

**V. C. Summer Nuclear Station Units 2 & 3**

**Quarterly Report to the South Carolina Office of Regulatory Staff  
Submitted by South Carolina Electric & Gas Company  
Pursuant to Public Service Commission Order No. 2009-104(A)**

**Quarter Ending September 30, 2011**

**I. Introduction and Summary**

**A. Introduction**

This quarterly report is submitted by South Carolina Electric & Gas Company (SCE&G or the Company) to the Public Service Commission of South Carolina (the Commission) and the South Carolina Office of Regulatory Staff (ORS). It is submitted in satisfaction of the requirements of S.C. Code Ann. § 58-33-277 (Supp. 2010) and the terms of Commission Order No. 2009-104(A). This report provides updated information concerning the status of the construction of V. C. Summer Nuclear Station Units 2 & 3 (the Units) and updates the capital cost and construction schedules for the Units. The Commission approved updated construction schedules for the Units in Order No. 2010-12. The Commission approved updated capital cost schedules for the Units in Order No. 2011-345 issued on May 16, 2011.

**B. Structure of Report and Appendices**

The current reporting period is the quarter ending September 30, 2011. The report is divided into the following sections:

- Section I: Introduction and Summary;
- Section II: Progress of Construction of the Units;
- Section III: Anticipated Construction Schedules;
- Section IV: Schedules of the Capital Costs Incurred Including Updates to the Information Required by S.C. Code Ann. § 58-33-270(B)(6) (the Inflation Indices);
- Section V: Updated Schedule of Anticipated Capital Costs; and
- Section VI: Conclusion.

**Appendices 1, 2, and 4** to this report contain detailed financial, milestone and other information updating the schedules approved by the Commission in Order No. 2010-12. For reference purposes, **Appendix 3** provides a copy of the approved capital cost schedule for the project without adjustments in the form approved in Order No. 2011-345.

A confidential and a public version of this report and its attachments are being provided. All cost information presented reflects only SCE&G's share of the project's cost. Attached to the end of the report is a glossary of acronyms and defined terms used in it.

### **C. Construction Schedule and Milestones**

As the report indicates, the Company has met all current construction milestones approved by the Commission in Order No. 2010-12, as adjusted pursuant to contingencies authorized in Order No. 2009-104(A). There are 146 separate milestones. Of these, 63 have been completed as of September 30, 2011. Comparing the scheduled milestone completion dates as of the date of this report to the milestone completion dates approved by the Commission in Order No. 2010-12, the completion dates of 74 milestones have changed. Of these, 30 have been accelerated and 44 have been delayed for between one and 14 months.

### **D. Construction Costs and Cost Forecasts**

As this report indicates, the Company is on track to complete the Units at the capital cost forecast of approximately \$4.3 billion in 2007 dollars as approved in Order No. 2011-345.

In Order No. 2009-104(A), the Commission recognized that forecasts of Allowance for Funds Used During Construction (AFUDC) expense and escalation would vary over the course of the project and required those forecasts to be updated with each quarterly report. The current escalation indices were issued in May 2011 for the period of July-December of 2010 and those indices have been used in forecasting the construction costs for the project presented here. **Chart A** below compares the current capital cost forecast to the forecast presented in the last quarterly report.

**Chart A: Reconciliation of Capital Cost (\$000)**

<b><u>Forecast Item</u></b>	<b><u>Projected @ 9/30/11 (Five-Year Average Escalation Rates)</u></b>	<b><u>Projected 6/30/11 @ Five-Year Average Escalation Rate</u></b>	<b><u>Change</u></b>
<b>Gross Construction</b>	<b>\$5,571,665</b>	<b>\$5,620,586</b>	<b>(\$48,921)</b>
<b>Less: AFUDC</b>	<b>\$246,726</b>	<b>\$249,348</b>	<b>(\$2,622)</b>
<b>Total Project Cash Flow</b>	<b>\$5,324,939</b>	<b>\$5,371,238</b>	<b>(\$46,299)</b>
<b>Less: Escalation</b>	<b>\$1,054,638</b>	<b>\$1,100,937</b>	<b>(\$46,299)</b>
<b>Capital Cost, 2007 Dollars</b>	<b>\$4,270,301</b>	<b>\$4,270,301</b>	<b>\$0</b>

**Chart B** compares the current forecast of gross construction costs, including current escalation, to the forecast on which the Commission relied in adopting Order No. 2011-345. Chart B shows that the forecasted capital cost of the Units in 2007 dollars has decreased by approximately \$103,000. This reduction reflects the voluntary decision by the Company, communicated to the Commission by letter dated April 25, 2011, that it would not seek recovery for \$103,000 in Community/Support Outreach costs that Westinghouse (WEC)/Shaw had included in costs to be charged under the Engineering, Procurement and Construction Agreement (EPC Contract) for the Units. Due to the changes in forecasted escalation when netted against changes in AFUDC as discussed more fully below since Order No. 2011-345 was issued the cost of the plant in future dollars has decreased by \$215 million.

**Chart B: Reconciliation of Capital Cost (\$000)**

<b><u>Forecast Item</u></b>	<b><u>Projected @ 9/30/11 (Five-Year Average Escalation Rates)</u></b>	<b><u>As Forecasted Or Approved In Order 2011-345</u></b>	<b><u>Change</u></b>
<b>Gross Construction</b>	<b>\$5,571,665</b>	<b>\$5,786,943</b>	<b>(\$215,278)</b>
<b>Less: AFUDC</b>	<b>\$246,726</b>	<b>\$255,684</b>	<b>(\$8,958)</b>
<b>Total Project Cash Flow</b>	<b>\$5,324,939</b>	<b>\$5,531,259</b>	<b>(\$206,320)</b>
<b>Less: Escalation</b>	<b>\$1,054,638</b>	<b>\$1,260,855</b>	<b>(\$206,217)</b>
<b>Capital Cost, 2007 Dollars</b>	<b>\$4,270,301</b>	<b>\$4,270,404</b>	<b>(\$103)</b>

**E. Escalation Rates**

As provided in Order No. 2009-104(A), the most current twelve-month inflation indices are used to escalate costs occurring in the twelve-month period after the date of each quarterly report. As stated above, the most current escalation indices are found in the Handy-Whitman January 2011 update which was issued in May 2011 and reports data through the period July-December of 2010. Those rates are reflected in this report. At the time that this quarterly report was prepared, Handy-Whitman data for the period January-June of 2011 had not been issued.

As shown on **Appendix 4**, utility construction cost escalation rates were at historically high levels during the period 2005-2008, and since then have begun to drop. The current one-year averages and five-year averages are now closer to historical ten-year rates than they have been in certain past periods. Current escalation rates are shown on **Chart C**, below.

**Chart C: Handy-Whitman Escalation Rates**

<b>January 2011 Update</b>	
	<b>Escalation Rate</b>
<b><u>HW All Steam Index:</u></b>	
One-Year Rate	<b>3.36%</b>
Five-Year Average	<b>4.73%</b>
Ten-Year Average	<b>4.45%</b>
<b><u>HW All Steam/Nuclear Index:</u></b>	
One-Year Rate	<b>3.17%</b>
Five-Year Average	<b>4.74%</b>
Ten-Year Average	<b>4.46%</b>
<b><u>HW All Transmission Plant Index</u></b>	
One-Year Rate	<b>1.44%</b>
Five-Year Average	<b>4.33%</b>
Ten-Year Average	<b>4.55%</b>

**F. AFUDC**

The AFUDC for the project is currently projected to be approximately \$9 million lower than the forecast on which Order No. 2011-345 was based. Consistent with Order No. 2009-104(A), SCE&G computes AFUDC based on the Federal Energy Regulatory Commission (FERC) approved methodology as applied to the balance of Construction Work in Progress (CWIP) that is outstanding between rate adjustments. SCE&G's AFUDC rate is currently 5.87% which is the same rate that applied when Order No. 2011-345 was issued. Standing alone, the current AFUDC rate would produce no change in the forecasted amount of AFUDC. However, lower escalation rates, combined with changes in the cash flow, have reduced the forecasted project cash flows for the project thereby reducing forecasted AFUDC.

## **G. Compliance with the Commission Approved Cumulative Project Cash Flow Target**

The current approved Cumulative Project Cash Flow target for the project was adopted by the Commission in Order No. 2011-345. In Order No. 2009-104(A), the Commission provided that the applicable Cumulative Project Cash Flow target would be adjusted with each quarterly report to reflect updated escalation data.

**Appendix 2** provides the approved Cumulative Project Cash Flow target updated for current escalation data. The cash flow targets up to December 31, 2010, have been updated to reflect actual escalation rates up to that date. The cash flow targets for the first quarter of 2011 and beyond have been updated based on the most recently available inflation indices, which, for purposes of this report, are the indices provided in May of 2011 that are current through December 31, 2010. When actual indices for the period January 1, 2011, to June 30, 2011, become available, the cash flow data for the first and second quarters of 2011 will be revised to reflect the actual escalation rates. Cash flow data for the third quarter of 2011 will also be revised as new data are released by Handy-Whitman.

**Appendix 2** compares the approved Cumulative Project Cash Flow target to the current cumulative cash flow schedules for the project, which include actual costs where available and SCE&G's working forecasts of annual cash flows for future years. In addition, the figures presented on **Appendix 2** for 2011 have been adjusted to reflect timing differences between the billing methodology under the EPC Contract and the calculation of the escalated cash flow targets under Order No. 2009-104(A). Under the EPC Contract, for periods where actual escalation rates are not available, WEC/Shaw bills SCE&G based on a rolling 2-year average of the applicable Handy-Whitman rate and provides adjustments to reflect the actual rate when it is known. An adjustment has been made to **Appendix 2** to offset the timing differences that arise as a result of WEC/Shaw's approach to estimated billings and credits. This adjustment applies to those EPC cost categories that are subject to indexed escalation.

## **II. Progress of Construction of the Units**

Construction of the Units is progressing to allow SCE&G to begin nuclear safety related construction work upon receipt of the Combined Operating License (COL) for the Units, which is anticipated in late 2011 or early 2012. However, as indicated in prior reports, the current construction schedule was based on the anticipated issuance of a COL in mid-2011. Issuance of the COL in late 2011 or early 2012 would not allow Unit 2 to be completed by the previously established substantial completion date without changes to the construction schedule. In response, in February of 2011 SCE&G approved Change Order 11 to the EPC Contract which provides for WEC/Shaw to perform a COL Delay

Impact Study to assess strategies for mitigating the delay. A total of three alternative approaches are presented in the study. One scenario compresses the construction schedule for Unit 2 to retain the current substantial completion date, and does not change the substantial completion date of Unit 3. The second scenario pushes the substantial completion date for Unit 2 out by six months and again does not change the substantial completion date of Unit 3. The final scenario considers accelerating the substantial completion date for Unit 3 to determine whether such acceleration, when coupled with a delay in the Unit 2 substantial completion date, would create economies and efficiencies in the construction schedule. Bringing the construction schedules for the two units closer together in time can allow crews to move seamlessly from working on one unit to working on the next, thereby keeping crews together and on site and thus avoiding the cost of demobilization and remobilization. WEC and Shaw are currently re-evaluating the cost and other impacts associated with the COL delay based on a more closely integrated schedule for the units. SCE&G is in negotiations with WEC/Shaw to determine the preferred approach.

SCE&G has not authorized WEC/Shaw to change the substantial completion dates for either of the Units and does not anticipate doing so until a final decision on the path forward is agreed upon. However, some milestones that are internal to the project have shifted in ways that would require a shift in the substantial completion date of Unit 2 unless the construction schedule for Unit 2 were accelerated as envisioned by the first scenario of the COL Delay Impact Study discussed above. If either the second or third scenario is chosen, these matters would be resolved by extending the substantial completion date of Unit 2 by approximately six months. As mentioned above, no decision has been made concerning which scenario will be chosen. Accordingly, the substantial completion dates of Units 2 and 3 remain 2016 and 2019 respectively. Once a path forward to respond to the delays in the COL issuance and related matters is decided the completion dates for all milestones will be reset to reflect the resulting construction schedule.

A more detailed presentation of the status of the project is addressed in Section II.A-Section II.G below.

## **A. Licensing and Permitting**

### **1. The Combined Operating License Application (COLA)**

#### **a) Design Control Document (DCD) Revisions**

The DCD continues on the path to support issuance of the COL in late 2011 or early 2012. In June 2011, WEC provided the Nuclear Regulatory Commission (NRC) with Revision 19 to the DCD, which incorporated the material provisions of Revisions 16-18. Revision 19 also includes information that WEC

previously had provided the NRC through Requests for Additional Information (RAIs) and additional conforming amendments to the design that WEC agreed to make as a result of the NRC's review. On August 5, 2011, the NRC issued the Final Safety Evaluation Report (FSER) concerning Revision 19. Final Commission action on the DCD amendments is expected in November 2011.

**b) Site-Specific COL and Reference Plant COL**

On August 17, 2011, the NRC Staff issued the FSER for the SCE&G's site specific COLA for the Units. This represented the successful completion of the NRC Staff's safety review of the COLA. On August 19, 2011, following issuance of the FSER, the NRC Staff provided the final rule making package to the NRC for review and approval. On October 12-13, 2011, subsequent to this reporting period, the NRC held its Mandatory Hearing on the site specific COLA. The NRC is now in a position to vote on issuing the COL as soon as DCD Revision 19 is approved. Following an affirmative vote on Revision 19, the rulemaking for the AP1000 reactor design will be published in the Federal Register. Once published, the rule generally becomes effective after a 30-day waiting period. However, the possibility exists that an affirmative vote by the NRC could eliminate the 30-day waiting period, thereby making the rule effective upon publication, and allowing the COL to be issued at that time.

**c) Environmental Review**

The NRC issued the Final Environmental Impact Statement (FEIS) for the Units in April 2011, which completed the review of environmental impacts of the project.

**d) Japanese Earthquake and Tsunami of March 2011**

As previously reported, in April 2011, a number of individuals and environmental groups filed a petition before the NRC to suspend all pending reactor licensing decisions and related rulemaking decisions based on the events associated with the March 11, 2011 earthquake and tsunami in Japan. The NRC has dismissed this petition.

In response to the March 2011 events in Japan, the NRC established a senior level agency task force to conduct a comprehensive review of the NRC processes and regulations currently in place. In the 90-day report issued on July 12, 2011, the task force set forth recommendations that take a balanced approach to accident mitigation during low-likelihood, high consequence events such as prolonged station power outages resulting from naturally occurring phenomena. Specific to new plant licensing the task force report stated: "The Task Force notes



that the two design certifications currently in the rulemaking process (i.e., the AP1000 and the economic simplified boiling-water reactor (ESBWR)) have passive safety systems. By nature of their passive designs and inherent 72-hour coping capability for core, containment, and spent fuel pool cooling with no operator action required, the ESBWR and AP1000 designs have many of the design features and attributes necessary to address the Task Force recommendations. The Task Force supports completing those design certification rulemaking activities without delay.”

## **2. Other Major Construction Permits**

### **a) South Carolina Department of Health and Environmental Control (SCDHEC) Permits**

The SCDHEC has issued a National Pollutant Discharge Elimination System (NPDES) General Permit, which will allow SCE&G to perform Pilot Testing for the proposed Off-Site Water Treatment Plant (WTP). The permit allows SCE&G to discharge filter backwash water from this test facility into the Monticello Reservoir. Once in operation, the proposed WTP will supply potable water to Units 2 and 3.

### **b) 404 Wetlands Permit and 401 Water Quality Certification**

In late 2010, SCE&G revised its 404 Wetlands Permit application to incorporate the Company’s decision to use existing right-of-way (ROW) or to expand transmission corridors for the transmission lines to be constructed by SCE&G and the South Carolina Public Service Authority (Santee Cooper) to serve the Units. In April 2011, the NRC issued the Final Environmental Impact Statement (FEIS) for the Units on which the 404 Wetlands Permit is based. Following issuance of the FEIS, the United States Army Corps of Engineers (ACOE) placed the 404 Wetlands Permit on public notice in June 2011. The South Carolina Department of Natural Resources (SCDNR) requested a 15-day extension, followed by a request by the Environmental Protection Agency (EPA) for an additional 30-day extension. During the third quarter of 2011, SCE&G submitted responses to concerns provided by several resource agencies regarding the 401 Water Quality Certification. The review period for these comments ended in October of 2011. The final decision on the

401 Water Quality Certification by SCDHEC is anticipated in late 2011. Once the 401 Water Quality Certification is issued, the ACOE will be in a position to make a final decision on the 404 Wetlands Permit for the project.

**c) Other Permits**

On October 12, 2011, subsequent to this reporting period, the FERC issued SCE&G a License Amendment to the Federal Hydroelectric Project License for the Monticello and Parr Reservoirs (FERC Project 1894) to authorize withdrawal of cooling and other water for the Units from the Monticello Reservoir and to authorize other construction activities within the project boundaries of the reservoir.

**3. Base Load Review Act (BLRA) Regulatory Proceedings**

In May 2011, the Commission issued Order No. 2011-345 approving the current updated capital cost schedules for the project. On September 30, 2011, the Commission issued Order No. 2011-738 in Docket No. 2011-207-E which approved SCE&G's third request for revised rates under the terms of the BLRA. The total rate adjustment authorized was \$52,783,342 and reflected an incremental investment by the Company in the Units of \$436,725,000.

**4. Utility Facility Siting and Environmental Protection Act Proceedings**

On October 27, 2011, the Commission held an evidentiary hearing under the terms of the Utility Facility Siting and Environmental Protection Act Proceedings (Siting Act) on SCE&G's petition for a certificate of environmental compatibility and public convenience and necessity for construction of three transmission lines associated with the Units. The lines in question are the VCS1 – Killian Line (Killian Line), the VCS2 – Lake Murray Line No. 2 (Lake Murray No. 2 Line), and that segment of the VCS2 – St. George No. 1 Line that runs between the plant site and the Lake Murray 230/115 kV substation (St. George Segment).

The Killian Line will be constructed to route power from Unit 2 to the northeastern area of the Columbia load center. The Lake Murray No. 2 Line will be constructed to route power from Unit 2 to load centers in the Lake Murray and Lexington areas northwest of Columbia. The St. George Segment is an initial

segment of one of two lines that will be built to route power from Unit 3 to the southern part of SCE&G transmission system north of Charleston.

The St. George Segment will be built on the same structures as the Lake Murray Line No. 2 and will serve as a temporary replacement for the VCS1 – Lake Murray Line No. 1 later in the construction plan when that line will be taken out of service, re-terminated at VCS Switchyard #2 and rebuilt on common structures with the St. George Line No. 2. For reasons of construction efficiency and to support system reliability later in the construction plan, SCE&G intends to construct the St. George Segment at the same time it constructs the Lake Murray Line No. 2.

Two parties intervened in the siting proceeding for these lines. Before the hearing commenced, SCE&G and the Town of Blythewood, South Carolina reached a settlement in which the Town agreed to support the application. Richland County, South Carolina, also intervened and presented testimony at the hearing. ORS’s witness testified in support of issuance of the certificate.

## **B. Engineering**

### **1. Engineering Completion Status**

The V.C. Summer Units 2 & 3 Total Plant Design Completion Status is as follows:

- a) Site Specific Design – 82.8% complete
- b) Standard Plant Issued For Construction (IFC) Drawings – 28.5% complete

Standard Plant Design is essentially 100% complete and no longer tracked for reporting purposes. IFC drawings are now being tracked in lieu of Certified for Construction (CFC) drawings, and include the information necessary for construction of specific structures, systems and components.

### **2. Site Specific Design Activities**

Shaw Engineering continues to perform Site Specific Design work to support Site Specific Systems, to include the Circulating Water System, Yard Fire System, Potable Water System, Raw Water System, Sanitary Drain System and Waste Water System. Shaw has now turned Switchyard work over to its contractor, Pike Energy Solutions (Pike).

### 3. Procurement/Fabrication

a) In late 2010, Shaw Modular Solutions (SMS) placed all fabrication or rework activities related to the Units at its facility in Lake Charles, Louisiana on hold in order to evaluate and correct Quality Assurance (QA) issues. A root cause investigation was conducted. On January 10, 2011, the NRC was unable to complete a vendor inspection audit at SMS due to the lack of actual production work ongoing. As a result, the NRC requested a plan of action from SMS addressing all issues identified since initiation of fabrication. In response to the NRC's request, SMS outlined corrective actions to elevate their QA program implementation to the level of effectiveness required for fabrication of AP1000 modules. The Consortium reacted by increasing its Quality Assurance and Quality Control (QA/QC) oversight and presence at the SMS facility. At the same time SMS implemented a broad-based program for improving its quality control practices and procedures with emphasis on strengthening the nuclear safety culture at its facility.

Upon successful completion of the Shaw Nuclear Quality Assurance annual implementation audit in March 2011, SMS received approval to begin limited rework activities of floor sub-modules and to perform prototype and limited welding activities. As a result of unresolved QA program issues noted during a surveillance conducted September 12-16, 2011, SMS issued a self-imposed hold on module fabrication in mid-October, subsequent to this reporting period. However, this hold is related only to specific components fabricated earlier in the year (e.g., floor modules), and SMS is currently in full fabrication of other components.

CA20 is the module that includes the principal components of the fuel handling and fuel storage portion of the auxiliary building including the transfer canal and spent fuel pool. The smaller sub-assemblies that will be welded together to form CA20 will be shipped to the site for assembly in the Module Assembly Building (MAB) on a support structure called the CA20 Platen. Erection of the CA20 Platen within the MAB was completed in September of 2011. Subassembly CA20-01 Prototypes 5 and 6 were received at the project site in October. These are prototypes of the first subassemblies that will be incorporated into CA-20. In November of 2011, subsequent to this reporting period, Prototypes 5 and 6 were erected on the CA20 Platen for training purposes and assembly and training activities are being conducted using them.

SMS has recently re-baselined the module fabrication and delivery schedule. According to the latest module schedule, the on-hook date of the CA20 (*i.e.*, the date by which fabrication is complete and the module is ready

to be lifted into place) is now October 2012. This date is approximately 10 months later than the originally scheduled date for this activity. The module schedule continues to be revised and optimized and is being coordinated with the overall schedule review taking place under Change Order No. 11.

b) Ongoing issues identified by WEC in the production and fabrication of AP1000 components by its supplier, Mangiarotti (MN), and MN sub-suppliers continue to be an area of focus. A number of plant components are involved and four BLRA milestones related to these components, specifically as indicated in **Appendix 1**, have been delayed by 12 to 14 months. These delays are not expected to affect the substantial completion dates for either of the Units. SCE&G and Consortium senior management travelled to the MN facility in September of 2011 to discuss the current status of VCS Units 2 & 3 project equipment with MN and to determine a path forward. As a result of those discussions, increased emphasis has been placed on meeting production schedules, and additional WEC oversight resources have been placed at the MN facility.

c) Endurance testing of the lead Reactor Coolant Pump (RCP) began in April 2011, but was suspended to investigate unexpected temperature data in a localized area within the stator core. A subsequent investigation was performed and resulted in design improvements to the motor to address the unexpected temperature data. A Proof of Principal Test was then completed, and inspection results confirm that the improvements in design were successful. A second Endurance Test will be performed once design changes are incorporated into production. No delay in the site delivery of the V.C. Summer RCPs is anticipated.

d) Reactor Coolant Loop (RCL) Piping for the Reactor Coolant System (RCS) being manufactured by Tioga has experienced delays in hot leg manufacturing primarily due to deviation in grain size. A Root Cause Analysis (RCA) was initiated and received final approval by WEC. A decision was made to remanufacture piping segments using new forgings or, in some cases, forgings made for Unit 3. This will result in a delay to initial schedule delivery but is not expected to impact construction. A manufacturing plan was implemented to address grain size issues, and WEC lifted the manufacturing hold on bending and heat treatment activities for Unit 2 piping manufacture. A contingency plan is in place to accept piping with grain size larger than the current specification requirements should revised manufacturing techniques fail to achieve desired results. One (1) BLRA milestone related to RCL piping, as indicated in **Appendix 1**, has now been delayed by 13 months, but this delay is not expected to affect the substantial completion dates for the Units.

e) A Stop Work Order in effect for SPX, which manufactures Squib Valves for the Units, was lifted upon successful completion of a recent WEC audit. No adverse impact to valve delivery to site is expected.

f) Immediately following the March 2011 earthquake in Japan, the Consortium issued a Force Majeure letter informing SCE&G of possible effects to the schedule for major equipment being manufactured in locations that may have been impacted. This equipment includes the Turbine Generator, Main Transformer, and Containment Vessel. To date, however, no schedule impacts have been identified. The Force Majeure previously in place has been lifted. No impact to the project has been identified.

### **C. Construction**

1. As previously reported, preconstruction Switchyard work was impacted due to weather delays, late issuance of documents for review, and delayed resolution of issues associated with design compliance to the approved Switchyard specifications. Shaw has since taken action to correct these issues, and the Switchyard is on schedule to be energized in March 2013, a date which fully supports the project schedule. Pike, the Switchyard contractor to Shaw, was given a Limited Notice to Proceed (LNTP) by SCE&G to begin a portion of the work in the second quarter of 2011, and an additional LNTP was issued in October, subsequent to this reporting period, for the remaining Switchyard work to be completed.

2. Unit 3 excavation continues on schedule. The top of bedrock was reached for the Nuclear Island at the beginning of October, and geologic mapping is nearing completion. An NRC Geologic Inspection of the Unit 3 top of surface rock and the geologic mapping program was conducted October 4-7, 2011 subsequent to this reporting period, with favorable results.

3. The MAB was completed, and the first floor sub-module from SMS was received on site in June 2011. As indicated above, erection of the CA20 Platen was completed in September 2011. The CA20-01 prototype (Prototype 5) was received at the project site and is being erected on the CA20 Platen for training purposes.

4. Assembly of the Heavy Lift Derrick (HLD) carriage was completed in October, subsequent to this reporting period. In addition, issues previously identified with the HLD foot castings have been resolved. A new foot component is expected on site to support load testing of the HLD in January 2012, with a readiness date of February 2012. As a result, an evaluation by Shaw of lift plans

to determine whether smaller cranes could handle the first series of lifts to be made after receipt of the COL has been placed on hold as not likely to be necessary. However, this remains a focus area.

5. Waterproof membrane testing for the SCE&G site was completed in September 2011, and selection by Shaw of a qualified installation subcontractor is in process. Because the installation of the membrane is a critical path item for readiness to pour nuclear-safety related concrete, this continues to be an area of focus for the project.

6. Testing of the first two safety-related concrete mix designs began in September 2011. Efforts continue to accelerate the completion of testing and quality approvals to avoid delays in the placement of the first safety-related concrete in the Unit 2 nuclear island. A qualified mix design is anticipated by the end of December 2011.

7. In June 2011, Chicago Bridge & Iron (CB&I) was given an LNTP by SCE&G to allow buffing and grinding of the containment vessel bottom head, layout work and Nelson stud placement training. CB&I has made significant progress with this work and in late June was released by SCE&G to perform assembly of the containment vessel bottom head column studs and limited safety-related welding activities. Safety-related welding began in July 2011, and fabrication of the bottom head plates continues.

#### **D. Training**

1. Twelve training instructors for Units 2 & 3 began Instructor Simulator Training on September 12, 2011 at WEC in Cranberry, PA. The training is progressing well, and will end in early December 2011. A subsequent group of twelve will attend this training beginning January 9, 2012 and ending in April 2012, which will complete the WEC Senior Reactor Operator Certification training for SCE&G instructors.

2. Potential schedule impacts to simulator delivery, testing, and subsequent certification of the Plant Reference Simulator (PRS) continue to be an area of focus.

Earlier in 2011, WEC informed SCE&G of a change in the schedule to conduct Integrated Systems Validation (ISV) testing on the Limited Scope Simulator (LSS) at WEC due to incomplete design inputs, procedures, and Probabilistic Risk Assessment (PRA) that are to be incorporated in the LSS. As a result of this change, the required ISV testing has been rescheduled to be completed on the PRS during the fourth quarter of 2013. This delay in testing will

challenge the schedule to complete operating exams required on a PRS to license the necessary number of operators prior to fuel load. Discussions continue between SCE&G and the Consortium to determine a path forward that will support the training requirements of the project schedule. This is an area of focus.

In preparation for receipt of the LSS, work recently began on the simulator rooms of the Nuclear Learning Center (NLC) Annex at Unit 1. Completion of this construction is scheduled for the first quarter of 2012. Delivery of hardware for the LSS began during the week of October 31, 2011 and will continue throughout the fourth quarter of 2011. It is anticipated that the AP1000 simulators will be ready to begin use for training activities starting March 2012.

## **E. Change Control/Owners Cost Forecast**

1. The terms of Amendment No. 2 to the EPC Contract have been negotiated by SCE&G and WEC/SHAW and the amendment is expected to be signed in mid-November 2011. Amendment No. 2 will incorporate Change Orders 3 and 5-11 into the body of the EPC Contract.

2. As indicated above, in February 2011, SCE&G approved Change Order 11, which initiated a study to be conducted by WEC/Shaw to analyze potential impacts to the construction schedule due to the current schedule for receiving the COL. The original study considered two scenarios. One involved compressing the construction schedule to maintain the April 1, 2016 substantial completion date for Unit 2. The other involved delaying that date by six months. SCE&G subsequently requested that the study consider a third scenario, under which the substantial completion date of Unit 2 would be delayed by six months and the substantial completion date of Unit 3 would be accelerated to create construction efficiencies between the two units. SCE&G is in negotiations with WEC/Shaw to determine the preferred approach.

## **F. Transmission**

1. SCE&G's Power Delivery group has resolved the routes for the four 230 kV transmission lines associated with the Units, *i.e.*, the VCS1 – Killian Line (Unit 2), the VCS2 – Lake Murray Line No. 2 (Unit 2), and the VCS2 – St. George No. 1 and No. 2 Lines (Unit 3). These new lines will now occupy existing transmission ROW corridors except for a segment of approximately 6 miles of the VCS1-Killian Line that will be built on a new ROW.



2. SCE&G commenced ROW acquisition on the Blythewood-Killian segment of the VCS1- Killian Line on March 22, 2011. Of the 51 parcels involved, 29 have been acquired as of the end of October 2011.

3. SCE&G and Pike signed an EPC contract on February 28, 2011, to provide for the permitting, engineering and design, procurement of material, and construction of the four lines needed to connect the Units to the grid. Pike is currently progressing with the design engineering on the VCS1-Killian 230 kV Line. As to the VCS1-Winnsboro segment of this line, the material procurement process began in the third quarter of 2011 with initial deliveries expected in the first quarter of 2012.

4. SCE&G has completed the Siting and Environmental Reports for the Unit 2 lines (VCS1-Killian 230 kV line and the VCS2-Lake Murray 230 kV Line No. 2, which includes a segment of the VCS2-St. George 230 kV Line No. 1) in support of the Commission application for a Certificate of Environmental Compatibility & Public Convenience & Necessity. SCE&G filed this application with the Commission on August 9, 2011. As discussed above, the PSC hearing on this application was held on October 27, 2011.

5. SCE&G anticipates filing a separate Commission application for the Unit 3 lines (VCS2-St. George 230 kV Lines No. 1 & 2, excluding the segment of the No. 1 line filed with the Unit 2 lines).

#### **G. Agreement with Santee Cooper**

In October of 2011, SCE&G and its co-owner in the project, Santee Cooper, executed the permanent construction and operating agreements, which will govern the construction and operation of the new nuclear facilities. Under these agreements, SCE&G will have primary responsibility for oversight of the construction of the units and will be responsible for the operation of the units as they come on line.

### **III. Anticipated Construction Schedules**

As of September 30, 2011, the Company and its contractors remain on schedule to complete all required milestones as adjusted pursuant to the milestone schedule contingencies approved by the Commission in Order No. 2009-104(A). Each of those adjustments is itemized in the BLRA Milestone section that follows. Accordingly, the project is in compliance with the construction schedules approved by the Commission in Order No. 2010-12 and with the provisions of S.C. Code Ann. § 58-33-275(A)(1).

## **A. Construction Schedule**

The Project Licensing and Permitting, Engineering, Procurement and Construction work remains on schedule to meet the Units' Substantial Completion dates taking into account the schedule contingencies approved in Order 2009-104(A). Rescheduling of the milestones is addressed in Section III.B. The rescheduling of these milestones is within the approved schedule contingencies and has no adverse impact on the Units' Substantial Completion dates.

## **B. BLRA Milestones**

**Appendix 1** to this quarterly report lists and updates each of the specific milestones constituting the anticipated construction schedule for the Units pursuant to S.C. Code Ann. § 58-33-270(B)(1) and Order No. 2010-12. Comparing the milestone dates in this quarter to the reset milestone dates in Order No. 2010-12, 30 milestones have been advanced and 44 have been delayed. None of the reset milestones are outside of the parameters established by Order No. 2009-104(A).

## **IV. Schedules of the Capital Costs Incurred Including Updates to the Information Required by S.C. Code Ann. § 58-33-270(B)(6) (the Inflation Indices)**

The Capital Cost section of this report (Section IV.A) provides an update of the cumulative capital costs incurred and forecasted to be incurred in completing the project. These costs are compared to the cumulative capital cost targets approved by the Commission in Order No. 2011-345. The approved capital cost targets have been adjusted to reflect the currently reported historical escalation rates. There has not been any use by the Company of the capital cost timing contingencies that were approved by the Commission in Order No. 2009-104(A). The Inflation Indices section (Section IV.B) of this report provides updated information on inflation indices and the changes in them.

### **A. Capital Costs**

**Appendix 2** shows the Cumulative Project Cash Flow target as approved in Order No. 2011-345 and as updated for escalation and other Commission approved adjustments under the heading **“Per Order 2011-345 Adjusted.”**

**Appendix 2** also shows the cumulative cash flow for the project based on actual expenditures to date and the Company's current forecast of cost and construction schedule under the heading **“Actual through September 2011, plus Projected.”**

As shown on **Appendix 2**, the actual expenditure for the project during the 12 months ended December 31, 2010 is approximately \$399 million. As shown on **Appendix 2**, line 39, the cumulative amount projected to be spent on the project as of

December 31, 2011 is \$1.261 billion. As shown on **Appendix 2**, line 18, the Cumulative Project Cash Flow target approved by the Commission for year-end 2011 adjusted for current escalation and WEC/Shaw billing differences is \$1.343 billion. As a result, the cumulative cash flow at year-end 2011 is forecasted to be approximately \$82 million less than the target.

For comparison purposes, **Appendix 3** sets out the cash flow schedule for the project as it was approved in Order No. 2011-345. **Appendix 3** does not include any adjustments to the cash flow schedule for changes in inflation indices or adjustments in capital cost schedules made by the Company. The AFUDC forecast presented on **Appendix 3** is the AFUDC forecast that was current at the time of Order No. 2011-345.

## **B. Inflation Indices**

**Appendix 4** shows the updated inflation indices approved in Order No. 2009-104(A). Included is a history of the annual Handy Whitman All Steam Index, South Atlantic Region; the Handy Whitman All Steam and Nuclear Index, South Atlantic Region; the Handy Whitman All Transmission Plant Index, South Atlantic Region; and the Chained GDP Index for the past 10 years. The changes in these indices and the escalation-related effects of cost rescheduling resulted in a decrease in the projected cost of the Units in future dollars from \$5.8 billion as forecast in Order No. 2011-345 to a forecast of \$5.6 billion using current inflation data.

## **V. Updated Schedule of Anticipated Capital Costs**

The updated schedule of anticipated capital costs for Units 2 & 3 is reflected in **Appendix 2**.

## **VI. Conclusion**

As indicated above, the scheduled completion dates for Units 2 & 3 remain unchanged. The Units are on track to be completed within the approved cost of \$4.3 billion in 2007 dollars. The Company maintains an extensive staff of experts that monitors and oversees the work of its contractors and has identified and continues to monitor closely all areas of concern related to either cost or schedule for the project. The Company will continue to update the Commission and ORS of progress and concerns as the project proceeds.

## ATTACHMENT 1

### GLOSSARY OF ACRONYMS OR DEFINED TERMS

<b>Acronym or Defined Term</b>	<b>Reference</b>
ACOE	The United States Army Corps of Engineers.
ACRS	Advisory Committee on Reactor Safeguards - a committee organized to independently review license applications and advise the NRC.
AECOM	A private engineering firm that works for Norfolk Southern railroad.
AFUDC	Allowance for Funds Used During Construction.
AP1000	The WEC designed Advanced Pressurized water nuclear reactor of approximately 1000 megawatts generating capacity.
ASER	Advanced Safety Evaluation Report—a report by the NRC staff concerning its evaluation of the safety aspects of a nuclear license application.
ASLB	The Atomic Safety Licensing Board of the Nuclear Regulatory Commission.
BLRA	The Base Load Review Act, S.C. Code Ann. § 58-33-210 et seq. (Supp. 2009).
CA	The designation for a specific pre-fabricated construction module that forms part of the reactor building, such as Module CA20.
CAR	A Corrective Action Report related to design, engineering or construction of the Units, or related processes, that must be corrected.
CB&I	Chicago Bridge & Iron, a sub-contractor on the project.
CFC	Certified For Construction—engineering and design drawings that are ready for construction to begin.
COL	A Combined Operating License for construction and operation of a nuclear unit issued by the NRC.
COLA	A Combined Operating License Application.
Commission	The Public Service Commission of South Carolina.
Consortium	The joint venture between WEC Electric Company, LLC and the Shaw Group to construct the Units under the terms of the EPC Contract.
CR	A Condition Report communicating and memorializing concerns with the design, engineering or construction of the Units, or related processes, which report in some cases can become the basis for a Corrective Action Report.
CVBH	The Containment Vessel Bottom Head that forms the bottom of the Containment Vessel.
CWIP	Construction Work in Progress.
CWS	The Circulating Water System –the system that will transport waste heat from the turbines to the cooling towers.
DCD	Design Control Document which is approved by the Nuclear Regulatory Commission document and sets forth the approved design of a nuclear reactor.
DSM	Demand Side Management-programs to reduce the demand for electrical capacity and energy.
EIS	An Environmental Impact Statement as required by the National Environmental Policy Act of 1969.
EMD	The sub-contractor for the Reactor Cooling Pump.
EPA	The United States Environmental Protection Agency.
EPC Contract	The Engineering, Procurement and Construction Agreement for construction of the Units entered into by SCE&G and WEC/Shaw.
FEIS	A Final Environmental Impact Statement as required by the National Environmental Policy Act of 1969.
FERC	The Federal Energy Regulatory Commission.

## ATTACHMENT 1

### GLOSSARY OF ACRONYMS OR DEFINED TERMS

<b>Acronym or Defined Term</b>	<b>Reference</b>
Fixed/Firm	Prices under the EPC Contract which are either fixed or are firm but subject to defined escalation rates.
FSER	A Final Safety Evaluation Report—a report by the NRC staff concerning its evaluation of the safety aspects of a nuclear license application.
GDP	Gross Domestic Product.
HL or Hot Leg	That part of the Reactor Cooling Loop that transports steam to the steam generators.
HLD	Heavy Lift Derrick - the derrick that will be erected on site to move large modules and equipment.
IFC	Issued for Construction –engineering drawings that include information necessary for construction of specific structures, systems and components.
IPS	Integrated Project Schedule for licensing and construction of the Units.
ISV	Integrated Systems Validation –part of the development of a training simulator for the Units.
LNTP	Limited Notice to Proceed authorizing a vendor to commence specific work.
LSS	Limited Scope Simulator –a training simulator with limited functionality that can be used for the initial stages of operator training.
MAB	Module Assembly Building -a building on site where large modules will be constructed and equipment will be prepared for installation in a space that is protected from the elements.
MN	Mangiarotti –a supplier of nuclear components headquartered in Sedegliano, Italy.
Nelson Studs	Metal studs used in composite construction to secure concrete to steel components. The studs project out of the steel components and are surrounded by the concrete when it is poured.
ND	The New Nuclear Deployment Team within SCE&G.
NLC	Nuclear Learning Center - a training facility operated by SCE&G at the Jenkinsville site.
NPDES	National Pollutant Discharge Elimination System
NRC	The United States Nuclear Regulatory Commission.
Opinion	The opinion in South Carolina Energy Users Comm. v. South Carolina Pub. Serv. Comm’n, 388 S.C. 486, 697 S.E.2d 587 (2010).
ORS	South Carolina Office of Regulatory Staff.
PRS	Plant Reference Simulator – a training simulator with full functionality that can be used in all stages of operator training
Pike	Pike Energy Solutions, a contractor for transmission and switchyard related work.
PRA	Probabilistic Risk Assessment.
QA	Quality Assurance – The planned and systematic activities implemented in a quality system so that the quality requirements for a product or service will be fulfilled.
QC	Quality Control – The observation techniques and activities used to fulfill requirements for quality.
QA/QC	Quality Assurance/Quality Control.
RAI	Requests for Additional Information issued by the NRC staff to license applicants.
RCA	Root Cause Analysis – identification and evaluation of the reason for non-conformance, an undesirable condition, or a problem which (when solved) restores the status quo.

## ATTACHMENT 1

### GLOSSARY OF ACRONYMS OR DEFINED TERMS

<b>Acronym or Defined Term</b>	<b>Reference</b>
RCL	The Reactor Coolant Loop –the piping and related equipment that transports heat from the reactor to the steam generator.
RCP	The Reactor Cooling Pump which forms part of the Reactor Coolant System.
RCS	The Reactor Coolant System -the complete system for transferring and transporting heat from the reactor to the steam generator.
ROW	Right of way.
SCDHEC	The South Carolina Department of Health and Environmental Control.
SCDNR	The South Carolina Department of Natural Resources,
SCE&G	South Carolina Electric & Gas Company.
SCEUC	The South Carolina Energy Users Committee.
SER	Safety Evaluation Report—a report by the NRC staff concerning its evaluation of the safety aspects of a nuclear license application.
Shaw	The Shaw Group.
SMS	Shaw Module Solutions, LLC.
SRO-C	Senior Reactor Operator Certification.
Target	Costs under the EPC Contract where targets have been established but where SCE&G pays actual costs as incurred.
Units	V. C. Summer Nuclear Station Units 2 & 3.
VCSNS	V. C. Summer Nuclear Station.
WEC	WEC Electric Company, LLC.
WEC/Shaw <i>or</i> WEC/Shaw	The consortium formed by WEC Electric Company, LLC and the Shaw Group.
WTP	The Off-Site Water Treatment Plant which will take water from Lake Monticello and treat it to potable water standards.

## APPENDIX 1

### V. C. Summer Nuclear Station Units 2 & 3

**Quarterly Report to the South Carolina Office of Regulatory Staff  
Submitted by South Carolina Electric & Gas Company  
Pursuant to Public Service Commission Order No. 2009-104(A)**

#### **Quarter Ending September 30, 2011**




**Appendix 1** lists and updates each of the milestones which the Commission adopted as the Approved Construction Schedule for the Units, pursuant to S.C. Code Ann. § 58-33-270(B)(1) in Order No. 2010-12. **Appendix 1** provides columns with the following information:

1. Milestone tracking ID number.
2. The description of the milestone as updated in Order No. 2010-12.
3. The BLRA milestone date, both by year and quarter and the specific calendar date for the milestone, as approved by the Commission in Order No. 2010-12.
4. The current milestone date, both by year and quarter and the specific calendar date for the milestone.
5. For each actual completed milestone, the date by which it was completed. For milestones completed prior to the current reporting quarter, the milestone entry is shaded in gray. For milestones completed during the current reporting quarter, the milestone entry is shaded in green. For milestones with planned completion dates that vary in days instead of months, the milestone entry is shaded in yellow.
6. Information showing the number of months, if any, by which a milestone has been shifted.
7. Information as to whether any milestone has been shifted outside of the 18/24 Month Contingency approved by the Commission.
8. Information as to whether any current change in this milestone is anticipated to impact the substantial completion date.
9. Notes.

On the final page of the document, there is a chart summarizing milestone completion and movement comparing the current milestone date to the milestone date approved in Order No. 2010-12. This movement is shown for only the milestones that have not been completed.

**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
1	08-2Q-1: Approve Engineering Procurement and Construction Agreement	5/23/2008		5/23/2008		No	No	
2	08-2Q-2: Issue P.O.'s to nuclear component fabricators for Units 2 and 3 Containment Vessels	12/3/2008		12/3/2008		No	No	
3	08-2Q-2: Contractor Issue PO to Passive Residual Heat Removal Heat Exchanger Fabricator - First Payment - Unit 2	8/31/2008		8/18/2008		No	No	
4	08-2Q-2: Contractor Issue PO to Accumulator Tank Fabricator - Unit 2	7/31/2008		7/31/2008		No	No	
5	08-2Q-2: Contractor Issue PO to Core Makeup Tank Fabricator - Units 2 & 3	9/30/2008		9/30/2008		No	No	
6	08-2Q-2: Contractor Issue PO to Squib Valve Fabricator - Units 2 & 3	3/31/2009		3/31/2009		No	No	
7	08-2Q-2: Contractor Issue PO to Steam Generator Fabricator - Units 2 & 3	6/30/2008		5/29/2008		No	No	
8	08-2Q-2: Contractor Issue Long Lead Material PO to Reactor Coolant Pump Fabricator - Units 2 & 3	6/30/2008		6/30/2008		No	No	
9	08-2Q-2: Contractor Issue PO to Pressurizer Fabricator - Units 2 & 3	8/31/2008		8/18/2008		No	No	
10	08-2Q-2: Contractor Issue PO to Reactor Coolant Loop Pipe Fabricator - First Payment - Units 2 & 3	6/30/2008		6/20/2008		No	No	
11	08-2Q-2: Reactor Vessel Internals - Issue Long Lead Material PO to Fabricator - Units 2 and 3	11/21/2008		11/21/2008		No	No	
12	08-2Q-2: Contractor Issue Long Lead Material PO to Reactor Vessel Fabricator - Units 2 & 3	6/30/2008		5/29/2008		No	No	
13	08-2Q-2: Contractor Issue PO to Integrated Head Package Fabricator - Units 2 & 3	7/31/2009		7/31/2009		No	No	

Color Legend     = Completed     = Completed this Quarter     = Movement in Days Only



**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
14	08-2Q-2: Control Rod Drive Mechanism Issue PO for Long Lead Material to Fabricator - Units 2 and 3 - first payment	6/21/2008		6/21/2008		No	No	
15	08-2Q-2: Issue P.O.'s to nuclear component fabricators for Nuclear Island structural CA20 Modules	7/31/2009		8/28/2009		No	No	
16	08-3Q-1: Start Site Specific and balance of plant detailed design	9/11/2007		9/11/2007		No	No	
17	08-3Q-2: Instrumentation & Control Simulator - Contractor Place Notice to Proceed - Units 2 & 3	10/31/2008		10/31/2008		No	No	
18	08-3Q-3: Steam Generator - Issue Final PO to Fabricator for Units 2 and 3	6/30/2008		6/30/2008		No	No	
19	08-3Q-3: Reactor Vessel Internals - Contractor Issue PO for Long Lead Material (Heavy Plate and Heavy Forgings) to Fabricator - Units 2 & 3	1/31/2010		1/29/2010		No	No	
20	08-3Q-3: Contractor Issue Final PO to Reactor Vessel Fabricator - Units 2 & 3	9/30/2008		9/30/2008		No	No	
21	08-3Q-4: Variable Frequency Drive Fabricator Issue Transformer PO - Units 2 & 3	4/30/2009		4/30/2009		No	No	
22	08-4Q-1: Start clearing, grubbing and grading	1/26/2009		1/26/2009		No	No	
23	08-4Q-2: Core Makeup Tank Fabricator Issue Long Lead Material PO - Units 2 & 3	10/31/2008		10/31/2008		No	No	
24	08-4Q-2: Acumulator Tank Fabricator Issue Long Lead Material PO - Units 2 & 3	10/31/2008		10/31/2008		No	No	
25	08-4Q-2: Pressurizer Fabricator Issue Long Lead Material PO - Units 2 & 3	10/31/2008		10/31/2008		No	No	

Color Legend



= Completed






= Completed this Quarter



= Movement in Days Only




**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
26	08-4Q-2: Reactor Coolant Loop Pipe - Contractor Issue PO to Fabricator - Second Payment - Units 2 & 3	4/30/2009		4/30/2009		No	No	
27	08-4Q-2: Integrated Head Package - Issue PO to Fabricator - Units 2 and 3 - second payment	7/31/2009		7/31/2009		No	No	
28	08-4Q-2: Control Rod Drive Mechanisms - Contractor Issue PO for Long Lead Material to Fabricator - Units 2 & 3	6/30/2008		6/30/2008		No	No	
29	08-4Q-2: Contractor Issue PO to Passive Residual Heat Removal Heat Exchanger Fabricator - Second Payment - Units 2 & 3	10/31/2008		10/31/2008		No	No	
30	9-1Q-1: Start Parr Road intersection work.	2/13/2009		2/13/2009		No	No	
31	09-1Q-2: Reactor Coolant Pump - Issue Final PO to Fabricator - Units 2 and 3	6/30/2008		6/30/2008		No	No	
32	09-1Q-3: Integrated Heat Packages Fabricator Issue Long Lead Material PO - Units 2 & 3	10/31/2009		10/1/2009		No	No	
33	09-1Q-4: Design Finalization Payment 3	1/31/2009		1/30/2009		No	No	
34	09-2Q-1: Start site development	6/23/2008		6/23/2008		No	No	
35	09-2Q-2: Contractor Issue PO to Turbine Generator Fabricator - Units 2 & 3	2/28/2009		2/19/2009		No	No	
36	09-2Q-2: Contractor Issue PO to Main Transformers Fabricator - Units 2 & 3	9/30/2009		9/25/2009		No	No	
37	09-2Q-3: Core Makeup Tank Fabricator Notice to Contractor Receipt of Long Lead Material - Units 2 & 3	11/30/2010		12/30/2010		No	No	
38	09-2Q-4: Design Finalization Payment 4	4/30/2009		4/30/2009		No	No	
39	09-3Q-1: Turbine Generator Fabricator Issue PO for Condenser Material - Unit 2	8/31/2009		8/28/2009		No	No	

Color Legend     = Completed     = Completed this Quarter     = Movement in Days Only




**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
40	09-3Q-2: Reactor Coolant Pump Fabricator Issue Long Lead Material Lot 2 - Units 2 & 3	4/30/2009		4/30/2009		No	No	
41	09-3Q-2: Passive Residual Heat Removal Heat Exchanger Fabricator Receipt of Long Lead Material - Units 2 & 3	5/31/2010		5/27/2010		No	No	
42	09-3Q-3: Design Finalization Payment 5	7/31/2009		7/31/2009		No	No	
43	09-4Q-1: Start erection of construction buildings, to include craft facilities for personnel, tools, equipment; first aid facilities; field offices for site management and support personnel; temporary warehouses; and construction hiring office.	10/9/2009		12/18/2009		No	No	
44	09-4Q-2: Reactor Vessel Fabricator Notice to Contractor of Receipt of Flange Nozzle Shell Forging - Unit 2	7/31/2009		8/28/2009		No	No	
45	09-4Q-3: Design Finalization Payment 6	10/31/2009		10/7/2009		No	No	
46	09-4Q-4: Instrumentation and Control Simulator - Contractor Issue PO to Subcontractor for Radiation Monitor System - Units 2 & 3	12/31/2009		12/17/2009		No	No	
47	10-1Q-1: Reactor Vessel Internals - Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2	6/30/2011		7/29/2011		No	No	
48	10-1Q-2: Turbine Generator Fabricator Issue PO for Moisture Separator Reheater/Feedwater Heater Material - Unit 2	4/30/2010		4/30/2010		No	No	
49	10-1Q-3: Reactor Coolant Loop Pipe Fabricator Acceptance of Raw Material - Unit 2	4/30/2010		2/18/2010		No	No	
50	10-2Q-1: Reactor Vessel Internals - Fabricator Start Weld Neutron Shield Spacer Pads to Assembly - Unit 2	11-4Q 10/31/2011	11-4Q 12/31/2011		+2 Month(s)	No	No	Due to schedule rework and status.

Color Legend     = Completed     = Completed this Quarter     = Movement in Days Only

**Appendix 1  
VC Summer Units 2 and 3**


Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
51	10-2Q-2: Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 2	6/30/2009		6/30/2009		No	No	
52	10-2Q-3: Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 2	11/30/2010		12/23/2010		No	No	
53	10-3Q-1: Start excavation and foundation work for the standard plant for Unit 2	3/15/2010		3/15/2010		No	No	
54	10-3Q-2: Steam Generator Fabricator Notice to Contractor of Receipt of 2nd Steam Generator Tubesheet Forging - Unit 2	2/28/2010		4/30/2010		No	No	
55	10-3Q-3: Reactor Vessel Fabricator Notice to Contractor of Outlet Nozzle Welding to Flange Nozzle Shell Completion - Unit 2	2/28/2010		12/30/2010		No	No	
56	10-3Q-4: Turbine Generator Fabricator Notice to Contractor Condenser Fabrication Started - Unit 2	5/31/2010		5/17/2010		No	No	
57	10-4Q-1: Complete preparations for receiving the first module on site for Unit 2.	8/18/2010		1/22/2010		No	No	
58	10-4Q-2: Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Transition Cone Forging - Unit 2	4/30/2010		4/21/2010		No	No	
59	10-4Q-3: Reactor Coolant Pump Fabricator Notice to Contractor of Manufacturing of Casing Completion - Unit 2	11/30/2010		11/16/2010		No	No	
60	10-4Q-4: Reactor Coolant Loop Pipe Fabricator Notice to Contractor of Machining, Heat Treating & Non-Destructive Testing Completion - Unit 2	10-4Q 12/31/2010	12-1Q 1/31/2012		+13 Month(s)	No	No	Due to issues currently being resolved with the manufacturer.

Color Legend     = Completed     = Completed this Quarter     = Movement in Days Only

**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
61	11-1Q-1: Core Makeup Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 2	11-2Q 5/31/2011	12-2Q 5/31/2012		+12 Month(s)	No	No	Delay is due to issues with the supplier that are being addressed.
62	11-1Q-2: Polar Crane Fabricator Issue PO for Main Hoist Drum and Wire Rope - Units 2 & 3	2/28/2011		2/1/2011		No	No	
63	11-2Q-1: Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 3	6/30/2011		6/14/2011		No	No	
64	11-2Q-2: Turbine Generator Fabricator Notice to Contractor Condenser Ready to Ship - Unit 2	11-4Q 10/31/2011	12-1Q 2/28/2012		+4 Month(s)	No	No	Due to schedule rework and status.
65	11-3Q-1: Start placement of mud mat for Unit 2	11-3Q 7/14/2011	12-1Q 1/9/2012		+6 Month(s)	No	No	Due to schedule rework and status.
66	11-3Q-2: Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Tubing - Unit 2	1/31/2011		9/28/2010		No	No	
67	11-3Q-3: Pressurizer Fabricator Notice to Contractor of Welding of Upper and Intermediate Shells Completion - Unit 2	10-4Q 10/31/2010	11-4Q 10/31/2011		+12 Month(s)	No	No	Delay is due to issues with the supplier that are being addressed.
68	11-3Q-4: Reactor Vessel Fabricator Notice to Contractor of Closure Head Cladding Completion - Unit 3	12-1Q 2/28/2012	12-2Q 4/30/2012		+2 Month(s)	No	No	Due to schedule rework and status.
69	11-4Q-1: Begin Unit 2 first nuclear concrete placement	11-4Q 10/3/2011	12-1Q 3/1/2012		+5 Month(s)	No	No	Due to schedule rework and status.
70	11-4Q-2: Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 2	11-3Q 9/30/2011	11-4Q 11/30/2011		+2 Month(s)	No	No	Due to schedule rework and status.
71	11-4Q-3: Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2	6/30/2011		7/29/2011		No	No	

Color Legend

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 = Movement in Days Only

**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
72	11-4Q-4: Steam Generator Fabricator Notice to Contractor of Completion of 1st Steam Generator Tubing Installation - Unit 2	11-2Q 5/31/2011	12-1Q 1/31/2012		+8 Month(s)	No	No	Due to schedule rework and status.
73	11-4Q-5: Reactor Coolant Loop Pipe - Shipment of Equipment to Site - Unit 2	12-4Q 12/31/2012	12-2Q 5/31/2012		-7 Month(s)	No	No	Schedule ahead of plan.
74	11-4Q-6: Control Rod Drive Mechanism - Ship Remainder of Equipment (Latch Assembly & Rod Travel Housing) to Head Supplier - Unit 2	11-4Q 12/31/2011	12-2Q 6/30/2012		+6 Month(s)	No	No	Due to schedule rework and status.
75	11-4Q-7: Pressurizer Fabricator Notice to Contractor of Welding of Lower Shell to Bottom Head Completion - Unit 2	10-4Q 10/31/2010	11-4Q 12/31/2011		+14 Month(s)	No	No	Delay is due to issues with the supplier that are being addressed.
76	11-4Q-8: Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 2	11-2Q 6/30/2011	12-1Q 1/31/2012		+7 Month(s)	No	No	Due to schedule rework and status.
77	11-4Q-9: Design Finalization Payment 14	11-4Q 10/31/2011	11-4Q 10/31/2011			No	No	
78	12-1Q-1: Set module CA04 for Unit 2	12-1Q 1/27/2012	12-4Q 11/7/2012		+10 Month(s)	No	No	Delay is due to issues with the supplier that are being addressed.
79	12-1Q-2: Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Final Post Weld Heat Treatment - Unit 2	6/30/2010		5/24/2011		No	No	
80	12-1Q-3: Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Completion of Tubing - Unit 2	11-1Q 1/31/2011	12-1Q 3/31/2012		+14 Month(s)	No	No	Delay is due to issues with the supplier that are being addressed.
81	12-1Q-4: Polar Crane Fabricator Notice to Contractor of Girder Fabrication Completion - Unit 2	12-1Q 2/28/2012	12-3Q 7/31/2012		+5 Month(s)	No	No	Due to schedule rework and status.

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**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
82	12-1Q-5: Turbine Generator Fabricator Notice to Contractor Condenser Ready to Ship - Unit 3	13-3Q 8/31/2013	13-3Q 7/31/2013		-1 Month(s)	No	No	Schedule ahead of plan.
83	12-2Q-1: Set Containment Vessel ring #1 for Unit 2	12-2Q 4/3/2012	13-1Q 2/25/2013		+10 Month(s)	No	No	Due to schedule rework and status.
84	12-2Q-2: Reactor Coolant Pump Fabricator Delivery of Casings to Port of Export - Unit 2	12-1Q 3/31/2012	12-1Q 2/28/2012		-1 Month(s)	No	No	Schedule ahead of plan.
85	12-2Q-3: Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 3	13-3Q 8/31/2013	13-1Q 1/31/2013		-7 Month(s)	No	No	Schedule ahead of plan.
86	12-2Q-4: Reactor Vessel Fabricator Notice to Contractor of Receipt of Core Shell Forging - Unit 3	12-3Q 9/30/2012	12-1Q 3/31/2012		-6 Month(s)	No	No	Schedule ahead of plan.
87	12-2Q-5: Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 3	13-1Q 1/31/2013	11-4Q 11/30/2011		-14 Month(s)	No	No	Schedule ahead of plan.
88	12-3Q-1: Set Nuclear Island structural module CA03 for Unit 2	12-3Q 8/30/2012	13-2Q 6/12/2013		+10 Month(s)	No	No	Due to issues currently being resolved with the manufacturer.
89	12-3Q-2: Squib Valve Fabricator Notice to Contractor of Completion of Assembly and Test for Squib Valve Hardware - Unit 2	12-2Q 5/31/2012	12-2Q 5/31/2012			No	No	
90	12-3Q-3: Accumulator Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	12-4Q 12/31/2012	12-4Q 10/31/2012		-2 Month(s)	No	No	Schedule ahead of plan.
91	12-3Q-4: Polar Crane Fabricator Notice to Contractor of Electric Panel Assembly Completion - Unit 2	12-3Q 7/31/2012	12-4Q 12/31/2012		+5 Month(s)	No	No	Due to schedule rework and status.
92	12-4Q-1: Start containment large bore pipe supports for Unit 2	12-2Q 4/9/2012	13-1Q 2/7/2013		+10 Month(s)	No	No	Due to issues currently being resolved with the manufacturer.

Color Legend



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**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
93	12-4Q-2: Integrated Head Package - Shipment of Equipment to Site - Unit 2	12-4Q 10/31/2012	13-1Q 2/28/2013		+4 Month(s)	No	No	Due to schedule rework and status.
94	12-4Q-3: Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 2	12-4Q 11/30/2012	13-2Q 4/30/2013		+5 Month(s)	No	No	Due to schedule rework and status.
95	12-4Q-4: Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 3	13-2Q 5/31/2013	13-2Q 4/30/2013		-1 Month(s)	No	No	Schedule ahead of plan.
96	12-4Q-5: Steam Generator Fabricator Notice to Contractor of Satisfactory Completion of 1st Steam Generator Hydrotest - Unit 2	12-2Q 5/31/2012	12-4Q 12/31/2012		+7 Month(s)	No	No	Due to schedule rework and status.
97	13-1Q-1: Start concrete fill of Nuclear Island structural modules CA01 and CA02 for Unit 2	13-1Q 2/26/2013	13-4Q 12/13/2013		+10 Month(s)	No	No	Due to issues currently being resolved with the manufacturer.
98	13-1Q-2: Passive Residual Heat Removal Heat Exchanger - Delivery of Equipment to Port of Entry - Unit 2	12-2Q 4/30/2012	12-2Q 6/30/2012		+2 Month(s)	No	No	
99	13-1Q-3: Refueling Machine Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 2	13-1Q 2/28/2013	12-3Q 9/30/2012		-5 Month(s)	No	No	Schedule ahead of plan.
100	13-1Q-4: Deliver Reactor Vessel Internals to Port of Export - Unit 2	13-3Q 7/31/2013	13-3Q 7/31/2013			No	No	
101	13-2Q-1: Set Unit 2 Containment Vessel #3	13-2Q 4/17/2013	14-1Q 2/3/2014		+10 Month(s)	No	No	Due to issues currently being resolved with the manufacturer.
102	13-2Q-2: Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 2	13-1Q 3/31/2013	13-1Q 2/28/2013		-1 Month(s)	No	No	Schedule ahead of plan.
103	13-2Q-3: Turbine Generator Fabricator Notice to Contractor Turbine Generator Ready to Ship - Unit 2	13-2Q 4/30/2013	13-1Q 3/31/2013		-1 Month(s)	No	No	Schedule ahead of plan.

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**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
104	13-2Q-4: Pressurizer Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	14-1Q 2/28/2014	13-4Q 11/30/2013		-3 Month(s)	No	No	Schedule ahead of plan.
105	13-2Q-5: Polar Crane - Shipment of Equipment to Site - Unit 2	13-2Q 5/31/2013	13-4Q 11/30/2013		+6 Month(s)	No	No	Due to schedule rework and status.
106	13-2Q-6: Receive Unit 2 Reactor Vessel on site from fabricator	13-2Q 5/20/2013	14-1Q 2/21/2014		+9 Month(s)	No	No	Due to schedule rework and status.
107	13-3Q-1: Set Unit 2 Reactor Vessel	13-2Q 6/18/2013	14-1Q 3/20/2014		+9 Month(s)	No	No	Due to schedule rework and status.
108	13-3Q-2: Steam Generator Fabricator Notice to Contractor of Completion of 2nd Channel Head to Tubesheet Assembly Welding - Unit 3	13-4Q 12/31/2013	13-4Q 11/30/2013		-1 Month(s)	No	No	Schedule ahead of plan.
109	13-3Q-3: Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 3	14-3Q 8/31/2014	14-1Q 2/28/2014		-6 Month(s)	No	No	Schedule ahead of plan.
110	13-3Q-4: Reactor Coolant Pump - Shipment of Equipment to Site (2 Reactor Coolant Pumps) - Unit 2	13-3Q 9/30/2013	13-3Q 8/31/2013		-1 Month(s)	No	No	Schedule ahead of plan.
111	13-3Q-5: Place first nuclear concrete for Unit 3	13-3Q 8/1/2013	13-3Q 8/1/2013			No	No	
112	13-4Q-1: Set Unit 2 Steam Generator	13-3Q 9/9/2013	14-2Q 6/19/2014		+9 Month(s)	No	No	Due to schedule rework and status.
113	13-4Q-2: Main Transformers Ready to Ship - Unit 2	13-3Q 9/30/2013	13-2Q 6/30/2013		-3 Month(s)	No	No	Schedule ahead of plan.
114	13-4Q-3: Complete Unit 3 Steam Generator Hydrotest at fabricator	14-1Q 2/28/2014	14-1Q 3/31/2014		+1 Month(s)	No	No	Due to schedule rework and status.
115	13-4Q-4: Set Unit 2 Containment Vessel Bottom Head on basemat legs	11-4Q 11/21/2011	12-3Q 7/23/2012		+8 Month(s)	No	No	Delay is due to issues with the supplier that are being addressed.

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**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
116	14-1Q-1: Set Unit 2 Pressurizer Vessel	14-1Q 1/24/2014	14-4Q 10/31/2014		+9 Month(s)	No	No	Due to schedule rework and status.
117	14-1Q-2: Reactor Coolant Pump Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 3	15-1Q 2/28/2015	15-1Q 3/31/2015		+1 Month(s)	No	No	Due to schedule rework and status.
118	14-1Q-3: Deliver Reactor Vessel Internals to Port of Export - Unit 3	15-2Q 6/30/2015	15-2Q 4/30/2015		-2 Month(s)	No	No	Schedule ahead of plan.
119	14-1Q-4: Main Transformers Fabricator Issue PO for Material - Unit 3	14-2Q 4/30/2014	14-3Q 7/31/2014		+3 Month(s)	No	No	Due to schedule rework and status.
120	14-2Q-1: Complete welding of Unit 2 Passive Residual Heat Removal System piping	14-1Q 3/19/2014	14-4Q 12/16/2014		+9 Month(s)	No	No	Delay is due to issues with the supplier that are being addressed.
121	14-2Q-2: Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 3	15-2Q 4/30/2015	14-3Q 8/31/2014		-6 Month(s)	No	No	Schedule ahead of plan.
122	14-2Q-3: Refueling Machine - Shipment of Equipment to Site - Unit 3	14-2Q 5/31/2014	14-2Q 5/31/2014			No	No	
123	14-3Q-1: Set Unit 2 Polar Crane	14-2Q 4/3/2014	14-4Q 12/22/2014		+8 Month(s)	No	No	Due to schedule rework and status.
124	14-3Q-2: Reactor Coolant Pumps - Shipment of Equipment to Site - Unit 3	15-2Q 6/30/2015	15-3Q 8/31/2015		+2 Month(s)	No	No	Due to schedule rework and status.
125	14-3Q-3: Main Transformers Ready to Ship - Unit 3	14-3Q 9/30/2014	15-2Q 6/30/2015		+9 Month(s)	No	No	Due to schedule rework and status.
126	14-4Q-1: Spent Fuel Storage Rack - Shipment of Last Rack Module - Unit 3	14-4Q 12/31/2014	14-2Q 6/30/2014		-6 Month(s)	No	No	Schedule ahead of plan.
127	15-1Q-1: Start electrical cable pulling in Unit 2 Auxillary Building	14-4Q 12/26/2014	15-3Q 9/21/2015		+9 Month(s)	No	No	Due to schedule rework and status.

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**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
128	15-1Q-2: Complete Unit 2 Reactor Coolant System cold hydro	15-3Q 8/3/2015	15-4Q 12/4/2015		+4 Month(s)	No	No	Due to schedule rework and status.
129	15-2Q-1: : Activate class 1E DC power in Unit 2 Auxiliary Building.	15-1Q 3/5/2015	14-3Q 8/1/2014		-7 Month(s)	No	No	Schedule ahead of plan.
130	15-3Q-1: : Complete Unit 2 hot functional test.	15-3Q 9/21/2015	16-1Q 3/1/2016		+6 Month(s)	No	No	Due to schedule rework and status.
131	15-3Q-2: Install Unit 3 ring 3 for containment vessel	15-3Q 7/30/2015	15-2Q 4/15/2015		-3 Month(s)	No	No	Schedule ahead of plan.
132	15-4Q-1: Load Unit 2 nuclear fuel	15-4Q 10/28/2015	15-4Q 10/28/2015			No	No	
133	16-1Q-1: Unit 2 Substantial Completion	16-2Q 4/1/2016	16-2Q 4/1/2016			No	No	
134	16-2Q-1: Set Unit 3 Reactor Vessel	15-4Q 10/1/2015	15-2Q 4/21/2015		-6 Month(s)	No	No	Schedule ahead of plan.
135	16-3Q-1: Set Unit 3 Steam Generator #2	15-4Q 12/22/2015	15-4Q 10/16/2015		-2 Month(s)	No	No	Schedule ahead of plan.
136	16-4Q-1: Set Unit 3 Pressurizer Vessel	16-2Q 5/16/2016	16-1Q 3/9/2016		-2 Month(s)	No	No	Schedule ahead of plan.
137	16-4Q-1: Complete welding of Unit 3 Passive Residual Heat Removal System piping	16-2Q 6/20/2016	16-2Q 4/21/2016		-2 Month(s)	No	No	Schedule ahead of plan.
138	17-2Q-1: Set Unit 3 polar crane	16-3Q 7/18/2016	16-2Q 4/27/2016		-3 Month(s)	No	No	Schedule ahead of plan.
139	17-3Q-1: Start Unit 3 Shield Building roof slab rebar placement	17-1Q 1/16/2017	16-3Q 8/2/2016		-5 Month(s)	No	No	Schedule ahead of plan.
140	17-4Q-1: Start Unit 3 Auxiliary Building electrical cable pulling	17-2Q 4/6/2017	16-4Q 10/10/2016		-6 Month(s)	No	No	Schedule ahead of plan.
141	18-1Q-1: Activate Unit 3 Auxiliary Building class 1E DC power	17-2Q 6/9/2017	16-3Q 7/1/2016		-11 Month(s)	No	No	Schedule ahead of plan.

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**Appendix 1  
VC Summer Units 2 and 3**

Tracking ID	Order No. 2010-12 Description	Order No. 2010-12 Date	11-3Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2010-12 Date	Outside +18/-24 Months Contingency?	Substantial Completion Date Impact?	Notes
142	18-2Q-1: Complete Unit 3 Reactor Coolant System cold hydro	18-1Q 1/1/2018	17-4Q 11/17/2017		-2 Month(s)	No	No	Schedule ahead of plan.
143	18-2Q-1: Complete Unit 3 hot functional test	18-1Q 2/15/2018	18-1Q 3/8/2018		+1 Month(s)	No	No	Due to schedule rework and status.
144	18-3Q-1: Complete Unit 3 nuclear fuel load	18-3Q 7/31/2018	18-3Q 7/12/2018			No	No	Due to minor schedule refinement.
145	18-4Q-1: Begin Unit 3 full power operation	18-4Q 10/31/2018	18-4Q 11/15/2018		+1 Month(s)	No	No	Due to schedule rework and status.
146	19-1Q-1: Unit 3 Substantial Completion	19-1Q 1/1/2019	19-1Q 1/1/2019			No	No	
<b>SUMMARY</b>								
Total Milestones Completed			63	out of	146 =	43%		
Milestone Movement - Order No. 2010-12 vs. 11-3Q:								
a) Forward Movement			44	out of	146 =	30%		
b) Backward Movement			30	out of	146 =	21%		
Milestones Within +12 to +17 Month range			5	out of	146 =	3%		

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## APPENDIX 2

### V. C. Summer Nuclear Station Units 2 & 3

**Quarterly Report to the South Carolina Office of Regulatory Staff  
Submitted by South Carolina Electric & Gas Company  
Pursuant to Public Service Commission Order No. 2009-104(A)**

#### **Quarter Ending September 30, 2011**

**Appendix 2** is an updated and expanded version of the information contained in the capital cost schedule approved by the Commission in Order No. 2011-345.

**Appendix 2** shows:

1. The actual expenditures on the project by plant cost category through the current period.
2. The changes in capital costs reflecting the Company's current forecast of expenditures on the project for each future period by plant cost category. In updating its cost projections the Company has used the current construction schedule for the project and the Commission-approved inflation indices as set forth in **Appendix 4** to this report.
3. The cumulative CWIP for the project and the balance of CWIP that is not yet reflected in revised rates.
4. The current rate for calculating AFUDC computed as required under applicable FERC regulations.

The Cumulative Project Cash Flow target as approved in Order No. 2011-345 and as updated for escalation and other Commission-approved adjustments is found under the heading "**Per Order 2011-345 Adjusted.**" The adjustments reflect:

1. Changes in inflation indices.
2. Budget Carry-Forward Adjustments used, where appropriate to track the effect of lower-than-expected cumulative costs on the future cumulative cash flow of the project.

**Appendix 2** also shows the cumulative cash flow for the project based on actual expenditures to date and the current construction schedule and forecast of year-by-year cost and going forward. This information is found under the heading "**Actual through September 2011, plus Projected.**"

**Appendix 2**

**RESTATED and UPDATED CONSTRUCTION EXPENDITURES**

(Thousands of \$)

**V.C. Summer Units 2 and 3 - Summary of SCE&G Capital Cost Components**

<b>Per Order 2011-345 Adjusted</b>	<b>Total</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Annual Project Cash Flow(per order)	5,531,259	21,723	100,905	340,003	398,552	497,994	856,993	871,748	664,760	627,604	494,501	304,676	351,800
Capital Cost Rescheduling Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-
Budget Carry-Forward Adjustment	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Net</b>	<b>5,531,259</b>	<b>21,723</b>	<b>100,905</b>	<b>340,003</b>	<b>398,552</b>	<b>497,994</b>	<b>856,993</b>	<b>871,748</b>	<b>664,760</b>	<b>627,604</b>	<b>494,501</b>	<b>304,676</b>	<b>351,800</b>
Adjusted for Change in Escalation	5,337,534	21,723	100,905	340,003	398,552	481,866	811,899	849,952	644,005	604,495	470,441	287,224	326,469
Cumulative Project Cash Flow(Target)		21,723	122,628	462,631	861,183	1,343,049	2,154,948	3,004,900	3,648,905	4,253,400	4,723,841	5,011,065	5,337,534
<b>Actual through September 2011* plus Projected</b>													
	<b>Total</b>	<b>Actual</b>					<b>Projected</b>						
<b>Plant Cost Categories</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Fixed with No Adjustment													
Firm with Fixed Adjustment A													
Firm with Fixed Adjustment B													
Firm with Indexed Adjustment													
Actual Craft Wages													
Non-Labor Costs													
Time & Materials													
Owners Costs													
Transmission Costs	321,591	-	26	724	927	10,227	46,219	39,084	36,953	50,209	70,268	51,634	15,320
<b>Total Base Project Costs(2007 \$)</b>	<b>4,270,301</b>	<b>21,723</b>	<b>97,386</b>	<b>319,073</b>	<b>374,810</b>	<b>364,735</b>	<b>744,746</b>	<b>718,394</b>	<b>487,103</b>	<b>515,058</b>	<b>346,536</b>	<b>163,963</b>	<b>116,771</b>
<b>Total Project Escalation</b>	<b>1,054,638</b>	<b>-</b>	<b>3,519</b>	<b>20,930</b>	<b>23,741</b>	<b>35,450</b>	<b>118,524</b>	<b>197,817</b>	<b>162,050</b>	<b>195,855</b>	<b>157,010</b>	<b>78,628</b>	<b>61,114</b>
<b>Total Revised Project Cash Flow</b>	<b>5,324,939</b>	<b>21,723</b>	<b>100,905</b>	<b>340,003</b>	<b>398,551</b>	<b>400,185</b>	<b>863,270</b>	<b>916,211</b>	<b>649,153</b>	<b>710,913</b>	<b>503,547</b>	<b>242,591</b>	<b>177,885</b>
Cumulative Project Cash Flow(Revised)		21,723	122,629	462,632	861,183	1,261,368	2,124,639	3,040,849	3,690,003	4,400,916	4,904,463	5,147,054	5,324,939
AFUDC(Capitalized Interest)	246,726	645	3,497	10,564	17,150	17,413	30,900	43,775	41,149	32,498	22,779	15,743	10,613
<b>Gross Construction</b>	<b>5,571,665</b>	<b>22,368</b>	<b>104,403</b>	<b>350,567</b>	<b>415,701</b>	<b>417,598</b>	<b>894,170</b>	<b>959,986</b>	<b>690,302</b>	<b>743,411</b>	<b>526,326</b>	<b>258,334</b>	<b>188,498</b>
<b>Construction Work in Progress</b>		<b>22,368</b>	<b>126,771</b>	<b>477,338</b>	<b>893,039</b>	<b>1,310,637</b>	<b>2,204,808</b>	<b>3,164,793</b>	<b>3,855,096</b>	<b>4,598,507</b>	<b>5,124,833</b>	<b>5,383,167</b>	<b>5,571,665</b>
<b>CWIP Currently in Rates</b>						<b>1,100,196</b>							
<b>September 30, 2011 Actual Incremental CWIP Not Currently in Rates</b>						<b>99,060</b>							

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\*Applicable index escalation rates for 2011 are estimated. Escalation is subject to restatement when actual indices for 2011 are final.

**Notes:**

2011-2018 AFUDC rate applied

5.87%

The AFUDC rate applied is the current SCE&G rate. AFUDC rates can vary with changes in market interest rates, SCE&G's embedded cost of capital, capitalization ratios, construction work in process, and SCE&G's short-term debt outstanding.

## **APPENDIX 3**

### **V. C. Summer Nuclear Station Units 2 & 3**

**Quarterly Report to the South Carolina Office of Regulatory Staff  
Submitted by South Carolina Electric & Gas Company  
Pursuant to Public Service Commission Order No. 2009-104(A)**

#### **Quarter Ending September 30, 2011**

For comparison purposes, **Appendix 3** provides the schedule of capital costs for the project which was approved by the Commission in Order No. 2011-345 as the Approved Capital Cost of the Units, pursuant to S.C. Code Ann. § 58-33-270(B)(2). **Appendix 3** also reflects the forecast of AFUDC expense based on these adjusted schedules and the AFUDC rates that were current at the time of Order No. 2011-345. **Appendix 3** is intended to provide a fixed point of reference for future revisions and updating. While the schedule of costs contained on **Appendix 3** is subject to revision for escalation, changes in AFUDC rates and amounts, capital cost scheduling contingencies and other contingency adjustments as authorized in Order No. 2009-104(A), no such adjustments have been made to the schedules presented here.





## **APPENDIX 4**

### **V. C. Summer Nuclear Station Units 2 & 3**

**Quarterly Report to the South Carolina Office of Regulatory Staff  
Submitted by South Carolina Electric & Gas Company  
Pursuant to Public Service Commission Order No. 2009-104(A)**

#### **Quarter Ending September 30, 2011**

**Appendix 4** shows the changes in the inflation indices approved in Order No. 2009-104(A). Included is a ten year history of the Handy Whitman All Steam Index, South Atlantic Region; the Handy Whitman All Steam and Nuclear Index, South Atlantic Region; the Handy Whitman All Transmission Plant Index, South Atlantic Region; and the Chained GDP Index. The change in the relevant indices from the Combined Application is also provided.







### Appendix 4 Inflation Indices, Chart D

GDP Chained Price Index, 2011

SERIESTYPE	UNIT	SHORT LABEL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Chained Price Index--Gross Domestic Product</b>														
U.S. Macro - 10 Year Baseline	(2005=100)	Chained price index-gross domestic product , Source: BEA , Units: index- 2005=100.0	88.65	90.65	92.11	94.10	96.77	100.00	104.21	106.23	108.56	109.73	111.00	112.74
Annual Percent change			2.17%	2.26%	1.61%	2.16%	2.84%	3.34%	4.21%	<b>1.94%</b>	<b>2.19%</b>	<b>1.08%</b>	<b>1.16%</b>	<b>1.57%</b>
3-Year Annual Percent change					2.01%	2.01%	2.20%	2.78%	3.46%	3.16%	2.78%	1.74%	1.47%	1.27%
<b>5-Year Annual Percent change</b>							<b>2.21%</b>	<b>2.44%</b>	<b>2.83%</b>	<b>2.89%</b>	<b>2.90%</b>	<b>2.55%</b>	<b>2.11%</b>	<b>1.59%</b>
10-Year Annual Percent change														2.20%
<b>Consumer Price Index, All-Urban</b>														
U.S. Macro - 10 Year Baseline	Index	Consumer price index, all-urban , Source: BLS , Units: - 1982-84=1.00	1.72	1.77	1.80	1.84	1.89	1.95	2.02	2.07	2.15	2.15	2.18	2.23
Percent change			3.37%	2.82%	1.60%	2.30%	2.67%	3.37%	3.23%	2.86%	3.69%	0.00%	1.40%	2.29%
3-Year Annual Percent change					2.59%	2.24%	2.19%	2.78%	3.09%	3.15%	3.26%	2.17%	1.68%	1.23%
5-Year Annual Percent change							2.55%	2.55%	2.63%	2.88%	3.16%	2.62%	2.23%	2.04%
10-Year Annual Percent change														2.33%
<b>Producer Price Index--Finished Goods</b>														
U.S. Macro - 10 Year Baseline	(1982=1.0)	Producer price index-finished goods , Source: BLS , Units: index- 1982=1.0	1.38	1.41	1.39	1.43	1.49	1.56	1.60	1.67	1.77	1.73	1.80	1.89
Percent change			3.76%	1.94%	-1.30%	3.18%	3.98%	4.70%	2.56%	4.38%	5.99%	-2.26%	4.05%	5.00%
3-Year Annual Percent change					1.44%	1.26%	1.93%	3.95%	3.74%	3.87%	4.30%	2.64%	2.53%	2.21%
5-Year Annual Percent change							2.29%	2.48%	2.60%	3.76%	4.31%	3.03%	2.90%	3.39%
10-Year Annual Percent change														2.99%

BLRA Filing Jul-07	Order 2010-12 Jan-09	Order 2011-345 Jul-10	Update Jul-11
2.66%	2.24%	0.43%	1.57%
2.81%	2.86%	1.97%	1.59%

**GDP Chained Price Index**

One year  
Five Year