In Re:

DG 10-041

ENERGYNORTH NATURAL GAS, INC., D/B/A NATIONAL GRID NH

INTEGRATED RESOURCE PLAN - Hearing

July 14, 2011

SUSAN J. ROBIDAS, LCR NO. 44

Original File 071411DG10-041NatlGrid.txt

STATE OF NEW HAMPSHIRE

PUBLIC UTILITIES COMMISSION

July 14, 2011 - 9:20 a.m.
Concord, New Hampshire

RE: DG 10-041
ENERGYNORTH NATURAL GAS, INC.
d/b/a NATIONAL GRID, NH:
Integrated Resource Plan
(Hearing)

PRESENT: Chairman Thomas B. Getz, Presiding
Commissioner Clifton C. Below
Commissioner Amy L. Ignatius

Sandy Deno, Clerk

APPEARANCES:
Reptg. EnergyNorth Natural Gas, Inc. d/b/a National Grid NH:
Steven V. Camerino, Esq.

Reptg. Northern Utilities, Inc.:
Susan S. Geiger, Esq. (Orr & Reno)

Reptg. Residential Ratepayers:
Meredith Hatfield, Esq., Consumer Advocate
Steve Eckberg
Donna McFarland

Reptg. PUC Staff:
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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P R O C E E D I N G S

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.

MS. THUNBERG: Good morning. I'm Marcia Thunberg, on behalf of Staff. And with me today is George McCluskey and Bob Wyatt. Thank you.

CHAIRMAN GETZ: Good morning. Are you ready to proceed, Mr. Camerino?

MR. CAMERINO: Yes, we are. The Company calls Elizabeth Arangio, Leo Silvestrini and Theodore Poe, Jr. They're going to be testifying as a panel.

And maybe I could just attend to a couple preliminary housekeeping details as they're taking the stand.

First of all, it's my understanding they'll be testifying to support both the initial IRP filing, as well as their rebuttal testimony. And there actually was no formal testimony filed at the initial part of the proceeding. It's just the plan document itself. And unless the Commission would want otherwise, I would simply, after they're sworn, have them identify the testimony, swear to its truth, et cetera, and not have them provide a summary. So my understanding is they would be open for cross-examination.

I would like to reserve the right, given that they are filing rebuttal in this case, and we have not heard from Mr. McCluskey in response to that, to have them take the stand again in true rebuttal if there are new things said; although, for obvious reasons, I would hope to avoid that.

And then the other procedural item is I was going to mark as the first exhibit the IRP document itself. But I've given the clerk a copy of the filing with the revised pages actually included and was not going to mark the original filing and then revised pages, but rather have one document all in one place, if that's okay with the Commission.

CHAIRMAN GETZ: Any objection to that proposal?

MS. THUNBERG: None from Staff.

CHAIRMAN GETZ: Okay. Sounds good.

MR. CAMERINO: So I think we're ready to have the witnesses sworn.

Whereupon the following Witnesses were duly sworn and cautioned by the Court Reporter:

ELIZABETH D. ARANGIO, SWORN
THEODORE POE, JR., SWORN
A. LEO SILVESTRINI, SWORN
DIRECT EXAMINATION

BY MR. CAMERINO:

Q. If we could just go one by one, starting with Ms. Arangio. Would you state your name and business address for the record, please.
A. (By Ms. Arangio) Yes. My name is Elizabeth Arangio, and my business address is 40 Sylvan Road in Waltham, Massachusetts.
Q. And Ms. Arangio, would you just give your title and responsibilities with the Company and your role with regard to the IRP that's being considered in this proceeding.
A. (By Ms. Arangio) Yes. I am the Director of Gas Supply Planning for National Grid. And what those responsibilities include is planning the resource portfolio for making sure that we meet customer requirements in EnergyNorth. And my role in the IRP was to prepare several sections within the IRP, specifically the design of the resource portfolio.
Q. Mr. Poe, let me ask you the same questions. What's your name and business address?

A. (By Mr. Poe) Certainly. My name is Theodore Poe, Jr. My address is National Grid, 40 Sylvan Road, Waltham Massachusetts, 02451. And I am a lead analyst with the Company.
Q. And what's your role with regard to the IRP that's the subject of this proceeding?
A. (By Mr. Poe) With regard to the IRP, I was responsible for generating the customer requirements forecast, the design planning standards for the Company, and also modeling the Company's resource portfolio.
Q. Thank you.
And Mr. Silvestrini, your name and business address, please?
A. (By Mr. Silvestrini) I'm Leo Silvestrini. I'm the Manager of Gas Load Forecasting for National Grid. My business address is 40 Sylvan Road, Waltham, Massachusetts.
Q. And what's your role with regard to the IRP that's the subject of this proceeding?
A. (By Mr. Silvestrini) Yeah. I prepared the demand forecast and oversaw the development of the demand forecasting models, and also collaborated with Mr. Poe to design the demand-side management

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

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

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

Q. And is it true and accurate to the best of your knowledge and belief?
A. (By Ms. Arangio) Yes.
A. (By Mr. Poe) Yes.
A. (By Mr. Silvestrini) It is.
Q. Do you have any corrections to make to it?
A. (By Ms. Arangio) No.
A. (By Mr. Poe) No.
A. (By Mr. Silvestrini) No.
MR. CAMERINO: Could we have the rebuttal testimony marked as Exhibit No. 2, please.
CHAIRMAN GETZ: So marked.
(The document, as described, was herewith marked as Exhibit 2 for identification.)
MR. CAMERINO: That concludes my direct examination.
CHAIRMAN GETZ: Ms. Hatfield.
MS. HATFIELD: Thank you, Mr. Chairman.
CROSS-EXAMINATION
BY MS. HATFIELD:
Q. Good morning, Witnesses.
A. (Witnesses) Good morning.

Q. I'd like to begin by asking you about a date that is in your rebuttal, and it appears on Page 6 at Line 19. You referred to a period from November 2009 through October 2011. And I wondered if the 2011 should be 2010.

CHAIRMAN GETZ: Someone needs to say something.

MR. CAMERINO: That information actually came from Ms. Culliford. She's not sworn in, but we can swear her in and have her give the answer to that, if that would be helpful.

CHAIRMAN GETZ: Why don't you just make the representation.

MR. CAMERINO: Okay. Apparently, 2011 is correct. It includes transactions that were made this summer that cover that period right up through October of 2011.

CHAIRMAN GETZ: Thank you.

BY MS. HATFIELD:

Q. If you would please turn to Page 9 of the rebuttal. At the bottom of the page, beginning on Line 18, you discuss the current supply/demand balance. Do you see that?

A. (Witnesses) Yes.

Q. And on Line 21, you have the figure of 180,233 MMBtu per day. Do you see that?

A. (By Mr. Poe) Yes, ma'am.

Q. And then on Line 23 you state that the forecasted peak day for the 2010 winter was 140,043 MMBtu. Do you see that?

A. (By Mr. Poe) Yes, ma'am.

Q. Do you know what the actual was for the 2011 winter?

A. (By Mr. Poe) Well, in the winter of 2010-2011, we did not have an actual peak day. It did not get cold enough. No, I do not know the back-casted number, off the top of my head.

Q. So is it fair to say that there are approximately 40,000 MMBtu that would be considered excess, based on those two numbers?

A. (By Mr. Poe) Yes, the difference between the deliverability that the Company has and that forecasted peak day for that winter is approximately 40,000.

Q. Do you know what the cost to customers is with the Company having that excess capacity?

A. (By Ms. Arangio) No. At this point in time, that's a representation of the comparison of the total resources available versus the peak day. But when

we -- as we explained further in our testimony, we can't assign a specific cost to the actual assets that would be determined, as we portrayed here, as excess.

Q. But there is a cost to customers of having excess supply.

A. (By Ms. Arangio) Yes. Well, in the portfolio, as we refer to it as well in our testimony, the "lumpy investment cycle" is such that when the Company identifies a need going out in the future, we need to contract for incremental capacity to meet customer requirements. So that at any given time there always is a slight bit of excess within the portfolio, and we grow into that excess. So, like I said, at any given time, we would never have a decrement. So the "lumpy investment" is the nature of such that you grow into that investment, and then when you maximize that investment, then you need to make another investment in additional resources to meet customer requirements.

Q. Turning to Page 13 of your rebuttal, starting at Line 8, you refer to the Commission's order in your last IRP proceeding. Do you see that?

A. (BY Ms. Arangio) Yes.

A. (By Mr. Poe) Yes, ma'am.

A. (By Mr. Silvestrini) Yes.

Q. And there you quote the Commission's order which stated that the Company should describe its process for integrating demand-side and supply-side resources so that customer needs will be met at the lowest reasonable cost while maintaining reliability and taking into account the other non-cost planning criteria. Do you see that?

A. (By Mr. Poe) Yes.

A. (By Mr. Silvestrini) Yes.

Q. And then on the following page, starting at Line 4, you state that Mr. McCluskey's testimony blurs the distinction between the role of a supply plan and an economic potential study. And I'm wondering if you can just speak a little bit more to that statement.

A. (By Mr. Silvestrini) Yes. As we looked at putting together this filing and incorporating demand-side management, we were focused on our responsibilities in preparing a supply plan that will meet customer needs under, you know, the required design criteria, design date, design year normally in your criteria. It was only through subsequent discussions with Staff that we discovered that there was probably a

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

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

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

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

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

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

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

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

system we need them the most, we can't really rely on those as supply planners. On the other hand, to the extent that there is more energy efficiency that we could be doing that's cost effective, I think it's valuable to identify that.

And if you think about a process -- and this came up during discussions we had with the Staff -- if you start with an economic potential study, or somewhat of a technical potential study, and then scale that back to what's reasonable and practical to put in a supply plan, I think that's a valuable exercise. But if the intention was to do an economic potential study and put that in your supply plan, I think as a supply planner I would be -- I don't know. That would be very poor judgment on my -- on our part.

Q. And earlier you read with me the language from the Commission's order that you cite on Page 13 that states that customer needs will be met at the lowest reasonable cost while maintaining reliability and taking into account other non-cost planning criteria; correct?
A. (By Mr. Silvestrini) That's correct.
Q. So the lowest reasonable costs also need to be a

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

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

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

know how they would use it.

MS. HATFIELD: Thank you, Mr. Chairman. I have nothing further.

CHAIRMAN GETZ: Thank you. Ms. Thunberg.

CROSS-EXAMINATION

BY MS. THUNBERG:

Q. Good morning.

A. (Witnesses) Good morning.

MS. THUNBERG: We have not yet marked for identification Mr. McCluskey's testimony. So I'd like to do that at -- well, actually, I don't have it authenticated, but I do have some questions on it. Do you have his testimony in front of you? And I assume the Commissioners have a copy of Mr. McCluskey's testimony? When I say updated, there were some typographical errors that were corrected on October 13th.

CHAIRMAN GETZ: Well, we can mark the October 13th version of the testimony for identification as Exhibit No. 3.

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

MS. THUNBERG: Thank you.

BY MS. THUNBERG:

Q. And I'd just like to draw your attention to the recommendations in Mr. McCluskey's testimony on Pages 7 and 8. And I just want to walk through where we have agreement, because in your rebuttal testimony you've made a statement that there's agreement on specific recommendations and then there are differences on others. So I want to just hone the Commissioners in on this.

With respect to Recommendation No. 2, is it the Company's position that there is agreement between Staff and the Company on Recommendation No. 2?

A. (By Ms. Arangio) Yes.

Q. And also with Recommendation No. 3?

A. (By Ms. Arangio) Yes.

Q. And Recommendation No. 4?

A. (By Ms. Arangio) Yes.

A. (By Mr. Poe) Yes.

Q. And staying on the same page, going back to No. 1, is it fair to say that the dispute between Staff and the Company on the proposed proceeding on excess, the dispute focuses on which planning period -- which planning date to use? Is that accurate?

A. (By Mr. Silvestrini) Yes, it is.

A. (By Mr. Poe) Yes.

A. (By Ms. Arangio) Yes.

Q. And specifically, if I'm mischaracterizing [sic] your Company's position, is the Company would prefer to use the demand forecast and all the other forecasts that are coming out of the 2012 IRP rather than the 2010 IRP; is that correct?

A. (By Mr. Silvestrini) Yes.

A. (By Ms. Arangio) Yes.

Q. And in your rebuttal testimony, I believe you've characterized Staff's position as Staff does not wish to have -- or if we go forward with this excess proceeding, that it is not willing to allow updates to the 2010 IRP? Is that your understanding of Staff's position?

A. (By Mr. Silvestrini) Do you have a reference to that testimony?

Q. Yeah, I can. I'm looking at your rebuttal testimony on Page 4, and I'm at Lines 17 through 23. And I just want to make sure that the Company is understanding Staff's position. And Staff's position is that it would prefer to use in this new proceeding the 2010 IRP and any updates up until the time of

rebuttal that the Company may have. Is that the Company's understanding of Staff's position?

A. (By Ms. Arangio) Could you --

A. (By Mr. Silvestrini) Yes, it is.

A. (By Ms. Arangio) I'd just ask if you could repeat the beginning part of your question.

Q. Sure, sure. It appears from the rebuttal testimony that National Grid understands Staff's position that, when we go forward with this new docket, we only want you to use the 2010 forecast; we don't want you to update them. And I'm representing to you that it is inaccurate, that Staff is willing to allow updates. And so I'm just trying to get the Company's agreement on which -- how does it view -- what is Staff's position?

MR. CAMERINO: Could I -- I hope this is appropriate. Could I just ask that the questions be what is the Company's position, and the Staff can state their position? I'm concerned that we're going to get into some kind of confusing feedback if we're trying to get what the Company's understanding is of Staff's position. It just sounds like we're doing settlement negotiations on the stand. I think the witnesses can just say what they are asking the

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

overlooked that we had a couple more questions to ask on direct, and we're asking your allowance of that. We've checked with the other parties, and they're okay with that.

CHAIRMAN GETZ: You may proceed in a minute or two.

(Cmsr. Below leaves proceedings briefly.)

(Pause in proceedings)

(Cmsr. Below returns to proceedings.)

CHAIRMAN GETZ: Ms. Thunberg.

MS. THUNBERG: I've lost an exhibit.

(Pause in proceedings)

MR. CAMERINO: Thank you.

BY MS. THUNBERG:

Q. We just have a few more questions that Mr. McCluskey is going to ask you. And this is pertaining to demand-side resource assessment.

CROSS-EXAMINATION

BY MR. MCCLUSKEY:

Q. Thank you. If you could turn to Page 14 of your rebuttal testimony. The subject matter is going to be the paragraph beginning on Line 11 through essentially the end of the page. In that paragraph, you state that -- effectively, you state that if the

Company had used the potentially obtainable scenario in the GDS study as the basis of its energy-efficiency planning, it would have resulted in annual savings target equal to 8.7 times the savings goal in the approved 2010 energy-efficiency programs. Is that a fair summary of what you're saying in that paragraph?

MR. CAMERINO: I just want to object to the question, because the wording is critical, and he's recharacterizing what's on the page here. I'm just concerned about that the words in the question are not what's on the page here.

A. (By Mr. Silvestrini) Would you repeat the question, please?

BY MR. McCLUSKEY:

Q. Sure. I'm paraphrasing the paragraph that I referred to. And I believe the Company's stating that, had it used the potentially obtainable scenario in the GDS study as the basis of its energy-efficiency planning, that would have resulted in an annual savings target equal to 8.7 times the savings goal in the approved 2010 energy-efficiency programs. And my question is, is that a fair summary of your testimony on that page?

A. (By Mr. Silvestrini) No, it's not.

Q. Could you explain where I've got it wrong then?

A. (By Mr. Silvestrini) Yeah. We looked at using the technical potential study as defining kind of the outer limits or the upper bounds of what the potential energy efficiency could be. And even the most conservative case, as we state here, was 8.7 times what our current programs are. And it was our judgment that to go from our current programs to something that's 8.7 times that was too extreme of a limit, and we needed to redefine the limit.

Q. But isn't that what I just said, that if the Company had used the results from the obtainable -- the potentially obtainable scenario of the GDS study, it would have meant that it would have had to increase its target by 8.7 times?

A. (By Mr. Silvestrini) I guess I'm confused by what you mean by "target." Is that an upper limit?

Q. Well, I'm not saying it's the upper limit. I'm simply paraphrasing what you have in this testimony, that if your planning for future programs had been based on the results of this study, the target would be 8.7 times the goal in the 2010 efficiency programs.

A. (By Mr. Silvestrini) Okay. I don't mean to get bogged down in semantics. But we didn't have a target, per se. What we were trying to do was evaluate how much demand-side management we could put in our supply plan that's cost-effective. But to do that, you have to put some constraints. And in all of the contracts and all of the supplies that are in our portfolio, when you do an optimization you have certain constraints, whether they're cost constraints or annual quantity or daily quantity constraints, that's how you model it. So when we model energy efficiency, we need to put not just a cost of those measures and the cost associated with the savings, but we needed to put constraints in there and say, well, what's the maximum we could take of these. And in terms of -- what we were hoping to do was to use the GDS study to define what those constraints were. When we looked at it, the magnitude was so much different than what our current programs were, that was not a realistic constraint.

Q. So you're saying the... let's talk about where the 8.7 came from.

Could you explain to me how you derived the 8.7 figure?

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

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

Q. And that figure itself came from the various percentages, class percentages, that were in the GDS study; correct?
A. (By Mr. Silvestrini) That's correct.
Q. And those percentages related to the year 2018; is that correct?
A. (By Mr. Silvestrini) Yeah, I don't recall exactly what volumes. It was data that was from the filing, year-end filing.
Q. Subject to check, would you agree that the GDS study said that for EnergyNorth, in 2018, the potential savings under the potentially obtainable scenario is, according to the Company's calculations, 8.5 percent --
A. (By Mr. Silvestrini) Yes.
Q. -- in 2018?
A. (By Mr. Silvestrini) Yes, I'll take that, subject to check.
Q. So no one is suggesting that the Company move from the savings in the 2010 program of 124,000, roughly, to the figure of 8.5 percent of their total load instantly. No one's suggesting that; correct?
A. (By Mr. Silvestrini) No, that's correct.
Q. We're talking about 2018 possible wrapping up of

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

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

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

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

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

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

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

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

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

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

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

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

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

Q. Okay. Given the fact that the programs that you modeled have either already been implemented or are programs that you believe can reasonably be scaled up, could you explain what appears to be the contradiction between your claim that a reasonable savings target or upper limit is two times the 2010 savings goal, which I think we agreed before was roughly 1 percent of total demand, and the results of your modeling at the end of the planning period 2014-15 produced a savings of 5.5 percent? That's almost six times the savings goal for the 2010 program. How is that -- you say that the upper limit is two times the savings goal -- in fact, you actually said less than two times -- and this, the results of your modeling, is indicating it's much higher than that?
A. (By Mr. Poe) Can we turn to Chart IV-D-1 of the Company's filing, please?
CMSR. BELOW: What page is that on?
A. (By Mr. Poe) Right after that is Roman Numeral IV-56. Yeah, IV-55 is the page. It's masked within some of the printout of the table.
Is everyone there? To go through Chart IV-D-1 again, as I was explaining earlier, the Company,

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

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

over and above the targeted values from the 2010 program.
Q. So if I'm understanding the results of the resource mix analysis shown in the Attachment 1-35 Supplemental, starting in 2011, the Company begins to add in these, what we call "tier" programs. And in the next year it makes further expenditures on those programs, which produce additional savings compared to the savings from the programs in the prior year. So as long as the Company continues to make expenditures on these tier programs, then the cumulative savings will rise. Is that what's happening in this analysis?
A. (By Mr. Poe) Yes. If you look at the line that we had referred to on the attachment, "Total DSM Requirements," the volume is rising year by year. That same line is in the third block in the top section labeled, "DSM Reduction in Requirements." And you can see the total matches the total from above. And then the components that the model was selecting are listed individually on an incremental basis -- no, I'm sorry -- on a cumulative basis, because it is cumulative in each one of the columns, so that every year we continue to get the program one

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

that's what we attempted to do. And that's how we modeled it, so that we could fit it into the optimization model, and then, as Mr. Poe described, look at several different scenarios, base-case, high-case and low-case scenarios, and then letting the model do the determination of what levels of energy efficiency we could take.

Q. And then how do you move from the planning model in those low-base high-case scenarios into the program proposals for the actual efficiency programs that come before the Commission?

A. I think there needs to be a better integration of those two processes, I think both within the Company and with the Commission, in terms of identifying, because it seems to me we've got two things going on, not completely in a vacuum, but somewhat divorced from each other. We've got program assessment going on, where we're looking at what it's going to take to implement it, who are the beneficiaries going to be, who are going to bear the cost of that, and what are the bill impacts? Those are very real issues. In fact, I was involved in that back in the early 2000s when we first rolled these programs out, looking at what the bill impacts were going to be.

And on the other side, we need to look at, well, if there's potential to do more, how much more can we do, and how cost-effective is it, without just opening the flood gates and not looking at what the budgets and the bill impacts are. And that's where I think, as I say, if we could integrate those two processes better, we could probably come up with a better answer.

Q. I would think you also, because you've been asked this time to treat DSM as a supply option, that your -- is it fair that you've been fairly conservative in what you've calculated for DSM savings because you don't want to get caught just hoping it comes through and then it doesn't?

A. (By Mr. Silvestrini) Supply planners by their nature are conservative.

Q. And yet, you then have to shift over to developing the proposals in the actual programs. And if the program planning is constrained by a conservative approach for the planning document, do you end up limiting the vision of the people designing the programs, who are looking at it for a different purpose, and yet they've got a document that sets out a conservative expectation?

A. (By Mr. Silvestrini) I think that's where the value of the economic potential study would come, because that would help us define what that bound would be from a supply planing standpoint. And then you could ratchet that down to what's feasible, both from a delivery standpoint and across a bill-impact standpoint, and you could then better balance those two interests.

Q. What in the planning process is there that helps guide decision-making on particular programs if direct experience over the forecast period turns out to be better or worse than you might have known, or when you see actual results come forward? Do you go back into the plan to help guide decision-making about the next level of DSM in this case?

A. (By Mr. Silvestrini) I think that would be the ideal. I don't know that we're there yet. And that's what I said earlier. I think they're somewhat divorced, and I think it would be better to integrate the two.

And I think the other thing we need to look at is we may get -- we may do an evaluation of DSM on an equal footing with supply-side resources and find out -- let's say we can justify doubling the programs from that standpoint. Well, my understanding is our programs have gone from $3 million a year to $5, almost $6 million a year. If we double that, do we want to go $10 or $12 million a year to spend on these programs? And I think that's the other constraint on how far we go. But that's done in the context of putting the programs together and looking at what bill impacts are.

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

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

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

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

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

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

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

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

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

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

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

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

So now we're looking at what volume of excess, if you will, is acceptable. Right now, we're in the position that we do have excess supply in the portfolio. And we've discussed, and Mr. McCluskey put it in his testimony, the reasons for that. We have to make contractual commitments -- some, like I said, one-year, five-year, and the Concord Lateral was a long-term commitment we had to make -- so that we can say, okay, if we look at that, do we need to have this in the portfolio? We may not. For example: An LNG facility. We may not necessarily have to execute -- excuse me -- have to call in that for the peak day. But once those resources are in your portfolio, you have the ability to use them. So within the season we may not project that we're using, for example, LNG in our portfolio. But what was experienced this past winter season, we did expect to use some, but we used more volumes than we originally had forecast in our cost of gas because they represented a least-cost dispatch.

So, to target one individual resource to say that that specific resource is the excess, we really -- it's very difficult to do that when you just look at the numbers, because each resource brings with it flexibility. Every day we need to have -- we need to meet our requirements for balancing on the Tennessee Gas Pipeline.

Over this last winter season, the 2010-2011 season, we had over 70 days within the 150-day or 151-day winter period that we had to keep within a

tighter tolerance on Tennessee. So we had to nominate our volumes that we expected to forecast our customers to use for the day, make our nominations on the pipeline, and stay within a 2-percent tolerance. So one of the attributes for our supply needs is to make sure we have the flexibility to do that, to be able to meet those requirements and stay within that balancing tolerance and not incur any penalties.

And then the reliability of it, there are issues upstream on a pipeline. We all know that our on-system facilities, we reported those as our last line of defense. Those are facilities that we have control to turn on. So whether that's for supply reasons or for system distribution pressure issues on our own system, or if the Tennessee Gas Pipeline, if we're not experiencing historical pressures that we need to operate that, we can turn our own facilities to boost those pressures.

So when we look at -- we don't necessarily look at a finite number and define that as okay to be excess. Now we'll have to look at that in terms of going forward and what each resource in the portfolio adds to the portfolio. So we do incorporate both price and non-price factors I guess is the simple

answer to the question. And we don't have an exact volume that says it's okay to look at excess or what volume specifically is excess. But we'll also look at -- I think this was a question that I had earlier referenced -- that we'll have to look at the longer term effects of, for example, potentially -- I think within our testimony we talked about -- in our rebuttal testimony we talked about if we run our models, and, for example, it says that we should de-contract with pipeline capacity, we have to think about the long-term ramifications of that. And if we do turn back pipeline capacity, is that going to be there when we need it? So, in fact, we may -- for example: We have a contract coming up for renewal that's delivered off of the pipeline, our AES Granite State contract that's coming up for renewal in 2012. Well, if we make the decision -- that contract actually has different renewal terms. If we make that decision, for example, not to renew that contract, is that going to be there when we need it in two or three years, or whatever the planning horizon will be that we need to add capacity?

So I guess the short answer to your question is, it's really quite a bit involved in looking at what

we would contract for and not contract for, looking at the long-term planning for the portfolio and how to meet requirements.

Q. Well, I guess a lot of what you described sounded to me like operational decisions and individual purchasing decisions. And what is there in the plan itself that helps to inform those decisions? You said there's no set requirement. You must be X-percent excess for liability purposes or anything. I take it there's no parameters like that. So what -- are there any terms in the plan that guide you in making those purchase decisions or decisions about whether to go to this contract or to this propane supply to make all of those operational decisions you make every day? Does the plan guide you, or does it -- it's written, but it doesn't really have a lot to do with what happens day to day?

A. (By Ms. Arangio) Well, the plan pretty much describes the process that we look at. So, like I said earlier, our driver is really making sure that we have the resources to meet the design day and the design season. And we almost had a design day in 2004, so we needed to meet what we statistically planned for.

And, you know, people think, oh, once in 40 years, oh, I'm not going to be here when it's once in 40 years. Well, I was, and hopefully it won't occur for another 40 years. But that always has the driver of -- I think you asked as well about conservative. We have the planning standards that we must have. So the plan details all of that. And then it also details the process in which we go through.

So when we look to renew a contract, we also look at alternatives that are available at the time and say, if we let this contract go, for example, what are the alternatives that we can meet those customer requirements with. And if those alternatives are more expensive or if they don't exist, or if they also don't provide the same flexibility and reliability that you need that the current resource has, you also have to take that into effect as well. So it's the big picture. But then it all boils down to, you know, on day-to-day decisions, if we have a pressure issue, we need to make sure that we have a resource that we can turn on to boost the system pressure so that we don't have any impact on that day for customers. So it's kind of a big picture that goes down to really a

day-to-day issue as well.

Q. You also said that you have to make investments, "lumpy investments," and then "grow" into them.

A. (By Ms. Arangio) Right.

Q. And you're currently in excess because both of some those big investments and because of the drop in demand in the economy. How long are you projecting it will take to grow into that supply?

A. (By Ms. Arangio) At this time, we're -- well, that will be flushed out when -- that's why, one of the reasons that we're looking to file -- well, obviously, we need to file our next supply plan in February, anyway -- is to use all of the most updated information that we have to determine what that time period is. So I can't tell you at this moment in time what that is because we don't have the updated information.

Q. Do you make decisions to sell off any of your supply? Is there a market to sell off any of your supply to recoup some of the costs?

A. (By Ms. Arangio) Oh, certainly. Within our rebuttal testimony -- I think it might have been the first question somebody asked. I think the OCA asked about if we had an incorrect date. When we have

incremental -- excuse me. When we have excess resources within the portfolio, whether it be for a day or any time period, we look to optimize those resources and sell them in the marketplace. So I think on page... let's see, of our rebuttal testimony... wait a minute, I'll just find it here. Oh, on Page 6 of 19 here, starting with Line 19, I speak to, for instance, from November 2009 through October 2011, the Company engaged in portfolio optimization activities. That reduced the cost of gas to customers by $2.1 million. So what we look to do in the marketplace is to sell excess capacity on a day or a month, optimize the portfolio. And those savings and those revenues flow back to customers.

So, to further elaborate a little bit on why the 2011 date is correct, is we engage in some activities for a twelve-month period. So we know we have guaranteed revenues coming back through 2011. We already know about that. We're already contracted for those. And then there will be incremental until that date. So we do -- anytime we have excess in the portfolio that we're not using to meet customer requirements, we do look to optimize those assets in the marketplace. And those revenues then do flow

back to customers, and they see that as a reduction to the gas cost.

Q. But the plan itself does not give you a threshold amount over which you should be looking for those opportunities, or does it?

A. (By Ms. Arangio) No. That's actually -- it doesn't have a prescribed volume. That's part of the management of the portfolio, so that -- for example: In the off-peak period, which we look to in the gas supply world as April through October, typically we, along with our brethren in the Northeast, have excess capacity in the summertime, because most of our capacity obviously is used to meet the peak periods. And that may also be just on transportation volumes. It may be on storage volumes. It may be on LNG and LPG volume. Anything that we wouldn't be using to meet customer requirements that we can sell and that we make sure that -- in our port portfolio, for example, we have to -- we create what we call a "storage rule curve" at the beginning of each winter season. So that dictates where we need to be with our level of storage in our underground storage facilities, as well as our supplemental facilities, so we don't -- we actually have a requirement here in

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

pipeline, instead of allowing you a 10-percent daily tolerance from the nomination to your usage, it has to go down to 2 percent before they incur either a balancing charge or a penalty. So we have to also take those parameters into account when we look at what we optimize as well and what we hold on to, to make sure that we can meet our customer requirements.

Q. Mr. McCluskey took the Company to task for, in his view, turning to propane more than really it should have and that there was a more cost-effective approach with the Granite Ridge contract.

Is there -- what is there in the plan that helps you make those decisions with which way to go when you need to pull on supply? Is there anything that guides you in using propane at a particular time?

A. (By Ms. Arangio) I think our best guidance is the least-cost dispatch in a reliable manner. And what I mean by that is that we know we have an obligation to, once resources are in the portfolio and contracted for, we have an obligation to dispatch those in a least-cost manner. But I also put on that caveat the reliability. If certain times we may -- and I know Mr. McCluskey, in his testimony, there was a reference to specific days, I believe in the

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

we have to, because we have to contract for them to meet customer requirements. I believe, if I'm thinking about it, in the '08-'09 period, the Concord Lateral project was not in service. So I believe we had to contract for certain liquid supplies, be it LNG or LPG, to make sure that we had sufficient volumes to meet peak-day and the seven-day requirement. So that may have also been a factor. So those things are taken into account as well, why we would dispatch certain supplies over other supplies.

Q. In the recommendations that Mr. McCluskey made, and the Company has agreed to accept, do you anticipate that that will require a significant change in the plan being developed for 2012 in substantive management, or is it more that it will entail greater detailed explanation of things that are already going on?

A. (By Ms. Arangio) I'll speak to the supply resource portfolio and let Mr. Silvestrini and Mr. Poe speak to other issues.

But I think, in fairness, we can say they're probably some of the things we take for granted that we do every day. So, in fairness to Mr. McCluskey, some of his points, it could be more detailed within the plan and future plans going forward. And, you know, the Company has obviously agreed to do that. So if we need to document different types of decision-making or expand on certain things, which he alluded to in his recommendations, we certainly agree to do that. And that would make some sense, so that the Staff has a better understanding of what, I guess, is in our head and isn't necessarily on paper, so that they can understand why we make the decisions we do. And if they don't agree with that, we have a conversation about that.

Q. Any other comments?

A. (By Mr. Silvestrini) Yeah, I would say not major changes. I mean, the way these filings and proceedings generally play out, when we come in with our plan and we present it, there are always tweaks and improvements that we make going forward. And I would put them under that category.

I think one of the biggest changes we made was putting DSM in as a supply side. I think that was -- I would call that a major change. But for here, it was more just a modification and explanation of what we're doing and an understanding of what the

expectations from the Commission and the Staff are.

Q. Thank you.

A. (By Mr. Poe) I would agree with my co-workers.

CMSR. IGNATIUS: Thank you. Nothing else.

CHAIRMAN GETZ: Mr. Camerino, any redirect?

MR. CAMERINO: Yes, limited.

REDIRECT EXAMINATION

BY MR. CAMERINO:

Q. Let me just start, Ms. Arangio, with something that Commissioner Ignatius was asking you about at the end.

She asked you about a portion of Mr. McCluskey's testimony, where he referred to what he said was the Company using higher-cost propane rather than the AES or Granite Ridge supply. Do you recall that?

A. (By Ms. Arangio) Yes, I do.

Q. And that relates to, if I understand correctly, a past decision on which resource to dispatch as opposed to something that would be in the supply plan; is that a fair statement?

A. (By Ms. Arangio) That's correct.

Q. Are there proceedings in which the Commission reviews

the dispatch decisions that the Company has in fact made?

A. (By Ms. Arangio) Yes. In each of the reconciliation -- the COG reconciliation filings, we typically detail most of why we dispatch, specifically in the winter period, why we dispatch certain supplies over other supplies. Yes, that is reviewed.

Q. And so those years that are referenced by Mr. McCluskey, those have already been the subject of review in a past docket by the Commission?

A. (By Ms. Arangio) Yes. Specifically, the '08-'09 would have been as well.

Q. And assuming for the sake of argument that his statement is correct, that the propane was higher cost, is it your testimony that there could be non-cost reasons that the propane was dispatched?

A. (By Ms. Arangio) Yes.

Q. This is a question for Mr. Poe. I want to show you a data request responded to by Mr. McCluskey in this proceeding. I'll provide copies to everyone. This is OCA 1-3. And I'd just ask you to read that and refresh yourself for a minute while I provide copies.

(Witness reviews document.)

MR. CAMERINO: Just for the record, I'll explain this in a minute, but there's actually two pages attached there.

BY MR. CAMERINO:

Q. And you see that the Consumer Advocate asked Mr. McCluskey whether the Company had been asked about why Granite Ridge had not been utilized?

A. (By Mr. Poe) Yes, I see it.

Q. And what's Mr. McCluskey's response?

A. (By Mr. Poe) Mr. McCluskey responds that the Company responded to Staff discovery on the issue. It argued that sendout requirements that exceeded the Company's pipeline capacity were met using less-expensive, Company-owned supplemental resources. See response to data request entitled Staff 1-10."

Q. And the second page that's attached, Staff 1-10 from DG 10-230, is that the response Mr. McCluskey refers to?

A. (By Mr. Poe) That must be the response he's referring to.

Q. And do you know, is that docket a prior cost-of-gas proceeding, meaning prior to today?

A. (By Mr. Poe) Yes, it is.

Q. And so the issue that was asked about by

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

address it in a rate-making proceeding -- the obvious one would have been the cost of gas -- those proceedings are very short, and there's really not enough time in those proceedings to address this kind of issue. Hence, we've proposed a separate, a stand-alone proceeding to address cost issues associated with this excess. If we go through the 2012 proceeding, get to the end of that, the Commission thinks it's appropriate to address this excess issue in a separate proceeding, now we're probably two years on before we really get to that issue. During this time, ratepayers are paying for this excess. We think it's appropriate to address it as quickly as possible and make a decision: Is it appropriate to have that excess or not, and what are the cost-making consequences?

So we think it's just proposed by the Company to roll this over and have further delay and further put off the time, where we should be resolving this issue once and for all.

Q. Mr. McCluskey, there was some discussion earlier with National Grid on trying to get their opinion on what the right level of excess is, and you started alluding to it. But I was wondering if you could

succinctly offer Staff's opinion on that question: What is the right level of excess?

A. The excess that we're talking about is relative to what's known as the design-day demand, rather than the actual peak-day demand in any particular year. The design-day demand is an estimated demand, peak demand, for the company based on certain extreme weather conditions, conditions what are not likely to appear for, could be many, many years before we experience these conditions. So it's a demand which is considerably above typical peak-day demands.

So, in effect, what that design-day demand does, it requires the Company to have a certain amount of resources that are in excess of normal peak demand. So you've already got a reserve built in, in order -- for what purpose? In order to provide a level of reliability that, if weather conditions from year to year do vary, that they will have sufficient resources to handle those without cutting off customers. That's the idea of it. It's a standard to maintain reliability.

The excess that we refer to in our testimony is over and above that. So when you say, what's the appropriate level of the excess? My answer is zero.

You really shouldn't have less than the design-day demand, because that's impacting your reliability. But if you have more than the design-day demand, you are effectively imposing a higher reliability, which has to be paid for by customers. So if the appropriate level of reliability is specified by the design day, then the goal for the Company should be to have zero excess capacity, or something very small, a very small percentage above that level.

CHAIRMAN GETZ: This is all covered in your testimony; correct? I mean --

A. I think I may have alluded in my testimony to the fact that the design day is not a normal peak demand. It's something that happens once in 40 years, typically, from a statistical point of view.

CHAIRMAN GETZ: Okay. Let's focus on anything that's new in response to the rebuttal, because we've had the opportunity to go through the testimony.

BY MS. THUNBERG:

Q. Mr. McCluskey, there was a question posed earlier, which I don't think you have addressed in your direct testimony, about how long it would take the Company to grow into this excess. And does Staff have a

position on that?

A. Yes. Excess that we calculated, we estimated the rate of growth reflected in the Company's load forecast that's in the 2010 filing; it would take 17 years to absorb that excess. So if the rate of growth in the future is higher than that, then the number of years would be less. If it's lower, then it would be longer.

Q. Mr. McCluskey, I'd like to draw your attention to Page 8 of your rebuttal testimony. And there's a statement on Line 9. If the pipeline capacity is turned back, does Staff have an opinion on whether it would recommend pipeline capacity being turned back or not?

A. No. Staff certainly does not suggest that pipeline capacity would be turned back in order to deal with the excess. We said that it would be -- the obvious candidate would be the highest-cost resource. And highest-cost resource, from a variable-cost standpoint, is the Company's propane facilities. So if a decision is made to reduce the excess through retiring or terminating certain contracts, then we think the propane plants would be the obvious candidate to do that and not the pipeline capacity.

Q. My last question to you, Mr. McCluskey, and you started answering this earlier, but I'd like to keep it in one succinct place, is now that you've heard with respect to Recommendation No. 5 that the Company would rather submit its updated resource mix analysis with the 2012 IRP rather than the 2010 IRP, do you have an opinion or have any concerns with that Company-suggested approach?
A. I thought I already responded to that, indicating that the Commission really needs to have the correct demand-side assessment and the associated least-cost Integraded Resource Plan in this proceeding in order to give them guidance as to what to include in the 2012 filing.
Q. Thank you.

MS. THUNBERG: Mr. McCluskey is available for questioning.

CHAIRMAN GETZ: Ms. Hatfield.

MS. HATFIELD: Thank you, Mr. Chairman.

CROSS-EXAMINATION

BY MS. HATFIELD:

Q. Good afternoon, Mr. McCluskey.
A. Good afternoon.

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

from a practical standpoint you may not be able to achieve that kind of saving that you got from your planning studies, so you might have to trim it back. And obviously, everything has got to be cost-effective. And Mr. Silvestrini did say that rate impact is also a major consideration. And I certainly agree with that. To me, that's the last step in the exercise. You go through this resource planning exercise, compare it with the work that's being done on the potential for doing DSM. And then the last step is to say, well, how much is this going to cost; what's it going to mean to customers who don't directly benefit from these programs; is that the kind the rate of impact that we can agree to. So that's the process. I think it all starts with the planning document in the planning proceeding and then works its way through to the core programs, with rate impact being the last issue for consideration.

MS. HATFIELD: Thank you. I have nothing further.

CHAIRMAN GETZ: Thank you. Mr. Camerino.

CROSS-EXAMINATION

BY MR. CAMERINO:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

that's what I used. How that is built up is the Company's responsibility.
Q. Okay. And so assume for the sake of argument that the Company in fact used all of its current firm pipeline supplies. Granite Ridge would be in there, right, because Granite Ridge is one of its firm pipeline supplies right now?
A. I would expect that it would be included in that. That's correct.
Q. When does the Granite Ridge contract come up for renewal?
A. My understanding is that the pricing is renewed every year.
Q. So next year that contract may or may not be renewed?
A. It's a little while since I actually looked at the terms of the contract.
Q. We actually could find out by looking at the IRP, right, because it lists all the contract termination dates?
A. That's -- well, I think the fact that the pricing is renewed every year, I believe they indicate that it's up for renewal one year on.
Q. All right. Just assume for the moment that Granite Ridge comes up for renewal next year and could be

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

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

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

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

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

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

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

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

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

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

CHAIRMAN GETZ: So marked.

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

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

A. Okay.

Q. And in the middle of the page there's a question.

"Did the Company demonstrate, in the IRP or otherwise, that expanding the Concord Lateral and purchasing firm supplies on either maritime or PNGTS is the least-cost option to supply the incremental volumes?

"ANSWER: No, it did not.

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

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

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

Do you remember that testimony?

A. I do.

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

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

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

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

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

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

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

Q. Okay. Not the Concord Lateral.

A. The Concord Lateral is a peaking resource.

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

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

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

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

Concord Lateral docket. And again, I'm not -- I wasn't intending to mark this since obviously the Commission has access to it. But everyone would want a copy.

(Pause in proceedings)

Q. And if you look at Page 13 in that order, if you look at the second full paragraph, I'm going to read it to you.

"Liberty concluded that the proposed agreement with TGP provides cost-effective access to sources of peak-period supplies that the Company requires. Liberty agreed with the Company that, besides the question of cost, there are some attractive aspects of the Concord Lateral upgrade option, including the fact that the availability of that capacity would allow the Company to make certain adjustments within the portfolio that might lower other costs and have the effect of offsetting some of the cost of the proposed agreement with TGP. Liberty stressed that the Concord Lateral upgrade is not a resource that the Company can use to meet its requirements for peaking capacity, but rather as a means of providing access to potential sources of peaking capacity that are in addition to the Company's existing on-system

peaking plants."

Is it fair to say that the Commission knew and the Liberty witnesses recognized the very issue you were talking about in the prior IRP about the Company's need for peaking supplies, and they took that into consideration in their recommendation in the Concord Lateral docket?
A. Yes. I believe that's in essence what they said in the paragraph that you just read.
Q. And in fact, even in this case -- this order is February of 2008 -- Liberty is expressing concerns about the need for additional peaking supplies, about whether there's enough on-system peaking capacity.
A. I recall they did because of the performance of the economy and the demand for gas was very different then than what it is today.
Q. And this was two and a half years ago; right?
A. That's correct.
Q. So a lot changes in a couple of years?
A. That's correct.
Q. Now, your testimony talks about -- I'll withdraw that. I'm sorry.

By the way, do you know how the cost of LPG is determined for purposes of determining dispatch on a

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

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

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

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

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

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

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

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

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

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

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

relative to the alternative resources that you could have acquired.
Q. Let me ask you this way: You haven't proposed to retire the Tilton facility, have you?
A. That's correct.
Q. Why not?
A. Because it provides pressure support for the distribution system.
Q. So you might dispatch Tilton for pressure support, even if there were lower-cost pipeline supplies available.
A. No.
Q. No?
A. There are no lower-cost supplies available in Tilton. That's why to keep that resource there, to provide that pressure support.
Q. And that's because the pressure support's needed in the area that's proximate to that plant; right?
A. Correct. They can't get additional lower-cost supplies in there.
Q. It's not going to be able to provide pressure support to Concord.
A. What, the Tilton facility?
Q. Right. In other words, the system doesn't operate

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

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

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

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

of litigating what might be in an excess-capacity proceeding. I understand the Company's position is they agree with the five recommendations from Mr. McCluskey, one of which is open this other proceeding, though the testimony disputes the underlying basis for the conclusions that there is excess capacity. So I'm just wondering where we're going with this, if there's going to be a closing statement that says the Company no longer agrees that there should be an excess-capacity proceeding based on the cross-examination today.

MR. CAMERINO: Yes. Well, first of all, I think I should say I've got about five more minutes, maybe less.

CHAIRMAN GETZ: So I waited too long.

MR. CAMERINO: Yes. Yeah. But I think your characterization of the Company's position is not quite right. The Company said that it had indicated to Staff that it could accept all five recommendations if the data that was used was from the new IRP. But I think Mr. -- the Panel's testimony says quite clearly that they don't believe such a proceeding is necessary. And what I'm just trying to demonstrate is not just that the Company

would disagree with the finding that these plans should be retired, but that to undertake such a proceeding, when the entire thrust up until now of the Staff's view has been to safeguard these facilities, we just think it's not a good use. And the testimony says it's not a good use of the Company's or the Commission's resources, and it's unnecessary. If the Commission decides it wants to undertake that, obviously, we will be there to address it. But we would prefer that there not be such a proceeding.

CHAIRMAN GETZ: Well, let's --

MR. CAMERINO: But I will wrap it up.

BY MR. CAMERINO:

Q. I just want to ask you a couple more questions about the value of these facilities, and then I'll close.

I want to read you some statements that Mr. Knepper made at a technical session about a month ago. You probably heard these from Staff already. I'd just ask you if you would agree with them. And these were posed to Liberty Consulting -- to Liberty Energy in the acquisition dockets. First, he said --

A. Sorry. I missed what you said. These are?

Q. These are statements by Mr. Knepper to Liberty

Energy. Probably Mr. Frink has shared these with you already. I want to ask you whether you agree with them.

He referred to the on-system supplies as "an asset that can't be replaced." Would you agree with that?

A. No.

CHAIRMAN GETZ: Can you repeat the --

MR. CAMERINO: An asset that cannot be replaced.

A. I don't agree with that.

BY MR. CAMERINO:

Q. That they are nice assets to have, whether you use them or not.

A. I don't agree with that.

Q. That you can never site them again. You can never get them again.

A. I don't agree with that.

Q. That it's a one-way feed into New Hampshire with no redundancy, no backup.

A. I don't understand that. What's "no backup"?

Q. I assumed when he said that, that he meant the Tennessee Pipeline, that the Company is at the end of the pipeline.

A. Which Company is at the end of the Tennessee Pipeline? Things have changed over the last decade. The supplies coming from -- significant supplies come from Canada. It's no longer just the Gulf that's supplying the Company.

Q. Well, how do they come into New Hampshire?

A. Well, they can -- they do have to go up the connection, essentially the Concord Lateral -- or I think that's the description of it -- the pipeline in New Hampshire. But the Tennessee Pipeline is much more than the pipeline in New Hampshire.

Q. But you're talking about supplies coming from other locations, not the way they get here.

A. Physical facilities in Tennessee extend far more than what's in New Hampshire.

Q. Now, you're not making -- you're not actually recommending in this docket that those supplemental facilities be retired, are you?

A. That's correct. I think the issue should be investigated.

Q. I just want to show you -- actually, to move things along, why don't I just mark these.

MR. CAMERINO: I just want to mark for identification three responses by Mr. McCluskey to

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

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

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

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

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

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

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

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

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

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

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

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

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

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

me. File it when you can, as long as the analysis is appropriate.
Q. And I'd like to get your opinion on Attorney Camerino was asking about the supplemental order and if there was a hearing. A hearing could be a possible outcome after Staff has reviewed this supplemental resource assessment; is that correct?
A. It could be. I could imagine that Staff files something with the Commission, and the Company is allowed to critique that and submit a document giving its position on the assessment and Staff's criticism of it, if that's what it is.
Q. And it is possible under that kind of a litigated scenario that the filing could -- the 2012 IRP for February 2012, that filing deadline could be delayed. Is that --
A. Yes. If this assessment takes longer than I anticipate it will take, then we could delay the filing. There's no rate impact as a result of these things. We can have them come in at any point.
Q. Okay. Thank you. No further questions.

MS. THUNBERG: Thank you.

CHAIRMAN GETZ: Then I believe that's all for Mr. McCluskey. You're excused. Thank you.

(Whereupon the Witness was excused.)

CHAIRMAN GETZ: Any objection to striking the identifications and admitting the exhibits into evidence?

(No verbal response)

CHAIRMAN GETZ: Hearing no objection, they'll be admitted into evidence.

Are there any issues to address before providing opportunities for closings?

(No verbal response)

CHAIRMAN GETZ: Hearing nothing, then Ms. Hatfield.

MS. HATFIELD: Thank you, Mr. Chairman.

CLOSING STATEMENT BY MS. HATFIELD:

MS. HATFIELD: I would like to begin by thanking the Company for its work in attempting to undertake what Mr. Poe today described as its "first truly integrated IRP that treats demand-side resources like supply." However, we must also agree completely with Mr. Silvestrini's testimony today, that the next step that we must take together is to integrate planning outcomes and program design on the efficiency side. As he stated, unfortunately today, those processes, planning versus the EE programs, are divorced from each other. And we believe that if we don't change that and take steps to really marry planning and efficiency program design together, we will not reach the goal that the Commission stated in Grid's last IRP order, that the Company should evaluate demand-side resources on an equivalent basis to supply-side resources, so that customer needs will be met at the lowest reasonable cost. This is our goal in IRPs. But it is not being implemented in the efficiency dockets.

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

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

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

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

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

cost and benefits to customers.

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

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

CHAIRMAN GETZ: Thank you. Ms. Thunberg.

CLOSING STATEMENT BY MS. THUNBERG:

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

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

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

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

There's been a lot of testimony today about the merits of excess. But Staff was not prepared today to discuss the merits, given the agreement to the recommendation that we would discuss merits in another proceeding.

Staff asked the Commission to open a new docket to investigate whether the excess the Company is carrying is appropriate, and that this docket be opened sooner rather than later so that we can resolve this issue and the customers know whether they are paying more or as they should for gas.

Thank you very much for your time.

CHAIRMAN GETZ: Thank you.

CMSR. IGNATIUS: Can I just ask one clarifying question, Ms. Thunberg. And I think the testimony may have evolved a bit, which is why I'm confused.

Mr. McCluskey's testimony had said initially to have the updated resource assessment within six months of the Commission's order, and then just a moment ago you said that it should come in within two months in order for Staff to complete its evaluation of the 2010 plan, which suggests there is no Commission order because there's no final

recommendation and the record isn't closed. So is it just two months from today, really, is what you'd be asking for, or is it something other than that?

MS. THUNBERG: I suppose I could --

(Staff discussing off the record.)

MS. THUNBERG: In answer to your question, I think it could go either way. But Staff envisioned that the order that would come out of this hearing would address everything but the DSM component, and we'd leave that for the supplemental order that was suggested by Mr. McCluskey.

And the change in the position, just to reflect back to Mr. McCluskey's testimony, is that -- or oral testimony today, is that given the passage of time since his testimony came out in September, there has been headway from the Company on fixing the model. So we don't -- Staff's not thinking that they need six months still to submit the corrected version of the analysis.

CMSR. IGNATIUS: Thank you.

CHAIRMAN GETZ: Well, it seems to me we've got at least three procedural devices. And there may be more. I'm trying to interpret what the proposal is. There could be an order saying, if we

followed Staff's recommendation, that the IRP process is inadequate and basically the Company has two months to cure. Another alternative would be -- and I think this one may have been the last one -- that the process is adequate, except insofar as it needs to correct the modeling error in the -- relative to the DSM, the Ventyx model, which then, I guess, would still require a second step. Both of those would require a second step. Though maybe a variation on that is it's adequate, subject to the condition that within a certain amount of time a correction is filed, it would be more of a compliance proceeding or a compliance step rather than a step two that might implicate more hearings. Those are at least three variations that come to my mind. I don't know if you have a preference among those.

MS. THUNBERG: I think the preference was starting to come out in the redirect questioning of Mr. McCluskey, of how this deadline for filing the 2012 IRPs in February is order-based. That can be moved. So we could complete the 2010 IRP in whole.

CHAIRMAN GETZ: Well, seems to me any of those three -- anything short of an order saying that the process is adequate is going to run up

against the realistic probability of filing something in February of 2012. And any of these other variations would seem to me to be leading to more time before the next filing.

But let me -- Ms. Hatfield, do you have anything on which of any of these approaches or some other approach makes sense from a process level?

MS. HATFIELD: I think your third suggestion sounded like it might make sense. And I'm also thinking whatever you say in the order will also give guidance to the next filing, whenever it comes, and so that whatever weaknesses this process had will have -- hopefully, it's a continuous improvement process so that the next one will be stronger. But I'm also mindful of the fact that in another docket the Commission is considering the sale of Grid's assets to another company. So, you know, that just complicates things a little bit.

CHAIRMAN GETZ: Especially with respect to whatever the next filing is?

MS. HATFIELD: Right. But I do definitely agree with Staff, that the February 2012 is not written in stone, so there certainly is flexibility in the deadline for the next IRP.

CHAIRMAN GETZ: Let me just propose this as well. We'll give you an opportunity for your closing, Mr. Camerino, and if you have any preference among these. But if the parties want to give some further thought to potential approaches to whatever the order might be -- and I'm assuming, again, Mr. Camerino, your preference would be that we just approve the filing, and that there would be one order and that would be it. But in case you have any other thoughts, any of you have any other thoughts on what the best process mechanism is, if you'd file something in writing within, I don't know, by the end of next week, that might prove helpful.

Mr. Camerino, your closing.

MR. CAMERINO: Thank you.

CLOSING STATEMENT BY MR. CAMERINO:

MR. CAMERINO: Well, let me start by saying that resource planning is a complex matter, and they are not issues that lend themselves well to the hearing room. And I think if anything has been proven today, we've proved that again. And we're really here for one reason, essentially, and that's the disagreement, as Attorney Thunberg said, as to whether the Commission should use the most recent

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

and models that were all built on the 2009 data from the supply side and portfolio side, I think is misguided. And I can't imagine the Commission doing that. The Company doesn't make its own decisions on that basis. And for the Commission to make decisions on that basis would, I think, be wrong. Frankly, we'll be in the proceeding -- if you open such a docket, we'll be in the proceeding, and the information will all be available. And you can rest assured the Company would seek to introduce it through its witnesses. So it's going to come in, whether that's the premise of the proceeding or not. And so I don't understand the reluctance.

And it almost seems like a rush to play gotcha. And honestly, the Company is concerned, that it had the Concord Lateral proceeding for the very reason, that it did not want to make a commitment like that and then have cost disallowances later. And the idea that that commitment is now being utilized by the Staff in order to argue for disallowance of a different asset that it says became unnecessary because of that commitment in large part is really troubling and an issue that, in essence, almost sounds like a collateral attack on the

Commission's decision in that case. Obviously, that's something that would be taken up in the next docket.

So a lot of changes over two years. We talked about Granite Ridge. We talked about the changes that the Concord Lateral brought about. We talked about the change in the load forecast that went down because of the recession, and undoubtedly will come up as we come out of the recession.

The Company's position, as it indicated today, and the reasons it indicated today, is that docket is not necessary and would not be a good use of Commission time.

So the statement that we agree to that recommendation is incorrect. What the testimony says is the Company was prepared to agree to it if updated data was used, because we're confident as to what that would show. I can't, for the life of me, understand the testimony about having to go through the entire 2012 IRP proceeding before the Commission could consider the excess-capacity issue. If the Commission decides that a docket like that is necessary, you will have the 2012 load forecast. You'll have the SENDOUT model runs the way you want them with the DSM model all available to you. You don't need to wait for the 2012 IRP to come to conclusion. What we want is the right to provide the latest data. So that was news to us when Mr. McCluskey testified that he thought that proceeding had to go through its full course in order for you to use the updated data. That was not what we envisioned. That's not what we're proposing. Now it almost sounds as if we're all talking about ways to have the Company delay its filing of the 2012 IRP, which, while we would normally be happy to do, we have no intention of doing if there's going to be an excess-capacity docket. We will file that document, whether it's in the excess-capacity docket or in an IRP docket.

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

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

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

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

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

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

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

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

With regard to the timing of re-running the DSM side, once the Ventyx SENDOUT model was fixed, I think we would gladly welcome the opportunity to talk to the Consumer Advocate and Staff on that, and if we can't come to agreement, each submit a proposal in writing. Because, honestly, this is the first time we've heard it. And I would be remiss if I just started speaking on that without understanding practically, in real life, what folks who have to run those models can do, understand better the state of the model, as to whether it's been fixed. And I think, you know, we can make theoretical decisions, but there are real people on the ground who have to implement them, and I would rather have them involved.

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

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

(WHEREUPON, the Afternoon Session was adjourned at 3:53 p.m.)

C E R T I F I C A T E

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

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

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

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