THE OFFICE OF REGULATORY STAFF

DIRECT TESTIMONY AND EXHIBIT

OF

NICHOLAS PHILLIPS, JR.

APRIL 6, 2011

DOCKET NO. 2011-20-E

Amended Project Development Application of Duke Energy Carolinas, LLC for Approval of Decision to Incur Nuclear Generation Pre-Construction Costs

DIRECT TESTIMONY AND EXHIBITS OF
NICHOLAS PHILLIPS, JR.

FOR

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DOCKET NO. 2011-20-E

IN RE: AMENDED PROJECT DEVELOPMENT APPLICATION OF DUKE ENERGY CAROLINAS, LLC FOR APPROVAL OF DECISION TO INCUR NUCLEAR GENERATION PRE-CONSTRUCTION COSTS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.

A. My name is Nicholas Phillips, Jr. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017. I am a consultant in the field of public utility regulation and managing principal with the firm of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I graduated from Lawrence Institute of Technology in 1968 with a Bachelor of Science Degree in Electrical Engineering. I received a Master's of Business Administration Degree from Wayne State University in 1972. Since that time, I have taken many Masters and Ph.D. level courses in the field of Economics at Wayne State University and the University of Missouri.

I was employed by The Detroit Edison Company in June of 1968 in its Professional Development Program. My initial assignments were in the engineering and operations divisions where my responsibilities included the overhead and underground design, construction, operation and specifications for transmission and distribution equipment; budgeting and cost control for operations and capital expenditures; equipment

performance under field and laboratory conditions; and emergency service restoration. I also worked in various districts, planning system expansion and construction based on increased and changing loads.

Since 1973, I have been engaged in the preparation of studies involving revenue requirements based on the cost to serve electric, steam, water and other portions of utility operations.

Other responsibilities have included power plant studies; profitability of various segments of utility operations; administration and recovery of fuel and purchased power costs; sale of utility plant; rate investigations; depreciation accrual rates; economic investigations; the determination of rate base, operating income, rate of return; contract analysis; rate design and revenue requirements in general.

I have held various positions including Supervisor of Cost of Service, Supervisor of Economic studies and Depreciation, Assistant Director of Load Research, and was designated as Manager of various rate cases before the Michigan Public Service Commission and the Federal Energy Regulatory Commission. I was acting as Director of Revenue Requirements when I left Detroit Edison to accept a position at Drazen-Brubaker & Associates, Inc. ("DBA"), in May of 1979.

The firm of DBA was incorporated in 1972 and has assumed the utility rate and economic consulting activities of Drazen Associates, Inc., which has been active since 1937. In April 1995, the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and staff.

Our firm has prepared many studies involving original cost and annual depreciation accrual rates relating to electric, steam, gas and water properties, as well as

cost of service studies in connection with rate cases and negotiation of contracts for substantial quantities of gas and electricity for industrial use. In these cases, it was necessary to analyze property records, depreciation accrual rates and reserves, rate base determinations, operating revenues, operating expenses, cost of capital and all other elements relating to cost of service.

Our firm and its predecessor firms have been in this field since 1937 and have participated in more than 1,000 proceedings in 40 states and in various provinces in Canada. We have experience with more than 350 utilities, including many electric utilities, gas pipelines and local distribution companies. I have testified in many utility proceedings before this and other regulatory commissions on virtually all aspects of ratemaking.

In general, we are engaged in valuation and depreciation studies, rate work, feasibility, economic and cost of service studies and the design of rates for utility services. In addition to our main office in St. Louis, the firm also has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

Q. WHAT ADDITIONAL EDUCATIONAL, PROFESSIONAL EXPERIENCE AND AFFILIATIONS HAVE YOU HAD?

A. I have completed various courses and attended many seminars pertaining to rate design, load research, capital recovery, depreciation, and financial evaluation. I have served as an instructor of mathematics of finance at the Detroit College of Business located in Dearborn, Michigan. I have also lectured on rate and revenue requirement topics.

Q. HAVE YOU PREVIOUSLY APPEARED BEFORE REGULATORY COMMISSIONS?

A. Yes. I have appeared before the New Jersey Board of Public Utilities, the Public Service Commissions of Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Missouri, Montana, New York, North Carolina, Ohio, Pennsylvania, South Carolina, South Dakota, Virginia, West Virginia, and Wisconsin, the Lansing Board of Water and Light, the District of Columbia, and the Council of the City of New Orleans in numerous proceedings concerning cost of service, rate base, unit costs, pro forma operating income, appropriate class rates of return, adjustments to the income statement, revenue requirements, rate design, integrated resource planning, power plant operations, fuel cost recovery, rate-making issues, environmental compliance, avoided costs, cogeneration, cost recovery, economic dispatch, rate of return, demand-side management, regulatory accounting and various other items.

Q. HAVE YOU BEEN INVOLVED WITH PRIOR PROCEEDINGS BEFORE THE SOUTH CAROLINA PUBLIC SERVICE COMMISSION ("COMMISSION")?

A. Yes. I have been involved in prior proceedings before this Commission and presented testimony in many of those proceedings. I have been involved in filings by Duke Energy Carolinas, LLC ("Duke" or "Company") before this Commission and the North Carolina Utilities Commission for the last 25 years as an expert on various ratemaking issues.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. My testimony is directed toward the request of Duke for approval of its decision to continue to keep the nuclear generation option available for the provision of electric

service to customers. Duke is seeking approval of its decision to incur additional pre-construction costs to preserve the option of constructing the William States Lee, III Nuclear Station in Cherokee County, South Carolina ("Lee Nuclear Station") to provide capacity and energy to customers in the 2021 timeframe. Duke states that it has selected the Westinghouse AP1000 reactor technology and projects the annual capacity factor to exceed 90% based on current nuclear fleet performance. Duke filed a Combined Construction and Operating License Application with the Nuclear Regulatory Commission ("NRC") on December 13, 2007 for the Lee Nuclear Station.

Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A. I am appearing on behalf of the South Carolina Office of Regulatory Staff ("ORS").

Q. WOULD YOU BRIEFLY SUMMARIZE YOUR FINDINGS IN THIS PROCEEDING?

A. Yes. My findings are:

1. Duke has a need for additional capacity due to load growth and scheduled retirements of existing capacity.

2. The types of capacity available to serve increased load include coal-fired generation, gas-fired generation, nuclear generation, and renewable generation.

3. Duke is currently constructing a coal generating unit and two combined cycle natural gas generating units. Duke is also adding renewable energy sources to its generation mix.

4. The cost of capacity and cost of fuel required to produce energy are factors considered within Duke's Integrated Resource Plan ("IRP").

5. The need for diversity of fuel sources, the uncertainty regarding future fuel costs, the prospect of changes in requirements associated with new laws and

other factors not yet known are considerations which require that Duke maintain a variety of options for providing electric service to customers.

6. Utility-owned dispatchable generation has advantages over other forms of generation or load reductions in meeting customer load requirements in a reliable and efficient manner.

7. It is reasonable and prudent for Duke to keep the nuclear option available to serve customer load in a reliable and efficient manner.

8. There is a continuing need to monitor and evaluate all relevant factors that impact the IRP and that process should continue.

Q WHAT MATERIAL HAVE YOU EXAMINED IN YOUR REVIEW OF THE COMPANY'S FILING IN THIS MATTER?

A. I have reviewed Duke's amended Application, Duke's filed testimony, Duke's 2010 IRP, and other information for this case. I also reviewed and participated in Duke's application for approval of decision to incur nuclear generation pre-construction costs in Docket No. 2007-440-E. I have reviewed previous IRPs prepared by Duke and was involved in the evaluation of Duke's application to construct new coal-fired base load generation at the Cliffside facility in North Carolina on behalf of Carolina Industrial Group for Fair Utility Rates. I have been involved in a variety of Duke regulatory matters over a number of years and have examined Duke information in those matters. I have also been involved with a variety of Progress Energy Carolinas, Inc. regulatory matters over the same timeframe.

Q. WHAT IS INTEGRATED RESOURCE PLANNING?

A. Integrated resource planning recognizes that customer needs can be met by expansion of supply-side resources, by reductions in the amount of utility services

required to achieve a given service level or level of production, or by a combination of the two.

From a supply-side perspective, forecasted customer requirements can be met by adding new production and delivery capability (generating stations, transmission lines and distribution equipment for electric utilities). Generation facilities for an electric utility may include combustion turbine peaking units, combined-cycle units, coal-fired plants, nuclear plants, renewable resources, etc.

From a demand-side perspective, customer requirements can be reduced or modified using a variety of techniques. These include more efficient appliances, control of appliance operating times, enhanced building codes, etc. If demand-side actions can be demonstrated to have a level of reliability and a lifetime equivalent to supply-side resources, then demand-side management ("DSM") options can serve as a substitute for supply-side expansion.

In integrated resource planning, both supply-side and demand-side resources may be considered as alternatives, so long as appropriate adjustments are made for any pertinent differences in characteristics. Supply-side and demand-side resources should be evaluated and compared to each other using a consistent set of economic assumptions. An evaluation of resources, including renewables, must consider cost, capacity factor, reliability, dispatchability, etc.

Q. WHAT IS YOUR POSITION CONCERNING THE OBJECTIVE OF AN IRP?

A. The basic objective of an IRP is to determine what resources are necessary to provide utility services at the lowest overall reasonable cost, consistent with service that is safe, reliable and in accord with all regulatory guidelines and the law. The IRP should

attempt to do this by selecting the most reasonable combination of demand-side and supply-side resources, giving due consideration to the differences in characteristics between demand-side and supply-side resources.

Q. HOW SHOULD AN IRP BE JUDGED IN TERMS OF ITS ABILITY TO ACHIEVE THE STATED OBJECTIVE?

A. In discussing this issue, the important question is "least-cost to whom?" Since utility planning is done by the utility for the benefit of utility customers, an IRP should be evaluated primarily on the basis of whether or not it is designed to achieve the lowest reasonable cost to utility customers.

A critical aspect in evaluating the viability of integrated resource planning is an assessment of whether, and how, all viable options are considered and analyzed.

The initial step is to develop a forecast of future requirements that considers uncertainty; i.e., the plausible range of the load forecast.

Q. DO YOU HAVE CONCERNS WITH RESPECT TO THE LOAD FORECAST PRESENTED BY DUKE IN ITS IRP?

A. I have no specific concerns in this regard. Duke has presented reasonable load forecasts, which are continuously reviewed, modified, and improved over time. It is important to recognize that the peak load forecast is an essential ingredient to the determination of the amount of capacity required. Adequate capacity is required to meet the forecast level of peak demand (plus a reserve margin), not average demand or average sales.

Q. HOW IS THE PEAK LOAD FORECAST USED?

A. The load forecast is compared to Duke's available resources, and combined with supply-side options and a planning criterion (such as reserve margin, loss of load probability, or similar measurement) in order to determine the required adjustments to supply-side resources. Then, all plausible supply-side resources should be considered and the revenue requirements associated with each determined. Further analysis of the sensitivity of the result to changes in major economic parameters, such as fuel costs, inflation rates and construction costs, should be conducted. A plan is then developed to provide the projected requirements at the lowest total reasonable cost giving due consideration to safety, reliability, and other important factors.

Q. WHAT IS DSM?

A. DSM generally refers to actions taken on the customer's side of the electric meter. It involves reducing or modifying customer requirements using a variety of techniques, such as more efficient appliances, control of appliance operating times, and more efficient lighting and motors. DSM actions can be undertaken directly and unilaterally by the customer, or can be facilitated by the intervention of the utility. It is important to recognize that many customers have already undertaken substantial conservation and demand-side management measures in their plant operations or homes at their own expense and initiative in order to remain competitive or to conserve energy.

Q. IS DSM A NEW CONCEPT?

A. Conservation and load management have existed for quite some time and are now often classified as DSM. Utilities generally prefer load management tools that offer direct control over load shape (such as a reduction in peak demand). It is desirable to manage load and use energy in the most efficient manner possible.

Q. HOW DOES DSM FIT INTO UTILITY PLANNING?

A. As previously explained, DSM is one aspect of utility planning. The planning approach recognizes that customer needs can be met by the addition of supply-side resources, by reductions in the amount (or shifts in the time of use) of utility services required to achieve a given comfort level (DSM), or by a combination of the two.

The basic planning objective should be to provide safe and reliable utility services at the lowest overall reasonable cost, consistent with all regulatory guidelines and laws. The planning process should attempt to accomplish this result by selecting the most reasonable combination of demand-side and supply-side resources, giving due consideration to the differences in characteristics between them.

Q. WHAT ARE THE FUNDAMENTAL DIFFERENCES BETWEEN DEMAND-SIDE AND SUPPLY-SIDE RESOURCES?

A. The most fundamental difference is the identification of the resource value. For example, the output from a nuclear generating unit (a supply-side resource) can be definitely measured. At all times, the utility knows the number of megawatts ("MW") being produced to serve load, as well as the additional MW that are available, if needed. Also, over any particular period of time, the utility knows the number of kilowatt hours generated. In contrast, DSM programs or devices do not produce an output but rather effect a reduction in consumption or a change in the timing of the use. Accordingly, there is no output which can be measured. The resource contribution of a demand-side resource must be determined by resorting to a combination of engineering estimates, pre-installation/post-installation bill or load analysis, surveys, or some combination of these. Furthermore, not even these procedures provide a "real-time" indication of the resource

contribution by a DSM measure. Therefore, it is difficult for a utility to be completely certain about the resource value of DSM.

A second fundamental difference between demand-side and supply-side resource lies in the degree of confidence, which can be attached to a prediction of their performance. For the most part, supply-side technologies are relatively well established, and there is considerable historical record of performance, which can be used to define expected characteristics, such as availability. (This stems, in part, from the ability to measure the output of supply-side resources.) The performance of demand-side resources is more difficult to predict, not only because of limited historical information, but because the performance of these resources is, in substantial part, dependent upon customer behavior. For example, even though a utility may have assisted in funding the purchase of a high efficiency heating unit, the customer may reset the thermostat, with the result that electricity consumption after the installation of the high efficiency unit is not reduced as much as would have been expected absent this change in customer behavior; or electricity consumption may even increase, if the customer would otherwise have opted for a different energy source to meet his heating need.

Also, for example, customers may not use high efficiency light bulbs at the times, for the number of hours, or in the manner predicted. They also may not be willing to spend their own money to replace the subsidized initial lighting equipment when the bulbs burn out.

Another significant difference is dispatchability. Utilities generally have control over the output of supply-side resources, and can increase or decrease output manually or

automatically. This is not the case with most demand-side resources, where the customer is in control.

As a result of these fundamental differences in measurability, ability to predict performance, and dispatchability, it is much more difficult to determine both the short-term and long-term impact of DSM resources than it is of supply-side resources.

Q. HOW CAN THIS COMMISSION DETERMINE IF DUKE IS EMPLOYING AND DEVELOPING ADEQUATE DSM?

A. As previously explained, the IRP process, when properly implemented, considers both supply-side and demand-side options to provide reliable utility service at the lowest reasonable cost to ratepayers, consistent with regulatory guidelines and the law. There should be no predetermined amount of supply or demand-side levels. The IRP process will consider both options and determine the least-cost, reasonable solution.

Q. DOES DUKE'S DATA SHOW A NEED FOR ADDITIONAL CAPACITY?

A. Yes. Duke data indicates the need for significant amounts of new capacity over the next 20 years, which is the relevant planning horizon. Duke data shows the need for 2,200 MW of additional capacity by 2020, an additional 1,800 MW of capacity by 2025 and an additional 2,000 MW of capacity by 2030 for a cumulative total of 6,000 MW of additional capacity by 2030. The capacity requirement is substantial and will require a number of additional generating facilities. Duke is planning to utilize a number of different types of facilities, including nuclear, with diverse fuel sources to provide service to customers. This approach appears sound and reasonable given current conditions.

Q. WHAT FACTORS ARE ASSOCIATED WITH DUKE'S STATED NEED FOR CAPACITY?

A. Duke data indicates that there has been an addition of approximately 30,000 new residential customers and 4,000 new commercial customers to its service area in the Carolinas on average each year for the last five years. Duke's load has grown and is projected to continue to grow. Current projections generally show continued population growth in both North and South Carolina. Prior to constructing Cliffside, Duke, like many utilities, has not constructed new base load generation for many years. Duke's existing generation is aging and a certain amount of existing capacity is scheduled to be retired. Duke is currently constructing a new 825 MW coal-fired generating station at Cliffside, but is also scheduled to retire approximately 1,000 to 1,667 MWs of existing coal-fired generation in the next five years.

Duke requires additional capacity to meet customer demands and to replace existing capacity which is scheduled to be retired.

Q. WHAT TYPE OF CAPACITY IS DUKE CURRENTLY ADDING TO ITS ELECTRIC GENERATING SYSTEM?

A. Duke is currently in the process of constructing an advanced 825 MW clean coal facility identified as Cliffside Unit 6. Duke is also constructing two combined cycle natural gas facilities with capacity of approximately 1,240 MW (620 MW each). It is apparent that Duke is currently utilizing both coal and gas as capacity options to meet the expected capacity requirements of its customers.

Q. ARE THERE UNCERTAINTIES ASSOCIATED WITH COAL AND GAS-FIRED GENERATION?

A. Yes. There is an uncertainty associated with carbon emissions and the imposition of a carbon tax, which impacts the cost of coal-fired generation. There are also

uncertainties associated with the availability and price of natural gas. Each form of generation has capital cost and operating cost considerations. Recent indications are that coal prices are being influenced by the global demand for coal, safety concerns and environmental considerations. Natural gas has historically been influenced by the price of oil and the recent run-up in oil prices could increase future natural gas costs. Natural gas pricing has historically been volatile and it is likely that the future pricing of natural gas will continue to be volatile.

Q. WHAT IS TYPICALLY CONSIDERED A BASE LOAD FACILITY?

A. A base load facility is a unit that is expected to run at a high capacity factor and generally has a relatively higher capital cost and relatively lower fuel cost. Obviously, nuclear plants are considered base load facilities. Older coal plants and combined cycle natural gas plants are generally considered as intermediate facilities, which run at a lower capacity factor than base load plants, but with a higher capacity factor than peaking plants. Peaking facilities are characterized as high fuel cost generating facilities, which operate for a limited number of hours and generally only operate during peak periods.

Q. DOES THE OPERATION OF A BASE LOAD FACILITY AT A HIGH CAPACITY FACTOR GENERALLY LOWER OVERALL SYSTEM FUEL COSTS?

A. Yes. Duke's current portfolio of nuclear units generally operates at a high capacity factor, which tends to lower overall electric system average fuel costs. Duke often has the lowest overall system average fuel costs compared to other major electric utilities in the Southeastern United States. Duke's system fuel costs are among the lowest because its nuclear facilities produce large amounts of electricity using lower-cost

nuclear fuel as a source, instead of more expensive fossil fuels, such as coal, oil or natural gas.

Q. DOES AN IRP CONSIDER THE COST CHARACTERISTICS ASSOCIATED WITH VARIOUS TYPES OF CAPACITY?

A. Yes. The IRP considers the various types of capacity and associated cost characteristics. In addition to a strict economic evaluation, utilities must consider other factors, such as likely law changes, the benefits of a diversified approach and must also use sound judgment. Duke's IRP as presented by Company witness Hager appears reasonable.

Q. DOES THE CURRENT SHORT-TERM ECONOMICS ASSOCIATED WITH NATURAL GAS AVAILABILITY AND PRICING JUSTIFY A MOVEMENT AWAY FROM NUCLEAR GENERATION?

A. No, not in my view. Duke is requesting authority to preserve the nuclear option for commercial operation starting in the 2021-2023 timeframe. A nuclear generating station generally receives an original operating license of 40 years. Many nuclear facilities have obtained licenses for an additional 20 years. There is some discussion in the industry for the possibility of another 20 year license extension. On that basis, a new nuclear generating station would likely operate as a base load facility from 2021 through 2081 (60 years) or possibly through the year 2101. It is unreasonable to assume that natural gas will be an economic and viable fuel for a base load facility from the year 2021 through the year 2081 or possibly the year 2101 because of its current pricing and availability.

Q. DOES DUKE'S IRP SHOW AN OFFSET TO EXPECTED LOAD GROWTH FOR DSM AND ENERGY EFFICIENCY MEASURES?

A. Yes. Duke's IRP accounts for load reductions for DSM and energy efficiency measures. However, it is important to understand that these measures attempt to decrease the rate of growth, but do not eliminate growth.

Q. TO YOUR KNOWLEDGE, DOES DUKE'S IRP INCORPORATE RENEWABLE GENERATION FACILITIES?

A. Yes. It is my understanding that Duke is obligated by North Carolina law to utilize renewable facilities, and Duke is planning to meet that obligation through a variety of ways. Renewable generation is also included in the IRP.

Q. DOES DUKE HAVE EXPERIENCE WITH NUCLEAR FACILITIES?

A. Yes. Duke is regarded as a leader in the construction and operation of nuclear facilities. Duke's Oconee Nuclear Station, located in Oconee County, South Carolina, has been in operation since 1973. The McGuire Nuclear Station located in North Carolina has been in operation since 1981. The Catawba Nuclear Station, jointly owned by Duke and others, is located in York County, South Carolina and has been in operation since 1985.

Q. ARE THERE OTHER CONSIDERATIONS NOT PREVIOUSLY MENTIONED?

A. Yes. Duke's Oconee Nuclear Station has produced 500 million megawatt-hours of electricity since its commercial operation date in 1973. The station is rated at 2,538 MW of capacity. It is currently licensed through approximately 2033 or about 10 years after the planned commercial operation date of the Lee Nuclear Station. Although this

timeframe is beyond the planning horizon of an IRP, the potential for the retirement of Oconee is another reason to keep the Lee Nuclear Station option available.

Q. BASED ON YOUR ANALYSIS AND REVIEW OF THE DUKE APPLICATION AND AVAILABLE INFORMATION, IS THE DECISION TO KEEP THE NUCLEAR OPTION AVAILABLE, REASONABLE AND PRUDENT?

A. It is important to acknowledge that Duke witness James E. Rogers states:

> "The sole issue to be decided in this proceeding is whether the Commission agrees with Duke Energy Carolinas that it is prudent to continue to incur pre-construction costs related to Lee Nuclear Station. At this time, Duke Energy Carolinas is not asking the Commission to make a determination with respect to recovery of the dollars spent on specific items of costs for developing Lee."

It is Duke's position that the difference between construction costs and pre-construction costs with regard to these proceedings is a regulatory definition with demarcation being receipt of the CPCN/Base Load Review ("BLR"). Based on Duke's position, an activity with associated expenditures, which may normally be considered construction would be pre-construction if done prior to receipt of the BLR. This interpretation would allow Duke to classify most expenditures as pre-construction, if incurred before the receipt of the BLR.

In view of the amended Application to increase costs and Duke's interpretation of the classification of activities (and associated costs) between construction and pre-construction, I recommend that the Commission make clear that Duke is at risk for undertaking what would normally be considered as construction activities in this phase of the Lee Nuclear Station project.

Based on an analysis of available information, knowledge of the Duke system, and a review of information regarding the options available and Duke's request of the Commission, it is reasonable and prudent for Duke to preserve nuclear as a resource option.

I would add that Duke should continue to monitor and evaluate relevant factors associated with serving customers' electricity needs in a reliable and efficient manner as new data becomes available.

Q. DO YOU HAVE ANY OTHER RECOMMENDATIONS?

A. On March 15, 2011, Duke witness James E. Rogers testified before the North Carolina Utilities Commission ("NCUC") in Docket No. E-7, Sub 819 that Duke would not move forward with the Lee Nuclear Station project if the North Carolina General Assembly did not enact a new law that would allow utilities to recover financing costs related to a utility's investment in a new nuclear facility outside of a general rate case proceeding. He also informed the NCUC that the introduction of that legislation in North Carolina would likely be delayed given the recent events in Japan.

This "no law – no Lee" stance raises the question of whether it is prudent to continue pre-construction expenditures where a condition precedent (i.e., the passage of new law in North Carolina) has not occurred. Mr. Rogers also testified that Duke is actively engaged and working to introduce the legislation this session which, as I understand, runs into June. If the legislation does not pass in this session, it would be introduced in the following session.

I recommend that Duke be required to file a monthly report with the Commission and provide a copy to ORS, on the status of Duke's activities concerning the North

Carolina legislation. This monthly report will provide the Commission and interested parties the opportunity to determine whether a hearing before the Commission should be held to re-examine the issue of whether it is prudent to continue pre-construction expenditures.

Q. DUKE SEEKS AN ADDITIONAL $229 MILLION IN PRE-CONSTRUCTION COSTS. DO YOU HAVE A RECOMMENDATION AS TO THE AMOUNT THAT THIS COMMISSION SHOULD APPROVE?

A. Based on information supplied by Duke, it appears that the absolute minimum amount of dollars necessary to keep the nuclear option available through June 30, 2012 is $75 million plus Allowance for Funds Used During Construction ("AFUDC"). I have attached Duke's forecasted schedule as Exhibit NP-1 which provides the total forecasted amount biannually with and without AFUDC. I would recommend that the Commission allow expenditures from January 1, 2011 through June 30, 2012 to be no more than $75 million without AFUDC not to exceed $120 million including AFUDC. Duke should be required to file a monthly report with the Commission and a copy to ORS detailing its monthly expenditures plus AFUDC. Additionally, I would recommend that prior to these costs being passed to ratepayers in a future proceeding; Duke should have the burden of showing that these expenditures are in fact the minimal amount necessary to maintain its filing with the NRC.

Any dollars spent beyond June 30, 2012 or that exceed the forecasted schedule set forth in Exhibit NP-1 are at risk for recovery from South Carolina ratepayers by Duke.

Finally, I would note that Commission Order No. 2008-417 authorized Duke to incur up to $230 million in Lee Nuclear Station project development costs through

December 31, 2009. As of December 31, 2010, total project development costs, including AFUDC, totaled $208.4 million. While this amount is less than the Commission authorized $230 million, Duke incurred expenses beyond the authorized date of December 31, 2009.

Q. DO YOU HAVE ANY COMMENTS REGARDING THE JACKSONVILLE ELECTRIC AUTHORITY OPTION AGREEMENT?

A. Yes. These types of agreements should be subject to the review and approval of the Commission.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

EXHIBIT NP – 1

CONFIDENTIAL

(This Exhibit Filed Under Seal)

BEFORE

THE PUBLIC SERVICE COMMISSION

OF SOUTH CAROLINA

DOCKET NO. 2011-20-E

IN RE:

Amended Project Development Application of Duke Energy Carolinas, LLC for Approval of Decision to Incur Nuclear Generation Pre-Construction Costs	))))	**CERTIFICATE OF SERVICE**

This is to certify that I, Chrystal L. Morgan, have this date served one (1) copy of the **DIRECT TESTIMONY AND EXHIBITS OF NICHOLAS PHILLIPS, JR.** in the above-referenced matter to the person(s) named below by causing said copy to be deposited in the United States Postal Service, first class postage prepaid and affixed thereto, and addressed as shown below:

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Chrystal L. Morgan
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April 6, 2011
Columbia, South Carolina