history and/or combined  
 15 with a planning standard that's as low as  
 16 ours. So I just want to point that out. I  
 17 think that people think about the wording  
 18 that we've seen over the last several  
 19 decades, and we've seen it as we've gone  
 20 through time, as being the only part of the  
 21 equation. But there's also the planning  
 22 standard itself that plays largely into it.  
 23 So some utilities are planning to a standard  
 24 of 1 in 50-year occurrence; whereas, Northern

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 65

1 is planning to a 1 in 30-year occurrence. As  
 2 to the research, I'm not seeing it at the  
 3 moment, but I know we filed it.  
 4 But the general conclusion that Mr.  
 5 Iqbal was referring to was a series of  
 6 climate data research that we conducted and  
 7 provided. And what we were showing and  
 8 seeing is that, in New Hampshire, for the  
 9 last three decades, complete decades, there  
 10 has been no reduction in the heating degree  
 11 days that we've seen. And so that's sort of  
 12 the primary conclusion that suggests that 30  
 13 years is still appropriate. Now, we have  
 14 seen warming in the Maine data, but that's  
 15 begun to stabilize as well. And the  
 16 decrease -- you know, the escalation of  
 17 warming, I guess, if that makes sense, has  
 18 begun to slow in Maine as well. So those  
 19 factors are what's sort of embodied in the  
 20 data that we present in the resource plan.  
 21 Q. Thank you for that.  
 22 CHAIRWOMAN MARTIN: Do any of  
 23 the parties have redirect they'd like to ask?  
 24 [No verbal response]

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 66

1 CHAIRWOMAN MARTIN: Okay.  
 2 Seeing none, before we sum up then, we'll  
 3 strike the I.D. on Exhibits 1 through 7 without  
 4 objection and admit them as full exhibits.  
 5 Is there anything else we need  
 6 to do before the parties sum up?  
 7 MS. FABRIZIO: Chairwoman  
 8 Martin, I think I neglected to confirm my  
 9 location. I am in my office at the Commission  
 10 building, and no one has been here for the  
 11 duration of this hearing.  
 12 CHAIRWOMAN MARTIN: Thank you.  
 13 I assumed you were from the background.  
 14 Okay. If there's nothing  
 15 else, let's start with Ms. Shute.  
 16 MS. SHUTE: Thank you. The  
 17 Office of Consumer Advocate supports the  
 18 settlement agreement and the adequacy of the  
 19 LCIRP submitted under the current guidance. We  
 20 appreciate the willingness of the Company to  
 21 work with the parties to evaluate whether there  
 22 are additional ways to incorporate the  
 23 statutory requirements of RSA 378:37 through 40  
 24 for environmental, economic and health-related

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 67

1 impacts. We're especially keen to include in  
 2 those discussions further explorations of those  
 3 environmental impacts of traditional resources  
 4 and potential options for non-gas and non-  
 5 pipeline alternatives. We do believe that the  
 6 working group will result in valuable  
 7 recommendations for the Commission to consider  
 8 in developing any future guidance for future  
 9 LCIRPs under 378:37 to 40.  
 10 So for the reasons outlined  
 11 above, we respectfully recommend that the  
 12 Commission approve this settlement agreement  
 13 as proposed. Thank you.  
 14 CHAIRWOMAN MARTIN: Thank you.  
 15 Ms. Fabrizio.  
 16 MS. FABRIZIO: Thank you. Staff  
 17 also recommends approval of Northern's revised  
 18 Least Cost Integrated Resource Plan, as well as  
 19 the settlement entered into by Northern, the  
 20 Office of the Consumer Advocate and Staff as  
 21 presented today. Staff believes that Northern  
 22 has prepared a well-reasoned and well-supported  
 23 plan that meets the applicable requirements of  
 24 RSA 378. The Company's plan is based on a

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 68

1 reasonable forecast of future demand in its  
 2 service area and includes a balanced array of  
 3 supply options and demand site energy programs.  
 4 It includes a reasonable assessment of system  
 5 requirements at this time, as well as utility  
 6 obligations under evolving economic and  
 7 environmental regulations and policies, all  
 8 while taking into account potential impacts on  
 9 ratepayers. Staff considers Northern's  
 10 approach to resource planning to be sound in  
 11 terms of gas distribution system planning in  
 12 New Hampshire. Staff also supports approval of  
 13 the settlement presented today which proposes  
 14 an appropriate avenue to explore ways for  
 15 Northern to meet evolving requirements under  
 16 state law and policy, while carefully  
 17 considering ratepayer interests.  
 18 Staff therefore proposes that  
 19 the Commission approve the plan and the  
 20 settlement before it today and initiate a  
 21 separate proceeding for interested parties to  
 22 investigate the issues and options relevant  
 23 to gas utilities in New Hampshire under RSA  
 24 378.

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 69

1 Staff thanks both the Company  
2 and the OCA for their cooperative efforts in  
3 this proceeding, and the Commission for its  
4 consideration of the results of those  
5 efforts. Thank you.  
6 CHAIRWOMAN MARTIN: Thank you.  
7 Mr. Taylor. Mr. Taylor,  
8 you're on mute.  
9 MR. TAYLOR: Thanks. I'd like  
10 to thank the Commission for its time and the  
11 Commissioner's thoughtful questions today,  
12 particularly under the circumstances. I do  
13 look forward to seeing you all again in person  
14 in the hearing room. I'd also like to thank  
15 Commission Staff and the Office of the Consumer  
16 Advocate for their effort and their input in  
17 this docket.  
18 The settlement agreement  
19 before the Commission is very much the  
20 product of a collaborative effort. And so  
21 like the Staff and the Consumer Advocate, the  
22 Company recommends that the Commission  
23 approve the settlement in the Company's Least  
24 Cost IRP. The Company's Least Cost IRP as

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 70

1 revised is consistent with and adequate under  
2 the statutory requirements of RSA 378, and we  
3 do think it should be approved by the  
4 Commission.  
5 As the Commission's aware,  
6 this is the first IRP in which the Company  
7 has addressed the statutory requirements in  
8 RSA 378:37 through 40, which require, among  
9 many other things, an assessment of demand  
10 site energy management programs. The Company  
11 invested a significant amount of effort in  
12 addressing these statutory requirements. We  
13 believe that the LCIRP meets the Commission's  
14 directive from its order in DG 15-033 to  
15 provide more detailed evidence of the  
16 reliability, environmental, economic and  
17 health-related impacts of the Company's  
18 portfolio. We believe that our planning  
19 processes result in the adoption of least  
20 cost options that meet the standards  
21 articulated in RSA 378:39. But nevertheless,  
22 the Company is committed to continuing this  
23 work and looks forward to collaborating with  
24 the Staff and the Consumer Advocate in the

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 71

1 working group process to develop potential  
2 additional recommendations regarding the  
3 statutory requirements.  
4 And so with that, I thank you  
5 for your time. We do recommend that the  
6 settlement agreement and the IRP be accepted  
7 and approved by the Commission. Thanks.  
8 CHAIRWOMAN MARTIN: All right.  
9 Well, thank you, everyone. We very much  
10 appreciate all the efforts that went into  
11 reaching a settlement in this case. We will  
12 take the matter under advisement. And we are  
13 done. Thank you.  
14 And thank you, Mr. Wind and  
15 Ms. Robidas, for your help today.  
16 (Hearing concluded at 11:41 a.m.)  
17  
18  
19  
20  
21  
22  
23  
24

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[WITNESSES: FURINO|CHATTOPADHYAY|IQBAL] Page 72

1 C E R T I F I C A T E  
2  
3  
4 I, Susan J. Robidas, a Licensed  
5 Shorthand Court Reporter and Notary Public  
6 of the State of New Hampshire, do hereby  
7 certify that the foregoing is a true and  
8 accurate transcript of my stenographic  
9 notes of these proceedings taken at the  
10 place and on the date hereinbefore set  
11 forth, to the best of my skill and ability  
12 under the conditions present at the time.  
13  
14 I further certify that I am neither  
15 attorney or counsel for, nor related to or  
16 employed by any of the parties to the  
17 action; and further, that I am not a  
18 relative or employee of any attorney or  
19 counsel employed in this case, nor am I  
20 financially interested in this action.  
21  
22 The foregoing certification of this  
23 transcript does not apply to any  
24 reproduction of the same by any means  
unless under the direct control and/or  
direction of the certifying reporter.

\_\_\_\_\_  
Susan J. Robidas, LCR/RPR  
Licensed Shorthand Court Reporter  
Registered Professional Reporter  
N.H. LCR No. 44 (RSA 310-A:173)

{DG 19-126} [LCIRP HEARING] {06-11-2020}

[	<b>addition (2)</b> 41:22;48:13	50:9;66:18;67:12; 69:18;71:6	62:23	<b>Assistant (1)</b> 16:6
[No (4) 11:11;12:23;19:21; 65:24 [sic] (1) 45:10	<b>additional (5)</b> 28:8;30:2;38:14; 66:22;71:2	<b>ahead (4)</b> 18:18;53:13;61:9,12	<b>appendices (2)</b> 14:16,22	<b>associated (1)</b> 48:16
A	<b>address (8)</b> 9:12;21:12;22:16; 25:9;36:17;37:12; 42:12;46:6	<b>Air (1)</b> 58:1	<b>applicable (2)</b> 25:13;67:23	<b>assumed (1)</b> 66:13
<b>ability (1)</b> 5:2 <b>able (3)</b> 21:19;27:22;62:11 <b>above (1)</b> 67:11 <b>absence (1)</b> 37:4 <b>absolutely (3)</b> 6:7;12:10;49:21 <b>accept (1)</b> 23:20 <b>accepted (1)</b> 71:6 <b>access (3)</b> 5:4,11;6:10 <b>accessing (1)</b> 5:7 <b>accommodate (1)</b> 29:16 <b>accompanied (2)</b> 9:22;10:1 <b>accordance (2)</b> 4:15,22 <b>according (1)</b> 51:18 <b>account (1)</b> 68:8 <b>accrual (1)</b> 42:24 <b>accurate (2)</b> 15:7;48:9 <b>acquired (1)</b> 14:3 <b>acquiry (1)</b> 45:10 <b>acquisition (1)</b> 46:19 <b>Act (1)</b> 58:1 <b>activities (1)</b> 46:3 <b>actual (1)</b> 48:17 <b>actually (6)</b> 22:8;37:19;59:8,21; 60:6;62:12 <b>add (4)</b> 43:11;45:3;47:20; 50:1 <b>added (3)</b> 21:19;22:7;23:4	<b>addressed (3)</b> 37:19;39:18;70:7 <b>addresses (1)</b> 37:24 <b>addressing (1)</b> 70:12 <b>adequacy (2)</b> 34:15;66:18 <b>adequate (4)</b> 23:21;30:16;32:17; 70:1 <b>adequately (3)</b> 37:20,24;38:7 <b>adjourned (1)</b> 5:12 <b>adjustment (1)</b> 34:7 <b>adjustments (1)</b> 34:9 <b>admit (1)</b> 66:4 <b>adopt (1)</b> 16:20 <b>adoption (1)</b> 70:19 <b>advance (2)</b> 10:3;40:14 <b>advisement (1)</b> 71:12 <b>advisor (1)</b> 51:1 <b>Advocate (9)</b> 8:17;16:7;23:14; 60:4;66:17;67:20; 69:16,21;70:24 <b>affiliate (1)</b> 64:10 <b>affiliated (1)</b> 13:21 <b>afforded (1)</b> 10:24 <b>Again (3)</b> 30:17;44:15;69:13 <b>aggressive (2)</b> 59:4,17 <b>agree (5)</b> 24:15;30:1;44:1; 45:2,19 <b>agreed (1)</b> 25:20 <b>agreement (16)</b> 4:7;23:12;24:12; 28:3;29:23;30:6,10; 36:11,17;37:19;40:3;	<b>allocation (1)</b> 26:13 <b>allow (3)</b> 29:12,24;31:18 <b>allows (1)</b> 31:6 <b>Almost (3)</b> 45:14,22;59:9 <b>alternative (4)</b> 24:4;25:8;27:12; 33:7 <b>alternatively (1)</b> 33:6 <b>alternatives (8)</b> 21:13;29:16;30:22; 31:11;32:17;41:3; 57:14;67:5 <b>although (2)</b> 33:1,20 <b>always (1)</b> 34:24 <b>ambiguity (1)</b> 37:15 <b>Among (5)</b> 22:19;23:13;37:15; 42:7;70:8 <b>amount (3)</b> 12:7;26:15;70:11 <b>analysis (7)</b> 25:20;34:10;44:8; 55:3,6,12;56:4 <b>analyst (6)</b> 9:5;17:23;18:2,23, 24;57:4 <b>analytic (1)</b> 34:14 <b>analyze (2)</b> 32:15,15 <b>analyzed (1)</b> 32:24 <b>analyzing (1)</b> 33:7 <b>and/or (1)</b> 64:14 <b>annual (2)</b> 48:8;50:6 <b>anticipate (1)</b> 40:8 <b>apologize (1)</b> 18:8 <b>appearances (1)</b> 7:19 <b>appearing (2)</b> 8:2,6 <b>appears (1)</b>	<b>applies (1)</b> 55:15 <b>apply (1)</b> 11:8 <b>appreciate (8)</b> 23:16;36:7;54:23; 60:5,15;61:13;66:20; 71:10 <b>appreciated (1)</b> 12:9 <b>approach (7)</b> 31:12;34:19;35:24; 41:10;59:13,15;68:10 <b>approaches (1)</b> 23:23 <b>appropriate (4)</b> 17:12;55:17;65:13; 68:14 <b>Approval (4)</b> 4:6;40:18;67:17; 68:12 <b>approve (4)</b> 31:17;67:12;68:19; 69:23 <b>approved (5)</b> 26:5;27:18;38:3; 70:3;71:7 <b>approving (1)</b> 24:12 <b>approximately (2)</b> 42:21,23 <b>April (1)</b> 19:8 <b>area (1)</b> 68:2 <b>arrangement (1)</b> 39:8 <b>array (1)</b> 68:2 <b>arrives (1)</b> 32:16 <b>articulated (1)</b> 70:21 <b>aspect (2)</b> 33:14;57:16 <b>aspects (3)</b> 23:9;46:19;62:20 <b>assess (3)</b> 21:8;36:20;42:2 <b>Assessment (6)</b> 23:6,10,24;47:20; 68:4;70:9 <b>assessments (1)</b> 25:5 <b>assets (1)</b> 21:6 <b>assignment (4)</b> 27:5,8,17,21	<b>assumption (1)</b> 10:19 <b>attachment (1)</b> 55:20 <b>attachments (1)</b> 9:17 <b>attendance (1)</b> 6:23 <b>attention (2)</b> 10:7;26:15 <b>attorney (2)</b> 8:17;9:4 <b>attractive (1)</b> 62:23 <b>audio (1)</b> 5:17 <b>audit (3)</b> 55:21;56:1,14 <b>authorized (2)</b> 4:17,21 <b>automatic (1)</b> 35:14 <b>availability (1)</b> 34:2 <b>available (7)</b> 9:8;19:17;21:6; 34:17;42:4;60:23; 63:22 <b>avenue (1)</b> 68:14 <b>aware (2)</b> 26:3;70:5 <b>away (1)</b> 43:8
				<b>B</b> <b>back (10)</b> 18:15;20:3;28:23; 35:9;51:15;52:2;53:11; 54:6,14;63:8 <b>background (2)</b> 22:3;66:13 <b>Bailey (7)</b> 7:8,9,10;38:22,23; 39:2;47:22 <b>balance (2)</b> 21:11;34:24 <b>balanced (1)</b> 68:2 <b>bandwidth (1)</b> 43:22 <b>base (1)</b> 57:21 <b>based (3)</b>

37:21;60:24;67:24 <b>basis (3)</b> 42:24;45:23;58:22 <b>Bates (2)</b> 16:15;63:23 <b>Bay (1)</b> 64:6 <b>became (2)</b> 27:18;55:20 <b>becomes (1)</b> 57:13 <b>begin (3)</b> 24:10;50:19;56:3 <b>begun (2)</b> 65:15,18 <b>behalf (3)</b> 8:1,16;19:7 <b>behind (1)</b> 41:16 <b>belief (2)</b> 15:8;28:2 <b>believes (2)</b> 30:19;67:21 <b>best (2)</b> 5:20;15:7 <b>better (4)</b> 18:16;47:12;60:21; 63:3 <b>beyond (2)</b> 48:23;50:22 <b>big (3)</b> 44:5,6;46:11 <b>bigger (1)</b> 46:20 <b>big-picture (1)</b> 58:17 <b>Bircher (1)</b> 64:7 <b>bit (1)</b> 48:13 <b>body (1)</b> 4:17 <b>both (5)</b> 16:12;24:8;26:5; 27:21;69:1 <b>Bow (1)</b> 7:11 <b>branches (1)</b> 58:5 <b>brief (2)</b> 20:9;23:12 <b>briefly (1)</b> 26:24 <b>bring (2)</b> 10:6;40:17 <b>bringing (1)</b> 40:22 <b>broader (1)</b> 52:15 <b>brought (1)</b> 35:7 <b>building (1)</b> 66:10	<b>bunch (1)</b> 64:7 <b>business (1)</b> 48:16 <b>buy (1)</b> 45:16  <b>C</b>  <b>call (2)</b> 5:9;26:12 <b>came (1)</b> 51:7 <b>can (26)</b> 6:4,9;7:21;11:18; 18:7,8;20:9;22:12; 23:11;28:13;29:4,22; 31:5;37:12;41:12; 42:11;44:10,19;45:23; 49:22;53:3;54:17; 55:10;61:3,14;62:12 <b>candidly (1)</b> 54:14 <b>capability (1)</b> 42:16 <b>capacities (1)</b> 63:2 <b>capacity (16)</b> 18:1,22;22:10;27:5, 8,16,21;35:19;42:20, 22;43:4;45:10;60:23; 61:1,16;64:5 <b>capita (1)</b> 58:15 <b>careful (1)</b> 6:2 <b>carefully (1)</b> 68:16 <b>Carlo (3)</b> 55:2,12;56:4 <b>Carlo-based (1)</b> 25:17 <b>Carlo-like (1)</b> 55:6 <b>carried (1)</b> 10:20 <b>carrying (1)</b> 35:19 <b>case (3)</b> 50:24;63:24;71:11 <b>categories (3)</b> 21:19,22;22:24 <b>category (1)</b> 23:6 <b>cause (1)</b> 60:12 <b>cautioned (1)</b> 13:5 <b>certain (1)</b> 22:18 <b>certainly (11)</b> 10:4;11:4;23:18; 41:13;43:3,24;51:15;	52:10;54:19;56:17; 61:13 <b>Chair (3)</b> 49:15,19;63:7 <b>CHAIRWOMAN (52)</b> 4:2,11;7:4,13,18,23; 8:11,15,24;9:3,11;11:6, 14,17;12:6,11,17,24; 13:8;14:8;15:16,21; 16:23;17:6,13;18:6,17; 19:18,22;20:2;28:10, 15,19,22;31:22;38:11, 21;47:24;49:16,21; 53:3,7,11;63:9,11; 65:22;66:1,7,12;67:14; 69:6;71:8 <b>challenges (3)</b> 26:18;60:7,9 <b>change (4)</b> 26:9;32:22;33:2; 48:5 <b>changes (4)</b> 16:13;22:19;25:23; 26:2 <b>Chapter (1)</b> 25:24 <b>Chattopadhyay (25)</b> 8:21;16:2,5,6,12,15, 22;18:12;28:14;29:2,4; 30:8,13;36:22;43:10, 16,17;45:2,11;53:8; 60:5;61:3,7,9;62:1 <b>Choice (2)</b> 22:5;26:16 <b>Christa (2)</b> 8:15;18:12 <b>chunk (2)</b> 44:5,6 <b>circumstances (1)</b> 69:12 <b>clarification (1)</b> 12:4 <b>clarified (1)</b> 23:5 <b>clarify (1)</b> 54:8 <b>Clean (1)</b> 58:1 <b>clear (4)</b> 32:13;33:8;37:4; 49:2 <b>clearly (1)</b> 34:3 <b>climate (3)</b> 32:22;33:2;65:6 <b>closures (1)</b> 48:16 <b>collaborating (1)</b> 70:23 <b>collaborative (2)</b> 23:16;69:20 <b>collaboratively (1)</b> 31:2	<b>collective (1)</b> 15:20 <b>collectively (1)</b> 31:13 <b>combination (1)</b> 61:22 <b>combined (2)</b> 33:15;64:14 <b>comfortable (1)</b> 51:3 <b>coming (2)</b> 20:17;53:6 <b>comment (6)</b> 42:15;60:4,18;61:15, 23,24 <b>comments (1)</b> 37:21 <b>commercial (1)</b> 49:5 <b>Commission (49)</b> 4:12;5:1;6:24;7:5, 16;8:4;9:4,10,20,20; 10:5,15;11:2;13:24; 17:22;18:23;19:5; 23:20;24:17,18;25:3; 28:4;29:24;30:2,31:4, 5,7,17;38:2;40:17,23; 41:1;43:12;44:20; 46:15;55:24;57:9; 58:18;66:9;67:7,12; 68:19;69:3,10,15,19, 22;70:4;71:7 <b>Commissioner (22)</b> 6:24;7:8,9,10,13,15; 38:22,23;39:2;47:22, 24;48:2,10;49:14,17, 18;50:5,7;54:12,21; 55:1;63:6 <b>Commissioners (2)</b> 38:15;39:1 <b>Commissioner's (1)</b> 69:11 <b>Commissions (1)</b> 26:6 <b>Commission's (10)</b> 9:6;10:7;24:24;26:3; 29:12;30:20;31:15; 40:6;70:5,13 <b>commitment (1)</b> 40:21 <b>commitments (2)</b> 52:17;64:5 <b>committed (2)</b> 56:13;70:22 <b>common (4)</b> 33:12;37:14;43:19; 47:14 <b>communicate (1)</b> 5:2 <b>companies (5)</b> 13:22;34:21,23; 43:14;59:23 <b>companion (1)</b>	26:12 <b>Company (66)</b> 9:16,24;10:10,18; 11:3;13:17;20:14; 21:16,18;22:9,13,15, 18;23:13;27:11,20; 34:13,19;35:2,23;36:7; 39:7,15,24;40:21; 41:20;42:21;45:6;46:5, 10;47:11,12,13,16,17; 48:11;50:2,11;51:3,22; 52:4,13,21;55:4,15; 56:3,6,13;57:19;58:22; 59:12;60:7,21;61:2; 62:3,17,22;63:14,21; 64:7;66:20;69:1,22; 70:6,10,22 <b>Company's (23)</b> 10:17;14:2,5,11,15, 19;20:10;21:3,5,14; 25:23;26:3,10;30:16, 23;32:9;39:23;42:17; 43:9;67:24;69:23,24; 70:17 <b>compares (1)</b> 21:6 <b>complete (1)</b> 65:9 <b>completely (1)</b> 32:15 <b>complex (1)</b> 60:15 <b>compliance (1)</b> 24:19 <b>comply (1)</b> 10:3 <b>comprehensive (1)</b> 22:7 <b>computer (2)</b> 8:18;18:8 <b>concept (1)</b> 33:19 <b>concern (4)</b> 33:2;37:18;43:7; 50:5 <b>concerns (2)</b> 36:14,17 <b>concluded (3)</b> 33:1;63:15;71:16 <b>concluding (1)</b> 44:9 <b>conclusion (4)</b> 32:16;63:17;65:4,12 <b>Concord (1)</b> 8:3 <b>conditions (3)</b> 21:1;27:4,4 <b>conducted (2)</b> 55:22;65:6 <b>conducting (1)</b> 25:16 <b>confess (1)</b> 53:22
--	--	--	---	--

<b>confident (1)</b> 39:3	45:5;55:13	38:14,16,18,20	<b>defining (1)</b> 50:19	17:11,17;20:7;28:16; 32:4
<b>confidential (16)</b> 6:1,3,7;9:16,21; 10:12,16,20,23;11:8, 24,24;14:17,20;18:4; 19:2	<b>continue (1)</b> 31:8	<b>ct (1)</b> 54:18	<b>degree (1)</b> 65:10	<b>directed (1)</b> 38:1
<b>confirm (2)</b> 16:24;66:8	<b>continued (1)</b> 29:18	<b>current (10)</b> 21:5,17,20;26:19; 27:22;40:12;42:18; 45:21;57:20;66:19	<b>delivered (4)</b> 40:19;45:15,18; 48:17	<b>directing (2)</b> 41:20;42:5
<b>confirming (1)</b> 4:23	<b>continuing (1)</b> 70:22	<b>currently (4)</b> 11:23;43:5;45:14; 55:15	<b>delivery (1)</b> 27:3	<b>direction (3)</b> 14:23;16:11;55:23
<b>conjunction (1)</b> 60:24	<b>contract (10)</b> 14:12;33:14,17,20, 20;35:10;42:23;46:7,8; 62:5	<b>customer (6)</b> 27:9;45:21,23,24; 57:19,21	<b>demand (21)</b> 20:24;21:2;29:16; 33:9,22;34:5;35:19; 39:5;41:5,8,17;42:8, 16;43:7,23;44:11;46:2; 60:11;68:1,3;70:9	<b>directive (1)</b> 70:14
<b>connection (2)</b> 9:17;10:17	<b>contracted (1)</b> 42:19	<b>customers (9)</b> 20:21;22:2;35:18; 42:8;49:11;52:16;57:7, 8,10	<b>demand/response (1)</b> 41:10	<b>directly (2)</b> 32:3;54:12
<b>Connections (1)</b> 18:15	<b>contracting (2)</b> 35:11,15	<b>cut (1)</b> 43:8	<b>demands (1)</b> 48:18	<b>Director (3)</b> 8:5;9:8;13:19
<b>connectivity (6)</b> 14:6;27:6;28:18; 43:20;52:24;55:8	<b>Contracts (5)</b> 8:5;13:19;61:20,21; 62:2		<b>depend (1)</b> 58:3	<b>discord (2)</b> 56:9,9
<b>consensus (1)</b> 50:14	<b>conversion (1)</b> 21:2	<b>D</b>	<b>depends (1)</b> 59:19	<b>discovery (3)</b> 9:18,22;10:1
<b>consequence (1)</b> 27:10	<b>cooperative (1)</b> 69:2	<b>Dan (1)</b> 8:7	<b>desire (1)</b> 52:2	<b>discuss (2)</b> 12:22;23:23
<b>consequently (1)</b> 49:12	<b>Corp (1)</b> 13:20	<b>dark (1)</b> 44:23	<b>desired (1)</b> 24:15	<b>discussed (4)</b> 34:1,3;36:18;54:7
<b>consider (6)</b> 6:13;26:8;30:15; 52:15;54:2;67:7	<b>corrected (1)</b> 16:16	<b>data (6)</b> 22:21;35:4;55:14; 65:6,14,20	<b>describes (2)</b> 21:4,24	<b>discussion (6)</b> 22:23;23:4;26:21; 28:21;32:18;44:16
<b>considerable (1)</b> 35:6	<b>corrections (4)</b> 15:1;16:13;19:11; 22:18	<b>date (1)</b> 24:23	<b>design (4)</b> 21:1;26:16;27:2; 64:4	<b>discussions (3)</b> 24:3;36:10;67:2
<b>consideration (5)</b> 25:7;29:12;31:15; 44:20;69:4	<b>Cost (21)</b> 4:6;14:15,19;20:11, 14,22;24:6,7;25:7,12; 29:20;30:23;34:24; 41:24;45:17;50:3;63:4; 67:18;69:24,24;70:20	<b>day (6)</b> 42:22,23;43:3,9; 62:6;64:4	<b>desire (1)</b> 52:2	<b>distribution (5)</b> 25:18;55:14,16;56:5; 68:11
<b>considerations (3)</b> 29:14;42:10;44:12	<b>cost-effective (1)</b> 35:18	<b>days (1)</b> 65:11	<b>desire (1)</b> 52:2	<b>Division (5)</b> 9:6,9;17:24;27:16,18
<b>considered (3)</b> 29:19;30:22;31:9	<b>costlier (1)</b> 45:19	<b>deal (3)</b> 43:15;47:12;57:16	<b>desire (1)</b> 52:2	<b>Docket (15)</b> 4:4;10:12;16:8;19:9; 23:17;24:11;26:11,12, 12;29:3,6,21;37:9; 50:12;69:17
<b>considering (2)</b> 41:21;68:17	<b>costly (1)</b> 46:8	<b>dealing (2)</b> 47:5,6	<b>desire (1)</b> 52:2	<b>document (4)</b> 6:4;10:21,22;55:18
<b>considers (1)</b> 68:9	<b>costs (2)</b> 23:1,2	<b>decades (3)</b> 64:19;65:9,9	<b>desire (1)</b> 52:2	<b>done (8)</b> 51:22;53:21;54:13, 16,19;60:2;62:19; 71:13
<b>consistent (1)</b> 70:1	<b>Couple (2)</b> 5:13;17:11	<b>deatherms (2)</b> 42:22;62:6	<b>desire (1)</b> 52:2	<b>doublecheck (1)</b> 17:5
<b>consultant (1)</b> 51:1	<b>course (3)</b> 9:19;10:12;44:11	<b>December (1)</b> 22:17	<b>desire (1)</b> 52:2	<b>doublechecking (1)</b> 17:7
<b>Consultants (3)</b> 56:1;62:18,20	<b>Court (5)</b> 13:5;14:7,9;27:7; 53:2	<b>decide (1)</b> 46:17	<b>desire (1)</b> 52:2	<b>down (1)</b> 18:8
<b>Consumer (9)</b> 8:16;16:6;23:14; 60:3;66:17;67:20; 69:15,21;70:24	<b>coverage (1)</b> 43:1	<b>decision (2)</b> 40:6,15	<b>desire (1)</b> 52:2	<b>downwards (1)</b> 45:22
<b>consumption (1)</b> 52:22	<b>covering (1)</b> 35:12	<b>decision-making (1)</b> 21:14	<b>desire (1)</b> 52:2	<b>Dr (7)</b> 8:20;16:2;18:12; 28:14;29:2;43:10,15
<b>contained (1)</b> 6:5	<b>COVID (2)</b> 48:15;50:5	<b>decisions (4)</b> 34:15;49:13;52:14, 15	<b>desire (1)</b> 52:2	<b>drives (1)</b> 64:4
<b>cont'd (3)</b> 20:7;28:16;32:4	<b>COVID-19 (2)</b> 4:14;48:24	<b>declared (1)</b> 4:13	<b>desire (1)</b> 52:2	<b>due (4)</b> 4:12;24:23;40:5; 51:6
<b>contemporaneously (3)</b> 4:20;5:2,4	<b>create (2)</b> 47:14;60:11	<b>decrease (1)</b> 65:16	<b>desire (1)</b> 52:2	<b>duly (1)</b> 13:4
<b>content (1)</b> 25:14	<b>criteria (2)</b> 25:11;59:3	<b>Deerfield (1)</b> 7:6	<b>desire (1)</b> 52:2	<b>duration (4)</b> 33:14,21;35:20;
<b>context (2)</b>	<b>cross (4)</b>	<b>define (1)</b> 24:14	<b>desire (1)</b> 52:2	

66:11 <b>during (6)</b> 5:3,9;9:19;10:11; 11:24;43:2	<b>engagements (1)</b> 51:14 <b>enlightened (1)</b> 60:6 <b>enough (1)</b> 41:6 <b>enter (1)</b> 40:22 <b>entered (4)</b> 16:9;30:6;53:23; 67:19 <b>entire (1)</b> 41:11 <b>environment (5)</b> 21:24;26:22;42:3; 48:6;52:16 <b>environmental (20)</b> 22:2;23:7;24:1;25:5; 29:15;30:21;31:10; 36:20;41:2;42:10; 44:14;46:12,18,21; 47:19;60:8;66:24;67:3; 68:7;70:16 <b>environmentally (1)</b> 46:9 <b>environments (1)</b> 22:6 <b>equation (1)</b> 64:21 <b>Eric (1)</b> 18:14 <b>escalation (1)</b> 65:16 <b>especially (2)</b> 62:21;67:1 <b>establish (2)</b> 55:14;56:5 <b>established (1)</b> 56:18 <b>establishing (1)</b> 23:22 <b>estate (1)</b> 49:6 <b>evaluate (3)</b> 21:16,21;66:21 <b>evaluation (2)</b> 25:12,17 <b>Even (2)</b> 29:17;62:8 <b>event (1)</b> 5:10 <b>everybody (1)</b> 45:11 <b>everyone (4)</b> 4:3;13:9;53:6;71:9 <b>evidence (1)</b> 70:15 <b>evident (1)</b> 29:5 <b>evolve (1)</b> 48:12 <b>evolving (2)</b> 68:6,15	<b>EXAMINATION (7)</b> 13:14;15:24;17:17; 20:5,7;28:16;32:4 <b>examining (1)</b> 32:16 <b>example (9)</b> 22:21;32:18;45:7; 49:3,6;58:8,8;59:4; 62:4 <b>exceeded (1)</b> 59:1 <b>Excuse (3)</b> 14:8;16:23;63:19 <b>Executive (1)</b> 4:16 <b>exercise (1)</b> 33:11 <b>Exhibit (8)</b> 16:10;17:1,3,5,8; 19:8;36:12;63:23 <b>Exhibits (11)</b> 10:14;12:18,19; 14:14,18;15:2,7;18:4; 19:2;66:3,4 <b>existing (2)</b> 61:19;63:1 <b>expand (2)</b> 50:13;57:10 <b>expanded (3)</b> 21:23;22:23;23:5 <b>expanding (1)</b> 57:6 <b>expect (3)</b> 10:5;12:15;39:13 <b>expectation (2)</b> 34:4;37:13 <b>expectations (1)</b> 24:19 <b>expected (2)</b> 37:16;47:15 <b>expecting (2)</b> 43:12;58:18 <b>experiencing (2)</b> 48:14;55:9 <b>expertise (1)</b> 50:23 <b>explain (3)</b> 28:18;30:9;63:17 <b>explained (1)</b> 39:6 <b>exploration (1)</b> 24:4 <b>explorations (1)</b> 67:2 <b>explore (5)</b> 41:14;56:4,13;61:2; 68:14 <b>exploring (2)</b> 39:16;43:24 <b>expressed (1)</b> 37:18 <b>extended (1)</b> 11:1	<b>extent (2)</b> 31:5,9  <b>F</b>  <b>Fabrizio (24)</b> 9:1,2,3;11:12;12:14; 15:18;17:2,15,16,18; 18:7,11,14,20,21; 19:16;31:23,24;32:5; 38:9,19;66:7;67:15,16 <b>faced (1)</b> 27:11 <b>facility (1)</b> 62:10 <b>fact (1)</b> 56:23 <b>factoring (1)</b> 60:8 <b>factors (1)</b> 65:19 <b>falls (1)</b> 53:19 <b>far (3)</b> 40:9,11;52:8 <b>feasible (1)</b> 24:6 <b>February (2)</b> 22:16;48:4 <b>feel (2)</b> 5:21,23 <b>few (1)</b> 64:13 <b>figure (1)</b> 39:20 <b>file (4)</b> 10:7;11:3;16:8;40:1 <b>filed (17)</b> 4:8;9:23;10:2,18,22; 11:19;14:3,15;19:7; 20:14;26:1;27:1,29,3, 21;39:24;55:18;65:3 <b>filing (9)</b> 10:18,24;11:1;26:6; 27:22;39:23;40:8;43:2; 63:21 <b>filings (1)</b> 25:15 <b>Finally (1)</b> 25:16 <b>find (5)</b> 4:12;30:11;34:8; 35:22,23 <b>findings (2)</b> 4:8;25:20 <b>fine (1)</b> 60:1 <b>First (14)</b> 5:15;6:9;11:7;21:15; 23:15;30:13;39:22,22; 42:16;52:4;53:23; 56:15;63:20;70:6 <b>five (4)</b>	33:11;39:18;59:20, 24 <b>five-year (4)</b> 20:11,17;40:10;50:2 <b>focus (2)</b> 24:13;29:5 <b>follow (1)</b> 17:11 <b>forecast (8)</b> 20:24;21:1,2,8; 27:23;34:6;48:9;68:1 <b>forecasting (1)</b> 34:12 <b>forecasts (1)</b> 27:13 <b>form (1)</b> 14:21 <b>formal (1)</b> 6:19 <b>forth (2)</b> 20:16;21:17 <b>forward (7)</b> 29:7,10;30:3,24; 49:8;69:13;70:23 <b>four (4)</b> 9:18;33:22,22;48:15 <b>frame (2)</b> 40:10;51:5 <b>framework (3)</b> 21:17;22:1;34:14 <b>Fran (1)</b> 8:7 <b>Francis (1)</b> 8:7 <b>free (2)</b> 5:21,23 <b>Frink (1)</b> 9:8 <b>fruitful (1)</b> 54:17 <b>full (2)</b> 17:20;66:4 <b>functions (1)</b> 55:23 <b>Furino (50)</b> 8:4;13:3,6,13,18,19, 23;14:1,11,14,24;15:5, 9,11;20:9,13;22:12,15; 23;11,15;25:22;26:2, 20;27:8;28:6,8,13; 36:23;39:3,6,15,19,22; 41:7,19;42:14;44:3; 45:12;48:10;50:16; 51:11;52:6,18,24;53:5, 20;55:9;56:20;62:4; 63:19 <b>Furino's (2)</b> 53:16;54:23 <b>further (9)</b> 15:10;25:4;31:20; 38:9;44:8;51:1;54:24; 60:15;67:2 <b>future (15)</b>
---	--	--	--	--

<p>24:5,19,20;25:4,15; 30:3;31:6,12;34:5; 36:8;37:15;57:20;67:8, 8;68:1</p>	<p>57:24 <b>ground (1)</b> 5:13 <b>group (24)</b> 23:22;24:10,16;25:1, 1,9,21;31:13;37:11; 40:4;41:2;43:18;47:4, 13;50:12,15;51:2,4,18, 19;56:16,17;67:6;71:1</p>	<p><b>helpful (2)</b> 30:3;62:10 <b>hey (1)</b> 58:12 <b>high (1)</b> 20:22 <b>high-level (1)</b> 20:10 <b>Hinesburg (1)</b> 8:21 <b>histories (1)</b> 64:1 <b>history (2)</b> 26:21;64:14 <b>Hold (2)</b> 8:18;14:9 <b>home (3)</b> 7:5,11;8:2 <b>hook (1)</b> 54:24 <b>hope (2)</b> 36:8;52:4 <b>hoping (2)</b> 41:1;61:23 <b>horizon (8)</b> 33:9,13,18;35:10; 59:20,21,22,24 <b>hundred (2)</b> 27:6,9</p>	<p><b>importantly (1)</b> 44:17 <b>impossible (1)</b> 45:22 <b>impression (2)</b> 32:6,9 <b>improvement (1)</b> 27:24 <b>inadvertently (2)</b> 6:3;16:18 <b>inapplicable (1)</b> 43:14 <b>Inc (2)</b> 4:5;8:2 <b>include (4)</b> 24:3;27:5,8;67:1 <b>included (2)</b> 10:14;34:11 <b>includes (2)</b> 68:2,4 <b>including (5)</b> 13:22;22:20;25:7; 42:9;47:7 <b>inclusion (1)</b> 30:18 <b>incorporate (2)</b> 25:5;66:22 <b>incorporated (1)</b> 15:2 <b>increase (3)</b> 60:9,10,11 <b>incremental (6)</b> 21:9,21;34:17;42:20; 45:9,10 <b>indecipherable (2)</b> 35:14;57:20 <b>indicate (1)</b> 62:24 <b>inform (2)</b> 34:14;51:1 <b>information (7)</b> 5:7;6:1,3,5,8,11;15:6 <b>initial (3)</b> 10:17;19:1;24:13 <b>initially (2)</b> 14:15;56:8 <b>initiate (1)</b> 68:20 <b>input (1)</b> 69:16 <b>inquiry (1)</b> 56:11 <b>instance (1)</b> 56:15 <b>instructs (1)</b> 52:13 <b>Integrated (11)</b> 4:6;10:11;14:2,16, 19;20:11,15;22:4; 29:20;30:23;67:18 <b>intend (1)</b> 38:13 <b>intent (8)</b></p>	<p>51:24;52:1;53:21; 54:2,8,13,17;57:23 <b>interest (3)</b> 25:19;28:5;30:12 <b>interested (2)</b> 37:11;68:21 <b>interesting (4)</b> 35:22;54:10,10; 61:23 <b>interests (1)</b> 68:17 <b>internal (1)</b> 25:17 <b>internalize (1)</b> 29:14 <b>interpret (1)</b> 43:20 <b>interpretation (7)</b> 25:10;37:4,8;44:13; 52:10,19;53:18 <b>interpretations (1)</b> 51:20 <b>INTERROGATORIES (1)</b> 39:1 <b>interrupt (1)</b> 18:7 <b>interrupts (3)</b> 14:7;27:7;53:2 <b>into (19)</b> 16:9;21:2;25:6;30:3, 6,18;35:7;40:11,22; 42:20;52:8;53:23;54:3, 19;57:3;64:22;67:19; 68:8;71:10 <b>introduce (2)</b> 15:19;16:3 <b>introduced (1)</b> 21:23 <b>introduces (1)</b> 22:2 <b>invested (1)</b> 70:11 <b>investigate (1)</b> 68:22 <b>involved (1)</b> 50:11 <b>Iqbal (40)</b> 9:5;13:4,7;17:19,21, 21,23;18:5,22;19:3,6, 10,14;32:3,6,8,9;36:9, 13,18;38:4,8,10;43:10; 45:1,2;49:19,20,23; 50:1;52:5,18;56:21; 57:2;58:19;59:9,12,19; 63:12;65:5 <b>IRP (34)</b> 10:13;14:21;15:3; 20:23;21:4,12,15; 22:13,15;23:20;24:6, 13,22;25:15;26:1,1,23, 24;27:11;30:16,18; 32:10,14;39:23;40:5,8; 45:8;47:15;53:24;</p>
<b>G</b>	<p><b>Gas (26)</b> 9:6,9;17:23,23; 20:20;29:13;30:18; 36:21,24;37:12;39:14; 41:17;43:14;47:17; 50:4;52:22;55:22; 57:11,15,24;60:14; 62:14;64:6,7;68:11,23 <b>gave (1)</b> 5:6 <b>general (5)</b> 47:8,9;50:13;59:17; 65:4 <b>generally (3)</b> 22:4;23:7;59:5 <b>generation (2)</b> 60:13,13 <b>gets (1)</b> 56:17 <b>Giamo (13)</b> 7:14,15,16;48:1,2, 10;49:14,17,18;50:7; 54:21;55:1;63:6 <b>Giamo's (1)</b> 54:12 <b>Given (5)</b> 15:12;44:3;51:11; 56:12;62:21 <b>gives (2)</b> 46:16,16 <b>goal (1)</b> 32:14 <b>goals (1)</b> 33:24 <b>goes (5)</b> 18:19;21:12;35:9; 42:20;59:5 <b>Good (14)</b> 4:2;7:9,15,21,24; 13:18;17:19;32:23; 33:6;34:19;35:2;43:1; 48:3;57:14 <b>Goodwin (1)</b> 8:8 <b>Governor (1)</b> 4:13 <b>Governor's (2)</b> 4:15,21 <b>grant (1)</b> 11:18 <b>granted (1)</b> 10:15 <b>great (4)</b> 27:24;41:9;48:10; 50:8 <b>greenhouse (1)</b></p>	<p><b>growth (4)</b> 45:9,23,24;48:8 <b>guess (5)</b> 48:3;52:3,24;58:19; 65:17 <b>guidance (13)</b> 24:18;29:13;30:2,20; 31:4;40:24;43:11; 44:15,21;46:16;52:7; 66:19;67:8 <b>guideline (1)</b> 58:14 <b>guidelines (4)</b> 37:5;40:7;47:8,9</p>	<p><b>helpful (2)</b> 30:3;62:10 <b>hey (1)</b> 58:12 <b>high (1)</b> 20:22 <b>high-level (1)</b> 20:10 <b>Hinesburg (1)</b> 8:21 <b>histories (1)</b> 64:1 <b>history (2)</b> 26:21;64:14 <b>Hold (2)</b> 8:18;14:9 <b>home (3)</b> 7:5,11;8:2 <b>hook (1)</b> 54:24 <b>hope (2)</b> 36:8;52:4 <b>hoping (2)</b> 41:1;61:23 <b>horizon (8)</b> 33:9,13,18;35:10; 59:20,21,22,24 <b>hundred (2)</b> 27:6,9</p>	<p><b>importantly (1)</b> 44:17 <b>impossible (1)</b> 45:22 <b>impression (2)</b> 32:6,9 <b>improvement (1)</b> 27:24 <b>inadvertently (2)</b> 6:3;16:18 <b>inapplicable (1)</b> 43:14 <b>Inc (2)</b> 4:5;8:2 <b>include (4)</b> 24:3;27:5,8;67:1 <b>included (2)</b> 10:14;34:11 <b>includes (2)</b> 68:2,4 <b>including (5)</b> 13:22;22:20;25:7; 42:9;47:7 <b>inclusion (1)</b> 30:18 <b>incorporate (2)</b> 25:5;66:22 <b>incorporated (1)</b> 15:2 <b>increase (3)</b> 60:9,10,11 <b>incremental (6)</b> 21:9,21;34:17;42:20; 45:9,10 <b>indecipherable (2)</b> 35:14;57:20 <b>indicate (1)</b> 62:24 <b>inform (2)</b> 34:14;51:1 <b>information (7)</b> 5:7;6:1,3,5,8,11;15:6 <b>initial (3)</b> 10:17;19:1;24:13 <b>initially (2)</b> 14:15;56:8 <b>initiate (1)</b> 68:20 <b>input (1)</b> 69:16 <b>inquiry (1)</b> 56:11 <b>instance (1)</b> 56:15 <b>instructs (1)</b> 52:13 <b>Integrated (11)</b> 4:6;10:11;14:2,16, 19;20:11,15;22:4; 29:20;30:23;67:18 <b>intend (1)</b> 38:13 <b>intent (8)</b></p>
<b>G</b>	<b>H</b>	<b>I</b>	<b>I</b>	
<p><b>half (1)</b> 48:8 <b>Hampshire (20)</b> 7:6,11;8:3;24:9;26:6, 11,14,17;27:17;32:19; 33:5;34:22;47:7;57:12; 59:23;63:14,16;65:8; 68:12,23 <b>hand (2)</b> 5:19;56:22 <b>health (8)</b> 23:8;29:15;31:10; 41:3;46:12,18,22; 47:19 <b>health-related (5)</b> 24:1;25:6;36:21; 66:24;70:17 <b>health-wise (1)</b> 46:9 <b>hear (4)</b> 7:22;14:10;53:4; 55:10 <b>heard (2)</b> 5:14;56:8 <b>hearing (22)</b> 4:4,9,20;5:1,3,8,9,11, 11;6:21;9:15,24;10:3, 15;11:22;12:1;14:14; 28:20;49:4;66:11; 69:14;71:16 <b>heating (3)</b> 57:15,15;65:10 <b>help (7)</b> 5:17;31:4;37:16; 43:23;44:17,21;71:15 <b>helped (1)</b> 60:14</p>	<p><b>half (1)</b> 48:8 <b>Hampshire (20)</b> 7:6,11;8:3;24:9;26:6, 11,14,17;27:17;32:19; 33:5;34:22;47:7;57:12; 59:23;63:14,16;65:8; 68:12,23 <b>hand (2)</b> 5:19;56:22 <b>health (8)</b> 23:8;29:15;31:10; 41:3;46:12,18,22; 47:19 <b>health-related (5)</b> 24:1;25:6;36:21; 66:24;70:17 <b>health-wise (1)</b> 46:9 <b>hear (4)</b> 7:22;14:10;53:4; 55:10 <b>heard (2)</b> 5:14;56:8 <b>hearing (22)</b> 4:4,9,20;5:1,3,8,9,11, 11;6:21;9:15,24;10:3, 15;11:22;12:1;14:14; 28:20;49:4;66:11; 69:14;71:16 <b>heating (3)</b> 57:15,15;65:10 <b>help (7)</b> 5:17;31:4;37:16; 43:23;44:17,21;71:15 <b>helped (1)</b> 60:14</p>	<p><b>ID (1)</b> 66:3 <b>idea (2)</b> 55:12;57:14 <b>ideas (2)</b> 46:15;58:17 <b>identification (1)</b> 12:20 <b>identified (5)</b> 22:19;33:24;34:18; 35:5;51:17 <b>identify (2)</b> 6:7;50:21 <b>immediate (1)</b> 33:22 <b>impact (14)</b> 21:19;22:24;23:3,7; 24:2,7;25:6;32:23; 41:3;42:2;46:12,22; 49:5;57:24 <b>impacted (1)</b> 48:17 <b>impacts (13)</b> 29:15;30:21;31:11; 36:21;41:22;44:14; 49:10,12;52:16;67:1,3; 68:8;70:17 <b>implicitly (1)</b> 52:21 <b>important (3)</b> 33:10;34:7;35:8</p>	<p><b>importantly (1)</b> 44:17 <b>impossible (1)</b> 45:22 <b>impression (2)</b> 32:6,9 <b>improvement (1)</b> 27:24 <b>inadvertently (2)</b> 6:3;16:18 <b>inapplicable (1)</b> 43:14 <b>Inc (2)</b> 4:5;8:2 <b>include (4)</b> 24:3;27:5,8;67:1 <b>included (2)</b> 10:14;34:11 <b>includes (2)</b> 68:2,4 <b>including (5)</b> 13:22;22:20;25:7; 42:9;47:7 <b>inclusion (1)</b> 30:18 <b>incorporate (2)</b> 25:5;66:22 <b>incorporated (1)</b> 15:2 <b>increase (3)</b> 60:9,10,11 <b>incremental (6)</b> 21:9,21;34:17;42:20; 45:9,10 <b>indecipherable (2)</b> 35:14;57:20 <b>indicate (1)</b> 62:24 <b>inform (2)</b> 34:14;51:1 <b>information (7)</b> 5:7;6:1,3,5,8,11;15:6 <b>initial (3)</b> 10:17;19:1;24:13 <b>initially (2)</b> 14:15;56:8 <b>initiate (1)</b> 68:20 <b>input (1)</b> 69:16 <b>inquiry (1)</b> 56:11 <b>instance (1)</b> 56:15 <b>instructs (1)</b> 52:13 <b>Integrated (11)</b> 4:6;10:11;14:2,16, 19;20:11,15;22:4; 29:20;30:23;67:18 <b>intend (1)</b> 38:13 <b>intent (8)</b></p>	<p><b>importantly (1)</b> 44:17 <b>impossible (1)</b> 45:22 <b>impression (2)</b> 32:6,9 <b>improvement (1)</b> 27:24 <b>inadvertently (2)</b> 6:3;16:18 <b>inapplicable (1)</b> 43:14 <b>Inc (2)</b> 4:5;8:2 <b>include (4)</b> 24:3;27:5,8;67:1 <b>included (2)</b> 10:14;34:11 <b>includes (2)</b> 68:2,4 <b>including (5)</b> 13:22;22:20;25:7; 42:9;47:7 <b>inclusion (1)</b> 30:18 <b>incorporate (2)</b> 25:5;66:22 <b>incorporated (1)</b> 15:2 <b>increase (3)</b> 60:9,10,11 <b>incremental (6)</b> 21:9,21;34:17;42:20; 45:9,10 <b>indecipherable (2)</b> 35:14;57:20 <b>indicate (1)</b> 62:24 <b>inform (2)</b> 34:14;51:1 <b>information (7)</b> 5:7;6:1,3,5,8,11;15:6 <b>initial (3)</b> 10:17;19:1;24:13 <b>initially (2)</b> 14:15;56:8 <b>initiate (1)</b> 68:20 <b>input (1)</b> 69:16 <b>inquiry (1)</b> 56:11 <b>instance (1)</b> 56:15 <b>instructs (1)</b> 52:13 <b>Integrated (11)</b> 4:6;10:11;14:2,16, 19;20:11,15;22:4; 29:20;30:23;67:18 <b>intend (1)</b> 38:13 <b>intent (8)</b></p>

59:10;69:24,24;70:6; 71:6 <b>IRP-related (1)</b> 47:5 <b>IRPs (6)</b> 24:21;25:4;29:7; 30:4;31:6,12 <b>issue (12)</b> 9:15;10:9;11:21,22; 14:6;18:10;27:6;28:18; 32:15;37:12;43:20; 53:1 <b>issues (10)</b> 22:16;26:13,18; 27:14;47:6;50:19,21; 55:8;59:8;68:22 <b>items (1)</b> 56:2	61:19 <b>layers (1)</b> 57:5 <b>LCIRP (9)</b> 10:17,19;18:3;19:1; 26:11,19;38:3;66:19; 70:13 <b>LCIRPs (1)</b> 67:9 <b>lead (2)</b> 18:1,23 <b>Least (15)</b> 4:6;14:15,19;20:11, 14;24:5;25:7,12;29:20; 30:23;58:13;67:18; 69:23,24;70:19 <b>leave (1)</b> 6:12 <b>left (1)</b> 63:10 <b>legacy (1)</b> 61:19 <b>legal (1)</b> 57:3 <b>legislative (9)</b> 51:23;52:1,8;53:21; 54:2,13,16;57:23;58:5 <b>legislature (4)</b> 52:2,20;54:4,6 <b>less (1)</b> 46:8 <b>level (4)</b> 20:22;45:21;46:23; 47:19 <b>liability (1)</b> 41:24 <b>Liberty (3)</b> 56:1;62:18;64:8 <b>limitation (1)</b> 34:1 <b>limited (2)</b> 29:6;45:20 <b>line (4)</b> 6:11;16:15;60:20; 61:7 <b>liquid (1)</b> 39:13 <b>listen (2)</b> 4:19;5:5 <b>listing (1)</b> 64:6 <b>little (4)</b> 48:13;55:10;61:15, 24 <b>live (1)</b> 58:19 <b>LNG (5)</b> 60:24;61:17;62:10, 14;63:2 <b>load (5)</b> 21:3,8;27:13,23; 29:17 <b>local (1)</b>	52:16 <b>located (3)</b> 7:2,5,11 <b>location (2)</b> 4:19;66:9 <b>long (7)</b> 12:4,16;32:20,22; 36:3,4;63:13 <b>long-term (12)</b> 20:16;21:3,5,7,14; 33:23;35:4;40:16,20; 41:9;46:7;62:2 <b>look (18)</b> 6:6;34:9;40:21; 41:23;48:22;49:7; 50:24;54:15,19;57:4, 12,17,18;58:6,7,13; 62:19;69:13 <b>looked (2)</b> 26:13;63:14 <b>looking (9)</b> 35:24;45:15;46:13, 14,15;48:7;50:9;58:14; 62:1 <b>looks (1)</b> 70:23 <b>lose (2)</b> 19:19;56:23 <b>lost (1)</b> 53:8 <b>lot (1)</b> 18:9 <b>lots (1)</b> 46:11 <b>low (2)</b> 59:3;64:15 <b>lower (1)</b> 63:4 <b>Lynn (1)</b> 9:3	<b>marked (2)</b> 11:23;19:8 <b>MARTIN (51)</b> 4:2;7:3,13,18,23; 8:11,15,24;9:3,11;11:6, 14,17;12:6,11,17,24; 13:8;14:8;15:16,21; 16:23;17:6,13;18:6,17; 19:18,22;20:2;28:10, 15,19,22;31:22;38:11, 21;47:24;49:16,21; 53:3,7,11;63:9,11; 65:22;66:1,8,12;67:14; 69:6;71:8 <b>Massachusetts (1)</b> 64:8 <b>material (1)</b> 49:10 <b>materials (1)</b> 9:22 <b>matter (4)</b> 9:24;11:4;44:12; 71:12 <b>matters (2)</b> 9:12;57:3 <b>may (4)</b> 5:14;53:16;59:17; 60:20 <b>maybe (2)</b> 37:6;61:14 <b>mean (6)</b> 35:11;41:19;42:16; 44:13,23;52:3 <b>meant (1)</b> 16:19 <b>meet (11)</b> 4:18;25:12;33:21; 34:17;35:16;37:13; 39:4;42:7;44:6;68:15; 70:20 <b>meetings (1)</b> 24:13 <b>meets (3)</b> 38:6;67:23;70:13 <b>members (1)</b> 5:1 <b>mention (1)</b> 35:3 <b>mentioned (5)</b> 26:22;44:2;45:12,12; 52:12 <b>merely (1)</b> 10:21 <b>met (2)</b> 43:5;44:10 <b>metrics (1)</b> 41:23 <b>mic's (1)</b> 58:19 <b>might (14)</b> 18:13;33:17;34:9; 43:23;44:21;46:1,23; 47:10,18;55:4;60:11,	12;61:24;62:10 <b>Mike (1)</b> 7:16 <b>mind (2)</b> 13:1;35:14 <b>minute (2)</b> 19:23;53:9 <b>misunderstanding (1)</b> 33:13 <b>mix (2)</b> 29:19;33:24 <b>moment (4)</b> 14:9;47:2;53:4;65:3 <b>Monte (5)</b> 25:17;55:2,6,12;56:4 <b>month (1)</b> 51:8 <b>months (4)</b> 24:11,23;48:15;51:9 <b>more (13)</b> 23:6;44:16,17;46:20; 47:8;52:12;53:19;57:7, 10;60:11;61:15,24; 70:15 <b>morning (11)</b> 4:3,4;7:10,16,21,24; 10:3,8;13:18;17:19; 48:3 <b>most (3)</b> 35:17;41:21;42:9 <b>motion (10)</b> 9:16,23;10:2,6,8,16; 11:3,19;12:5,13 <b>move (2)</b> 46:6;57:15 <b>moving (1)</b> 48:23 <b>much (3)</b> 46:8;69:19;71:9 <b>multi-year (1)</b> 39:7 <b>mute (8)</b> 5:16;6:18;8:18; 13:10;15:23;32:8; 49:24;69:8 <b>myself (1)</b> 7:17
<b>J</b>				
<b>job (3)</b> 32:24;33:7;35:2 <b>July (1)</b> 20:15 <b>June (4)</b> 24:17;39:24;40:2,4				
<b>K</b>				
<b>Kathryn (1)</b> 7:10 <b>keen (1)</b> 67:1 <b>keep (2)</b> 18:18;36:8 <b>kind (3)</b> 43:11,22;44:21 <b>knowing (1)</b> 45:5 <b>knowledge (2)</b> 15:8;43:21 <b>knows (1)</b> 9:20				
<b>L</b>				
<b>largely (1)</b> 64:22 <b>Last (6)</b> 14:4;26:10;48:14; 60:17;64:18;65:9 <b>lastly (2)</b> 6:19;23:5 <b>late (1)</b> 40:9 <b>later (2)</b> 31:18;40:1 <b>latest (1)</b> 48:4 <b>law (1)</b> 68:16 <b>layered (1)</b>				
		<b>M</b>		
		<b>Madam (3)</b> 49:14,19;63:6 <b>magnitude (1)</b> 41:7 <b>Maine (10)</b> 24:8;26:5,14,17; 27:3,15,16;55:23; 65:14,18 <b>makes (1)</b> 65:17 <b>making (3)</b> 5:22;52:14,17 <b>manage (1)</b> 60:22 <b>management (3)</b> 29:17;55:22;70:10 <b>many (2)</b> 60:7;70:9 <b>maps (1)</b> 22:8		
				<b>N</b>
				<b>name (5)</b> 8:15;13:16;16:5; 17:20,21 <b>name's (2)</b> 7:3;9:3 <b>natural (3)</b> 20:19;39:14;57:15 <b>necessary (4)</b> 4:8;5:5,7;6:7 <b>need (14)</b> 4:8;5:17,24;6:14,16; 12:21;30:20;35:16; 39:9,17;40:13;46:23;

60:13;66:5 <b>needed (2)</b> 9:8;56:11 <b>needs (8)</b> 20:17;21:9;34:5,18; 35:6,12;39:4;44:7 <b>neglected (1)</b> 66:8 <b>nevertheless (1)</b> 70:21 <b>New (30)</b> 7:6,11;8:3;24:8;26:6, 10,14,17;27:17;31:9; 32:19;33:4;34:22;36:1, 21,23,24;37:13;45:16; 47:7;48:6;57:11;59:23; 60:24;61:16;63:14,16; 65:8;68:12,23 <b>newly (2)</b> 11:19;60:23 <b>next (8)</b> 24:22;39:8,18,23; 40:8;48:22;51:5,8 <b>nine (3)</b> 51:9;61:8,9 <b>nine-month (1)</b> 51:4 <b>non- (1)</b> 67:4 <b>none (1)</b> 66:2 <b>non-gas (5)</b> 29:16;30:21;31:11; 41:3;67:4 <b>norm (1)</b> 63:13 <b>normal (2)</b> 32:19;55:16 <b>normalization (1)</b> 33:3 <b>Northern (28)</b> 4:5;8:1;13:22;14:4; 16:17,19;25:16,19; 32:2,7,23;33:19;34:20; 39:3;44:4;45:8,8,19; 46:6,23;47:4;57:6,10; 64:10,24;67:19,21; 68:15 <b>Northern's (17)</b> 18:2,24;20:21;24:5, 20,22;25:4,14;29:7; 33:4;35:4;36:15;37:22; 38:3;47:3;67:17;68:9 <b>note (3)</b> 4:18;15:3;58:21 <b>noted (2)</b> 30:17;31:1 <b>notes (1)</b> 56:9 <b>notice (2)</b> 5:6,8 <b>November (1)</b> 27:19	<b>number (2)</b> 6:5;61:7  <b>O</b>  <b>object (2)</b> 11:13,16 <b>objection (4)</b> 5:19,23;11:9;66:4 <b>obligations (1)</b> 68:6 <b>observe (1)</b> 4:19 <b>obviously (1)</b> 12:8 <b>OCA (14)</b> 11:15;15:14;16:4; 23:17;29:8,21;30:19; 31:16;32:2;37:6;38:17; 44:15;61:1;69:2 <b>OCA's (2)</b> 29:5;55:20 <b>occurrence (2)</b> 64:24;65:1 <b>occurs (1)</b> 39:5 <b>off (8)</b> 6:19;19:23;28:20,21; 48:19;49:23;53:9; 54:23 <b>Office (9)</b> 7:17,17;8:16;12:4; 23:13;66:9,17;67:20; 69:15 <b>oftentimes (1)</b> 64:3 <b>oil (1)</b> 57:15 <b>one (25)</b> 7:6,12;8:22;9:15; 33:16;39:15;41:4;43:4, 8,17;45:3;47:2;48:8; 50:1;51:17;55:2,4; 56:2;57:5,12,17;60:3; 62:19;63:10;66:10 <b>ones (2)</b> 62:3;63:2 <b>only (9)</b> 6:9;26:9;34:22; 37:17;47:3,20;58:24; 63:7;64:20 <b>operating (2)</b> 22:6;27:20 <b>opine (1)</b> 54:24 <b>opining (1)</b> 29:7 <b>opinion (1)</b> 59:2 <b>opportunities (2)</b> 60:21;61:2 <b>opportunity (2)</b> 37:9;45:16	<b>optimize (1)</b> 35:1 <b>optimizing (2)</b> 60:22;61:16 <b>option (4)</b> 39:15;45:20;62:23; 63:5 <b>options (10)</b> 21:22;23:3;32:24; 34:2;42:3;63:15;67:4; 68:3,22;70:20 <b>Order (13)</b> 4:16,16,22,23;5:8; 11:21;21:8;24:11,18, 24;38:2;51:7;70:14 <b>original (1)</b> 10:24 <b>originally (1)</b> 10:22 <b>others (3)</b> 6:12;51:23;64:9 <b>otherwise (1)</b> 6:21 <b>ours (1)</b> 64:16 <b>out (8)</b> 5:23;30:14;39:20; 44:1;51:8,10;63:21; 64:16 <b>outcomes (1)</b> 24:15 <b>outlined (1)</b> 67:10 <b>out-of-model (2)</b> 34:6,8 <b>outset (1)</b> 62:22 <b>over (3)</b> 10:20;53:22;64:18 <b>overall (6)</b> 32:6,9,14;57:11,24; 58:16 <b>overview (2)</b> 20:10;23:12 <b>own (2)</b> 47:11;52:9	55:19;56:10,11;63:3; 64:20 <b>participant (1)</b> 23:2 <b>participate (3)</b> 5:5;30:5;36:9 <b>particular (1)</b> 47:15 <b>particularly (4)</b> 33:4;34:23;48:7; 69:12 <b>parties (29)</b> 7:19;15:17;23:19,21; 24:9,15;25:19;29:23; 30:1,7;31:2;37:7,8,11, 16;38:13;44:17;50:11, 14,18,18,23;52:11; 55:19;64:13;65:23; 66:6,21;68:21 <b>parts (2)</b> 11:7;16:12 <b>party (1)</b> 6:17 <b>passed (1)</b> 54:9 <b>Pat (1)</b> 53:14 <b>paths (1)</b> 22:10 <b>patient (1)</b> 48:12 <b>Patrick (1)</b> 8:1 <b>Pause (4)</b> 8:18;20:1;53:3,10 <b>paying (1)</b> 36:4 <b>peak (7)</b> 39:5;41:6,8;42:23; 43:2,3,9 <b>peaking (6)</b> 39:7,12,17;40:12; 44:7;62:13 <b>pending (3)</b> 26:8;62:5;63:2 <b>people (3)</b> 6:15;32:21;64:17 <b>per (5)</b> 45:23,24;57:19; 58:15;62:6 <b>percent (9)</b> 27:6,9,16;45:14; 48:7,8;58:24;59:6,7 <b>perfect (1)</b> 54:22 <b>perhaps (4)</b> 10:9;29:15;39:11; 40:9 <b>period (8)</b> 20:17;35:1,10,21; 36:3,4;43:3;64:14 <b>permits (1)</b> 9:21	<b>person (1)</b> 69:13 <b>personally (1)</b> 43:21 <b>perspective (3)</b> 28:1;37:1;40:11 <b>Petition (3)</b> 4:5;14:5,11 <b>physical (1)</b> 4:19 <b>piece (1)</b> 41:11 <b>pipe (1)</b> 53:15 <b>pipeline (4)</b> 14:12;22:7;60:23; 67:5 <b>place (2)</b> 39:8;42:19 <b>Plan (23)</b> 4:7;10:11;11:9; 14:16,20;20:12,15; 32:12;36:15;37:2,23, 24;38:6;39:6;42:12; 50:2,3,6;65:20;67:18, 23,24;68:19 <b>planning (36)</b> 20:19;21:3,7,23; 24:6;25:7;26:18,21; 27:13,23;29:20;32:7, 13;33:8,12,13,18;34:4; 35:1,3,9;58:22;59:5,19, 21,22,24;64:2,4,15,21, 23;65:1;68:10,11; 70:18 <b>plans (4)</b> 14:2;22:4;30:24; 48:5 <b>platform (2)</b> 5:3;6:14 <b>plays (1)</b> 64:22 <b>Please (21)</b> 4:18;5:9,16,19;6:2,8, 11,16,20;7:1,19;13:16; 16:2;17:19;20:9,22,12; 23:11;28:15,23;29:2; 30:9 <b>point (14)</b> 6:4;30:14;39:9;44:1, 7,22;46:4;48:23;50:1; 51:16;54:8,10;63:21; 64:16 <b>policies (1)</b> 68:7 <b>policy (2)</b> 41:16;68:16 <b>portfolio (13)</b> 20:20;21:5,7,20; 25:24;29:19;34:15,16; 41:9;42:17,18;60:22; 70:18 <b>position (4)</b>
		<b>P</b>		
		<b>page (7)</b> 6:4;16:16;30:14; 60:17,19;61:5;63:23 <b>paid (1)</b> 26:15 <b>pandemic (2)</b> 4:14;48:15 <b>panel (1)</b> 15:13 <b>paradigms (1)</b> 27:14 <b>part (12)</b> 11:21;14:13;21:18; 23:9;41:12;50:12,20;		

12:12;13:16;16:3; 17:22 <b>possible (5)</b> 5:20;12:9;24:8;41:4; 56:3 <b>potential (5)</b> 21:13;23:23;67:4; 68:8;71:1 <b>potentially (1)</b> 34:16 <b>practical (1)</b> 24:7 <b>Pradip (2)</b> 8:21;16:5 <b>preapproval (2)</b> 14:6,12 <b>pre-COVID (1)</b> 48:5 <b>predominantly (1)</b> 29:9 <b>prefer (1)</b> 15:19 <b>preference (1)</b> 15:17 <b>prefiled (1)</b> 12:20 <b>preliminary (1)</b> 9:12 <b>premarked (4)</b> 12:19;18:3;19:1; 36:12 <b>prepare (1)</b> 19:7 <b>prepared (5)</b> 14:22;16:10;32:10; 36:16;67:22 <b>preparedness (1)</b> 34:16 <b>prescribe (1)</b> 45:4 <b>prescriptive (3)</b> 46:13,14;58:12 <b>presence (1)</b> 7:1 <b>present (2)</b> 27:23;65:20 <b>presentation (1)</b> 25:14 <b>presented (8)</b> 15:6;25:24;26:7; 27:12;28:3;37:23; 67:21;68:13 <b>presents (1)</b> 63:24 <b>previous (1)</b> 38:4 <b>previously (5)</b> 5:6;13:23;19:4; 30:17;44:2 <b>primarily (1)</b> 29:22 <b>primary (1)</b> 65:12	<b>prior (5)</b> 14:2;22:3;26:24; 38:3;42:15 <b>probability (3)</b> 58:23;59:6,7 <b>probably (1)</b> 53:19 <b>problem (1)</b> 5:9 <b>procedural (1)</b> 11:4 <b>proceed (6)</b> 15:15,20;28:13; 29:24;32:2;55:11 <b>proceeding (7)</b> 6:13,20;9:19;16:21; 18:3;68:21;69:3 <b>proceedings (2)</b> 20:1;53:10 <b>process (13)</b> 20:19;21:15;29:9; 30:1;31:18;32:7,13; 34:4;36:15;49:8;52:8; 53:23;71:1 <b>processes (2)</b> 24:6;70:19 <b>product (1)</b> 69:20 <b>professional (1)</b> 13:21 <b>Program (2)</b> 22:6;26:16 <b>programs (2)</b> 68:3;70:10 <b>Project (4)</b> 14:13;26:4;46:11,20 <b>projected (2)</b> 20:16;59:2 <b>prompt (2)</b> 29:9;31:2 <b>properly (1)</b> 34:1 <b>proposal (2)</b> 26:4,5 <b>proposed (2)</b> 26:7;67:13 <b>proposes (2)</b> 68:13,18 <b>provide (15)</b> 20:20;24:16,18;25:2; 20:26;20:29;13;31:5; 35:6;39:12;40:3;42:5; 43:12;44:19;70:15 <b>provided (3)</b> 55:18;63:22;65:7 <b>provides (3)</b> 13:20;20:23;22:5 <b>providing (1)</b> 31:3 <b>Public (9)</b> 4:11,17;5:4,6,10;7:4; 28:5;30:12;55:24 <b>purpose (2)</b>	29:20;33:4 <b>purposes (2)</b> 51:17;63:16 <b>pursuant (4)</b> 4:16,21;23:21;30:16 <b>pursue (1)</b> 56:4 <b>put (1)</b> 5:19 <b>puts (1)</b> 40:10	<b>recognized (2)</b> 5:18;6:1 <b>recommend (5)</b> 23:19,22;24:10; 67:11;71:5 <b>recommendation (2)</b> 51:6;56:14 <b>recommendations (11)</b> 23:24;24:16;25:1,9; 29:11;31:3,14;40:4,7; 67:7;71:2 <b>recommended (1)</b> 25:11 <b>recommends (2)</b> 67:17;69:22 <b>record (14)</b> 6:8;15:4;16:9,24; 17:20;19:13,23;20:3; 28:20,21,23;53:9,12; 55:21 <b>records (2)</b> 54:3,15 <b>redacted (3)</b> 10:13;14:17,21 <b>redirect (1)</b> 65:23 <b>reduce (10)</b> 41:5,6;45:17,20; 52:22;57:19,24;58:15, 16;62:12 <b>reduced (1)</b> 46:1 <b>reducing (2)</b> 57:8,11 <b>reduction (1)</b> 65:10 <b>refer (1)</b> 21:10 <b>referring (1)</b> 65:5 <b>reflected (4)</b> 26:19;27:13;43:1; 50:6 <b>regarding (9)</b> 4:5;20:23;23:24; 24:19;25:3;34:15; 36:15;46:18;71:2 <b>regimes (1)</b> 27:21 <b>region (1)</b> 64:2 <b>regulations (1)</b> 68:7 <b>regulatory (1)</b> 21:24 <b>related (1)</b> 26:17 <b>relating (1)</b> 41:2 <b>relative (2)</b> 41:8;42:1 <b>relevant (2)</b> 38:1;68:22	<b>reliability (1)</b> 70:16 <b>reliable (1)</b> 20:21 <b>relies (1)</b> 20:20 <b>rely (2)</b> 44:4,5 <b>relying (1)</b> 45:13 <b>remain (1)</b> 55:17 <b>remains (1)</b> 49:9 <b>remnants (1)</b> 49:2 <b>remote (1)</b> 6:14 <b>remotely (1)</b> 4:9 <b>remove (1)</b> 23:1 <b>replace (2)</b> 16:16;61:20 <b>replaced (2)</b> 39:10;40:13 <b>replacing (1)</b> 62:13 <b>report (5)</b> 25:2;51:15;56:1,2; 62:16 <b>Reporter (5)</b> 13:5;14:7,10;27:7; 53:2 <b>represent (1)</b> 8:19 <b>request (6)</b> 10:23;11:7,18;29:24; 31:7;49:19 <b>requested (1)</b> 40:2 <b>require (2)</b> 31:11;70:8 <b>required (1)</b> 24:2 <b>requirement (6)</b> 21:8;36:19;37:3; 42:2;43:5,9 <b>requirements (15)</b> 21:4;25:13;27:10; 31:10;38:1,7;42:13; 66:23;67:23;68:5,15; 70:2,7,12;71:3 <b>requires (1)</b> 47:18 <b>requiring (1)</b> 36:19 <b>rerun (1)</b> 48:6 <b>rescheduled (1)</b> 5:12 <b>research (4)</b> 51:22;54:2;65:2,6
		<b>Q</b>		
		<b>qualification (2)</b> 13:12;15:11 <b>Qualitative (2)</b> 23:6,9 <b>quickly (1)</b> 12:8		
		<b>R</b>		
		<b>raise (2)</b> 9:15;10:10 <b>raised (3)</b> 22:16;50:22;62:20 <b>ratepayer (1)</b> 68:17 <b>ratepayers (4)</b> 8:20;36:3;63:4;68:9 <b>reach (1)</b> 29:22 <b>reached (1)</b> 63:18 <b>reaching (1)</b> 71:11 <b>read (1)</b> 41:19 <b>real (1)</b> 49:5 <b>reality (1)</b> 47:11 <b>really (7)</b> 5:16;33:19;44:23; 52:9;55:13;62:15; 64:11 <b>reasonable (9)</b> 20:22;24:14;28:4; 30:11;34:4,9;51:12; 68:1,4 <b>reasons (3)</b> 43:17;47:2;67:10 <b>reboot (1)</b> 61:10 <b>recall (1)</b> 54:1 <b>recent (3)</b> 32:20;33:20;62:3 <b>recess (2)</b> 6:16,17 <b>recognize (4)</b> 5:20;6:16;49:20,22	<b>redacted (3)</b> 10:13;14:17,21 <b>redirect (1)</b> 65:23 <b>reduce (10)</b> 41:5,6;45:17,20; 52:22;57:19,24;58:15, 16;62:12 <b>reduced (1)</b> 46:1 <b>reducing (2)</b> 57:8,11 <b>reduction (1)</b> 65:10 <b>refer (1)</b> 21:10 <b>referring (1)</b> 65:5 <b>reflected (4)</b> 26:19;27:13;43:1; 50:6 <b>regarding (9)</b> 4:5;20:23;23:24; 24:19;25:3;34:15; 36:15;46:18;71:2 <b>regimes (1)</b> 27:21 <b>region (1)</b> 64:2 <b>regulations (1)</b> 68:7 <b>regulatory (1)</b> 21:24 <b>related (1)</b> 26:17 <b>relating (1)</b> 41:2 <b>relative (2)</b> 41:8;42:1 <b>relevant (2)</b> 38:1;68:22	

<p><b>residential (1)</b> 8:20</p> <p><b>resistance (1)</b> 56:6</p> <p><b>resistant (2)</b> 55:5,5</p> <p><b>resolved (2)</b> 26:19;27:15</p> <p><b>Resource (40)</b> 4:7;10:11;14:2,16, 20;20:11,15,16;21:9, 10,14,19,20;22:4,23; 23:2,3;25:23;26:8,9; 29:19;30:23;32:7;33:9; 34:2,18;35:3,4,5;39:10, 11;40:16,19;41:21; 46:19;49:13;52:14; 65:20;67:18;68:10</p> <p><b>resources (16)</b> 21:16;24:4;25:8,12; 29:18;33:7;34:17; 35:20;42:7;43:6,23; 45:16;46:2;62:9,13; 67:3</p> <p><b>respect (1)</b> 40:24</p> <p><b>respectfully (2)</b> 31:16;67:11</p> <p><b>respectively (1)</b> 14:18</p> <p><b>respond (3)</b> 6:15;12:7,8</p> <p><b>respondents (1)</b> 9:21</p> <p><b>responding (2)</b> 12:13;24:24</p> <p><b>response (9)</b> 6:13;29:17;38:5; 42:16;43:7,23;44:11; 46:2;56:14</p> <p><b>response] (4)</b> 11:11;12:23;19:21; 65:24</p> <p><b>responses (2)</b> 9:18;10:1</p> <p><b>responsible (2)</b> 18:2,24</p> <p><b>responsive (1)</b> 37:2</p> <p><b>restated (1)</b> 23:1</p> <p><b>result (3)</b> 4:14;67:6;70:19</p> <p><b>resulted (2)</b> 36:10;58:23</p> <p><b>results (1)</b> 69:4</p> <p><b>Retail (2)</b> 22:5;26:16</p> <p><b>retiring (1)</b> 61:21</p> <p><b>review (7)</b> 12:5,12,15;20:18;</p>	<p>37:22;40:18;52:11</p> <p><b>reviewing (2)</b> 18:2,24</p> <p><b>revised (13)</b> 10:11,13,19;11:1,8; 14:19;15:3;19:1;22:15; 37:2;38:6;67:17;70:1</p> <p><b>revision (1)</b> 10:22</p> <p><b>revisions (3)</b> 22:13;24:5,8</p> <p><b>right (10)</b> 4:3;6:22;8:9;11:20; 17:8;47:10;49:3;55:7; 63:9;71:8</p> <p><b>Rob (1)</b> 8:4</p> <p><b>ROBERT (3)</b> 13:3,6,18</p> <p><b>Robidas (5)</b> 13:1;19:24;20:3; 53:4;71:15</p> <p><b>role (1)</b> 8:10</p> <p><b>roll-call (1)</b> 6:23</p> <p><b>room (3)</b> 7:7;8:23;69:14</p> <p><b>RSA (13)</b> 21:17;23:21;24:2,20; 25:11;30:17,19;66:23; 67:24;68:23;70:2,8,21</p> <p><b>Rule (3)</b> 9:20;10:4;11:20</p> <p><b>rules (1)</b> 5:13</p>	<p>66:2;69:13</p> <p><b>seek (1)</b> 41:20</p> <p><b>seems (3)</b> 43:7;55:3,5</p> <p><b>selected (3)</b> 58:22;59:1;64:12</p> <p><b>sense (2)</b> 44:23;65:17</p> <p><b>separate (2)</b> 11:3;68:21</p> <p><b>series (1)</b> 65:5</p> <p><b>serve (1)</b> 22:1</p> <p><b>Service (10)</b> 13:20;20:21;22:9,10; 27:3;35:8;36:2;42:20; 52:22;68:2</p> <p><b>services (1)</b> 13:21</p> <p><b>session (1)</b> 22:17</p> <p><b>set (3)</b> 20:16;21:17;52:15</p> <p><b>settlement (28)</b> 4:7;23:12,18;24:12; 28:3;30:6,10;31:6,17; 36:10,11,17;37:19,23; 40:3;50:9;51:18;55:3; 56:12;66:18;67:12,19; 68:13,20;69:18,23; 71:6,11</p> <p><b>settling (9)</b> 23:19;24:9,15;25:18; 50:14,17,18,23;52:10</p> <p><b>several (3)</b> 39:8;40:20;64:18</p> <p><b>shape (1)</b> 31:4</p> <p><b>share (1)</b> 56:16</p> <p><b>shared (1)</b> 62:17</p> <p><b>short (1)</b> 45:18</p> <p><b>shorter (1)</b> 64:14</p> <p><b>short-term (5)</b> 33:23;43:6;44:6; 46:7;62:12</p> <p><b>show (2)</b> 22:8;64:11</p> <p><b>showed (1)</b> 32:12</p> <p><b>showing (1)</b> 65:7</p> <p><b>Shute (24)</b> 8:13,14,15;11:14,15; 12:2,3,10;15:21,22,23; 16:1,24;17:4,10;28:11, 12,17,24;29:1;31:20; 38:18;66:15,16</p>	<p><b>significant (5)</b> 25:23;26:15;27:1; 41:6;70:11</p> <p><b>significantly (1)</b> 41:18</p> <p><b>similar (3)</b> 27:17,20;39:10</p> <p><b>single (1)</b> 27:23</p> <p><b>sit (1)</b> 36:2</p> <p><b>site (2)</b> 68:3;70:10</p> <p><b>sitting (1)</b> 8:8</p> <p><b>situation (8)</b> 44:4;45:6;46:5; 47:10,17;48:16,24; 62:21</p> <p><b>slightly (1)</b> 43:14</p> <p><b>slow (1)</b> 65:18</p> <p><b>slowly (1)</b> 6:12</p> <p><b>smaller (1)</b> 46:22</p> <p><b>solution (3)</b> 39:21;41:13;63:3</p> <p><b>solutions (2)</b> 31:8;41:4</p> <p><b>someone (1)</b> 63:17</p> <p><b>sometime (1)</b> 40:8</p> <p><b>sometimes (5)</b> 33:14;34:7;35:13; 54:17,18</p> <p><b>somewhere (1)</b> 62:11</p> <p><b>soon (2)</b> 5:20;35:7</p> <p><b>Sorry (4)</b> 17:8;49:16;51:21; 61:10</p> <p><b>sort (6)</b> 29:6;42:6;43:22; 53:20;65:11,19</p> <p><b>sound (2)</b> 18:16;68:10</p> <p><b>sounds (2)</b> 50:8;59:17</p> <p><b>source (1)</b> 36:1</p> <p><b>speak (3)</b> 5:23;6:12;39:22</p> <p><b>speaker (2)</b> 18:9,15</p> <p><b>specific (2)</b> 22:10;52:7</p> <p><b>Specifically (5)</b> 25:8;44:3;50:10; 51:19;54:1</p>	<p><b>spoke (1)</b> 22:24</p> <p><b>stabilize (1)</b> 65:15</p> <p><b>staff (23)</b> 8:17;9:4;11:12; 12:11;15:13,18;19:8; 23:13,17;30:15;37:5; 38:17,19;67:16,20,21; 68:9,12,18;69:1,15,21; 70:24</p> <p><b>stakeholders (1)</b> 29:10</p> <p><b>standard (12)</b> 12:7;34:5;59:7,9,12, 15,16;60:1;64:4,15,22, 23</p> <p><b>standards (2)</b> 64:2;70:20</p> <p><b>start (7)</b> 5:21;6:22;13:12; 20:5;31:18;50:16; 66:15</p> <p><b>starting (2)</b> 51:15;60:19</p> <p><b>state (8)</b> 4:13;7:1;17:20;23:7; 27:15;52:21;64:6; 68:16</p> <p><b>stated (1)</b> 29:8</p> <p><b>statement (2)</b> 9:23;10:2</p> <p><b>states (3)</b> 6:24;22:1;27:21</p> <p><b>static (1)</b> 55:10</p> <p><b>statute (11)</b> 30:19;41:15,16,19; 42:4;43:13,20;44:15; 52:9,20;54:9</p> <p><b>Statutory (16)</b> 25:10,13;31:9;36:19; 37:2,13;38:1;42:1,12; 51:20;53:17;66:23; 70:2,7,12;71:3</p> <p><b>stays (1)</b> 42:19</p> <p><b>stems (1)</b> 62:16</p> <p><b>steps (1)</b> 46:22</p> <p><b>Steve (1)</b> 9:8</p> <p><b>still (7)</b> 6:11;32:8;33:3;48:9; 51:9;63:15;65:13</p> <p><b>stone's (1)</b> 8:3</p> <p><b>storage (2)</b> 60:24;61:17</p> <p><b>store (1)</b> 62:11</p>
	<b>S</b>			
<p><b>safety (1)</b> 23:8</p> <p><b>same (5)</b> 10:21;12:12;30:14; 33:16;49:9</p> <p><b>satisfy (1)</b> 35:5</p> <p><b>saved (1)</b> 62:14</p> <p><b>saying (1)</b> 59:18</p> <p><b>scope (6)</b> 24:3,14;50:19,19,20; 51:13</p> <p><b>screen (1)</b> 61:11</p> <p><b>second (1)</b> 18:7</p> <p><b>seconds (1)</b> 61:4</p> <p><b>section (3)</b> 23:3;26:22,23</p> <p><b>Seeing (6)</b> 13:1;48:21;65:2,8;</p>				

<p><b>story (1)</b> 63:3</p> <p><b>straight (1)</b> 38:14</p> <p><b>strategy (1)</b> 46:20</p> <p><b>strike (1)</b> 66:3</p> <p><b>structured (1)</b> 32:11</p> <p><b>struggle (2)</b> 47:1;58:4</p> <p><b>studies (1)</b> 59:10</p> <p><b>study (1)</b> 24:14</p> <p><b>subject (1)</b> 37:3</p> <p><b>submit (1)</b> 9:21</p> <p><b>Submittal (1)</b> 24:22</p> <p><b>submitted (7)</b> 9:16,18;10:1,10; 21:16;22:14;66:19</p> <p><b>subsequent (1)</b> 51:14</p> <p><b>sufficient (3)</b> 41:11;42:5;51:16</p> <p><b>suggest (1)</b> 55:3</p> <p><b>suggesting (1)</b> 41:16</p> <p><b>suggestion (3)</b> 56:3,12;61:18</p> <p><b>suggests (1)</b> 65:12</p> <p><b>sum (2)</b> 66:2,6</p> <p><b>summarize (1)</b> 22:12</p> <p><b>summary (1)</b> 23:4</p> <p><b>summer (2)</b> 62:8,9</p> <p><b>supplies (2)</b> 21:6;44:6</p> <p><b>supply (16)</b> 21:13,21;34:5;39:4, 7,12,17;40:12,19;42:6; 45:13,14,15,18;55:22; 68:3</p> <p><b>support (5)</b> 8:10;14:11;30:9; 32:17;44:19</p> <p><b>supported (1)</b> 34:10</p> <p><b>supports (2)</b> 66:17;68:12</p> <p><b>sure (7)</b> 5:16;6:9,18;17:7; 23:15;52:6;56:21</p> <p><b>swear (1)</b></p>	<p>9:13</p> <p><b>swearing (2)</b> 12:22;13:2</p> <p><b>sworn (3)</b> 13:4,6,7</p> <p><b>system (5)</b> 20:24;22:8;33:9; 68:4,11</p> <hr/> <p style="text-align: center;"><b>T</b></p> <hr/> <p><b>table (5)</b> 8:9;63:22,24;64:5,11</p> <p><b>tables (2)</b> 22:20,22</p> <p><b>talk (3)</b> 6:2;34:24;43:22</p> <p><b>talked (3)</b> 36:23;61:16;62:4</p> <p><b>talking (5)</b> 5:15;32:21;45:9; 47:3;59:20</p> <p><b>tank (1)</b> 62:15</p> <p><b>Taylor (24)</b> 7:20,21,24;8:1;9:14; 13:9,11,15;15:10; 19:19,20,22;20:4,6,8; 28:7;38:16;53:13,14, 14;54:22;69:7,7,9</p> <p><b>technical (2)</b> 22:17;50:22</p> <p><b>ten-day (1)</b> 12:5</p> <p><b>term (1)</b> 45:18</p> <p><b>terms (6)</b> 27:3,4;30:10;44:20; 62:16;68:11</p> <p><b>territory (1)</b> 52:23</p> <p><b>testified (5)</b> 13:23;14:1,5;19:4; 63:12</p> <p><b>testifying (1)</b> 9:7</p> <p><b>testimony (21)</b> 16:8,10,14,20;19:7, 12;29:3,5,8,21;31:1; 36:16,18;37:18;38:5; 55:20;58:21;60:6,14, 18;62:18</p> <p><b>thanks (3)</b> 69:1,9;71:7</p> <p><b>therefore (1)</b> 68:18</p> <p><b>thinking (1)</b> 62:15</p> <p><b>third (2)</b> 43:4,8</p> <p><b>though (1)</b> 53:8</p> <p><b>thought (2)</b></p>	<p>17:4;47:12</p> <p><b>thoughtful (1)</b> 69:11</p> <p><b>three (9)</b> 24:11;25:10;27:12; 33:22;40:1;48:15; 59:22,23;65:9</p> <p><b>throughput (2)</b> 20:24;48:21</p> <p><b>throw (1)</b> 8:3</p> <p><b>timing (1)</b> 39:23</p> <p><b>today (19)</b> 6:8;8:4,6,20;9:5,7, 15;10:6;15:4;36:12; 37:23;51:11;53:24; 62:4;67:21;68:13,20; 69:11;71:15</p> <p><b>together (2)</b> 6:6;33:15</p> <p><b>top (1)</b> 61:19</p> <p><b>totally (3)</b> 47:18;57:21;58:9</p> <p><b>towards (1)</b> 46:7</p> <p><b>tracing (1)</b> 22:9</p> <p><b>track (1)</b> 56:23</p> <p><b>traditional (4)</b> 29:18;31:8;41:23; 67:3</p> <p><b>transmission (1)</b> 59:5</p> <p><b>transposed (1)</b> 22:21</p> <p><b>treat (1)</b> 11:23</p> <p><b>treatment (5)</b> 9:17;10:16,20,24; 11:8</p> <p><b>triggered (1)</b> 27:2</p> <p><b>trouble (1)</b> 28:20</p> <p><b>true (2)</b> 15:7;33:16</p> <p><b>try (3)</b> 34:23;57:19;61:4</p> <p><b>trying (9)</b> 42:1;46:4,6;55:13; 56:5;57:23;58:2,15; 62:24</p> <p><b>turn (7)</b> 6:18;18:8;20:4; 52:18;60:13,17;63:8</p> <p><b>turning (1)</b> 18:15</p> <p><b>two (12)</b> 11:7;22:1;33:15; 48:7,8;51:8;57:5,9;</p>	<p>58:8,8;59:22;61:22</p> <p><b>type (4)</b> 33:9;36:6;48:18; 58:16</p> <p><b>typically (2)</b> 8:8;40:1</p> <hr/> <p style="text-align: center;"><b>U</b></p> <hr/> <p><b>ultimately (2)</b> 25:2;35:10</p> <p><b>unable (1)</b> 5:11</p> <p><b>uncertainty (2)</b> 27:2,12</p> <p><b>undecipherable (1)</b> 35:23</p> <p><b>under (18)</b> 14:22;16:11;18:15; 21:1,17;24:2,20;27:20; 29:7;30:19;66:19;67:9; 68:6,15,23;69:12;70:1; 71:12</p> <p><b>understood (1)</b> 33:19</p> <p><b>undertaking (1)</b> 56:19</p> <p><b>unique (1)</b> 34:20</p> <p><b>Until (3)</b> 13:20;14:3;53:15</p> <p><b>unlikely (2)</b> 43:8;44:10</p> <p><b>unmet (1)</b> 41:7</p> <p><b>unmuted (1)</b> 18:13</p> <p><b>unsupported (1)</b> 34:6</p> <p><b>up (15)</b> 5:19;10:6;14:9; 17:11;31:14;37:8; 40:16,18;44:18;46:11; 49:11;53:15;56:22; 66:2,6</p> <p><b>updated (2)</b> 22:22;23:2</p> <p><b>updates (2)</b> 22:5,20</p> <p><b>upon (1)</b> 20:20</p> <p><b>urge (1)</b> 31:16</p> <p><b>usage (6)</b> 45:20,21,24;57:8; 58:16,16</p> <p><b>use (9)</b> 35:21;36:1;47:13; 60:14,22;62:12;63:1; 64:2,3</p> <p><b>used (5)</b> 20:19;33:15;58:23; 61:20;63:13</p>	<p><b>useful (1)</b> 62:7</p> <p><b>uses (1)</b> 57:11</p> <p><b>using (3)</b> 32:20;59:12;64:13</p> <p><b>usually (3)</b> 18:10;35:17;45:18</p> <p><b>Utilities (24)</b> 4:5,12;7:4;8:2; 13:22;14:4;16:17,19; 30:18;36:19,22,24; 37:12;44:4;46:17;47:5, 7;55:24;64:1,8,9,10,23; 68:23</p> <p><b>utility (6)</b> 9:5;18:22;29:13; 44:18;47:16;68:5</p> <p><b>utilization (2)</b> 35:7;49:5</p> <p><b>utilizes (1)</b> 34:13</p> <p><b>utilizing (3)</b> 4:24;36:5;61:17</p> <hr/> <p style="text-align: center;"><b>V</b></p> <hr/> <p><b>vaccine (1)</b> 48:24</p> <p><b>valid (1)</b> 33:3</p> <p><b>valuable (1)</b> 67:6</p> <p><b>value (1)</b> 59:1</p> <p><b>valued (1)</b> 63:16</p> <p><b>various (2)</b> 22:20;24:4</p> <p><b>verbal (4)</b> 11:11;12:23;19:21; 65:24</p> <p><b>Vermont (1)</b> 8:22</p> <p><b>version (2)</b> 11:9;48:4</p> <p><b>versions (2)</b> 10:13;14:17</p> <p><b>video (3)</b> 6:19;19:19;49:4</p> <p><b>view (3)</b> 52:13;56:7,10</p> <p><b>vigorous (1)</b> 44:16</p> <p><b>visualize (2)</b> 51:4,7</p> <hr/> <p style="text-align: center;"><b>W</b></p> <hr/> <p><b>wait (1)</b> 5:24</p> <p><b>wants (1)</b> 57:10</p>
--	---	--	---	--

warm (2) 48:19,19	9:13;12:22;13:2; 15:14;32:2;38:17;63:8	11 (2) 60:19;61:5	32:20,21;33:2;61:3; 65:12
warming (2) 65:14,17	wondering (2) 59:16;61:18	11:41 (1) 71:16	30-year (2) 63:12;65:1
Water (3) 9:6,9;17:23	word (1) 58:24	12 (2) 4:16;24:23	378 (4) 30:19;67:24;68:24; 70:2
waving (1) 5:21	wording (1) 64:17	15 (7) 33:17,21;35:11,12, 13,15,16	378:37 (7) 24:2,20;25:11;51:21; 66:23;67:9;70:8
way (9) 43:15;45:24;46:10; 57:12,17,18;58:7;60:6; 62:1	work (10) 18:16;31:2;37:10; 50:12,20;51:18,19,19; 66:21;70:23	150,000 (1) 42:24	378:38 (1) 21:18
ways (3) 63:1;66:22;68:14	working (20) 23:22;24:10,16,24; 25:1,9,21;31:13;37:11; 40:4;41:2;43:18;47:4, 4,13;50:15;51:4;56:17; 67:6;71:1	15-009 (1) 26:13	378:39 (3) 23:21;30:17;70:21
weather (7) 21:1;25:18;32:19; 33:3;55:14;63:13;64:1	written (1) 16:18	15-033 (2) 26:11;70:14	387 (1) 51:20
weather-related (1) 22:22	WXP (1) 26:3	18 (1) 16:15	39 (1) 21:18
Webex (1) 4:24		19-126 (1) 4:4	4
well-documented (1) 32:12	X	1st (1) 24:17	4 (2) 10:14;14:18
well-organized (1) 32:11		2	40 (7) 24:2,20;25:11;51:21; 66:23;67:9;70:8
well-reasoned (1) 67:22	XPress (2) 14:13;26:4	2 (1) 14:14	43 (1) 45:14
Wells (2) 8:7,7	Y	2.5 (1) 58:24	5
well-sized (1) 35:5		20 (1) 33:17	5 (5) 16:10;17:3,5,8;33:18
well-supported (1) 67:22	year (5) 14:4;22:14;31:18; 40:6;53:22	2008 (1) 14:4	50-year (1) 64:24
Westbrook (2) 14:13;26:4	yearly (1) 50:3	2015 (2) 27:1,11	6
What's (3) 15:16;49:1;65:19	years (21) 32:20,21,21;33:11, 17,18,21,22,23;35:11, 13,13,15,16;39:9,18; 40:1,20;59:2,22;65:13	2019 (8) 4:6;20:14,15,22; 22:17;27:19;30:16; 39:24	6 (3) 17:1;19:8;25:24
whenever (1) 39:5	years' (3) 33:2;59:21,24	2019-2020 (2) 20:18;23:20	603271-2431 (1) 5:10
whereas (1) 64:24		2020-04 (1) 4:17	7
wherein (1) 29:10	0	2021 (2) 24:17;40:5	7 (3) 12:19;36:12;66:3
WHEREUPON (1) 13:3	007 (1) 16:16	2022 (2) 40:2,9	8
willing (2) 11:4;56:16	1	2023-2024 (1) 20:18	85 (1) 63:23
willingness (1) 66:20		2024-2025 (1) 40:14	9
Wind (2) 5:15;71:14	1 (7) 12:19;14:14;18:4; 19:2;64:24;65:1;66:3	203.08d (1) 9:20	9 (1) 60:20
winter (5) 40:14;48:19,20,22; 62:7	10 (1) 59:6	2-1/2 (1) 59:7	90/10 (1) 59:6
within (2) 24:10;50:14	10,000 (1) 62:6	26,027 (1) 38:2	
without (6) 34:6;36:5;40:22; 44:8;45:5;66:3	100 (1) 27:16	3	
witness (4) 8:6;13:12;15:19; 19:16	100,000 (1) 42:22	3 (6) 10:14;14:18;18:4; 19:2;26:23;63:23	
witnesses (7)	10th (1) 19:8	30 (5)	