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COLUMBIA, SOUTH CAROLINA

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ALLOWABLE EX PARTE BRIEFING

*REQUESTED BY DUKE ENERGY CAROLINAS, LLC - Look Ahead at 2011
and Review of Nuclear Operations*

**TRANSCRIPT OF
PROCEEDINGS**

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Please note the following inclusions/attachments to the record: PowerPoint presentation (PDF); Duke Energy Mission Statement; Insurance information referenced by Mr. Jamil and supplied post-proceeding

P R O C E E D I N G S

CHAIRMAN HOWARD: Y'all please be seated.

Good morning and welcome. 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, this is a request for allowable ex parte briefing that was filed by Duke Energy Carolinas, LLC. It's scheduled for today, Friday, March 25, 2011, here in the Commission's hearing room at 10:30. And the subject matter to be discussed at this briefing is Duke Energy Carolinas, LLC's look ahead at 2011 and review of nuclear operations.

Thank you, Mr. Chairman.

CHAIRMAN HOWARD: Thank you, Mr. Melchers.

And who is -- Mr. Ellerbe.

MR. ELLERBE: Mr. Chairman, members of the Commission, Frank Ellerbe just to introduce the speakers for the company today. We have Jim Rogers, the chairman and CEO of Duke Energy; Dhiaa Jamil, who is the chief generation and nuclear officer of Duke Energy; and Catherine Heigel, who is the South Carolina president of Duke Energy Carolinas. Mr. Rogers is going to talk about the

1 company more generally, Ms. Heigel is going to talk
2 about the South-Carolina-specific matters, and Mr.
3 Jamil is going to talk about nuclear operations.
4 And I will turn it over to Mr. Rogers now.

5 And by the way, we have copies of the -- we
6 only have one set of slides, PowerPoint slides,
7 that go with Mr. Jamil's presentation, and we have
8 copies of those on their way here from my office.
9 So I'll hand them out to you, I expect, anytime
10 now.

11 **COMMISSIONER FLEMING:** He might be right
12 behind you.

13 [Laughter]

14 **MR. ELLERBE:** Mr. Rogers.

15 [Document distributed]

16 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Thank you.
17 Mr. Chairman, members of the Commission, thank you,
18 very much. We're delighted to be here today and to
19 talk about the future in our industry, and
20 specifically with respect to the future for Duke.

21 I want to start, though, because it's on my
22 mind and I'm sure it's on your mind, and talk a
23 little bit about what's going on in Japan. Dhiaa
24 Jamil, who is our chief nuclear operator, is going
25 to get into greater detail about it, but I had the

1 opportunity, because I'm on the board of both INPO
2 and WANO -- and WANO is the World Association of
3 Nuclear Operators -- I had an opportunity in board
4 meetings on Wednesday to be briefed on this in some
5 detail.

6 Obviously, the situation is serious. Every
7 day we think it's solved and every day a new event
8 seems to occur. The nuclear industry in the US is
9 following the events there very closely. The US
10 NRC will conduct plant-by-plant reviews. We take
11 the events in Japan seriously, because embedded in
12 our culture is two things: One is safety, and
13 continuous learning. And I think as a consequence
14 of this accident, and very, you know, unique
15 situation -- I mean, when you think of having an
16 earthquake of 9 on the Richter Scale, followed by a
17 tsunami, I mean, you couldn't have a tougher
18 situation from a nature standpoint, to deal with --
19 but there are some lessons we can learn from this,
20 and I think there are lessons we will learn from
21 it.

22 As I said, the NRC will conduct a plant-by-
23 plant review. I am hopeful it doesn't slow down
24 the COL process and the issuance of new COLs. But
25 common sense tells me that there might be some

1 hesitation or at least some political pressure to
2 slow down the process a little bit, but as I said,
3 I just really hope that doesn't happen. We will
4 certainly apply the lessons learned to US plants;
5 there's no question about that. We'll make any
6 necessary improvements. Duke and South Carolina
7 have been nuclear leaders, and we are going to
8 continue to be, in my judgment, once we get beyond
9 this incident.

10 As you all know, Senator Lindsey Graham was up
11 at our Oconee plant in the upstate area earlier
12 this week; he wanted to demonstrate -- he grew up
13 near there and he wanted to demonstrate -- he did a
14 press conference afterwards -- that it's safe, and
15 it's part of our destiny as a country, to continue
16 to stay committed. And as you all know, 50 percent
17 of our electricity here in South Carolina comes
18 from nuclear. And so we believe it's a critical
19 part of the future, and I believe our current
20 systems have numerous redundant backup systems, we
21 have highly experienced operators. As I said,
22 safety is our number one priority 24/7.

23 And also -- and I'm going to share this with
24 you, and it will sound like bragging -- and it
25 probably is, but I'll take that risk. But our

1 plants last year, for the second year in a row, had
2 the lowest cost per kilowatt-hour of any plants in
3 the United States. We also, in our 39-year
4 history, had our highest load factor, about 96
5 percent. So when you combine low cost and use at
6 that level, I think it's a tribute to Dhiaa and his
7 team, in terms of their operation of these -- our
8 nuclear fleet.

9 As I said, Dhiaa is going to talk more about
10 this, but I think nuclear is important to the
11 world's energy future. It's reliable, it's carbon-
12 free, it's cost-effective. So from our standpoint,
13 if you take anything out of what we say today, we
14 are still committed to nuclear; we are committed to
15 building the Lee Station; we're working hard to get
16 the changes that we need in North Carolina, so that
17 their statute will reflect the statute that's here
18 in South Carolina, which we think is perfect
19 legislation that allows us to move forward in a
20 cost-effective way for our customers, and in a way
21 that protects our investors. So again, we have
22 more work to do in North Carolina, but we are
23 moving forward.

24 Y'all all have heard me say before that I'm a
25 great believer in regional planning. And when I

1 say that, what I mean is, is companies coming
2 together, planning, looking -- at the beginning --
3 what plants to build, what ownership to have, how
4 to structure that ownership, from the beginning,
5 and then start down the road together hand-in-hand.
6 I believe that's better for the investor, I believe
7 it's better for the customer, because it allows you
8 to smooth out the cost increases over time, and you
9 share the risk, which is good for the investor.

10 We have been taking -- in discussions with our
11 friends in Santee Cooper with respect to the Summer
12 Nuclear Plant and the Lee Plant, in terms of
13 ownership in each, by each. We're in negotiations.
14 And we haven't reached any agreement yet; we are
15 working toward it. We are hopeful, but more to
16 come with respect to that in the future, as to
17 whether we'll be able to get it across the goal
18 line.

19 Let me quickly mention National Energy Policy.
20 I should be silent for a few moments, because we
21 don't have one.

22 [Laughter]

23 But the reality is, is that we've played an
24 active role in trying to shape energy and
25 environmental policy in Washington. The EPA is

1 working -- they're going to -- they have a multi-
2 pronged set of initiatives that are coming out.
3 They've already issued the one with respect to
4 mercury that will affect coal plants in the United
5 States. They have subsequent rulings on SOx, NOx,
6 ash ponds, water discharge. I mean, there's going
7 to be a plethora of new regulations on coal plants
8 in this country. I think that's inevitable.

9 I do not see any legislation coming out of
10 Congress in this session of Congress. There will
11 be a lot of talk about a Clean Energy Standard, but
12 personally I do not believe the Federal Government
13 should dictate to states how their -- what their
14 mix of generation ought to be. I think the state
15 commissions are in a better position to make that,
16 and that's why historically I've been, on behalf of
17 the company, against renewable portfolio standards
18 that are fixed nationwide. I think if they leave
19 it -- they should leave it to the states, and 30
20 states have moved forward, as they thought it
21 appropriate. So I feel very strongly about that.

22 But even with debate not occurring and nothing
23 happening in Washington, we've got to move forward.
24 We have to plan. We are plotting our course to a
25 cleaner future, and we believe that we'll have to

1 retire and replace virtually every plant, except
2 our hydro, and maybe not our nuclear if we can
3 extend their lives from 60 to 80 years, but
4 virtually every other plant is going to be retired
5 and replaced by 2050.

6 So our challenge is to modernize our plants,
7 modernize our grid so we have two-way
8 communication. I mean, it's actually remarkable
9 that we're using an analog grid to provide
10 electricity to a digital world. It's actually
11 remarkable in the 21st century -- you know, we
12 don't know when our customer's out until they call
13 us. So I think it's going to be critical in the
14 future that we're able to have two-way
15 communication so that we know when our customer's
16 out before they know. And in states where we've
17 actually implemented smart grid both with the meter
18 and with the distribution, we've been able to
19 predict when there would be outages or a capacitor
20 problem, and replace it in advance. I think you're
21 going to see that is critical to the future of our
22 industry.

23 We started in the early 1900s as a high-tech
24 company. We were the Google, the Intel, the
25 Microsoft of the early 1900s when we started down

1 the road to universal access. I think we will
2 become a technology company once again, a company
3 that deploys technologies: advanced coal, advanced
4 nuclear technologies, advanced technologies with
5 respect to the grid. I envision us integrating
6 electric vehicles into the grid. In my judgment,
7 this represents our energy future.

8 But I also think critical to that is a
9 collaboration with universities and R&D firms. As
10 you all may know, at Clemson, we contributed to and
11 named the Duke Energy Innovation Center, working
12 closely with new developments, because I think it's
13 critical to have those partnerships. We're working
14 with environmental organizations, software and
15 hardware developers, large technology companies.
16 We have six MOUs with major Chinese utilities,
17 because they are scaling the technology so fast, I
18 believe there's IP -- or intellectual property --
19 associated with scaling. I mean, think about it:
20 They're building 24 nuclear plants; 61 reactors are
21 being built around the world. A nuclear
22 renaissance is going on in every place but the
23 United States. We crea- -- we innovated the
24 technology; we produce twice as much as anybody, of
25 any country in the world; and yet we haven't gotten

1 started with the renaissance yet, in our country,
2 and I think that's unfortunate. And those in the
3 future will look back and say, "Why didn't they get
4 started on it sooner?"

5 Let me quickly talk about the merger. It
6 remains on track. We have numerous regulatory
7 filings in months ahead. We are filing with you
8 all, with respect to joint dispatch and how that
9 would work. We have to file in North Carolina for
10 approval of the merger, as well as approval of the
11 joint dispatch, which creates immediate savings, in
12 our judgment, as we've said, to customers, day one
13 after we close the deal. We have to get approval
14 from the Kentucky Commission. The FERC, of course,
15 the NRC, the FCC, the Department of Justice, then
16 our shareholder votes, and then I'm calling my mom
17 for a final okay --

18 [Laughter]

19 -- on getting it done. But we have a lot of
20 regulatory approvals that we have to get done, and
21 I'm confident we'll get them done.

22 But in the meantime, we're working hard
23 planning on how to integrate these two companies.
24 We are doing detailed analysis, we're looking at
25 the facts, we're looking at similarities and

1 differences, opportunities to reduce cost. And,
2 you know, we think reducing cost is really
3 critical. Our company in the last four years has
4 kept our O&M costs virtually flat, and that's been
5 tough to do because a very large component of our
6 cost structure is our labor cost. But, that means,
7 as we've allowed increases in wages, we've had to
8 find ways to decrease costs. We know we're going
9 to have rate cases here in the future, and they're
10 primarily going to be rate-based type cases, so we
11 thought it was prudent for us to really work as
12 hard as we could to keep our costs as low as
13 possible, particularly during these really
14 difficult financial times.

15 So I'm hopeful that as we build the largest
16 utility in the United States, that we don't become
17 a slow, bureaucratic organization, that we remain
18 agile, and that being the biggest in my judgment
19 means nothing unless you're the best, and if it
20 doesn't translate into being the best, it would be
21 an exercise of no great value for investors and for
22 our customers. We'll keep you fully apprised as
23 the merger progresses in the months ahead.

24 And that's my presentation, but let me just
25 say, to give y'all a feeling that I am comfortable

1 with any questions in terms of what we're doing in
2 any jurisdiction -- North Carolina, Kentucky, Ohio,
3 and especially Indiana -- so if you have any
4 questions about what's going on in those
5 jurisdictions, I'd be delighted to answer them. So
6 with that, I would conclude my part of the
7 presentation and now turn it over to our president,
8 Catherine Heigel.

9 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** Thank you.
10 Good morning. It is indeed a pleasure to be back
11 before you. About a year ago -- tomorrow -- my
12 position was announced right here before this
13 Commission, and so a year, on, I think is a unique
14 opportunity to take a look back at what's been
15 accomplished and what's been achieved by this role
16 and, in particular, by our company in the State.

17 Over the past year, we've maintained our
18 strong commitment to our communities and, in fact,
19 enhanced it. We have, through our charitable
20 giving, through AdvanceSC and through various other
21 initiatives that we have to help our struggling
22 customers pay their bills, really contributed to
23 this State. And I have a few statistics to share
24 with you about that.

25 In 2010, the Duke Energy Foundation allocated

1 more than \$1.17 million in grants to South
2 Carolina. What does that philanthropy look like?
3 What did we do with that money? In partnership
4 with a number of agencies and groups that we work
5 with, like the Nature Conservancy, in their efforts
6 to preserve the Blue Ridge Escarpment. South
7 Carolina Wildlife Federation. We gave money to USC
8 Upstate for their wonderful new program in downtown
9 Spartanburg, which we hope will lead to the
10 revitalization of downtown Spartanburg. Two
11 programs like the Women in Engineering at Clemson
12 program, to encourage women to enter what is
13 perceived to be a mostly male-dominated discipline.
14 To Meals on Wheels, the Urban League of Greenville,
15 the Children's Museum of Greenville, and many, many
16 other organizations, but one of which I'm very
17 proud of is our partnership with the Red Cross.
18 And as we see, the Red Cross is an agency that is
19 very instrumental to our preparedness for weather-
20 related events, and as we watch the work that they
21 do in Japan, I think we do so with great pride.
22 And I have a little show-and-tell. We have
23 readiness kits that we worked with the Red Cross to
24 put together [indicating]; you can see that it's
25 co-branded, in the upstate. Our storm schools, et

1 cetera. These are very, very valuable partnerships
2 that we have, that are, I think, a great reflection
3 of the value that we are able to help bring to
4 those communities that we serve.

5 In 2010, Duke Energy, with its employees and
6 customers, donated over \$824,000 to low-income
7 South Carolina customers through the Share the
8 Warmth Program, to help struggling customers pay
9 their bills. That represents a 17 percent increase
10 over the previous year, which provided more than
11 \$700,000. Also in 2010, Duke Energy and its
12 employees contributed over \$735,000 to United Way
13 organizations in the South Carolina service
14 territory. And also through AdvanceSC, which I
15 know you all are very familiar with, we contributed
16 over \$5.89 million in 2010 to economic development,
17 education, public assistance programs, and our
18 manufacturing competitiveness fund. That is money
19 that is used to, again, develop and enhance and
20 grow the economy of this State.

21 So in addition to our strong support for the
22 communities, we have also worked very hard to
23 strengthen our relationship with higher education
24 institutions in the State and, in particular,
25 Clemson and University of South Carolina by forging

1 some new strategic partnerships with them. We
2 believe that these relationships, coupled with our
3 ongoing commitment to the technical college system,
4 are critical to providing our company and those
5 companies that we hope to recruit to this State
6 with a pipeline of technology and talent that we
7 need to be successful now and for many, many years
8 into the future.

9 This, I think, is kind of a nice lead-in to
10 economic development. Having a skilled workforce,
11 of course, is essential to that. But also having
12 tools like what Duke Energy can bring to the table
13 is significant to the achievements that we're able
14 to claim.

15 As we discussed in January when Clark Gillespy
16 and I were here, 2010 was a banner year for us. We
17 had the good fortune to work with local economic
18 development agencies and the South Carolina
19 Department of Commerce to bring over \$1.6 billion
20 in new planned investment in the State, as well as
21 over 5,100 planned new jobs. And we are especially
22 pleased -- it just come to my attention yesterday
23 -- that the March issue of *Site Selection* Magazine
24 features Spartanburg, South Carolina, as number two
25 in the nation for markets of 200,000 to a million

1 people, for the total number of economic
2 development projects in 2010, with 29 projects.
3 And I'm pleased to say that a majority of those are
4 on the Duke system.

5 And so far in 2011 -- obviously, we don't want
6 to rest on our laurels -- we have helped to
7 generate additional new investment in South
8 Carolina, and I'm just going to tick off a few of
9 these: Century Plastics, in Fountain Inn, with
10 \$3.5 million in new investment and 25 new planned
11 jobs; Delta Power Equipment in Anderson County,
12 \$3.6 million in new investment and 40 new jobs;
13 Atlantic Beverage, \$10 million in new investment,
14 300 planned new jobs, and that's also in
15 Spartanburg County; and PermaShrink, \$3.3 million
16 in planned new investment and 16 new jobs in York
17 County.

18 Since 1904, economic development in South
19 Carolina has been a central focus of Duke Energy's
20 operations in the State, and we remain committed to
21 that vision and know that competitive rates, now
22 and into the future, are key to driving continued
23 economic growth and development in South Carolina.
24 And in order to preserve the long-term
25 sustainability of this competitive rate advantage,

1 both ours as a company and as a State and a region,
2 we have to make investments to modernize our system
3 -- and Jim referred to those earlier. These
4 modernization costs and the costs to comply with
5 Federal mandates are key drivers of a general rate
6 increase filing that we will make this summer.

7 In that filing, we will seek Commission
8 approval to adjust and update base rates to better
9 align those rates with the costs that we have to
10 serve our customers. And although news of a
11 general rate increase filing is never welcome news,
12 it does reflect the substantial investment that we
13 are making as a company in this State and for our
14 customers, to ensure that we can continue to
15 deliver affordable, reliable, and clean electricity
16 to our customers 24/7.

17 And to ensure that there are no surprises and
18 to provide greater transparency regarding this
19 upcoming rate request, we have undertaken a very
20 robust education initiative throughout the State.
21 We initiated an outreach campaign using our
22 district managers, our customer relationship
23 managers, our lobbyists, and even myself, to
24 educate both residential, commercial, and
25 industrial customers, to give them a heads-up on

1 our plans for the summer and to explain to them the
2 primary drivers for the case and emphasizing our
3 continued commitment to this State and the
4 continued value in the power that we produce. And
5 it is our expectation by the time we file the case
6 this summer, that we will have touched every county
7 that we serve and every major city that we serve.
8 To date, we've delivered these messages to over
9 1,400 customers at 60 different events.

10 I won't downplay the challenge of trying to
11 explain to customers why rates have to go up so
12 that we can ensure low costs into the future, but I
13 am pleased to say that the reception that we have
14 gotten has been one of openness, of appreciation,
15 and of, I guess, some concern -- to be candid --
16 but the one thing that we've heard is, "We
17 appreciate the no-surprises approach."

18 At the end of the day, our commitment to South
19 Carolina is stronger than ever. We continue to
20 work with our communities and with our customers to
21 make their lives better. This commitment is part
22 of our mission and reflects our values as a
23 company. And I believe you all should have a
24 document that provides the Duke mission and our
25 values. And you'll see there safety, caring,

1 integrity, openness, passion, respect listed. And
2 I want to draw your attention to safety; it's the
3 first value listed. And as you can see there, it
4 states we put safety first in all we do.

5 And I think that that is an appropriate hand-
6 off to Dhiaa, who is our chief generation officer
7 and chief nuclear officer, who can talk about this
8 safety culture and our defense-in-depth philosophy
9 at Duke. It is core to who we are.

10 So with that, I'm going to pass it off to
11 Dhiaa.

12 **DHIAA M. JAMIL** [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:

13 Thank you, Catherine. Good morning. I do have a
14 presentation --

15 [Reference: PowerPoint Slide 1]

16 -- that helps us with a particular picture
17 that we will get to later on. It's my pleasure to
18 be here, and I'm proud also to be representing the
19 nuclear team in this briefing.

20 [Reference: PowerPoint Slide 2]

21 Just a reminder -- I'm sure you are very
22 familiar with the system -- we operate seven units
23 across North and South Carolina. Five of those
24 units happen to be in South Carolina. All of our
25 seven units are the PWR -- the pressurized water

1 reactor -- variety. Oconee, in the Oconee County
2 part of the State, is our oldest nuclear plant.
3 Oconee enters into its extended license in two
4 years. All of our seven units have had their
5 license extended to 60 years from their original 40
6 years.

7 Shifting over to the next slide --

8 [Reference: PowerPoint Slide 3]

9 -- which highlights the accomplishments for
10 the fleet in 2010, I'll start by telling you that
11 2010 was a banner year for the fleet. The fleet
12 set records in almost every aspect of operation.
13 Jim alluded to the capacity factor of 95.88
14 percent. As you well know, capacity factor is a
15 measure of the energy that was provided by the
16 fleet, compared to the total energy that could be
17 provided by the fleet had everything run at 100
18 percent without accounting for any perturbations or
19 any refueling outages. It is the eleventh
20 consecutive year that our fleet has had an above-90
21 percent capacity factor.

22 Now, we generated a record amount of
23 electricity from the fleet. Given that it is our
24 least-cost resource, generating lots of electricity
25 from our nuclear fleet only means lower fuel bills

1 for our customers. Built into that record is a
2 record lowest number of days of refueling outages
3 in the history of the company. The 134 days that
4 you see there for four outages is 24 days lower
5 than the best this fleet has ever done, which was
6 back in 2001.

7 Many units and stations set capacity records
8 for the unit or the station. As you can see from
9 the slide, McGuire 2, Oconee 1, and the whole
10 Oconee Station, this was their best year ever.

11 Capacity factor is a measure of reliability,
12 as you well know. It is also a measure of safety.
13 The bias in the nuclear industry and the type of
14 regulation that we have, there are a multitude of
15 different requirements that a nuclear unit has to
16 meet continuously. They are very strict
17 requirements that they have to operate within, and
18 when they deviate from any of those requirements,
19 the mode of bias is to shut the unit down.

20 So long runs on units are a direct indication
21 of safety on those units, as well, in addition to
22 reliability. And our fleet had many long runs
23 during 2010. We had four outages, I mentioned.
24 Three of those outages ended with the unit coming
25 off ending a breaker-to-breaker run, meaning that

1 when we put the unit on-line the last refueling
2 outage, that unit stayed on-line until we took it
3 off deliberately for the next refueling outage.
4 Now, this is the longest number of continuous
5 breaker-to-breaker runs the fleet has had also, in
6 2010.

7 And also as Jim mentioned, the fleet -- we
8 measure performance of the fleet relative to other
9 fleets in the country. There are ten nuclear
10 fleets in the country. One of the measures that is
11 important to all of us, all stakeholders, is the
12 cost of the operation. We use the total operating
13 costs as the measure. That includes all aspects of
14 operating the station, including fuel, A&G, and
15 O&M. The fleet ranked number one among all fleets
16 in the country, for the second year in a row. In
17 fact, our Catawba Station, which is just about an
18 hour north of here, was the number one cost-
19 efficient station in the nation among all 67
20 stations in the country.

21 So we're proud of the records in 2010, but we
22 quickly realize that we don't sit and enjoy those
23 records long. We focus on the year ahead, and 2011
24 is going to be a very challenging year for us. It
25 has five very important outages. We're going to be

1 doing lots of upgrades to the stations during those
2 outages, and also it's a year that's going to be
3 challenged by merger integration, so we need to
4 continue our focus on running those plants day-to-
5 day in a safe and reliable manner, in order to
6 produce the type of results that we've all become
7 accustomed to.

8 With that, I would like to switch to the
9 current events taking place.

10 [Reference: PowerPoint Slide 4]

11 And, of course, the Japanese tragedy has added
12 focus on the nuclear fleet across -- fleets across
13 the world, and here in the US, as well. I start by
14 saying that much is not known about the
15 developments in Japan, and those lessons will come
16 out, as they have in previous incidents around the
17 world, and those lessons will be applied, just like
18 we have with every incident that has taken place.

19 If you remember Three Mile Island, Three Mile
20 Island maybe is the single biggest event
21 responsible for the type of safety records that I
22 spoke about in 2010. The industry leaped ahead in
23 reliability and safety directly as a result of that
24 accident. The same can be said for the Chernobyl
25 accident in the '80s. And the same will be for

1 these developments in Japan. The hallmark of this
2 industry is its ability to perform even better
3 after a setback like the ones I've discussed.

4 Again, there are several things that are not
5 known today about, really, the magnitude of issues
6 that have taken place. There are a few things that
7 are known. I want to highlight a few things that
8 we know about, and I want to start with one
9 particular feature that has been prominent in many
10 of the media discussions, and that is the
11 containment itself.

12 As you well know, the station that has
13 received the most attention in Japan is a boiling
14 water reactor station. I want to pause and say
15 that I am in no way suggesting that boiling water
16 reactors are not safe. They are, indeed, very
17 safe, particularly the ones that we do operate here
18 in the US. I want to highlight, however, that the
19 ones that we do operate in our system have a
20 containment that I would like to describe.

21 The picture that you see there represents a
22 typical PWR -- pressurized water reactor --
23 containment. This happens to be the typical one
24 for a McGuire/Catawba type of reactor. You can see
25 the outside containment is made of three-foot

1 concrete that is reinforced with rebar, steel
2 rebar, vertically and horizontally -- which is
3 unusual to have that type of reinforcement. Inside
4 of that, there's a three-quarter inch steel shell.
5 Inside of that, there is yet a second three-foot
6 containment that is also reinforced with vertical
7 and horizontal reinforcing bars, and inside of that
8 is the vessel, which is made up of eighth-inch
9 carbon steel surrounded by more concrete. And all
10 of that sits on an eight-foot concrete foundation
11 that also sits on rock.

12 So it's -- I tell you, the way I describe this
13 is, these structures are some of the most robust
14 structures on earth, and they are designed to
15 withstand significant forces, including natural
16 forces from tornadoes, hurricanes, floods, and
17 seismic events -- which leads into the next slide.

18 [Reference: PowerPoint Slide 5]

19 Those criteria that are set forth in the
20 design are developed on the basis of what was known
21 at the time that those facilities were licensed,
22 assuming worst-case scenarios, built into the
23 design-basis criteria. As a designer or engineer,
24 it is typical and very much the case in the nuclear
25 industry to build margins on top of those design

1 criteria. And then, vendors that come in and meet
2 those design criteria also build margins in their
3 design, in order to ensure that they envelope the
4 design criteria set forth by the utilities. What
5 you end up with is a margin of safety that far
6 exceeds the initial design.

7 I recall in the 2001 timeframe, one of the
8 most common questions that we got at that time was,
9 "Are you designed to withstand the impact of an
10 airplane?" As an engineer, that was a very
11 difficult question for me to answer, because the
12 correct answer for that is no; we were not designed
13 for the impact of an aircraft, because no one
14 thought at the time that that was something that we
15 needed to design for. But if the question was,
16 "Can you withstand the impact of an aircraft
17 impact," then the answer would be yes, simply
18 because we design for a set criteria that seems to
19 be reasonable and bounding at the time of
20 licensing, but as engineers and regulators, we
21 anticipate that there are some things that we have
22 not thought about, and in order to ensure that we
23 cover all things that could reasonably come up in
24 the future, we build margin, and we build
25 redundancies. That is our method of covering these

1 things: redundancies and margin. Since the 2001
2 events, analysis and testing has taken place to
3 indeed demonstrate that we can withstand the impact
4 of an aircraft. So margin and upgrades that we
5 have done come into play, in the design of nuclear
6 plants.

7 [Reference: PowerPoint Slide 6]

8 My final slide talks about the things that we
9 do know about the Japanese developments. While we
10 don't know exactly the magnitude of ground
11 acceleration at this point and how that relates to
12 the design criteria, or the actual tsunami defense
13 mechanism that they had in place relative to the
14 actual size of the waves that came in -- all that
15 level of detail will come later -- we do know that
16 they lost power. They lost off-site power and on-
17 site power -- on-site emergency power.

18 And I'm comforted to know that, in the US, our
19 regulators required us to demonstrate that we can
20 withstand and cope with exactly that scenario, the
21 scenario that goes: you lose off-site power and
22 you lose your committed on-site emergency sources
23 that you have on-site. We have to demonstrate that
24 we can cope with that scenario. And all licensees
25 in the US were required to do that back in the mid-

1 '80s. I can't tell you whether that is the case,
2 or not, in the Japanese requirements. Those are
3 the kind of details that will come later.

4 I also alluded to the aircraft impact. Since
5 9/11, new regulations have come in that required us
6 to demonstrate that we can safely shut down the
7 plant and cope with an event that removes a
8 significant part of the site through explosion or
9 fire. We all had to go make changes to the way we
10 operate the plant, to the procedures that we have
11 in place, to the training, and added new equipment
12 -- remote equipment -- positioned those in
13 strategic places to account for any part of the
14 plant that is lost due to whatever event, we can
15 shut down the plant safely.

16 And finally, built into our training is severe
17 accident mitigation guidelines that basically says,
18 regardless of the regulation, regardless of what
19 you're telling me about redundancies, let's just
20 start from the point of view that says you've lost
21 all of this, and let's develop some guidelines and
22 drill those, and make sure we have the equipment
23 and systems in place, already known to the people
24 that will respond to such accidents, and let's see
25 -- we demonstrate that we can, indeed, do those.

1 When I look at what's taken place in Japan, I will
2 tell you that they found themselves in that space.
3 They found themselves in spaces where they had not
4 anticipated. Severe accident mitigation guides,
5 whether they had them or not, I really don't know,
6 and those are some of the facts that will come. It
7 will be interesting to see whether they have them
8 and how effective they were.

9 Regardless, I fully anticipate that once the
10 facts are known, that will result in yet more
11 changes in our business, additional enhancements,
12 and this will be the foundation that will
13 strengthen this industry even more than it is
14 today.

15 That concludes my presentation, and I'll be
16 glad to take some questions.

17 **CHAIRMAN HOWARD:** Thank you. The
18 presentations were very interesting.
19 Commissioners, any questions of the panel?
20 Commissioner Wright.

21 **VICE CHAIRMAN WRIGHT:** Good morning.

22 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** Good
23 morning.

24 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Good morning.

25 **DHIAA M. JAMIL [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:**

1 Good morning.

2 **VICE CHAIRMAN WRIGHT:** And thank y'all for
3 coming. Your presentations are very good. And I
4 apologize -- I wish there were something you could
5 do about my allergies. You can build a nuclear
6 plant to withstand everything, but, boy, I've been
7 fighting back a sneeze that might shake the Oconee
8 plant.

9 [Laughter]

10 Mr. Rogers, first off, thank you for coming
11 and being available, but I can't pass up the
12 opportunity to ask you a question. And it's about
13 the merger. I'm going to go right to the merger,
14 and you mentioned some things about filings in
15 different states and everything. Our legal staff
16 is convinced that Duke and Progress should be
17 coming to our Commission seeking approval for the
18 merger. I mean, your company has expressed another
19 opinion. I guess, regardless of what legal
20 position is the right position, or not, don't you
21 think that, out of an abundance of openness and
22 transparency and respect, that, you know, maybe you
23 ought to be seeking approval of our Commission on
24 the merger?

25 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Well, if it's

1 your judgment that we ought to, then we will. It's
2 that simple, because we have nothing to -- I mean,
3 we're an open book. We want you to see every
4 aspect of it. That's our intention. We've read
5 the statute a little differently, that you clearly
6 have authority over the joint dispatch; and if it's
7 merger approval beyond that and that's your
8 judgment, I would -- we're prepared to respond to
9 it appropriately.

10 **VICE CHAIRMAN WRIGHT:** Okay. Thank you for
11 that answer. Thank you.

12 **CHAIRMAN HOWARD:** Any other questions?
13 Commissioner Fleming.

14 **COMMISSIONER FLEMING:** Well, I just want to
15 say that I appreciate your response, and I agree
16 with what Commissioner Wright -- his comment and
17 question. And we will look forward to your coming
18 before us for merger approval.

19 **COMMISSIONER HAMILTON:** Mr. Chairman

20 **CHAIRMAN HOWARD:** Commissioner Hamilton.

21 **COMMISSIONER HAMILTON:** I too would like to
22 echo Commissioner Fleming and Commissioner Wright,
23 and certainly thank you for being here, and I
24 appreciate the answer that we just heard. I think
25 it relieves this Commission greatly, and I think

1 it's something that we brought the question up
2 earlier when the merger was presented to us, and we
3 thank you for your position today.

4 I think what we've gone through today is very
5 helpful to each of us. Jamil, I know you have
6 relieved some tension. We had a report earlier in
7 the week from SCANA about their nuclear fleet, and
8 we're happy to hear from you, too, today that I
9 think -- I hope all the people in South Carolina
10 could hear you and could hear others that our
11 nuclear fleet is alive and well, and safe, and
12 hopefully can continue the road to -- the
13 renaissance well-being in the US.

14 I had an opportunity to see Mr. Rogers's
15 interview when he was in Europe, and I thought he
16 did an excellent job, and I think he kind of put it
17 out there that we're a little bit behind, but maybe
18 we can catch up. And we appreciate that.

19 And Catherine, your Pee Dee heritage is
20 certainly showing. Thank you, for being here.

21 [Laughter]

22 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** Thank you.

23 **CHAIRMAN HOWARD:** Commissioner Mitchell.

24 **COMMISSIONER MITCHELL:** Well, I too -- I think
25 a lot has been said, and I certainly want to say

1 that I certainly agree, because -- but I want to
2 change just a little bit the focus, since we have
3 so many nuclear facilities here in my Third
4 District up in the Clemson area you mentioned. I
5 guess my one question would be to Mr. Jamil.

6 What do you see as the effects from the
7 Japanese experience, as far as the timeframe for
8 your development of the Lee Plant? Do you think
9 it's altered that in any way, or could you --

10 **DHIAA M. JAMIL** [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:
11 I'll take a shot -- I'm sorry.

12 **COMMISSIONER MITCHELL**: Oh, yeah -- oh, I'm
13 sorry. I think we decided we wouldn't discuss that
14 today. I'm sorry, it just came up. I just -- at
15 least we can be thinking about that, and I think in
16 the future --

17 [Laughter]

18 **DHIAA M. JAMIL** [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:
19 I might --

20 **COMMISSIONER MITCHELL**: I guess I could focus
21 my question a little bit differently. Do you see
22 it slowing the development of nuclear? And
23 completely leave off the Lee Plant. Because I'm
24 interested in that.

25 **DHIAA M. JAMIL** [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:

1 Commissioner, actually, that's what I was going to
2 suggest.

3 **COMMISSIONER MITCHELL:** We need to have
4 another lawyer to oppose some of our own lawyer.

5 [Laughter]

6 I think he'll agree with my rephrasing of the
7 question.

8 **MR. MELCHERS:** I'll go with that.

9 **DHIAA M. JAMIL [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:**
10 Commissioner, I see potential impact first on the
11 operating plants, of course, and we are responding
12 to --

13 **COMMISSIONER MITCHELL:** Right.

14 **DHIAA M. JAMIL [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:**
15 -- those very quickly. We are undertaking some
16 immediate actions on the operating plants -- today,
17 we are doing those -- and we anticipate additional
18 actions in future, as I mentioned.

19 As for the development activities for new
20 nuclear, it will naturally not accelerate things.
21 I think that would be a safe bet. We are seeing
22 signs around the country that utilities are
23 responding more cautiously, as a result. For
24 example, the South Texas project, there was an
25 announcement that they are slowing their

1 development activities and will focus on licensing
2 at this time, and that was attributed to the
3 developments in Japan. So I suspect we'll see more
4 of those. From the regulator point of view -- this
5 is an opinion at this stage -- I hope that we do
6 not overreact to the issue before the facts are
7 out; however, the political system is such that
8 there will be some additional caution, probably,
9 added into the process. There may be a possibility
10 of slowing down some of the reviews. We hope not.
11 At a minimum, maybe the hearings, the mandatory
12 hearings, will invite views -- more extreme views
13 against nuclear, and that would be their
14 opportunity to do that. So it could have an impact
15 on slowing down the schedule on some COLs. We're
16 hopeful that it would not.

17 **JAMES E. ROGERS [DUKE ENERGY CORP]:** If I may,
18 Commissioner, just --

19 **COMMISSIONER MITCHELL:** Certainly.

20 **JAMES E. ROGERS [DUKE ENERGY CORP]:** -- add to
21 that --

22 **COMMISSIONER MITCHELL:** Certainly.

23 **JAMES E. ROGERS [DUKE ENERGY CORP]:** -- I think
24 the Administration came out immediately after the
25 event -- both President Obama and the Department of

1 Energy Secretary Steven Chu -- came out saying it's
2 not going to alter our path forward with respect to
3 nuclear in this country, and I found that
4 encouraging. But having lived in Washington for
5 nine years and been involved in the political
6 process for a zillion years, I can't help but
7 believe that those who oppose nuclear will seize on
8 this -- and just yesterday in the *New York Times*,
9 there was a story where a professor from Princeton
10 wrote an op-ed where he basically was saying that
11 he thought there wouldn't be another nuclear plant
12 built in this country for 20 to 25 years as a
13 consequence of the event in Japan. Now, I think --
14 I won't tell you exactly what I think about his
15 opinion, but I will say I think that is way off the
16 mark. And while there might be some delay, I do
17 not think our country is going to slow down
18 significantly. But common sense tells you, once
19 the political process starts to work and those
20 opponents of nuclear get vocal, it's going to have
21 some impact on the timing.

22 **COMMISSIONER MITCHELL:** And I guess just as a
23 final question, still upon the effects of the
24 Japanese experience, do you see a trend that as we
25 go day-by-day further away from the event that

1 maybe the event, the -- I know it was a very
2 serious event, but in the fact that the seriousness
3 -- maybe the Japanese have addressed this issue in
4 a more efficient way than they were given credit to
5 earlier? Do you see that maybe, as the facts come
6 out? We had a presentation yesterday and I -- we
7 somewhat gathered that from the presentation
8 yesterday. I just wondered if your summarization
9 is along those same lines.

10 **DHIAA M. JAMIL** [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:

11 Absolutely. I feel that way right now, actually,
12 and that is, when you step back and take a look at
13 what was thrown at them -- you know, now they're
14 saying it's a 9.0 on the Richter Scale. That puts
15 it as one of the most severe earthquakes on Planet
16 Earth, followed by a tsunami that far exceeded,
17 based on what we're seeing, what they were designed
18 for. You know, we all watched in horror on TV as
19 cars and homes moved around like little toys. Yet,
20 that plant is still standing. And finding today
21 there's been some release of radiation and that
22 some radiation levels are elevated -- but I tell
23 you, those levels, those of us that are familiar
24 with what those levels mean, those levels are not
25 seriously harmful to the public at the levels they

1 are now.

2 The statistic I've been hearing is that the
3 human toll from this natural event could be in the
4 20,000 range. Yet, two people have been
5 hospitalized, to date, due to radiation impact.
6 And based on the levels I saw, it's out of caution,
7 as opposed to out of serious dose impacts. So it's
8 kind of put things in perspective.

9 I think once the dust settles on this,
10 naturally some people will try to exploit some of
11 the data, but the fact that it withstood what could
12 be considered the worst-case scenario and came out
13 as well as it did -- that site will never generate
14 electricity again, but was the health and safety of
15 the public maintained? I think history will show
16 that that site performed very well.

17 **COMMISSIONER MITCHELL:** And in closing, I
18 certainly want to thank all of you for being here,
19 and certainly for your transparency, and the
20 presentation. Thank you, very much.

21 **CHAIRMAN HOWARD:** Commissioners? Commissioner
22 Whitfield.

23 **COMMISSIONER WHITFIELD:** Thank you, Mr.
24 Chairman. Mr. Jamil, I'd like to thank you for
25 being here and for that presentation. We've all

1 been concerned and have participated in conference
2 calls with our national organization, and we've all
3 been concerned since the events that have occurred
4 in Japan, and all watching it closely, and we
5 appreciate you coming down and sharing that with
6 us. And Ms. Heigel, we appreciate you being here,
7 as well. Mr. Rogers, I'd like to thank you also
8 for being here and for your answer to Commissioner
9 Wright's question, and we appreciate that. And
10 thank y'all for being here.

11 **CHAIRMAN HOWARD:** Any other questions?

12 **COMMISSIONER FLEMING:** Oh, well, I have some
13 questions.

14 **CHAIRMAN HOWARD:** Chairman Fleming --
15 Commissioner Fleming.

16 **COMMISSIONER FLEMING:** Once Chairman, always
17 Chairman.

18 [Laughter]

19 **CHAIRMAN HOWARD:** Commissioner, Chairman,
20 whatever name you want. Ask the questions.

21 **COMMISSIONER FLEMING:** Thank you, Chairman
22 Howard. Yes, well, I will echo what others have
23 said, how much I appreciate all three of you being
24 here today, and the very different perspectives of
25 Duke Energy that you presented to us. I think it's

1 great to learn about the economic development and
2 contributions to our State, and especially to the
3 upstate. I'm very happy to hear some of the stats
4 that you presented. And your leadership in South
5 Carolina over the last year, I think it's great to
6 have someone of your standing doing the job you're
7 doing, and being a model for other female leaders
8 in the State. Thank you, for that.

9 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** Thank you.

10 **COMMISSIONER FLEMING:** And, Mr. Rogers, I
11 really -- I always enjoy hearing you come, and you
12 always have a surprise for us, and this was a great
13 surprise today, so thank you for that. But the
14 information that you gave, too, was very helpful.
15 And for that reason -- both you and Jamil talked
16 about nuclear energy and how you see it moving
17 forward -- I'd like to know what your convincing
18 argument would be to those who are maybe not as
19 supportive of nuclear, and I guess I'm being a
20 little selfish asking this, because I'll probably
21 be in a position next week where I'll be arguing
22 that point for our State, so I would just like to
23 hear what you would say to others, to convince them
24 to be supportive of nuclear energy.

25 **JAMES E. ROGERS [DUKE ENERGY CORP]:** That's a

1 great question. And trained as a lawyer, I'm going
2 to ask my expert to answer the question, and then
3 I'm going to close it.

4 **COMMISSIONER FLEMING:** Okay.

5 [Laughter]

6 He'll give me the facts about nuclear, and
7 you'll give me the way to convince them, huh?

8 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Or some
9 combination.

10 **DHIAA M. JAMIL [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:**

11 Well, in my view -- and those views are really
12 colored by the comments I've heard my boss talk
13 about, as well, so I hope I'm echoing his
14 sentiment. My view is, no resource has no risk.
15 That does not exist. Every resource has some level
16 of implied risk with it. And we are demonstrating
17 -- and even, as I mentioned to Commissioner
18 Mitchell, even the events in Japan will show that
19 this industry has been able to manage the risks of
20 this particular technology very well. The records
21 I've spoken about for our fleet speak for
22 themselves. You step back and take a look that if
23 we take a position of every resource that has a
24 problem, we decide as policymakers to step away
25 from it, I think very quickly we'll be doing that

1 in the dark.

2 I can remember not too long ago we were
3 talking about Deepwater Horizon, and oil, and
4 natural gas. Before that, it was the mining
5 accidents, coal, and the impact to the environment.
6 So none of -- you know, modern technology comes at
7 a risk. And we're equipped to manage those risks.

8 I can tell you that nuclear represents the
9 vast majority of emission-free base-load
10 electricity. We do it well, at a very low cost.
11 And if we are committed to the environment, nuclear
12 has to be part of the equation. And we have to
13 accept that we need to manage the risks, and let's
14 put our energies into how do we make it even
15 better, as opposed to put barriers in its way.

16 **COMMISSIONER FLEMING:** Could I just interrupt
17 you right there. You say it's at low cost, but
18 other people are saying it's a very expensive way
19 to produce energy at today's level, to build the
20 plants and all. So are you saying over the
21 extended life of the plant?

22 **DHIAA M. JAMIL [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:**
23 Yes, Commissioner. So, you know, I always ask
24 myself -- and Jim actually asks his staff that
25 question, and that is, these things that we're

1 looking at today, in the way of capital cost, high
2 capital cost, initial capital cost of nuclear, did
3 the last generation not face that, as well? And if
4 they did, how did they overcome that, and what was
5 the outcome of that? I'm going to tell you, our
6 rates being 25 percent, plus, lower than the
7 national average is, in large, due to the wisdom of
8 the last generation that decided to overcome the
9 hurdle of capital cost, and we are all enjoying the
10 benefits of that. So, indeed, the way you answered
11 it is the right way, and that is, there's no doubt
12 the initial cost is very high, but the operating
13 cost of a facility is very low. So with that,
14 maybe Jim can amplify.

15 **JAMES E. ROGERS [DUKE ENERGY CORP]:** I'll do the
16 closing argument. I think the important thing is,
17 look at the history. Look at the history of this
18 industry. And we've operated for 40 years, and
19 even with Three Mile Island, we have not -- no one
20 -- we've had no fatalities. Compare that to coal
21 and the mining accidents we've had in this country.
22 Compare that to oil. Compare that to natural gas.
23 I mean, there's no other industry that's got that
24 kind of safety record when it comes to human lives.

25 I think the other important point I would make

1 is, is that not only have we been safe for this 40-
2 year period, but as you look to the future, you
3 have to continue to look at the past to make sure
4 you have a clear view of the future. So one of the
5 things that we did as a company -- and Dhiaa and
6 his team did -- is we went back and looked at '67
7 to '87 as to what happened at Duke and the build-
8 out, and the Three Mile Island happened in the
9 middle of it. And what you really saw is, some
10 plants were delayed three and four years; some
11 plants were \$1 billion over what they were
12 estimated -- and that was when \$1 billion was a
13 lot, back in the '70s and the '80s. And even
14 through all that, the regulators, the legislature,
15 and the customers, and companies all stood firm,
16 worked their way through that, and we today -- as
17 Dhiaa said -- are reaping the benefits. I mean,
18 our rates are 25 to 30 percent lower than any other
19 -- the average in the US. I think we might be -- I
20 know we're the lowest in North Carolina, and we
21 might be the lowest here. Or close.

22 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** [Nodding
23 head.]

24 **JAMES E. ROGERS [DUKE ENERGY CORP]:** I'm looking
25 for confirmation.

1 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** I'm trying
2 not to agitate my peers, so --

3 **JAMES E. ROGERS [DUKE ENERGY CORP]:** I'm unafraid
4 of that.

5 [Laughter]

6 **COMMISSIONER FLEMING:** That question was
7 answered in the last rate case, remember?

8 **JAMES E. ROGERS [DUKE ENERGY CORP]:** And so, I
9 mean, I think the important thing is, is not to
10 forget that history, because that generation of
11 leadership, we're benefiting from it today. It's a
12 stark contrast to what we're seeing in Washington
13 where we're leaving future generations with a huge
14 national debt and deficit. So in a sense, we're
15 now starting back through the building period.

16 But look to the future. When you look to the
17 future, one of the things that people are concerned
18 with -- [indicating] excuse me, I'm having your
19 same sinus and allergy problem. One of the
20 problems is, is the concept of energy sprawl, and
21 let me just give you some statistics that I think
22 are meaningful. If you put a nuclear plant on one-
23 third of a square mile and produce 1,000 megawatts,
24 to get the equivalent from solar, you have to build
25 out over 40 square miles. To get the equivalent

1 from wind, you have to build out over 200 square
2 miles. So it is physics that when you have that
3 kind of density, that's important.

4 The other way to think about it -- a lot of
5 people attack our industry because of the spent
6 fuel and we haven't resolved it. The truth of the
7 matter is there's been a failure of the Government
8 to live up to their responsibility to take our
9 fuel, our spent fuel. They have failed. And so,
10 as an industry, we're looking at ways to
11 proactively address it. But let's put that in
12 perspective. If you take all the spent fuel from
13 every nuclear plant in the United States, you could
14 put it on one football field about 15 feet high.
15 You think about all the waste on the back end of
16 coal plants where there's scrubber sludge, or ash,
17 et cetera, I mean, it is -- covers hundreds and
18 thousands of miles with 50 percent of our
19 generation coming from coal in this country.

20 So you think about energy sprawl, you think
21 about dealing with the waste product of providing
22 the fuel, if you think about the affordability -- I
23 mean, you have to look at affordability over 40,
24 50, 60 years, not just the capital costs today.
25 And one statistic that helps bear that point out,

1 if you look back over 50 years, the real price of
2 electricity today is the same in the United States
3 as it was in 1960, but during that period of
4 building coal and nuclear in the '70s and '80s the
5 real price went up, but has depreciated, our rates
6 came down, and so the reality is the real price
7 today with that significant build-out of nuclear
8 and coal base is flat. And you can't really think
9 of any other product that has that -- can make that
10 kind of representation.

11 So I think in summary I would say that we've
12 learned a lot from history, where the industry has
13 focused on safety, where the industry is
14 demonstrating continuous learning after every event
15 -- Three Mile Island; Chernobyl; we're going to
16 demonstrate it after this Japanese incident is
17 fully understood and the lessons learned -- and I
18 actually think it's the right answer for America.
19 And the technology that's developed is a job
20 creator, I mean, and it's critical to the tax base.
21 Think about the upstate area where our plants are,
22 and what that means to the schools.

23 And so if you think about it as a tax base, if
24 you think about it as jobs, that combination is --
25 and actually, we need the nuclear renaissance going

1 on in this country, because you'd get jobs, you'd
2 get tax base, and help our economy get its Mojo
3 back. So that's what I'd tell them.

4 **COMMISSIONER FLEMING:** Thank you. That was
5 very helpful. We'll see how successful we are.
6 And I did want to go back -- if you -- if -- is it
7 all right to ask another question? A different
8 way? A different avenue? You talked about two-way
9 communication for the smart grid. There's a lot of
10 debate now on who's going to control that
11 communication. Where do you all see that going?

12 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Well, I think
13 smart grid has been overhyped in the short term.
14 A.C. Clarke once said all change is overestimated
15 in the short term and underestimated in the long
16 term. I think that's true about smart grid. But
17 there's a definitional problem. There's two
18 aspects to smart grid: One is two-way
19 communication in our distribution network. That is
20 really critical. That actually helps us reduce
21 voltage, which could reduce line loss, and that's a
22 savings. It can allow us to operate with greater
23 reliability. It might allow us to do predictive
24 maintenance, which is really critical in terms of
25 maintaining the reliability of the system. So I

1 personally believe that part of it, clearly, we
2 will do and must do, and the technology is there;
3 we just need to implement it.

4 The other part of smart grid is the meter and
5 having two-way communications there. And I
6 actually think -- and I'll share with you a project
7 that we've done in south Charlotte: We've taken a
8 group of 100 homes, and what we've done is, working
9 with them and with their permission, we put some
10 sensing devices in their homes, because the average
11 today is 25 appliances, electrical appliances, in
12 every home. So we took the refrigerator, we took
13 the HVAC, we took the dishwasher, different ones,
14 and we put these sensing devices that communicated
15 with each other. And in this experiment, what we
16 were able to do, we were able to reduce usage on
17 the peak 20 percent, and the customers see no
18 change in the quality of service. How did it work?
19 And the simplest example is, we basically -- when
20 you turned on your dishwasher, it didn't come on
21 automatically; it delayed about 30 seconds to 45
22 seconds to a minute, and then the refrigerator
23 cycled down, and then it kicked in. And then when
24 it shut off, then the refrigerator went back up.
25 It happened automatically, using technology.

1 Our company is uniquely -- and our industry --
2 is uniquely positioned to make those investments in
3 the home, and optimize the usage in the home,
4 optimize usage in a neighborhood, optimize usage
5 between different customer classes, and at the end
6 of the day optimize it against the grid.

7 I think we'll be a seller of kilowatt-hours,
8 but I think -- our mission, we'll also be an
9 optimizer. So I see the boundaries of our business
10 being extended not just from the generation to the
11 meter, but all the way to the device. And
12 actually, the device will be our customer, and the
13 owner will be the one that pays us.

14 So I believe you'll see a redefinition of the
15 boundary of our business as we move through this
16 century.

17 **COMMISSIONER FLEMING:** So you feel like the
18 utility will own the communication -- will be the
19 one in charge of the communication system?

20 **JAMES E. ROGERS [DUKE ENERGY CORP]:** I do, because
21 we're responsible for the reliability of our grid.
22 We're in a unique position to provide -- and help
23 our customers. I mean, you know, in different
24 states there's been different receptivity to
25 deployment, two-way communication in distribution

1 and in the meter, as we've seen across this
2 country. And in one of our states, in Ohio, they
3 have basically really encouraged us to do it, so
4 much so that they gave us a rider for making
5 investments in two-way communication on our
6 distribution, to encourage us to accelerate the
7 deployment of that. They also gave us a rider to
8 replace our meters, so that we automatically got
9 recovery of those capital investments, because they
10 wanted those new meters in so we can accelerate our
11 energy efficiency programs. I like to refer to
12 them as trying to achieve productivity gains. So I
13 think at the end of the day, our industry will have
14 productivity gains in generation.

15 And what I left out in my answer that you
16 should think about in your nuclear answer is, I
17 don't think there will just be AP1000s in the
18 future, the big plants; I think small, modular
19 reactors are on the horizon. There are five
20 different companies that are really advancing their
21 technology. So when you think of generation, it's
22 not going to be just central station; it can be
23 distributed.

24 I mean, we have a project in North Carolina
25 where the Commission allowed us to use solar on the

1 rooftop. We put ten megawatts on the rooftop of
2 our customers. We invested in it, we own it, we
3 rolled it into the cost of our other fuels, and
4 that's just -- that redefines the boundaries of our
5 business. And I think, ultimately, the boundary
6 will be redefined beyond the meter, to the device
7 in the home.

8 And I don't think anybody else has a lower
9 cost of capital than we do. I don't think anybody
10 else has a relationship with the customer, as we
11 do, and is trusted, and I think at the end of the
12 day, we are going to be able to create more value
13 with them. And I actually believe -- and I think
14 you've heard me say this, maybe, before -- I think
15 what we do for productivity gains and energy
16 efficiency today, five to ten years from now when
17 we've deploy these technologies we will look back,
18 and what we're doing today will look very primitive
19 to what will be done in the future.

20 **COMMISSIONER FLEMING:** And one last question.
21 You talk about the bureaucracy of rate cases.
22 Could you give a little bit more insight into where
23 you're coming from with that comment?

24 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Sure. I also
25 believe -- I really appreciate this question,

1 because Catherine wouldn't let me go there in my
2 presentation.

3 [Laughter]

4 **COMMISSIONER FLEMING:** Well, he did. He
5 opened it up.

6 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** That's
7 right. I'm here to step in at any point.

8 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Yeah.
9 Protect me from myself.

10 But I think formula rates are the future, for
11 a couple of different reasons. One is that we are
12 going to be in a period -- we remember the last 50
13 years the real price of electricity is flat. As we
14 retire and replace our plants, as we modernize our
15 entire system with these new technologies, the real
16 price of electricity is going to go up. So I think
17 it's to the benefit of customers, as well as to the
18 benefit of our investors to have formula rates.

19 What does that mean? Does that mean the
20 regulatory commission has less authority?
21 Absolutely not. What we would actually do, under
22 formula rates, is we would file every year our
23 actual costs, everything would get trued up. And
24 actually, under that kind of scenario, that even
25 put us in a stronger position to be an adviser to

1 our customers with respect to energy efficiency in
2 their home. Because today if they have any
3 question, they know we're in the business of
4 selling, but they don't -- it's hard to calculate,
5 "Well, if you're selling electricity, why do you
6 want to help me use less?" Because that doesn't
7 always kind of ring true to people. But formula
8 rates would allow that to ring true, and more
9 importantly, I think it's a benefit to our
10 customers because they can plan.

11 And rather than -- if you're building like
12 Cliffside or the Buck and Dan River Plant or we
13 build the Lee Plant, rather than have bulky 10
14 percent, 15 percent type of rate increases, I'd
15 much rather see the formula rates of 2 percent, 3
16 percent, 3 percent type increases that our
17 industrial customers can predict, our residential
18 customers can predict. And we're starting from a
19 place where our residential customer, our bill is
20 1.9 percent of disposable income. It's incredibly
21 low. That's why we have difficulty getting them
22 interested in energy efficiency. I was giving a
23 presentation yesterday and I asked people in the
24 room -- you know, there was about 150 people -- I
25 said, "If you know what your kilowatt-hour charge

1 is for electricity on your bill, raise your hand."
2 Not a single person raised their hand, because
3 nobody thinks of it that way because it's not a
4 very expensive item.

5 **COMMISSIONER FLEMING:** Well, thank you. I
6 think that's a discussion that may need to be
7 continued -- a two-way discussion -- but not today.

8 **COMMISSIONER MITCHELL:** I have one.

9 **CHAIRMAN HOWARD:** Commissioner Mitchell.

10 **COMMISSIONER MITCHELL:** You wouldn't argue,
11 though, that the system has worked pretty good in
12 the past, for the last -- you know, we readily
13 admit that the rates are some of the cheapest in
14 the United States, or apparently the procedure that
15 we've had in the past as far as bringing hearings
16 has apparently kept the rates pretty low and
17 efficient to the customers, as we've had it.

18 **JAMES E. ROGERS [DUKE ENERGY CORP]:** I would -- I
19 think we've done -- as regulators in this country,
20 as companies, and with environmental groups and
21 consumer advocates, I think in a collaborative way
22 we've done a remarkable job for consumers in this
23 country. I mean, think about it: They get
24 electricity 99.99 percent of the time, it's 1.9
25 percent of their disposable income, everybody has

1 got electricity in this country. So I think it's
2 been a great success in the past. But I would just
3 say, notwithstanding that great success, I'm always
4 open to seeing if there's a better way at a
5 different time. And so, I honor the past but I'm
6 always looking for a better way in the future, and
7 this may prove not to be a better way.

8 **COMMISSIONER MITCHELL:** Well, thank you. I
9 just wanted to hear that other side, too, because
10 we talk about the great efficient rates and the
11 great efficiency that the company -- and we thank
12 y'all for that. And that has been done by
13 appearing before the Commission and presenting your
14 case, just as we did in the past. So I at least
15 wanted to get that point across. It worked pretty
16 good in the past, hasn't it?

17 **JAMES E. ROGERS [DUKE ENERGY CORP]:** No,
18 absolutely. And the answer is yes, underscore yes.

19 **COMMISSIONER MITCHELL:** Thank you.

20 **CHAIRMAN HOWARD:** Commissioner Wright.

21 **VICE CHAIRMAN WRIGHT:** I appreciate all that
22 discussion there. I want to go back to Mr. Jamil
23 real quick. And I want to give you some praise,
24 not just for your presentation but for the way the
25 industry is going about reacting to what has

1 happened in Japan. I've read some things, and you
2 probably, I'm sure, have read the same articles,
3 where they've been critical of -- and the
4 opponents, especially, seizing on the opportunity
5 of the moment -- and talking about the arrogance of
6 the industry, you know, because you talk like
7 engineers, you know, and people don't understand,
8 okay?

9 [Laughter]

10 And they don't -- you know, laypeople don't
11 know. I mean, people don't understand what a dose
12 is, and the different -- you know, they hear
13 "radiation" and they freak out. But as you, you
14 know -- as we've heard in the media recently, some
15 of the messages are starting to get through that it
16 may be like getting a chest x-ray at some point, or
17 half of a chest x-ray, and they list things. But I
18 noticed that you all -- that you, in your
19 presentation today, and others who have been before
20 us, and what I'm seeing and hearing and reading now
21 throughout the media, is that when the industry is
22 talking, they're beginning -- and maybe it's an
23 orchestrated, concerted effort. I would think
24 there has to be some, I guess, communication among
25 everybody about what needs to be said. But it

1 sounds like the message is starting to get out,
2 that the education of the public on just those
3 things that you've been trying to communicate to us
4 today -- I think they're very important for two
5 things: One, speaking to the delays, you know,
6 that people's fears are allayed somewhat, and
7 understand, and hopefully it doesn't get any worse
8 over there than it is now. Obviously, we all hope
9 that. But then I think it also gets them talking
10 about other components, i.e., the waste issue. You
11 know, I think you're going to start hearing some
12 things and seeing some movement on that, as well.
13 And I just wondered if maybe you thought the same
14 thing.

15 **DHIAA M. JAMIL** [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:

16 Yeah, I agree with you, Commissioner. Early on --
17 particularly, early on, we, you know, took a very
18 reserved approach, and that is, there was a barrage
19 of information, and for us to remain credible, we
20 need to make sure that we are talking facts, and
21 there was not much in the way of facts that were
22 known at that time. So as an industry, we -- maybe
23 the first few days, we did not speak out. I think
24 there has been a change over the past week. We
25 are out with the media; just about every chief

1 nuclear officer in the country's been in front of
2 the camera talking about what they know about the
3 facts and how we, our systems, would respond to an
4 event like that. And as you mentioned, we are now
5 focusing on the dose issue: What does it mean to
6 get so many millirems, in laymen's terms?

7 We at -- Duke is in that effort. We have two
8 scientists, radiation protection scientists,
9 sitting right now in Washington, and one in
10 Atlanta, formulating those exact messages to try to
11 kind of calm some of the phobia that we have as a
12 country -- as a human race -- of radiation. I tell
13 you, the only thing I would tell you is the
14 professionals that work in nuclear plants, I don't
15 think there are any other members of society that
16 respect that technology more and respect that risk
17 more than those professionals that work -- and it's
18 time for us to step out and try to demonstrate
19 that. I completely agree with you.

20 And I agree with your comments about the spent
21 fuel issue. In fact, Mr. Rogers was exactly
22 talking to me about that on the way here, what
23 strategies as an industry we need to have. I know
24 that you personally are very familiar with those
25 issues, as well.

1 So as I look ahead in the future, I think
2 that's where some of the changes in the
3 battleground would be more so than probably the
4 safety of the plants themselves.

5 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** If I
6 could --

7 **DHIAA M. JAMIL [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:**
8 Please.

9 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** I was just
10 going to add, in terms of getting out in front, you
11 may have seen we had an event at Oconee Nuclear
12 Station earlier this week with Senator Graham, and
13 Dhiaa and I were privileged to be there for that.
14 As he indicated in his press conference that he
15 did, it is absolutely critical that we get out in
16 front of some of the misinformation that's out
17 there, and to emphasize the professionals that
18 operate these plants, the safety records associated
19 with these plants, and in his case, his comfort
20 with living five miles from one of our plants. So
21 we appreciated him and his presence, and will
22 continue through Dhiaa's organization and his group
23 to be part of those conversations.

24 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Commissioner
25 Wright, there's one other challenge that we have.

1 As I mentioned at the beginning, I'm on the board
2 of the World Association of Nuclear Operators, and
3 I think it's important to note that this facility
4 in Japan had not been reviewed since 2002. And
5 quite frankly, that might not be relevant, given
6 how disastrous the situation was with the tsunami
7 and the earthquake, but as you look around the
8 world, we're the -- there are very few countries
9 that have adopted such a rigorous review process as
10 we have at INPO where we review every plant every
11 two years, and then they rate the plants. And
12 those exit interviews, I've learned, are -- even
13 when you get a very good rating, you don't feel
14 very good, because they always find more things
15 that they want to talk to you about in terms of
16 continuous improvement. They're always pushing,
17 pushing, pushing.

18 But one of the challenges that we have at WANO
19 is to get the Russians, to get the Chinese, to get
20 the countries in the Middle East -- Abu Dhabi. All
21 of them are building nuclear plants, and we want
22 them to participate and go through our INPO
23 process, but on a worldwide basis. And that is, as
24 we discussed on Wednesday, one of our single
25 biggest challenges, because if we have a problem in

1 China with a unit, or in India, or in Russia again,
2 I mean, that has consequences for our industry
3 here. So there's going to be a major effort to try
4 to get the other countries to sign up for this same
5 kind of rigorous review that we have here in the
6 United States.

7 **CHAIRMAN HOWARD:** Commissioners?

8 [No response]

9 I have a few questions. Mr. Jamil, I'll start
10 with you. I don't know if you heard the news this
11 morning -- and correct me and give me some
12 guidance, I guess, is first in my question.
13 Apparently, there's a major problem with one of the
14 units in Japan, and apparently it's threatening
15 meltdown, as of the news this morning. And the
16 unique thing to set this plant apart from the other
17 plants is it used MOX as a fuel source. Can you
18 explain to me in laymen's terms what the difference
19 is, or why MOX would pose a problem, and why is it
20 surfacing this late into the game?

21 **DHIAA M. JAMIL** [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:

22 Well, I will leap ahead and tell you that I do not
23 believe the fact that that site has MOX -- I -- my
24 understanding is the percentage of MOX fuel in that
25 site is about 7 percent. I don't believe that

1 amount or the fact that it's MOX will be any
2 consequence to the event itself. So having said
3 that, I would tell you that the difference is, they
4 start their cycle with a higher level -- very small
5 but higher level -- of plutonium in that fuel
6 assembly, the 7 percent of their fuel assemblies.
7 Plutonium is naturally produced -- not naturally,
8 but it is produced in the fission product inside of
9 the reactor. But as a form of recycling some of
10 that, they start out with pre-engineered fuel
11 assemblies that has a higher level of plutonium
12 rather than fissile uranium in their fuel
13 assemblies. It's a very efficient way of using
14 nuclear fuel, and I am highly confident that once
15 the reviews are done, the fact that they use MOX is
16 not a relevant aspect of the accident that's taking
17 place there.

18 **CHAIRMAN HOWARD:** Thank you. Then my last
19 question to you is -- and I guess listening to you,
20 I'll have to rephrase my question. I was going to
21 ask you about what magnitude earthquake was the
22 design of your plants able to withstand, but I
23 guess I'll phrase it, can your plants withstand a
24 hurricane -- I mean, an earthquake of a magnitude
25 of 9 on the Richter Scale?

1 **DHIAA M. JAMIL** [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:

2 That is a very difficult question to answer,

3 because the design criteria I spoke about don't go

4 by Richter Scale. It is based on peak ground

5 acceleration that is assumed with a certain seismic

6 event in mind. We design plants for the maximum

7 predictable ground acceleration for the location of

8 that plant. So naturally, if you're going to build

9 a nuclear plant in Japan, your predictable --

10 maximum predictable ground acceleration, you need

11 to assume a higher number than if you build it on

12 rock in the Piedmont of the United States.

13 So having said that, designers of reactors

14 have a set design that they want to replicate in

15 different places, so they build their facilities to

16 envelope as much as possible. So there's going to

17 be a lot of similarities in the way they designed

18 theirs, which is how we design ours. While I can't

19 tell you whether the 9.0 on the Richter Scale would

20 produce a ground acceleration equivalent with the

21 type of soil we have, with the type of structure

22 that we built our plants on, what I can comfort you

23 on is that the analysis that we will do once the

24 facts are known, we will break down, what does

25 exactly -- what did they exactly see on-site in the

1 way of ground motion? And then I would be able to,
2 with the help of a lot of analysis and a very
3 talented team, extrapolate that to our own design,
4 to see whether ours envelopes that.

5 I don't know, necessarily, if it's relevant
6 because of the geology of this part of the world,
7 but we will go through that exercise.

8 **CHAIRMAN HOWARD:** I have to add, I've
9 convinced myself that the problem wasn't with the
10 earthquake but with the tsunami at the end. So,
11 you know, it's a redundant question, I guess.

12 **DHIAA M. JAMIL [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:**
13 Thank you, Mr. Chairman. I failed to say that, and
14 that is really -- I think they could've handled the
15 earthquake. It is the flooding that followed, that
16 swept away some of their systems and damaged their
17 systems, that really will prove to be the blow that
18 did this accident.

19 **CHAIRMAN HOWARD:** Thank you. Mr. Rogers, I
20 think Mr. Hamilton referenced an interview you did
21 in Europe, and you used the phrase -- and I thought
22 it was quite unique and I haven't heard it, so --
23 but you said after the merger, post-merger, that it
24 would give you better insight, quote, "to see
25 around the corner," I believe was your phrase. Can

1 you tell me why the merger would enhance your
2 ability to see around the corner, as between before
3 the merger, say, with you or Progress, how you
4 could still see around the corner, or why that
5 combination would make it better for you to see
6 around the corner?

7 **JAMES E. ROGERS [DUKE ENERGY CORP]:** I think
8 there's a couple of reasons. I think that our
9 industry is in a period of great transition. I
10 think technologies, advanced technologies in
11 generation and advanced technologies for the grid,
12 are being developed and we're going to have to
13 deploy them. And the larger company will have a
14 bigger balance sheet; by definition, we will have,
15 over time, a lower cost of capital, if we maintain
16 the balance sheet as we have today, and that will
17 translate into lower rates.

18 But the ability to see around the corner is
19 the ability, with such a large company, to
20 experiment with new technologies, and test them,
21 and do pilots. And that will give us the ability
22 to see the impact of these new technologies before
23 others might see it. Because at the end of the
24 day, what we do is take different technologies and
25 integrate them. We're an integrator of

1 technologies; we deploy technologies.

2 And when I was talking about seeing around the
3 corner, I'm talking just not only about the ability
4 to do pilots and have deep knowledge about coming
5 technologies, but also I'm talking about the
6 ability to kind of see what the right regulatory
7 regime should be, as our industry evolves in the
8 future. Because I think our mission in the 21st
9 century is going to evolve, and we're going to have
10 a little different mission than we had in the past.
11 And I think that ability to see the future -- as I
12 talked earlier about redesigning the regulatory
13 paradigm, as I talked about formula rates, which I
14 know are not uniquely popular -- I mean --

15 **CHAIRMAN HOWARD:** That's all right.

16 [Laughter]

17 **JAMES E. ROGERS [DUKE ENERGY CORP]:** -- openly
18 embraced, but nonetheless, we need to explore these
19 ideas because, you know, as Oliver Wendell Holmes
20 said, the best test of truth is acceptance in the
21 marketplace -- but if you're not testing the ideas,
22 you're not getting the learnings. So a big company
23 versus a very small company has a much better
24 ability to experiment, to test, to look around the
25 corner, to put resources against that, so we'll

1 start to get a clearer picture of the interplay of
2 technology and regulation in the future.

3 **CHAIRMAN HOWARD:** Thank you. We talked some,
4 and you mentioned it, and others have mentioned the
5 implication of the Japan problem on the licensing
6 process. My question is, what implication do you
7 see of this on Wall Street? Will there be a
8 reluctance or some --

9 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Moody's has
10 already issued a report. I kind of skimmed it. I
11 didn't read it that closely. But basically they
12 said that this put -- that they were going to take
13 a closer look at the entire industry, but this
14 event, in and of itself, is not going to lead them
15 to downgrade any specific company in this country
16 with respect to their mix -- the amount of
17 generation, nuclear generation, that they own, or
18 whether they are building new plants or not. I
19 mean, Moody's and S&P -- and this, again, gets back
20 to being a company as big as we will be when we are
21 combined -- they basically said that if you are
22 going to build a nuclear plant, if your rating is
23 here [indicating], they're going to downgrade you
24 when you announce you're building a plant. So what
25 that means is, if you want to keep this rating

1 [indicating], you need to make sure your balance
2 sheet is stronger -- so you almost have to notch
3 up, to hold your current level in terms of the
4 metrics required with respect to this [indicating]
5 level of credit quality.

6 So I think that -- I don't believe that Wall
7 Street has reacted yet. I think the rating
8 agencies, out of an abundance of caution, issued
9 this report -- at least Moody's did. I mean, all
10 of them have told us, as I mentioned, that they're
11 going to notch you down the day you announce
12 because of the significant expenditures over a long
13 period of time. But I don't think that the
14 investment community or the debt community has any
15 concerns at the moment, that I've seen expressed.

16 **CHAIRMAN HOWARD:** Thank you. You also
17 mentioned that, after this merger, there would be
18 some other opportunities, or you're looking for
19 other opportunities for merger. But you did -- you
20 put a caveat in that the mergers you were looking
21 at were regulated utilities. Why -- is that
22 because of some experience you had in nonregulated
23 utilities? Or why would you categorize or specify
24 just regulated utilities you would look at in the
25 future as possibilities?

1 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Well, I think
2 it's -- goes to our value proposition. Our value
3 proposition to our investors is our dividend. And
4 if you're in a vertically integrated, regulated
5 business, your earnings are more predictable.
6 Consequently, you're better able to support a
7 dividend and the growth of the dividend. So that's
8 our value proposition.

9 In the merchant business, if you look at
10 what's going on in PJM where the prices were here
11 [indicating] and then in '08, you know, the world
12 kind of fell apart and prices dropped dramatically,
13 so the demand went down dramatically and the price
14 of natural gas went down dramatically, and as a
15 consequence you had a deep drop in prices, and --
16 but there's a concern about the rebound in prices
17 in these deregulated jurisdictions. And my
18 judgment is that a lot of them, like Virginia, have
19 reregulated, and I think in a lot of these
20 jurisdictions they are looking at ways to re-bundle
21 the service because there are no new power plants
22 being built in any of these deregulated states.
23 Take Ohio -- we do business in Ohio -- not a single
24 plant is being built, yet we're building them in
25 North Carolina and Indiana, and we'll be building

1 them in South Carolina, and so -- because we're
2 only going to build plants in regulated
3 jurisdictions, because we think, given our value
4 proposition to customers, that's the type of
5 business that we want to be in.

6 **CHAIRMAN HOWARD:** I admit it's difficult, in
7 my mind, but how would you re-bundle? That's
8 almost like putting, you know, smoke back in a
9 candle. How would you go about re-bundling? Just
10 a quick opinion of it.

11 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Well, we're
12 actually in negotiations in Ohio. I was just up
13 there meeting with the commissioners in Ohio about
14 a week ago. And here's what we're trying to do:
15 We basically said -- what they did is they
16 deregulated in 1999, and as a consequence of that,
17 the legislature -- because they didn't want to be
18 blamed, if rates flew up, they froze all the rates
19 in the state. Almost every jurisdiction that
20 deregulated did that, and that was to protect the
21 legislature. And then what you did is, you had a
22 couple of options in terms of you could negotiate,
23 as we did in Ohio, what I call Regulatory Lite,
24 where we basically had a fuel clause, we had a
25 tracker for environmental expenditures, but it was

1 a three-year contract and then you had to come back
2 in.

3 What we are really talking to them about is
4 something very fundamental, and our team was there
5 Tuesday testifying before the legislature about
6 creating a re-bundling option in the state. If
7 some of the companies want to be deregulated and
8 continue to operate in the commodity market, they
9 can, but companies like ours, if we want to take
10 our existing generation and dedicate it to the
11 customers -- because we have about 4,000 megawatts
12 of low-cost, deeply depreciated coal plants -- and
13 dedicate it for 20 years -- but we want a return on
14 that, a regulated return on it as we do on our
15 transmission and distribution business in the
16 state. Plus, we've made the case to Ohio that
17 we're not going to build any plants there, I don't
18 think anybody else is going to build plants there,
19 and they will become the California of the Midwest,
20 importing power in the same way California does.
21 And so again, it gets back to the creation of jobs
22 and tax base and that they're losing that
23 opportunity under the current regulatory regime. I
24 know it's a little bit like putting toothpaste back
25 in the tube; I get that point. But I do think it's

1 doable, and we're trying very hard to do it with
2 the existing generation as a first step, and then
3 with incremental generation we build, with the same
4 kind of regulatory regime going forward.

5 I should say the most successful re-bundling
6 was done -- they tried a little bit in Michigan but
7 didn't do it quite as well as Virginia. And when
8 they re-bundled, they re-bundled in a way that
9 makes a lot of sense.

10 **CHAIRMAN HOWARD:** One last question. It's a
11 double question, and I will give Mr. Ellerbe a
12 warning; if I'm going outside the areas of this
13 hearing, please correct me. I won't be -- you
14 won't hurt my feelings. Talking about coal, you
15 mentioned coal a couple of times, and you were sort
16 of negative on it, or I perceived that. You mind
17 telling me about your experience with your coal
18 gasification plan in your system, both pro and con?

19 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Sure, I'd be
20 delighted to do that. There are pros and cons.
21 We're building -- let me put it in context. We're
22 building two plants right now. We're building, in
23 North Carolina, a supercritical pulverized coal
24 plant. And that plant, it was a reference plant.
25 In other words, a design, and all we're doing is

1 building to that design. And we're on plan, under
2 budget -- or, on budget. And so we will complete
3 that plant as scheduled in '12. And that is,
4 again, where you had a reference plant.

5 In Indiana what we're doing -- and that's an
6 advanced technology, supercritical. In Indiana,
7 we're scaling up a technology, coal gasification,
8 been around for a long time, but it's never been
9 scaled up to a 630 megawatt size plant. What we
10 don't have in Indiana is a reference plant, so it's
11 not easy to predict when you're scaling. And so
12 the challenge that we've really had is, we have
13 Bechtel and GE -- I mean, Bechtel is one of the
14 best contractors in the country; GE is a great
15 equipment manufacturer -- and along with our own
16 people, we did an estimate that it would cost \$1.9
17 billion to do this project. Then, as we got into
18 the project, we thought that -- I mean, we went in
19 with the notion that we would have the ability to
20 be under the Bevel Amendment, which means that we
21 would be able to discharge the water by drilling
22 wells deep in the ground and putting it in below
23 the aquifers. Well, the EPA rejected it. So that
24 meant we had to spend over \$100 million building a
25 water treatment facility. I mean, this is a 150-

1 acre site. So then we build a \$150 million water
2 treatment facility. And as we got into building
3 the gasifier, what we really found is that, to make
4 sure that it worked, the original design really
5 needed to be redesigned. And this is the problem
6 of not having a reference plant. So as a
7 consequence, we did the redesign; the cost went up.

8 So coupled with that, there in Indiana, we
9 have a tracking provision that allows us to get
10 QWIP on coal plants. Well, what happened is, is
11 because we had an increase -- the commission
12 approved the 2.35 tied, in part, to some of these
13 reasons -- they got out of sync, and so our AFUDC
14 started to rise, because if you're not getting
15 QWIP, you're accruing the AFUDC. So that's driving
16 up the cost of the plant, and that was about -- so
17 we had an additional 530 and about \$150 million of
18 that was AFUDC which we had no control over, was
19 totally in the hands of the commission.

20 So the bottom line is, is that plant we have
21 -- are projecting that the cost will be roughly
22 2.88, and if we take the QWIP out, it's 2.71. And
23 what we have done in our litigation position
24 recently filed is cap the price, and so anything
25 over that, we will eat it -- or the investors will

1 pay for it -- and what we've done is we have
2 structured the depreciation and the incentive,
3 because in Indiana they gave us an incentive to
4 build this advanced technology on our return on
5 equity, so we turn that down, so this \$530 million
6 increase that you've read about was going to have a
7 3 percent increase for consumers, at the end of the
8 day with the modifications that we've made, it will
9 have a zero impact on consumers when it goes into
10 service.

11 But, the lessons that we've learned from that
12 are pretty significant. And I think the lessons
13 are really going to help us when it comes to
14 building nuclear plants, because I don't want to be
15 the first person building an AP1000, to be blunt
16 with you. I mean, I know that only because the guy
17 in charge over here [indicating] kind of looked at
18 me and said -- because I always like to be first,
19 and he said this is an area you don't want to be
20 first. He said you're lots smarter to be number
21 two, and learn from what others are doing. And we
22 are learning today. I mean, we're learning from
23 the Chinese, who are building a couple of AP1000s,
24 and we're monitoring -- you know, we are following,
25 as SCANA is, and Southern, in terms of what they

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are doing.

So our view is, the experience of coal gasification just reinforced in our mind, if you don't have a real good reference plant that's been built before, you don't know what those costs are going to be, because things happen on the way to completing the plant. And if you go back to the early days in the nuclear industry, as I talked about earlier -- you go back when we were scaling up coal plants from 70 megawatts to 100 to 300 to 600 to 800, we always, during those periods had -- the costs always tended to be higher than we expected, because we never had a reference plant. So, I mean, the lesson I'm taking out of this in Indiana -- and it's been a painful experience for a variety of different reasons, in addition to just the whole process of trying to build it; we're about 80 percent complete now -- the lesson is, don't build a plant unless someone has already built that plant and you can use it as a reference basis to make your estimates. And again, that is really important to maintaining your credibility with a commission, because when you come in with a billion dollars over, nobody enjoys that day when you share that with them, and so -- and that's just

1 the reality that we've had to face in Indiana.

2 **CHAIRMAN HOWARD:** Well, now you'll have the
3 reference point, in another 20 percent, and you can
4 build another one using it, since you have a
5 reference point.

6 **JAMES E. ROGERS [DUKE ENERGY CORP]:** Well, you
7 know, I'm in a -- I've kind of evolved on this. I
8 grew up in Kentucky -- notwithstanding my family
9 living in the Carolinas for a long time, but I grew
10 up in Kentucky where there's only three things you
11 can do -- and I know the former chairman's heard me
12 say this -- you can only do three things: coal
13 mine, moonshine, or get on down the line.

14 [Laughter]

15 And so I'm very familiar with the coal
16 industry, and the implications of mining and
17 mountaintop mining, and all the various
18 environmental implications. I also know that 50
19 percent of our electricity comes from coal in this
20 country.

21 But I have become -- since the merger with
22 Duke, I've become a true believer in the role that
23 nuclear can play, and I actually think that if we
24 are sitting here in 2050, nuclear will trump coal,
25 solar will trump wind, in terms of its ability to

1 produce affordable electricity, reliable
2 electricity, and clean electricity for our
3 customers.

4 **CHAIRMAN HOWARD:** I said I had one more
5 question, and that's true, because my question is
6 related to coal and you just made reference to it.
7 I believe it was here, but someplace -- and I'm
8 giving you the credit. If you didn't say it, then
9 I apologize. But there was some concept that you
10 or someone had about having a two-piece pricing of
11 coal, one of the coal that came off the
12 mountaintop, and one of coal that was mined. Was
13 that you?

14 **JAMES E. ROGERS [DUKE ENERGY CORP]:** No. I mean,
15 what we did -- and maybe this is what you've read
16 -- is that we have been under attack from different
17 environmental groups, because a lot of our coal in
18 our plants, in North Carolina, comes from Central
19 App., and much of that area's mountaintop mining.
20 So what we did is go out and get bids from our
21 various coal suppliers and say, "Tell me what it
22 would cost from a mountaintop mine versus from
23 other mines, and let us see what the price
24 differential is." And so we're in the process of
25 getting those prices in, and there is a Delta. And

1 we forecast that the price of coal from mountaintop
2 mining will probably be less than from other
3 sources further away, and so it's really one of
4 those classic trade-offs between affordability and
5 clean, and -- or environmental impact.

6 And so, no, we have asked the question -- and
7 there's two different pricings, because, you know,
8 we are the third largest consumer of coal in the
9 country, so we know the coal markets reasonably
10 well. And so, and most of the -- all our plants in
11 the Midwest, we don't burn coal from mountaintop
12 mining; we mainly burn Illinois Basin coal, and
13 that is cheaper as a general rule. But by the time
14 you transport it down here, the transport cost is
15 significant.

16 **CHAIRMAN HOWARD:** Thank you. I understand
17 Commissioner Fleming has another question.

18 **COMMISSIONER FLEMING:** Oh, yes, I did want --
19 if you will -- and this goes to, I guess, Mr.
20 Jamil. First of all, I just really appreciate the
21 information you've given us today -- and as you
22 heard, Mr. Byrne was here this week, as well -- and
23 how much -- I just have great respect for the work
24 you all are doing. And one of the benefits, I
25 think -- I don't know whether you'd call it a

1 benefit. One of the outcomes of the Japanese
2 incident is that we, as a general public, are
3 learning the extent of what you all do, and the
4 safety measures that are in place. And I agree
5 with Mr. Rogers that I feel very comfortable with
6 what is happening in the United States. I do worry
7 about the international community, as well.

8 But my question, though, is back -- this came
9 up at a conference I was at recently, about another
10 company that had decided not to build nuclear, that
11 because, in case if an accident did occur, how they
12 would absorb the cost of that. My question,
13 though, is what type of insurance is available for
14 nuclear plants? Now, I did learn there that the
15 Federal Government takes care of any societal
16 issues that may occur outside the plant, if
17 something were to happen. But how about with the
18 plant itself?

19 **DHIAA M. JAMIL** [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:
20 Nuclear plants have two forms of insurance. One is
21 the property insurance we have through NEIL -- is
22 the insurer -- and we also have, I call it, self-
23 insured as a nuclear community, where in case of an
24 accident, the liability portion of the cost is
25 covered through the second insurance that is

1 somewhat self-insured. There is a deductible that
2 is pretty large. I believe that number is about
3 \$300 million. Once that is exceeded, then the
4 recovery would come from the nuclear community on a
5 per-reactor basis, so the entire industry would
6 essentially be covering the liability portion of
7 the insurance.

8 **COMMISSIONER FLEMING:** So you think that when
9 you do your risk assessments, that the insurance
10 plays a substantial part of -- that if something
11 like that were to occur, you would feel comfortable
12 with the insurance coverage?

13 **DHIAA M. JAMIL [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:**
14 The answer has got to be yes. I think the bigger
15 issue that we take a look at is, you know, from a
16 risk assessment point of view, is the investment
17 itself. So there is a significant amount of
18 investment that we are operating, and the risk
19 assessments that we do for the activities has
20 clearly that in mind. I think the answer you will
21 get from any nuclear operator is, the health and
22 safety of the public will trump anything.

23 **COMMISSIONER FLEMING:** Right, I understand
24 that.

25 **DHIAA M. JAMIL [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:**

1 But beyond that, it's the size of the investment
2 that we try to protect. We're backed up, from a --
3 so if I don't generate for example, or I've got to
4 replace a significant piece of equipment, the NEIL
5 insurance would cover that.

6 **COMMISSIONER FLEMING:** Well, that's -- I mean,
7 I'm thinking -- the health and safety aside, I was
8 just thinking from the financial point of view.

9 **DHIAA M. JAMIL [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:**
10 So we do have an insurance policy that covers that,
11 and some utilities have exercised that, if they
12 were out for an extended period of time. And then
13 separately, there's the liability portion that we
14 all, essentially, would share.

15 **COMMISSIONER FLEMING:** Okay.

16 **JAMES E. ROGERS [DUKE ENERGY CORP]:** May I make a
17 footnote to that, that's really important? That is
18 why we created a self-regulating group called INPO,
19 so that we -- because we -- because of that joint
20 liability.

21 **COMMISSIONER FLEMING:** Just in this country.

22 **JAMES E. ROGERS [DUKE ENERGY CORP]:** In this
23 country. Because of that, that's why we have these
24 rigorous reviews every two years. And oftentimes,
25 I think almost in every event, someone from another

1 company is part of the INPO team, so they're
2 constantly -- we hold ourselves to high standards
3 and we hold each other to high standards, because
4 we know we're all in this together.

5 **COMMISSIONER FLEMING:** And you all have a
6 vested interest, if something happens. I
7 understand -- I mean, if I understood that
8 correctly.

9 **JAMES E. ROGERS [DUKE ENERGY CORP]:** No, if
10 there's a plant that's kind of a -- has a low
11 rating, and we rate them, and sitting on the board
12 of INPO over the last five years, I've seen every
13 plant in the country, and they review it with us,
14 and I mean, at this level -- we don't know as much
15 as chief nuclear officers.

16 **COMMISSIONER FLEMING:** Uh-huh.

17 **JAMES E. ROGERS [DUKE ENERGY CORP]:** -- but we go
18 through and see what the weaknesses are, and the
19 strengths, of every plant in the country, after
20 each review. And if your plant, you know, is rated
21 lower, and it's your plant that's been downgraded a
22 level, you sit there in front of your peers and you
23 explain to them what happened. And that's not a
24 good day for any of us in the industry to have to
25 explain that to our peers.

1 So I think that that whole process of INPO --
2 and that's why I mentioned if we could only do that
3 for all the plants in the world, I think that would
4 improve the confidence. But this INPO process, I
5 mean -- and Dhiaa, you should add to this, because
6 you're deeply involved in it -- I think the INPO
7 process protects the public. It is -- NRC is
8 really important, and it protects the public, but
9 this self-regulation, we're in this together, being
10 tough on each other, and knowledgeable about the
11 business in a deep way, I think is even greater
12 protection to the public.

13 **DHIAA M. JAMIL** [DUKE ENERGY CORP/DUKE ENERGY CAROLINAS]:

14 I agree with that, Jim. The NRC, of course, has
15 standards of compliance to the regulation, which is
16 very predictable and it's constant. INPO and the
17 self-regulation is standards of excellence, which
18 are always moving. You never really get there, and
19 we continually drive each other to -- and Jim made
20 mention of it, you know: You get a very high
21 rating during those things, but you walk away
22 feeling really bad, because they always are
23 highlighting areas that you can improve.

24 **COMMISSIONER FLEMING**: Thank you. I didn't --
25 that's new information. I really appreciate having

1 that information. Do you think you'll get the --
2 you'll be successful at getting certain standards
3 worldwide?

4 **JAMES E. ROGERS [DUKE ENERGY CORP]:** I think it's
5 a long but. What I mean is, we tried before, but
6 we're going to use the Japanese incident to really
7 accelerate our efforts in doing it. And if that
8 happens, I think that will be good for the planet,
9 and it will be good for the future of nuclear --
10 all over the world, but in the US especially.

11 **COMMISSIONER FLEMING:** Thank you.

12 **CHAIRMAN HOWARD:** Thank you, very much. I
13 really appreciate it. Before I go further, I'd
14 like to ask Ms. Edwards, does ORS have any
15 questions or any comments?

16 **MS. EDWARDS:** No, thank you, Mr. Chairman.

17 **CHAIRMAN HOWARD:** Thank you. Again, I'd like
18 to thank you. I'd like to thank Mr. Ellerbe for
19 his interest in putting this together. Ms. Heigel,
20 congratulations on your first anniversary --

21 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** Thank you.

22 **CHAIRMAN HOWARD:** -- and we look forward to
23 many more.

24 **CATHERINE E. HEIGEL [DUKE ENERGY SC]:** Thank you.

25 **CHAIRMAN HOWARD:** And with that, the hearing

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is adjourned. Thank you, very much.

JAMES E. ROGERS [DUKE ENERGY CORP]: Thank you.

[WHEREUPON, at 12:40 p.m., the
proceedings in the above-entitled matter
were adjourned.]

C E R T I F I C A T E

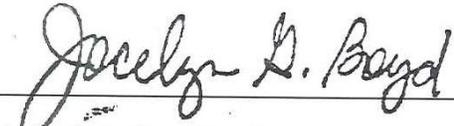
I, Jo Elizabeth M. Wheat, CVR-CM-GNSC, do hereby certify that the foregoing is, to the best of my skill and ability, a true and correct transcript of all the proceedings had in an allowable ex parte briefing held in the above-captioned matter before the Public Service Commission of South Carolina.

Given under my hand, this the 27th day of March, 2011.



Jo Elizabeth M. Wheat, CVR-CM-GNSC

ATTEST:



Jocelyn G. Boyd,
CHIEF CLERK/ADMINISTRATOR