



June 15, 2009  
NND-09-0164

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001

ATTN: Document Control Desk

Subject: V. C. Summer Nuclear Station Units 2 and 3  
Docket Numbers 52-027 and 52-028  
Combined License Application – Environmental Report Audit  
Information Needs: BC-3, SE-3, 8, and 9

Reference: 1. Letter from S.A. Byrne to Document Control Desk, Submittal of  
a Combined License Application for V. C. Summer Nuclear  
Station Units 2 and 3, dated March 27, 2008.  
2. Letter from Ronald B. Clary to Document Control Desk,  
Submittal of Revision 1 to Part 3 (Environmental Report) of the  
Combined License Application for the V. C. Summer Nuclear  
Station Units 2 and 3, dated February 13, 2009.

By letter dated March 27, 2008, South Carolina Electric & Gas Company (SCE&G) submitted a combined license application (COLA) for two Westinghouse AP1000 units, designated V.C. Summer Nuclear Station (VCSNS) Units 2 and 3, to be located at the existing VCSNS site in Fairfield County, South Carolina. Subsequently the Environmental Report (ER), Part 3 of the application, was revised and submitted to the NRC (reference 2).

During the week of March 9, 2009, the NRC conducted an Environmental Audit to gather information to assist in the review of the ER. The purpose of this letter is to submit a portion of the ER Information Needs identified by the NRC including: BC-3, SE-3, 8, and 9.

Please address any questions to Mr. Alfred M. Paglia, Manager, Nuclear Licensing, New Nuclear Deployment, P. O. Box 88, Jenkinsville, S.C. 29065; by telephone at 803-345-4191; or by email at [apaglia@scana.com](mailto:apaglia@scana.com).

10083  
NRC

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 15<sup>th</sup> day of June 2009



Ronald B. Clary  
General Manager  
New Nuclear Deployment

ARR/RBC/ar

Enclosures

c (with Enclosures):

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Rich Louie  
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April Rice

## VCSNS UNITS 2 and 3

### Response to NRC Information Needs Item

Information Item Number: BC-3 Revision: 0

#### Statement of the Information Item:

Information Item BC-3:

Provide an expert to discuss the following:

- How the provisions of the Energy Policy Act of 2005 specifically mitigate projected construction and operations costs over the life of the proposed facilities.
- The anticipated amount of Federal incentives likely to apply to the proposed action from the following:
  - Production tax credit for the first advanced reactors brought on line in the US
  - Federal risk insurance benefits expected as part of the Nuclear Power 2010 Partnership
  - Any other economic incentive

Expected impact of these incentives in terms of the applicant's decision to build and the impact on the proposed action in case the applicant does not qualify for some or all of the incentives.

SCE&G Follow Up Action:

Provide the model (spreadsheet output) for projecting production tax credit allocations.

Provide description of role of insurance in planning.

Provide description of other incentives in planning

Provide description of role of all incentives in planning

#### Response:

Santee Cooper: As a state utility, Santee Cooper cannot take advantage of the incentives described above.

SCE&G: SCE&G is eligible for production tax credits and federal loan guarantees. Attachment 1 describes the projected use of production tax credits.

As for the federal loan guarantee program, SCE&G filed Part I of the application September 26, 2008 and Part II of the application on December 19, 2008. The V C Summer project is one of four remaining for consideration by DOE. SCE&G's decision to accept the federal loan guarantee is dependent on the terms and conditions for the program which have not been published.

SCE&G has no plans currently to utilize the Federal risk insurance program.

## VCSNS UNITS 2 and 3

### Response to NRC Information Needs Item

At this time, SCE&G plans to pursue the nuclear option with or without the incentives described above.

#### **COLA Revisions:**

No COLA revision is required as a result of the response to this Information Needs item.

## **Attachment 1**

### **SCE&G Projected Use of Federal Nuclear Production Tax Credits**

The Energy Policy Act of 2005 provided for “Advanced Nuclear Facility Production Credits” i.e. Production Tax Credits. The provisions make available a total of \$125,000,000 annually in tax credits for up to eight years for a nuclear power facility for which a utility has filed an application with the United States Nuclear Regulatory Commission for a Construction and Operating License (“COL”), on or before December 31, 2008; started construction of the facility before January 1, 2014; filed an application for certification of the facility with the United States Department of Energy on or before January 31, 2014; received certification of the facility from DOE; and placed the facility into service before January 1, 2021. In addition, the utility must file an application to receive an allocation of a share of the Production Tax Credits with the Internal Revenue Service (“IRS”) on or before January 31, 2014.

SCE&G already has filed its application for a COL for Units 2 and 3 and projects that it will begin construction of the nuclear units at the V.C. Summer location by December 2013 and that it will place those units into service well before January 1, 2021. SCE&G also expects that it will file the required applications with the Department of Energy and the IRS on or before January 31, 2014 and that both of these applications will be approved. SCE&G therefore anticipates that it will be entitled to a share of the Production Tax Credits authorized by the Energy Policy Act during each of the years 2016 through 2026.

The amount of Production Tax Credits utilized by SCE&G in its Base Load Review Filing is based upon the appropriate allocation of credits available under the Energy Policy Act for each calendar year. This allocation depends upon the capacity of the nuclear reactor placed in service in relation to the total megawatts of nuclear-fueled capacity that is being placed into service during the year at issue. The total available credit also is limited to 6,000 megawatts for any of the years 2016 through 2026 at 1.8 cents per kilowatt hour, which equates to a credit of \$18 per megawatt hour of production. If, however, the reactor placed into service has less than 1,000 megawatts of capacity, the credit for that reactor in any year further is limited to an amount equal to the ratio of the reactor’s total capacity to 1,000 megawatts multiplied by the maximum available tax credits of \$125,000,000.

These calculations must be performed for each year that a reactor is eligible for credits, which is eight years, and will differ from year to year depending upon the megawatt capacity of qualifying reactors that are placed into service during each year or that become ineligible to receive credits in each year due to expiration of the eight-year credit window. Assumptions were made based on many factors, including the number and capacity of reactors placed into service by other utilities; the date those reactors will be placed into service; the dates on which Units 2 and 3 will be placed into service; and other factors. Once the appropriate amount of the Production Tax Credits is determined, that amount is “grossed up” to reflect the appropriate amount of taxable income to be offset by application of the tax credit. In other words, because the Production Tax Credit is a credit against the amount of tax calculated based on an entity’s total taxable income, the actual amount of income protected by the credit and, thus, the revenue benefit of the tax credit is greater than the credit itself.

The total benefit to SCE&G in future dollars is Production Tax Credits of approximately \$331,388,000 for Unit 2 and approximately \$324,648,000 for Unit 3, for a grand total of \$656,036,000 of tax credits. The tax credits attributable to Unit 2 offset approximately \$536,659,000 of taxable income, and those attributable to Unit 3 offset approximately \$525,751,000 of taxable income, for a total income offset of approximately \$1,062,410,000, the benefit of which SCE&G proposes to pass along to customers in the form of offsets to its fuel cost expenses.

## VCSNS UNITS 2 and 3

### Response to NRC Information Needs Item

Information Item Number: SE-3 Revision: 0

#### Statement of the Information Item:

Information Item SE-3:

Provide an expert to discuss utility property taxes paid to jurisdictions including the following:

- Historical payments to counties, cities or other taxing authorities.
- Financial incentives being offered to the applicants by taxing authorities.
- Santee-Cooper's tax obligations, if any.

Projected tax payments to local and State jurisdictions.

#### SCE&G Follow Up Action:

Item 1 - SCE&G and Santee Cooper to provide 10 years of information regarding VCSNS Unit 1 (historical taxes).

Item 2 - SCE&G to provide information (financial incentives).

Item 3 - Santee Cooper to provide information (tax obligations).

Item 4 - SCE&G to provide information (projected tax payments).

#### Response:

Attachment 1 provides the Santee Cooper response to this item.

Attachment 2 provides the SCE&G response to Item 1. Additional information related to financial incentives (Item 2) and projected tax payments (Item 4) is provided in ER section 5.8.2.2.2 and Table 5.8-1 respectively.

#### COLA Revisions:

No COLA revision is required as a result of the response to this Information Needs item.

## Attachment 1

### Santee Cooper

NRC – V.C. Summer Environmental Site Audit Information Needs Item No. SE-3 (Socio-Economic)

ER Sections: 2.5.2.3.4 / 10.4.1.5 / 5.8.2.2.2

*Provide an expert to discuss utility property taxes paid to jurisdictions including the following:*

- *Historical payments to counties, cities or other taxing authorities.*
- *Financial incentives being offered to the applicants by taxing authorities.*
- *Santee Cooper's tax obligations, if any.*
- *Projected tax payments to local and state jurisdictions.*

No financial incentives have been offered to Santee Cooper by the local taxing authorities. Extracted from Santee Cooper's enabling legislation below are Sections 58-31-80, 58-31-90, and 58-31-100 which provide for the exemption from taxation, and certain payments in lieu of taxes. Sections in bold font are highlighted for the purpose of identifying provisions applicable to the response to this "Information Need". Bold font does not appear in the original document. A complete version of Title 58 – Chapter 31 is available from the South Carolina legislative Web Page at the URL below. (<http://www.scstatehouse.gov/code/t58c031.htm>)

## **South Carolina Code of Laws**

### **Title 58 - Public Utilities, Services and Carriers**

#### CHAPTER 31.

#### PUBLIC SERVICE AUTHORITY

**SECTION 58-31-80.** Purpose of Authority; exemption from taxation; Authority shall make certain payments in lieu of taxes.

The Public Service Authority is created primarily for the purpose of developing the Cooper River, the Santee River, the Congaree River, and their tributaries upstream to the confluence of the Broad and Saluda Rivers and upstream on the Wateree River to a point at or near Camden and other similar projects as instrumentalities of intrastate, interstate, and foreign commerce and navigation; of reclaiming wastelands by the elimination or control of flood waters, reforesting the watersheds of the rivers and improving public health conditions in those areas. It is found that the project



authorized by this chapter is for the aid of intrastate, interstate, and foreign commerce and navigation, and that the aid and improvement of intrastate, interstate, and foreign commerce and navigation, the development, sale, and distribution of hydroelectric power, and the treatment, sale, and distribution of water at wholesale are in all respects for the benefit of all the people of the State, for the improvement of their health and welfare and material prosperity, and are public purposes, and being a corporation owned completely by the people of the State, **the Public Service Authority is required to pay no taxes or assessments upon any of the property acquired by it for this project or upon its activities in the operation and maintenance of the project, except as provided in this section.** The securities and other obligations issued by the Public Service Authority, their transfer and the income from them at all times are free from taxation. However, unless otherwise provided in any contract with an agency of the United States Government as assists in financing the projects contemplated in this section or any other agency from which the funds may be secured, **all electrical energy developed by the authority must be sold at rates in the determination of which the taxes which the project would pay if privately owned,** to the extent provided in this section, as well as other rate-making factors properly entering into the manufacture and distribution of the energy must be considered. After payment of necessary operating expenses and all annual debt requirements on bonds, notes, or other obligations at any time outstanding and the discharge of all annual obligations arising under finance agreements with the United States or any agency or corporation of the United States and indentures or other instruments under which bonds have been, or may be issued, **the authority shall pay annually to the various counties of the State a sum of money equivalent to the amount paid for taxes on properties at the time of their acquisition by the authority, acquired, or to be acquired, in the counties, and the authority shall pay to all municipalities and school districts in the counties in which the authority has acquired, or may acquire properties, a sum of money equivalent to the amount paid for taxes to the school districts and municipalities on the properties at the time of their acquisition by the authority; and no other taxes may be considered in the fixing of the rates of the authority.** From the funds to be paid under this section the counties, school districts, and municipalities annually shall apply a sum sufficient for the debt requirements for bonds and other obligations of the counties, school districts, and municipalities for which the properties were taxed at the time of their acquisition by the authority, with the remainder of the funds to be expended in accordance with law.

**SECTION 58-31-90.** Payments in lieu of taxes to certain counties and school districts.

Beginning with the tax year 1965, after the payment of all necessary operating expenses and all annual debt requirements on bonds, notes or other obligations at any time outstanding and the discharge of all obligations arising under finance agreements and indentures or other instruments under which bonds or obligations have been or may be issued, and after payment into the general fund of the State the sum of at least two hundred twenty-five thousand dollars annually, the South Carolina Public Service Authority shall pay annually to the counties of Orangeburg, Calhoun, Sumter, Clarendon, Berkeley, Horry and Georgetown and school districts therein additional sums of money in lieu of taxes on lands acquired prior to the year 1950 for reservoirs, lakes, canals, structures and adjoining properties of the Santee-Cooper Hydroelectric and Navigation Project in amounts equivalent to that paid in 1964 for sums in lieu of taxes on such lands to the counties and school districts therein. Provided, that all additional sums to be paid under this section shall be used for the support of the public schools within the counties and districts involved.

**SECTION 58-31-100.** Payment of additional sums in lieu of taxes.

Beginning with the fiscal year 1974-75 and in each fiscal year thereafter, after payment of the sums in lieu of taxes provided for by Sections 58-31-80 and 58-31-90, the Public Service Authority shall make the following additional payments in lieu of taxes:

(1) To any county in which it holds legal title to lands developed for commercial or residential purposes, a sum equal to ten percent of the annual rentals received from the lease of those lands during the fiscal year.

**(2) To the counties in which it owns, or leases and operates, electric generating facilities, a sum equal to fifteen percent of the amount paid in the fiscal year into the General Fund of the State, which sum shall be allocated among the counties concerned in the proportion which the generating capacity of the Public Service Authority located and in operation in each such county bears to the total of the Public Service Authority's generating capacity located and in operation in all such counties.**

(3) To the counties of Berkeley, Horry and Georgetown, a sum equal to ten percent of the amount paid during the fiscal year into the General Fund of the State, which sum shall be allocated among those counties in the proportion which the kilowatt hour sales, excluding sales for resale, made by the Public Service Authority in each such county bears to the total of the kilowatt hour sales, excluding sales for resale, made by the Public Service Authority in all such counties.

**END OF SECTION**

Application Summary:

Santee Cooper pays to the State of South Carolina 1% of projected revenues in semi-annual payments each January and July. Counties with electric generating facilities receive a share of 15% of the payment made to the state, pro-rated based on the proportional ratio of generating capacity in the county, to total generating capacity. For Fairfield County, the location of V.C. Summer Nuclear Station, this is based on the Santee Cooper share of the V.C. Summer capacity, divided by the total Santee Cooper generating capacity. This ratio changes as new generating facilities are placed into commercial operation.

In addition, Santee Cooper pays annually to each county where properties are owned by the Authority, a sum in lieu of property taxes based on the taxes on the property at the time of acquisition by the Authority.

Historical data for 1999 through 2008 and projections for 2009 through 2020 for all payments to Fairfield County are provided in the accompanying table below.

**Sums in Lieu of Taxes for Santee Cooper  
Historic and Projected Data for V.C. Summer Generating Station  
Payments to Fairfield County**

Tax Year	Payment	
1999	\$ 111,973	actual
2000	\$ 122,513	actual
2001	\$ 133,566	actual
2002	\$ 119,932	actual
2003	\$ 121,502	actual
2004	\$ 129,599	actual
2005	\$ 145,928	actual
2006	\$ 163,866	actual
2007	\$ 150,686	actual
2008	\$ 169,318	actual
2009	\$ 173,484	projected
2010	\$ 187,697	projected
2011	\$ 203,944	projected
2012	\$ 218,787	projected
2013	\$ 224,270	projected
2014	\$ 229,729	projected
2015	\$ 226,504	projected
2016	\$ 383,332	projected
2017	\$ 557,828	projected
2018	\$ 576,552	projected
2019	\$ 711,334	projected
2020	\$ 897,552	projected

Attachment 2

SCE&G

Response to ER Info Needs SE-3 Historical Tax Payments

SUMMARY OF SCE&G SOUTH CAROLINA UTILITY PROPERTY TAXES FOR 1999 THROUGH 2008							
SCEG UTILITY PROPERTY TAXES FOR	TOTAL	OTHER SCE&G	FAIRFIELD COUNTY	URQUHART FEE IN LIEU	JASPER FEE IN LIEU	DISTR CENTER FEE IN LIEU	TRANS CENTER FEE IN LIEU
1999	74,279,768	56,798,067	17,481,701				
2000	76,408,047	59,151,184	17,256,863				
2001	77,308,249	60,136,194	17,172,055				
2002	84,449,199	67,337,678	17,111,521				
2003	96,240,265	75,780,140	18,061,244	2,398,881			
2004	97,969,770	77,676,992	17,884,462	2,408,316			
2005	97,985,363	71,748,089	19,129,802	2,312,261	4,795,211		
2006	104,459,470	78,146,982	19,275,848	2,220,658	4,539,982	276,000	
2007	109,727,240	82,682,647	20,025,127	2,119,703	4,358,109	541,654	
2008	115,233,126	87,518,027	19,995,084	1,950,526	4,174,265	968,593	626,631
TOTALS	934,060,497	716,976,000	183,393,707	13,410,345	17,867,567	1,786,247	626,631
	TOTAL	OTHER	FAIRFIELD				
	FAIRFIELD	NUCLEAR	FAIRFIELD				
	COUNTY	COUNTY	COUNTY				
1999	17,481,701	12,529,680	4,952,021				
2000	17,256,863	12,272,620	4,984,243				
2001	17,172,055	12,273,100	4,898,955				
2002	17,111,521	12,199,280	4,912,241				
2003	18,061,244	12,903,760	5,157,484				
2004	17,884,462	12,711,245	5,173,217				
2005	19,129,802	13,564,310	5,565,492				
2006	19,275,848	14,209,970	5,065,878				
2007	20,025,127	14,295,100	5,730,027				
2008	19,995,084	14,280,560	5,714,524				
TOTALS	183,393,707	131,239,625	52,154,082				

## South Carolina Electric & Gas Tax Liability

Year	Federal	State
1998	100,680,991	8,946,186
1999	77,398,706	5,997,602
2000	88,964,993	8,970,600
2001	69,810,815	7,474,871
2002	49,640,960	7,197,368
2003	30,016,336	7,031,411
2004	20,102,826	8,587,073
2005	18,865,176	8,246,303
2006	64,874,161	9,333,578
2007	58,373,238	8,591,143
Est. 2008	37,813,889	3,862,244

\* Amounts represent an allocation of SCE&G's stand alone liability as they are part of a consolidated filing

## VCSNS UNITS 2 and 3

### Response to NRC Information Needs Item

Information Item Number: SE-8 and 9 Revision: 0

#### Statement of the Information Item:

Information Item SE-8:

Provide an expert to discuss construction expenditure assumptions including the following:

- Expected purchasing patterns in direct support of construction activities.  
In-region versus out-of-region construction expenditures.

Information Item SE-9:

Provide an expert to discuss operations expenditure assumptions including the following:

- Expected purchasing patterns in direct support of operations activities.  
In-region versus out-of-region operations expenditures.

SCE&G Follow Up Action:

SCE&G to provide requested information.

#### Response:

In response to ER Information Needs item BC-1, SCE&G provided estimates for the construction and operating costs for units 2 and 3. This response (SCE&G letter from Ronald B. Clary to the USNRC Document Control Desk, NND-09-0158, dated June 9, 2009) provided a new Table 10.4-5 that estimated the total cost of construction for the new plants at \$11.3 billion including escalation and interest. Likewise the first year operating costs are estimated at \$343 million for Unit 2 and \$325 million for Unit 3. First year operating costs for Unit 3 are lower because of shared costs attributed to Unit 2. All estimates are, however, subject to change. At this time in-region versus out-of-region expenditures cannot be projected.

#### COLA Revisions:

No COLA revision is required as a result of the response to this Information Needs item.