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January 31, 2017

The Honorable Jocelyn G. Boyd  
Chief Clerk / Administrator  
Public Service Commission of South Carolina  
101 Executive Center Drive, Suite 100  
Columbia, South Carolina 29210

Re: Amended Project Development Application of Duke Energy Carolinas, LLC for  
Approval of Decision to Incur Nuclear Generation Pre-Construction Costs  
**PSCSC Docket No. 2011-20-E**

Dear Mrs. Boyd:

Attached is the report of activities and expenditures for Lee Nuclear Station for the period  
ending December 31, 2016.

If you have any questions, please do not hesitate to contact me.

Respectfully submitted,

Heather Shirley Smith

Enclosure

cc: Mr. C. Dukes Scott, Office of Regulatory Staff  
Ms. Nanette Edwards, Office of Regulatory Staff  
Ms. Dawn Hipp, Office of Regulatory Staff  
Ms. Shannon Bowyer Hudson, Esq., Office of Regulatory Staff  
Mr. Michael Seaman-Huynh, Office of Regulatory Staff  
Parties of Record

**Attachment 1:**

**PSCSC Report**  
**Preconstruction Costs for Lee Nuclear Station Project Development Activities**  
**January 1, 2011 - December 31, 2016**

Task Description	01/01/2011-09/30/2016	09/30/2016 - 12/31/2016	01/01/2011 - 12/31/2016	Project Totals to Date
COLA Preparation	0	0	0	27,682,200
NRC Review & Hearing Fees	68,333,880	2,860,892	71,194,772	124,886,948
Land and Right-of-way Purchases	1,626,814	0	1,626,814	44,931,125
Pre-construction and Site Preparation	25,169,606	122,303	25,291,910	46,,917,734
Supply Chain, Construction Planning, and Detailed Engineering	34,290,700	60,251	34,350,951	56,580,798
Operational Planning	5,222,402	91,418	5,313,820	6,865,425
AFUDC	162,629,416	9,819,930	172,449,346	212,032,800
<b>Total</b>	<b>297,272,820</b>	<b>12,954,795</b>	<b>310,227,615</b>	<b>519,897,031</b>

The activities included in each category are as follows:

**COLA Preparation** – includes Duke Energy labor, expenses and contract support for preparation of the Combined Construction and Operating License (COL) Application tendered to the Nuclear Regulatory Commission (NRC) on 12/13/07. The NRC determined the application was suitable for review and docketed the application on 02/25/08.

**NRC Review and Hearing Fees** – includes the cost of the NRC review fees, Duke labor and expenses, contract labor and legal support required to support the NRC review of the Lee Nuclear Station COL application, and preparation for the Advisory Committee on Reactor Safeguards Subcommittee Hearing. Category also includes interactions with South Carolina Department of Health and Environmental Control (SCDHEC) and the US Army Corps of

(USACE), as required to move the environmental permit applications forward. The Lee project received the National Pollutant Discharge Elimination System (NPDES) Operations permit on July 17, 2013. The Final Environmental Impact Statement was issued by the NRC on December

23, 2013, and the 401 Water Quality Certification was issued on January 2, 2014. The Final Environmental Impact Statement prepared by the U.S. Forest Service to support mitigation activities in Sumter National Forest was issued on December 5, 2014. Lee Nuclear Station received its USACE 404 Permit on September 29, 2015.

**Land and Right-of-Way Purchases** – includes the purchase of land required for the Lee site and rail right-of-ways. Category also includes cost of purchasing additional land for a supplemental cooling pond in event of severe drought as well as costs for surveying the selected transmission right-of-way.

**Pre-construction and Site Preparation** – includes site activities to both prepare the site for construction and maintain the site. Site preparation activities included: dewatering and cleanup of the excavated area, site remediation activities required to identify and properly dispose of hazardous wastes, and costs associated with the demolition and removal of unusable structures. Necessary maintenance of existing rail bed and required Make-up Pond B spillway repair were completed. Engineering of offsite infrastructure for potable water, sewer, and rail spur; and, geotechnical evaluations (needed for engineering) have been completed. Engineering for bringing communications to the site is also included in this category. Engineering of necessary traffic improvements was brought to 85% completion by December 2013. Ongoing and continuing activities include: site security, utilities and miscellaneous site maintenance.

**Supply Chain, Construction Planning and Engineering** – includes activities associated with working with the supplier to negotiate an Engineering, Procurement and Construction (EPC) agreement. Negotiations in 2008 did not result in an executed contract. Conceptual site specific engineering and construction planning activities necessary to develop a complete project definition are included in this category. Continuing construction planning activities serve to further develop construction plans and keep the construction plans in line with latest engineering. Detailed site specific engineering began in January, 2011, and was brought to 70% completion in December 2013. Commercial building design activities started in June 2012. Design of the first six commercial buildings was completed in December 2013.

**Operational Planning** – includes activities associated with operator and plant staff training, including costs associated with the Knowledge and Abilities Catalog, required for operator license examinations for AP1000 plants, and the standardization of the nomenclature in the Westinghouse Master Equipment List (MEL). Continuing activities include: supporting operations program development, such as Quality Assurance (QA) Program, and the review of approximately 500 procedures. The training materials, operational programs, and operating procedures are all being developed in concert with other AP1000 utilities within the APOG framework. The **Operational Planning** category also includes generation of administrative procedures that must be in place upon receipt of COL from NRC.