

**In Re:**  
*DG 10-041*  
*ENERGYNORTH NATURAL GAS, INC., D/B/A*  
*NATIONAL GRID NH*

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*INTEGRATED RESOURCE PLAN - Hearing*  
*July 14, 2011*

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*SUSAN J. ROBIDAS, LCR NO. 44*

**INTEGRATED RESOURCE PLAN - Hearing - July 14, 2011  
 DG 10-041 ENERGINORTH NATURAL GAS, INC., D/B/A NATIONAL GRID NH**

1 STATE OF NEW HAMPSHIRE  
 2 PUBLIC UTILITIES COMMISSION  
 3  
 4 July 14, 2011 - 9:20 a.m.  
 5 Concord, New Hampshire  
 6 RE: DG 10-041  
 7 ENERGINORTH NATURAL GAS, INC.  
 8 d/b/a NATIONAL GRID, NH:  
 9 Integrated Resource Plan  
 10 (Hearing)  
 11  
 12 PRESENT: Chairman Thomas B. Getz, Presiding  
 13 Commissioner Clifton C. Below  
 14 Commissioner Amy L. Ignatius  
 15 Sandy Deno, Clerk  
 16  
 17 APPEARANCES:  
 18 Reptg. EnergyNorth Natural Gas, Inc.  
 19 d/b/a National Grid NH:  
 20 Steven V. Camerino, Esq.  
 21 Reptg. Northern Utilities, Inc.:  
 22 Susan S. Geiger, Esq. (Orr & Reno)  
 23 Reptg. Residential Ratepayers:  
 24 Meredith Hatfield, Esq., Consumer Advocate  
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 Donna McFarland  
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 Marcia A.B. Thunberg, Esq.  
 George McCluskey, Electric Division  
 Robert Wyatt, Gas & Water Division  
 COURT REPORTER: Susan J. Robidas, LCR NO. 44

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**PROCEEDINGS**

**CHAIRMAN GETZ:** Okay. Good morning, everyone. We'll open the Docket in DG-041.

On March 1, 2010, National Grid filed an Integrated Resource Plan for Commission review. An order of notice was issued on April 21, among other things, setting a prehearing conference that was held on May 20. Subsequently, a secretarial letter was issued approving a procedural schedule, which has been revised from time to time, resulting in the hearing this morning.

So, can we take appearances, please.

**MR. CAMERINO:** Good morning, Commissioners. Steve Camerino, from McLane, Graf, Raulerson & Middleton. And with me is Carol Hollahan, and we're appearing on behalf of National Grid NH.

**CHAIRMAN GETZ:** Good morning.

**MS. HATFIELD:** Good morning, Commissioners. Meredith Hatfield, for the Office of Consumer Advocate, on behalf of residential ratepayers. And with me for the Office is Steve Eckberg and Donna McFarland.

**CHAIRMAN GETZ:** Good morning.

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1 MS. THUNBERG: Good morning. I'm  
2 Marcia Thunberg, on behalf of Staff. And with me  
3 today is George McCluskey and Bob Wyatt. Thank you.  
4 CHAIRMAN GETZ: Good morning.  
5 Are you ready to proceed, Mr.  
6 Camerino?  
7 MR. CAMERINO: Yes, we are. The  
8 Company calls Elizabeth Arangio, Leo Silvestrini and  
9 Theodore Poe, Jr. They're going to be testifying as  
10 a panel.  
11 And maybe I could just attend to a  
12 couple preliminary housekeeping details as they're  
13 taking the stand.  
14 First of all, it's my understanding  
15 they'll be testifying to support both the initial IRP  
16 filing, as well as their rebuttal testimony. And  
17 there actually was no formal testimony filed at the  
18 initial part of the proceeding. It's just the plan  
19 document itself. And unless the Commission would  
20 want otherwise, I would simply, after they're sworn,  
21 have them identify the testimony, swear to its truth,  
22 et cetera, and not have them provide a summary. So  
23 my understanding is they would be open for  
24 cross-examination.

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1 I would like to reserve the right,  
2 given that they are filing rebuttal in this case, and  
3 we have not heard from Mr. McCluskey in response to  
4 that, to have them take the stand again in true  
5 rebuttal if there are new things said; although, for  
6 obvious reasons, I would hope to avoid that.  
7 And then the other procedural item is  
8 I was going to mark as the first exhibit the IRP  
9 document itself. But I've given the clerk a copy of  
10 the filing with the revised pages actually included  
11 and was not going to mark the original filing and  
12 then revised pages, but rather have one document all  
13 in one place, if that's okay with the Commission.  
14 CHAIRMAN GETZ: Any objection to that  
15 proposal?  
16 MS. THUNBERG: None from Staff.  
17 CHAIRMAN GETZ: Okay. Sounds good.  
18 MR. CAMERINO: So I think we're ready  
19 to have the witnesses sworn.  
20 Whereupon the following Witnesses were  
21 duly sworn and cautioned by the Court  
22 Reporter:  
23  
24

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1 ELIZABETH D. ARANGIO, SWORN  
2 THEODORE POE, JR., SWORN  
3 A. LEO SILVESTRINI, SWORN  
4 DIRECT EXAMINATION  
5 BY MR. CAMERINO:  
6 Q. If we could just go one by one, starting with Ms.  
7 Arangio. Would you state your name and business  
8 address for the record, please.  
9 A. (By Ms. Arangio) Yes. My name is Elizabeth Arangio,  
10 and my business address is 40 Sylvan Road in Waltham,  
11 Massachusetts.  
12 Q. And Ms. Arangio, would you just give your title and  
13 responsibilities with the Company and your role with  
14 regard to the IRP that's being considered in this  
15 proceeding.  
16 A. (By Ms. Arangio) Yes. I am the Director of Gas  
17 Supply Planning for National Grid. And what those  
18 responsibilities include is planning the resource  
19 portfolio for making sure that we meet customer  
20 requirements in EnergyNorth. And my role in the IRP  
21 was to prepare several sections within the IRP,  
22 specifically the design of the resource portfolio.  
23 Q. Mr. Poe, let me ask you the same questions. What's  
24 your name and business address?

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1 A. (By Mr. Poe) Certainly. My name is Theodore Poe, Jr.  
2 My address is National Grid, 40 Sylvan Road, Waltham  
3 Massachusetts, 02451. And I am a lead analyst with  
4 the Company.  
5 Q. And what's your role with regard to the IRP that's  
6 the subject of this proceeding?  
7 A. (By Mr. Poe) With regard to the IRP, I was  
8 responsible for generating the customer requirements  
9 forecast, the design planning standards for the  
10 Company, and also modeling the Company's resource  
11 portfolio.  
12 Q. Thank you.  
13 And Mr. Silvestrini, your name and business  
14 address, please?  
15 A. (By Mr. Silvestrini) I'm Leo Silvestrini. I'm the  
16 Manager of Gas Load Forecasting for National Grid.  
17 My business address is 40 Sylvan Road, Waltham,  
18 Massachusetts.  
19 Q. And what's your role with regard to the IRP that's  
20 the subject of this proceeding?  
21 A. (By Mr. Silvestrini) Yeah. I prepared the demand  
22 forecast and oversaw the development of the demand  
23 forecasting models, and also collaborated with  
24 Mr. Poe to design the demand-side management

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1 component of the supply-side portfolio.  
2 Q. Thank you. I'm going to show all of you a document  
3 that is entitled "National Grid NH Integrated  
4 Resource Plan," and has a date of February 26, 2010.  
5 It indicates on the cover sheet that it includes  
6 revised pages that were filed with the Commission on  
7 August 18th, 2010. And was what prepared by the  
8 three of you or under your direction?  
9 A. (By Mr. Poe) Yes, it was.  
10 A. (By Ms. Arangio) Yes, it was.  
11 A. (By Mr. Silvestrini) Yes, it was.  
12 Q. And is it -- subject to any inaccuracies, let's say,  
13 that are the result of a passage of time, is it true  
14 and accurate to the best of your knowledge and  
15 belief?  
16 A. (By Ms. Arangio) Yes, it is.  
17 A. (By Mr. Poe) Yes, it is.  
18 A. (By Mr. Silvestrini) Yes, it is.  
19 MR. CAMERINO: First of all, if I  
20 could have the plan with the revised pages that were  
21 filed with Commission on August 18, 2010 be marked as  
22 Exhibit 1 for identification.  
23 CHAIRMAN GETZ: So marked.  
24 (The document, as described, was

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1 herewith marked as Exhibit 1 for  
2 identification.)  
3 MR. CAMERINO: Thank you.  
4 BY MR. CAMERINO:  
5 Q. I'll ask this to Mr. Silvestrini, but if the others  
6 have something further to add, please feel free to do  
7 so.  
8 Can you explain very briefly to the Commission  
9 in what ways this plan would be no longer accurate or  
10 out of date because of the passage of time.  
11 A. (By Mr. Silvestrini) Yes. The original plan was  
12 filed, I believe it was March 1st, 2010. And the  
13 analytical work began in the late summer/early fall  
14 of 2009. So, first of all, the demand models and  
15 forecasts that I'm responsible for would have been  
16 prepared at that time. I believe the actual data  
17 that we did our analysis on at that time ran through  
18 March of 2009. And during the course of the  
19 proceeding, we updated that through June of 2010.  
20 So, the first thing we would need to update is  
21 the actual experience that the Company had in terms  
22 of the demand on its system since that time, as well  
23 as the economic and demographic and pricing variables  
24 that were used to develop the models, the econometric

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1 models that we used to generate the forecast. So at  
2 a minimum, we would need to update historical data  
3 and then the forecast of the drivers to create the  
4 models.  
5 Q. And you mentioned data that was updated as of  
6 June 2010. That was -- if I understand what you're  
7 referring to correctly, that's information that was  
8 provided to the Staff during discovery. But the plan  
9 itself was not updated in any way to reflect that?  
10 A. (By Mr. Silvestrini) That's correct. It was just to  
11 the extent of the demand forecast with that update.  
12 Q. Let me show you now a document entitled "Prefiled  
13 Rebuttal Testimony of Elizabeth D. Arangio, A. Leo  
14 Silvestrini and Theodore Poe, Jr., dated June 29,  
15 2011, and ask you if that's your prefiled rebuttal  
16 testimony in this docket.  
17 A. (By Ms. Arangio) Yes, it is.  
18 A. (By Mr. Poe) Yes, it is.  
19 A. (By Mr. Silvestrini) Yes.  
20 Q. And was that prepared by the three of you or under  
21 your direction?  
22 A. (By Ms. Arangio) Yes, it was.  
23 A. (By Mr. Poe) Yes.  
24 A. (By Mr. Silvestrini) Yes.

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1 Q. And is it true and accurate to the best of your  
2 knowledge and belief?  
3 A. (By Ms. Arangio) Yes.  
4 A. (By Mr. Poe) Yes.  
5 A. (By Mr. Silvestrini) It is.  
6 Q. Do you have any corrections to make to it?  
7 A. (By Ms. Arangio) No.  
8 A. (By Mr. Poe) No.  
9 A. (By Mr. Silvestrini) No.  
10 MR. CAMERINO: Could we have the  
11 rebuttal testimony marked as Exhibit No. 2, please.  
12 CHAIRMAN GETZ: So marked.  
13 (The document, as described, was  
14 herewith marked as Exhibit 2 for  
15 identification.)  
16 MR. CAMERINO: That concludes my  
17 direct examination.  
18 CHAIRMAN GETZ: Ms. Hatfield.  
19 MS. HATFIELD: Thank you, Mr.  
20 Chairman.  
21 CROSS-EXAMINATION  
22 BY MS. HATFIELD:  
23 Q. Good morning, Witnesses.  
24 A. (Witnesses) Good morning.

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1 Q. I'd like to begin by asking you about a date that is  
2 in your rebuttal, and it appears on Page 6 at  
3 Line 19. You referred to a period from November 2009  
4 through October 2011. And I wondered if the 2011  
5 should be 2010.  
6 CHAIRMAN GETZ: Someone needs to say  
7 something.  
8 MR. CAMERINO: That information  
9 actually came from Ms. Culliford. She's not sworn  
10 in, but we can swear her in and have her give the  
11 answer to that, if that would be helpful.  
12 CHAIRMAN GETZ: Why don't you just  
13 make the representation.  
14 MR. CAMERINO: Okay. Apparently, 2011  
15 is correct. It includes transactions that were made  
16 this summer that cover that period right up through  
17 October of 2011.  
18 CHAIRMAN GETZ: Thank you.  
19 BY MS. HATFIELD:  
20 Q. If you would please turn to Page 9 of the rebuttal.  
21 At the bottom of the page, beginning on Line 18, you  
22 discuss the current supply/demand balance. Do you  
23 see that?  
24 A. (Witnesses) Yes.

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1 Q. And on Line 21, you have the figure of 180,233 MMBtu  
2 per day. Do you see that?  
3 A. (By Mr. Poe) Yes, ma'am.  
4 Q. And then on Line 23 you state that the forecasted  
5 peak day for the 2010 winter was 140,043 MMBtu. Do  
6 you see that?  
7 A. (By Mr. Poe) Yes, ma'am.  
8 Q. Do you know what the actual was for the 2011 winter?  
9 A. (By Mr. Poe) Well, in the winter of 2010-2011, we did  
10 not have an actual peak day. It did not get cold  
11 enough. No, I do not know the back-casted number,  
12 off the top of my head.  
13 Q. So is it fair to say that there are approximately  
14 40,000 MMBtu that would be considered excess, based  
15 on those two numbers?  
16 A. (By Mr. Poe) Yes, the difference between the  
17 deliverability that the Company has and that  
18 forecasted peak day for that winter is approximately  
19 40,000.  
20 Q. Do you know what the cost to customers is with the  
21 Company having that excess capacity?  
22 A. (By Ms. Arangio) No. At this point in time, that's a  
23 representation of the comparison of the total  
24 resources available versus the peak day. But when

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1 we -- as we explained further in our testimony, we  
2 can't assign a specific cost to the actual assets  
3 that would be determined, as we portrayed here, as  
4 excess.  
5 Q. But there is a cost to customers of having excess  
6 supply.  
7 A. (By Ms. Arangio) Yes. Well, in the portfolio, as we  
8 refer to it as well in our testimony, the "lumpy  
9 investment cycle" is such that when the Company  
10 identifies a need going out in the future, we need to  
11 contract for incremental capacity to meet customer  
12 requirements. So that at any given time there always  
13 is a slight bit of excess within the portfolio, and  
14 we grow into that excess. So, like I said, at any  
15 given time, we would never have a decrement. So the  
16 "lumpy investment" is the nature of such that you  
17 grow into that investment, and then when you maximize  
18 that investment, then you need to make another  
19 investment in additional resources to meet customer  
20 requirements.  
21 Q. Turning to Page 13 of your rebuttal, starting at  
22 Line 8, you refer to the Commission's order in your  
23 last IRP proceeding. Do you see that?  
24 A. (BY Ms. Arangio) Yes.

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1 A. (By Mr. Poe) Yes, ma'am.  
2 A. (By Mr. Silvestrini) Yes.  
3 Q. And there you quote the Commission's order which  
4 stated that the Company should describe its process  
5 for integrating demand-side and supply-side resources  
6 so that customer needs will be met at the lowest  
7 reasonable cost while maintaining reliability and  
8 taking into account the other non-cost planning  
9 criteria. Do you see that?  
10 A. (By Mr. Poe) Yes.  
11 A. (By Mr. Silvestrini) Yes.  
12 Q. And then on the following page, starting at Line 4,  
13 you state that Mr. McCluskey's testimony blurs the  
14 distinction between the role of a supply plan and an  
15 economic potential study. And I'm wondering if you  
16 can just speak a little bit more to that statement.  
17 A. (By Mr. Silvestrini) Yes. As we looked at putting  
18 together this filing and incorporating demand-side  
19 management, we were focused on our responsibilities  
20 in preparing a supply plan that will meet customer  
21 needs under, you know, the required design criteria,  
22 design date, design year normally in your criteria.  
23 It was only through subsequent discussions with Staff  
24 that we discovered that there was probably a

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1 difference in interpretation of the Department's  
2 order and how to treat the DSM. And we found out  
3 that the Staff's interpretation was that they wanted  
4 us to do an economic potential study that would  
5 identify the full range of energy efficiency that  
6 would be available to the Company. Our role, though,  
7 was to put together a supply plan. And our  
8 interpretation was to look at energy efficiency as a  
9 supply plan. So, in our minds, an economic potential  
10 study is a valuable but somewhat academic exercise  
11 that identifies what those full range of efficiency  
12 programs or measures might be. But it may not be  
13 practical to incorporate many of them in a supply  
14 plan, where we need to make sure that the supplies  
15 are reliable and delivered at the time and under the  
16 weather conditions that we need them.  
17 Q. On Page 14, down on Line 17, you state that the  
18 Company evaluated the results of the technical  
19 potential study that was conducted by GDS. Do you  
20 see that?  
21 A. (By Mr. Silvestrini) Yes, I do.  
22 Q. So you were obviously aware that New Hampshire had  
23 already performed a potential study for efficiency.  
24 A. (By Mr. Silvestrini) Yes, I did. And I reviewed that

Page 18

1 study in detail as we prepared this filing.  
2 Q. And then in your rebuttal testimony you go on to  
3 state that you looked at the potentially available  
4 scenario in the GDS study; is that right?  
5 A. (By Mr. Silvestrini) I actually looked at all of  
6 them, but that was the one that looked like the most  
7 reasonable of the study scenario.  
8 Q. Now, you previously, and also in your rebuttal, you  
9 used the word "academic" and then you used the word  
10 "practical," and then in your rebuttal, on Line 19,  
11 you use the word "realistic." And you state on  
12 Line 20 that the potentially available scenario would  
13 result in 8.7 times the 2010 efficiency goal for the  
14 Company; is that right?  
15 A. (By Mr. Silvestrini) Yes, it is.  
16 Q. And then on the next page, on Page 15, at Line 17 --  
17 starting on Line 15 -- excuse me -- you state the  
18 Company determined that a practical limit on the  
19 increase in efficiency that was scaleable was two  
20 times the goal; is that right?  
21 A. (By Mr. Silvestrini) Yes.  
22 Q. So your testimony is that you reviewed the GDS study,  
23 and it is your belief that the Company can only  
24 double its efficiency goals over 2010?

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1 A. (By Mr. Silvestrini) That's correct.  
2 Q. What year do you think it would be reasonable for the  
3 Company to move to that increase?  
4 A. (By Mr. Silvestrini) When we put together the  
5 demand-side components for our supply plan, we were  
6 trying to identify which measures we could put in  
7 place to realize the kinds of savings that would be  
8 needed that we could rely on for a supply plan. And  
9 when we did that, we looked at the GDS study as a  
10 starting point. And we were hoping to be able to use  
11 that as kind of an outer bound to put some  
12 constraints. If you think about -- and Mr. Poe can  
13 direct his comments to this better than I. But when  
14 we do the supply plan, we put the gas demands in the  
15 linear programming optimization model, along with the  
16 various supplies that are in our portfolio. And we  
17 were looking to put demand-side management options in  
18 that portfolio as well.  
19 So, as you optimize that, you need to look at  
20 what energy-efficiency, demand-side management  
21 measures would deliver the kinds of volumes that we  
22 need to rely on as we put the plan together.  
23 As I evaluated the GDS study, I looked at that.  
24 And I compared it to the programs that are in place

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1 with the budgets and the measures and the levels of  
2 participants that have been approved by the  
3 Commission in the past and modified over time. And  
4 when I did the comparison of the two, it looked to me  
5 like even the most conservative, or the lowest  
6 scenario in the GDS study was somewhat practical or  
7 beyond the reach, given the experience that we had in  
8 the programs over the last, I'm going to say 10 or 11  
9 years.  
10 With that in mind, we went to the  
11 energy-efficiency folks within the Company and said,  
12 how can we modify our existing programs to generate  
13 more energy efficiency, and how do we cost that out.  
14 And they identified which measures they thought could  
15 be expanded and at what cost they could be expanded  
16 so that we could model them and put that in a supply  
17 plan. And that's what we did.  
18 Q. Is it a correct reading of your analysis of the GDS  
19 study to say that you could increase efficiency goals  
20 by 8.7 times and that the cost of efficiency would  
21 still be lower than the cost of gas?  
22 A. (By Mr. Silvestrini) Could you repeat that? I'm not  
23 sure I understood the question.  
24 Q. If the Company -- just say, for argument's sake, the

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1 Commission says to the Company, We want you to  
2 increase efficiency 8.7 times. We want you to  
3 achieve the potentially available scenario in the GDS  
4 study -- which I think you said would take a lot of  
5 work; is that right?  
6 A. (By Mr. Silvestrini) That's correct. And I think  
7 even GDS says it would take aggressive marketing and  
8 outreach to achieve those kinds of levels, without  
9 defining "aggressive."  
10 Q. But if you did that on a per therm basis from the  
11 customer's perspective, would the efficiency be less  
12 expensive than a therm of gas?  
13 A. (By Mr. Silvestrini) That highlights one of the  
14 problems that we had using this information and one  
15 of the problems we had with expanding the programs,  
16 because we know what it costs us to achieve the  
17 certain levels that are in our programs, and we have  
18 some idea of what it would take to expand certain  
19 measures. For example: We looked at measures in the  
20 program that specifically had rebates as incentives,  
21 and we said we know we can get more participants and  
22 more savings if we offer the rebates and issued more  
23 rebates. And that's a direct cost.  
24 The problem with the GDS study is that if we go

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1 much beyond the programs that we have now, we know  
2 it's going to cost incrementally more money to  
3 achieve more savings. And we're not sure what that  
4 rate of growth is going to be. So if you just assume  
5 current costs, they may or may not be cost-effective  
6 relative to the supplies in our portfolio. But it  
7 was hard to quantify what it would take to achieve  
8 those kinds of levels. And that's part of what I say  
9 when we looked at what is practical. And that pretty  
10 much pushed those results beyond what we deemed  
11 practical, because it was difficult to quantify what  
12 it would cost to attach those kinds of DSM savings.  
13 Q. Is it possible to change or modify the existing  
14 efficiency programs to incorporate different measures  
15 or different types of projects that could help  
16 achieve a higher efficiency goal?  
17 A. (By Mr. Silvestrini) Yeah. Unfortunately, I'm not  
18 the program expert. You'd have to have somebody with  
19 a better knowledge of what it takes to put those  
20 programs in the field than I.  
21 Q. Near the top of Page 15, at Line 2, you also make  
22 reference to "a budget level that was acceptable to  
23 the parties." Do you see that?  
24 A. (By Mr. Silvestrini) Yes, I do.

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1 Q. And there it sounds like you're making reference to  
2 the increased cost of efficiency that would be  
3 necessary to achieve higher goals; is that right?  
4 A. (By Mr. Silvestrini) Yes, it is. And I'm also  
5 referring to the other proceedings before the  
6 Commission that determine what the appropriate level  
7 of energy-efficiency programs are, balancing the  
8 interest in encouraging energy efficiency and  
9 achieving those savings, and understanding the value  
10 of doing that, but also balancing that against the  
11 cost to the remaining customers, what the impact on  
12 rates are and what bill impacts on customer groups  
13 are.  
14 Q. In your analysis, did you talk to the parties in the  
15 efficiency docket about what budget level would be  
16 acceptable to them?  
17 A. (By Mr. Silvestrini) In preparing this filing?  
18 Q. Yes.  
19 A. (By Mr. Silvestrini) No, we did not.  
20 Q. Are you familiar with Massachusetts programs that  
21 Grid runs in the efficiency arena?  
22 A. (By Mr. Silvestrini) Vaguely.  
23 Q. Are you aware that in Massachusetts there's more of a  
24 requirement than in New Hampshire that utilities

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1 capture all cost-effective efficiency?  
2 A. (By Mr. Silvestrini) Just indirectly.  
3 Q. On Page 17, at Line 4, you start a discussion where  
4 you say that there's value in creating a scenario for  
5 efficiency. And then on Line 6 you say, "Such an  
6 exercise is best done apart from a supply plan."  
7 And thinking ahead for the next IRP, can you  
8 talk about that statement and how it relates to the  
9 goal of having an integrated resource plan?  
10 A. (By Mr. Silvestrini) Yeah. I think there's a value  
11 in doing the economic potential study. As I say,  
12 it's somewhat an academic or analytical exercise.  
13 But then, when it comes down to the reality of  
14 putting a supply plan together, you need to make  
15 judgments about what's in that economic potential,  
16 where you need to scale back to make sure that the  
17 savings are real. Again, as we're putting together a  
18 supply plan, we need to make sure that the gas  
19 supplies are available to meet our customer demands  
20 at the time and under the weather conditions that are  
21 in place. And to the extent that some  
22 energy-efficiency measures or parts of the program  
23 don't really deliver those kinds of savings when we  
24 need them the most, or perhaps even where on the

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1 system we need them the most, we can't really rely on  
2 those as supply planners. On the other hand, to the  
3 extent that there is more energy efficiency that we  
4 could be doing that's cost effective, I think it's  
5 valuable to identify that.  
6 And if you think about a process -- and this  
7 came up during discussions we had with the Staff --  
8 if you start with an economic potential study, or  
9 somewhat of a technical potential study, and then  
10 scale that back to what's reasonable and practical to  
11 put in a supply plan, I think that's a valuable  
12 exercise. But if the intention was to do an economic  
13 potential study and put that in your supply plan, I  
14 think as a supply planner I would be -- I don't know.  
15 That would be very poor judgment on my -- on our  
16 part.  
17 Q. And earlier you read with me the language from the  
18 Commission's order that you cite on Page 13 that  
19 states that customer needs will be met at the lowest  
20 reasonable cost while maintaining reliability and  
21 taking into account other non-cost planning criteria;  
22 correct?  
23 A. (By Mr. Silvestrini) That's correct.  
24 Q. So the lowest reasonable costs also need to be a

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1 factor in your planning; right?  
2 A. (By Mr. Silvestrini) That's correct.  
3 Q. On Page 17, at Line 18, you state, "The issues raised  
4 by Mr. McCluskey in this regard are refinements that  
5 can readily be made to the Company's modeling  
6 effort." Do you see that statement?  
7 A. (By Mr. Silvestrini) I do.  
8 Q. Is the Company planning to make what it calls these  
9 "refinements" when you file your next IRP?  
10 A. I think we'll look at the outcome of this proceeding  
11 and find out, you know, what refinements the parties  
12 agree to and the Commission agrees to. And, you  
13 know, we would make whatever refinements are deemed  
14 appropriate, as we have in the past. I mean, every  
15 time an order comes out, there are a set of  
16 conditions that we need to comply with. And we do  
17 that with the understanding that there will probably  
18 be other revisions coming down the road as we look at  
19 ways of improving these supply plans and the analysis  
20 that goes into them, and we make those adjustments as  
21 we go forward.  
22 Q. On Page 18, at Line 23, you refer to a February 2012  
23 IRP filing. Do you see that?  
24 A. (By Mr. Silvestrini) I do.

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1 Q. So the Company is planning to file its next IRP at  
2 that time?  
3 A. (By Mr. Silvestrini) Yeah. I think under the rules  
4 we need to file every two years. The last one was  
5 filed in February -- actually, March 1st of 2010.  
6 And the next one would be due in February 2012.  
7 Q. In order to incorporate changes that might come out  
8 of this docket, is there a particular time when you  
9 would need an order in this case in order to do so?  
10 A. (By Mr. Silvestrini) We generally begin work on these  
11 about six months before the due date. So, sometime,  
12 whenever that is, September. But if it were shortly  
13 after that, I'm sure we could make mid-term  
14 corrections to it to adjust for those requirements,  
15 provided it wasn't too far along in that six-month  
16 period.  
17 Q. And you stated previously that you're not an  
18 efficiency-program expert; is that right?  
19 A. (By Mr. Silvestrini) That's right.  
20 Q. Can you talk a little bit about the interaction  
21 between the planning staff at Grid and the efficiency  
22 program staff who will need to implement what might  
23 come out of this process?  
24 A. (By Mr. Silvestrini) Yes. As we were preparing this

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1 document, we met several times with the program  
2 people, policy people, the evaluation people, to talk  
3 about specifically what modifications we could make  
4 to the existing programs that would give us some  
5 realistic assumptions on the kinds of DSM savings we  
6 could incorporate in the supply plan. And they were  
7 the ones that told us which programs and which  
8 measures to modify, how to modify them, and what  
9 constraints we should put on how much we could expand  
10 those programs reasonably over the five-year period  
11 of the forecast.  
12 Q. Are you familiar with the study that the Commission  
13 is conducting with an independent consultant that was  
14 required by legislation last year to look at the  
15 status of New Hampshire's efficiency and sustainable  
16 energy programs?  
17 A. (By Mr. Silvestrini) I know that there's a study  
18 going on, but I'm not real familiar with the details  
19 or what the objective of the study is.  
20 Q. Once that study is final, would that be something  
21 that the efficiency program staff would use in  
22 developing future programs?  
23 A. (By Mr. Silvestrini) That I can't answer. I assume  
24 so. But again, not being the program expert, I don't

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1 know how they would use it.  
2 MS. HATFIELD: Thank you, Mr.  
3 Chairman. I have nothing further.  
4 CHAIRMAN GETZ: Thank you. Ms.  
5 Thunberg.  
6 CROSS-EXAMINATION  
7 BY MS. THUNBERG:  
8 Q. Good morning.  
9 A. (Witnesses) Good morning.  
10 MS. THUNBERG: We have not yet marked  
11 for identification Mr. McCluskey's testimony. So I'd  
12 like to do that at -- well, actually, I don't have it  
13 authenticated, but I do have some questions on it.  
14 Do you have his testimony in front of you? And I  
15 assume the Commissioners have a copy of Mr.  
16 McCluskey's testimony? When I say updated, there  
17 were some typographical errors that were corrected on  
18 October 13th.  
19 CHAIRMAN GETZ: Well, we can mark the  
20 October 13th version of the testimony for  
21 identification as Exhibit No. 3.  
22 (The document, as described, was  
23 herewith marked as Exhibit 3 for  
24 identification.)

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1 MS. THUNBERG: Thank you.  
2 BY MS. THUNBERG:  
3 Q. And I'd just like to draw your attention to the  
4 recommendations in Mr. McCluskey's testimony on  
5 Pages 7 and 8. And I just want to walk through where  
6 we have agreement, because in your rebuttal testimony  
7 you've made a statement that there's agreement on  
8 specific recommendations and then there are  
9 differences on others. So I want to just hone the  
10 Commissioners in on this.  
11 With respect to Recommendation No. 2, is it the  
12 Company's position that there is agreement between  
13 Staff and the Company on Recommendation No. 2?  
14 A. (By Ms. Arangio) Yes.  
15 Q. And also with Recommendation No. 3?  
16 A. (By Ms. Arangio) Yes.  
17 Q. And Recommendation No. 4?  
18 A. (By Ms. Arangio) Yes.  
19 A. (By Mr. Poe) Yes.  
20 Q. And staying on the same page, going back to No. 1, is  
21 it fair to say that the dispute between Staff and the  
22 Company on the proposed proceeding on excess, the  
23 dispute focuses on which planning period -- which  
24 planning date to use? Is that accurate?

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1 A. (By Mr. Silvestrini) Yes, it is.  
2 A. (By Mr. Poe) Yes.  
3 A. (By Ms. Arangio) Yes.  
4 Q. And specifically, if I'm mischaracterizing [sic] your  
5 Company's position, is the Company would prefer to  
6 use the demand forecast and all the other forecasts  
7 that are coming out of the 2012 IRP rather than the  
8 2010 IRP; is that correct?  
9 A. (By Mr. Silvestrini) Yes.  
10 A. (By Ms. Arangio) Yes.  
11 Q. And in your rebuttal testimony, I believe you've  
12 characterized Staff's position as Staff does not wish  
13 to have -- or if we go forward with this excess  
14 proceeding, that it is not willing to allow updates  
15 to the 2010 IRP? Is that your understanding of  
16 Staff's position?  
17 A. (By Mr. Silvestrini) Do you have a reference to that  
18 testimony?  
19 Q. Yeah, I can. I'm looking at your rebuttal testimony  
20 on Page 4, and I'm at Lines 17 through 23. And I  
21 just want to make sure that the Company is  
22 understanding Staff's position. And Staff's position  
23 is that it would prefer to use in this new proceeding  
24 the 2010 IRP and any updates up until the time of

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1 rebuttal that the Company may have. Is that the  
2 Company's understanding of Staff's position?  
3 A. (By Ms. Arangio) Could you --  
4 A. (By Mr. Silvestrini) Yes, it is.  
5 A. (By Ms. Arangio) I'd just ask if you could repeat the  
6 beginning part of your question.  
7 Q. Sure, sure. It appears from the rebuttal testimony  
8 that National Grid understands Staff's position that,  
9 when we go forward with this new docket, we only want  
10 you to use the 2010 forecast; we don't want you to  
11 update them. And I'm representing to you that it is  
12 inaccurate, that Staff is willing to allow updates.  
13 And so I'm just trying to get the Company's agreement  
14 on which -- how does it view -- what is Staff's  
15 position?  
16 MR. CAMERINO: Could I -- I hope this  
17 is appropriate. Could I just ask that the questions  
18 be what is the Company's position, and the Staff can  
19 state their position? I'm concerned that we're going  
20 to get into some kind of confusing feedback if we're  
21 trying to get what the Company's understanding is of  
22 Staff's position. It just sounds like we're doing  
23 settlement negotiations on the stand. I think the  
24 witnesses can just say what they are asking the

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1 Commission for.  
2 CHAIRMAN GETZ: And I think, Ms.  
3 Thunberg, I was a little lost in the question about  
4 whether Staff was willing to or agreeable to  
5 permitting updated data to be part of some new  
6 proceeding. I wasn't sure which way you were posing  
7 that. So --  
8 MS. THUNBERG: But I had made a  
9 representation that that is Staff's, because we  
10 haven't had rebuttal to their rebuttal. And I'm just  
11 trying to clarify what is the Company's view of  
12 Staff's position.  
13 BY MS. THUNBERG:  
14 Q. So I guess, Leo, you seemed clear. Liz, you seemed  
15 unclear of what Staff's position is on allowing  
16 updates.  
17 A. (By Mr. Silvestrini) I think to get to the point of  
18 disagreement, the Company's position is we should  
19 wait until the February '12 filing with all the  
20 necessary updates that would be required to do that  
21 and that Staff is looking for something other than  
22 that.  
23 Q. Is there a difficulty in actually -- strike that  
24 question.

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1 I'd like to turn to Recommendation No. 5 which  
2 is on Page 8 of Mr. McCluskey's testimony. And I  
3 also have open with me is the Page 13 of your  
4 rebuttal testimony. From Lines 8 through 20, there's  
5 a discussion about the SENDOUT model being flawed,  
6 and it will be provided in the 2012 IRP filing?  
7 A. (By Mr. Silvestrini) Could you cite the references  
8 again, please?  
9 Q. I'm looking at Recommendation No. 5, which is on  
10 Page 8 of George McCluskey's testimony. And I  
11 believe a similar subject appears on Page 13 of your  
12 rebuttal testimony.  
13 A. (By Mr. Poe) Could you cite the lines on Page 8 of  
14 Mr. McCluskey's testimony?  
15 Q. One through four.  
16 A. (By Mr. Poe) Oh, thank you. Okay.  
17 Q. So I'm trying to discern if there's any agreement or  
18 disagreement with respect to Recommendation No. 5.  
19 Recommendation No. 5 is to provide an updated  
20 resource mix analysis. And does the Company agree to  
21 this recommendation?  
22 (Witnesses reviewing document.)  
23 A. (By Ms. Arangio) The timing of the recommendation or  
24 the updated analysis part of it?

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1 Q. Does the Company agree to provide an updated resource  
2 mix analysis?  
3 A. (By Mr. Poe) Yes. In its rebuttal testimony, the  
4 Company stated that it was willing to do the five  
5 recommendations, and a resource mix run would be a  
6 part of that. We would have to obviously understand  
7 all the conditions that come out in performing that,  
8 because obviously we've had some misunderstandings in  
9 terms of exactly what would be anticipated. But  
10 given that now we have, for the first time, performed  
11 a resource mix run in a truly Integrated Resource  
12 Plan in the state of New Hampshire, we now understand  
13 how it can be done and we can go on to refine it.  
14 Q. In the recommendation there is a six-month lead time  
15 for satisfying this recommendation. And given that  
16 this testimony is almost like nine months old, would  
17 the Company be amenable to providing this update  
18 within two months of the Commission issuing its  
19 order?  
20 A. (By Mr. Silvestrini) As I said earlier, it takes us  
21 about six months to prepare a filing. And it's our  
22 opinion that we should wait until the February '12  
23 filing. It will take us about six months to do that,  
24 which puts the clock back at September, as I said

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1 earlier. I mean, it's not the case where we've been  
2 working for four months to prepare this thing and  
3 we're only two months away from finalizing the  
4 analysis. We haven't started the analysis yet. And  
5 as Mr. Poe said, we would need to wait and find out  
6 what the conditions are coming out of this proceeding  
7 before we begin that proceeding -- begin that  
8 analysis.  
9 Q. I'm referring to Page 13 of your rebuttal testimony.  
10 And Line 15 talks about the inaccuracies because of  
11 the flawed model. Is it then the Company's position  
12 that it is not going to file a corrected version of  
13 this analysis for the 2010 IRP?  
14 A. (By Mr. Poe) When the Company met with Staff back in  
15 May for its settlement negotiations, we were still at  
16 the point of waiting for --  
17 MR. CAMERINO: Can I just -- I think,  
18 jointly on behalf of Staff and the Company, I want to  
19 caution the witness that, to the extent you would be  
20 describing settlement proposals, that wouldn't be  
21 appropriate for this hearing. If you're trying to  
22 explain problems the Company's encountered, or the  
23 Company's position, that's okay. So just proceed  
24 with caution on this.

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1 A. (By Mr. Poe) Thank you. And it will be Part B that I  
2 will be addressing.  
3 We were at that point awaiting a code  
4 fix for the model. At that time, it was envisioned  
5 that we could rerun the 2010 data to validate the  
6 code fix and to make sure that the numbers that we  
7 had been anticipating, which is what gave it away  
8 that there was an inaccuracy, that the code has been  
9 fixed properly. It wasn't until approximately a week  
10 ago that the Company received the second of two fixes  
11 and is evaluating it presently. So right now we are  
12 at the point where we believe that the model is now  
13 fixed and could potentially be used.  
14 Q. Next question. Mr. Poe, I'll pick on you.  
15 When I read on Page 13, and it's the recap of  
16 the Order No. 24941, that the Company should describe  
17 a process for integrating demand-side and supply-side  
18 resources, so that customer needs will be met at the  
19 lowest reasonable cost while maintaining reliability,  
20 if we -- if Staff does not have the corrected  
21 analysis integrating demand side and supply side, how  
22 can Staff verify that the Company has indeed met  
23 customer needs at the lowest reasonable cost while  
24 maintaining reliability?

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1 A. (By Mr. Poe) I'm sorry. Could you repeat that? What  
2 would Staff be lacking?  
3 Q. Since the Company is not going to be providing the  
4 corrected resource mix analysis, would you agree that  
5 it makes it a little more difficult for Staff as a  
6 regulator to verify that the Company has met customer  
7 needs at the lowest reasonable cost while maintaining  
8 reliability?  
9 A. (By Mr. Poe) Well, if it's specifically with regard  
10 to the code error that we discovered, what the  
11 Company would be doing would be exactly the same  
12 demonstration that it would be doing for the 2010  
13 data, which was actually the response to one of the  
14 data requests, where we uncovered -- we were trying  
15 to match the cost and benefits of the DSM programs.  
16 So we would certainly document any new information  
17 that we provided with the true cost of the program  
18 and show actually how the model is modeling it and is  
19 representing it to make sure that the numbers going  
20 in match the numbers coming out.  
21 Q. Okay. So I just want to summarize. It appears that  
22 if there is disagreement on Recommendation No. 5  
23 between the Company and Staff, it is that the  
24 resource mix analysis be provided for the 2012 IRP

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1 but not for the 2010 IRP?  
2 A. (By Mr. Poe) The fundamental issue is we would like  
3 to be able to update everything, yes, because it  
4 would provide the latest data in terms of any  
5 analysis or conclusions that would be drawn.  
6 Q. Fair enough. Thank you. Thank you.  
7 I'd like to draw your attention on Page 8 of the  
8 rebuttal testimony in the section regarding -- or  
9 Lines 17 through 19, and the statement that Mr.  
10 McCluskey's assertion of excess capacity to take into  
11 account -- or taking into account the seven-day  
12 storage requirement, that he does not appear to have  
13 done that. I think that's the gist of Lines 17  
14 through 19.  
15 And I'd like to show you... I'd like to show you  
16 a document and just have you identify it, Mr. Poe, if  
17 you could identify the document for the record.  
18 A. (By Mr. Poe) These appear to be a set of Mr.  
19 McCluskey's responses to Company questions Set 1.  
20 Dates of responses were December 28th, 2010.  
21 Q. And have you reviewed these responses?  
22 A. (By Mr. Poe) Yes, I have, ma'am.  
23 MS. THUNBERG: I'd like to mark this  
24 for identification as the next exhibit.

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1 MR. CAMERINO: Have all of Mr.  
2 McCluskey's responses been marked or just that one?  
3 MS. THUNBERG: I can separate out --  
4 right now I'm dealing with 1-5.  
5 MR. CAMERINO: I'd like to have them  
6 marked as they're used, only because to me this is  
7 like another form of written testimony by Mr.  
8 McCluskey. And I'd like to know what is being relied  
9 on as it's being utilized.  
10 MS. THUNBERG: Sure, sure.  
11 Understood. I had some copying issues this morning  
12 with the exhibits. I can disassemble this packet.  
13 But it is Staff's intent to focus this next line of  
14 questioning on 1-5.  
15 CHAIRMAN GETZ: Well, this appears to  
16 be 35 separate questions and data requests and data  
17 responses. Are you planning to seek to have them all  
18 in or ask questions based on all of them?  
19 MS. THUNBERG: Right now, the  
20 questions are for 1-5. I unfortunately don't have  
21 them separated out.  
22 MR. CAMERINO: If you could just give  
23 me one minute, I think I had -- I was planning to  
24 mark this, anyway. And I believe I have sufficient

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1 copies to provide this one alone.  
2 MS. THUNBERG: That solves my problem.  
3 CHAIRMAN GETZ: Well, we'll mark for  
4 identification, then, Exhibit No. 4. It's a  
5 EnergyNorth data request Set 1, Question 5 to Mr.  
6 McCluskey.  
7 (The document, as described, was  
8 herewith marked as Exhibit 4 for  
9 identification.)  
10 MS. THUNBERG: I apologize  
11 Commissioners, for this delay.  
12 BY MS. THUNBERG:  
13 Q. I simply, I think, Mr. Poe, wanted to get -- draw  
14 your attention to the statement in the rebuttal  
15 testimony that it appeared that Mr. McCluskey had not  
16 taken into account the seven-day storage requirement.  
17 And I am showing you National -- Mr. McCluskey's  
18 response to National Grid 1-5, where he talks about  
19 the seven-day storage requirement.  
20 And so I wanted to have you clarify, is it still  
21 the Company's position that he did not take that into  
22 consideration in his testimony?  
23 A. (By Mr. Poe) Perhaps I should clarify the statement.  
24 Q. Okay.

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1 A. (By Mr. Poe) Yes, in this data response, Mr.  
2 McCluskey does reference the Peakshaving Fuel Storage  
3 Requirement, DPU 506.03. And this data response  
4 references Pages 13 and 14 of his testimony in which  
5 Mr. McCluskey was trying to address an excess in  
6 peak-day deliverability by removing from the  
7 Company's portfolio both the vaporization equipment  
8 at certain supplemental facilities, as well as the  
9 storage equipment. And in doing that, there are  
10 implications, not currently, but when the Company  
11 sees future growth, where those storage facilities  
12 could be very valuable to the Company.  
13 Q. Okay.  
14 A. (By Mr. Poe) So, yes, he does reference it, but there  
15 are implications that weren't discussed here fully.  
16 Q. So you would agree that he did take seven-day storage  
17 requirements into account in his some of his analysis  
18 that was represented in his testimony?  
19 A. (By Mr. Poe) In some way.  
20 Q. Okay. Thank you.  
21 I have a question pertaining to your rebuttal  
22 testimony. I just want to be clear. On Page 5,  
23 Lines 21 through 22, it is the Company's position  
24 that it does maintain some excess -- some assets in

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1 excess of its current peak-day requirements; is that  
2 correct?  
3 A. (By Ms. Arangio) Yes, that's correct.  
4 Q. And that peak-day requirement, that's in excess of  
5 the design-day requirements that we're talking about  
6 the excess; is that correct?  
7 A. (By Ms. Arangio) Right. We use peak day and design  
8 days synonymously.  
9 Q. And Ms. Arangio, you talked about the excess was  
10 attributed to "lumpy investment." But is it also --  
11 the excess, is it also attributed to a decline in the  
12 forecasts?  
13 A. (By Ms. Arangio) That's correct. Yes.  
14 Q. And I believe on Page 7 the Company has characterized  
15 Mr. McCluskey's attributing the excess to two  
16 reasons. This is -- I'm looking at Lines 3 through  
17 8. Would the Company agree that these two reasons  
18 are drivers for the excess?  
19 A. (By Ms. Arangio) Yes.  
20 Q. Okay. I'd next like to, Ms. Arangio, show you a  
21 document which is OCA 1-1.  
22 Actually, since this is Mr. Poe's testimony  
23 attached to 1-1, perhaps I'll bring you into the  
24 question as well.

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1 MS. THUNBERG: George just asked me  
2 not to go down this line of questioning, so I'm going  
3 to retract what I just handed out. We're taking back  
4 the question.  
5 CHAIRMAN GETZ: Ms. Thunberg, I think  
6 we need to know, or at least the court reporter needs  
7 to know what you want on the record and what you  
8 don't. I think some of these conversations she's  
9 having a tough time following.  
10 MS. THUNBERG: My apologies. Staff is  
11 going to go down a line of questioning putting --  
12 identifying in the record the -- quantifying the  
13 exactness of the excess. But we are going to just  
14 leave it that there is an excess and not wade through  
15 where in the -- put into the record the exact  
16 quantification of it. My apologies.  
17 My next line of questioning concerns the  
18 rebuttal testimony at Page 7. And this goes to the  
19 issue concerning Recommendation No. 1 and which data  
20 to use.  
21 BY MS. THUNBERG:  
22 Q. I'd like to draw your attention to Line 23 of that  
23 testimony. It says, "Rather than either the forecast  
24 on which the Concord" -- and I'm continuing to the

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1 next page -- "Lateral commitment was based..." Do  
2 you see that part of your testimony?  
3 A. (By Ms. Arangio) Yes.  
4 Q. What time period was the Concord Lateral forecasts  
5 covering?  
6 A. (By Ms. Arangio) I believe it would have been the  
7 '07-'08 period and the five-year period beginning  
8 with '07-'08.  
9 Q. And did that forecast predate the forecasts that are  
10 included in the 2010 IRP?  
11 A. (By Ms. Arangio) Yes.  
12 Q. My last question on this is, why does the Company  
13 recommend using the Concord Lateral forecasts if they  
14 are older than the forecasts that are in the 2010  
15 IRP?  
16 MR. CAMERINO: That's actually a legal  
17 question which I can answer or can address in  
18 closing, however would be best.  
19 CHAIRMAN GETZ: Well, if the witness  
20 knows the answer, if she thinks it draws a legal  
21 conclusion that's beyond, then she can say so. But  
22 it's not clear to me why it's a legal question at  
23 this point. Let's get that on the record.  
24 Is that something you can answer?

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1 A. (By Ms. Arangio) I can, not from a legal perspective.  
2 BY MS. THUNBERG:  
3 Q. Fine.  
4 A. (By Ms. Arangio) Well, we're looking at -- I think we  
5 need to go back to the beginning of Page 7 of our  
6 rebuttal testimony, beginning on Line 3, in that Mr.  
7 McCluskey states that the capacity that he calls  
8 "excess" resulted from the addition of the Concord  
9 Lateral capacity. So, in making the decision to sign  
10 up for that capacity, the Company filed, in  
11 DG 07-101, to get approval to make such a commitment,  
12 and that commitment was made based on those forecasts  
13 in that filing.  
14 Q. Okay. That explains it. So it sounds like using  
15 older forecasts is not -- the staleness argument that  
16 the Company is raising for wanting to use the 2012  
17 IRP forecast rather than the 2010 forecast is not an  
18 issue as to why you want to use the Concord Lateral  
19 forecasts then.  
20 A. (By Ms. Arangio) Yes. That's correct.  
21 CHAIRMAN GETZ: You said the what  
22 argument? I didn't catch the word.  
23 CMSR. IGNATIUS: Staleness.  
24 CHAIRMAN GETZ: Oh, staleness.

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1 MS. THUNBERG: Staleness, yeah.  
2 CHAIRMAN GETZ: Oh, okay. Thank you.  
3 BY MS. THUNBERG:  
4 Q. I just want to clarify. On Page 8, there is an  
5 argument -- or a statement on Line 9 of Page 8 of the  
6 rebuttal testimony. And let me just cite: "If  
7 pipeline capacity is turned back..." does the Company  
8 believe that Staff is requesting the Company to turn  
9 back pipeline capacity?  
10 A. (By Ms. Arangio) Well, what that comment means is  
11 that when the Company would look at determining the  
12 right size of its portfolio, it would have to take  
13 into account all assets in its portfolio, and one of  
14 them being pipeline assets.  
15 Q. I'd like to draw your attention to rebuttal  
16 testimony Page 7. And Lines 17 through 19, there's a  
17 statement that the docket will largely require the  
18 Commission to revisit the decisions that were made in  
19 the Concord Lateral proceeding.  
20 Is the Company implying that the issue of  
21 prudence will need to be reviewed, the issue of  
22 prudence of the Concord Lateral will need to be  
23 revisited?  
24 (Witness reviews document.)

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1 A. (By Ms. Arangio) We would just -- what those  
2 comments -- what that reference is, is that the  
3 Concord Lateral had a number of scenarios and  
4 alternatives as requirements or as capacity that we  
5 could add to the portfolio. And it was determined  
6 that the Concord Lateral project, for 30,000 a day,  
7 it was prudent to enter into that contract, given all  
8 of the circumstances and everything filed in that  
9 case.  
10 Q. So you're not suggesting that prudence would be  
11 reopened if we had a future proceeding on excess.  
12 A. (By Ms. Arangio) No, I don't believe so.  
13 Q. Okay. Thank you for bearing with me with my  
14 not-so-smooth presentation of questions to you.  
15 MS. THUNBERG: Staff has no further  
16 questions.  
17 CHAIRMAN GETZ: We're going to take a  
18 brief recess, hopefully no more than 10 minutes.  
19 (Whereupon a recess was taken at 10:20  
20 a.m. and the hearing resumed at 10:43 a.m.)  
21 CHAIRMAN GETZ: Okay. We're back on  
22 the record. And Ms. Thunberg, did you have  
23 something?  
24 MS. THUNBERG: Mr. Chairman, Staff

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1 overlooked that we had a couple more questions to ask  
2 on direct, and we're asking your allowance of that.  
3 We've checked with the other parties, and they're  
4 okay with that.  
5 CHAIRMAN GETZ: You may proceed in a  
6 minute or two.  
7 (Cmsr. Below leaves proceedings briefly.)  
8 (Pause in proceedings)  
9 (Cmsr. Below returns to proceedings.)  
10 CHAIRMAN GETZ: Ms. Thunberg.  
11 MS. THUNBERG: I've lost an exhibit.  
12 (Pause in proceedings)  
13 MR. CAMERINO: Thank you.  
14 BY MS. THUNBERG:  
15 Q. We just have a few more questions that Mr. McCluskey  
16 is going to ask you. And this is pertaining to  
17 demand-side resource assessment.  
18 CROSS-EXAMINATION  
19 BY MR. MCCLUSKEY:  
20 Q. Thank you. If you could turn to Page 14 of your  
21 rebuttal testimony. The subject matter is going to  
22 be the paragraph beginning on Line 11 through  
23 essentially the end of the page. In that paragraph,  
24 you state that -- effectively, you state that if the

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1 Company had used the potentially obtainable scenario  
2 in the GDS study as the basis of its  
3 energy-efficiency planning, it would have resulted in  
4 annual savings target equal to 8.7 times the savings  
5 goal in the approved 2010 energy-efficiency programs.  
6 Is that a fair summary of what you're saying in that  
7 paragraph?  
8 MR. CAMERINO: I just want to object  
9 to the question, because the wording is critical, and  
10 he's recharacterizing what's on the page here. I'm  
11 just concerned about that the words in the question  
12 are not what's on the page here.  
13 A. (By Mr. Silvestrini) Would you repeat the question,  
14 please?  
15 BY MR. MCCLUSKEY:  
16 Q. Sure. I'm paraphrasing the paragraph that I referred  
17 to. And I believe the Company's stating that, had it  
18 used the potentially obtainable scenario in the GDS  
19 study as the basis of its energy-efficiency planning,  
20 that would have resulted in an annual savings target  
21 equal to 8.7 times the savings goal in the approved  
22 2010 energy-efficiency programs. And my question is,  
23 is that a fair summary of your testimony on that  
24 page?

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1 A. (By Mr. Silvestrini) No, it's not.  
2 Q. Could you explain where I've got it wrong then?  
3 A. (By Mr. Silvestrini) Yeah. We looked at using the  
4 technical potential study as defining kind of the  
5 outer limits or the upper bounds of what the  
6 potential energy efficiency could be. And even the  
7 most conservative case, as we state here, was 8.7  
8 times what our current programs are. And it was our  
9 judgment that to go from our current programs to  
10 something that's 8.7 times that was too extreme of a  
11 limit, and we needed to redefine the limit.  
12 Q. But isn't that what I just said, that if the Company  
13 had used the results from the obtainable -- the  
14 potentially obtainable scenario of the GDS study, it  
15 would have meant that it would have had to increase  
16 its target by 8.7 times?  
17 A. (By Mr. Silvestrini) I guess I'm confused by what you  
18 mean by "target." Is that an upper limit?  
19 Q. Well, I'm not saying it's the upper limit. I'm  
20 simply paraphrasing what you have in this testimony,  
21 that if your planning for future programs had been  
22 based on the results of this study, the target would  
23 be 8.7 times the goal in the 2010 efficiency  
24 programs.

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1 A. (By Mr. Silvestrini) Okay. I don't mean to get  
2 bogged down in semantics. But we didn't have a  
3 target, per se. What we were trying to do was  
4 evaluate how much demand-side management we could put  
5 in our supply plan that's cost-effective. But to do  
6 that, you have to put some constraints. And in all  
7 of the contracts and all of the supplies that are in  
8 our portfolio, when you do an optimization you have  
9 certain constraints, whether they're cost constraints  
10 or annual quantity or daily quantity constraints,  
11 that's how you model it. So when we model energy  
12 efficiency, we need to put not just a cost of those  
13 measures and the cost associated with the savings,  
14 but we needed to put constraints in there and say,  
15 well, what's the maximum we could take of these. And  
16 in terms of -- what we were hoping to do was to use  
17 the GDS study to define what those constraints were.  
18 When we looked at it, the magnitude was so much  
19 different than what our current programs were, that  
20 was not a realistic constraint.  
21 Q. So you're saying the... let's talk about where the  
22 8.7 came from.  
23 Could you explain to me how you derived the 8.7  
24 figure?

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1 A. (By Mr. Silvestrini) Yes. If you refer to the  
2 Company's filing, page Roman Numeral IV-V, at the top  
3 of the page, when the Company applied the results of  
4 the --  
5 Q. Could you just wait one moment until we find the  
6 page?  
7 A. (By Mr. Silvestrini) I'm sorry.  
8 Q. Okay.  
9 A. (By Mr. Silvestrini) When the Company looked at the  
10 results of the GDS study, it looked at what the  
11 potential savings was. And the way it was reported  
12 was as a percent of existing demand. So we applied  
13 those percentages to the Company's demand. And it  
14 was broken down by residential, commercial and  
15 industrial categories. And we applied those  
16 percentages. We had to combine the commercial and  
17 industrial categories because our Company records  
18 don't separate those. So we combined commercial and  
19 industrial. We applied the percentages from the  
20 study to our own data to find out what the potential  
21 would be using the GDS potential analysis, and we  
22 compared what those potential savings were to the  
23 savings that were in our current programs.  
24 Q. Okay.

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1 A. (By Mr. Silvestrini) And dividing one by the other,  
2 you get 8.7 times.  
3 Q. So my understanding is that, when the Company took  
4 the various percentages from the GDS study, which  
5 were on a class basis, and converted them to their  
6 own classes, you came up with an overall percentage  
7 of 8.5 percent; is that correct?  
8 A. (By Mr. Silvestrini) Yes.  
9 Q. And the associated savings in MMBtu is also shown on  
10 that page as 1,084,787; is that correct?  
11 A. (By Mr. Silvestrini) That's correct.  
12 Q. And is it that figure that you used to derive the 8.7  
13 times?  
14 A. (By Mr. Silvestrini) Yes.  
15 Q. Sorry? I didn't hear that.  
16 A. (By Mr. Silvestrini) I'm just checking the math.  
17 Q. Okay.  
18 A. (By Mr. Silvestrini) Yes. If you divide the  
19 1,084,000 from the technical potential study by the  
20 Company's 2010 goal of 124,000, you get 8.7.  
21 Q. Okay. So the 8.7 actually derives from the  
22 8.5-percent figure that the Company calculated;  
23 correct?  
24 A. (By Mr. Silvestrini) Yes, yes.

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1 Q. And that figure itself came from the various  
2 percentages, class percentages, that were in the GDS  
3 study; correct?  
4 A. (By Mr. Silvestrini) That's correct.  
5 Q. And those percentages related to the year 2018; is  
6 that correct?  
7 A. (By Mr. Silvestrini) Yeah, I don't recall exactly  
8 what volumes. It was data that was from the filing,  
9 year-end filing.  
10 Q. Subject to check, would you agree that the GDS study  
11 said that for EnergyNorth, in 2018, the potential  
12 savings under the potentially obtainable scenario is,  
13 according to the Company's calculations,  
14 8.5 percent --  
15 A. (By Mr. Silvestrini) Yes.  
16 Q. -- in 2018?  
17 A. (By Mr. Silvestrini) Yes, I'll take that, subject to  
18 check.  
19 Q. So no one is suggesting that the Company move from  
20 the savings in the 2010 program of 124,000, roughly,  
21 to the figure of 8.5 percent of their total load  
22 instantly. No one's suggesting that; correct?  
23 A. (By Mr. Silvestrini) No, that's correct.  
24 Q. We're talking about 2018 possible wrapping up of

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1 programs.  
2 A. (By Mr. Silvestrini) That's correct.  
3 Q. Thank you.  
4 Now, you said that the 8.7 figure compares with  
5 the savings goal in the 2010 program; correct?  
6 A. (By Mr. Silvestrini) That's correct.  
7 Q. And that figure shown on Page IV-V of your filing is  
8 124,318 MMBtu; is that correct?  
9 A. (By Mr. Silvestrini) That's correct.  
10 Q. Would you agree that, in percentage terms, that  
11 saving is of the order of .9 of 1 percent, or  
12 1 percent, depending whether you use design-day load  
13 or normal load?  
14 A. (By Mr. Silvestrini) As a rule, that sounds about  
15 right.  
16 Q. So, very roughly, the current goal for the Company,  
17 the Company's energy efficiency programs, is to meet  
18 1 percent of its load with energy efficiency  
19 programs. And the GDS study is indicating that  
20 through 2018, it believes that you could implement  
21 programs with aggressive action that could go up to  
22 8.5 percent of the total load; is that correct?  
23 A. (By Mr. Silvestrini) Yeah, I'm not arguing that the  
24 potential is not there.

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1 Q. That's not my question. I'm asking you a question.  
2 And if you could say "Yes" or "No" or amplify, that's  
3 fine. So what I --  
4 A. (By Mr. Silvestrini) Yes, this study is saying that.  
5 I will agree to that.  
6 Q. Thank you very much.  
7 And you said on Page 14 of your rebuttal, and I  
8 quote, The Company determined that this limit was not  
9 a practical target for supply planning purposes; is  
10 that correct?  
11 A. (By Mr. Silvestrini) That's correct.  
12 Q. Again, for clarification, what limits are we talking  
13 about? What is the limit that you're referring to  
14 there? Is it the 8.7 times the 2010 savings goal, or  
15 is it something else?  
16 A. (By Mr. Silvestrini) It's the 8.7 times.  
17 Q. So you're saying that's too aggressive.  
18 A. (By Mr. Silvestrini) Given the current state of our  
19 energy-efficiency programs and what it cost to  
20 implement them, and potentially what it would cost,  
21 without knowing that for sure, to achieve the kinds  
22 of savings that are in the technical potential study,  
23 yes, it's I think it's too aggressive. And the study  
24 itself says it would take aggressive outreach to

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1 reach those levels, without defining what that is.  
2 Q. So the Company believes it's too aggressive to  
3 achieve the GDS potential by 2018.  
4 A. (By Mr. Silvestrini) Too aggressive to incorporate in  
5 a supply plan, yes.  
6 Q. Could you -- what are you -- what do you mean by  
7 that?  
8 A. (By Mr. Silvestrini) Well, in order to hit the kinds  
9 of targets that are in the GDS study, you would have  
10 to increase the cost of implementing those programs.  
11 And without knowing the specific costs associated  
12 with that, as I mentioned earlier, to go from where  
13 we are now to the kinds of savings that would allow  
14 us to take advantage of the potential identified in  
15 the potential study, we would have to spend more  
16 money. And it probably wouldn't be a linear  
17 relationship. To get incrementally more savings, you  
18 would have to spend incrementally more money. We  
19 don't know what that is.  
20 Q. Okay. Assume --  
21 A. The other issue that I looked at was, given the level  
22 of energy efficiency that we put in place since we  
23 implemented the programs back in, I believe it was  
24 around 2000, 2001 -- so we've been at it for about 10

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1 years -- this study proposes that we hit that maximum  
2 within a shorter time period than that. And without  
3 knowing what it's going to cost, what kinds of  
4 budgets would be required, what the impact on rates  
5 would be and what bill impacts that would imply, I  
6 didn't -- it was our judgment that it was not  
7 practical to include that as an upper limit for our  
8 supply plans.  
9 Q. Assume for me that the programs that are identified  
10 to meet the GDS potential are cost-effective, based  
11 on the cost-effective standards required by the  
12 Commission, would you expect the savings from those  
13 programs to outweigh the increased costs of the  
14 programs that you just mentioned?  
15 A. (By Mr. Silvestrini) Yes, I do. But I think that  
16 analysis is better done in the proceeding that's  
17 reviewing the programs.  
18 Q. Okay. Leave aside which proceeding it's going to be  
19 done in. So the issue is whether these new programs  
20 that are needed in order to fill this potential are  
21 cost-effective or not, if -- so, accepting that  
22 expanding the programs might require programs that  
23 are incrementally more costly, if that cost is offset  
24 by the savings, you would agree that it would be

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1 worthwhile to move to that level, to that higher  
2 level, under those assumptions.  
3 A. (By Mr. Silvestrini) I don't know that I can agree to  
4 that. I think you can do that analysis, as I said,  
5 and define an economic potential and identify what's  
6 out there. But then, in terms of translating that to  
7 a supply plan, and I think even translating that to  
8 programs that our customers are willing to support  
9 financially, you need to answer a lot more questions.  
10 Q. So why wouldn't you do it if it's cost-effective?  
11 Why wouldn't -- also assume that these programs are  
12 reliable. Why would you not do it if you could  
13 demonstrate to yourself that these new programs are  
14 cost-effective?  
15 A. (By Mr. Silvestrini) Because in the short run, the  
16 cost of doing that and the bill impacts might be  
17 beyond what the parties deem acceptable for  
18 implementing these kinds of programs, even though in  
19 the long run they may be cost-effective.  
20 Q. So you're saying that cost-effectiveness and who gets  
21 the benefits, the bill impacts, are two different  
22 issues. Is that the Company's --  
23 A. (By Mr. Silvestrini) No. I think they're part of the  
24 balance of what you do when you put together a

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1 program. And as I said, I'm not the program expert.  
2 I'm just saying that as I talked to the program  
3 people about implementing these kinds of things, we  
4 identified what were practical outer limits so that  
5 we could model it in a supply plan.  
6 Q. Okay. If I could just ask the question again.  
7 Are you saying that programs that are  
8 cost-effective do not necessarily mean that all  
9 customers benefit from them? Is that your testimony?  
10 A. (By Mr. Silvestrini) No.  
11 Q. So what is it your testimony? I'm trying to  
12 understand why the Company would not go ahead and  
13 expand its programs if it could convince itself that  
14 those programs are cost-effective.  
15 MR. CAMERINO: I have to say this  
16 question has been asked over and over again, and Mr.  
17 Silvestrini has given multiple answers. And I feel  
18 like, in addition to the fact that it's repetitive,  
19 we're well into an issue now that really is for the  
20 energy-efficiency docket and not the planning docket.  
21 And Mr. Silvestrini has explained why the two are  
22 different.  
23 CHAIRMAN GETZ: Well, this is where  
24 I'm interpreting where we are at this point. I think

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1 basically the witness is saying he doesn't accept the  
2 premise of your question, and you want him to accept  
3 the premise of your question. And so I think the  
4 area's been covered, and I think we should move on.  
5 MR. McCLUSKEY: Okay. Thank you.  
6 BY MR. McCLUSKEY:  
7 Q. Earlier I read from the Company's rebuttal testimony  
8 at Page 14, where you said you didn't think the limit  
9 was a practical target for supply planning purposes.  
10 And the Company says at Page 15 that -- I'm  
11 paraphrasing -- the reasonable goal is two times the  
12 goal from the 2010 programs. Is that correct?  
13 A. (By Mr. Silvestrini) Where is your reference on  
14 Page 15, please?  
15 Q. It's on Line 17, the sentence that ends on Line 17.  
16 (Witness reviewing document.)  
17 A. (By Mr. Silvestrini) Yeah, it's not two times the  
18 goal, it's two times the savings from the measures  
19 that were scaleable to be able to increase the level  
20 of energy efficiency on the demand-side management  
21 savings.  
22 We looked specifically at the measures that are  
23 in our current plans, and we identified which  
24 measures in those plans could be increased if we

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1 spent more money on them, basically. And as I  
2 stated, as we state in the filing, we excluded such  
3 things as demonstration projects, training programs,  
4 information dissemination, because you can spend more  
5 money on those but not necessarily achieve much more  
6 in the way of savings. We also excluded programs  
7 that have equipment replacement, mainly boiler and  
8 furnace replacement, because our experience is those  
9 replacements take place at the time that the  
10 equipment breaks down and not as a result of  
11 incentive. So you can put more money at that, but  
12 you did tend to not get more savings. So we looked  
13 at the other measures that included mainly rebates,  
14 on the assumption that if you increase the amount of  
15 rebates you can make, you'll get more participants  
16 and more savings from those.  
17 And then we looked at if we increased those  
18 programs that are scaleable, what's the outer limit?  
19 Because we need to put a constraint in order to model  
20 it. And the program people who are best able to  
21 answer that question said, well, we think we could  
22 probably double that. And that's where that  
23 constraint came from.  
24 Q. So all you're saying --

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1 A. (By Mr. Silvestrini) And in my mind, that's a  
2 practical limit because that's looking at the cost,  
3 it's looking at what makes sense looking at  
4 individual measures, and it's talking to the people  
5 who are responsible for implementing them.  
6 Q. So, Mr. Silvestrini, my question was, is the goal two  
7 times the goal in the 2010 programs? And if I  
8 understand your response, you said no, it's only a  
9 portion, two times a portion of that goal, because  
10 you only looked at certain programs within the  
11 overall 2010 efficiency program; is that correct?  
12 A. (By Mr. Silvestrini) That's correct. And I would not  
13 characterize the "two times" as a goal. It's an  
14 upper limit. It's the constraint on how much you can  
15 attach.  
16 Q. So the figure that we mentioned earlier, the 124,000  
17 roughly, MMBtu from the 2010 program, you're saying  
18 that the upper limit for the Company is actually less  
19 than twice that. Is that your testimony?  
20 A. (By Mr. Silvestrini) Yeah, if you follow through the  
21 math. Yes, it's a portion of that, not the entire  
22 thing.  
23 Q. And is that by 2018, or are we talking about  
24 immediately?

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1 A. (By Mr. Silvestrini) Yeah, I think we explained in  
2 the filing how we ramped up to get to double. And I  
3 think it was about a third. I think Mr. Poe can  
4 probably answer that question better than I.  
5 A. (By Mr. Poe) Yes. As the Company documented in the  
6 filing and presented in Chart IV-D-1 of the filing,  
7 it had modeled its 2009 and 2010 energy-efficiency  
8 programs and then set as the upper limit the three  
9 tiers of programs that the Company offers, based on  
10 what it has already in its portfolio of  
11 energy-efficiency programs, plus an incremental  
12 amount which was the two times the programs that we  
13 felt that we could scale up practically. And those  
14 volumes were then available as the upper limit for  
15 the model to choose and say which ones would be  
16 cost-effective.  
17 Q. So, again, my question is, is that two times  
18 something that is available in the near future or the  
19 longer term? Can the Company achieve that in a year  
20 or two, or are we looking at a much longer period?  
21 A. (By Mr. Poe) These were programs that were considered  
22 available each and every one of the five years of the  
23 outlook. So the model could look at -- if it was  
24 economically chosen, it could choose any of those

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1 programs in each one of the five years and continue  
2 to choose them every year.  
3 Q. So it's something that the Company could ramp up to  
4 fairly quickly is what you're saying?  
5 A. (By Mr. Silvestrini) Yes.  
6 Q. Thank you.  
7 Okay. I'd like to refer you to attachment to  
8 Staff 1-35 Supplemental. And we have some copies.  
9 MS. HATFIELD: Mr. Chairman, can I  
10 just ask a question? Is this data request from Staff  
11 to the Company or -- there were multiple directions  
12 of data requests, so I just wanted to get a better  
13 cite.  
14 MR. McCLUSKEY: This is a response  
15 from the Company to Staff's Request 1-35.  
16 MS. HATFIELD: Thank you.  
17 MR. McCLUSKEY: And it's actually a  
18 supplemental response to the attachment.  
19 MS. HATFIELD: Thank you very much.  
20 BY MR. McCLUSKEY:  
21 Q. Do you have that?  
22 A. (By Mr. Poe) Yes, I do.  
23 Q. Okay. If I could draw your attention to the  
24 attachment to the response.

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1 MR. McCLUSKEY: Do the Commissioners  
2 have that?  
3 CHAIRMAN GETZ: Well, let's mark this  
4 for identification since we're going through this.  
5 This is Exhibit No. 5.  
6 MS. THUNBERG: Thank you.  
7 (The document, as described, was  
8 herewith marked as Exhibit 5 for  
9 identification.)  
10 Q. And I'm looking at the second block in that  
11 attachment, and I believe it's labeled the "Resource  
12 Mix Scenario with DSM." Do you see that?  
13 A. (By Mr. Poe) Yes, I do.  
14 Q. I believe it shows the results of the Company's DSM  
15 modeling using the resource mix model of the SENDOUT  
16 model; is that accurate?  
17 A. (By Mr. Poe) That is correct.  
18 Q. Now, if you could just look at the split-year  
19 2010-11.  
20 A. (By Mr. Poe) Yes.  
21 Q. It shows that the programs that you modeled would  
22 save 260,000, approximately, MMBtu; correct?  
23 A. (By Mr. Poe) I believe in the second block you're  
24 referring to the line "Total DSM Customer

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1 Requirements" --  
2 Q. That's correct.  
3 A. (By Mr. Poe) -- MMBtu?  
4 Q. Yes.  
5 A. (By Mr. Poe) Yes.  
6 Q. Out of a total demand equal to 14,144,800 MMBtu; is  
7 that correct?  
8 A. (By Mr. Poe) Yes.  
9 Q. Okay. And would you accept that, subject to check,  
10 that that's approximately 1.9 percent of the total  
11 demand?  
12 (Witness does calculation.)  
13 A. (By Mr. Poe) I verified the number. Yes, you're  
14 correct. It's approximately 1.9 percent.  
15 Q. Okay. Now, could you also look at the column for  
16 split-year 2014-15 in the same block. And that shows  
17 an annual savings of 858,000, approximately, MMBtu  
18 out of a total of 15,625,000 MMBtu; is that correct?  
19 A. (By Mr. Poe) Yes, those are the numbers.  
20 Q. Again, subject to check, that's about 5.5 percent of  
21 the total demand would be met with these model DSM  
22 programs; is that accurate?  
23 A. (By Mr. Poe) Yes, that's correct. In the base-case  
24 design year, the number is 5.5 percent.

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1 Q. Okay. Given the fact that the programs that you  
2 modeled have either already been implemented or are  
3 programs that you believe can reasonably be scaled  
4 up, could you explain what appears to be the  
5 contradiction between your claim that a reasonable  
6 savings target or upper limit is two times the 2010  
7 savings goal, which I think we agreed before was  
8 roughly 1 percent of total demand, and the results of  
9 your modeling at the end of the planning period  
10 2014-15 produced a savings of 5.5 percent? That's  
11 almost six times the savings goal for the 2010  
12 program. How is that -- you say that the upper limit  
13 is two times the savings goal -- in fact, you  
14 actually said less than two times -- and this, the  
15 results of your modeling, is indicating it's much  
16 higher than that?

17 A. (By Mr. Poe) Can we turn to Chart IV-D-1 of the  
18 Company's filing, please?  
19 CMSR. BELOW: What page is that on?

20 A. (By Mr. Poe) Right after that is Roman Numeral IV-56.  
21 Yeah, IV-55 is the page. It's masked within some of  
22 the printout of the table.  
23 Is everyone there? To go through Chart IV-D-1  
24 again, as I was explaining earlier, the Company,

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1 within its modeling, looked at Column 1, the 2009  
2 energy-efficiency programs, and built that into the  
3 forecast every year for 15 years, which is the  
4 Company's assumption there would be that level of  
5 savings shown at the -- let's see if I can find it...  
6 the line in the middle of the page that says "Target  
7 Annual Reduction."  
8 So, for Program 1, there was 79,198 MMBtu of  
9 savings from the 2009 programs. 2010 set as a target  
10 124,318 MMBtu. So the Company built that into its  
11 forecast as a base of added DSM savings.  
12 Then, going into the years 2011 and beyond in  
13 the resource mix model, the Company did make  
14 available as an economically potential and also  
15 realistically potential set of DSM measures Tier 1,  
16 which it said that was the low case that it thought  
17 it could achieve, which was the level of savings that  
18 it saw in its 2009 efforts.  
19 It also gave available the Tier 2 volumes, which  
20 were the incremental additions to the DSM, the  
21 extended effort the Company was putting in going from  
22 2009 to 2010. So if you look at the target annual  
23 reduction, the Tier 1 volume plus the Tier 2 volume  
24 equals the volume found in the column for Program 2.

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1 So what we're saying is, as a baseline, a base  
2 case of DSM, we think that we can continue to add the  
3 same amount of DSM savings as we're targeting right  
4 now in our 2010 program.  
5 And then lastly, and here's where the two times  
6 comes in, is the Tier 3 set of programs, which is  
7 what is the set of programs that the Company said it  
8 could ramp up further efficiently within the planning  
9 time period and add an additional -- and if you look  
10 at the target annual reduction line -- an additional  
11 and incremental 23,007 MMBtu of savings every year.  
12 So when you're looking at the resource mix  
13 scenario in the attachment to Staff 1-35, the  
14 supplement, and you see the total DSM customer  
15 requirements, or the savings that's being  
16 contributed, it's the 2009 program, the 2010 program.  
17 And then starting in the split-year 2011-12, it's  
18 those programs that the model says, based on our  
19 input data, what are the economical least-cost mix of  
20 DSM measures that would satisfy the least-cost  
21 dispatch of supplies and resources to the Company's  
22 customers. So your "two times" is referring  
23 exclusively to the Tier 3 volumes that the Company  
24 said could ramp up further and add more DSM savings

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1 over and above the targeted values from the 2010  
2 program.  
3 Q. So if I'm understanding the results of the resource  
4 mix analysis shown in the Attachment 1-35  
5 Supplemental, starting in 2011, the Company begins to  
6 add in these, what we call "tier" programs. And in  
7 the next year it makes further expenditures on those  
8 programs, which produce additional savings compared  
9 to the savings from the programs in the prior year.  
10 So as long as the Company continues to make  
11 expenditures on these tier programs, then the  
12 cumulative savings will rise. Is that what's  
13 happening in this analysis?

14 A. (By Mr. Poe) Yes. If you look at the line that we  
15 had referred to on the attachment, "Total DSM  
16 Requirements," the volume is rising year by year.  
17 That same line is in the third block in the top  
18 section labeled, "DSM Reduction in Requirements."  
19 And you can see the total matches the total from  
20 above. And then the components that the model was  
21 selecting are listed individually on an incremental  
22 basis -- no, I'm sorry -- on a cumulative basis,  
23 because it is cumulative in each one of the columns,  
24 so that every year we continue to get the program one

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1 results because we've already invested in the 2009  
2 program, the 2010 results because we've already  
3 invested in that, and then the tier volumes for Tiers  
4 1, 2 and 3.  
5 Q. Okay. So, by expending additional dollars each year  
6 of the five-year planning period on the tier  
7 programs, the amount saved, the quantities saved in  
8 2014-15, the last year of the planning period, will  
9 actually rise to the point where, according to my  
10 calculations, 5.5 percent of the total demand in that  
11 year is met with DSM programs. You would agree with  
12 that?  
13 A. (By Mr. Poe) That is correct, as long as you are  
14 referencing the same starting point, which is our  
15 2010-2011 split year. In addition, this is also  
16 under the design year. So I can't make any  
17 conclusions, if you're going to talk about a normal  
18 year, which is, I assume, what the GDS study was  
19 referring to.  
20 But on par, you have about a 5-percent increase  
21 over and above the base reference point, which we  
22 have as starting at 2010-2011.  
23 Q. So, since the GDS study had percentages relating to  
24 2018, if we were to imagine continuing this analysis

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1 out for an additional three years, where you kept  
2 expending dollars on the same tier programs year  
3 after year, then it's possible that the percentage of  
4 total demand in 2018 would approach the 8.5 percent  
5 that the GDS study indicated was the potential for  
6 the Company. Would you agree with that?  
7 A. (By Mr. Poe) I wouldn't agree with it. But the  
8 number could possibly happen. The issue that we have  
9 is -- what I don't have to present to you is an  
10 equivalent customer participation forecast. As we  
11 said in our filing, we did not model the customer  
12 participation. And I don't know if we can make the  
13 extrapolation that we could continue to put into the  
14 market these volumes of DSM at the cost that the  
15 model is using. That's part of what would have to be  
16 refined. But if you could continue to put these into  
17 the market at the price that the model is assuming,  
18 then the trend appears to be -- I would have to look  
19 and see what the base-year reference was also for the  
20 GDS study to see how they're getting their volumes  
21 and relative to what starting point. But our trend  
22 appears to go toward that 8 percent.  
23 Q. So, just to summarize then, based on the programs  
24 that the Company has modeled, which it believes to be

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1 reasonably achievable -- and I think you used the  
2 word "scaleable" -- that if there were sufficient  
3 customers out there willing to accept these programs,  
4 that, come 2018, the amount of total demand met with  
5 those programs may be very little different from what  
6 the potential study indicated; is that correct?  
7 A. (By Mr. Poe) Under all the caveats that I've already  
8 said. And like I said, I'd like to see what their  
9 reference year was. But under all the caveats, it  
10 looks as though we could hit a trend of approximately  
11 that percentage if you assume all the assumptions.  
12 Q. Thank you very much.  
13 MS. THUNBERG: Thank you, Mr. Chairman  
14 and Commissioners, for allowing us to ask additional  
15 questions.  
16 CHAIRMAN GETZ: Commissioner Below.  
17 QUESTION BY CMSR. BELOW:  
18 Q. While we're on this immediate topic, I'm trying to  
19 understand from Page IV-7 of Exhibit 1 the last  
20 bullet in the middle of the page that states that as  
21 a constraint on the maximum demand-side management  
22 volumes that could be obtained, the Company limited  
23 the number of installations of the residential  
24 weatherization and commercial-efficiency programs two

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1 times the goal by the third year of the forecast and  
2 four times the goal by the fifth year of the  
3 forecast.  
4 And just to start, to clarify, the goal is what?  
5 What is the reference year for the goal? When you  
6 say the goal that is the 2009-10 program year or  
7 2010-11? Which?  
8 A. (By Mr. Silvestrini) Sorry. It took me a while to  
9 find the reference. Would you repeat the question?  
10 I believe I have them.  
11 Q. What is the goal referenced in that last bullet on  
12 IV-7?  
13 A. (By Mr. Silvestrini) The goal would have been the  
14 goal that's in the Company's current programs.  
15 Q. Is that the 2010 calendar program year?  
16 A. (By Mr. Silvestrini) Yes.  
17 Q. So I'm still a little confused, because I think in  
18 your rebuttal and in some of your testimony today --  
19 the rebuttal on Page 15, Line 17, you said that you  
20 constrained, I guess for the purposes of the model,  
21 what was available to those measures that are  
22 scaleable as two times the goal referenced in the  
23 2010 goal for certain programs.  
24 A. (By Mr. Silvestrini) Yes. If you look at the bullet

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1 that you referred to on Page IV-7, it refers to the  
2 residential weatherization and commercial  
3 energy-efficiency programs. Those are the programs  
4 that were determined to be scaleable.  
5 Q. Those are the two programs?  
6 A. (By Mr. Silvestrini) So it was the goals related to  
7 those two programs that we applied the "two times."  
8 Q. But the "two times" is a ramp to the third year of  
9 the forecast from the 2010 goal. But it continues to  
10 ramp to four times that goal by the fifth year; is  
11 that correct?  
12 A. (By Mr. Silvestrini) That's correct.  
13 Q. And that's in the sort of high DSM scenario?  
14 A. (By Mr. Silvestrini) Yeah, I believe it's the Tier 3.  
15 Q. And what you're saying is that the savings shown  
16 on -- in Exhibit 5, or what's called "Total DSM  
17 Customer Requirements," is a cumulative number  
18 showing the cumulative program savings accounting for  
19 whatever turnover rates you have or measured rates  
20 that you have embedded in there.  
21 A. (By Mr. Poe) Yes, that's correct. It's listed below  
22 in the third block where it shows all the different  
23 programs and how they're growing over time and  
24 returning DSM savings to the customers and to the

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1 Company.  
2 Q. And which scenario mixes are represented here  
3 compared to the scenarios in the original filing? Is  
4 that effectively the low-case DSM and the high-case  
5 DSM, or no DSM?  
6 A. (By Mr. Poe) This is the resource mix analysis, which  
7 was the ultimate run, the final run that the Company  
8 made. In its filing, it did three levels of DSM  
9 along its base-case demand forecast. But it did not  
10 do the resource mix analysis for it. It just simply  
11 used the optimization function of the model and  
12 showed what the implications would be for the  
13 different levels of DSM penetration. But the model  
14 didn't choose DSM measures at that point. They were  
15 told you can expect this much every year. So the  
16 Company could test its portfolio not only on high and  
17 low demand, but also high and low impact of DSM. And  
18 then the final run was the resource mix run, and that  
19 was the one where we allowed the model to say what is  
20 economical, what could be the best mix of resources,  
21 both supply and demand side.  
22 Q. And so that's the box entitled "Resource Mix Scenario  
23 with DSM," that's allowing the model to choose DSM;  
24 whereas, the first box doesn't allow it to choose it.

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1 A. (By Mr. Poe) Well, the first box was -- if you read  
2 the details of the original response by the Company,  
3 the question asked us to do -- to cost out the  
4 benefit of the resource mix run. And to do that, you  
5 actually have to have two runs. You have to say what  
6 was it without it and what was it with it. In the  
7 Company's filing, it did not do a resource mix run  
8 with no DSM. So I went back and I re-ran the model  
9 and excluded all DSM possibilities. And that's the  
10 top box. And it shows no DSM savings. The middle  
11 box is then the resource mix run with DSM from the  
12 filing and then the Delta between the two, so you can  
13 see what the savings would be.  
14 Q. So the answer was yes.  
15 A. (By Mr. Poe) The answer is yes.  
16 Q. Okay. So, going back to your rebuttal testimony at  
17 Page 6, Line 5, in discussing "lumpy investments" to  
18 make up a supply portfolio, you then conclude that as  
19 you're adding increments of supply as they're  
20 appropriately available, you must then, quote, grow  
21 into it over time to maximize the use of the  
22 resource. So is it sort of an inherent assumption,  
23 that load just always grows or will continue to grow?  
24 A. (By Ms. Arangio) Well, when we would look at making

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1 an investment specific to what we were talking about  
2 here, and specifically more than the Concord Lateral  
3 capacity, when we made that commitment we were  
4 looking at incremental growth over the period, and  
5 that we would be growing into that. So I think if we  
6 were to look at a different change within the  
7 customer requirements, where you would have load  
8 falling off, if you will, as opposed to growing, then  
9 we would have to make different capacity decisions in  
10 that. For the Concord Lateral, we had to make a  
11 commitment of a 20-year term for that capacity. So  
12 we'd have to look at the flexibility within the  
13 portfolio, as to when other contracts would come up  
14 for renewal termination, to be able to adapt to that.  
15 So that's why we have different resources with  
16 different contract terms and different flexibilities,  
17 so that we can adapt to that, yes.  
18 A. (By Mr. Silvestrini) And if I could just chime in.  
19 From a demand forecasting standpoint, we have seen  
20 historically pretty constant growth in our New  
21 Hampshire territories. And our forecasts continue to  
22 show growth, but slightly lower growth in the current  
23 economic environment. So we do anticipate continued  
24 growth.

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1 Q. On Page 7 of the rebuttal, the reference to the  
2 30,000 MMBtu per day of the Tennessee Gas Pipeline  
3 capacity that was associated with Concord Lateral  
4 expansion project, is that upstream pipeline capacity  
5 equal to the incremental capacity that came from the  
6 Concord Lateral expansion or increase in capacity?  
7 A. (By Ms. Arangio) The 30,000?  
8 Q. Yes.  
9 A. (By Ms. Arangio) Yes, that contract was for 30,000.  
10 Q. And how far upstream does that go? I mean, that  
11 capacity commitment, to what zone is it?  
12 A. (By Ms. Arangio) It's Zone 6 to 6. It's actually  
13 sourced at the Dracut meter to the Company's city  
14 gates. It's just on the Tennessee Gas Pipeline, Zone  
15 6 to 6.  
16 Q. Explain what that is.  
17 A. (By Ms. Arangio) Okay. Sorry.  
18 Q. It's just from the Dracut --  
19 A. (By Ms. Arangio) Yes, just from the Dracut meter to  
20 the Company's city gates.  
21 Q. Okay. Which is a distance of about how many miles?  
22 A. (By Ms. Arangio) Oh, jeez, I'm sorry. It's short  
23 haul, what we refer to as "short haul." So it's not  
24 long haul from the Gulf. And it's even a shorter

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1 haul, let's say -- maybe I could step back.  
2 When we look at Tennessee Gas Pipeline, it's  
3 divided into zones. So the Gulf of Mexico includes  
4 Zones 0 and 1. And then we come up to Zone 4, which  
5 is Pennsylvania, New York, where we access typically  
6 our market area storage, underground storage. And  
7 then we're located in the market area Zone 6. So  
8 that's the last zone on the Tennessee Pipeline. So  
9 this capacity is just within Zone 6 to 6. The Dracut  
10 meter, which is the interconnect with the Maritime  
11 Pipeline is located in Zone 6 as well.  
12 Q. So the point is you can get capacity beyond Dracut  
13 from more choices where you get pipeline capacity  
14 being Dracut?  
15 A. (By Ms. Arangio) We purchase -- right. In order to  
16 flow that gas on a primary basis, yes, we purchase  
17 the supplies at Dracut and flow that to the Company's  
18 city gates.  
19 Q. Okay. Could you, on Page 9, at the top of the page,  
20 talking about the Company's acquisition, the  
21 incremental 30,000 MMBtu per day of capacity, it  
22 also -- it concludes by saying that it was also to  
23 address significant quantities of LNG and LPG that it  
24 needed to purchase, transport and store on behalf of

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1 its customers.  
2 Could you elaborate what you mean by the term  
3 "address"?  
4 A. (By Ms. Arangio) Oh, to meet the requirements under  
5 the seven-day storage requirement. So we add the  
6 30,000 a day delivered to the pipeline. That  
7 calculates into your seven-day. It affects the  
8 calculation of your seven-day storage requirement.  
9 Q. In terms of accessing LNG or LPG.  
10 A. (By Ms. Arangio) Right. So it limits the amount --  
11 it reduces when you add pipeline capacity, it reduces  
12 the amount that you need to keep on hand of LNG and  
13 LPG and have access to it.  
14 Q. Okay. On Page 10 at Line 18, you say, "The  
15 abandonment of any of the Company's assets for an  
16 interim period, as appears to be suggested by Mr.  
17 McCluskey, is likely to result in higher, not lower,  
18 costs in the long run."  
19 When you say "interim period," are you sort of  
20 talking about within the five-year forecast?  
21 A. (By Ms. Arangio) Yes. So the interim period,  
22 referring to until we need to contract for something  
23 else to meet customer requirements and/or to meet the  
24 seven-day storage requirement.

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1 Q. I mean, does this suggest that the planning horizon  
2 of five years isn't long enough? Because what you're  
3 saying, if you analyze this under the five-year  
4 planning period, there might be an argument that you  
5 don't need these resources. But you're saying, well,  
6 if you look beyond that horizon, you know, it might  
7 be lower cost in the long run to hold on to these  
8 assets because you're going to need them at some  
9 point beyond the five-year plan horizon.  
10 A. (By Ms. Arangio) Yes. So before we make those  
11 decisions whether to terminate, you know, add or  
12 renew a contract, we would look at the ramifications  
13 of when it is that you would either need or not need  
14 that resource in the portfolio.  
15 Q. So you're saying, for sort of asset-management  
16 purposes, you're looking at a planning horizon of  
17 more than five years, typically.  
18 A. (By Ms. Arangio) Yes, if it makes sense to do so.  
19 Yes.  
20 Q. Is there an error on Page 14 at Line 19? You have in  
21 quotations, potentially available scenario. And I  
22 think you also have that same term in quotations in  
23 your original filing. Just wondering what the source  
24 of that term is.

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1 A. (By Mr. Silvestrini) That should be from the GDS  
2 study.  
3 Q. Well, I think if you look at the GDS study which is  
4 attached, on Page 4 of the study -- or back up to  
5 Page 3 of the study, the summary, the executive  
6 summary here, it starts by talking about the number  
7 of potential estimates that were done in the study.  
8 The first is technical potential, the highest level;  
9 the second is maximum achievable potential, which is  
10 a subset of the technical potential; and then there's  
11 the maximum achievable cost-effective potential; and  
12 then there's the fourth, which is potentially  
13 obtainable scenario. And you've got in quotation  
14 "potentially available scenario." Do you mean  
15 potentially obtainable scenario?  
16 A. (By Mr. Silvestrini) Yes, I do. Correct. It should  
17 be corrected.  
18 Q. Okay. Was National Grid Electric and Gas Divisions a  
19 sponsor of the GDS study?  
20 A. (By Mr. Silvestrini) Yes, they were.  
21 Q. And did National Grid's staff participate in looking  
22 at the assumptions and methodology and critiquing or  
23 working on the study as it was developed?  
24 A. (By Mr. Silvestrini) Yes. Yes, we were.

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1 Q. Okay. I think, particularly in your rebuttal  
2 testimony, on several occasions you refer to it as an  
3 "academic study." And I was wondering in what sense  
4 of the term "academic" you meant. Was it prepared by  
5 academics or associated with a scholarly institution,  
6 like an academy or university? Or did you mean it in  
7 a pejorative sense?  
8 A. (By Mr. Silvestrini) Really, neither. I use it in  
9 terms of more of a theoretical analysis than one that  
10 that you would apply to a supply plan.  
11 Q. Okay. I was just trying to understand. Because I  
12 looked at Webster's New Collegiate Dictionary, Third  
13 Edition, and in looking at all the definitions, the  
14 first are relating to a scholarly institution, and  
15 sort of the second set is scholarly to the point of  
16 being oblivious to the outside world, or 7A is  
17 theoretical or speculative, and B is having no  
18 practical meaning or usefulness. You're not saying  
19 that it fits those definitions.  
20 A. (By Mr. Silvestrini) Only that it's theoretical. I  
21 wouldn't say that it has no usefulness. But I  
22 wouldn't incorporate the results in a supply plan.  
23 Q. Well, if we look at the study itself, wasn't part of  
24 the purpose of it to provide input into planning

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1 documents?  
2 A. (By Mr. Silvestrini) Yeah. I wasn't a part of that;  
3 process. But my understanding was that it was to  
4 identify what the potential was for programs. And as  
5 a supply planner, I make a distinction. I mean, we  
6 used what was available from the approved programs in  
7 order to what we can implement from a supply plan.  
8 Q. Well, didn't the study attempt to move from  
9 theoretical technical potential and drill down to  
10 this potentially obtainable scenario, which is  
11 described as an estimate of the potential for  
12 realistic maturation over time of energy-efficiency  
13 measures, taking into account customer behavior, all  
14 the costs and practical considerations of what it  
15 would take to achieve some of the achievable  
16 cost-effective potentials?  
17 A. (By Mr. Silvestrini) Yeah, I think it did. But as I  
18 analyzed the results of the study and compared it to  
19 what we were implementing under our current programs,  
20 it seemed to me the difference was too great to use  
21 as an outer bound for what we could practically  
22 expect to see in a supply plan. And that's where we  
23 made the adjustments.  
24 Q. So part of what you did in your assumptions is you

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1 just assumed an extension of current programs and  
2 not -- you didn't assume that any of the  
3 demonstration projects might be converted to  
4 implementation programs or potentials that might have  
5 been identified in the study as cost-effective and  
6 potentially achievable, but maybe there aren't  
7 current programs, you didn't assume any of those had  
8 any potential.  
9 A. (By Mr. Silvestrini) Yeah, we excluded those in terms  
10 of reliability of supply. Because one of the factors  
11 that we look at when we put together a portfolio is,  
12 is the cost in addition to other non-price factors,  
13 like reliability and diversity. And as we're looking  
14 at the reliability of achieving savings for those  
15 particular measures, we determined that they weren't  
16 reliable enough to put in a supply plan.  
17 Q. Just because you didn't have experience with them.  
18 A. (By Mr. Silvestrini) Well, and just the nature of the  
19 measures. As I said, if you're putting more money  
20 into displays in Home Depot, for example, you may  
21 spend the money, but that doesn't guarantee you're  
22 going to see those savings when we need them and  
23 under the weather conditions that we need to see  
24 them. I'm not saying there won't be savings. It's

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1 just from a reliability standpoint, it's not  
2 something I would put in a supply plan.  
3 Q. On Page 15, Line 12, in discussing equipment  
4 replacement and noting that it's most effective at  
5 the time of equipment breakdown, you stated that such  
6 incentives do not tend to accelerate the decision to  
7 replace. And I'm just wondering what incentive level  
8 are you assuming, I guess in the current programs,  
9 and is that -- are you making that assertion as a  
10 universal statement, or does it apply more or less to  
11 different programs and different customer groups?  
12 A. (By Mr. Silvestrini) I think it's a more universal  
13 statement, and it's within, I'd say within the kind  
14 of bounds of the experience that we have in  
15 implementing these kinds of programs. I mean, I  
16 think if you increase the incentive to a certain  
17 level, certainly you would be able to convince people  
18 to replace equipment before the time of breakdown.  
19 But I don't know what that level is. I mean, for  
20 example: If we're providing a rebate -- let's say it  
21 costs \$5,000 to replace a boiler or furnace, and you  
22 offer a customer a \$1,000 rebate. That might not be  
23 enough. But what if you paid for the whole  
24 installation, the \$4,000 or \$5,000? Well, that may

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1 or may not be enough. You may have to say we'll pay  
2 for the full installation and give you another  
3 thousand in order to spur the -- you know, to  
4 accelerate the replacement process. And that's the  
5 kind of information we didn't know. If we were going  
6 to do that, you'd have to -- in order to model it,  
7 you'd have to know what the cost of accelerating the  
8 programs were. So within the bounds of our  
9 experience, we drew these constraints on the  
10 programs.  
11 Q. Do you know if your program administrators looked at  
12 the supplemental ERA-funded incentive, that I believe  
13 your utility participated in, that provided  
14 additional incentive for replacement of  
15 low-efficiency gas hot water heaters and boilers and  
16 furnaces with high-efficiency units? Have you -- did  
17 you check to see to what extent that was hitting  
18 replacement at a point of retirement or replacement  
19 for people who had working equipment, but wanted to  
20 take advantage of more efficient products?  
21 A. (By Mr. Silvestrini) Yeah, I don't know specifically.  
22 But the results and these judgments were based on  
23 discussions I had with our program implementers, and  
24 they were the ones that gave me the constraints.

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1 Q. Do you happen to know what incentive level was  
2 assumed in the GDS study for the potentially  
3 obtainable scenario?  
4 A. (By Mr. Silvestrini) I don't know precisely.  
5 Q. Or whether that was more or less than the current  
6 incentive levels? You don't know that specifically?  
7 A. (By Mr. Silvestrini) No, I don't know that  
8 specifically.  
9 CMSR. BELOW: Okay. I think that's  
10 all.  
11 CHAIRMAN GETZ: Commissioner Ignatius.  
12 CMSR. IGNATIUS: Thank you.  
13 QUESTION BY CMSR. IGNATIUS:  
14 Q. Why don't we stick with DSM for a bit longer.  
15 Mr. Silvestrini, you made a point in the  
16 rebuttal testimony, and again this morning, that you  
17 couldn't use the GDS numbers for planning purposes.  
18 And you highlighted that. So let's talk a little bit  
19 about how far you can go for planning purposes with  
20 those kinds of numbers, or any other aspirations to a  
21 greater amount of DSM in the system.  
22 I guess what I'm asking is, what's the  
23 relationship between the planning modeling you use  
24 and the reality of how you continue to expand good

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1 programs to increase cost-effective DSM? Seems like  
2 you've got two things going: The theoretical  
3 planning function and then the reality and the  
4 individual dockets going along year by year. How do  
5 we marry those two to achieve as much as can  
6 realistically be achieved in a cost-effective way?  
7 A. (By Mr. Silvestrini) The best way to answer that, in  
8 the past we would look at the energy efficiency that  
9 was being obtained through our Company's programs,  
10 and we would identify what the historical levels of  
11 savings were achieved as we did our statistical  
12 analysis to develop a demand forecast, recognizing  
13 that what happened historically was already embedded  
14 in the data, so that it was already factored into our  
15 statistical models. Then we would look at the  
16 projected levels of the programs going forward. And  
17 to the extent there was an increase going forward  
18 over what we experienced historically, we would  
19 reduce our demand forecast accordingly and say our  
20 demand is going to be reduced exogenously from the  
21 forecast model as a result of our energy-efficiency  
22 programs. That's how we did it in the past.  
23 This time, in fact for the first time that I'm  
24 aware of, we were asked to incorporate energy

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1 efficiency or demand-side management as a supply-side  
2 resource. And the way we do that -- and Mr. Poe can  
3 talk more to the details of the optimization model.  
4 But you need to put in certain volumes at a certain  
5 cost, appearing at a certain time, subject to  
6 constraints. And that's what we tried to do. We  
7 said, well, let's look at the GDS study, and is that  
8 something we can use to establish what those  
9 constraints will be. And our assessment was that it  
10 was beyond the horizon that we could reasonably use  
11 for a supply plan. So then we took a step back and  
12 said, well, what can we achieve and grow and know  
13 that we can quantify what the cost of those are going  
14 to be, so we can compare those costs to the cost of  
15 the supply sources in our portfolio. And that's when  
16 we contacted our program evaluators and implementers  
17 and said, okay, here are the current programs.  
18 Knowing what you know about what it takes to  
19 implement the programs and what kind of a response we  
20 get from the programs and what it costs, if we wanted  
21 to expand this, based on a comparison to the cost of  
22 the supply resources in our portfolio, how would we  
23 do that, and what are some of the things we could  
24 expand, and at what cost and at what limit. And

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1 that's what we attempted to do. And that's how we  
2 modeled it, so that we could fit it into the  
3 optimization model, and then, as Mr. Poe described,  
4 look at several different scenarios, base-case,  
5 high-case and low-case scenarios, and then letting  
6 the model do the determination of what levels of  
7 energy efficiency we could take.  
8 Q. And then how do you move from the planning model in  
9 those low-base high-case scenarios into the program  
10 proposals for the actual efficiency programs that  
11 come before the Commission?  
12 A. I think there needs to be a better integration of  
13 those two processes, I think both within the Company  
14 and with the Commission, in terms of identifying,  
15 because it seems to me we've got two things going on,  
16 not completely in a vacuum, but somewhat divorced  
17 from each other. We've got program assessment going  
18 on, where we're looking at what it's going to take to  
19 implement it, who are the beneficiaries going to be,  
20 who are going to bear the cost of that, and what are  
21 the bill impacts? Those are very real issues. In  
22 fact, I was involved in that back in the early 2000s  
23 when we first rolled these programs out, looking at  
24 what the bill impacts were going to be.

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1 And on the other side, we need to look at, well,  
2 if there's potential to do more, how much more can we  
3 do, and how cost-effective is it, without just  
4 opening the flood gates and not looking at what the  
5 budgets and the bill impacts are. And that's where I  
6 think, as I say, if we could integrate those two  
7 processes better, we could probably come up with a  
8 better answer.  
9 Q. I would think you also, because you've been asked  
10 this time to treat DSM as a supply option, that  
11 your -- is it fair that you've been fairly  
12 conservative in what you've calculated for DSM  
13 savings because you don't want to get caught just  
14 hoping it comes through and then it doesn't?  
15 A. (By Mr. Silvestrini) Supply planners by their nature  
16 are conservative.  
17 Q. And yet, you then have to shift over to developing  
18 the proposals in the actual programs. And if the  
19 program planning is constrained by a conservative  
20 approach for the planning document, do you end up  
21 limiting the vision of the people designing the  
22 programs, who are looking at it for a different  
23 purpose, and yet they've got a document that sets out  
24 a conservative expectation?

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1 A. (By Mr. Silvestrini) I think that's where the value  
2 of the economic potential study would come, because  
3 that would help us define what that bound would be  
4 from a supply planing standpoint. And then you could  
5 ratchet that down to what's feasible, both from a  
6 delivery standpoint and across a bill-impact  
7 standpoint, and you could then better balance those  
8 two interests.  
9 Q. What in the planning process is there that helps  
10 guide decision-making on particular programs if  
11 direct experience over the forecast period turns out  
12 to be better or worse than you might have known, or  
13 when you see actual results come forward? Do you go  
14 back into the plan to help guide decision-making  
15 about the next level of DSM in this case?  
16 A. (By Mr. Silvestrini) I think that would be the ideal.  
17 I don't know that we're there yet. And that's what I  
18 said earlier. I think they're somewhat divorced, and  
19 I think it would be better to integrate the two.  
20 And I think the other thing we need to look at  
21 is we may get -- we may do an evaluation of DSM on an  
22 equal footing with supply-side resources and find  
23 out -- let's say we can justify doubling the programs  
24 from that standpoint. Well, my understanding is our

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1 programs have gone from \$3 million a year to \$5,  
2 almost \$6 million a year. If we double that, do we  
3 want to go \$10 or \$12 million a year to spend on  
4 these programs? And I think that's the other  
5 constraint on how far we go. But that's done in the  
6 context of putting the programs together and looking  
7 at what bill impacts are.

8 But I think, as I said earlier, in the long run,  
9 it may be that because they're cost-effective, you're  
10 going to lower the overall cost. But there's still  
11 kind of the near-term price shock of implementing  
12 those levels of programs and the impacts on customer  
13 bills.

14 Q. I think we were looking at the excerpt on Exhibit 5  
15 that showed the average system cost lower each year  
16 that you forecasted with DSM; correct?

17 A. (By Mr. Silvestrini) Yeah, I think that would be the  
18 expectation, is that you would -- if it's cheaper to  
19 implement DSM than take more gas supply, then your  
20 portfolio should cost less.

21 Q. But is your concern that, from an individual customer  
22 perspective, that it may be the system overall is  
23 down, but my bill has gone up significantly?

24 A. (By Mr. Silvestrini) That's right. And that's why I

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1 say, if you translate these two program costs to  
2 implement the measures -- like I say, the current  
3 program is about \$5 million. If we increase that to  
4 \$8 or \$10 million a year, there's a bill impact  
5 associated with that.

6 Q. Turning away from DSM and thinking about some of the  
7 other components of the plan, but really the same  
8 question, how does the planning function define for  
9 you what the right level of, let's take excess  
10 supply -- and I guess, Ms. Arangio, that's your  
11 primary duty there. What is it in the plan that  
12 helps you to know what the right level of excess is?

13 A. (By Ms. Arangio) I think it's within the plan that we  
14 documented. Within the plan, we talk about the  
15 planning process that we go through when we have  
16 contracts that come up for renewal and we have to  
17 make a decision, whether it be every five years or  
18 every year, certain of our contracts are in  
19 "evergreen status," which means we can terminate them  
20 each year or we can continue to roll them over. When  
21 we look at putting the plan together, we have at the  
22 very end of the plan a -- I kind of live and breathe  
23 by the one sheet that says here's our peak-day  
24 requirement and here's what we have to meet our

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1 peak-day requirement, as well as peak season. And  
2 once we see in the outer years a deficit, so that --  
3 and this is the experience that I had with the  
4 deficit. I'll talk to the other side after this. We  
5 say to ourselves, we look and say, okay, what are our  
6 options to meet that requirement. And again,  
7 historically, DSM and all that has already been  
8 incorporated in the savings and so on. So we would  
9 look at either an on-system resource -- are there  
10 facilities on our system that we can expand, whether  
11 it be storage or the vaporization, where you can get  
12 more volumes on our peak day -- do we have pipeline  
13 resources that we can increase. And specifically,  
14 the last significant increase that we had in the  
15 portfolio is the addition of the Concord Lateral  
16 project which went into service in '09. We filed  
17 that, as you folks know, in '07, and certainly  
18 started our discussions with Tennessee Gas Pipeline  
19 before that. So I think we detail it in some Q & A  
20 here. But call that a three-year planning period.  
21 That was probably a shorter planning period, in the  
22 sense that it was to build a compressor station to  
23 meet that requirement. Whatever type of facility, if  
24 you have to put in a new pipeline, it depends on the

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1 area that you're going through. If you have to have  
2 permitting and such, if you have to make filings with  
3 FERC, we have to back that into the planning  
4 schedule. So once we see, like I said, in the outer  
5 years of the five-year plan a need, we can continue  
6 to monitor that.

7 We do our planning process every year, even  
8 though we only file our plan every two years  
9 formally. We do our planning process every year so  
10 that we're looking at this every year and have the  
11 most up-to-date information. Sorry. Let me slow  
12 down a little. I just saw the sign. I know I'm  
13 talking quickly.

14 We update that every year with respect to the  
15 demand, as well as any contracts that we have coming  
16 up for renewal. And then again, we also take into  
17 account any other requirements, like the seven-day  
18 storage requirement that we have.

19 So now we're looking at what volume of excess,  
20 if you will, is acceptable. Right now, we're in the  
21 position that we do have excess supply in the  
22 portfolio. And we've discussed, and Mr. McCluskey  
23 put it in his testimony, the reasons for that. We  
24 have to make contractual commitments -- some, like I

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1 said, one-year, five-year, and the Concord Lateral  
2 was a long-term commitment we had to make -- so that  
3 we can say, okay, if we look at that, do we need to  
4 have this in the portfolio? We may not. For  
5 example: An LNG facility. We may not necessarily  
6 have to execute -- excuse me -- have to call in that  
7 for the peak day. But once those resources are in  
8 your portfolio, you have the ability to use them. So  
9 within the season we may not project that we're  
10 using, for example, LNG in our portfolio. But what  
11 was experienced this past winter season, we did  
12 expect to use some, but we used more volumes than we  
13 originally had forecast in our cost of gas because  
14 they represented a least-cost dispatch.  
15 So, to target one individual resource to say  
16 that that specific resource is the excess, we  
17 really -- it's very difficult to do that when you  
18 just look at the numbers, because each resource  
19 brings with it flexibility. Every day we need to  
20 have -- we need to meet our requirements for  
21 balancing on the Tennessee Gas Pipeline.  
22 Over this last winter season, the 2010-2011  
23 season, we had over 70 days within the 150-day or  
24 151-day winter period that we had to keep within a

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1 tighter tolerance on Tennessee. So we had to  
2 nominate our volumes that we expected to forecast our  
3 customers to use for the day, make our nominations on  
4 the pipeline, and stay within a 2-percent tolerance.  
5 So one of the attributes for our supply needs is to  
6 make sure we have the flexibility to do that, to be  
7 able to meet those requirements and stay within that  
8 balancing tolerance and not incur any penalties.  
9 And then the reliability of it, there are issues  
10 upstream on a pipeline. We all know that our  
11 on-system facilities, we reported those as our last  
12 line of defense. Those are facilities that we have  
13 control to turn on. So whether that's for supply  
14 reasons or for system distribution pressure issues on  
15 our own system, or if the Tennessee Gas Pipeline, if  
16 we're not experiencing historical pressures that we  
17 need to operate that, we can turn our own facilities  
18 to boost those pressures.  
19 So when we look at -- we don't necessarily look  
20 at a finite number and define that as okay to be  
21 excess. Now we'll have to look at that in terms of  
22 going forward and what each resource in the portfolio  
23 adds to the portfolio. So we do incorporate both  
24 price and non-price factors I guess is the simple

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1 answer to the question. And we don't have an exact  
2 volume that says it's okay to look at excess or what  
3 volume specifically is excess. But we'll also look  
4 at -- I think this was a question that I had earlier  
5 referenced -- that we'll have to look at the longer  
6 term effects of, for example, potentially -- I think  
7 within our testimony we talked about -- in our  
8 rebuttal testimony we talked about if we run our  
9 models, and, for example, it says that we should  
10 de-contract with pipeline capacity, we have to think  
11 about the long-term ramifications of that. And if we  
12 do turn back pipeline capacity, is that going to be  
13 there when we need it? So, in fact, we may -- for  
14 example: We have a contract coming up for renewal  
15 that's delivered off of the pipeline, our AES Granite  
16 State contract that's coming up for renewal in 2012.  
17 Well, if we make the decision -- that contract  
18 actually has different renewal terms. If we make  
19 that decision, for example, not to renew that  
20 contract, is that going to be there when we need it  
21 in two or three years, or whatever the planning  
22 horizon will be that we need to add capacity?  
23 So I guess the short answer to your question is,  
24 it's really quite a bit involved in looking at what

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1 we would contract for and not contract for, looking  
2 at the long-term planning for the portfolio and how  
3 to meet requirements.  
4 Q. Well, I guess a lot of what you described sounded to  
5 me like operational decisions and individual  
6 purchasing decisions. And what is there in the plan  
7 itself that helps to inform those decisions? You  
8 said there's no set requirement. You must be  
9 X-percent excess for liability purposes or anything.  
10 I take it there's no parameters like that. So  
11 what -- are there any terms in the plan that guide  
12 you in making those purchase decisions or decisions  
13 about whether to go to this contract or to this  
14 propane supply to make all of those operational  
15 decisions you make every day? Does the plan guide  
16 you, or does it -- it's written, but it doesn't  
17 really have a lot to do with what happens day to day?  
18 A. (By Ms. Arangio) Well, the plan pretty much describes  
19 the process that we look at. So, like I said  
20 earlier, our driver is really making sure that we  
21 have the resources to meet the design day and the  
22 design season. And we almost had a design day in  
23 2004, so we needed to meet what we statistically  
24 planned for.

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1 And, you know, people think, oh, once in 40  
2 years, oh, I'm not going to be here when it's once in  
3 40 years. Well, I was, and hopefully it won't occur  
4 for another 40 years. But that always has the driver  
5 of -- I think you asked as well about conservative.  
6 We have the planning standards that we must have. So  
7 the plan details all of that. And then it also  
8 details the process in which we go through.  
9 So when we look to renew a contract, we also  
10 look at alternatives that are available at the time  
11 and say, if we let this contract go, for example,  
12 what are the alternatives that we can meet those  
13 customer requirements with. And if those  
14 alternatives are more expensive or if they don't  
15 exist, or if they also don't provide the same  
16 flexibility and reliability that you need that the  
17 current resource has, you also have to take that into  
18 effect as well. So it's the big picture. But then  
19 it all boils down to, you know, on day-to-day  
20 decisions, if we have a pressure issue, we need to  
21 make sure that we have a resource that we can turn on  
22 to boost the system pressure so that we don't have  
23 any impact on that day for customers. So it's kind  
24 of a big picture that goes down to really a

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1 day-to-day issue as well.  
2 Q. You also said that you have to make investments,  
3 "lumpy investments," and then "grow" into them.  
4 A. (By Ms. Arangio) Right.  
5 Q. And you're currently in excess because both of some  
6 those big investments and because of the drop in  
7 demand in the economy. How long are you projecting  
8 it will take to grow into that supply?  
9 A. (By Ms. Arangio) At this time, we're -- well, that  
10 will be flushed out when -- that's why, one of the  
11 reasons that we're looking to file -- well,  
12 obviously, we need to file our next supply plan in  
13 February, anyway -- is to use all of the most updated  
14 information that we have to determine what that time  
15 period is. So I can't tell you at this moment in  
16 time what that is because we don't have the updated  
17 information.  
18 Q. Do you make decisions to sell off any of your supply?  
19 Is there a market to sell off any of your supply to  
20 recoup some of the costs?  
21 A. (By Ms. Arangio) Oh, certainly. Within our rebuttal  
22 testimony -- I think it might have been the first  
23 question somebody asked. I think the OCA asked about  
24 if we had an incorrect date. When we have

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1 incremental -- excuse me. When we have excess  
2 resources within the portfolio, whether it be for a  
3 day or any time period, we look to optimize those  
4 resources and sell them in the marketplace. So I  
5 think on page... let's see, of our rebuttal  
6 testimony... wait a minute, I'll just find it here.  
7 Oh, on Page 6 of 19 here, starting with Line 19, I  
8 speak to, for instance, from November 2009 through  
9 October 2011, the Company engaged in portfolio  
10 optimization activities. That reduced the cost of  
11 gas to customers by \$2.1 million. So what we look to  
12 do in the marketplace is to sell excess capacity on a  
13 day or a month, optimize the portfolio. And those  
14 savings and those revenues flow back to customers.  
15 So, to further elaborate a little bit on why the  
16 2011 date is correct, is we engage in some activities  
17 for a twelve-month period. So we know we have  
18 guaranteed revenues coming back through 2011. We  
19 already know about that. We're already contracted  
20 for those. And then there will be incremental until  
21 that date. So we do -- anytime we have excess in the  
22 portfolio that we're not using to meet customer  
23 requirements, we do look to optimize those assets in  
24 the marketplace. And those revenues then do flow

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1 back to customers, and they see that as a reduction  
2 to the gas cost.  
3 Q. But the plan itself does not give you a threshold  
4 amount over which you should be looking for those  
5 opportunities, or does it?  
6 A. (By Ms. Arangio) No. That's actually -- it doesn't  
7 have a prescribed volume. That's part of the  
8 management of the portfolio, so that -- for example:  
9 In the off-peak period, which we look to in the gas  
10 supply world as April through October, typically we,  
11 along with our brethren in the Northeast, have excess  
12 capacity in the summertime, because most of our  
13 capacity obviously is used to meet the peak periods.  
14 And that may also be just on transportation volumes.  
15 It may be on storage volumes. It may be on LNG and  
16 LPG volume. Anything that we wouldn't be using to  
17 meet customer requirements that we can sell and that  
18 we make sure that -- in our port portfolio, for  
19 example, we have to -- we create what we call a  
20 "storage rule curve" at the beginning of each winter  
21 season. So that dictates where we need to be with  
22 our level of storage in our underground storage  
23 facilities, as well as our supplemental facilities,  
24 so we don't -- we actually have a requirement here in

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1 New Hampshire that we need to be at a certain level  
2 by the end of every month. And we know that. So  
3 that dictates a lot of the reliability and the  
4 volumes, per se, that we know we have as excess. So  
5 let's just say, for example, if we're at the end of  
6 the month and we know we have to be at a certain  
7 level in storage, and we have five days left, and if  
8 we see whether that requires us to pull our full  
9 volumes out of storage, we know we don't have those  
10 as excess for those five days. But if we had maybe  
11 10 days of excess, and we only had five days left in  
12 the month, then we know we have those five days as  
13 excess. So it's also, as well, based on the  
14 operating parameters in the upstream pipeline. And  
15 what I mean by that is, typically when it gets colder  
16 or if there are issues in the marketplace when -- for  
17 example: Sometimes, often Sable Island will go down  
18 or sometimes Repsol LNG didn't have a ship coming in  
19 during a period of time, and you see the market  
20 tighten because the supply situation's tightened.  
21 And so what that means, in addition to typically  
22 higher pricing within the Tennessee Zone 6 area that  
23 we're located in, it also means the tightening of the  
24 balance on the pipeline. So that's when the upstream

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1 pipeline, instead of allowing you a 10-percent daily  
2 tolerance from the nomination to your usage, it has  
3 to go down to 2 percent before they incur either a  
4 balancing charge or a penalty. So we have to also  
5 take those parameters into account when we look at  
6 what we optimize as well and what we hold on to, to  
7 make sure that we can meet our customer requirements.  
8 Q. Mr. McCluskey took the Company to task for, in his  
9 view, turning to propane more than really it should  
10 have and that there was a more cost-effective  
11 approach with the Granite Ridge contract.  
12 Is there -- what is there in the plan that helps  
13 you make those decisions with which way to go when  
14 you need to pull on supply? Is there anything that  
15 guides you in using propane at a particular time?  
16 A. (By Ms. Arangio) I think our best guidance is the  
17 least-cost dispatch in a reliable manner. And what I  
18 mean by that is that we know we have an obligation  
19 to, once resources are in the portfolio and  
20 contracted for, we have an obligation to dispatch  
21 those in a least-cost manner. But I also put on that  
22 caveat the reliability. If certain times we may --  
23 and I know Mr. McCluskey, in his testimony, there was  
24 a reference to specific days, I believe in the

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1 '08-'09 winter period where we utilized propane in  
2 lieu of our Granite State -- and I also called that  
3 "AES." I apologize -- contract. I don't know the  
4 specific reasons in the '08-'09 period, off the top  
5 of my head, why we would have done that. But  
6 typically we would dispatch propane, either propane  
7 or LNG to meet system pressure requirements or to  
8 balance at the very end of the gas day if we  
9 needed -- if we had a higher load than what we had  
10 planned for. The AES contract requires us to  
11 nominate that gas the day before. So if we have a  
12 weather front coming in and it comes in earlier  
13 rather than later, and the customer requirement is  
14 such that we need more supply, our on-system  
15 facilities are the supplies that we can call in  
16 ourselves, that we don't have a nomination  
17 requirement to meet. So we know that we may also  
18 have a requirement, must-take requirements. And  
19 again, off the top of my head, the '08-'09 winter  
20 period, it's not off the top of my head. But we also  
21 sometimes have must-take requirements with the supply  
22 contract, that we have to take certain volumes. I  
23 don't know if that was a specific instance that he  
24 cited. But we sometime have must-take volumes that

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1 we have to, because we have to contract for them to  
2 meet customer requirements. I believe, if I'm  
3 thinking about it, in the '08-'09 period, the Concord  
4 Lateral project was not in service. So I believe we  
5 had to contract for certain liquid supplies, be it  
6 LNG or LPG, to make sure that we had sufficient  
7 volumes to meet peak-day and the seven-day  
8 requirement. So that may have also been a factor.  
9 So those things are taken into account as well, why  
10 we would dispatch certain supplies over other  
11 supplies.  
12 Q. In the recommendations that Mr. McCluskey made, and  
13 the Company has agreed to accept, do you anticipate  
14 that that will require a significant change in the  
15 plan being developed for 2012 in substantive  
16 management, or is it more that it will entail greater  
17 detailed explanation of things that are already going  
18 on?  
19 A. (By Ms. Arangio) I'll speak to the supply resource  
20 portfolio and let Mr. Silvestrini and Mr. Poe speak  
21 to other issues.  
22 But I think, in fairness, we can say they're  
23 probably some of the things we take for granted that  
24 we do every day. So, in fairness to Mr. McCluskey,

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1 some of his points, it could be more detailed within  
2 the plan and future plans going forward. And, you  
3 know, the Company has obviously agreed to do that.  
4 So if we need to document different types of  
5 decision-making or expand on certain things, which he  
6 alluded to in his recommendations, we certainly agree  
7 to do that. And that would make some sense, so that  
8 the Staff has a better understanding of what, I  
9 guess, is in our head and isn't necessarily on paper,  
10 so that they can understand why we make the decisions  
11 we do. And if they don't agree with that, we have a  
12 conversation about that.

13 Q. Any other comments?  
14 A. (By Mr. Silvestrini) Yeah, I would say not major  
15 changes. I mean, the way these filings and  
16 proceedings generally play out, when we come in with  
17 our plan and we present it, there are always tweaks  
18 and improvements that we make going forward. And I  
19 would put them under that category.  
20 I think one of the biggest changes we made was  
21 putting DSM in as a supply side. I think that was --  
22 I would call that a major change. But for here, it  
23 was more just a modification and explanation of what  
24 we're doing and an understanding of what the

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1 expectations from the Commission and the Staff are.  
2 Q. Thank you.  
3 A. (By Mr. Poe) I would agree with my co-workers.  
4 CMSR. IGNATIUS: Thank you. Nothing  
5 else.  
6 CHAIRMAN GETZ: Mr. Camerino, any  
7 redirect?  
8 MR. CAMERINO: Yes, limited.  
9 REDIRECT EXAMINATION  
10 BY MR. CAMERINO:  
11 Q. Let me just start, Ms. Arangio, with something that  
12 Commissioner Ignatius was asking you about at the  
13 end.  
14 She asked you about a portion of Mr. McCluskey's  
15 testimony, where he referred to what he said was the  
16 Company using higher-cost propane rather than the AES  
17 or Granite Ridge supply. Do you recall that?  
18 A. (By Ms. Arangio) Yes, I do.  
19 Q. And that relates to, if I understand correctly, a  
20 past decision on which resource to dispatch as  
21 opposed to something that would be in the supply  
22 plan; is that a fair statement?  
23 A. (By Ms. Arangio) That's correct.  
24 Q. Are there proceedings in which the Commission reviews

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1 the dispatch decisions that the Company has in fact  
2 made?  
3 A. (By Ms. Arangio) Yes. In each of the  
4 reconciliation -- the COG reconciliation filings, we  
5 typically detail most of why we dispatch,  
6 specifically in the winter period, why we dispatch  
7 certain supplies over other supplies. Yes, that is  
8 reviewed.  
9 Q. And so those years that are referenced by Mr.  
10 McCluskey, those have already been the subject of  
11 review in a past docket by the Commission?  
12 A. (By Ms. Arangio) Yes. Specifically, the '08-'09  
13 would have been as well.  
14 Q. And assuming for the sake of argument that his  
15 statement is correct, that the propane was higher  
16 cost, is it your testimony that there could be  
17 non-cost reasons that the propane was dispatched?  
18 A. (By Ms. Arangio) Yes.  
19 Q. This is a question for Mr. Poe. I want to show you a  
20 data request responded to by Mr. McCluskey in this  
21 proceeding. I'll provide copies to everyone. This  
22 is OCA 1-3. And I'd just ask you to read that and  
23 refresh yourself for a minute while I provide copies.  
24 (Witness reviews document.)

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1 MR. CAMERINO: Just for the record,  
2 I'll explain this in a minute, but there's actually  
3 two pages attached there.  
4 BY MR. CAMERINO:  
5 Q. And you see that the Consumer Advocate asked Mr.  
6 McCluskey whether the Company had been asked about  
7 why Granite Ridge had not been utilized?  
8 A. (By Mr. Poe) Yes, I see it.  
9 Q. And what's Mr. McCluskey's response?  
10 A. (By Mr. Poe) Mr. McCluskey responds that the Company  
11 responded to Staff discovery on the issue. It argued  
12 that sendout requirements that exceeded the Company's  
13 pipeline capacity were met using less-expensive,  
14 Company-owned supplemental resources. See response  
15 to data request entitled Staff 1-10."  
16 Q. And the second page that's attached, Staff 1-10 from  
17 DG 10-230, is that the response Mr. McCluskey refers  
18 to?  
19 A. (By Mr. Poe) That must be the response he's referring  
20 to.  
21 Q. And do you know, is that docket a prior cost-of-gas  
22 proceeding, meaning prior to today?  
23 A. (By Mr. Poe) Yes, it is.  
24 Q. And so the issue that was asked about by

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1 Ms. Ignatius -- by Commissioner Ignatius was inquired  
2 by the Commission Staff.  
3 A. (By Mr. Poe) Yes, it was.  
4 MR. CAMERINO: Could we mark that as  
5 Exhibit 6 for identification.  
6 CHAIRMAN GETZ: We'll mark the two  
7 pages as Exhibit 6 for identification.  
8 (The document, as described, was  
9 herewith marked as Exhibit 6 for  
10 identification.)  
11 Q. And to go back to my line of questioning with you,  
12 Ms. Arangio, what the supply plan deals with is the  
13 decision to procure or obtain the rights to supplies  
14 and capacity -- is that correct -- not which will  
15 actually be dispatched when each day comes? Is that  
16 a fair statement?  
17 A. (By Ms. Arangio) Yes, it is.  
18 Q. And since I'm using the words "supply" and  
19 "capacity," because I'm a little concerned that they  
20 may have been used interchangeably today. Is the  
21 issue that you understand Mr. McCluskey to be  
22 concerned about, excess supply or excess capacity?  
23 And if you could just summarize the difference.  
24 A. (By Ms. Arangio) Sure. What I refer to as "capacity"

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1 is pipeline capacity that we contract for and pay  
2 for, including, actually, our AES Granite State  
3 supply contract, because that actually is a bundled  
4 contract that delivers to our city gate both supply  
5 and capacity. And "capacity" as well would include  
6 volumes contributed with our own on-system facilities  
7 as well. That's capacity that we retain to meet  
8 requirements. Then we would fill that capacity with  
9 a supply contract that would flow in the capacity, or  
10 purchase LNG or LPG refill volumes to fill the  
11 capacity.  
12 Q. Mr. Silvestrini, there was a discussion you had with  
13 Commissioner Below about the Company forecasting load  
14 growth. And what I want to ask you is, is it  
15 possible for the Company to forecast overall load  
16 growth, but not necessarily a growth in usage per  
17 customer?  
18 A. (By Mr. Silvestrini) Yes, that's true.  
19 Q. And so those two things could be moving in different  
20 directions?  
21 A. (By Mr. Silvestrini) And in fact, generally they are.  
22 Our growth is coming from additional customers. At  
23 the same time, use per customer tends to decline.  
24 Q. Does that mean that it's possible that individual

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1 customers could be energy-efficient, but the  
2 Company's load could continue to grow?  
3 A. (By Mr. Silvestrini) That's correct.  
4 Q. Mr. Silvestrini or Mr. Poe, would you just explain  
5 very briefly how you -- you refer to the "resource  
6 mix run of the SENDOUT model" and the "optimization  
7 run." And as simply as possible, explain what each  
8 of those is.  
9 A. (By Mr. Poe) Allow me. Certainly, the SENDOUT model  
10 has two main methods of operating: One of them is  
11 simply the optimization method which we have used  
12 countless times in prior forecasts.  
13 In an optimization run, the Company's portfolio  
14 is represented by its empty queues, and AC queues,  
15 the demand charges and commodity charges that it  
16 faces. The commodity charges of the supplies and all  
17 of the contracts are assumed to be fixed, so all the  
18 demand charges are sunk. And the objective function  
19 of the linear program within the model is to minimum  
20 the overall cost. The way to do that would be to  
21 purchase in a least-cost fashion the commodities that  
22 are available to it. And that would be the long-haul  
23 Gulf gas, short-haul gas from Dracut, the LNG and  
24 LPG.

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1 In a resource mix run, which was the last and  
2 final run of the model, the model's objective  
3 function is not just to minimize the commodity cost,  
4 but also the total dollars that are spent, including  
5 the demand charges. So, certain contracts can be  
6 identified as you can vary this contract. You can  
7 vary it by buying more or you could vary it by buying  
8 less. You could include things or exclude things.  
9 And so the objective function then of minimizing  
10 costs is to minimize not only the commodity, but also  
11 the demand charges.  
12 Q. So in describing -- I want to ask you about a  
13 description of the resource mix model. In the  
14 resource mix model, does the model have the ability  
15 to assume the contracts that in fact aren't  
16 terminating in the period of review, can be  
17 terminated? What would happen if you got rid of  
18 contracts that actually don't have a termination  
19 date? Is that one of the things it does? Or does it  
20 just look at termination, contracts that actually  
21 terminate?  
22 A. Well, it would all depend on how we actually model  
23 it. It's our responsibility to appropriately model  
24 these contracts. If the question was, can we release

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1 a contract that will not terminate within the run, we  
2 would have to look at what might the cost be. If you  
3 put in enough parameters and enough data, you can  
4 make that consideration. But a contract that will  
5 not terminate within a time period would not be  
6 considered for resource mix.  
7 Q. And we had a lot of discussion about the problems  
8 that the SENDOUT model had in modeling the DSM  
9 resources. Was that problem in both the resource mix  
10 mode and the optimization mode, or in only one of  
11 them?  
12 A. (By Mr. Poe) No, it was merely in the resource mix  
13 mode when it was calculating the overall cost of the  
14 DSM.  
15 Q. And so, for purposes of what's in this supply plan,  
16 all the optimization runs, the outputs are correct?  
17 A. (By Mr. Poe) Yes, that's correct.  
18 Q. And the problem is limited to the resource mix run?  
19 A. (By Mr. Poe) That is correct.  
20 Q. And is it possible for the supply plan to be viewed  
21 as adequate if only the optimization run was able to  
22 model the DSM resources?  
23 A. (By Mr. Poe) Yes.  
24 Q. Lastly, Mr. Poe, you were asked some questions by

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1 Attorney Thunberg about Public Utilities Commission  
2 506.03, the so-called "seven-day rule." Do you  
3 recall that?  
4 A. (By Mr. Poe) Yes, sir.  
5 Q. And I want to show you Mr. McCluskey's testimony  
6 which has been marked as Exhibit 3 for identification  
7 and ask you what's the date on that testimony.  
8 A. (By Mr. Poe) September 24th, 2010.  
9 Q. Thank you. And can you tell me where in there it  
10 discusses the seven-day rule at all?  
11 A. (By Mr. Poe) The seven-day rule is not discussed  
12 within the testimony.  
13 Q. And your statement was that Mr. McCluskey's testimony  
14 hasn't considered the seven-day rule?  
15 A. (By Mr. Poe) Earlier what I had said was that he had  
16 considered the seven-day rule, and I spoke just a  
17 little bit too soon, because I hadn't heard the final  
18 part of the premise, which was "within the  
19 testimony." He had considered the seven-day rule,  
20 but it was in... yes, in -- thank you -- in the Staff  
21 response that he had provided, which I don't --  
22 Exhibit 4, which his response was discussing the  
23 seven-day rule at that point.  
24 Q. When is it that he discussed the seven-day rule?

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1 A. (By Mr. Poe) The date of the response was  
2 December 28th, 2010.  
3 Q. And who asked him about the seven-day rule?  
4 A. (By Mr. Poe) The Company had asked that question of  
5 him.  
6 Q. So until the Company asked, there was no indication  
7 that he had given it any consideration?  
8 A. (By Mr. Poe) Correct.  
9 Q. And then one last question for Mr. Silvestrini, just  
10 for clarifying the record. I want to show you pages  
11 Roman Numeral IV-IV through VI of the IRP. And my  
12 question's pretty simple: I just want you to  
13 indicate if that -- where in the plan you summarize  
14 the consideration of the GDS DSM savings estimates.  
15 Is that the place in the plan?  
16 A. (By Mr. Silvestrini) Yes, it is.  
17 Q. Okay. Thank you.  
18 MR. CAMERINO: That's all I had.  
19 CHAIRMAN GETZ: What was the cite  
20 again? Four dash --  
21 MR. CAMERINO: Roman Numeral IV-IV  
22 through VI.  
23 CHAIRMAN GETZ: Thank you.  
24 MR. CAMERINO: Thank you. I

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1 apologize. That's all of my redirect.  
2 CHAIRMAN GETZ: Okay. Thank you. Off  
3 the record.  
4 (Commissioners confer off the record.)  
5 CHAIRMAN GETZ: Back on the record.  
6 Let's take a recess. It's 12:30. And we'll resume  
7 at 1:00 with Mr. McCluskey. Thank you.  
8 (Whereupon the Witness Panel was  
9 excused.)  
10 (WHEREUPON, the Morning Session  
11 recessed for lunch at 12:30 p.m. and  
12 resumed at 1:21 p.m.)  
13 CHAIRMAN GETZ: Let's see. Ms.  
14 Thunberg.  
15 MS. THUNBERG: Thank you. Mr.  
16 McCluskey, can you take the witness box.  
17 Whereupon GEORGE McCLUSKEY was duly  
18 sworn and cautioned by the Court Reporter.  
19 GEORGE McCLUSKEY, SWORN  
20 DIRECT EXAMINATION  
21 BY MS. THUNBERG:  
22 Q. Mr. McCluskey, I'd like to start with some  
23 background. If you could please state your full name  
24 for the record.

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1 A. George McCluskey.  
2 Q. And do you work for the Commission?  
3 A. I do.  
4 Q. And what are your responsibilities at the Commission?  
5 A. I'm assigned to the Electric Division, and I work as  
6 an analyst. And because of this, I can effectively  
7 be assigned to any type of case that the Electric  
8 Division handles, which I have, other than cost of  
9 capital. I've never been assigned to work on cost of  
10 capital.  
11 Q. Have you worked on IRP dockets in the past?  
12 A. Yes. I'm actually responsible for integrated  
13 resource planning for both the Electric and Gas  
14 Division, which explains why I am testifying in a Gas  
15 Division case.  
16 Q. And can you briefly describe what you consider to be  
17 your area of expertise.  
18 A. Well, I've been doing utility work in the United  
19 States for more than 20 years, and before that, 10 or  
20 15 years in England. So my area of expertise is  
21 really utility ratemaking in its broadest sense;  
22 specifically, work on rate design, cost-of-service  
23 studies, integrated resource planning, power  
24 contracts, gas contracts, anything.

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1 Q. Thank you. The testimony that you'll be providing  
2 today do you consider to be within your area of  
3 expertise?  
4 A. Yes, I do.  
5 Q. And can you please describe your involvement with  
6 this docket.  
7 A. I'm the lead analyst on the docket, which means that  
8 I've reviewed the filing, I've issued discovery, I've  
9 coordinated technical sessions, settlement  
10 conferences, I've written testimony, and I have  
11 responded to discovery. And today I am presenting  
12 oral testimony.  
13 Q. And I'd like to just show you a document that's been  
14 marked for identification as Exhibit 3 and just have  
15 you to authenticate that for the record.  
16 A. Yes, that's my testimony in this case.  
17 Q. Okay. Mr. McCluskey, with respect to Exhibit 3, do  
18 you have any changes or corrections that you are  
19 aware of that need to be made to this document?  
20 MS. THUNBERG: And if I could just  
21 note for the record, Mr. McCluskey's testimony is  
22 dated September 24th, 2010. Subsequently, we found  
23 typographical errors, so a revised, corrected version  
24 for those typographical errors would be -- was filed

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1 in October. I just wanted to make that known.  
2 BY MS. THUNBERG:  
3 Q. So, Mr. McCluskey, my question to you is, with this  
4 document, are there any changes or corrections that  
5 you wish to -- that you feel need to be made to this?  
6 A. I have one change, and it relates to Recommendation 5  
7 on Page 8 of the testimony. In the testimony, I  
8 recommended that the Company file within six months  
9 of the date of the final order in this proceeding an  
10 updated resource mix analysis. So this testimony was  
11 filed in September of 2010. We're now almost nine  
12 months later. I fully expected when I filed this  
13 testimony that the case would have been completed and  
14 that the Company would have been in the process of  
15 preparing the update. This case, this proceeding,  
16 got delayed for several reasons, but primarily  
17 because of the Laidlaw case. I was essentially taken  
18 from this case and required to work on the Laidlaw  
19 case, which, as you know, was -- took a -- was a  
20 high-priority case. So we essentially had to put  
21 this case on hold while we went through the Laidlaw  
22 case. So we've had -- the Company's had this  
23 testimony nine months. It fully understands the  
24 problems that Staff found with the demand-side

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1 assessment, the major problem being the code errors  
2 that they found with the SENDOUT model. And I think  
3 that a reasonable recommendation would be to have  
4 them file the update two months after the Commission  
5 issues its order in this proceeding; so the thinking  
6 being, once the order goes out, and assuming the  
7 Commission agrees with Staff's recommendations on  
8 demand-side assessments, the Company would then go  
9 make the adjustments, make the filing, Staff would  
10 review them, and I imagine the Commission would issue  
11 a supplemental order, and the two orders coming from  
12 the Commission would then form the basis of the 2012  
13 filing that it would make. So it just seems wasteful  
14 to have the Company spend another six months after  
15 the order comes out in this case to file the resource  
16 assessment, because it's going to -- because they  
17 need some closure in this case before they can really  
18 file that 2012 file. So the way to do that, I think,  
19 is to have them make the update to the resource mix  
20 analysis two months after the Commission issues the  
21 order. And that's the one change that we have.  
22 Q. Mr. McCluskey, have you read the rebuttal testimony  
23 filed by National Grid?  
24 A. Yes, I have.

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1 Q. And do you have any -- in light of this rebuttal  
2 testimony, do you have any changes to the  
3 recommendations?  
4 A. In my testimony?  
5 Q. In your testimony.  
6 A. No, other than the one that I just mentioned.  
7 Q. Okay. I have some questions for clarifying what  
8 Staff's position is, and I'd like to draw your  
9 attention to your rebuttal testimony.  
10 A. Just one moment while I find that.  
11 Okay. What page?  
12 Q. Page 4 of the rebuttal testimony. And I direct your  
13 attention to Lines 17 through 23. And my question  
14 is, does this description by National Grid accurately  
15 characterize Staff's position in this docket?  
16 (Witness reviews document.)  
17 A. No, it does not.  
18 Q. And if it does not, can you please explain why, what  
19 Staff's position is.  
20 A. First of all, on the issue of the demand forecast to  
21 be used in this separate proceeding, my testimony  
22 does not address that. It simply recommends that a  
23 separate proceeding be opened, so the Company can't  
24 claim, based on the testimony, that Staff has this

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1 position that, what I call the "excess proceeding",  
2 should be based on the demand forecast in the 2010  
3 filing.  
4 Secondly, that is not Staff's position. Staff's  
5 position is that if the Company has an updated  
6 forecast available to it prior to the filing of the  
7 testimony in this separate proceeding, then we think  
8 it's appropriate for them to use that updated  
9 forecast as the basis of its defense of its position  
10 in the excess-capacity proceeding. So that's our  
11 proceeding -- our position. Sorry.  
12 Q. Okay. Thank you.  
13 With respect to National Grid's position that's  
14 been articulated in the rebuttal testimony, that this  
15 excess proceeding wait for the 2012 IRP forecasts,  
16 does Staff have any position on that?  
17 A. Yes, I do. We're opposed to that. The issue that we  
18 are addressing, based on the 2010 IRP, is that the  
19 Company has an excess of capacity relative to the  
20 design-day demand in each of the five years of the  
21 forecast period.  
22 And I want to come back to this issue of the  
23 definition of "excess," because I know Commissioner  
24 Ignatius asked the question. But before I get

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1 sidetracked on that, if we -- so the issue, this  
2 excess, the Company's filing does not address how to  
3 resolve that. The 2010 IRP does not even recognize  
4 that there is an excess. So I guess that's why the  
5 filing does not explain what they're going to do  
6 about it, because they don't even recognize it in the  
7 first place. So, Staff addressed this issue and said  
8 this is significant excess. We're not talking about  
9 the small excess, we're talking about significant  
10 excess. And we said that we think the filing is  
11 adequate [sic] because it doesn't address, from the  
12 planning standpoint, how the Company intends to deal  
13 with that excess. Should it stay, and what are the  
14 arguments for it? Should it go, and what are the  
15 benefits for getting rid of the excess? That's the  
16 kind of discussion that we would have expected to  
17 have in their --  
18 Q. Mr. McCluskey, can I just interject? Because I  
19 think -- I don't know if it was not articulated  
20 fully. Did you say that the filing was adequate or  
21 inadequate?  
22 A. Inadequate on that particular issue.  
23 MR. CAMERINO: Mr. McCluskey is  
24 really, essentially, just repeating his testimony in

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1 this case. I understand that if there are things  
2 that were raised in the rebuttal testimony that he  
3 hasn't had a chance to address yet, that he should be  
4 given a chance to do that. But this is just a  
5 restatement of his position, and we're going to be  
6 here a long time. If he can just make his case in  
7 more detail.  
8 A. Okay. So, in proposing to essentially shift this  
9 issue to the 2012 IRP, we are not resolving the issue  
10 of what do you do when you have an excess from a  
11 planning standpoint. That is a major issue. And  
12 they, the Company, will not have the benefit of the  
13 Commission's thinking on that issue if the thing gets  
14 rolled over to the 2012 filing.  
15 The other issue is one of timing, that if this  
16 issue is put into the 2012 filing, it could take a  
17 year or more before that particular proceeding is  
18 completed. And because these are planning  
19 proceedings, these are not cost-recovery or  
20 rate-making proceedings. We've always taken the  
21 position that we can't make a recommendation to  
22 disallow costs because these are planning cases. If  
23 something comes out of the planning document that has  
24 rate-making implications, and it's appropriate to

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1 address it in a rate-making proceeding -- the obvious  
2 one would have been the cost of gas -- those  
3 proceedings are very short, and there's really not  
4 enough time in those proceedings to address this kind  
5 of issue. Hence, we've proposed a separate, a  
6 stand-alone proceeding to address cost issues  
7 associated with this excess. If we go through the  
8 2012 proceeding, get to the end of that, the  
9 Commission thinks it's appropriate to address this  
10 excess issue in a separate proceeding, now we're  
11 probably two years on before we really get to that  
12 issue. During this time, ratepayers are paying for  
13 this excess. We think it's appropriate to address it  
14 as quickly as possible and make a decision: Is it  
15 appropriate to have that excess or not, and what are  
16 the cost-making consequences?  
17 So we think it's just proposed by the Company to  
18 roll this over and have further delay and further put  
19 off the time, where we should be resolving this issue  
20 once and for all.  
21 Q. Mr. McCluskey, there was some discussion earlier with  
22 National Grid on trying to get their opinion on what  
23 the right level of excess is, and you started  
24 alluding to it. But I was wondering if you could

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1 succinctly offer Staff's opinion on that question:  
2 What is the right level of excess?  
3 A. The excess that we're talking about is relative to  
4 what's known as the design-day demand, rather than  
5 the actual peak-day demand in any particular year.  
6 The design-day demand is an estimated demand, peak  
7 demand, for the company based on certain extreme  
8 weather conditions, conditions what are not likely to  
9 appear for, could be many, many years before we  
10 experience these conditions. So it's a demand which  
11 is considerably above typical peak-day demands.  
12 So, in effect, what that design-day demand does,  
13 it requires the Company to have a certain amount of  
14 resources that are in excess of normal peak demand.  
15 So you've already got a reserve built in, in order --  
16 for what purpose? In order to provide a level of  
17 reliability that, if weather conditions from year to  
18 year do vary, that they will have sufficient  
19 resources to handle those without cutting off  
20 customers. That's the idea of it. It's a standard  
21 to maintain reliability.  
22 The excess that we refer to in our testimony is  
23 over and above that. So when you say, what's the  
24 appropriate level of the excess? My answer is zero.

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1 You really shouldn't have less than the design-day  
2 demand, because that's impacting your reliability.  
3 But if you have more than the design-day demand, you  
4 are effectively imposing a higher reliability, which  
5 has to be paid for by customers. So if the  
6 appropriate level of reliability is specified by the  
7 design day, then the goal for the Company should be  
8 to have zero excess capacity, or something very  
9 small, a very small percentage above that level.  
10 CHAIRMAN GETZ: This is all covered in  
11 your testimony; correct? I mean --  
12 A. I think I may have alluded in my testimony to the  
13 fact that the design day is not a normal peak demand.  
14 It's something that happens once in 40 years,  
15 typically, from a statistical point of view.  
16 CHAIRMAN GETZ: Okay. Let's focus on  
17 anything that's new in response to the rebuttal,  
18 because we've had the opportunity to go through the  
19 testimony.  
20 BY MS. THUNBERG:  
21 Q. Mr. McCluskey, there was a question posed earlier,  
22 which I don't think you have addressed in your direct  
23 testimony, about how long it would take the Company  
24 to grow into this excess. And does Staff have a

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1 position on that?  
2 A. Yes. Excess that we calculated, we estimated the  
3 rate of growth reflected in the Company's load  
4 forecast that's in the 2010 filing; it would take 17  
5 years to absorb that excess. So if the rate of  
6 growth in the future is higher than that, then the  
7 number of years would be less. If it's lower, then  
8 it would be longer.  
9 Q. Mr. McCluskey, I'd like to draw your attention to  
10 Page 8 of your rebuttal testimony. And there's a  
11 statement on Line 9. If the pipeline capacity is  
12 turned back, does Staff have an opinion on whether it  
13 would recommend pipeline capacity being turned back  
14 or not?  
15 A. No. Staff certainly does not suggest that pipeline  
16 capacity would be turned back in order to deal with  
17 the excess. We said that it would be -- the obvious  
18 candidate would be the highest-cost resource. And  
19 highest-cost resource, from a variable-cost  
20 standpoint, is the Company's propane facilities. So  
21 if a decision is made to reduce the excess through  
22 retiring or terminating certain contracts, then we  
23 think the propane plants would be the obvious  
24 candidate to do that and not the pipeline capacity.

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1 Q. My last question to you, Mr. McCluskey, and you  
2 started answering this earlier, but I'd like to keep  
3 it in one succinct place, is now that you've heard  
4 with respect to Recommendation No. 5 that the Company  
5 would rather submit its updated resource mix analysis  
6 with the 2012 IRP rather than the 2010 IRP, do you  
7 have an opinion or have any concerns with that  
8 Company-suggested approach?  
9 A. I thought I already responded to that, indicating  
10 that the Commission really needs to have the correct  
11 demand-side assessment and the associated least-cost  
12 Integrated Resource Plan in this proceeding in order  
13 to give them guidance as to what to include in the  
14 2012 filing.  
15 Q. Thank you.  
16 MS. THUNBERG: Mr. McCluskey is  
17 available for questioning.  
18 CHAIRMAN GETZ: Ms. Hatfield.  
19 MS. HATFIELD: Thank you, Mr.  
20 Chairman.  
21 CROSS-EXAMINATION  
22 BY MS. HATFIELD:  
23 Q. Good afternoon, Mr. McCluskey.  
24 A. Good afternoon.

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1 Q. Do you recall some of the cross-examination questions  
2 that you asked Mr. Silvestrini about the rebuttal  
3 testimony as it relates to the GDS study?  
4 A. Yes.  
5 Q. And do you recall Mr. Silvestrini saying that it  
6 would be -- it is necessary for the IRP planning  
7 process, as it relates to DSM, to be better connected  
8 to planning and goal setting in the core dockets?  
9 A. I don't recall exactly what he said. If he did say  
10 that, I certainly agree with that. I think it's  
11 critical to inform the decisions that are making --  
12 that are made in the core programs with analysis done  
13 in the planning dockets.  
14 Q. So if a utility found in a planning docket that there  
15 was significant additional demand-side resource  
16 available at low cost, that that should inform the  
17 goal setting and the efficiency docket?  
18 A. Yes, limited by -- first of all, you could do the  
19 kind of resource mix analysis that was done, just  
20 comparing the cost of DSM programs with supply-side  
21 programs, and that might say there's a certain  
22 quantity of supply that could be avoided by DSM. If  
23 that quantity is significantly above the results of  
24 the potential study, then you might conclude that

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1 from a practical standpoint you may not be able to  
2 achieve that kind of saving that you got from your  
3 planning studies, so you might have to trim it back.  
4 And obviously, everything has got to be  
5 cost-effective. And Mr. Silvestrini did say that  
6 rate impact is also a major consideration. And I  
7 certainly agree with that. To me, that's the last  
8 step in the exercise. You go through this resource  
9 planning exercise, compare it with the work that's  
10 being done on the potential for doing DSM. And then  
11 the last step is to say, well, how much is this going  
12 to cost; what's it going to mean to customers who  
13 don't directly benefit from these programs; is that  
14 the kind the rate of impact that we can agree to. So  
15 that's the process. I think it all starts with the  
16 planning document in the planning proceeding and then  
17 works its way through to the core programs, with rate  
18 impact being the last issue for consideration.  
19 MS. HATFIELD: Thank you. I have  
20 nothing further.  
21 CHAIRMAN GETZ: Thank you. Mr.  
22 Camerino.  
23 CROSS-EXAMINATION  
24 BY MR. CAMERINO:

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1 Q. Good afternoon, Mr. McCluskey.  
2 A. Good afternoon, Mr. Camerino.  
3 Q. I just want to start with some general questions  
4 about your role in this proceeding. You said you  
5 were the lead analyst on the case, and I'm wondering  
6 if -- that implied to me that there were other people  
7 on the team that developed this testimony. Is that  
8 correct? Or were you the person who's responsible  
9 for the testimony?  
10 A. I drafted the testimony. I had discussions about the  
11 ideas reflected in the testimony with Mr. Frink and  
12 Mr. Wyatt. But I was essentially the only analyst  
13 assigned to the case, so -- so that's a fact. You  
14 can draw whatever you want from that.  
15 Q. What I'm trying to understand -- and I'm not going to  
16 do this. But if I were to ask Mr. Wyatt to take the  
17 stand, would he, as you did, say that the  
18 supplemental facilities, these peaking facilities,  
19 should be retired?  
20 A. We've had considerable discussions -- I had  
21 considerable discussions with Mr. Wyatt and Mr. Frink  
22 on this issue. And they agreed with my analysis. In  
23 fact, my testimony on this issue says that the  
24 Commission should open a separate proceeding to

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1 examine whether it's appropriate to retain or retire  
2 these facilities. And I think, after we go through  
3 that proceeding, it's possible that Staff has a  
4 different position than what we have here. But based  
5 on the information that we obtained in this case, we  
6 think -- I think that the issue of the retirement of  
7 the propane facilities is the obvious candidate to  
8 address the excess situation.  
9 Q. And have you talked with Mr. Knepper to find out  
10 whether he shares the view that the Commission should  
11 open a separate docket to consider retiring those  
12 facilities?  
13 A. Mr. who?  
14 Q. Mr. Knepper. Randy Knepper.  
15 A. No.  
16 Q. Can you -- I'd like you to just identify the  
17 facilities that we're talking about so that we're  
18 clear which ones they are. Can you first just tell  
19 us where those facilities are located and what kind  
20 of fuel they use?  
21 A. The facilities that I reference in my testimony are  
22 the Nashua and Manchester propane facilities.  
23 Q. And so we're talking about only propane, not natural  
24 gas?

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1 A. That's correct.  
2 Q. Because I think in your testimony you did make some  
3 reference that some of the LNG facilities should be  
4 considered for retirement.  
5 A. I think I said if the objective was to totally remove  
6 the excess, then the Nashua and Manchester capacities  
7 would not do that, and one option would be to retire  
8 some LNG. But I believe my recommendation later in  
9 the testimony is to look at the retirement of the  
10 Nashua and Manchester propane facilities.  
11 Q. So do you have the IRP in front of you?  
12 A. Do I have what?  
13 Q. The copy of Exhibit 1, the filing.  
14 A. No, my attorney does.  
15 Q. If you don't mind me coming up there with you? I'm  
16 going to ask you to look at Page IV-51, which is a  
17 chart entitled "Supplemental Resource." And that's a  
18 list of all of the on-system peaking facilities that  
19 the Company has; is that a fair statement?  
20 A. That's correct.  
21 Q. And so the ones you're referring to are somewhere on  
22 that list?  
23 A. I do see Manchester and Nashua propane. We have both  
24 vaporizations and the storage. So the Nashua and

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1 Manchester propane facilities are the facilities that  
2 I'm referring to.  
3 Q. Okay. And those have -- I just want to make sure I  
4 have the numbers right. The storage capacity listed  
5 next to them, Nashua says 23,672, and Manchester says  
6 47,317. Are those the two you're referring to?  
7 A. That's correct.  
8 Q. Okay. And so if the Commission were to decide to  
9 open another docket to consider whether peaking  
10 facilities should be retired, those are the two that  
11 you're asking consider retirement of?  
12 A. That's correct.  
13 Q. Okay.  
14 A. Or put it this way: Those two facilities would be  
15 the subject of the separate proceeding if it was  
16 determined that the excess capacity should be  
17 addressed in this way.  
18 Q. Is it fair to say that the, quote, unquote, excess,  
19 the amount of that excess is something that can and  
20 will change over time, go up and down, depending on  
21 numerous factors?  
22 A. Yes. The two factors come to mind. The primary  
23 factor I think would be the future demands for gas,  
24 and, in particular, the design-day demands. So the

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1 Company's forecast of the design day over time would  
2 be a factor, and which reflects their expectation of  
3 the growth and demand of existing and new customers,  
4 and whether any other resources have been added or  
5 subtracted. So the existing other resources may be  
6 subtracted. New resources, a FERC capacity may be  
7 added. And obviously, those two factors would  
8 determine whether the excess increases or decreases  
9 over time.  
10 Q. And those are factors that change with each planning  
11 period, each IRP that is filed, each supply plan that  
12 is developed. Is that a fair statement?  
13 A. Well, certainly the design-day forecast would tend to  
14 change because of one's view of the economy going  
15 forward, plus expectations about the amount of  
16 demand-side management on the company's system. And  
17 so they would clearly be reflected in the new  
18 design-day forecast. And, as you said, it could go  
19 or go down.  
20 Q. Now, you would agree, I take it, that the Company,  
21 when it has these resources, can do things to  
22 mitigate the cost of those resources, to the extent  
23 they're not needed to serve customers; is that a fair  
24 statement?

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1 A. Whenever the Company has excess, the least -- if it's  
2 determined that the least cost -- sorry -- the  
3 highest-cost resource is the propane facility, then  
4 that's the -- those are the facilities that are most  
5 likely not to be used going forward. So, absent  
6 retiring those facilities, I think your question is  
7 how can the Company realize some value for the  
8 benefit of customers.  
9 Q. No, actually. My question was, when the Company has  
10 capacity that it doesn't need on any given day for  
11 any reason to serve its customers, there are things  
12 that it can do to obtain value for those resources in  
13 the marketplace; are there not?  
14 A. There are. But we're not talking about any given  
15 day. We're talking about the design day. The  
16 resources that they need for the design day. The  
17 Company is not going to sell off temporarily any of  
18 its pipeline capacity in order to achieve some value.  
19 That is one of the lowest-cost resources. So that's  
20 why I'm focusing on the highest-cost resource. If  
21 there's excess, you go to your highest-cost resource,  
22 and you're asking the question: Can we realize some  
23 value for that? Well, what can we do with it? You  
24 can produce propane for some third-party supplier of

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1 propane. Potentially that might provide some  
2 additional dollars that offsets the fixed cost of  
3 these facilities. But typically there's not a market  
4 for propane facilities.  
5 Q. You gave the Commission an estimated figure of how  
6 much, what you called the excess capacity, was  
7 costing customers. Do you recall that?  
8 A. I gave an estimate of the cost that the Company is  
9 recovering through rates associated with its LNG and  
10 propane facilities. Is that what you're referring  
11 to?  
12 Q. And you -- that's the number I'm referring to. And  
13 were you not suggesting to the Commission that those  
14 are costs that the Company could avoid by retiring  
15 those plants?  
16 A. Well, first of all, we were trying -- we provide --  
17 Staff provided a figure for LNG and propane  
18 facilities. We attempted to get from the Company --  
19 Q. I'm just asking you if your testimony, the number  
20 that you estimated -- I'm not asking you about how  
21 you obtained it -- the number that you're estimating  
22 was intended to give the Commission your best sense  
23 at this time of what could be saved per customer by  
24 retiring those facilities.

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1 A. Correct. What I'm saying, the actual cost savings to  
2 the customers will depend on the accounting rules  
3 associated with the retiring plant. If the  
4 accounting rules say that the Company can recover the  
5 undepreciated cost, but not the return on the  
6 undepreciated cost, then customers save a return. If  
7 it's the opposite, the Company can't recover the  
8 undepreciated investment, but can continue to earn a  
9 return, then it gets to save the undepreciated cost,  
10 the annual costs associated with that. It depends on  
11 the accounting rules.  
12 Q. And my question is, when the Company has capacity in  
13 its portfolio that it doesn't need on any given day,  
14 it can generate value for its customers by making  
15 that capacity available to the marketplace; can it  
16 not?  
17 A. It can, if it's pipeline capacity that you're  
18 referring to. But I don't accept the statement if  
19 it's a propane plant capacity, because essentially  
20 there's no market for it.  
21 Q. Well, the propane plant capacity brings with it some  
22 propane that's in storage also, doesn't it?  
23 A. It does. Well, the storage is very small. It has to  
24 be. It's very small quantities, which explains why

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1 the Company has to be refilling that storage on a  
2 continuous basis.  
3 Q. And so if the Company has this propane capacity that  
4 it knows it could use to serve customers, it could  
5 release other capacity, couldn't it?  
6 A. If it were to release other capacity, there might be  
7 a cost to customers in doing that. The capacity that  
8 you want to release is the capacity that's most  
9 costly on the system. You don't want to release the  
10 least-cost capacity.  
11 Q. On a peak day, might that capacity be extremely  
12 valuable?  
13 A. Which? The propane capacity?  
14 Q. The pipeline capacity.  
15 A. It's possible. But in order for it to be a benefit,  
16 you'd have to receive more than the demand charges  
17 that they're paying. And I believe there's a -- the  
18 FERC has a -- what's the word -- a cap on the  
19 capacity-release price. So I don't think they would  
20 actually make any money in releasing, during the  
21 winter months, the pipeline capacity.  
22 Q. What if it was bundled with supply?  
23 A. It's possible. I don't know the answer to that.  
24 Q. And so my only point is that when you start to

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1 estimate a cost to customers of what you call the  
2 excess capacity, you haven't netted out any revenues  
3 the Company gets from optimizing its portfolio every  
4 day, have you?  
5 A. That's correct. That is a subject for the separate  
6 proceeding.  
7 Q. And so in this separate proceeding, one of the things  
8 you envision is some kind of determination of what's  
9 the next savings to customers of retiring this  
10 so-called excess capacity.  
11 A. That's correct.  
12 Q. And if that -- as that net figure gets smaller, the  
13 argument for retiring those facilities would get  
14 weaker; correct?  
15 A. I think that's true, yes.  
16 Q. Okay. And I guess the only reason I really want to  
17 pursue that line of questioning is, in your initial  
18 testimony you said that the cost -- and just to be  
19 fair, you said the contract cost incurred for  
20 committed resources cannot be avoided through  
21 under-utilization. So you didn't mean in that  
22 statement to say that there wouldn't be mitigation of  
23 that larger total cost figure, did you?  
24 A. Could you point where you were referring to?

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1 Q. I was afraid you were going to say that. I'm just  
2 not sure I'm referring to the right version of your  
3 testimony. I apologize. Well, the short answer to  
4 your question is, no, I can't. But let me find it.  
5 A. I don't think I can respond to the question then.  
6 Q. Yeah. I'm sorry. I'll pull it for you.  
7 (Pause in proceedings)  
8 BY MR. CAMERINO:  
9 Q. I'm not going to delay us right now. But we'll look  
10 for it and I'll come back to it.  
11 Now, you testified that the excess capacity is  
12 the result of two factors: The Concord Lateral  
13 coming into service and a downward adjustment in the  
14 company's load forecast because of the economic  
15 recession; is that right?  
16 A. Those are the primary things. There may be others.  
17 But to me, those are the obvious things. The Concord  
18 Lateral capacity came in just at the wrong time, when  
19 the load forecast went down, resulting in this excess  
20 capacity.  
21 Q. And you may recall that there was a technical session  
22 held last June, in 2010. And at that time, you asked  
23 the Company to update the load forecast in the plan.  
24 Do you recall?

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1 A. I do recall asking for the update, but I don't recall  
2 when.  
3 Q. Okay. And do you recall saying that your primary  
4 concern was that the actual data in the plan ended in  
5 May 2009 and that there had been a significant  
6 recession that could affect the data since then?  
7 A. I think that was the reason for asking for the  
8 update, yes.  
9 Q. Okay. You didn't want to wait for that update data  
10 until the Company did its next forecast. Do you  
11 recall that? You wanted it right away.  
12 A. I don't recall that, no.  
13 Q. Your goal was to see the impact of the March -- of  
14 the recession on data through March 2010, wasn't it?  
15 That's what you told the Company.  
16 A. I certainly did. The Company's forecast was based on  
17 actuals ending at a certain point. And the point in  
18 time that we were sitting and having these  
19 discussions was sometime after that. And I simply  
20 asked the Company to update the forecast to take into  
21 account the more recent actuals that were available  
22 to it.  
23 Q. And that was important data to you, wasn't it?  
24 A. It was part of the analysis. I was interested to see

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1 whether it had any impact on the forecast.  
2 Q. So in your expert opinion, updating the data by one  
3 year might have a significant impact on the overall  
4 plan and the decision-making process.  
5 A. I'm not sure whether I would go that far. Updating  
6 the load forecast could certainly have impact on this  
7 excess-capacity issue, if that's what you're  
8 referring to.  
9 Q. By one year.  
10 A. It would depend on what happened in that intervening  
11 period; were the changes significant, or was there  
12 very little change. So it would really depend on the  
13 circumstances.  
14 Q. You needed to see the data before you would know.  
15 A. I don't -- I recall asking the Company to update it.  
16 Whether it was for this excess issue, I couldn't say.  
17 Q. In your testimony, you say that the Company is well  
18 positioned to eliminate the excess because there are  
19 several existing resources that are due to expire.  
20 Do you recall that? It's on Page 9?  
21 A. Page 9?  
22 Q. And I have to apologize. I may be working from a  
23 different version of your testimony, so...  
24 A. What line are you referring to?

1 Q. Well, mine says Lines 7 to 9, but...  
2 (Witness reviews documents.)  
3 Q. Yes, Lines 7 to 9.  
4 A. Yeah. It actually says that there were several  
5 existing resources due to expire during this period  
6 or can be retired at any time.  
7 Q. Hmm-hmm. So the potential expiration of contracts is  
8 another way to deal with the excess; right?  
9 A. Yes, that's a possibility. I think I've indicated  
10 that the way to address the excess is to choose the  
11 approach that is more -- most beneficial to  
12 customers. You make a least-cost decision. So if  
13 it's more beneficial to allow some existing firm  
14 supply contracts to expire, then you do that. If  
15 it's more cost-beneficial to retire some existing  
16 on-system facilities, then you do that.  
17 Q. So you keep the less costly -- all things being  
18 equal, you keep the less costly resource, and you  
19 terminate or retire the more costly resource.  
20 A. Generally that's what you would do, yes.  
21 Q. And in the IRP, in your review of the IRP, you  
22 identified a concern regarding the Company's usage of  
23 Granite Ridge. Do you recall that?  
24 A. Correct.

1 A. Yes, I saw the response. First of all, the Company  
2 did not address in its filing in the cost-of-gas  
3 proceeding why Granite Ridge is not addressed.  
4 Staff, in the cost-of-gas proceeding, asked the  
5 question: Why is it not dispatched? The Company  
6 came back without any data and said that they use  
7 less costly resources. And based on the data  
8 available to me in this proceeding, it's that the  
9 variable costs of Granite Ridge are lower than the  
10 variable cost of propane, which suggests that it  
11 should be dispatched before propane, which is the  
12 opposite to what's happening. So my recommendation  
13 on Granite Ridge here is that in the next cost-of-gas  
14 proceeding, the Company has to address directly with  
15 documents to show that the Granite Ridge resource is  
16 less -- is more costly than propane; and hence, it's  
17 not dispatching of the resource is appropriate.  
18 That's the issue the Company needs to address with  
19 data, instead of just saying, well, we dispatched a  
20 less costly resource. We need to have the evidence  
21 to that effect.  
22 Q. So you're not saying you don't believe the Company's  
23 answer. You just want to understand the basis for  
24 that response.

1 Q. And your concern is that Granite Ridge hadn't been  
2 utilized -- or wasn't forecast to be utilized is  
3 maybe a better way to put it.  
4 A. Well, there's a couple of issues.  
5 Q. Well, first answer my question. The concern you  
6 expressed is the failure to utilize, and the  
7 forecasted non-utilization of Granite Ridge is a  
8 concern you expressed; right?  
9 A. There's two issues I've expressed with regard to  
10 Granite Ridge. One is that in the forecast comparing  
11 resources with demand, Granite Ridge, which is 15,000  
12 MMBtu of capacity is quite a large resource, is not  
13 on the resource side. So that's an issue. Why is  
14 that?  
15 And then there's the issue of, well, is the  
16 Granite Ridge resource being dispatched? Is it more  
17 costly or less costly than other resource? And if  
18 it's less costly, why is not being dispatched before  
19 other more costly resources? Those are the two  
20 issues that I addressed with regard to Granite Ridge.  
21 Q. And we saw before that the Company provided an  
22 explanation in the last cost-of-gas docket that  
23 Granite Ridge was not dispatched because less costly  
24 supplemental supplies were able to be used; correct?

1 A. My job is to verify, not to accept what a Company is  
2 saying.  
3 Q. So, assuming --  
4 A. And I assume it's the same with regard to the Staff  
5 assigned to the cost-of-gas proceedings.  
6 Q. So, assume that the Company's answer was true,  
7 correct, and that the propane -- that the  
8 supplemental supplies that were dispatched were less  
9 costly than Granite Ridge. It's possible the Company  
10 might select Granite Ridge to retire; correct?  
11 A. That's correct.  
12 Q. Now, you've indicated you're familiar with the  
13 Commission's seven-day rule. That's the PUC  
14 503.06 -- 506.03?  
15 A. Yes, I am.  
16 MR. CAMERINO: And I'm going to -- I  
17 don't think we need to mark this because it's a  
18 Commission rule. But I thought it might be helpful  
19 for everybody to have a copy in front of them.  
20 BY MR. CAMERINO:  
21 Q. So I just want to have that for reference. And in  
22 your response to National Grid's 1-5, which we've  
23 previously marked as Exhibit 4, you explain how you  
24 took the seven-day rule into account; correct?

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1 A. That's correct.  
2 Q. And essentially what you do is you figure out what  
3 your pipeline -- firm pipeline supplies are, you  
4 figure out what's the remaining capacity that you  
5 need to serve the design day, and you multiply that  
6 differential by seven, and that's the number that you  
7 have to have storage supplies for? Is that a fair  
8 statement?  
9 A. I would say it this way: You start with the  
10 design-day requirements, the seven-day design-day  
11 requirement, which is a demand figure. You subtract  
12 from that the firm pipeline supplies that you can  
13 receive over those seven days. And if there is a  
14 quantity left over, which then has to be met with  
15 your on-site storage facilities -- so, under the  
16 seven-day storage rule, the Company has to  
17 demonstrate that it has sufficient on-site resources  
18 to meet that shortfall. And if it can do that, then  
19 it's met the requirements of the rule.  
20 Q. So, just for ease of reference, one of the ways you  
21 can do that is to figure out what the differential is  
22 for one day at the design level and multiply it by  
23 seven. It's just easier for me to work in daily  
24 amounts, that's why I'm asking it that way.

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1 A. You could do it that way. The Company doesn't do  
2 that in its report. But, yes, I suspect you could do  
3 it that way.  
4 Q. The reason I want to ask it that way, the contracts,  
5 we tend to talk about what the daily takes can be,  
6 and it's easier to use those numbers. So if we can  
7 do the daily, I think it's going to make this easier.  
8 So we're trying to figure out the differential  
9 between the pipeline, the firm pipeline supply or  
10 capacity and what the design-day need is; right?  
11 A. Correct.  
12 Q. And what is the Granite Ridge daily capacity? What  
13 does it contribute to the company's overall  
14 portfolio?  
15 A. I seem to remember it's 15,000. Do I have that  
16 quantity... it's 15,000 MMBtu.  
17 Q. So, for purposes of determining how much on-site  
18 storage company needed to satisfy this Commission  
19 rule, you assumed in your calculation here that all  
20 of the pipeline supplies, firm pipeline supplies that  
21 the Company has today, would be available; right?  
22 A. No. I use the figures that the Company provided in  
23 its report. So the gas available from the pipeline,  
24 whatever the quantity is in the Company's report,

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1 that's what I used. How that is built up is the  
2 Company's responsibility.  
3 Q. Okay. And so assume for the sake of argument that  
4 the Company in fact used all of its current firm  
5 pipeline supplies. Granite Ridge would be in there,  
6 right, because Granite Ridge is one of its firm  
7 pipeline supplies right now?  
8 A. I would expect that it would be included in that.  
9 That's correct.  
10 Q. When does the Granite Ridge contract come up for  
11 renewal?  
12 A. My understanding is that the pricing is renewed every  
13 year.  
14 Q. So next year that contract may or may not be renewed?  
15 A. It's a little while since I actually looked at the  
16 terms of the contract.  
17 Q. We actually could find out by looking at the IRP,  
18 right, because it lists all the contract termination  
19 dates?  
20 A. That's -- well, I think the fact that the pricing is  
21 renewed every year, I believe they indicate that it's  
22 up for renewal one year on.  
23 Q. All right. Just assume for the moment that Granite  
24 Ridge comes up for renewal next year and could be

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1 terminated.  
2 A. So the Company could terminate it after one year. Is  
3 that what you're saying?  
4 Q. Next year. I don't want to say how many years it's  
5 been, because it may have been three years. So...  
6 A. Okay.  
7 Q. That would be 15,000 less of pipeline supplies  
8 available; right?  
9 A. That's correct.  
10 Q. And if other supplies are less costly than Granite  
11 Ridge, that's a decision they might make and maybe  
12 should make.  
13 A. You're saying if Granite Ridge is the most -- the  
14 highest-cost resource on its system?  
15 Q. Yes.  
16 A. Then it should consider retiring that contract.  
17 Q. And understanding for the moment that when the  
18 Company was asked, why didn't you dispatch Granite  
19 Ridge, it said, we had less costly supplemental  
20 supplies, it's possible that Granite Ridge would not  
21 be renewed next year, isn't it?  
22 A. But I think the question that was posed by the Staff  
23 was why is Granite Ridge not dispatched in the  
24 upcoming cost-of-gas proceeding. So my understanding

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1 was that, in that winter proceeding that the Staff  
2 was examining, that this was going to be a resource  
3 on its books. So you hadn't got to the point -- the  
4 Company hadn't got to the point of retiring that  
5 contract.  
6 Q. Right. But it's not --  
7 A. So in that particular cost-of-gas proceeding, they  
8 have to show that the variable costs of that Granite  
9 Ridge contract are indeed higher than propane.  
10 Q. Right. But all you're telling me is that, even on a  
11 current basis, the Company is not showing it being  
12 dispatched; right?  
13 A. That's correct.  
14 Q. And so I'm suggesting to you, maybe next year the  
15 Company will decide on a least-cost basis that it  
16 will not renew that contract. That's possible as a  
17 least-cost decision; right?  
18 A. That's possible.  
19 Q. And if it makes that decision next year, 2012, it  
20 will have 15,000 MMBtu less of pipeline capacity  
21 right?  
22 A. That's correct.  
23 Q. And under the seven-day rule, if its pipeline  
24 capacity goes down by 15,000, how much more on-system

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1 capacity does it have to have to satisfy the  
2 seven-day rule? Wouldn't we simply take the 15,000  
3 and multiply it by seven?  
4 A. I'm not following you. You're going to have to ask  
5 it again.  
6 Q. Okay. I thought we had established as background  
7 that what the Company has to have under the seven-day  
8 rule is seven days' worth of supplies to cover the  
9 differential between what comes on the pipeline and  
10 what the design day requires. And so if the pipeline  
11 supply is reduced by 15,000 per day, you need seven  
12 times that on-system to satisfy the rule, so that if  
13 there's a cold snap for a week, the Company has  
14 enough on-system supplies to meet the demand.  
15 A. Sure. If you retired a resource that provides you  
16 15,000 MMBtu a day, then you're going to have to make  
17 sure that you have sufficient -- you've got more than  
18 sufficient on-site facilities in order to cover for  
19 that retirement to meet the seven-day requirement.  
20 Q. And so with that one decision, assuming for the  
21 moment that it's a least-cost decision in 2012, you  
22 would need 105 MMBtu of additional on-system  
23 capacity; right?  
24 A. Capacity? Where do you get the 105?

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1 Q. Well, 105,000 of supply.  
2 A. Oh, you're talking on a daily basis. So if you get  
3 rid of 15,000, you're going to have to ensure that  
4 you had an excess that exceeded 15,000; otherwise,  
5 you're going to be in trouble from a seven-day  
6 storage standpoint.  
7 Q. Hmm-hmm. And that's a pretty big change, isn't it?  
8 A. Relative to what?  
9 Q. Relative to if that's what you see in the 2012 IRP,  
10 that would be a pretty significant change from what's  
11 in the 2010 IRP, wouldn't it? No more Granite Ridge.  
12 A. It would be a change. Granite Ridge is -- yeah,  
13 15,000 is important. But it's small compared to the  
14 total resources. I think their total resources,  
15 we're talking about 180 or almost 200,000.  
16 Q. Right. But the seven-day rule causes you to multiply  
17 that 15,000 by 7; right?  
18 A. Sure. But certainly if you get rid of any single  
19 resource, whether it's a high contract or an on-site  
20 storage facility, then you're going to have to think  
21 in terms of the seven-day rule as well. So it's  
22 not -- so you've got to meet the -- you have to have  
23 sufficient resources to meet the design-day  
24 requirement and also satisfy the seven-day storage

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1 requirement.  
2 Q. And that scenario would have a significant impact on  
3 your recommendation as to whether those plants should  
4 be retired, wouldn't it?  
5 A. Sure. If as a result of this separate proceeding we  
6 determine that the highest-cost resource on the  
7 company's system is Granite Ridge, then that would  
8 become the focus of the exercise: Should we retire  
9 the Granite Ridge contract?  
10 Q. And the two facilities you identified as being  
11 potentially to be retired, they total 71,000 MMBtu in  
12 capacity; correct?  
13 A. Based on the numbers that you showed me earlier,  
14 approximately, yes.  
15 Q. Okay. I'd like to take you to the Concord Lateral  
16 project now and understand how it relates to this  
17 excess-capacity issue.  
18 You agree we wouldn't be having this discussion,  
19 the excess-capacity discussion, if the Concord  
20 Lateral contract hadn't been entered into by the  
21 Company?  
22 A. Well, remember, what drove the Concord Lateral  
23 expansion was a much higher load forecast than what  
24 we're looking at at the moment. So if the Company

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1 had not met that expected need with the Concord  
2 Lateral, we'd be probably in a supply-shortage  
3 situation, or at least at that time. But now that  
4 the load forecast has changed as a result of the  
5 recession, we might be in the fortunate position  
6 where they just have the right amount of capacity to  
7 meet their design-day requirements. That's possible.  
8 I haven't done the numbers to determine whether  
9 that's the case.

10 Q. You were opposed to the Concord Lateral project,  
11 weren't you?

12 A. Yeah, I don't think I was the analyst working on that  
13 case.

14 Q. Let me show you, if we can mark it for identification  
15 as the next exhibit, your testimony. This is the  
16 redacted version of the Company's last IRP docket.  
17 And I want to direct your attention to Pages 19 to  
18 20. And I'm going to read into the record two  
19 questions and answers. If you're there?

20 MR. CAMERINO: So if we could mark it  
21 as Exhibit 7 for identification, Mr. McCluskey's  
22 redacted prefiled testimony in DG 06-105, dated  
23 February 7, 2007.

24 CHAIRMAN GETZ: So marked.

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1 (The document, as described, was  
2 herewith marked as Exhibit 7 for  
3 identification.)

4 Q. Actually, I counted the pages. But the page  
5 numbering stops for some reason at Page 17, or 18.  
6 If you find that, go to the next page that's not  
7 numbered.

8 A. Okay.

9 Q. And in the middle of the page there's a question.  
10 "Did the Company demonstrate, in the IRP or  
11 otherwise, that expanding the Concord Lateral and  
12 purchasing firm supplies on either maritime or PNGTS  
13 is the least-cost option to supply the incremental  
14 volumes?"

15 "ANSWER: No, it did not.

16 "QUESTION: Is it likely, in Staff's opinion,  
17 that expansion of the Concord Lateral would be  
18 least-cost?"

19 "ANSWER: No, because new pipeline projects are  
20 often associated with high fixed-capacity costs and  
21 low variable costs. They tend to be best suited to  
22 be high-load factor, paren, i.e. base loads, close  
23 parens, demand increments. This is not the situation  
24 described in the IRP. The Company's assessment of

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1 supply and demand under the design-year forecast  
2 indicates that gas supplies will be short in the last  
3 three years of the five-year planning period, but  
4 only in the peak winter months. More importantly,  
5 the number of days in each month that gas supplies  
6 are projected to fall short of requirements is never  
7 more than ten. See Table 1 below. This information  
8 points to a low load factor, paren, i.e., peaking,  
9 close paren, demand increment and, hence, the need  
10 for peaking capacity and associated supplies to fill  
11 the shortfall at least cost. Peaking capacity  
12 options include expanding the capacity of the  
13 company's existing vaporized propane air, paren, LP  
14 air, close paren, and liquified natural gas paren,  
15 LNG, close paren, facilities, or adding new capacity  
16 at different locations."

17 Do you remember that testimony?

18 A. I do.

19 Q. So in that case, which is the Company's very last  
20 IRP, you were arguing that the Company should expand  
21 its peaking facilities; right?

22 A. Actually what I'm saying is that the load  
23 characteristics of the Company indicate that they  
24 should be adding a peaking facility to its resources,

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1 which is what it did. The Concord Lateral is  
2 actually a peaking resource. Even though they  
3 expanded the capacity, they actually purchased  
4 supply, peaking supply. And it was doing --  
5 designing the Concord Lateral that way that turned  
6 the project from a standard base-load pipeline  
7 resource into a peaking resource. So I think my  
8 analysis was proven to be correct.

9 Q. So the Company was proposing the Concord Lateral  
10 project, and you opposed it; right?

11 A. I didn't oppose it. I was not in that docket.  
12 Somebody else was. I think a consultant was hired to  
13 do that.

14 Q. Right. So in this testimony you weren't saying that  
15 Concord Lateral is a bad idea.

16 A. What I'm saying is I think the Company should be  
17 adding a peaking resource, which is what they did.

18 Q. Okay. Not the Concord Lateral.

19 A. The Concord Lateral is a peaking resource.

20 Q. But you didn't think it should be entered into.

21 A. Well, maybe I was under the illusion that it was a  
22 base-load capacity addition that they were proposing.  
23 It turned out, when we actually got into the  
24 proceeding, it was a peaking resource that they

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1 designed.  
2 Q. Now, as you said, the Commission did open a separate  
3 proceeding on the Concord Lateral; correct?  
4 A. That's correct.  
5 Q. And it opened it because the Company indicated to the  
6 Commission that this was a very large financial  
7 commitment, and the Company was not in a position to  
8 make such a commitment without the Commission giving  
9 it prior review; correct?  
10 A. I think that's correct, yes.  
11 Q. It's a fairly unusual kind of proceeding, isn't it,  
12 at this Commission?  
13 A. I don't think so. The Laidlaw contract was something  
14 similar. Very high-cost contracts. And PSNH came  
15 and asked the Commission to approve it before it  
16 would enter into it. So I don't think it's an  
17 unusual request or proceeding at all.  
18 Q. It's unusual, isn't it, for a utility, where there's  
19 no statute that requires prior approval, to come in  
20 and say we won't make this investment without prior  
21 approval? Isn't that a fair statement?  
22 A. No. When there's a lot of money involved, I think  
23 it's a smart move to have the Commission review it  
24 and give them approval before they find themselves in

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1 a prudence proceeding.  
2 Q. So the Company did the smart thing and came in and  
3 asked the Commission to okay this contract before it  
4 made this commitment. And as you've indicated, you  
5 were not in that case; right?  
6 A. Well, I know I was not the -- you're going to have to  
7 remind me. I know I was not the lead person. But I  
8 think the Gas Division hired a consultant to review  
9 that proposal.  
10 Q. In fact, the Staff's witness or witnesses in that  
11 case were from Liberty Consulting; correct?  
12 A. I believe so, yes.  
13 Q. What was their recommendation with regard to the  
14 Concord Lateral?  
15 A. I think they approved of it.  
16 Q. Do you recall why the Company entered into a contract  
17 for 30,000 MMBtu rather than 20,000?  
18 A. No. I'd be guessing.  
19 Q. Now, you were talking before about your concern -- we  
20 were talking that in the last IRP what the Company  
21 really needed was an additional peaking supply. Is  
22 that a fair characterization?  
23 A. That was my feeling, yes.  
24 Q. And I want to show you the Commission's order in the

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1 Concord Lateral docket. And again, I'm not -- I  
2 wasn't intending to mark this since obviously the  
3 Commission has access to it. But everyone would want  
4 a copy.  
5 (Pause in proceedings)  
6 Q. And if you look at Page 13 in that order, if you look  
7 at the second full paragraph, I'm going to read it to  
8 you.  
9 "Liberty concluded that the proposed agreement  
10 with TGP provides cost-effective access to sources of  
11 peak-period supplies that the Company requires.  
12 Liberty agreed with the Company that, besides the  
13 question of cost, there are some attractive aspects  
14 of the Concord Lateral upgrade option, including the  
15 fact that the availability of that capacity would  
16 allow the Company to make certain adjustments within  
17 the portfolio that might lower other costs and have  
18 the effect of offsetting some of the cost of the  
19 proposed agreement with TGP. Liberty stressed that  
20 the Concord Lateral upgrade is not a resource that  
21 the Company can use to meet its requirements for  
22 peaking capacity, but rather as a means of providing  
23 access to potential sources of peaking capacity that  
24 are in addition to the Company's existing on-system

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1 peaking plants."  
2 Is it fair to say that the Commission knew and  
3 the Liberty witnesses recognized the very issue you  
4 were talking about in the prior IRP about the  
5 Company's need for peaking supplies, and they took  
6 that into consideration in their recommendation in  
7 the Concord Lateral docket?  
8 A. Yes. I believe that's in essence what they said in  
9 the paragraph that you just read.  
10 Q. And in fact, even in this case -- this order is  
11 February of 2008 -- Liberty is expressing concerns  
12 about the need for additional peaking supplies, about  
13 whether there's enough on-system peaking capacity.  
14 A. I recall they did because of the performance of the  
15 economy and the demand for gas was very different  
16 then than what it is today.  
17 Q. And this was two and a half years ago; right?  
18 A. That's correct.  
19 Q. So a lot changes in a couple of years?  
20 A. That's correct.  
21 Q. Now, your testimony talks about -- I'll withdraw  
22 that. I'm sorry.  
23 By the way, do you know how the cost of LPG is  
24 determined for purposes of determining dispatch on a

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1 given day?  
2 A. Well, I believe it's the cost of the propane and any  
3 variable operations and maintenance expense.  
4 Q. How do you get the cost of the propane? When your  
5 Company's looking at its supplies on a given day and  
6 trying to decide which facility -- which source of  
7 supply to dispatch with regard to the on-system  
8 propane facilities, do you know how they determine  
9 the cost of the propane?  
10 A. Well, obviously, they'd be using propane from on-site  
11 storage, and they would refill it at the proper  
12 times. And the cost of the propane would reflect --  
13 the true economic decision should be based on the  
14 opportunity cost for propane, which is the cost of  
15 the next MMBtu of supply. The Company may actually  
16 use the actual average cost of inventory for that  
17 cost of propane -- so, the cost of the propane  
18 delivered. And so it could be the average inventory  
19 cost. But a true economic analysis should be based  
20 on the opportunity cost for buying an additional  
21 MMBtu of propane.  
22 Q. But you're not familiar with whether what the Company  
23 uses is what I think you referred to as -- I'll put  
24 another word on your terminology -- would be the

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1 WACOG, the weighted average cost of gas that's in the  
2 tank versus what it cost to replace it.  
3 A. I'm not aware of how they dispatch. That's correct.  
4 I may have been at one time. But today, no, I'm not.  
5 Q. And that could make a big difference as to whether  
6 those supplies are looked at as least-cost or not  
7 least-cost on any given day?  
8 A. Well, what I'm saying is when you're doing an  
9 economic analysis, you should do it correctly. And  
10 if the Company is actually dispatching based on its  
11 weighted average cost, I would say that's not an  
12 appropriate way to do it. So if you're going to do  
13 the full economic analysis, you should really take  
14 what is the cost to the company of replacing the  
15 MMBtu that you take out and put in your production  
16 facilities.  
17 Q. And so if the Commission requires the Company to use  
18 the WACOG of the gas in storage for dispatch  
19 decisions, that's not what you would do for planning  
20 purposes.  
21 A. If the Commission has approved the use of average  
22 cost of inventory for dispatch, then I guess I  
23 wouldn't quibble with that, and we'd probably do the  
24 analysis that way.

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1 Q. But my point is, when you're looking backwards at  
2 dispatch decisions that were made, you might come to  
3 a different conclusion than when you're looking  
4 forward.  
5 A. Well, not for these facilities. We're not talking  
6 about a huge storage facility. The Company, in the  
7 winter, is replacing the storage on a regular basis.  
8 So one would expect that the average cost of the  
9 propane in the facility is not going to be that  
10 different from what the market price of propane is on  
11 that day.  
12 Q. Can you describe for me what role the on-system  
13 supplies play in terms of the company's overall  
14 portfolio, what benefit they bring?  
15 A. Well, I believe I responded to this in discovery.  
16 They obviously provide commodity to meet customer  
17 demands on the days that the utility needs to  
18 dispatch those facilities. And they obviously play a  
19 reliability role. The capacity of these resources is  
20 there to meet the design day. So they serve two  
21 functions, just like pipelines do. They serve the  
22 function of supplying gas to meet customer needs, and  
23 they have -- they contribute to the Company having  
24 sufficient capacity in its system to meet variations

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1 in demand due to weather.  
2 Q. Do they have any operational value?  
3 A. What do you mean by "operational value"?  
4 Q. In other words, do they provide value to the  
5 portfolio that is separate and apart for customers'  
6 need for the physical gas at a given cost?  
7 A. Well, I've just said they provide important  
8 reliability.  
9 Q. Okay. Then explain what that reliability value is.  
10 A. Well, I think I've already explained that the  
11 reliability standard that the Company uses is  
12 actually the design-day demand. They've developed --  
13 they have this standard that, if they have sufficient  
14 firm resources to meet the design-day demand, then on  
15 most days, most cold days, the Company is going to  
16 have sufficient resources to meet the needs of  
17 customers without cutting them off. However, that  
18 doesn't mean to say that's a guaranty that they're  
19 going to meet that. There's always the risk that the  
20 weather conditions are greater than the weather  
21 conditions that underlie the demand day. So it may  
22 be that you have to cut customers off. But that  
23 should happen once in a blue moon.  
24 Q. Having enough capacity to serve your customers. So

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1 that's an analysis that's done initially on a piece  
2 paper, sitting in an office, whether it's at the  
3 Company or here at the Commission; right? You look  
4 at the capacity that you have, the contracts that you  
5 have, what your load is, and you compare the two to  
6 decide do the numbers add up; right? That's an  
7 initial pass at whether there's enough capacity;  
8 right?  
9 A. Based on the standard that the Company has proposed  
10 and the Commission has reviewed and determined  
11 whether that's appropriate.  
12 Q. But then, beyond that, there's something that happens  
13 in real life, which is, on a given day, a peak day or  
14 not a peak day, the Company has to nominate, it has  
15 to order a volume of gas from the pipeline for that  
16 day; right?  
17 A. Correct.  
18 Q. It looks at the weather forecast and it says -- it  
19 runs its algorithms and it sends in an order to the  
20 pipeline and says send us this volume of gas today.  
21 A. Correct.  
22 Q. And then during the day the weather changes from what  
23 was forecasted. It can happen; right?  
24 A. Correct.

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1 Q. Or for whatever reason the algorithm wasn't quite  
2 representative that day and people used more than was  
3 nominated; right?  
4 A. They use more in total.  
5 Q. In total.  
6 A. Yes.  
7 Q. And so the pipeline supplies that were nominated are  
8 not sufficient for that day, right, if that happens?  
9 A. That's possible. On the days that these facilities  
10 are used. They've typically nominated the maximum.  
11 Q. But maybe it's not a peak day, though. The Company  
12 had 100. It ordered 80. All right? And it turns  
13 out they needed 90. Where do they go for the 90?  
14 A. They can go to all of their -- potentially, they can  
15 go to all of their contracts and ask for  
16 additional -- they could take an additional. The  
17 issue is are they going to get penalized for just  
18 taking more gas off the pipeline.  
19 Q. They could get penalized. And --  
20 A. Possibly. Possibly.  
21 Q. And so one of the things they can do that's very  
22 important to them is they can turn up their on-system  
23 supplies to meet that need; right?  
24 A. They could. If they were going to do that, they

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1 would do it with their least-cost resource, and that  
2 would be LNG.  
3 Q. They would start with the LNG.  
4 A. Correct.  
5 Q. But the LNG facilities are much smaller, aren't they?  
6 A. They're fairly sizable. Both facilities, propane and  
7 LNG, are small relative to the total.  
8 Q. Right. But the LNG are much smaller than the  
9 propane, aren't they, on the on-system supplies?  
10 A. Just one moment.  
11 (Witness reviews document.)  
12 Q. My chart, just to help you here, I can give you back  
13 that page if you want, says 4200 each of the LNGs.  
14 A. Yes. The total capacity of the propane is much  
15 larger than the LNG. That's correct.  
16 Q. Okay. And not only does that happen and do you have  
17 to balance your load like that on a daily basis  
18 normally, but on a very cold day, the pipeline can  
19 issue what's called OFO; right?  
20 A. Yes.  
21 Q. What's an OFO?  
22 A. That's... I'll be getting this -- I believe it's an  
23 order that limits the supply.  
24 Q. It's an operational flow order?

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1 A. Correct.  
2 Q. And when an operational flow order is issued, the  
3 Company has a reduced tolerance from its original  
4 nomination; right?  
5 A. That's correct.  
6 Q. And in fact, it can be required to balance hourly,  
7 not just for the entire day; right?  
8 A. Going back a long time. But yes, I believe that's  
9 the case.  
10 Q. So it has to have on-system facilities during those  
11 very cold periods to be able to increase and decrease  
12 the supplies on the system to stay in compliance with  
13 the OFO; right?  
14 A. Well, if it can't get relief from other supplies,  
15 other pipeline supplies, because we're talking about  
16 commodity now. So the Company receives commodity  
17 supplies from numerous suppliers. And I'm not sure  
18 whether the OFO relates to all of the supplies coming  
19 through the pipeline or just from Tennessee. And so  
20 if Tennessee is limiting the commodity flow, I'm not  
21 sure whether it has the ability to seek supplies  
22 elsewhere.  
23 Q. When you say Tennessee, what other pipeline would  
24 there be?

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1 A. Tennessee is the pipeline supplier. But only some of  
2 the supplies come from the Gulf.  
3 Q. If we're on a peak day, or worse yet, a design day,  
4 what is the relative cost of those supplies that  
5 you're going to be trying to access, these excess  
6 supplies? What is that going to be in the  
7 marketplace as opposed to your own on-system  
8 supplies?  
9 A. If you're on a peak day, you're going to be fully  
10 utilizing your supplies. And so the hypothesis is  
11 what? That there is an increase in demand above the  
12 design day? Is that what --  
13 Q. No. On those days when you've nominated some amount,  
14 maybe it's peak day you've nominated the full amount,  
15 and now you're relying your on-system supplies and  
16 you need something extra, or maybe we've even got a  
17 situation where we don't have the Granite Ridge  
18 supply anymore, what is the cost of that pipeline gas  
19 likely to be, just relatively speaking?  
20 A. Well, on this peak day, you'd be using your  
21 pipeline -- your propane facilities to the maximum,  
22 anyway. So there is no ability to increase the  
23 supply of the propane facilities on that peak day,  
24 under this scenario that you're proposing, that the

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1 pipeline somehow limits the -- it's not going to be  
2 able to limit the firm quantities that it's  
3 supplying. So on that peak day, you're already going  
4 to be maxed out on your propane facilities. So you  
5 can't turn to them. These are the days when  
6 customers may have to be curtailed because of what's  
7 happening on the pipeline. You're not going to get  
8 any relief from your on-site storage on that day.  
9 Q. At their current level?  
10 A. At their current level on a peak day, you're going to  
11 be -- you said the design day. You're going to be  
12 maxed out on that day.  
13 Q. Let me ask you about something else. You said  
14 there's no economic need to use these facilities to  
15 meet test for demand. Do you recall that? Page 14  
16 of your testimony?  
17 A. Page 13?  
18 Q. Fourteen.  
19 A. Fourteen. Okay. What line?  
20 Q. I just want to make sure I have the right version  
21 again. Lines 15 to 16. I'm not sure I'm working off  
22 the right version. Try Page 14, Lines 8 and 9.  
23 A. Yeah, I see it. I thought it was on 15 and 16.  
24 Q. Yeah, I think where we're confused is we lost track

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1 of which one got marked. But am I right that it's --  
2 CHAIRMAN GETZ: We've marked for  
3 identification the most recent, the October 13  
4 version.  
5 BY MR. CAMERINO:  
6 Q. Okay. And Mr. McCluskey, is it in fact Lines 15 and  
7 16? Is that the right reference?  
8 A. That's correct. Yes.  
9 Q. All right. So that's what you said there; right?  
10 A. Yes, I did.  
11 Q. Okay. And you would agree that there could be a  
12 non-economic need for these resources; right?  
13 A. Well, could you propose one?  
14 Q. Well, you talked about reliability.  
15 A. Well, economics comes into reliability. The Company  
16 has to meet its design-day standard, and it has to  
17 meet that in a least-cost way. You don't go out and  
18 just acquire any resource in order to meet the design  
19 day. It has to be least-cost.  
20 Q. Well, that's if you're talking about the need for  
21 supply for the physical gas; right?  
22 A. It's both. When you decide to add capacity to meet  
23 your needs, it's got to fit into your portfolio, and  
24 you've got to make sure that it's a economic resource

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1 relative to the alternative resources that you could  
2 have acquired.  
3 Q. Let me ask you this way: You haven't proposed to  
4 retire the Tilton facility, have you?  
5 A. That's correct.  
6 Q. Why not?  
7 A. Because it provides pressure support for the  
8 distribution system.  
9 Q. So you might dispatch Tilton for pressure support,  
10 even if there were lower-cost pipeline supplies  
11 available.  
12 A. No.  
13 Q. No?  
14 A. There are no lower-cost supplies available in Tilton.  
15 That's why to keep that resource there, to provide  
16 that pressure support.  
17 Q. And that's because the pressure support's needed in  
18 the area that's proximate to that plant; right?  
19 A. Correct. They can't get additional lower-cost  
20 supplies in there.  
21 Q. It's not going to be able to provide pressure support  
22 to Concord.  
23 A. What, the Tilton facility?  
24 Q. Right. In other words, the system doesn't operate

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1 that way. You need a facility that's up there in  
2 Tilton.  
3 A. That's correct. That's correct.  
4 Q. And so --  
5 A. Tilton is unique. That's why we left that out of the  
6 consideration for retiring.  
7 Q. And to the extent that pressure support might be  
8 needed in the areas of the other facilities, those  
9 facilities can provide that in their areas; correct?  
10 A. No. There is no shortage of lower-cost facilities to  
11 supply the distribution system in Manchester and  
12 Nashua.  
13 Q. In theory.  
14 A. Today there isn't.  
15 Q. In practice, on an operational basis?  
16 A. That's correct. That's my understanding.  
17 Q. Is that your area of expertise, or that's just your  
18 understanding?  
19 A. It's partly my area of expertise and partly  
20 discussions with the Gas Division people.  
21 Q. Were you a member of the Staff team that was involved  
22 in the acquisition of KeySpan by National Grid?  
23 A. I don't believe so.  
24 (Document handed to the Witness by Mr. Camerino.)

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1 Q. So you're not familiar with the terms of this  
2 settlement agreement that I just handed you?  
3 A. That's correct.  
4 Q. All right. Let me just represent, first for the  
5 record, what this is.  
6 MR. CAMERINO: This is a portion of  
7 the settlement agreement in the Key Span National  
8 Grid merger case. It is in Docket DG 06-107. The  
9 first 15 pages are the overlying settlement  
10 agreement. And then, just for purposes of this  
11 hearing, I've attached an appendix to that. That was  
12 what was called the EnergyNorth Merger Rate  
13 Agreement. So you have the entirety of the  
14 overarching settlement agreement and the EnergyNorth  
15 part of this. There were other attachments. I just  
16 didn't want to burden the record with the rest of it.  
17 And if we could mark this as Exhibit 8 for  
18 identification, please.  
19 CHAIRMAN GETZ: So marked.  
20 (The document, as described, was  
21 herewith marked as Exhibit 8 for  
22 identification.)  
23 MR. CAMERINO: And if it would be  
24 helpful, I'm happy to take administrative notice of

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1 the entire document. I just didn't want to  
2 physically put it into the record.  
3 CHAIRMAN GETZ: I think we're good  
4 where we are.  
5 MR. CAMERINO: Okay.  
6 BY MR. CAMERINO:  
7 Q. If you would look, Mr. McCluskey, at page... the  
8 bottom of Page 15 of that settlement agreement, and  
9 do you see it says "(L) Peak Shaving Facilities"?  
10 A. Page 15?  
11 Q. Yes. It's actually in the bottom right-hand corner.  
12 It's Page 100 of 117.  
13 (Witness reviews document.)  
14 A. Okay. I'm there.  
15 Q. And if you turn -- it says "Peak Shaving Facilities"  
16 at the bottom of that Page 100. And on the next page  
17 there's a paragraph which is something the Company  
18 agreed to do as part of this settlement. And I just  
19 want to read it.  
20 "The Company commits to maintain the existing  
21 location and operation of its peak shaving facilities  
22 and associated supplemental storage. To the extent  
23 the Company desires to make a material change in the  
24 location or operation of these facilities following

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1 the merger, it will provide a plan to Staff and OCA  
2 setting forth all the changes and the reasons. The  
3 plan will be provided no later than 90 days before  
4 implementation. To the extent Staff or OCA has any  
5 safety or reliability concerns about the proposed  
6 changes after technical conferences with the Company,  
7 it may request the Commission to open a docket before  
8 the Company implements the change in order to address  
9 those concerns. In any such proceeding, the Company  
10 shall have the burden of showing that any changes  
11 will not result in a degradation of service, quality,  
12 safety and reliability."  
13 Is it fair to say that that's some indication  
14 that the Staff believed that there was significant  
15 non-economic value to these facilities and that it  
16 was reluctant to see the Company make any change in  
17 their operation or existence?  
18 A. No. Since I was not involved in the proceeding, I  
19 really don't know what's driving this paragraph. So,  
20 no, I would not agree with that statement.  
21 CHAIRMAN GETZ: Mr. Camerino, I'm  
22 wondering how much further we go down this path. And  
23 correct me if I'm not understanding the point of the  
24 inquiry. Seems to me that we're going down the path

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1 of litigating what might be in an excess-capacity  
2 proceeding. I understand the Company's position is  
3 they agree with the five recommendations from Mr.  
4 McCluskey, one of which is open this other  
5 proceeding, though the testimony disputes the  
6 underlying basis for the conclusions that there is  
7 excess capacity. So I'm just wondering where we're  
8 going with this, if there's going to be a closing  
9 statement that says the Company no longer agrees that  
10 there should be an excess-capacity proceeding based  
11 on the cross-examination today.  
12 MR. CAMERINO: Yes. Well, first of  
13 all, I think I should say I've got about five more  
14 minutes, maybe less.  
15 CHAIRMAN GETZ: So I waited too long.  
16 MR. CAMERINO: Yes. Yeah. But I  
17 think your characterization of the Company's position  
18 is not quite right. The Company said that it had  
19 indicated to Staff that it could accept all five  
20 recommendations if the data that was used was from  
21 the new IRP. But I think Mr. -- the Panel's  
22 testimony says quite clearly that they don't believe  
23 such a proceeding is necessary. And what I'm just  
24 trying to demonstrate is not just that the Company

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1 would disagree with the finding that these plans  
2 should be retired, but that to undertake such a  
3 proceeding, when the entire thrust up until now of  
4 the Staff's view has been to safeguard these  
5 facilities, we just think it's not a good use. And  
6 the testimony says it's not a good use of the  
7 Company's or the Commission's resources, and it's  
8 unnecessary. If the Commission decides it wants to  
9 undertake that, obviously, we will be there to  
10 address it. But we would prefer that there not be  
11 such a proceeding.  
12 CHAIRMAN GETZ: Well, let's --  
13 MR. CAMERINO: But I will wrap it up.  
14 BY MR. CAMERINO:  
15 Q. I just want to ask you a couple more questions about  
16 the value of these facilities, and then I'll close.  
17 I want to read you some statements that Mr.  
18 Knepper made at a technical session about a month  
19 ago. You probably heard these from Staff already.  
20 I'd just ask you if you would agree with them. And  
21 these were posed to Liberty Consulting -- to Liberty  
22 Energy in the acquisition dockets. First, he said --  
23 A. Sorry. I missed what you said. These are?  
24 Q. These are statements by Mr. Knepper to Liberty

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1 Energy. Probably Mr. Frink has shared these with you  
2 already. I want to ask you whether you agree with  
3 them.  
4 He referred to the on-system supplies as "an  
5 asset that can't be replaced." Would you agree with  
6 that?  
7 A. No.  
8 CHAIRMAN GETZ: Can you repeat the --  
9 MR. CAMERINO: An asset that cannot be  
10 replaced.  
11 A. I don't agree with that.  
12 BY MR. CAMERINO:  
13 Q. That they are nice assets to have, whether you use  
14 them or not.  
15 A. I don't agree with that.  
16 Q. That you can never site them again. You can never  
17 get them again.  
18 A. I don't agree with that.  
19 Q. That it's a one-way feed into New Hampshire with no  
20 redundancy, no backup.  
21 A. I don't understand that. What's "no backup"?  
22 Q. I assumed when he said that, that he meant the  
23 Tennessee Pipeline, that the Company is at the end of  
24 the pipeline.

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1 A. Which Company is at the end of the Tennessee  
2 Pipeline? Things have changed over the last decade.  
3 The supplies coming from -- significant supplies come  
4 from Canada. It's no longer just the Gulf that's  
5 supplying the Company.  
6 Q. Well, how do they come into New Hampshire?  
7 A. Well, they can -- they do have to go up the  
8 connection, essentially the Concord Lateral -- or I  
9 think that's the description of it -- the pipeline in  
10 New Hampshire. But the Tennessee Pipeline is much  
11 more than the pipeline in New Hampshire.  
12 Q. But you're talking about supplies coming from other  
13 locations, not the way they get here.  
14 A. Physical facilities in Tennessee extend far more than  
15 what's in New Hampshire.  
16 Q. Now, you're not making -- you're not actually  
17 recommending in this docket that those supplemental  
18 facilities be retired, are you?  
19 A. That's correct. I think the issue should be  
20 investigated.  
21 Q. I just want to show you -- actually, to move things  
22 along, why don't I just mark these.  
23 MR. CAMERINO: I just want to mark for  
24 identification three responses by Mr. McCluskey to

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1 National Grid, 1-1, National Grid 1-3, and National  
2 Grid 1-28. I don't know, Mr. Chairman, whether you  
3 want to do those as one or separately.  
4 CHAIRMAN GETZ: Let's just do them as  
5 a package. We're up to --  
6 CLERK DENO: Nine.  
7 CHAIRMAN GETZ: -- Exhibit No. 9.  
8 (The document, as described, was  
9 herewith marked as Exhibit 9 for  
10 identification.)  
11 BY MR. CAMERINO:  
12 Q. And Mr. McCluskey I just want to confirm with you  
13 that those three answers basically are consistent  
14 with what you just said, that it's not your  
15 recommendation that a decision be made on retirement  
16 in this docket.  
17 (Witness reviews document.)  
18 A. Is that a question?  
19 Q. Yes.  
20 A. Certainly in the response to 1-3 and 1-28. I think  
21 the response to 1-1, I read it to be broader than the  
22 excess-capacity issue.  
23 CHAIRMAN GETZ: Mr. Camerino, I have  
24 four. Did you also want to include 2-2?

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1 MR. CAMERINO: I don't think I need  
2 that, but... No. I apologize for that.  
3 BY MR. CAMERINO:  
4 And let me just mark one other. I told you I  
5 would come back to this, Mr. McCluskey. And we'll  
6 come back to this in a second, but if...  
7 MR. CAMERINO: If we could mark as 10  
8 the response to National Grid 1-4.  
9 CHAIRMAN GETZ: So marked.  
10 (The document, as described, was  
11 herewith marked as Exhibit 10 for  
12 identification.)  
13 MR. CAMERINO: I'll give a copy to Mr.  
14 McCluskey's counsel before I ask the question.  
15 BY MR. CAMERINO:  
16 Q. And you've got 1-4 in front of you now, Mr.  
17 McCluskey?  
18 A. Yes.  
19 Q. And in that response you said -- see if I can find my  
20 own copy now.  
21 If you look at the bottom, that's where you said  
22 that the contracts -- some of the firm contracts have  
23 charges that cannot be avoided through  
24 under-utilization. And I was asking you -- that's

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1 the background for what I was asking you, that it is  
2 possible, through off-system sales, to mitigate some  
3 of the cost to the Company. And I referred you to  
4 having said that there were firm contracts charges  
5 that cannot be avoided through under-utilization. Am  
6 I correct that that's where you said this?  
7 A. That's what I say in this response, and that's my  
8 position.  
9 Q. Okay. I just wanted to provide a basis for my  
10 statement to you.  
11 MR. CAMERINO: If I could just have  
12 one second to look at my notes.  
13 (Pause in proceedings)  
14 BY MR. CAMERINO:  
15 Q. I want to ask you to clarify something, Mr.  
16 McCluskey, that you said on direct by Attorney  
17 Thunberg.  
18 You were talking about updating the DSM  
19 assessment in this docket and then the Commission  
20 issuing a supplemental order. And I just want to  
21 understand procedurally what you had in mind, if you  
22 could just flush out what you envisioned.  
23 A. Yes. So my testimony lays out Staff's opinion of the  
24 Company's DSM assessment. One of the problems is the

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1 modeling problem that the Company is trying to  
2 address. There are other recommendations I make with  
3 how to do an appropriate DSM assessment. I'm  
4 assuming that the Company is going to take that  
5 position of Staff, and once it's got its SENDOUT  
6 modeling working efficiently, it's going to submit  
7 something that meets Staff's concerns. Staff will  
8 review that revision and make a recommendation to the  
9 Commission, which hopefully would be reflected in any  
10 supplemental order. And that supplemental order will  
11 guide the Company in developing its DSM assessment  
12 for the subsequent filing, the 2012 IRP.  
13 Q. And that last part is what I'm not sure I understand,  
14 as to why would there be a need for a supplemental  
15 order. What types of things would be addressed in  
16 that order?  
17 A. Well, the supplemental order would address the  
18 reasonableness of the Company's revised assessment.  
19 And if Staff -- assume Staff recommends that, yes,  
20 the Company has done a bang-up job, and we think --  
21 and the Commission would recommend approval of this  
22 approach and have them use that approach in their  
23 2012 IRP, you're not going to know that unless you  
24 get a supplemental order from the Commission that

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1 addresses that revised assessment.  
2 Q. So it would be a way of getting the Commission to say  
3 that the way the model had run was acceptable and the  
4 Company could do the same thing in the next IRP.  
5 A. That's correct.  
6 Q. And if there was disagreement about that, we would  
7 have another hearing?  
8 A. No. If Staff disagrees with the assessment, we will  
9 make that known to the Commission. And the  
10 Commission can adopt that, reject that opinion and  
11 say whatever it wants in its supplemental order.  
12 Whatever is in the order will guide the Company in  
13 how to do the assessment in the 2012 IRP.  
14 Q. Okay. With Counsel's permission, I'm going to show  
15 you the Company's response to Staff 1.1, and pointing  
16 to the top part of the chart that's attached, and ask  
17 you, at least based on that information, is it your  
18 understanding that the Granite Ridge contract expires  
19 in 2012?  
20 A. According to this document, yes.  
21 MR. CAMERINO: Okay. Thank you.  
22 CHAIRMAN GETZ: Commissioner Ignatius.  
23 CMSR. IGNATIUS: Thank you.  
24

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1 QUESTION BY CMSR. IGNATIUS:  
2 Q. Good afternoon, Mr. McCluskey. I have questions  
3 about the role of a plan, the uses of a plan. And I  
4 confess, I think we've gotten pretty far afield from  
5 that today.  
6 You had said this afternoon in your testimony  
7 that you felt that, although there are certain  
8 requirements for capacity, for reliability purposes,  
9 and there are thresholds for that, that beyond that  
10 point there really should be zero or close to zero;  
11 correct?  
12 A. That's the optimal position. If their filing  
13 indicated they were a couple percent above that, then  
14 that would not cause any concerns. When you have it  
15 30 percent above, that could involve customers and  
16 significantly more cost than is necessary.  
17 Q. In your view, does the plan submitted by the Company  
18 include any provisions for how to bring it down,  
19 bring that level of capacity down, when it -- if it  
20 should find itself significantly above?  
21 A. No, it does not directly ask that question; hence,  
22 there is no answer. We did ask the Company what  
23 plans it has in discovery for dealing with the  
24 excess, and the response we interpreted to mean that

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1 they haven't any.  
2 Q. Can you envision language in a plan that would set  
3 guidance on what to do when you find yourself  
4 significantly above capacity or possibly below  
5 capacity in order to -- well, let's just stick with  
6 above -- that you find you're over and above that  
7 reliability level of extra? Are there plans that  
8 could tell you what a Company should do when it finds  
9 that situation?  
10 A. Well, first of all, one of the recommendations is  
11 that if there is excess in any future IRP, the  
12 Company address that directly and state what it  
13 intends to do, whether it intends to just leave it as  
14 it is and give the reasons why; if it intends to  
15 reduce that capacity, how and why; and what are the  
16 benefits of doing that, or what are the detriments of  
17 doing that.  
18 So one of the five recommendations is that  
19 future plans, they have to address it explicitly.  
20 And I think the Company agreed today that they didn't  
21 have a problem with doing that.  
22 So it's really not -- we don't think it's  
23 Staff's role to tell them what to do. We think the  
24 Company should tell us what the appropriate thing to

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1 do is. The fact that there is no discussion of this  
2 issue, we've recommended that they be moved to a  
3 separate proceeding in order to resolve it.  
4 Q. Can you think of other plans where there are  
5 provisions that you think make sense for a Company if  
6 it finds itself in this excess-capacity situation?  
7 A. Sorry?  
8 Q. Are there other plans that you've reviewed by other  
9 companies that do have provisions addressing an  
10 excess-capacity situation and what steps the Company  
11 should take?  
12 A. I don't recall reading such a plan. More often than  
13 not, it's the other way, where their demand forecasts  
14 indicate there will be a shortfall within the  
15 planning period, and then you expect to see a  
16 significant part of that plan discussing how are they  
17 going to go about making that shortfall. I don't  
18 recall -- and I've read quite a few plans from around  
19 the country. But I don't recall seeing one where  
20 during the forecast period there's a significant  
21 excess.  
22 Q. So is your initial recommendation, then, that the  
23 Company identify, when that situation occurs,  
24 identify it in the form of a document and begin to

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1 develop a plan for how to get back down into a closer  
2 level to what its capacity is and what its needs are?  
3 A. That's correct. Just like it would do if it was  
4 short. They would show it in some chart and then  
5 explain to us how they're going to go about making  
6 that shortfall. The same should apply on the excess  
7 side. There should be a chart which identifies that,  
8 and there is none in the filing. And then they  
9 should explain to us why it's appropriate to leave it  
10 like that, if they think that's the best position for  
11 customers.  
12 Q. I also had a question about what you were just  
13 discussing with Mr. Camerino, about coming back with  
14 further projections on DSM. And I confess, I think  
15 I've lost whatever we talked about this morning on  
16 that issue. So rather than trying to guess at what  
17 you were saying, can you just explain again what is  
18 your recommendation about new data coming in and how  
19 it should be used and whether the Commission issues  
20 its findings in the IRP. Is there a two-stage level  
21 awaiting this further information or -- I just really  
22 didn't follow it.  
23 A. Okay. So at the moment, as we've laid out in the  
24 testimony, one is the modeling of it. So you can't

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1 believe that the numbers that are in the filing on  
2 the DSM have any basis.  
3 Q. This is the Ventyx problem?  
4 A. That's correct. So they have to resolve that. And  
5 then, once they resolve that, there is the issue of  
6 how do you deal with economic analysis for DSM. And  
7 we've addressed that in some detail. We've laid out  
8 how Staff would do that analysis.  
9 So, assuming the Company takes our  
10 recommendations and does the assessment and  
11 determines that, economically, DSM, compared with the  
12 cost of supply, that we could do much more than we  
13 are doing, and let's say it's within the potential  
14 savings developed by GDS, it's not over, that it's  
15 within that, so the Company would report that, at  
16 least economically, using this Commission's total  
17 resource cost test, it makes sense to expand their  
18 programs up to a certain level, from a planning  
19 standpoint only.  
20 And so the next step is, well, so the Commission  
21 sees that and it can decide -- it can take that  
22 information and push for expansion of the programs,  
23 the core programs for the Company, if it believes  
24 that's appropriate. Without having that analysis,

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1 the Commission and all those that participate in the  
2 core programs, they've got no basis for determining  
3 whether they should reduce the programs, increase  
4 them. You need this economic analysis to guide them  
5 in what they do with real-world programs. And it may  
6 be that the economic quantity of DSM is significantly  
7 higher than what they do currently. So you may not  
8 want to move to that immediately, but you may want to  
9 move to it over time. So, without having that  
10 information, you can't give your policy guidance to  
11 the Company or to the other parties in the core  
12 programs.  
13 And my understanding is the Commission is pro  
14 DSM. So I think this would be good, useful  
15 information for you to decide how far to go in  
16 real-world programs.  
17 Q. Does it necessarily require holding up action on the  
18 2010 plan, awaiting that further analysis? And it's  
19 just a timing issue. I agree that it's important to  
20 the policy decisions and to the development of the  
21 core docket. But could it as easily be filed as part  
22 of the core proceedings, or inform the Company as it  
23 prepares its programs for the next time it looks at  
24 the core programs?

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1 A. I would hate to think that the Company is going to  
2 start on its demand-side assessment for the 2012 IRP  
3 without -- before it resolves -- before these issues  
4 are resolved. You know, we've put a fair bit of  
5 effort into this case. And I think it's appropriate  
6 to, let's resolve it and get out of the case what we  
7 can, and hopefully that will inform what they do in  
8 the next filing. To say, well, let's roll this over  
9 to the 2012 IRP, I would not like to have to start  
10 again on this issue in the 2012 IRP.  
11 Q. Well, there may be somewhere in between rolling over  
12 and starting again. I think my assumption and the  
13 question is different than your assumption and the  
14 answer. There may be no right or wrong to it, but  
15 I'll think about that. Thank you.  
16 CHAIRMAN GETZ: Redirect, Ms.  
17 Thunberg?  
18 MS. THUNBERG: I just need a moment.  
19 REDIRECT EXAMINATION  
20 BY MS. THUNBERG:  
21 Q. Mr. McCluskey, I just have a couple questions. And  
22 this is on Commissioner Ignatius's point with the  
23 Recommendation No. 5 having -- requiring an updated  
24 resource mix analysis. I just want to go back to how

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1 does not having this resource mix analysis hamper  
2 Staff's ability to bless this IRP as adequate. And  
3 when I say "adequate," being compliant with the most  
4 recent order directing it to file an IRP.  
5 A. Well, the prior order said do a DSM assessment and  
6 show us the resulting least-cost integrated resource  
7 plan. The DSM assessment that we got is inadequate  
8 because we've agreed that the modeling tool is  
9 faulty. And there are many other deficiencies with  
10 it as well. So they couldn't possibly come up with a  
11 least-cost resource Integrated Resource Plan that we  
12 could have any confidence in. So without them  
13 redoing it and showing the results of a more  
14 efficient analysis, we're not in a position to say  
15 that they've met the requirements of the prior order.  
16 Q. And let me address the timing issue, because I hear  
17 you say that it leaves Staff unable to have a  
18 complete IRP to do its complete assessment of whether  
19 the IRP is adequate or not; is that correct?  
20 A. Correct.  
21 Q. And knowing that Staff wants -- or that it would be  
22 beneficial for National Grid and other gas companies  
23 filing IRPs to have guidance from the Commission on  
24 how this DSM -- this integration of the supply side

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1 and demand side should really come out, that guidance  
2 cannot come out before the 2012 IRP with the timing  
3 that we have now; is that right?  
4 A. No. We're recommending that they provide the revised  
5 assessment two months after this initial order goes  
6 out. And Staff hopefully will be able to turn out  
7 and review that fairly quickly and get a supplemental  
8 order out, hopefully in time for the Company to  
9 incorporate that guidance in the development of its  
10 2012 assessment.  
11 Q. Now, the timing of the filing of the IRPs. The  
12 Company has represented in its testimony that it's  
13 expecting to file it in February 2012. Is that by  
14 rule, by statute, or by order?  
15 A. There are no statutes for gas IRP. Typically,  
16 companies have requested that they receive a delay in  
17 filing. They've never been banging on the  
18 Commission's doorstep asking to file the IRP on a  
19 certain date; if anything, they'd be asking to delay  
20 it. So one would think that we can take whatever  
21 time we need in order to do this assessment so that  
22 the Company has it in hand to work with before it  
23 files the 2012. If they don't want to -- if they  
24 can't file the 2012 IRP in February, that's fine with

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1 me. File it when you can, as long as the analysis is  
2 appropriate.  
3 Q. And I'd like to get your opinion on Attorney Camerino  
4 was asking about the supplemental order and if there  
5 was a hearing. A hearing could be a possible outcome  
6 after Staff has reviewed this supplemental resource  
7 assessment; is that correct?  
8 A. It could be. I could imagine that Staff files  
9 something with the Commission, and the Company is  
10 allowed to critique that and submit a document giving  
11 its position on the assessment and Staff's criticism  
12 of it, if that's what it is.  
13 Q. And it is possible under that kind of a litigated  
14 scenario that the filing could -- the 2012 IRP for  
15 February 2012, that filing deadline could be delayed.  
16 Is that --  
17 A. Yes. If this assessment takes longer than I  
18 anticipate it will take, then we could delay the  
19 filing. There's no rate impact as a result of these  
20 things. We can have them come in at any point.  
21 Q. Okay. Thank you. No further questions.  
22 MS. THUNBERG: Thank you.  
23 CHAIRMAN GETZ: Then I believe that's  
24 all for Mr. McCluskey. You're excused. Thank you.

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1 (Whereupon the Witness was excused.)  
2 CHAIRMAN GETZ: Any objection to  
3 striking the identifications and admitting the  
4 exhibits into evidence?  
5 (No verbal response)  
6 CHAIRMAN GETZ: Hearing no objection,  
7 they'll be admitted into evidence.  
8 Are there any issues to address before  
9 providing opportunities for closings?  
10 (No verbal response)  
11 CHAIRMAN GETZ: Hearing nothing, then  
12 Ms. Hatfield.  
13 MS. HATFIELD: Thank you, Mr.  
14 Chairman.  
15 CLOSING STATEMENT BY MS. HATFIELD:  
16 MS. HATFIELD: I would like to begin  
17 by thanking the Company for its work in attempting to  
18 undertake what Mr. Poe today described as its "first  
19 truly integrated IRP that treats demand-side  
20 resources like supply." However, we must also agree  
21 completely with Mr. Silvestrini's testimony today,  
22 that the next step that we must take together is to  
23 integrate planning outcomes and program design on the  
24 efficiency side. As he stated, unfortunately today,

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1 those processes, planning versus the EE programs, are  
2 divorced from each other. And we believe that if we  
3 don't change that and take steps to really marry  
4 planning and efficiency program design together, we  
5 will not reach the goal that the Commission stated in  
6 Grid's last IRP order, that the Company should  
7 evaluate demand-side resources on an equivalent basis  
8 to supply-side resources, so that customer needs will  
9 be met at the lowest reasonable cost. This is our  
10 goal in IRPs. But it is not being implemented in the  
11 efficiency dockets.

12 The draft Senate Bill 323 report that  
13 the EIC is currently drafting highlights this by  
14 pointing out that the goal-setting process in the  
15 efficiency dockets does not connect to the planning  
16 that the utilities do and that the goals are largely  
17 set by the utilities themselves; as a result, we are  
18 not taking advantage of the cost-effective  
19 efficiency.

20 The efficiency dockets are also  
21 limited by an approach that largely maintains program  
22 designs that we have had in effect since around 2002.  
23 We can't continue this approach. We need clear  
24 policy guidance that efficiency programs should be

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1 designed to capture all cost-effective efficiency,  
2 and we also need a strong, clearly defined feedback  
3 loop between planning and program design.

4 I believe that Mr. Silvestrini agreed  
5 with this, and he said, however, we are not there  
6 yet. I think that Mr. McCluskey also agreed today  
7 that it is important that IRPs, as they relate to  
8 demand-side programs, must connect efficiency  
9 planning back to the core docket. And we believe  
10 that the way to get there starts with the Commission  
11 clearly directing the utilities to move in that  
12 direction.

13 Therefore, we respectfully request  
14 that the Commission provide clear guidance to Grid,  
15 as well as to the other utilities, that utility  
16 planning, both in IRPs and in the efficiency dockets,  
17 should take advantage of all cost-effective  
18 efficiency, and, as an important next step, that  
19 their efficiency planning and goal setting should  
20 begin to put New Hampshire on a path to achieve all  
21 cost-effective efficiency, understanding, as Mr.  
22 McCluskey pointed out, as well as Mr. Silvestrini,  
23 that it's important to carefully ramp up programs  
24 over time at a reasonable rate, keeping in mind the

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1 cost and benefits to customers.

2 It is important, we think, to  
3 acknowledge that our current efficiency program  
4 design, and indeed our rate-making framework itself,  
5 tend to dis-incent aggressive efficiency programs,  
6 even when efficiency is less expensive than  
7 traditional supply. That must also be addressed,  
8 obviously not in an IRP docket. But we think it  
9 deserves mention here nonetheless. And I would also  
10 point out that the VEI study also has a full chapter  
11 devoted to how best to design efficiency incentives  
12 to motivate utilities to aggressively take advantage  
13 of efficiency resources that are lower cost and  
14 supply.

15 Finally, we take no position on  
16 whether the IRP is adequate, but we do support the  
17 items that the Company and Staff are in agreement  
18 that should be included in the next IRP. Thank you.

19 CHAIRMAN GETZ: Thank you. Ms.  
20 Thunberg.

21 CLOSING STATEMENT BY MS. THUNBERG:  
22 MS. THUNBERG: Thank you for your time  
23 today. I just wanted to get back to the 10,000-foot  
24 level, that Staff and the Company does have agreement

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1 on the bulk of the five recommendations that appear  
2 in Mr. McCluskey's testimony. The agreement appears  
3 on Page 4, Line 10 of the rebuttal testimony.

4 With respect to the points of  
5 disagreement, they involve Recommendation No. 1. And  
6 Staff takes a position that the excess-capacity  
7 proceedings should not be delayed. Existing  
8 forecasts and any updates can be useful, and that  
9 delaying the proceeding to obtain more updated  
10 forecasts runs the risks of causing customers to bear  
11 greater costs.

12 With respect to the differences  
13 regarding Recommendation No. 5, Staff requests the  
14 Commission order the Company to file the updated  
15 resource mix analysis within two months so that Staff  
16 can complete its review of this IRP. If the  
17 Commission adopts National Grid's position of waiting  
18 and just skipping the 2010 IRP and having the  
19 resource mix analysis filed with the 2012, you've  
20 heard testimony today of the complications of  
21 guidance is not there; and also, Staff is left not  
22 being able to opine on whether customers' needs have  
23 been met at the lowest reasonable cost while  
24 maintaining reliability.

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1           There's been a lot of testimony today  
2 about the merits of excess. But Staff was not  
3 prepared today to discuss the merits, given the  
4 agreement to the recommendation that we would discuss  
5 merits in another proceeding.  
6           Staff asked the Commission to open a  
7 new docket to investigate whether the excess the  
8 Company is carrying is appropriate, and that this  
9 docket be opened sooner rather than later so that we  
10 can resolve this issue and the customers know whether  
11 they are paying more or as they should for gas.  
12           Thank you very much for your time.  
13           CHAIRMAN GETZ: Thank you.  
14           CMSR. IGNATIUS: Can I just ask one  
15 clarifying question, Ms. Thunberg. And I think the  
16 testimony may have evolved a bit, which is why I'm  
17 confused.  
18           Mr. McCluskey's testimony had said  
19 initially to have the updated resource assessment  
20 within six months of the Commission's order, and then  
21 just a moment ago you said that it should come in  
22 within two months in order for Staff to complete its  
23 evaluation of the 2010 plan, which suggests there is  
24 no Commission order because there's no final

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1 recommendation and the record isn't closed. So is it  
2 just two months from today, really, is what you'd be  
3 asking for, or is it something other than that?  
4           MS. THUNBERG: I suppose I could --  
5 (Staff discussing off the record.)  
6           MS. THUNBERG: In answer to your  
7 question, I think it could go either way. But Staff  
8 envisioned that the order that would come out of this  
9 hearing would address everything but the DSM  
10 component, and we'd leave that for the supplemental  
11 order that was suggested by Mr. McCluskey.  
12           And the change in the position, just  
13 to reflect back to Mr. McCluskey's testimony, is  
14 that -- or oral testimony today, is that given the  
15 passage of time since his testimony came out in  
16 September, there has been headway from the Company on  
17 fixing the model. So we don't -- Staff's not  
18 thinking that they need six months still to submit  
19 the corrected version of the analysis.  
20           CMSR. IGNATIUS: Thank you.  
21           CHAIRMAN GETZ: Well, it seems to me  
22 we've got at least three procedural devices. And  
23 there may be more. I'm trying to interpret what the  
24 proposal is. There could be an order saying, if we

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1 followed Staff's recommendation, that the IRP process  
2 is inadequate and basically the Company has two  
3 months to cure. Another alternative would be -- and  
4 I think this one may have been the last one -- that  
5 the process is adequate, except insofar as it needs  
6 to correct the modeling error in the -- relative to  
7 the DSM, the Ventyx model, which then, I guess, would  
8 still require a second step. Both of those would  
9 require a second step. Though maybe a variation on  
10 that is it's adequate, subject to the condition that  
11 within a certain amount of time a correction is  
12 filed, it would be more of a compliance proceeding or  
13 a compliance step rather than a step two that might  
14 implicate more hearings. Those are at least three  
15 variations that come to my mind. I don't know if you  
16 have a preference among those.  
17           MS. THUNBERG: I think the preference  
18 was starting to come out in the redirect questioning  
19 of Mr. McCluskey, of how this deadline for filing the  
20 2012 IRPs in February is order-based. That can be  
21 moved. So we could complete the 2010 IRP in whole.  
22           CHAIRMAN GETZ: Well, seems to me any  
23 of those three -- anything short of an order saying  
24 that the process is adequate is going to run up

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1 against the realistic probability of filing something  
2 in February of 2012. And any of these other  
3 variations would seem to me to be leading to more  
4 time before the next filing.  
5           But let me -- Ms. Hatfield, do you  
6 have anything on which of any of these approaches or  
7 some other approach makes sense from a process level?  
8           MS. HATFIELD: I think your third  
9 suggestion sounded like it might make sense. And I'm  
10 also thinking whatever you say in the order will also  
11 give guidance to the next filing, whenever it comes,  
12 and so that whatever weaknesses this process had will  
13 have -- hopefully, it's a continuous improvement  
14 process so that the next one will be stronger. But  
15 I'm also mindful of the fact that in another docket  
16 the Commission is considering the sale of Grid's  
17 assets to another company. So, you know, that just  
18 complicates things a little bit.  
19           CHAIRMAN GETZ: Especially with  
20 respect to whatever the next filing is?  
21           MS. HATFIELD: Right. But I do  
22 definitely agree with Staff, that the February 2012  
23 is not written in stone, so there certainly is  
24 flexibility in the deadline for the next IRP.

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1 CHAIRMAN GETZ: Let me just propose  
2 this as well. We'll give you an opportunity for your  
3 closing, Mr. Camerino, and if you have any preference  
4 among these. But if the parties want to give some  
5 further thought to potential approaches to whatever  
6 the order might be -- and I'm assuming, again, Mr.  
7 Camerino, your preference would be that we just  
8 approve the filing, and that there would be one order  
9 and that would be it. But in case you have any other  
10 thoughts, any of you have any other thoughts on what  
11 the best process mechanism is, if you'd file  
12 something in writing within, I don't know, by the end  
13 of next week, that might prove helpful.  
14 Mr. Camerino, your closing.  
15 MR. CAMERINO: Thank you.  
16 CLOSING STATEMENT BY MR. CAMERINO:  
17 MR. CAMERINO: Well, let me start by  
18 saying that resource planning is a complex matter,  
19 and they are not issues that lend themselves well to  
20 the hearing room. And I think if anything has been  
21 proven today, we've proved that again. And we're  
22 really here for one reason, essentially, and that's  
23 the disagreement, as Attorney Thunberg said, as to  
24 whether the Commission should use the most recent

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1 data available, if it's going to open a docket to  
2 consider that the Company should retire these  
3 significant facilities that it owns, and which I  
4 think it's fair to say, if anything, the Commission  
5 has indicated in the past it wanted to ensure  
6 continued to operate. And so I understand that times  
7 change and circumstances change, and the Commission  
8 could always reach a different conclusion. But I  
9 think this is a pretty substantial issue. And if the  
10 Commission were to determine that such a docket was  
11 necessary, I can't imagine it making that decision  
12 based on old data. And it may be that the load  
13 forecast data has been updated by one year,  
14 information that Staff thought was significant enough  
15 and needed enough, that it insisted it be provided.  
16 But the rest of the plan hasn't been updated. And  
17 when you update the load forecast, you run that  
18 through a model. You get lots of different results.  
19 Other contracts come up for retirement. Things  
20 change rapidly in this world. And we've seen that  
21 again and again. And the evidence today demonstrates  
22 that clearly, that in one, two, three years, there  
23 are big, big swings. And the idea that we're going  
24 to use data from 2009 or 2010 for the load forecast,

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1 and models that were all built on the 2009 data from  
2 the supply side and portfolio side, I think is  
3 misguided. And I can't imagine the Commission doing  
4 that. The Company doesn't make its own decisions on  
5 that basis. And for the Commission to make decisions  
6 on that basis would, I think, be wrong. Frankly,  
7 we'll be in the proceeding -- if you open such a  
8 docket, we'll be in the proceeding, and the  
9 information will all be available. And you can rest  
10 assured the Company would seek to introduce it  
11 through its witnesses. So it's going to come in,  
12 whether that's the premise of the proceeding or not.  
13 And so I don't understand the reluctance.  
14 And it almost seems like a rush to  
15 play gotcha. And honestly, the Company is concerned,  
16 that it had the Concord Lateral proceeding for the  
17 very reason, that it did not want to make a  
18 commitment like that and then have cost disallowances  
19 later. And the idea that that commitment is now  
20 being utilized by the Staff in order to argue for  
21 disallowance of a different asset that it says became  
22 unnecessary because of that commitment in large part  
23 is really troubling and an issue that, in essence,  
24 almost sounds like a collateral attack on the

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1 Commission's decision in that case. Obviously,  
2 that's something that would be taken up in the next  
3 docket.  
4 So a lot of changes over two years.  
5 We talked about Granite Ridge. We talked about the  
6 changes that the Concord Lateral brought about. We  
7 talked about the change in the load forecast that  
8 went down because of the recession, and undoubtedly  
9 will come up as we come out of the recession.  
10 The Company's position, as it  
11 indicated today, and the reasons it indicated today,  
12 is that docket is not necessary and would not be a  
13 good use of Commission time.  
14 So the statement that we agree to that  
15 recommendation is incorrect. What the testimony says  
16 is the Company was prepared to agree to it if updated  
17 data was used, because we're confident as to what  
18 that would show. I can't, for the life of me,  
19 understand the testimony about having to go through  
20 the entire 2012 IRP proceeding before the Commission  
21 could consider the excess-capacity issue. If the  
22 Commission decides that a docket like that is  
23 necessary, you will have the 2012 load forecast.  
24 You'll have the SENDOUT model runs the way you want

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1 them with the DSM model all available to you. You  
2 don't need to wait for the 2012 IRP to come to  
3 conclusion. What we want is the right to provide the  
4 latest data. So that was news to us when Mr.  
5 McCluskey testified that he thought that proceeding  
6 had to go through its full course in order for you to  
7 use the updated data. That was not what we  
8 envisioned. That's not what we're proposing. Now it  
9 almost sounds as if we're all talking about ways to  
10 have the Company delay its filing of the 2012 IRP,  
11 which, while we would normally be happy to do, we  
12 have no intention of doing if there's going to be an  
13 excess-capacity docket. We will file that document,  
14 whether it's in the excess-capacity docket or in an  
15 IRP docket.

16 That said, given that we're here and  
17 we haven't settled the case, there's a big, ugly word  
18 in Mr. McCluskey's testimony, and that word is  
19 "inadequate." And it is not correct to call the  
20 Company's supply plan here "inadequate." In fact, if  
21 the Company did what Mr. McCluskey asked, it would be  
22 "inadequate" for supply planning purposes. He's  
23 seeking a plan that is utilized for other purposes.  
24 They are legitimate purposes, as Mr. Silvestrini

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1 indicated, but that's not the way the Company does  
2 its supply plan. And it would be imprudent to do it  
3 that way.

4 So there's two things going on here.  
5 And there's nothing essentially wrong with what Mr.  
6 McCluskey is saying in that regard, except that  
7 that's not what's necessary or appropriate for a  
8 supply plan. So the words "inadequate," those are  
9 loaded words. They bring a lot of consequences with  
10 them. And the Company simply cannot accept an  
11 outcome where its supply plan -- where it did do what  
12 the Commission asked, which was to evaluate DSM  
13 measures on an equivalent basis. It did that. And  
14 it did it in the optimization -- and it did it for  
15 the first time. And so those are things that are  
16 complex and sometimes need tweaking. It did it in  
17 the optimization mode, and it worked properly. It  
18 did it in the resource mix mode, and the outputs were  
19 not correct, through no fault of the Company. And I  
20 can understand Mr. McCluskey's personal frustration  
21 at having figured that out in the discovery process.  
22 And I can understand that that is, you know, a  
23 frustration. But it's not the Company's model. And  
24 nobody else had found that problem. There are other

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1 companies that use it. Nobody else found that  
2 problem until the Company did. And the problem is  
3 being fixed. But this is not some kind of  
4 wrongdoing. It's the difficulty of doing something  
5 that is extremely complex and that hasn't been done  
6 before. The Company -- every time there's one of  
7 these IRP filings, there are refinements. Normally  
8 these cases settle and the parties come up with some  
9 language to sort of avoid the adequacy/inadequacy  
10 issue, because in almost every docket there are  
11 changes that the Staff wants going forward.

12 So we would ask that the Commission,  
13 as it did in the last docket in which there were  
14 significant disagreements, accept the IRP and  
15 indicate what it would like to see changed going  
16 forward. That would avoid, I suppose, the concern  
17 that Staff has of this issue of adequacy. But to say  
18 that the plan is inadequate as a supply plan we think  
19 is not appropriate.

20 With regard to the GDS data, the  
21 Company gave full consideration to the data in that  
22 report. But again, it has to make some kind of  
23 assessment from a supply plan standpoint as to  
24 whether it can achieve those levels of savings. And

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1 I don't believe that the Commission would want, for  
2 supply planning purposes, for the Company to not  
3 apply its own judgment in deciding whether to use  
4 those numbers. If there is an economic potential  
5 study and the type of approach taken that Attorney  
6 Hatfield mentioned and that Mr. McCluskey seems to be  
7 referring to, that is -- that would be a different  
8 question and something that is probably worth doing.

9 I think that we're here in many ways  
10 on issues that would normally not see the light of  
11 day in a normal Commission docket, but for the fact  
12 that the parties can't agree on what data would be  
13 used if there is an excess-capacity docket. And the  
14 rest of this, while it sounds like a lot of noise, is  
15 something that I'm confident the parties could have  
16 dealt with, maybe yet will deal with.

17 With regard to the timing of  
18 re-running the DSM side, once the Ventyx SENDOUT  
19 model was fixed, I think we would gladly welcome the  
20 opportunity to talk to the Consumer Advocate and  
21 Staff on that, and if we can't come to agreement,  
22 each submit a proposal in writing. Because,  
23 honestly, this is the first time we've heard it. And  
24 I would be remiss if I just started speaking on that

1 without understanding practically, in real life, what  
2 folks who have to run those models can do, understand  
3 better the state of the model, as to whether it's  
4 been fixed. And I think, you know, we can make  
5 theoretical decisions, but there are real people on  
6 the ground who have to implement them, and I would  
7 rather have them involved.

8 I don't believe that the failure of  
9 the Ventyx model, though, the SENDOUT model, makes  
10 this plan inadequate. And I think that the  
11 Commission can render a finding without that and  
12 then, hopefully, based on the recommendations of the  
13 parties, come up with a process for ensuring that in  
14 the next IRP that model will function properly.  
15 Thank you.

16 CHAIRMAN GETZ: Okay. Well, thank you  
17 very much. Then we will close the hearing and take  
18 the matter under advisement. Thank you, everyone.

19 (WHEREUPON, the Afternoon Session was  
20 adjourned at 3:53 p.m.)  
21  
22  
23  
24

1 C E R T I F I C A T E

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

11 I further certify that I am neither  
12 attorney or counsel for, nor related to or  
13 employed by any of the parties to the action;  
14 and further, that I am not a relative or  
15 employee of any attorney or counsel employed  
16 in this case, nor am I financially interested  
17 in this action.  
18  
19

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

**INTEGRATED RESOURCE PLAN - Hearing - July 14, 2011**  
**DG 10-041 ENERGYNORTH NATURAL GAS, INC., D/B/A NATIONAL GRID NH**

	54:10	<b>14,144,800 (1)</b>	58:24	<b>21 (3)</b>
<b>\$</b>	<b>1.1 (1)</b>	68:6	<b>2002 (1)</b>	4:6;14:1;42:23
	197:15	<b>140,043 (1)</b>	209:22	<b>22 (1)</b>
<b>\$1,000 (1)</b>	<b>1.9 (2)</b>	14:5	<b>2004 (1)</b>	42:23
89:22	68:10,14	<b>15 (16)</b>	104:23	<b>2-2 (1)</b>
<b>\$10 (2)</b>	<b>1:00 (1)</b>	18:16,17;22:21;36:10;	<b>2007 (1)</b>	193:24
97:3;98:4	124:7	62:10,14;70:3;76:19;	165:23	<b>23 (5)</b>
<b>\$12 (1)</b>	<b>1:21 (1)</b>	89:3;125:20;182:21,23;	<b>2008 (1)</b>	14:4;26:22;31:20;
97:3	124:12	183:6;186:9;187:8,10	172:11	44:22;129:13
<b>\$2.1 (1)</b>	<b>10 (9)</b>	<b>1-5 (5)</b>	<b>2009 (14)</b>	<b>23,007 (1)</b>
107:11	20:8;48:18;58:24;	40:4,14,20;41:18;	10:14,18;13:3;65:7;	71:11
<b>\$3 (1)</b>	83:14;109:11;125:19;	156:22	70:1,9,18,22;71:16;73:1;	<b>23,672 (1)</b>
97:1	194:7,11;212:3	<b>15,000 (13)</b>	107:8;151:5;218:24;	143:5
<b>\$4,000 (1)</b>	<b>10,000-foot (1)</b>	154:11;158:15,16;	219:1	<b>24941 (1)</b>
89:24	211:23	160:7;161:20,24;162:2,	<b>2009-10 (1)</b>	37:16
<b>\$5 (2)</b>	<b>10:20 (1)</b>	11,16;163:3,4,13,17	76:6	<b>24th (2)</b>
97:1;98:3	48:19	<b>15,625,000 (1)</b>	<b>2010 (64)</b>	122:8;126:22
<b>\$5,000 (2)</b>	<b>10:43 (1)</b>	68:18	4:4;9:4,7,21;10:12,19;	<b>26 (1)</b>
89:21,24	48:20	<b>150-day (1)</b>	11:6;13:5;14:5;18:13,	9:4
<b>\$6 (1)</b>	<b>100 (3)</b>	101:23	24;27:5;31:8,15,24;	<b>260,000 (1)</b>
97:2	178:12;187:12,16	<b>151-day (1)</b>	32:10;36:13;37:5;38:12;	67:22
<b>\$8 (1)</b>	<b>10-230 (1)</b>	101:24	39:1,20;45:10,14;46:17;	<b>28th (2)</b>
98:4	116:17	<b>16 (3)</b>	50:5,22;51:23;54:20;	39:20;123:2
	<b>105 (2)</b>	182:21,23;183:7	55:20;56:5;57:14;62:12;	<b>29 (1)</b>
	162:22,24	<b>17 (14)</b>	64:7,11,17;65:7;69:6,11;	11:14
<b>[</b>	<b>105,000 (1)</b>	17:17;18:16;24:3;	70:9,22;71:4,16;72:1;	<b>2-percent (1)</b>
	163:1	26:3;31:20;39:9,13;	73:2;76:15,23;77:9;	102:4
<b>[sic] (2)</b>	<b>10-percent (1)</b>	47:16;62:15,15;76:19;	122:8;123:2;126:22;	
31:4;131:11	110:1	129:13;136:4;166:5	127:11;130:2,18;131:3;	<b>3</b>
<b>0</b>	<b>11 (2)</b>	<b>18 (6)</b>	136:4;137:6;150:22;	
	20:8;49:22	9:21;13:21;26:3,22;	151:14;163:11;203:18;	<b>3 (13)</b>
<b>0 (1)</b>	<b>1-1 (4)</b>	83:14;166:5	212:18;213:23;215:21;	29:21,23;30:15;43:16;
82:4	43:21,23;193:1,21	<b>180 (1)</b>	218:24	46:6;71:6,23;73:4;
<b>02451 (1)</b>	<b>1-10 (2)</b>	163:15	<b>2010-11 (2)</b>	77:14;85:5;122:6;
8:3	116:15,16	<b>180,233 (1)</b>	67:19;76:7	126:14,17
<b>06-105 (1)</b>	<b>117 (1)</b>	14:1	<b>2010-2011 (4)</b>	<b>3:53 (1)</b>
165:22	187:12	<b>18th (1)</b>	14:9;73:15,22;101:22	225:20
<b>06-107 (1)</b>	<b>12 (3)</b>	9:7	<b>2011 (11)</b>	<b>30 (1)</b>
186:8	33:19;35:22;89:3	<b>19 (9)</b>	11:15;13:4,4,14,17;	198:15
<b>07 (1)</b>	<b>12:30 (2)</b>	13:3;18:10;39:9,14;	14:8;70:12;72:5;107:9,	<b>30,000 (7)</b>
99:17	124:6,11	47:16;84:20;107:7,7;	16,18	48:6;81:2,7,9;82:21;
<b>07-'08 (2)</b>	<b>124,000 (3)</b>	165:17	<b>2011-12 (1)</b>	83:6;170:17
45:7,8	54:20;55:20;64:16	<b>1st (2)</b>	71:17	<b>323 (1)</b>
<b>07-101 (1)</b>	<b>124,318 (2)</b>	10:12;27:5	<b>2012 (42)</b>	209:12
46:11	56:8;70:10		26:22;27:6;31:7;34:6;	<b>35 (1)</b>
<b>08-09 (1)</b>	<b>1-28 (2)</b>	<b>2</b>	38:24;46:16;103:16;	40:16
111:19	193:2,20		112:15;128:12,18;	
<b>08-'09 (4)</b>	<b>13 (10)</b>	<b>2 (10)</b>	130:15;132:9,14,16;	<b>4</b>
111:1,4;112:3;115:12	15:21;25:18;34:3,11;	12:11,14;22:21;30:11,	133:8;137:6,14;161:19;	
<b>09 (1)</b>	36:9;37:15;42:4;171:6;	13:70;19,23,24;73:4;	162:21;163:9;196:12,	<b>4 (12)</b>
99:16	182:17;183:3	110:3	23;197:13,19;204:2,9,	16:12;24:3;30:17;
	<b>1-3 (3)</b>	<b>20 (5)</b>	10;206:2,10,13,23,24;	31:20;41:4,8;82:4;85:4;
	115:22;193:1,20	4:8;18:12;34:4;	207:14,15;212:19;	122:22;129:12;156:23;
	<b>1-35 (4)</b>	125:19;165:18	215:20;216:2,22;220:20,	212:3
	66:8,15;71:13;72:4	<b>20,000 (1)</b>	23;221:2,10	<b>40 (7)</b>
<b>1 (21)</b>	<b>13th (2)</b>	170:17	<b>2014-15 (3)</b>	7:10;8:2,17;105:1,3,4;
4:4;9:22;10:1;30:20;	29:18,20	<b>200,000 (1)</b>	68:16;69:10;73:8	135:14
39:19;41:5;44:19;56:11,	<b>14 (8)</b>	163:15	<b>2018 (10)</b>	<b>40,000 (2)</b>
12,18;69:8;70:1,8,15,23;	17:17;42:4;49:20;	<b>2000 (1)</b>	55:5,11,16,24;56:20;	14:14,19
73:4;75:19;82:4;142:13;	57:7;62:8;84:20;182:15,	<b>2000s (1)</b>	58:3;64:23;73:24;74:4;	<b>4200 (1)</b>
167:7;212:5	22	94:22	75:4	179:13
<b>1,084,000 (1)</b>	<b>1-4 (2)</b>	<b>2001 (1)</b>	<b>20-year (1)</b>	<b>47,317 (1)</b>
54:19	194:8,16		80:11	143:6
<b>1,084,787 (1)</b>				

**INTEGRATED RESOURCE PLAN - Hearing - July 14, 2011  
DG 10-041 ENERGYNORTH NATURAL GAS, INC., D/B/A NATIONAL GRID NH**

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