

1 **BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA**
2 **COLUMBIA, SOUTH CAROLINA**

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4
5 **HEARING #11028**

6 **MAY 22, 2009**

7 **10:30 A.M.**

8 **CAROLINA POWER & LIGHT COMPANY d/b/a Progress Energy Carolinas, Inc.** – Pursuant to S.C.
9 Code Ann. 58-3-260(C)(6)(a)(v), the Public Service Commission of South Carolina hereby provides notice
10 of the following request for an allowable *Ex Parte Briefing*.

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13 **HEARING BEFORE:** Elizabeth B. 'Lib' FLEMING, *CHAIRMAN*, John E. "Butch"
14 HOWARD, *VICE CHAIRMAN*; and COMMISSIONERS David A. WRIGHT, G. O'Neal
15 HAMILTON, Swain E. WHITFIELD, Mignon L. CLYBURN, and Randy MITCHELL.
16 **ADVISOR TO COMMISSION:** Joseph Melchers, Esq.

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19 **STAFF:** Charles L.A. Terreni, Chief Clerk/Administrator; Jocelyn G. Boyd, Deputy Clerk; Josh
20 Minges, Esq., Legal Staff; James E. Spearman, Ph.D., Executive Assistant to Commissioners;
21 Phil Riley, Tom Ellison, and William O. Richardson, Advisory Staff; MaryJane Cooper, CCR,
22 Court Reporter; Deborah Easterling, Hearing Room Assistant.

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24 **APPEARANCES: LEN S. ANTHONY**, representing PROGRESS ENERGY
25 CAROLINAS, INC.

26 **SHEALY BOLAND REIBOLD, ESQUIRE**, and **NANETTE EDWARDS,**
27 **ESQUIRE**, representing THE OFFICE OF REGULATORY STAFF
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36 **TRANSCRIPT OF TESTIMONY AND PROCEEDINGS**
37 **VOLUME 1 of 1**
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39

MaryJane Cooper
Certified Court Reporter

1 CHAIRMAN FLEMING: Please be seated. This *Ex*
2 *Parte* Briefing will now come to order. Our attorney, Joseph
3 Melchers, will discuss the Briefing that will take place.

4 MR. JOSEPH MELCHERS: Thank you, Madam
5 Chairman, Commissioners.

6 This is an *Ex Parte* Briefing that has been requested
7 by Progress Energy Carolinas, and they are addressing
8 Demand Side Management and Energy Efficiency
9 Programs. Thanks.

10 CHAIRMAN FLEMING: Thank you. And who will be
11 speaking on behalf of Progress Energy today?

12 MR. LEN ANTHONY: Good morning, Madam
13 Chairman, Members of the Commission.

14 CHAIRMAN FLEMING: Good morning.

15 MR. ANTHONY: Our two presenters today are Bobby
16 Simpson – on the left. He is Director of our Distribution
17 Initiatives, and cover what is known as DSDR, which is a
18 Demand Side Management Program that has an initial
19 capability of moving to a smart grid system; that's state of
20 the art; that is the only program that Bobby addresses. And
21 Chris Edge, who is the Manager of our Demand Side
22 Management and Energy Efficiency Department, and he'll be

1 discussing the DSM and Energy Efficiency Programs that we
2 will be rolling out very shortly and for which we have filed
3 Tariffs. I think he will cover two additional programs for
4 which we do not have Tariffs yet filed.

5 CHAIRMAN FLEMING: All right.

6 MR. ANTHONY: Mr. Edge is going to go first.

7 CHAIRMAN FLEMING: Welcome. We're happy to
8 have you here today and look forward to hearing what you
9 have to share with us.

10 MR. CHRIS EDGE: Thank you, Madam. I appreciate
11 the opportunity. We're obviously very excited. We've got a
12 lot of program activity as it pertains to Demand Side
13 Management and Energy Efficiency, and the intent of my
14 briefing is to provide you some insight as to that program
15 activity and to try to answer any questions you have
16 pertaining to those programs or the direction of where we're
17 headed with our programs.

18 SLIDE PRESENTATION BY CHRIS EDGE:

19 In support of that, I've provided a presentation to each of you; I'd like to use
20 those visuals to help with my conversation, as well as I'll be referencing some various
21 customer trials that's been developed in support of the programs and hope it will help
22 provide some further explanation and give you some ideas as to the type of material we

1 use for the recruitment of customers and the information that will be available to
2 customers.

3 With that said, the programs which we filed May 11, 2009, encompassed eight
4 different programs, seven of which I will cover. As you can see from the description,
5 they are very broad and hopefully there is a program that is available for each of our
6 customers from the perspective of both demand response and energy efficiency, as well
7 as commercial, industrial, governmental and residential programs. The programs are
8 intended, or there are certain aspects of the programs that are intended for both new
9 customers as well as existing customers as well.

10 The first program which I intend to discuss is what we refer to as *EnergyWise*,
11 and this is a residential load control program. The intent of *EnergyWise* is that we
12 would provide customers with an opportunity to participate by allowing us to switch on
13 and off the air-conditioner, or what we refer to as cycling the air-conditioner, during
14 times of peak usage, and these typically occur of course on the hottest days of the
15 summer. The purpose of course is that by doing so we're able to maintain temperature
16 at a slightly higher comfort level or slightly higher level than would otherwise would be,
17 and we get a load reduction during that period.

18 The purpose of the next slide is to really summarize the attributes from the
19 customers' perspective. One, the program designed is intended to be flexible. The
20 program is voluntary in nature. It's easy to participate. A customer can participate
21 through solicitation which they could then enroll via the phone; there's a web enrollment
22 as well, as a customer could respond through a direct mail. And if for any reason the

1 customer decided to leave the program, then there's no wait period for a customer to
2 rejoin the program.

3 Specific to comfort, the intention, the design, the choosing of the technology is
4 that we really think the program is designed such that there really is no observable
5 notice from the customer's perspective; and by doing so, we've chosen cycling
6 strategies where we feel that we can maintain temperature within the home roughly two
7 to four degrees during the control period, which lasts approximately four hours.

8 In addition to that, we've designed the program with the optionality that
9 customers, if for any reason, had a level of discomfort or whether they were anticipating
10 discomfort – maybe they were going to have a party or some guests over at the home –
11 then the customer could choose to override an event by simply calling into our customer
12 call service center and ask to be removed for that specific event. We provide up to two
13 overrides per season as well.

14 There are financial incentives that are available to consumers as well for
15 participating. One that's available at the time of initial enrollment, and then after each of
16 the twelve successful months of participation, there's an additional annual credit that's
17 available – and I'll summarize those credits in a slide here in a second.

18 And specific to the equipment, the equipment, the installation really isn't
19 pervasive to the customer; the equipment is located outside the home, it's attached near
20 the air-conditioner compressor. In fact, in order to install the equipment, a customer
21 appointment is not required; we provide that option to customers, but we can make this

1 type of installation without having to ingress the property, which really helps to reduce
2 the cost as well.

3 If we look from the utility perspective, one of the attributes and the values specific
4 to the utility – of course, this is a peak demand response program, and it helps us
5 control the appliances which are really leading to our peak demand during summer
6 periods. It is cost-effective, it's more cost-effective to consumers and the utility, as
7 opposed to building peak load generation. The program is flexible – and flexible, I
8 mean there's a scalable platform on which we can continue to add customers. And the
9 multiples, in fact, we can recruit up to a couple hundred thousand customers and this
10 program itself can produce up to 250 megawatts of demand response over the course of
11 five to ten years of participant enrollment.

12 In addition, the flexibility, there's some flexibility within the technology as well, as
13 we gain customers we have the ability, through the communications infrastructure, to
14 control, if we needed to, we can control specific areas, or if we have heavily loaded
15 substations or heavily loaded feeders and we had congestions on feeders, we could, if
16 necessary, control down to the feeder level with the technology that's being employed.

17 We, as well, are using state-of-the-art technology; the technology we've chosen
18 was chosen through a request for proposal. The technology includes modern adaptive
19 algorithms, so there's actually a computer board that's located within the equipment
20 that's located out there, so the computer has a means of intelligence of recording what
21 normally is occurring within the house, and we apply the cycling strategy specific to the
22 household itself.

1 So the differentiation might be difficult to explain, but probably the best reference
2 is to the older technology. Older technology, it was a deployed wide-scale broadcast
3 which simply cut air-conditioners off and left them off for a period of time, and then once
4 it was time to resume out of the control period, it cut them on. This technology – we’re
5 literally cycling the air-conditioners so that within a given hour on a heavy cycling
6 strategy, you’d be cutting it off for periods up to fifty percent of that hour, but throughout
7 that hour, the fan itself is still circulating throughout the home, so the compressor turns
8 the cycling on and off to maintain that temperature differential within the two to three
9 degree timeframe; comfort is still maintained with a fan circulating air throughout the
10 homes. And that’s the major difference from some of the older technology than just
11 simply cut the air-conditioner off, left it off for a period of time, and allowed temperatures
12 to rise in the home.

13 This is a slide that I’ve presented that really gives you a snapshot of the eligibility
14 and the considerations being provided to customers. Specific to eligibility, the
15 customers must have a central air-conditioner or heat pump; that is equipment that just
16 works across our system territory. It’s approximately 86 percent of our customers. It’s
17 available system-wide, it would include both South Carolina and North Carolina. And
18 when a customer enrolls, we request that all the air-conditioner units at the residence
19 participate.

20 In consideration for participating, a customer would receive a \$25 bill credit at the
21 time of installation. There is no charge that’s incurred by the customer. And, again, on
22 the anniversary date of participation, the customer would receive a \$25 bill credit as
23 well.

1 The interruption period which was specified in the Tariff which was submitted to
2 you was, we would control no more than 60 hours per season and no more than four
3 hours per event, or four hours per day. And of course the season is defined as our
4 summer season, which is May through September. And I mentioned before, the
5 interruption, we designed it so it's flexible; we felt like we needed to design it so the
6 customers knew they were in control and had the availability to option out for a
7 particular event without having to leave the program. And so we've designed that
8 feature within the program as well, that customers could call up and ask to be removed
9 from an event. And then I highlighted a couple of the other small attributes of the
10 program as well, from the customers' eligibility.

11 I have presented to you a piece of collateral that is indicative of what would be
12 provided to our customers for enrolling in the program, which as you can hopefully see,
13 it provides an introduction to the program, it explains what the customer will receive,
14 what the customer should expect as a result of participating in the program, and then as
15 well some of the information as to how they can contact us relative to the program.

16 The next program I'd like to share with you is what we've termed our Home
17 Energy Improvement Program. This is an energy efficiency program that's available to
18 all residential customers –

19 CHAIRMAN FLEMING: Excuse me just a minute.

20 Since we've moving to a different one, if we could see if
21 any Commissioners have any questions on that.

22 MR. EDGE: Yes, that would be great.

1 CHAIRMAN FLEMING: Commissioner Clyburn.

2 COMMISSIONER CLYBURN: Good morning.

3 Mr. Edge: Good morning.

4 COMMISSIONER CLYBURN: As it relates to energy-
5 wise, you mentioned I guess a load control characteristic of
6 the overrides, in particular about the overrides, and that
7 persons are allowed two interruptions per season. Is there
8 some type of punitive – if I were to ask you a third time,
9 because I had a third party, is there some type of surcharge
10 or something?

11 Mr. Edge: There's not a surcharge. We would discuss this with the customer and
12 probably come to the conclusion that this was not the best program for the customer in
13 which to participate, and we'd ask for removal from the program.

14 COMMISSIONER CLYBURN: Okay. And I would
15 lose my \$25 at the end?

16 Mr. Edge: Well, you wouldn't be subject to receiving the \$25 on the next anniversary
17 date; you would still have received the \$25 upon enrollment, just not the anniversary
18 date.

19 COMMISSIONER CLYBURN: Right.

20 Mr. Edge: If you decided that you preferred to rejoin the program, then at any time we'd
21 add you back to the program but we wouldn't provide the \$25 enrollment fee a second

1 time; we would require twelve months of continuous participation before the next \$25
2 payment.

3 COMMISSIONER CLYBURN: And also you speak
4 about this cycling as opposed to the more dated method of,
5 you know, powering down and powering back up. Is that
6 cycling considered more energy efficient, because as you
7 know there's always been a debate whether or not if you turn
8 everything off and then, you know, power back up when you
9 come back home, whether or not that is more of a savings to
10 you and positive for the environment, so to speak, as
11 opposed to the cycling that you mentioned.

12 Mr. Edge: This is a demand response program which means that the primary objective
13 of the program is to shift the peak and, therefore, the value that's derived to ratepayers
14 is derived primarily to the capacity benefit of the program. As we recover from an event
15 and thus as we removed – as the event expires, the four-hour event expires and the air-
16 conditioner is returning to a normal cycling period, there is a catch-up, or what we refer
17 to as a snap-back, so actually there is some energy usage that's regained, but it does
18 not exceed what originally had been consumed throughout the period. Again, I don't
19 want to defray that discussion; this is the demand response program that's literally
20 driven to shift the peak.

21 COMMISSIONER CLYBURN: Well taken. Thank
22 you.

1 CHAIRMAN FLEMING: All right. Are there any other
2 questions?

3 COMMISSIONER HOWARD: I do.

4 CHAIRMAN FLEMING: Yes, Commissioner Howard.

5 COMMISSIONER HOWARD: Some customers might
6 have their thermostat set at 66, and another on 78, using a
7 lot more power than the 66; are both of them cut back the
8 same percentage?

9 Mr. Edge: Yes, sir. Both of them are cycled by the same percentage, and one of the
10 realizations is that air-conditioners are often installed in oversized, meaning that it's not
11 so much the customer's setting at 70 degrees or 68 degrees as much as is the
12 customer that sets it at 70, was that unit right sized versus oversized? As an example,
13 if we had both customers set it at 70 degrees but one was right sized and one was
14 oversized, and the right sized unit could be running a more continuous operation than
15 the oversized unit, so part of that intelligence that's embedded in the switch is to
16 recognize what the normal cycling would be of that unit to maintain comfort within the
17 home, or the customer's choice specific to the home. And our cycling strategy is
18 applied specific to that customer, that recorded memory within that intelligence, so that
19 we ensure that we're getting a reduction from each customer that's participating in the
20 programs, not just the right sized customers. So we're able to take into account that
21 oversized unit as well so that they don't become what I would term as freeloaders on a
22 program like this.

1 CHAIRMAN FLEMING: Are there any other
2 questions? I think you had one, Mr. Melchers?

3 MR. MELCHERS: Yes, thank you, Madam Chairman.

4 Mr. Edge, let me give you a coupon analogy. There's
5 a Kohls near our house and if we get the 10 percent Kohls
6 coupon, my wife is not that excited; the other day she got a
7 30 percent off coupon, that was news. Is \$25 news to your
8 customers? Have y'all done an analysis of how much
9 penetration you might get in response to the \$25 a year
10 savings?

11 Mr. Edge: We have, and my wife, for the record, would as well be excited by the
12 30 percent as well; in fact, she's probably already used the coupon. The \$25, we did
13 conduct focus groups in the formation and design of this program, and in that focus
14 group we not only tested the incentive, but we as well tested the marketing message, so
15 it's a combination of the incentive and ensuring that you're targeting the program to
16 consumers who will participate in the program.

17 And so we identified those consumers at that level. We feel like we can meet the goals
18 of the program with that incentive level, as well as we benchmark with other utilities, so
19 we've gone and we've looked at air-conditioning load control programs across the
20 Country; the range of incentives in a annualized payment were in the \$20-\$35 range
21 was a normal range. I would suggest to you that if we're not able to accomplish the
22 participation goals of this program with the \$25 incentives and we have concluded that

1 as a result of the amount, then we would come back before the Commission and ask to
2 raise that incentive to whatever is necessary to acquire customers, assuming that we
3 can still maintain cost-effectiveness of the program.

4 MR. MELCHERS: Great, thank you.

5 CHAIRMAN FLEMING: What is your goal, and what
6 percentage of peaking are you hoping to save?

7 Mr. Edge: Our goal over the decade of this program would be to acquire enough
8 participants to defer the need for approximately 250 megawatts of generation; and that
9 would be a penetration of 20 percent of the eligible market. So if you look at that
10 86 percent of central air-conditioning units applied to our customer base and take into
11 account the projected growth of our customer base, that would be accounting for or
12 acquiring approximately 200- to 220,000 customers over that course, the period. We
13 think that's feasible based on other aggressive load control programs that have been
14 conducted throughout the Country.

15 CHAIRMAN FLEMING: Okay. Someone presented
16 information that if you could just save three percent through
17 energy efficiency during peaking time, that it really is a
18 tremendous saving of money; is that correct?

19 Mr. Edge: I can't address the three percent. I can only address it by, these unit devices
20 – let me provide a little more clarity into the impact per customer. The units themselves,
21 the device, we conducted tests back in the summer of 2007 to test various control
22 strategies with this new technology; during that period we collected data and we were

1 able to do end-use load measurements, and our conclusions through our evaluation
2 was that we could displace 1.1kW per participant, and that probably helps you a little
3 more with the math relative to that. You had asked earlier about the objectives and I
4 gave you an answer relative to participants, so 1.1kW per residence accounts for as
5 much as 20 percent of the average coincident peak of our current residential users. Our
6 average diversified coincident peak of a residential user is about 4.5kW, so I think to
7 answer that question in a little bit different manner, 1.1kW of a 4.5kW coincident peak is
8 a significant amount of savings, yes, ma'am, and it is cost-effective.

9 CHAIRMAN FLEMING: It makes quite a difference.

10 Are there any other questions?

11 *[No Response]*

12 CHAIRMAN FLEMING: If not, you may proceed with
13 the next one, the Home Energy Improvement Program, I
14 believe it is.

15 Mr. Edge: Yes, ma'am. The next program, we've labeled it as the Home Energy
16 Improvement Program, and it is an energy efficiency program that's available to our
17 existing residential customer base. It's available to all residential customers – and
18 again, I have provided collateral specific to the program that provides a little more detail
19 as to what's included within the program as well as the incentive amounts. The
20 collateral itself is the two-sided sheet that shows some insulation and air-conditioner,
21 window, and some duct testing.

1 As I described this program, in summary it's an umbrella efficiency program that
2 provides a menu of measures or rebates or incentives to residential customers, and
3 those concentrate around the areas of heating and cooling duct testing and repair,
4 insulation, and windows. The program – again, available to all customers – will be
5 marketed through a midstream and upstream type tactics of which we invested a lot of
6 money in making this program aware to the contractor network and to people who sell
7 equipment that would promote energy efficiency, that would encourage them through
8 their customers, to make an investment in higher HVAC equipment, using an example.

9 Additionally, we would have consumer push marketing material as well to make
10 our customers aware that there are opportunities as they are replacing equipment,
11 heavy energy intensive equipment within their home or as they're making improvements
12 in the home, that Progress Energy is willing to provide incentives and rebates towards
13 making a more wise energy efficiency investment.

14 In summary, the customers, it's available to all residential customers; this would
15 include single families, manufactured homes, and renters. In the case of renters, we
16 didn't address this in the previous program, but with all our programs renters are
17 available to participate in the program as long as there is permission of the landlord. In
18 the program process, a customer selects a prequalified contractor, the contractor would
19 complete the installation, the customer, with the assistance of the contractor, would
20 submit an incentive to us, and we would render a payment that would incentivize that
21 additional energy efficiency purchase.

22 I didn't provide, because of space needs, anymore clarity around the incentives,
23 but I would encourage us to maybe pause a second and look at the back page of the

1 collateral, and that gives you some more description of the incentives and the incentive
2 amounts that have been requested specific to the program.

3 We want to target very heavily the goals and the objectives, target very heavily
4 the heating and cooling rebates as well as the duct testing and repair, and with that I'll
5 pause as well and be glad to try to address any questions that you might have.

6 CHAIRMAN FLEMING: Okay, Commissioner
7 Mitchell?

8 COMMISSIONER MITCHELL: I'm just curious; you
9 mentioned manufactured homes. What percentage of your
10 clientele live in manufactured homes, are you aware?

11 Mr. Edge: Yes, I happened to be looking at that yesterday; 16 percent is the system
12 wide number; however, in South Carolina it's 20 percent of our residential customers
13 are manufactured homes.

14 COMMISSIONER MITCHELL: And do you see any
15 variation like how this would transfer to mobile homes or
16 manufactured homes as to your general housing? Will it
17 make any difference to those people, or do you think the
18 same program fits all?

19 Mr. Edge: I think the program – I can certainly point out some of the differences in a
20 new construction program and hopefully I'll provide some more clarity on that, of
21 working the builders versus the manufactured home industry. Specific to this program,
22 it would be applicable to manufactured homes based on the menu and the diversity of

1 the measures. There are more measures that are applicable that are likely to be
2 installed, I would say, on a single-family dwelling, stand-alone dwelling, than a
3 manufactured home. That doesn't require or limit the program participation, but it
4 certainly more of the measures are probably applicable to single-family stand-alone
5 dwellings rather than manufactured homes.

6 But as I look through it, HVAC, certainly there's a requirement that a central AC unit
7 would be applicable to manufactured homes. Attic insulation is an example and has a
8 lot more limitations and probably no applicability to manufactured homes as opposed to
9 single-family dwellings. Certainly the tune-ups and the duct testing would still have
10 some applicability to manufactured homes.

11 COMMISSIONER MITCHELL: And do you think it
12 applies – you mentioned the variations there as far as
13 renters and actual owners – do you think percentagewise
14 you're going to have the same participation among those?

15 Mr. Edge: Not at all. I think one of the challenges of DSM programs is overcoming the
16 barrier of a renter-landlord relationship; the renters have no incentive to make these
17 investments, the capital investment and improvement of the home, if they've only got a
18 twelve-month contract on the home.

19 COMMISSIONER MITCHELL: That's the reason I
20 was asking that question; I know you included that, but my
21 first response would be it would be very difficult to make that
22 balance out without maybe further initiatives of some sort.

1 Mr. Edge: And it's an incurred challenge not only with residential homes across the
2 Country; it's not specific to South Carolina, as well as small businesses. It's one of the
3 huge challenges with small businesses as well overcoming that landlord-tenant
4 relationship.

5 COMMISSIONER MITCHELL: And I just bring these
6 issues to the surface when you're talking about 20 percent of
7 your clientele, that's a large percentage, and you know
8 issues like that are going to have to be addressed to make a
9 program successful. And that's the point I get across, it
10 always amazes me the high percentage that actually live in
11 manufactured homes, particularly in the rural areas, and
12 everywhere. But I appreciate the fact that you are working
13 hard to address the problems and looking at every facet.
14 Thank you.

15 CHAIRMAN FLEMING: Are there other questions?

16 [No Response]

17 CHAIRMAN FLEMING: If not, okay.

18 Mr. Edge: The next program is Home Advantage is the label of the program, and then
19 in parentheses I provided an explanation of the program we're marketing under the term
20 Home Advantage. This is a Residential New Construction Program, and as Mr. Mitchell
21 pointed out, manufactured homes are a significant portion of our territory, as well as
22 they're a significant portion of our new homes, and as such there is opportunity to

1 differentiate how we work with end-use builders specific to single-family dwellings and
2 how we'll address the manufactured home industry specific to this program.

3 This program, really in summary, is to provide builders with incentives,
4 compensatory incentives, which include rebates as well as training specific to building a
5 more energy efficient home, and new construction is often referred to as lost
6 opportunities because if you don't make that investment in the initial stages of the
7 home, it's very likely only until the time of replacement that you have an opportunity to
8 make that energy efficiency improvement later on.

9 The intention of this program is to provide incentives to builders for building at or
10 exceeding the Energy Star standard, which is a nationally recognized standard. The
11 opportunity to the builder, the incentive to the builder, financial rebates, as well as the
12 opportunity for some co-branding and co-marketing opportunities with Progress Energy.
13 They also have the opportunity to create a pool from the residential consumers from
14 which we would extend our five percent energy conservation discount to the home
15 owners.

16 The program, we have a lot of heavy lifting to do in the State of South Carolina
17 as it relates to Energy Star homes. If we look across our system service territory, to
18 provide you an example, our service territory in North Carolina the number of Energy
19 Star homes built in 2007 was 927; in 2008 it was 1449. Granted, we don't serve the
20 entire state, and I don't have those numbers available. In South Carolina the number of
21 Energy Star homes built in our system service territory in 2007 and 2008 are zero. To
22 our knowledge we have no known Energy Star homes that have been built in our
23 service territory in South Carolina. So we feel like this is a tremendous opportunity for

1 us as a utility to make improvements in new construction, and in order to do so there is
2 an extensive network of providers, HERS raters, there's a tremendous amount of
3 education, we're willing to make the commitment in educating the building community
4 about the opportunities and improvements in energy efficient homes, and that's a big
5 portion of this program, is training and developing that network. We're already working
6 with and having early discussions with the other utilities within the state, with the State
7 Energy Office, specific to how the first step would be how to develop and create a
8 provider, what's referred to as an Energy Star provider within the state. This provider
9 would be there to issue certificates, that would be there to maintain the HERS rater
10 network, and upon approval of the program, of course, one of the very first things we
11 want to do is heavy and intensive training specific to the building community.

12 One of the challenges with this program as well is new construction is halted, and
13 so that's a challenge and an opportunity – I like to always look at it optimistically. In the
14 height of the building era, I guess two years ago, it was very difficult to find time to
15 speak with builders about the opportunities in energy efficiency; they were at a peak
16 and throwing resources at peak. And that has changed tremendously, and we have
17 observed that change, and so now we find it creates an opportunity to have an
18 opportunity to sit down with the builders and explore energy efficiency building and talk
19 about the concepts, and we find a lot more reception to that, at least we have in our
20 North Carolina program. So we feel like this is a tremendous opportunity.

21 There is a difference in dealing with manufactured homes. You have to go much
22 further upstream, and parts of this program are to invest in that. We had contracted
23 with what's referred to as the System Building Alliance Association – it used to be called

1 the Manufactured Homebuilding Association – it's a national association, of which we
2 would utilize their relationships with manufactured homebuilding to go upstream, work
3 with the manufacturers and talk about the energy efficiency opportunities throughout our
4 service territory.

5 To provide a quick summary of the compensation or consideration to be provided
6 to builders, it's a \$400 building incentive to meet the Energy Star standard that can be
7 used to offset the incremental cost of the construction of the HERS rater. For
8 manufactured housing, it's as well \$400 of which \$300 is provided to the manufacturer;
9 we also split a part of that to the sales lot incentive so that sales lots are pushing and
10 promoting Energy Star concepts. In addition to that, after meeting the threshold of
11 Energy Star, there are additional incentives to upgrade HVAC and we've provided that
12 description in your brochures, but as much as \$300 to upgrade to a 15 SEER heat
13 pump and there's also some cooperative advertising opportunities as well to builders
14 which what that means is, they could advertise within newspapers and do some co-
15 branding and we'd pick up a portion of that cooperative advertising as well as provide
16 yard signs, we provide various collateral material that would be placed in the home as
17 the home is being shown. It talks about the value to the consumer of an Energy Star
18 home.

19 CHAIRMAN FLEMING: I have a question. Going
20 back to the builders, what do you think the difference is; is it
21 difference in legislation between North Carolina and South
22 Carolina, or the renewable energy portfolios?

1 Mr. Edge: No, no. Really, I think it started probably almost a decade ago and it was a
2 result of, there's an Advanced Energy Corporation which is a third-party public benefit
3 fund, and the heart of the focus dollars and efforts starting back in 2001 was to start
4 making investment in Energy Star homes, as an example, the HERS rater provider or
5 they're the Energy Star provider for the State of North Carolina, so I think that created
6 the catalyst and that's, you know, eight years ago and it's taken some time to gain that
7 traction. There certainly has been a lot of heavy building activity as well within the State
8 of North Carolina, but I would probably attribute most of those gains to the efforts of
9 Advanced Energy Corporation and through some of the uses of the funding there.

10 CHAIRMAN FLEMING: Okay. All right. If you'll
11 proceed.

12 Mr. Edge: The next program is Neighborhood Energy Saver, it's a low income program,
13 and you can review the home energy improvement, as an example – even though it's
14 available to low income customers, these rebates that I described earlier, only offset a
15 portion of the incremental cost, the other portion would have to be paid for by the
16 homeowner, and this becomes the challenge in low income homes. Homeowners don't
17 often in low income homes have the discretionary funds to make that additional
18 investment specific to energy efficiency. This program is designed and targeted and
19 only eligible to low income neighborhoods, and low income is defined as any
20 neighborhood of which 50 percent of the population is at 150 percent or below of the
21 poverty level. And the mechanism by which this program works is that, we identify
22 these neighborhoods throughout our entire service territory system. And the

1 150 percent poverty threshold, there are approximately 240,000 out of our 1.2 million
2 that meet that criteria of 150 percent poverty level.

3 If we narrowed that down even further, if we identified those geographical
4 neighborhoods – and I'll hopefully lead you to a summary of why we have to condense it
5 somewhat – once we focus on the density of neighborhoods of which 50 percent or
6 greater of the population meets that threshold, there's roughly 43,000 customers in our
7 service territory, of which live in communities that have that level of density. So the
8 purpose of this program, it becomes a cost effective mechanism of which we can invest
9 in energy efficiency in these type of neighborhoods, in these type of communities,
10 specific to these households, and what we would do is, we would work with community
11 leaders and organizers.

12 Once we identified a neighborhood, to prepare the community that what Progress
13 Energy is getting ready to do within the next coming weeks is, we're going to come in
14 and make direct install investments in the home. And we'd have rallies within the
15 community, we'd send direct mail within the community, and we'd notify people living
16 within those identified communities that Progress Energy is going to be in your
17 neighborhood and in fact we'll be at your house either this day at this specific time. And
18 the opportunity is available to customers at no cost to the low income communities.
19 We'd start with a home energy assessment, so we'd ingress the home if an adult is at
20 home, and we would do an assessment of the home and then shortly thereafter we
21 would send our contractors back to the homes to make direct investments, and these
22 investments are investments including up – and I provided that in an additional slide; let
23 me slip on over to that – the types of investments we would make are a lot of what I

1 would refer to as low cost but effective measures. They would include as much as ten
2 compact fluorescent bulbs; it would include air infiltration – what I mean by that is, it's
3 caulking and weather stripping within the home. It would also include low flow shower
4 head and faucets, insulation around water heaters. And as well as not only do we make
5 these direct investments, we would provide education material to these households as
6 well specific to other measures or investment opportunities that are available to them at
7 a reasonably low cost.

8 With the federal stimulus, there's a lot of federal activity that's being made in this
9 area. In the State of South Carolina, I believe there are \$59million that are going to be
10 available through the weatherization program. So we have carefully designed this
11 program and admittedly, you know, it's changed somewhat as this federal stimulus
12 money became available. We wanted to make sure we weren't competing against the
13 stimulus dollars but rather we're complementing a void of the market. And so, whereas
14 the weatherization program identifies homes and makes a pretty heavy investment – it
15 could include upgrading insulation or investing in AC equipment, we feel like we are
16 making an investment to a broader portion of the population, but the investment is
17 leading to significant energy savings within the home. The goals of this program would
18 be to canvass each of the neighborhoods that I described to you over a five-year period
19 of time, and it's based on, by the way, for some historical fact, it's a program that we
20 have operated for approximately two years in our Florida legal entity, and so the
21 program has been very successful there and we were able to take many of the
22 attributes that have been successful and have pinned on what we think would be
23 successful in the State of South Carolina.

1 CHAIRMAN FLEMING: Any questions? Yes,
2 Commissioner Clyburn.

3 COMMISSIONER CLYBURN: One thing that got my
4 attention in this project is that you mentioned in Florida is, on
5 the surface, it looks promising, is the disposal of those bulbs.
6 I'm wondering that type of ongoing education or how easy is
7 it for a person to, you know, people are creatures of habit
8 and they do things in a traditional way. I haven't had to
9 dispose of one of mine but I hope I remember what I'm
10 supposed to do and what I'm supposed to touch and not
11 touch, which I'm sure I violated. But that part of it worries
12 me from the environment standpoint because there are
13 issues with that. What are you doing, you know, to reinforce
14 that message to make it easy for persons by way of
15 disposal?

16 Mr. Edge: Not to directly address in this program – we are working and we didn't
17 prepare to discuss today a residential lighting program, but a fairly aggressive
18 residential lighting program which is currently being designed, and the implementation
19 providers are being chosen as we speak, and a component of choosing that provider is
20 not only the educational component about disposal but finding solutions for disposal as
21 well which would include identifying vendors and retail outlets which are willing to
22 accept bulbs. It also would include working with the local communities and waste
23 disposal facilities within those communities to ensure there's an adequate amount of

1 disposal locations throughout our service territory. And I will admit to the fact that once
2 that program is developed and that network has been delivered, we can easily append
3 that within the neighborhood energy saver program as it pertains to the compact
4 fluorescent bulbs.

5 COMMISSIONER HAMILTON: Madam Chair?

6 CHAIRMAN FLEMING: Yes, Commissioner.

7 COMMISSIONER HAMILTON: The efforts have been
8 great, but I think going to these communities and
9 canvassing, I think is a good approach and would help much
10 better than just seeing light bulbs. You never know if you
11 can use them or not until you actually install them.

12 Mr. Edge: We're going to install them, that's correct; not just hand them but ensure that
13 there's there – and not only install them but make sure they're installed in fixtures which
14 are used the most. Just taking a compact fluorescent and putting in your closet is a lot
15 different than taking a compact fluorescent and making sure that it's in your kitchen or
16 your living room where it's going to be used the most.

17 CHAIRMAN FLEMING: Are you going to be
18 addressing home assessment programs for other than the
19 low income?

20 Mr. Edge: I was not but I'm willing to do so if you have some questions about home
21 assessments.

1 CHAIRMAN FLEMING: Well, I would like to hear
2 what you're planning to do at the appropriate point.

3 Mr. Edge: This would be fine. When we were analyzing the various measures and the
4 program attributes of our home energy improvement program, we did look at the
5 opportunity for walk-through audits, is what I would refer to, or providing incentives for
6 walk-through audits. By including those within the program, it made the program not
7 cost effective, and as we went out for request for proposal, it becomes prohibitive. It's
8 very costly to mobilize a work force to ingress the home, and as we talked to other
9 utilities, it was very difficult to find any accurate information relative to the conversion
10 rates.

11 If you look at this program as an example, home energy improvement, and you
12 think about someone who is willing to make an investment in their air-conditioning unit,
13 it's very inconceivable to think that we're going to convince the customer, if they have a
14 perfectly good air-conditioner, to replace that air-conditioner. The reality is, the
15 customer is going to replace the air-conditioner when it breaks, and so we want to
16 ensure that at the time of replacement that the customer, when they're making that
17 decision, to replace that unit, that they don't just stay with the baseline, we want them to
18 make an investment into a higher efficient unit. So if you look down the various
19 measures, the home energy audit, a walk-through type perspective becomes very
20 costly, and if you're, as an example, getting only a conversion rate of 10 percent of each
21 home that you ingressed to actually taking that type of action, you have to account for
22 all those costs and by the time you get to the tenth home, you've got to be able to
23 account for the costs of the other nine homes that didn't do anything. So we backed up,

1 we made a decision not to include a walk-through option. However, we do feel like
2 there's value in providing education to consumers about energy savings opportunities
3 and as such we're making an investment, we're promoting very heavily on-line audits,
4 we're going to make available phone-assisted audits to consumers, as well as mail-in
5 audits. And the design and intent of that is the customer provides us information
6 relative to the age of their home, the age of their appliances, and we in return provide
7 them a printed report or an on-line report, whatever the customer chooses, that not only
8 talks about the energy savings opportunities, but depending on how the customer would
9 fill out that information, it would specifically direct them to a program and an investment
10 that they would be able to make to make a cost effective investment in the home,
11 whether that be the compact fluorescent bulb or if we make a determination that the
12 customer's HVAC equipment is 20 years of age, then it's to start that education to the
13 consumer at the time of replacement, - "please be aware that we have an air-
14 conditioning program available."

15 So we have not included and do not intend at this point in time to provide any
16 kind of walk-through audits or walk-through assessments outside of this program we
17 described here.

18 CHAIRMAN FLEMING: But you would have it on-
19 line?

20 Mr. Edge: On-line, it would be available to mail in, it would be available on a phone
21 assisted basis, and we intend to heavily promote each of these three options to all our
22 residential consumers.

1 CHAIRMAN FLEMING: And how were you going to
2 promote that?

3 Mr. Edge: We do that – the predominant manner which we intend to do moving forward
4 would be – and if you would hit our website, you would see it. In addition to that is
5 direct mail, so we would provide a direct mail piece to consumers which talks about the
6 opportunity. It actually has a bubble sheet or it provides an option to our customer to go
7 to our on-line portal and it lists it there, it's approximately 55 to 60 questions about their
8 home, and if they fill out a bubble sheet and send it back to us, then in three weeks we
9 send them a nice four-page report that talks about the energy savings opportunities. It
10 also provides a glimpse to the consumer as to how they're doing as compared to other
11 consumers like themselves, and in addition to that, it identifies the programs that are
12 available from Progress Energy in which they can participate and make a difference in
13 their energy usage.

14 CHAIRMAN FLEMING: Okay. Any other questions?
15 Yes, Commissioner Clyburn.

16 COMMISSIONER CLYBURN: So in terms of what I
17 would call traditional – and I know a lot of people have cut
18 back – but in terms of traditional outlets by way of media
19 outlets, you have no plans of promoting these programs,
20 say, on radio or television, or print?

21 Mr. Edge: Which programs are you referring to – the home assessments, or any of
22 these programs?

1 COMMISSIONER CLYBURN: Yes, any of them,
2 especially the home assessment program.

3 Mr. Edge: Yes, we have, as well we've been conducting through each of the media
4 outlets that you mentioned – SaveTheWatts.com – which include TV promotion, it would
5 include both print media promotion as well as some radio promotion. A certain portion
6 of the future promotion might very well include some of those media advertisements as
7 well.

8 COMMISSIONER CLYBURN: And another question
9 we need to talk about – sorry, I'm not long getting off the
10 plane, so if you see me doing this, it's not personal, or
11 maybe it is personal but it's in conjunction with being a little
12 fatigued – but one of the things I thought about when you
13 talked about the questionnaire and especially as it relates to
14 the purchase of a unit, I'm wondering if one of the questions
15 could be, where would you purchase that unit, because it
16 seems to me that the point of purchase part could know that
17 part and if a vendor were willing to have some type of
18 signage – and that might be a lot to ask especially a big box
19 store – saying here are the programs that are available,
20 some type of signage or something there, then that's another
21 reinforcement to potential customers – okay, yeah, that's
22 right, I think I've seen that logo, I think I've seen that.

1 Mr. Edge: That's great insight on your part – and I didn't get to that level of detail – but
2 we have absolute full intentions. As an example, for compact fluorescents, if we
3 determine a home has made no investment in compact fluorescents or very few
4 investments, we not only identify the opportunities through, let's say, a future program
5 or a current program, we physically, based on a customer's street address, we'll give,
6 as an example, the top five or the five closest retail locations of which have programs
7 available to the consumer. Absolutely. We don't want to just educate, we want to direct
8 as well.

9 CHAIRMAN FLEMING: All right.

10 Mr. Edge: The next program is a Solar Hot Water Pilot Program, and solar hot water
11 heating is a measure that certainly has the interest of broad public policy, it's, quite
12 frankly, a measure which challenges us as a utility to determine its applicability within
13 our portfolio, and by that I mean, is it an energy efficiency measure or is it a measure of
14 which we comply with various renewable standards, either current or future. And as a
15 result in helping them make that determination, there's very little data available about
16 the measure, so the intent of this program is to provide and develop a sample of
17 customers who would be willing to make that investment in solar hot water heating, and
18 it's very driven research and development, it's probably best to describe it as an R&D
19 program. The intent is that we provide \$1000 to 150 customers and in return the
20 customers are promising that they'll have installed a solar hot water system as well as
21 they're promising over the course of the next year – and they'll advise us through
22 various surveys and information relative to the characteristics of the program – but more
23 importantly, they'll be willing to make an investment of monitoring and metering

1 equipment at their location so that we can collect information. The intent of this
2 program is to determine what is the average kilowatt-hour reduction as a result of these
3 measures, what is the coincident peak impact of a solar hot water heating system, and
4 as well to get a lot more clarity to what the true participant cost is. Each of those is the
5 three primary attributes for determining cost effectiveness.

6 The types of equipment that we'll be installing or the type of measurements that
7 we intend to collect will be the incoming water temperature, we'll be collecting the flow
8 usage; the attribute of the measures will be driven largely by consumption, so how will it
9 drive the savings factor. And then as well we'll obviously be able to gain some insight
10 as to the kilowatt-hour reduction as a result of where it's installed.

11 So once we've completed the pilot, we'll have hired a third-party independent
12 verification company to provide us the results and hopefully make a decision as to
13 where or if it fits in our portfolio moving into the future.

14 CHAIRMAN FLEMING: All right. Any questions?

15 *[No Response]*

16 Mr. Edge: The Energy Efficiency for Business Program – if I use the word CIG, that is
17 my acronym for Commercial, Industrial and Governmental Customers – it is a very
18 broad program, very expansive program that's available to all our business customers
19 throughout our service territory. It is a menu of applicable rebates and incentives,
20 almost 70 in total as far as prescriptive measures, and if a certain energy efficiency
21 investment doesn't fit within one of the more commonly used prescriptive measures,
22 then there are also custom measures that are available to these consumers as well. It's

1 a very, very large program. We expect that there's a tremendous amount of
2 opportunities to pursue these on very cost effective opportunities to pursue these on a
3 commercial and industrial front. It's expansive in that there's applicability to all
4 customers, it's available for new construction as well as existing construction. It
5 includes both new construction as well as retrofit.

6 The predominant manner in which we would market this program is, again,
7 through a very, very extensive network of trade allies – engineers, architects, equipment
8 manufacturers and providers, as well as any customer that's larger than 200kW, we still
9 have direct relationships to those customers with account management teams. So any
10 of those applicable customers we've marketed directly through our account
11 management team as well.

12 The incentives, just quickly – the retrofit projects for existing customers, there are
13 prescriptive measures that are largely focused on areas of lighting, air-conditioning
14 chillers, motors and drives and refrigeration. Again, if you're making an investment and
15 it's not covered by any one of the prescriptive measures, then we have a custom
16 measure of which the customer and/or their engineer or architect would provide through
17 an application a description of the investment as well as type of engineering analysis
18 that would support the savings as a result of that investment, and we would provide
19 compensation based on the first year annual savings to help offset the cost or help to
20 incentivize that investment over what would typically be done on a baseline basis.

21 In addition to the compensation provided for energy efficiency investments, we
22 do provide an incentive to help offset the investment for technical assistance and by
23 this, this would include audits, for example, of commercial or industrial facilities; we're

1 willing to make an investment in an audit. I've shown the lines of delineation here, and
2 we would help provide a portion of the offset of those costs that would be used and
3 done by a qualified engineering firm to conduct those audits. They wouldn't be
4 conducted by us, but through the marketplace.

5 Very similarly there are incentive opportunities for prescriptive custom measures
6 here. I would point out a little bit of the difference in new construction. We talked about
7 the lost opportunities in new construction – we do provide some even heavier incentives
8 that are available to new construction, particularly if they exceed 20 percent of energy
9 efficiency.

10 So from a whole building perspective, it becomes a lot more applicable, this type
11 of incentive, because you get a lot of interactive effects on various measures, so if a
12 customer were investing in chillers and HVAC and lighting, and the modeling would
13 have to capture all those interactive effects, but we really want to encourage that
14 investment up front, and we see this as a very cost effective opportunity, and you can
15 see the heightened incentive amounts for those types of opportunities.

16 What's not covered under this program – and it's truly applicable to any of our
17 programs – I haven't mentioned it, but fuel switching, in any of the design incentives
18 we're not encouraging customers to switch from gas to electric. Renewable supply side
19 generation, solar PB or wind wouldn't be covered by that custom application.

20 Conventional owned, site electrical generation, O&M changes – we're not here
21 incenting O&M changes. A lot of that is due to validation of the longevity of those
22 things; we're looking to offset the investments of capital projects that would be made by
23 customers. And then peak-shifting, we have some demand response programs but

1 we're not incenting this as an energy efficiency program, not a demand response
2 program.

3 Just to provide some clarity, one might ask the question, or one often asks the
4 question: how do you ensure that one of your very, very large industrial customer or
5 very, very large commercial customer doesn't consume the entire budget associated
6 with this program. And in order to prevent that and still provide an aggressive
7 opportunity for customers, we have a tiered approach to incentives so that as the
8 earned incentive amount increases, we start to taper off the amount of actual incentive,
9 and again, the intent of that is designed so that one customer doesn't come in and
10 consume the entire budget and therefore limit the applicability to all of our other
11 customers.

12 So I will again pause and be glad to answer any questions that you have specific
13 to that program.

14 CHAIRMAN FLEMING: Commissioner Whitfield.

15 Then we'll do Commissioner Hamilton.

16 COMMISSIONER WHITFIELD: That's all right,
17 Madam Chair, he can go. I've got one quick question.

18 CHAIRMAN FLEMING: You go ahead.

19 COMMISSIONER WHITFIELD: I've got a question
20 relating to the commercial, industrial and governmental
21 entities that you just last discussed. Within the last week or

1 so I've seen some statistics that have shown that the biggest
2 gains to be made are in that sector versus residential, and I
3 know you spent a good bit of time this morning on
4 residential. I don't have those actual numbers right in front
5 of me, I've just seen them within the last week or two, but it
6 was pretty substantial on that sector and much less
7 substantial on the residential regardless of how much energy
8 efficiencies was done. Do you have any numbers or
9 percentages that show what you-all might gain from that
10 specter versus the residential programs you've just
11 discussed?

12 Mr. Edge: We would anticipate as the portfolio matures that indeed, in fact, a lot of the
13 savings – as much as 40 to 60 percent of the savings in a portfolio basis – would come
14 from this sector. Quite frankly, as the portfolio matures, it could very well exceed that
15 60 percent. I'm not sure what you're referring to, but I would at least maybe add to that
16 that the most cost effective energy savings is generally derived within this sector, and
17 that's often because they're larger users. But it's as much as the acquisition cost; as
18 you might imagine, it's quite expensive to acquire a customer in a residential basis to
19 make an investment for a very small savings as compared to convincing a commercial
20 or industrial or governmental customer to make an improvement in the investment
21 choice relative to a chiller replacement. The load factor generally on these customers
22 are also much higher than that of a residential customer, which is very peaking, and so
23 the load factor is often very small. Commercial customers operate at a higher intensity

1 CHAIRMAN FLEMING: Okay. Commissioner
2 Hamilton.

3 COMMISSIONER HAMILTON: I have one. I believe
4 in the Stipulation and Order we issued, some of the very
5 large users were able to opt out of the program, is that
6 correct.

7 Mr. Edge: That's correct.

8 COMMISSIONER HAMILTON: Okay. I'm wondering
9 for future economic development, if we have a customer in
10 your territory that plans to bring in a new industry and it's a
11 steel plant or something that's going to have a very high
12 intense use, will that opportunity be a choice on the table as
13 to whether to take part or not take part?

14 Mr. Edge: Yes. As I understand the Stipulation or Settlement, a new industry that
15 would meet the requirements of the opt-out would still be eligible to opt out. It's
16 optional, of course, but they would have the eligibility to opt out.

17 COMMISSIONER HAMILTON: And I'm sure the ones
18 that have stipulated out, if they decided later that they
19 wanted to be a part of it –

20 Mr. Edge: That was part of the Settlement: at any time if they decided that they wanted
21 to participate in the program, then they would no longer, you know, be opted out of the

1 rider and they can participate immediately with any of the programs that we've
2 described or developed.

3 COMMISSIONER HAMILTON: So we didn't close
4 any doors?

5 Mr. Edge: No doors have been closed at all. In fact, it's still available to every one of
6 our customers until – at any time if they chose to opt out, it's just once they participate,
7 then they no longer are eligible to opt out for a period of time.

8 COMMISSIONER HAMILTON: Thank you very
9 much.

10 CHAIRMAN FLEMING: Are there any other
11 questions? Commissioner Wright.

12 COMMISSIONER WRIGHT: As this relates to the
13 federal legislation that may be pushed or whatever on REPS
14 and that energy efficient component that you would have to
15 meet, these programs that you're talking about here – how
16 does that, I guess, reach out to meet that goal? Do you
17 know, or do you know what your percentage is – I know you
18 probably have a goal – do you know what that would be for
19 everything combined? I know you talked about the
20 residential earlier; I guess I'm looking at it as a whole, and
21 then looking at it in light of what might be coming.

1 Mr. Edge: I'm as well watching the federal legislation, and it is changing quite rapidly as
2 well. And even so much as this week.

3 COMMISSIONER WRIGHT: Yes, it is.

4 Mr. Edge: We would intend – there are opportunities, if the federal legislation moves
5 forward and it does create a requirement for REPS which we could attribute some of the
6 energy efficiency towards that, we would intend to make applicable any of these
7 programs towards that portfolio requirement.

8 There are certainly aggressive goals at the federal level and it will take all of our
9 efforts to try to meet those efforts as it pertains to energy efficiencies; these are the
10 most recent goals I've seen established for the State or for us as a utility.

11 COMMISSIONER WRIGHT: All right. Thank you.

12 CHAIRMAN FLEMING: Any other questions?

13 *[No Response]*

14 CHAIRMAN FLEMING: All right. If you'll continue.

15 Mr. Edge: The final program of which I hope to share some insight, and then of course
16 I'm going to hand it to Mr. Simpson to provide you an overview of the DSDR Program,
17 is, we've got to come up with a little better name than just CIG DR, but it is a Demand
18 Response Program that's available to all of our commercial, industrial, and
19 governmental customers that are eligible, and the intent was to design a program, and
20 currently we have across our system, we do have demand response programs for our
21 commercial programs. This program is not intended to replace or displace any of those

1 current participants. In fact, I think we have approximately 319 megawatts of contracted
2 demand response that's currently within our resource plan. This is to add to those
3 opportunities, and it's to develop a program that provides slightly different incentive
4 mechanisms than the current programs.

5 Additionally, we feel like we're penetrating a part of the market that doesn't have
6 the opportunity to have on-site engineering staff or on-site energy management staff.
7 I've provided a graph here of the pie chart as it pertains to market potential of megawatt
8 opportunities in demand response, and, really, we've carved out this 451 megawatts as
9 the type of applicable customer that this program would be slated to. It's not limited, but
10 that's where, through our earlier studies, where we intend to get our participants. And if
11 we look at that 450 megawatts – and this is in consideration of current participating
12 customers that we have in our other programs as well as potential provisions of the opt-
13 out, so we look at this chart customer base and we think there are tremendous amounts
14 of opportunities in multi-site commercial, national chains, water pumps – very intense
15 users who have the flexibility to opt into, with the right incentive, to shift usage of the
16 pumps, and perhaps government buildings.

17 But the attributes of these current customers as well are pretty common. They
18 generally don't have an on-site staff energy manager, somebody who is there ready to
19 push the button; they're often very unaware of their demand response capabilities. But
20 we've designed a program which provides that type of assistance through assessments
21 that would be made at the customer's location that identify potential demand response
22 attributes as well as the incorporation of smart technologies – and this speeds in to
23 some of Bobby's discussion, you know, we hear a lot about the smart grid. This is

1 making technology investments at our customer's premises to help them help us make
2 an investment in the demand response.

3 This is a two-way communication device. This program is successful in the fact
4 that there's a two-way communication device that's outlined under the energy
5 management equipment that sits there, which we communicate currently through a
6 cellular interface; we can do that through our IP interface. Everything on the left side of
7 that is all of our servers, that's our control center. Everything to the right side of that,
8 the customer equipment, anything the customer needs to hook into this, and they do
9 that through dry contact, through Ethernet contacts. We can accommodate any of the
10 major industrial type protocols – the modbus – meaning that a customer could hook up
11 their energy management systems so that when they receive a signal from us, there's
12 automatic shedding of load, as described by the customer. The customer makes a
13 decision of what they control – it might be lighting, it might be turning off half the lighting
14 through the energy management system. Customers might comply by utilizing some
15 type of on-site generation. Any type of discretionary load.

16 So the context of it is, we'll provide incentives, we'll provide signals, and as called
17 upon customers would shed load to a contracted amount. In turn, the customer
18 receives three forms of consideration. One is what we refer to as a participant incentive
19 and this is an incentive that's made very early in the program and that helps offset the
20 capital or any type of investment the customers had to make in order to incorporate their
21 equipment into our device. And so it's to help offset some of those costs.

1 There's also what we refer to as an availability credit. That's a recurring credit on
2 a monthly basis that's available to the consumers that says, 'hey, we're here, we're
3 participating, we're ready when called upon.

4 And then there's an actual – any time we call an event, we have yet a third
5 incentive or a third credit that's provided to the customer for compliance with the event.
6 So those three in combination would be the total considerations provided to customers
7 and we think it will be a very attractive program to our consumers.

8 CHAIRMAN FLEMING: Okay.

9 COMMISSIONER HAMILTON: Will this program
10 replace the firm or nonfirm customers?

11 Mr. Edge: That was not the intention of the design program. As I mentioned earlier, we
12 have full intentions currently of still maintaining all existing rates and riders as it pertains
13 to demand response, including firm and nonfirm on the commercial, Industrial and
14 governmental ability.

15 COMMISSIONER WRIGHT: A quick question. Any
16 time nowadays that you see system users or computers or
17 whatever you think about cyber-attacks or anything like that;
18 is this open, is this a closed, protected system, or is it
19 something that is part of a bigger overall deal?

20 Mr. Edge: Every bit of the cyber security provisions are being negotiated between our
21 I.T. Department and our equipment providers. I'm not the right person to address that in
22 any further detail; I just don't have much knowledge of it other than our I.T. are

1 ensuring, within the provisions of our contracts with buyers, that everything is protected
2 relative to customer information and to the security necessary for the utility.

3 COMMISSIONER WRIGHT: My question, I guess,
4 would be more to – you say the customer controls; if you’ve
5 got customer equipment, it’s got to be off-site, it’s got to be
6 on their place of business, right?

7 Mr. Edge: Yes. We actually have a piece of equipment invested at the customer’s site,
8 which is that energy management equipment. So that’s our device; and then, of course,
9 they’re hooking their equipment up to our device.

10 COMMISSIONER WRIGHT: I guess that’s the point
11 where I’m thinking, you know, it’s only as strong as its
12 weakest point, so I’m wondering – I guess all that’s been
13 taken into consideration and you’re working that out?

14 Mr. Edge: Yes. And I failed to mention as well, one of the attributes and the
15 opportunities that are available to consumers is that we’re continuously getting interval
16 data, and not only made available to us for the purpose of administering this program,
17 but we also make that available to the consumer so that they have real time access to
18 their consumption. Not only for complying with an event, but it’s just a side attribute that
19 we allow them to a web interface to their usage as well.

20 COMMISSIONER WRIGHT: Okay.

21 Mr. Edge: I know that wasn’t the intent of your question; it’s just a side note that I had
22 failed to mention earlier.

1 CHAIRMAN FLEMING: Are there any other
2 questions?

3 *[No Response]*

4 CHAIRMAN FLEMING: No. Okay. I just want to say
5 I do know it's really hard to put information this complex into
6 a more user friendly for the customer and I think, just on first
7 glance, that the information looks like you've done a good
8 job of doing that.

9 Mr. Edge: Thank you. And I'll be glad to answer any questions later, but at this point, if
10 it's appropriate, I'll let Mr. Simpson provide his presentation.

11 CHAIRMAN FLEMING: All right. You may proceed.

12 Mr. Bobby Simpson: Good morning.

13 CHAIRMAN FLEMING: Good morning.

14 Mr. Simpson: We've all been hearing a lot of talk about smart grid lately; I think
15 everyone would agree with that. And there's a lot of activity around the Country under
16 the guise of smart grid. At Progress Energy we have a very well defined smart grid
17 strategy and a road map, and I'm going to talk a little bit about this as I go through my
18 presentation this morning.

19 We've taken some immediate steps to implement our smart grid strategy, and
20 that's really what DSDR is all about. I use the acronym DSDR, which stands for
21 Distribution System Demand Response Program. So there's two points I really want to

1 make as I talk through this. One is, DSDR – Distribution System Demand Response –
2 is a demand side management program, and that's the key point and the focus of the
3 discussion is on that program. Another very important point is, it also represents our
4 initial investment in a smart grid system. So I'll explain both of those things as I go
5 through.

6 The important thing about DSDR itself, though, is, it gives us the ability to control
7 consumption; in other words, how much electricity customer appliances use without
8 harming those appliances. So we think of DSDR as a new 21st century smart grid
9 enabled demand side management resource, so we're going to take our distribution
10 system and make a demand side resource out of it, and when I say 'distribution system,'
11 what I'm referring to is the part of our electrical system that goes through the
12 neighborhoods and to the customer's home. So I'm not talking about the transmission
13 grid, which is the high towers that go cross-country; I'm talking specifically about those
14 low profile power lines that go from the substations that are fenced in facilities where
15 our large transformers are, and go through the neighborhoods and rural areas to our
16 customers' homes. Distribution System – that's the focus of this.

17 So the investment that we're making is to give us the ability to use our
18 distribution system to control consumption instead of investing money in building a new
19 peaking generator. I'd like to refer to it as a peak-load reduction tool that we're going to
20 use during summer peaks in particular. And what it will do is deliver 250 megawatts of
21 capability. So instead of building a new peak generator, we're going to invest in a
22 distribution system to get those megawatts, and the thing about that, it helps reduce fuel
23 costs, it's more cost effective – this investment is more cost effective than building that

1 new generator. It's also going to help reduce the need for spending reserve; by virtue of
2 some of the things we have to do to our distribution system to make this work, which I'll
3 talk a little bit more about in a minute, it improves the voltage quality for customers; it's
4 going to reduce line losses, and it's carbon-free, so we're not burning fuel, we're not
5 putting carbon into the air, it's effectively a green resource to get more megawatts for
6 our system.

7 So the components of DSDR – I walk to talk to all four of these pretty quickly
8 here: Number one, we have to develop and install advanced technology on that
9 distribution system – and it relates a little bit to what Mr. Edge was talking about; I'll
10 make that connection later on. The technology is a crucial part of the ability for this
11 DSDR system to work. It's going to effectively allow us to precisely manage our voltage
12 levels while maintaining the required voltage quality for all of our distribution customers.

13 So there's four main components I'll talk to here. One is, we refer to as feeder
14 conditioning, and by that I simply mean putting in the equipment on our distribution lines
15 so that we can better manage the voltage that goes to all customers in our entire
16 service area.

17 The second item we refer to as grid system design, and that involves putting
18 sensors and intelligent control devices out there on the equipment that's on the
19 distribution line.

20 The third piece – Information Technology; that's what I.T. stands for here – I.T.
21 systems and integration, that's essentially all of the data software development that you
22 have to do so that you can control those devices and get data back from those devices

1 so that you can evaluate what the current conditions of your system are and know how
2 many megawatts of capacity you can deliver.

3 And then the fourth piece is the telecom, or telecommunications, and that's the
4 system that lets us communicate from a central location out to all of those devices.

5 So for Progress Energy Carolinas is what we're talking about here, is a
6 distribution system that spans roughly 34,000 square miles in the two Carolinas, so you
7 can imagine all of the spokes of a wheel, if you will, that go out into all those urban and
8 rural roads, and we've got devices that we're putting on all those lines that we've got to
9 be able to communicate across that entire system so that we'll know what the capability
10 is.

11 So here's a picture I find helps illustrates what we're talking about. This is a
12 pictorial of our distribution system; it's just showing the lines I've described that leave a
13 substation where we have our transformation equipment, goes down the roads to the
14 customer's homes. These are the power lines, and so the major pieces of equipment
15 that we're talking about here – and this is the feeder conditioning part, if you want to
16 refer to that slide I just left. Item No. 1, feeder conditioning – this is the piece I'm talking
17 about here. What it involves is installing more equipment, a lot more equipment, in
18 terms of voltage regulators, capacitors, and balancing load on our system. And what
19 that helps us do is manage the voltage on the system so that it gives us the ability to get
20 the most reduction in electrical consumption to help the peak while at the same time not
21 compromising the quality of the voltage to all of our customers. So that's the feeder
22 conditioning piece.

1 And then the other three pieces, which I'll elaborate more on the next slide, but I
2 just want to show quickly here – this also requires that we're going to have to put smart
3 controls, if you will, out on all the devices along the line at the top; but we've also got to
4 invest in a central computer system that's going to be able to take data off that big grid –
5 over 34,000 square miles I've just described – and get that data back, evaluate what is
6 the ability to reduce consumption at any given moment, and then send commands out
7 to all those devices on that line to keep the voltage where you want it to be, but to still
8 be able to reduce consumption and reduce the peak impact so we don't have to turn on
9 a generator. An important point to note here is, we made a conscious decision to make
10 this investment and not build yet another combustion turbine, so we literally took a
11 combustion turbine off the plan in favor of doing this.

12 So here's another picture – and this is really just to emphasize the technology
13 aspect of this – in the upper left there is intended to represent our substations; we have
14 about 300 substations in the two Carolinas. We're essentially pulling out old analog
15 equipment and putting in I.P. gateway – Internet Protocol Communicating Capability.
16 So high-tech equipment in the substations – and if you'll look across the top there, that's
17 just simply illustrating we're putting smart controls out on those lines that span those
18 34,000 square miles.

19 The clouds in the middle – I like to kid our telecom people because they all like to
20 show things in clouds and you have to really ask them a lot of questions to figure out the
21 details of what's in there, so it's a pretty complex system, but it's just showing that we're
22 going to have a complex telecom system that has high reliability to communicate so that
23 we can depend on this. And at the very bottom is a little red box that shows DMS –

1 that's the distribution management system – that's the computer that 's going to analyze
2 all this data and determine how many megawatts we can reduce on any given peak day
3 to keep us from having to turn on a peak generator.

4 And then – this is my last slide here, but I use this to illustrate the broader points-
5 DSDR, as I said at the very beginning, is in the blue part of this triangle here; that's the
6 focus of what I want to talk about today. It's the demand side management program, it's
7 a peak load reduction tool. There's 250megawatts of capability that we'll get from it. It
8 avoids building a combustion turbine. But the other thing is that because of that
9 investment in technology that we need to make to make DSDR do what I've just
10 described it's going to do, that's really enabling other smart grid capabilities, and that's
11 where this road map comes into play.

12 So what we've tried to do at Progress Energy – even going back to 2006 – is, we
13 tried to lay out a road map that said if we make an investment, we've got to be able to
14 demonstrate immediate business benefit; it's got to be cost effective. So any
15 subsequent investment, as you look up through that triangle and smart grid capabilities,
16 has got to prove out in terms of a good business investment. Some examples of that
17 would be, if you read the slide, it links up with the industries' general perspective of what
18 a smart grid means, and it things like enabling active customer participation. So if you
19 think about what Mr. Edge just talked about in terms of CIG-DR, you know, you have to
20 invest in technology with the customer, but if you also invest in the technology on the
21 utility end, those two things work together to create some smart grid functionality.

22 So I'll pause there – I went through that pretty quick – but I would be happy to
23 address any questions.

1 CHAIRMAN FLEMING: Are there questions? What
2 is your timeframe?

3 Mr. Simpson: It's a five-year project; we have an expectation to complete this by the
4 end of 2012.

5 CHAIRMAN FLEMING: So it will go into effect in
6 2012.

7 Mr. Simpson: That's correct. The 250megawatt capability will be there at the end of
8 2012, yes.

9 CHAIRMAN FLEMING: Okay. And what about the
10 security issues?

11 Mr. Simpson: Thank you for bringing that up because I meant to comment on that
12 because of the question Commissioner Wright had. The security thing is a paramount
13 issue to our company. We have some very good – I have an engineering background,
14 I've come to really appreciate and respect our I.T. people because we're putting some
15 very comprehensive, top drawer, if you will, secure designs, and we have people that
16 are represented on the industry committees making sure that we comply with all the
17 NERC and FERC standards for security, but I can assure you we have a very secure
18 system in terms of all of the protective devices – firewall designs and so forth – to make
19 sure that our system is protected from any kind of an external threat and doesn't
20 compromise the business.

21 CHAIRMAN FLEMING: Is Progress Energy involved
22 with MIS?

1 Mr. Simpson: Yes, we are.

2 CHAIRMAN FLEMING: And what is the – Intellisense
3 or something?

4 Mr. Simpson: I've heard of that; I'm not directly familiar with that, but we actually had a
5 couple of people up in Washington earlier this week at a NIST meeting that were
6 addressing some of these things and working the standards to line up with what's
7 coming from the stimulus bill. So we're very actively engaged; in fact, one of our
8 employees is chairman of one of the working groups that is developing the security
9 standards.

10 CHAIRMAN FLEMING: Well, it's very exciting. I think
11 electricity is where the action is today.

12 Mr. Simpson: Absolutely – and it's a lot of fun.

13 CHAIRMAN FLEMING: It went on for what – over
14 100 years about the same way, and now it's changing
15 dramatically.

16 Are there any other questions?

17 *[No Response]*

18 CHAIRMAN FLEMING: We really appreciate the
19 information that you've given us today; it's been most
20 informative, very interesting, and we look forward, I hope as
21 you come before us, I think you're on an annual basis with

1 true-ups, right – I’m sure you-all have benchmarks you’re
2 setting that you could report at the true-up period would be a
3 good time to do that.

4 Mr. Simpson: Yes, we could.

5 COMMISSIONER FLEMING: All right. Thank you
6 very much, we appreciate the information, and this Briefing
7 is now adjourned.

8 Mr. Simpson: Thank you.

9
10 [WHEREUPON, at approximately 12:05 P.M., the
11 Briefing was adjourned.]

12
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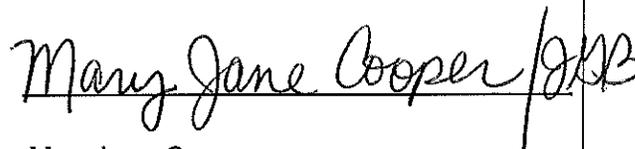
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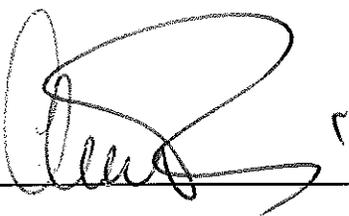
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I, MaryJane Cooper, do hereby certify that the foregoing is, to the best of my skill and ability, a true and correct transcript of all the Allowable *Ex Parte* Briefing held in the above-captioned matter before the Public Service Commission of South Carolina.

Given under my hand, this the 22nd day of May, 2009


MaryJane Cooper

ATTEST:



Charles L. A. Terreni

CHIEF CLERK/ADMINISTRATOR

MaryJane Cooper
Certified Court Reporter