# BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA COLUMBIA, SOUTH CAROLINA

HEARING #11-11202

JUNE 1, 2011

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#### ALLOWABLE EX PARTE BRIEFING

REQUESTED BY SOUTH CAROLINA COASTAL CONSERVATION LEAGUE, SOUTHERN ALLIANCE FOR CLEAN ENERGY, AND UPSTATE FOREVER - 2011 INTEGRATED RESOURCE PLAN [DOCKET No. 2011-9-E]

# TRANSCRIPT OF TESTIMONY AND PROCEEDINGS

COMMISSIONERS PRESENT: John E. 'Butch' HOWARD, CHAIRMAN, David A. WRIGHT, VICE CHAIRMAN; and COMMISSIONERS Randy MITCHELL, Swain E. WHITFIELD, and Nikiya 'Nikki' HALL ADVISOR TO COMMISSION: Joseph Melchers, Esq.

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#### **APPEARANCES:**

J. BLANDING HOLMAN IV, ESQUIRE, along with JOHN D. WILSON [Research Director/Southern Alliance for Clean Energy], Presenter, representing SOUTH CAROLINA COASTAL CONSERVATION LEAGUE, SOUTHERN ALLIANCE FOR CLEAN ENERGY, and UPSTATE FOREVER

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### Public Service Commission of South Carolina

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<u>I N D E X</u>	
<u>F</u>	PAGE
OPENING STATEMENT BY MR. HOLMAN	. 3
PRESENTATION BY MR. WILSON.         Question/comment(s)       by Vice Chairman Wright.         Question/comment(s)       by Commissioner Mitchell.         Question/comment(s)       by Commissioner Whitfield.         Question/comment(s)       by Commissioner Mitchell.	26 27 31 35
REPORTER'S CERTIFICATE	. 43

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#### PROCEEDINGS

CHAIRMAN HOWARD: Please be seated. We'll call this ex parte briefing to order, and I'll ask Attorney Melchers to read the docket.

MR. MELCHERS: Thank you, Mr. Chairman.

Commissioners, pursuant to South Carolina Code 58-9-260(C) and this Commission's May 4, 2011,
directive granting South Carolina Coastal

Conservation League's, Southern Alliance for Clean
Energy's, and Upstate Forever's request for an
allowable ex parte briefing, those entities have
filed a notice of request for such briefing
scheduled for today, Wednesday, June 1, 2011, here
in the Commission's hearing room, and the subject
matter to be discussed at this briefing is South
Carolina Electric & Gas Company's 2011 Integrated
Resource Plan.

Thank you, Mr. Chairman.

CHAIRMAN HOWARD: Thank you. And I believe, Mr. Holman?

MR. HOLMAN: Thank you, Chairman Howard.

Members of the Commission, I'm Bland Holman. I'm here representing the Coastal Conservation League, Southern Alliance for Clean Energy, and Upstate Forever. And we appreciate the opportunity to talk

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to you today and have our ex parte hearing. We also appreciate SCE&G's willingness to talk with us through this process and answer some questions.

That's been very helpful.

I know that this is a little bit of a change in gears from the moving trucks.

#### [Laughter]

Hopefully, it will be entertaining. Although, I've got to say, when I saw that moving truck, I thought about how nice it might be to get in that moving truck today and go to Maine --

## [Laughter]

-- at least for a month or two. But anyway, we, as part of the integrated resource planning, we look forward to the opportunity to share with the Commission some of the ideas that we've had toward the end of making this an open process that helps the State and the public and the Commission move along with planning energy production in South Carolina in a way that is best for ratepayers and the citizens. To that end, today I've got with me John Wilson, who is the research director for the Southern Alliance for Clean Energy. Mr. Wilson has testified a number of times before this Commission, he's testified before commissions throughout the

Public Service Commission of South Carolina

Southeast and to legislatures, and I think you'll 1 find that he's quite informed and informative on 2 this subject of SCE&G's planning. 3 So without further ado, I'll introduce him and 4 have him come up and give his presentation. Ι 5 think he's got a PowerPoint, and we can fire that 7 up. CHAIRMAN HOWARD: Good to have you with us, 8 Mr. Wilson. Good to see you again. 9 MR. WILSON: Thank you, Mr. Chairman. And I 10 was told I'm to sit here [indicating] or the 11 What is your preference, Mr. Chairman? 12 podium. 13 CHAIRMAN HOWARD: The chair'll be fine. 14 MR. WILSON: Thank you, sir. 15 [Reference: PowerPoint Slide 1] 16 Good morning, Mr. Chairman and members of the 17 Commission. And I'd also like to add my thanks for you entertaining this opportunity to chat with you 18 a little bit about resource planning in South 19 2.0 Carolina, and particularly with SCE&G's resource 2.1 plan. 22 This presentation will primarily follow our comments, but I did have the opportunity also to 2.3 review the ex parte briefing that SCE&G provided. 24 [Reference: PowerPoint Slide 2] 25

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First I'd like to just sort of step back and just kind of put their plan in context as to our view of what an IRP is and should do, and of course, just to mention that, you know, we have been involved in resource planning proceedings throughout the Southeast fairly intensively. My organization, in particular, has been heavily involved in TVA's recent resource plan and I'll make some reference to that a little later in the presentation.

So an IRP is basically -- it is a long-term plan and it's looking at the economics and reliability of meeting the needs of the customers in the region. It should also look at the resource alternatives, with a focus on cost-effectiveness, and also looking at some of the ancillary impacts, I would say, of those resource plans. And it should consider all resources, both supply-side and demand-side, on an equal basis. Those are kind of the high-level principles that we look for in a plan. And most of my presentation is going to sort of focus on a review of their resource plan, sort of from a best-practices point of view, what is going on around the country and how does the SCE&G plan measure up.

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[Reference: PowerPoint Slide 3]

And our review of this found that some of the key plan components that we usually see in a resource plan submission -- whether in the Southeast or elsewhere in the country -- are not included in the SCE&G proposal. They have a good discussion of their conceptual approach to their future resource mixes. It's very easy to read the plan and understand kind of what they're hoping to do and how they plan to do it. However, the major flaw there that I think was kind of interesting is the resource margin target that they themselves have adopted and used for many years is exceeded in the plan significantly for several years, and I'll come back to that.

Second, sensitivity analyses. Typically, we'll see fuel cost sensitivities. I'll get into some details of some others later. There was not any evaluation of that in their resource plan.

Alternative supply resource options, including costs, that's not included in the plan.

Alternative demand resource options, including costs, not included in the plan. And alternative load growth scenarios, they had three, and that would be fairly adequate but it's not as

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comprehensive as some of the other utilities' resource plans that we've reviewed.

[Reference: PowerPoint Slide 4]

So let's start with the reserve margin. So according to SCE&G, their margin range is from 12 to 18 percent, and in the 2008, 2009, and 2010 plan they were projecting -- and I picked 2020 as sort of an even year, you know, kind of an every-fiveyears that was included in all these different plans just kind of as a benchmark. And you can see that there's been a 3 to 4 percent increase in the reserve margin over the past three plans with this year, and that's driven by the economy, the fact that we've had a slow-down and that future demand projections are down from where they were. also driven by the addition of efficiency resources to the plan that were not present in some of the earlier plans. So you've got some significant changes that have driven up the reserve margin. And that's important, because the utility, you know, points to this high reserve margin as a way to give customers -- themselves flexibility in meeting customer needs over a different range of But we'll come back to sort of some of futures. the negative implications of that.

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But one thing I would also mention at this point just for comparative purposes is, also in 2008, contemporaneous with the 2009 plan, SCE&G filed a much more detailed analysis than it includes in its resource plans that looked at its future generation needs, and of course, that was the Summer Nuclear docket. And in that docket, the reserve margin projected for 2020 was 14.6 percent, I believe, so it was significantly lower than any of these numbers. So the reserve margin is up considerably since you all looked at it and considered the need for new capacity in the coming decade.

# [Reference: PowerPoint Slide 5]

Now turning to sort of best practices on the supply-side resource options, we identified three general critiques of this plan, the first one being the lack of evaluation of renewable resources in any kind of a systematic way; second, some technical characterization issues with respect to some of the peak resources; and third, the consideration of environmental compliance costs.

With respect to the renewable resources, I did want to mention specifically that there are some claims in there, some conclusory statements

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regarding renewable energy as being uneconomic, but those claims are really not substantiated with sort of a comprehensive analysis such as what we've seen in some other resource plans. So, for instance, ancillary benefits, such as reductions in congestion during peak periods, those sorts of things -- they have real economic value to the system -- those are not considered in that discussion. Also, there's really just no economic analysis of the renewables in the plan. There's no information there to review to see if it's accurate, if it's up to date. I presume that some of that information would be available in the nuclear docket, which was -- I believe the application was prepared in 2007 and submitted in 2008, so it would be several years old at this point, and there have been a lot of changes in costs. The utilities are making much different decisions about renewable energy resources in the Southeast and across the country today than they were even a year ago, because of cost changes in the industry.

I also want to highlight the environmental compliance costs. And I'm going to go into this in some more detail, but there's a lot of necessary

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environmental regulations that are coming into play that are affecting plants and utilities that choose to keep some of these older coal plants, in particular, operating and facing very high costs.

One study by ICF, if you look at a 500 megawatt coal plant, that will work out to about \$450-\$650 million in compliance costs. The higher end of the range, according to ICF, is if there's some significant issues with coal ash and with water resource withdrawals from the -- whatever the cooling -- for the cooling systems.

So there's a pretty wide range there. I've seen other estimates that vary from this. I think there's a lot of uncertainty about the costs, but they're substantial and they're not inconsequential for ratepayers.

[Reference: PowerPoint Slide 6]

As a result of this, a lot of utilities across the country looking at these compliance costs are looking at coal retirements. And according to the IRP, there are some studies underway at SCE&G. We don't happen to know the details of those studies, but they are looking at that. And then, in the exparte briefing, it was discussed that Urquhart, McMeekin, and Canadys were identified as potential

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candidates for retirement because they're basically not scrubbed units, so they have the choice of either updating those plants or retiring them. And it looks like those plants are sort of headed toward retirement.

It's a little hard to tell exactly when or which plants or sort of how this is structured, because this detail isn't provided in the IRP; it's just sort of a passing reference in the briefing. In contrast, if you look at Duke, Progress, and TVAs current resource plans, you'll see a high degree of detail there about which plants they're planning to retire. In some cases there are very solid commitments. TVA just entered into a settlement agreement with EPA. And it's important to understand that these are economic-driven retirements. This is not sort of soft-hearted, okay-we'll-shut-these-plants-down kind of retirements; these are we're-looking-at-the-costto-operate-and-maintain-these-plants-in-a-safe-andreliable-manner-for-the-public. These plants just simply aren't worth keeping on the books, and they're looking at alternatives that are cleaner, better for customers in the future.

[Reference: PowerPoint Slide 7]

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Another best practice I'd like to highlight is the use of sensitivity analysis. And in this resource plan, and all the resource plans that I've seen from SCE&G, the sensitivity is primarily constrained to load, which is just one of the ten factors that TVA studied in its recent IRP -- which was a pretty exhaustive IRP. I mean, we had some differences with it, but we, overall, were very supportive of the process and the direction that the plan came out with. So there's a lot of analysis that goes into looking at all these variables, and that has a real impact on what comes out of it.

So, for example, in the TVA IRP, when we went into that process, I think the utility was particularly skeptical of energy efficiency resources. When we came out, they had agreed to analyze much higher levels of efficiency and they adopted the highest levels of efficiency that they analyzed as their recommended direction in that plant. It wasn't because they came in with that policy agenda; it's because that's where the numbers led them. And they've done subsequent analysis that we think also supports going even beyond the highest level of analysis that they

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considered in the formal plan itself. So, they, by no means, exhausted the efficiency resource, even in the course of that resource plan. I think that was a really interesting outcome.

[Reference: PowerPoint Slide 8]

So when we looked at the demand-side resource options in the SCE&G plan and sort of looked for some of the best practices, we identified these four issues. First, we didn't think that the plan properly accounted for energy efficiency during high-growth periods. Second, they increased the scale of energy efficiency plans through 2020 -- I mean, excuse me. We think they could increase the scale. Third, we think they should include energy efficiency impacts beyond 2020. And fourth, we think they should improve the consideration of load-shifting options.

[Reference: PowerPoint Slide 9]

So turning first to the issue related to the high growth, this graph here shows the energy efficiency impact, according to the plan, based on the forecast total system loads. You can see there on the left the low-growth scenario that SCE&G adopted had the highest level of energy efficiency, and then under the high-growth scenario, the lowest

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level of efficiency. And this is kind of, to me, counter to the standard practices. Certainly, it's -- all of these are reasonable scenarios to consider, if you're going to consider a very large number of scenarios, but if you're only going to pick three, in particular, this high-growth/lowefficiency scenario is exceptionally unlikely, and the reason for that is that you can imagine, for instance, new construction programs, so when people are building new businesses, building new homes, that sort of thing, those kind of new construction programs are really a gold mine for utilities to incentivize energy efficiency, to help people go beyond sort of just the basic building code and do what's in their own economic interests and the economic interests of all the customers on the Those kind of programs operate very well svstem. in a high-growth environment. Right now you can look around the Southeast at the utilities that are running efficiency programs, and you won't see a lot of action in the new construction programs, because we're in a low-growth environment right And so, that's an example of a program whose total impact is much higher under high growth than low growth. And it's really true that many

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programs -- not all, but many programs -- operate better in a high-growth environment than in a low-growth environment.

This is one of the practices that, you know, if you're only going to do three scenarios, you really should do a hybrid of high-efficiency I understand that the company's sort of scenario. approach to this was, "What's our worst-case outcome? What's the -- if we want to really test our resource plan and make sure that it's robust under sort of worst-case scenario, it would be a high-growth/low-efficiency scenario where customers are just ignoring our programs." But, you know, I would really say that if you can't operate good energy efficiency programs in a high-growth environment, you need to look at some management alternatives, just in the same way that if you can't operate a power system in a high-growth environment, you need to invest in some new transmission or new power generation. I mean, if you are coming after these -- if you're facing a high-growth environment, you should invest in and run the resources, whether they're demand-side or supply-side, in the most aggressive, cost-effective manner possible. And this is simply just not a

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really best-case approach to planning resources.

[Reference: PowerPoint Slide 10]

Now looking at what they're considering here, under the low-growth scenario, which is, I think, their highest efficiency plan, they're at about 5 percent energy savings by 2020. That's their peak effort. What's the efficiency potential on the Southeast? There's a lot of uncertainty about this, because a lot of the resource potential studies are either dated or incomplete, that sort of thing. But the best available resource is a study by Georgia Tech that was cited in our comments, and -- Duke University and Georgia Tech -- which estimated that across the Southeast the efficiency potential over the next decade, or so, is about 7 to 14 percent, depending on how aggressive the programs are, depending on the particular mix of customers and opportunities.

So the SCE&G plan is really not even reaching the low end of that range. If you achieve just 7 percent by 2020, you'd reduce your capacity needs by 175 megawatts in 2020 -- rough estimate, but it seems reasonable. And then if you could go to 10 percent by 2025, that would be 375 megawatts of capacity need addressed. And I'd like you to kind

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of keep an eye on that 375 number, because I'm going to show you how that plays out in just a moment.

[Reference: PowerPoint Slide 11]

So just to put that those numbers in context -- that 5, 7, 10 percent number -- here are some of the plans that have been adopted around the Southeast. So the SCE&G plan is the one in red there, and you can see that it reaches about 5 percent by 2020. Duke Energy Carolinas modeled two different DSM plans in their resource plan, which has been before you, I believe. They've got a base case and a high case. And you can see that even their base case is a little bit higher. They're currently, I think, on track to be well above their base case. For example, this year they were projecting to do about .2, .25 percent energy savings, and they basically got about three to four times that savings level. So they've gone well above what they expected just in their first year. Now, I don't know that they can sustain that, or not. We're hopeful that they can. But it's -there's a lot of potential out there and there's a lot of customer interest in these programs. you can see the range there that they adopted is

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also higher than Duke's base case: up to 5 percent just by 2015. I've also spoken with their management on this, and they're feeling optimistic about reaching more towards the high end of that range by 2015. So, and then I've put on there sort of a, quote, "leading utility," and what this is, is this is just simply sort of a simplified composite of many of the leading utilities around the country. I didn't want to put sort of the number one utility out there, which were some of the northeastern utilities that operate in a rate and, frankly, weather climate that is quite different than the Southeast. The other thing is, I sort of wanted to start it from 0 percent, so I reviewed probably a dozen energy efficiency startups that were very aggressive, such as Arizona Public Service, Excel Colorado, some of the Iowa utilities. I've looked at these different utilities and basically said, "What is their sort of trajectory to reach a very strong level of efficiency? What's the typical one?" And this is sort of a very simplified representation of that curve, based on those data. It's not sort of a really highly sophisticated analysis, but it's -- I think would stand up, if you compared it to any of

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those utilities, as being reasonably close to what they've been able to achieve.

So while, you know, we're certainly very happy that SCE&G has got really meaningful programs out there for the first time ever, and that they are achieving energy savings and that they're delivering a product to customers that I think they're going to be interested in, you know, it's by no means an aggressive plan.

The other thing I did want to clarify here real quick is just the legend there on the left, the cumulative energy savings. It's sort of a little tricky to talk about efficiency programs because they're not like a power plant, in that sort of you build them for several years and then they come on-line and they deliver 100 megawatts or 100,000 megawatt-hours or whatever. They're a cumulative resource. You start the program up, you find out what works in terms of the marketing maybe during the first year, or the measure delivery, or whatever the mechanism is to encourage customers to save energy. And then, after the first -- you know, after you get that in place, the resource is developed, and it may take -- for some programs, it may go on forever; for other programs, it may be

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sort of a three-to-five-year trajectory before the resource is sort of fully built out. So what I've graphed here is sort of starting from zero, if you started the plan at nothing in 2010, what would be the cumulative impact by 2020 -- or 2025, in the case of a few of these projections that go out further -- of these resource plans -- I mean, excuse me -- of their energy efficiency plans on their resource plans. And so that's what that cumulative concept represents.

[Reference: PowerPoint Slide 12]

Now, looking beyond 2020, SCE&G's efficiency plan shows no efficiency impact past 2020. And according to the company, they've leveled off the efficiency to address uncertainty in programs and customer behavior. Their baseline forecast basically contains these contingencies that really would be more appropriate to consider in a sensitivity case. So what you would normally see in an aggressive energy efficiency plan is a sense of confidence that, "We can build this resource and deliver it. But we have also done some checking to make sure that, if these resources are not coming in on the schedule that we would expect, or there's an economic downturn or some other kind of

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transformative change that makes it more difficult, what would be the impact of that on the resource plan." So you would start with what you hope to deliver and then back off of that in a sensitivity analysis, similar to what they would do on the supply side where you would say, "We're going to get this resource built on time and on schedule, but what if there's cost overruns? What if there are schedule delays?" So putting those what-ifs into the baseline and saying, "Hang on, we're not sure we can deliver that," is just -- it's not the same approach; it's not putting supply-side and demand-side resources on an equal footing. Ιf you're putting your what-ifs into your baseline scenario for demand-side, but not for supply-side, it's kind of an unequal treatment.

[Reference: PowerPoint Slide 13]

And as an example here, here's PacifiCorp, a utility that has a nice graphic that shows how their energy efficiency growth continues all the way out to 2030. You'll notice they've got kind of an inflection point -- and the efficiency resource is that green resource there with the horizontal lines on it, and there's an inflection point there where the efficiency plan drops a little bit around

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2019-2020, so, I mean, it's not as if you say there's a straight-line growth in energy efficiency all the way out through 2020. There are planning techniques for looking at those longer-term resource impacts, even if you're not entirely certain exactly what programs you're going to operate, what kind of measures are going to be installed, what is going to create energy savings.

[Reference: PowerPoint Slide 14]

So bottom line on this, we would suggest that SCE&G could consider reducing its net capacity additions, if it adopted a stronger energy efficiency plan and if it adopted some of the other planning practices that we identified of somewhere between 375 and 875 megawatts. The 375 megawatts is due to the efficiency; the higher number is if they targeted a lower planning margin.

And, you know, this is basically excess capacity in their plan, in our opinion, which it gives the company flexibility but that comes at a significant cost to customers. And, you know, that 22 percent approximate reserve margin is outside the range that SCE&G itself says is the range they'd like to be within. And, in fact, I was reviewing some testimony recently by a company

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witness, and I'll quote from it: "SCE&G attempts to run the system at the low end of its reserve margin range, 12 percent, in order to keep its rates as low as possible." That approach, which has been the company's position in the past, is simply not reflected in the current resource plan.

[Reference: PowerPoint Slide 15]

And here's what that looks like in terms of a visual. This is from the allowable ex parte briefing. You've seen this slide before. It's just a reproduction of the company's graph, here. And you can see where the nuclear is added, the first unit, it goes briefly outside of their target ceiling of 18 percent, ducks slightly back below it, and then the next unit is added, and it's not until 2022-2024 where the reserve margin -- where they're back within their range, and in fact, they don't get back down to that 12 percent zone that they say they'd like to keep at to keep rates low until as late as 2024.

Now, if we put in a more aggressive assumption about efficiency -- this is not the most aggressive assumption possible, but certainly a potential impact -- you can see that the second unit, the reserve margin, when they add the second unit,

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they're always outside the 18 percent range. And this is a rough estimate, I would acknowledge, but it's just to kind of give you a sense of the kind of analysis, the kind of deliberation that we would expect to see in a resource plan if it was done consistent with a lot of the practices we see at other utilities. And I think that there would be, then, a reconsideration, and this is where we come up with this range, sort of, of 375 to -- I apologize, I've forgotten the number [indicating] -- 875 megawatts, is that there is a potential here; you could drop that capacity down pretty substantially from 6,600, 6,700, down to around, you know, as low as 6,000 and still remain above the reserve margin, the 12 percent reserve margin, through 2022-2023, at which point you could look at a capacity addition, but it wouldn't need to be nearly as large or significant as the one that the company is currently planning on.

[Reference: PowerPoint Slide 17]

So I'd like to thank you for an opportunity to share these thoughts with you, and certainly hope I can answer any questions that I may have created by lack of clarity or anything else during the presentation.

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CHAIRMAN HOWARD: I doubt it's lack of clarity. Commissioner Wright.

VICE CHAIRMAN WRIGHT: Good morning. It was very good. I had a question. Your numbers intrigue me, the 375 to 875. In your chart you showed at the end, I think -- you were showing the 375 drop as it related -

[Reference: PowerPoint Slide 16]

Yeah, that one right there. I did not hear you say anything about what I think you quoted as what SCE&G said was potential candidates for retirement of Urquhart, McMeekin, and Canadys. How much would that take off? Because that would be a reduction in megawatts, and how does that play into your 375 to 875 range?

MR. WILSON: Well, I'm somewhat uncertain. I believe -- but I'm not certain because I was not provided any direct information by the company on this -- that those units are what they're representing in their resource plan already as being retirement candidates. They've got an amount of capacity they're proposing to retire --

VICE CHAIRMAN WRIGHT: Okay

MR. WILSON: -- in the current resource plan, and so that would be accounted for in that green

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line that was presented by the company in their briefing, already. So additional retirements beyond those three units, which is certainly something that the company could have looked at -and in fact, many utilities are looking at retiring units that do have scrubbers on them already, some of the coal units, elsewhere in the country. You know, some of the newer plants, I don't think there's anyone looking at retiring those, but some of the plants that just had the very basic scrubber technology on it are also, because of some other regulations, being looked at for retirement. think if the company went beyond those retirements, that would be another alternative path to reducing the total system capacity, and it may be more economically advantageous to look at that, versus some other options.

VICE CHAIRMAN WRIGHT: Thank you.

CHAIRMAN HOWARD: Commissioner Mitchell.

COMMISSIONER MITCHELL: Thank you, Mr. Wilson.

Very good report. You continue to talk about the

375 and the -- how does that rank with other

companies, as far as the size of SCE&G and their

ability to meet these numbers? How does SCE&G rank

now with other facilities --

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MR. WILSON: Well, I don't want --

**COMMISSIONER MITCHELL**: -- or is there anything out there like that, can you tell me?

MR. WILSON: Well, Commissioner Mitchell, I appreciate the question, and it's difficult to give an apples-to-apples answer to that, because every utility has its own customer mix and that sort of thing. This graph that I showed earlier --

[Reference: PowerPoint Slide 11]

-- Energy Efficiency in Context, basically shows sort of SCE&G compared to some of the southeastern peers. Many of the national peers are at that leading utility level or greater. And this is in energy units and not in capacity units, but it would be very similar from a capacity point of And the level of effort that would be needed to achieve the kind of -- the 375 additional, I think, first of all, a lot of that is post-2020; it's just simply not represented in the plan. They basically said, "We're not sure if we can keep achieving energy savings after 2020," and I just don't accept that premise. I think the second level is a little bit more aggressive programs, particularly once they get the current offerings out and they get comfortable operating them; you

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sort of step up to the next level, and you find new ways to deliver savings. This is a trajectory that has been, you know, claimed in advance and delivered all across the country in all kinds of circumstances: Iowa, Arizona, Colorado, and then some of sort of the states that I know you all don't like to hear, like California and the Northeast.

But it's just -- this is not -- I mean, it's not easy work. I don't want to understate that this is not a challenge to make these programs work, and that there won't be times when the company rolls out something that looks like it's going to be great, and it's a flop.

But the good thing about energy efficiency is you kind of -- because it's delivered over several years, if you have a flop, you know it pretty quick. If the customers aren't responding to a marketing message, you're going to know it in a month or two months, you know, maybe if it's a fairly complicated program involving trade allies, it might take six months, but you're going to know. And you come back to the drawing board and by the next year you're ready to rebuild it. You can't do that with a power plant. You build a power plant

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and it's a flop, you got a real problem on your hands.

**COMMISSIONER MITCHELL**: And you did mention cost there, occasionally.

MR. WILSON: Yeah, absolutely.

commissioner mitchell: And where is that -with the situation with Congress now, and looking
at maybe some less demands out of Congress, could
you just touch on that? Do you see any change -any changes coming from Congress? Is it going to
be more demand? Less demand? What's your gut
feeling on that?

MR. WILSON: Well, I might need a little clarification on the question, but let me take a stab at costs and efficiency and other resources. Energy efficiency is much cheaper than any other resource that's out there. We reviewed the Duke -- the current Duke resource plan, and they ran a base case and a high case. And under the more aggressive case, it was -- you know, unfortunately, the exact data are confidential, but it was billions of dollars cheaper than any plan without the high level of efficiency. And that's the total system cost, the rates were lower for every single model run with high levels of efficiency than with

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their base level of efficiency. And it's just all the other things they tested -- two nuclear units, one nuclear unit, advanced nuclear units, delayed nuclear units. The difference among those choices was much smaller than just the simple addition, with whatever resource plan you pick in addition to the efficiency, of adding the efficiency. It saves customers money.

Even if you double the cost of the efficiency assumed in that plan, it still saves customers money. And of course, with a sensitivity analysis for, say, a nuclear plant, you'll typically see them run sort of a construction cost plus 20 percent or 30 percent? If you've got a resource out there where you can run a high estimate of cost -- and they ran a high estimate of cost -- and then say, "And let's just double that," and it's still cost-effective, you'd better go buy that resource.

COMMISSIONER MITCHELL: Thank you.

CHAIRMAN HOWARD: Commissioner Wright.

VICE CHAIRMAN WRIGHT: Let's see if I can word this right. You've laid out some questions, all right? Maybe, I guess, deficiencies in what you see in the plan. What do you think about -- or tell me what your solutions would be, okay? You

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understand what I'm trying to -- where I'm trying to go?

MR. WILSON: Well, I'm cautioned by my counsel as to the rules of a briefing here, so let me couch it in terms of sort of what would be the -- I mean, we've laid out sort of the best practices, and I think it's up to the Commission what it wants to see in a resource plan. Certainly a lot more of this information is made available by the company in a need certification proceeding when you're looking at an actual power plant, but I think the opportunity here is that, for example -- and particularly in the Pacific Northwest where they have really robust resource planning practices, and these are places where the electric rates are comparable to here, one of the things they're always looking for is, "Can we delay? Can we postpone? Even after we've made a need certification, are we still doing the right things for customers?" And they actually have in their modeling, in that region, a provision for, you know, even a plant that's under construction, if they can find a way to save money for customers by slowing down the construction schedule or by canceling the construction schedule for a

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particular resource -- and that would typically happen more for like a gas turbine or something -- you know, they will do so, and that's the level of sophistication in the planning process.

I think in your order approving that plant -let's see if I've got this -- one of the points you
all made in your order was basically that, in the
resource planning process, we can come back and
look at renewable energy resources. They may
become more cost-effective, and there's room in
this resource plan for those. Now, I think at this
point that might be a little debatable whether
there's still sort of opportunity for renewable
energy to meet what's evidently a pretty high level
of capacity for the demand that's being forecast.

But if there was that need, there's not really any process in place in this resource plan to bring that information forward, because they're not continually revisiting their assumptions about the cost of renewable energy resources, checking to see what's going on with peer utilities. We're hearing very promising things about solar prices dropping very dramatically in this region, utilities that you all regulate being more interested in going beyond sort of some of their requirements to meet

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regulatory demands in those areas, potentially -maybe not this year, but in the near future. We're seeing economic, not regulatory driven, power purchase agreements for bio-power in certain states in the Southeast. These plants are being developed and delivered as resources to the utilities, and there's no sort of process in this plan to, on an annual or biannual or whatever basis you wanted to request, kind of a re-look, "Are we doing the right thing? Do we need a midcourse correction? Do we need to change the scheduling here? What's in the best interests of customers?" It's really more of a steady-as-she-goes kind of approach, and, you know, that may be what everybody is comfortable with, but I think the analysis that we're showing suggests that there might be some better alternatives. Does that answer your question, Commissioner?

Does that answer your question, Commissioner?

VICE CHAIRMAN WRIGHT: I think it keeps us
legal.

# [Laughter]

MR. WILSON: Thank you.

COMMISSIONER WHITFIELD: Mr. Chairman.

CHAIRMAN HOWARD: Commissioner Whitfield.

**COMMISSIONER WHITFIELD**: Thank you, Mr.

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Chairman. Mr. Wilson, you were talking about retirements of DOE, where you mentioned the three SCE&G plants, and you, I guess, then a minute ago, talking to Commissioner Wright, were talking about retirements of some of the other utilities that were retiring coal plants that already had scrubbers on them. How common are you seeing that, or how -- could you maybe get into the where and who or how often you're seeing that, people retiring units that already have scrubbers on them? And second question is, how long have those scrubbers been on there?

MR. WILSON: Yes, thank you, Commissioner. I'm glad you asked that question, because I may have slightly misstated, then, if that's what I said. What I'm seeing is that the announced retirements are for unscrubbed plants.

#### **COMMISSIONER WHITFIELD**: Right.

MR. WILSON: I'm also seeing consideration, but not any announced retirements, of some of the coal plants that have scrubbers on them, and these are typically -- I don't want to say that I know for sure, because I haven't carefully looked at the data -- I would believe these are typically or all the earliest scrubbers. So some of the very first

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scrubbers that were put on, that had some of the simplest technology, those scrubbers are not necessarily as effective as some of the later ones in dealing with, for instance, mercury and other kinds of pollution that are coming under increased -- and in my opinion, justified -- scrutiny from air-pollution regulations.

So those are the scrubbers that I think we're starting to see some utilities taking a look at. There can also be other factors at those plants. Sometimes those scrubbers were put on early, onto plants that didn't have a long lifetime, because they were sort of in a technology development phase, and so they wanted to test them out on a plant that wasn't maybe one of their main assets. So those plants also can sometimes be uneconomic for other reasons, but they do happen to have the scrubbers. So the main point of my comment was just that this sort of scrubber/no scrubber line is not as sharp a line as it might have first seemed.

COMMISSIONER WHITFIELD: Okay, thank you.

Also, you were talking about the addition -- the net capacity additions in your range at 375 to 875, but you focused in on the 375, the minimum part.

What do you think these reductions of net capacity

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would do to the industrial sector? We've had some, as you may be aware, some pretty spirited debates lately on economic development in this State. What do you think -- how do you think that might impact the industrial sector?

MR. WILSON: Well, first of all, just to clarify, the higher end of the range basically would reflect also heading back down towards that 12 percent margin, as opposed to the 18 percent end of the spectrum. So the 375 sort of is targeted at being more in the range of the 18 percent. Again, those are very rough numbers. I think a full analysis would need to be done to really identify what would make sense.

With respect to the industrial sector, I think, you know, that presumably is built into their demand forecasts, you know, the latest information on what they're seeing in terms of industrial development and how that's going to affect sales. That was one area of the plan where we didn't identify too much in the way of issues, was with their demand forecasting methods. They have pretty detailed explanation of how they forecast demand, and, you know, I imagine that a demand forecasting expert or a conference of demand

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forecasters would find things to argue about in there. We were looking for sort of things that were at a very high level, very broad-brush, missing from the plan.

I think, you know, you absolutely want to make sure that the industrial sector, which is a key engine for economic growth, has the resources it needs to come in and expand or add new facilities, but I think also it's maybe a little bit of an undervalued asset to have a really strong efficiency program on commercial and industrial programs -- large commercial and industrial -because there are -- I've heard companies complain about poor efficiency program offerings when making decisions about siting. I could give you some examples, if you're interested, but it is an economic development asset, I think, to have a really good program that meets the customer's needs and works with them to help them be efficient, because they want their energy costs low however they can get them low.

commissioner whitfield: Thank you. Thank you. That's all I have, Mr. Chairman.

**CHAIRMAN HOWARD**: Any other questions?

COMMISSIONER MITCHELL: I have a question.

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CHAIRMAN HOWARD: Commissioner Mitchell.

COMMISSIONER MITCHELL: Mr. Wilson, you were also talking about your best practices. Do you see Congress with greater incentives -- do you see greater incentives coming from Congress for better practices, or better energy efficiency, or do you see less in the future?

MR. WILSON: Well, you know, my personal
opinion? I don't speak for --

**COMMISSIONER MITCHELL**: Yeah, I know it's an opinion.

MR. WILSON: Yeah, I don't speak for the other groups that are here, but I don't personally see Congress tweaking them, one way or the other too much. The legislation -- I mean, I see some incentive programs that have been funded and may be enhanced. There's some bipartisan legislation actually getting a hearing this week, I believe, that would focus on industrial customers, in particular, to provide some incentives and programs in that area.

You know, the issue with those industrial programs is really sort of the quality and responsiveness of those programs to the customers' needs, and it takes a lot of work on both parties

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to get those programs operating effectively, is my understanding, talking to colleagues elsewhere in the country. You know, there are some great programs out there and there are some not so good, and I think industrial customers probably have a degree of skepticism that any given utility is going to come forward with a great program, because there are some out there that are just not that customer-friendly.

So I think what Congress does with appropriations on some of those programs where they're funding the basic research and the industrial assessment centers, those kind of things, is going to have an effect. It's not going to be a dramatic effect like an energy efficiency resource standard or renewable energy standard would have on sort of the energy sphere, but it could be very effective, and actually has been in many parts of the country very effective in getting the programs improved and getting energy customers more aware and getting them better resources to manage their energy use wisely. I think one of the key areas in this is sort of in your smaller, your growth oriented manufacturing and large commercial companies, because a lot of those companies are not

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yet at the scale where they have an in-house energy management team, and so a utility that provides direct assistance or funding for consulting assistance to help a company that is maturing do so in a way that's energy efficient is making an investment not just in saving energy but in jobs and in the economic development prospects for that part of the community, and that, I think, is a really huge opportunity. Some of those programs are being looked at in Washington, in both directions -- expansion, and some other people are talking about eliminating them altogether -- and I think, you know, you need to look at them and find the ones that are delivering and promote those.

COMMISSIONER MITCHELL: But I guess, in specific to my question, you're saying -- I gather from what you say, it's pretty much a washout.

MR. WILSON: It could go either direction on the funding. I'm not seeing any regulatory or statutory demands that are going to really direct or force people to do one thing or another. I think there's a lot of regulations in the works and there's a lot of programs that are being funded that are very important and, I think, effective. And how quickly or slowly those proceed with, I

think is what's at stake. 1 COMMISSIONER MITCHELL: Thank you, Mr. 2 Chairman. 3 CHAIRMAN HOWARD: Commissioners, any other 4 questions? 5 [No response] 7 Mr. Holman, you have anything to add? MR. HOLMAN: No, sir, Chairman. Thank you, 8 very much. 9 CHAIRMAN HOWARD: Mr. Wilson, thank you very 10 Thank you, Mr. Holman. Appreciate your 11 much. 12 presentation. Hearing adjourned. 13 [WHEREUPON, at 12:05 p.m., the proceedings in the above-entitled matter 14 15 were adjourned.] 16 17 18 19 2.0 2.1 22 23 24 25

### CERTIFICATE

I, Jo Elizabeth M. Wheat, CVR-CM-GNSC, do hereby certify that the foregoing is, to the best of my skill and ability, a true and correct transcript of all the proceedings had in an Allowable Ex Parte Briefing held in the above-captioned matter before the Public Service Commission of South Carolina.

Given under my hand, this the 2nd day of June, 2011.

Jo Elizabeth M. Wheat, CVR-CM-GNSC

ATTEST:

Jocelyn G. Boyd,

CHIEF CLERK/ADMINISTRATOR