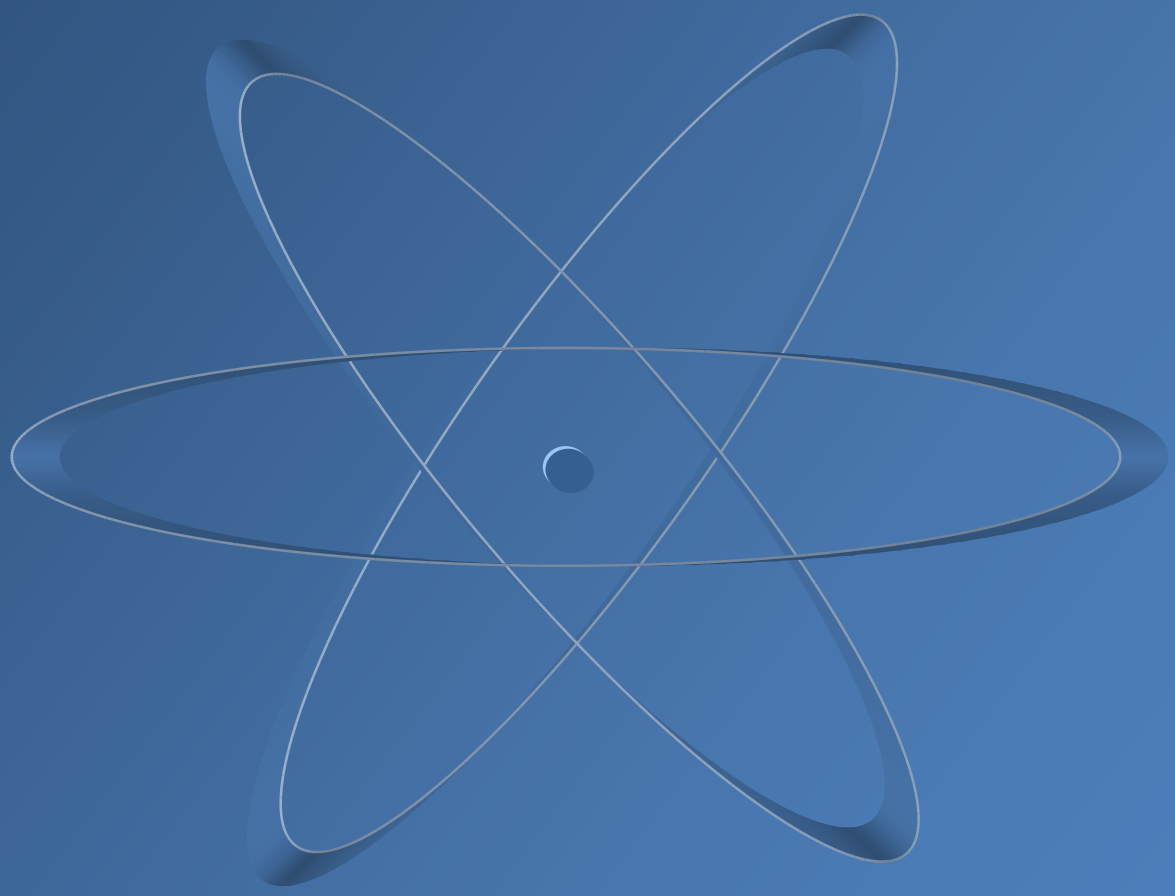
# South Carolina Office of Regulatory Staff

## Review of South Carolina Electric & Gas Company's 2013 4th Quarter Report on V. C. Summer Units 2 and 3 Status of Construction



*April 1, 2014*

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# Executive Summary

On February 11, 2014, SCE&G submitted its 2013 4th Quarter Report related to construction of V.C. Summer Units 2 & 3. The Report is filed in Commission Docket No. 2008-196-E and covers the quarter ending December 31, 2013. With reference to the Base Load Review Act, ORS's review of the Company's Report focuses on SCE&G's ability to adhere to the approved schedule and approved budget.

## Approved Schedule Review

As previously reported by ORS, SCE&G has announced that its Engineering, Procurement and Construction contract partners, Westinghouse Electric Company and Chicago Bridge and Iron, indicated to SCE&G that the substantial completion date of Unit 2 is expected to be delayed until the 4th quarter of 2017 or the 1st quarter of 2018, with the substantial completion date of Unit 3 expected to be delayed similarly[1]. This potential delay is primarily due to challenges in the project schedule related to delays in sub-module fabrication and delivery. SCE&G's Milestone Schedule reflects a delay in the Unit 2 substantial completion date from March 15, 2017 to December 15, 2017, and a delay from May 15, 2018 to December 15, 2018 in the Unit 3 substantial completion date. Per the Base Load Review Order, overall construction is considered to be on schedule if the substantial completion dates are not accelerated more than 24 months or delayed more than 18 months. While delayed, the substantial completion dates fall within these parameters allowed by the Base Load Review Order. SCE&G is holding the current Unit 2 substantial completion date of December 15, 2017. ORS finds that meeting the current Unit 2 substantial completion date will continue to be a challenge. SCE&G reports to ORS that a revised integrated project schedule will be available in the 3rd quarter of 2014. At that time, any impact on the Units 2 and 3 substantial completion dates will be determined. SCE&G also reports to ORS that it does not expect the Units 2 and 3 substantial completion dates to fall outside the 18 month boundary. Should the integrated project schedule revise the Unit 2 substantial completion date, it may also revise the Unit 3 substantial completion date.

As of December 31, 2013, 95 (or 65%) of the 146 milestone activities have been completed. 45 (or 88%) of the remaining 51 milestones have been delayed. 17 milestones have been delayed by 10 months or more, to include 1 milestone indicating a delay of 16 months.

ORS has identified several ongoing construction challenges that create risk to the on-time completion of the Units. ORS continues to monitor these areas closely. The most significant issue is the continued delay in the delivery of the structural sub-modules. During the 3rd quarter of 2013, the Chicago Bridge and Iron facility in Lake Charles, LA transferred the remaining CA20 sub-modules to the construction site and supporting personnel arrived to complete inspections and repairs. This process was initiated to improve the overall schedule for completing module CA20.

[1] SCE&G has not agreed to any contractual change to the Guaranteed Substantial Completion Dates for Units 2 & 3.

Although some progress has been demonstrated, fabrication of modules CA20 and CA01 remains the most significant challenge to meeting the project construction schedule.

## Approved Budget Review

The current approved base project cost in 2007 dollars is $4.548 billion. There has been no increase in the total base project cost (in 2007 dollars). The approved gross construction cost of the project is $5.754 billion. As of December 31, 2013, due to current escalation rates, the forecasted gross construction cost of the plant is $5.680 billion, which represents a decrease of approximately $74 million.

The cumulative amount spent on the project as of December 31, 2013 was $2.311 billion. At the end of 2013, the cumulative project cash flow was approximately $532 million below the capital cost schedule approved in Order No. 2012-884, updated for current escalation rates. Due to escalation, an increased project cash flow of approximately $96.436 million is necessary to complete the project in 2018. SCE&G has estimated the costs associated with the delay in the substantial completion dates for Unit 2 and Unit 3 to be approximately $200 million in future dollars (or $115 million in 2007 dollars). Since SCE&G has not accepted responsibility for these costs, this report includes no increases to the cash flow attributable to the delay in the substantial completion dates.

On October 17, 2013, SCE&G conducted an allowable ex parte communication briefing before the Commission regarding traditional accounting tax practices as it relates to deferred income tax and the Base Load Review Act.

# Introduction and Background

On March 2, 2009, the Public Service Commission of South Carolina ("Commission") approved South Carolina Electric & Gas Company's ("SCE&G" or the "Company") request for the construction of V.C. Summer Nuclear Station Units 2 and 3 (the "Units") and the Engineering, Procurement and Construction ("EPC") Contract with Westinghouse Electric Company ("WEC") and Chicago Bridge and Iron ("CB&I") (collectively referred to as the "Consortium"). CB&I became a party to the EPC Contract via its acquisition of the Shaw Group, Inc. This approval can be found in the Base Load Review Order No. 2009-104(A) filed in Docket No. 2008-196-E.

In Order No. 2010-12 issued on January 21, 2010, which is filed in Docket No. 2009-293-E, the Commission approved the Company's request to update milestones and capital cost schedules. In Order No. 2011-345 issued on May 16, 2011, which is filed in Docket No. 2010-376-E, the Commission approved SCE&G's petition for revisions and updates to capital cost schedules totaling approximately $174 million. In Order No. 2012-884 issued on November 15, 2012, the Commission approved SCE&G's petition for updates and revisions to schedules related to the construction of the Units. Order 2012-884 approved changes to the Milestone Schedule along with an increase to the base project cost totaling approximately $278 million.[2]

The anticipated dependable capacity from the Units is approximately 2,234 megawatts ("MW"), of which 55% (1,228 MW) will be available to serve SCE&G customers. South Carolina Public Service Authority ("Santee Cooper") is currently contracted to receive the remaining 45% (1,006 MW) of the electric output when the Units are in operation and is paying 45% of the costs of the construction of the Units. As mentioned below, this 45% is under agreement to be reduced to 40%. In October 2011, SCE&G and Santee Cooper executed the permanent construction and operating agreements for the project. The agreements grant SCE&G primary responsibility for oversight of the construction process and operation of the Units as they come online. On March 30, 2012, the Nuclear Regulatory Commission ("NRC") voted to issue SCE&G a Combined Construction and Operating License ("COL") for the construction and operation of the Units.

In 2010, SCE&G reported that Santee Cooper began reviewing its level of ownership participation in the Units. Since then, Santee Cooper has sought partners in its 45% ownership. Santee Cooper signed a Letter of Intent with Duke Energy Carolinas, LLC in 2011. On January 27, 2014, subsequent to the end of the quarter, Santee Cooper and Duke Energy Carolinas, LLC concluded their negotiations which resulted in no change in ownership of the Units. Also, subsequent to the end of the quarter, on January 27, 2014, SCE&G issued a press release stating that it intends to purchase an additional 5% ownership in the Units from Santee Cooper. Additional information regarding this purchase can be found in "Notable Activities Occurring After December 31, 2013" later in this report.

[2] Petitions for Rehearing or Reconsideration were filed on behalf of the Sierra Club and the South Carolina Energy Users Committee. Both petitions were denied via Commission Order No. 2013-5 issued on February 14, 2013. The Sierra Club and the South Carolina Energy Users Committee subsequently filed appeals with the Supreme Court of South Carolina. Those appeals are scheduled to be heard on April 16, 2014.

On February 11, 2014, SCE&G submitted its 2013 4th Quarter Report ("Report") related to construction of the Units. The Report is filed in Commission Docket No. 2008-196-E and covers the quarter ending December 31, 2013 ("Review Period"). The Company's Report is submitted pursuant to S.C. Code Ann. § 58-33-277 (Supp. 2013) of the Base Load Review Act ("BLRA"), which requires the Report to include the following information:

1. Progress of construction of the plant;
2. Updated construction schedules;
3. Schedules of the capital costs incurred including updates to the information required in Section 58-33-270(B)(5);
4. Updated schedules of the anticipated capital costs; and
5. Other information as the Office of Regulatory Staff may require.

With reference to Section 58-33-275(A) of the BLRA, the review by the Office of Regulatory Staff ("ORS") of the Company's Report focuses on SCE&G's ability to adhere to the approved construction schedule and the approved capital cost schedule.

# Approved Schedule Review

## Milestone Schedule

As of December 31, 2013, ORS verified that of the Milestone Schedule's 146 activities:

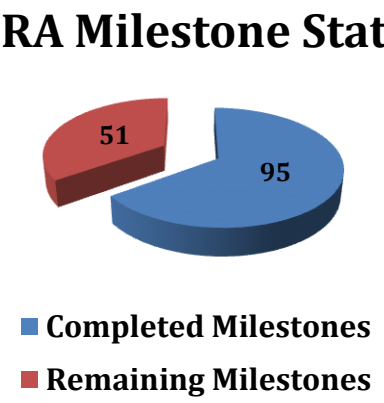
- 95 (or 65%) of the 146 milestones activities have been completed
- 51 milestones remaining to be completed
- 45 (or 88%) of the remaining 51 milestones have been delayed

ORS also verified that during the Review Period:

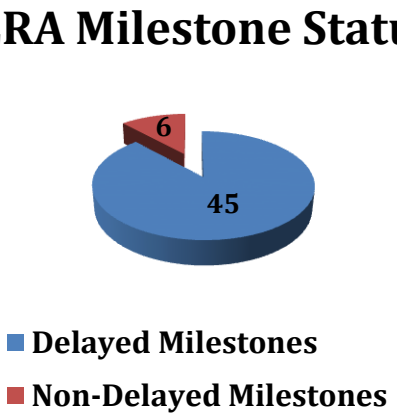
- 3 milestones were completed
- 4 milestones were scheduled to be completed
    - 1 of these milestones has been completed
    - 3 of these milestones have not been completed

Charts 1 and 2 show the status of the 146 milestones activities during the Review Period.

## Chart 1:




## Chart 2:



SCE&G's Milestone Schedule, attached to its Report as Appendix 1, indicates that overall construction supports a substantial completion date of December 15, 2017 for Unit 2 and December 15, 2018 for Unit 3. The substantial completion dates for the Units reflect a delay from the substantial completion dates approved by the Commission in Order No. 2012-884 of March 15, 2017 and May 15, 2018, respectively.

**Unit 2**
**Substantial Completion Date**

| Order No. 2012-884 | Q4 2013 | Change |
|---|---|---|
| **3/15/2017** | **12/15/2017** | **+9 Months** |

**Unit 3**
**Substantial Completion Date**

| Order No. 2012-884 | Q4 2013 | Change |
|---|---|---|
| **5/15/2018** | **12/15/2018** | **+7 Months** |

Per the Base Load Review Order, construction is considered to be on schedule if the substantial completion dates and each milestone date are not accelerated more than 24 months or delayed more than 18 months. While delayed, the substantial completion dates fall within the boundary allowed by the Base Load Review Order. SCE&G is holding the current Unit 2 substantial completion date of December 15, 2017. ORS finds that meeting the current Unit 2 substantial completion date will continue to be a challenge. SCE&G reports to ORS that a revised integrated project schedule will be available in the 3rd quarter of 2014. At that time, any impact on the Units 2 and 3 substantial completion dates will be determined. SCE&G also reports to ORS that it does not expect the Units 2 and 3 substantial completion dates to fall outside the 18 month boundary. Should the integrated project schedule revise the Unit 2 substantial completion date, it may also revise the Unit 3 substantial completion date.

As part of its review of the approved schedule, ORS identifies Caution Milestones. Caution Milestones are those that have been delayed 10 months or longer. If any milestone is delayed 16 months or longer, ORS may issue a formal notification to the Commission of the delay. As of December 31, 2013, ORS identified 17 milestones being delayed 10 months or longer with 1 of these milestones being delayed 16 months. On February 26, 2014, ORS notified the Commission of the status of the delayed BLRA milestones during its allowable ex parte communication briefing. Information regarding this briefing can be found in "Notable Activities Occurring After December 31, 2013" later in this report.

Appendix A shows ORS's review of SCE&G's Milestone Schedule as of December 31, 2013. A complete list of Caution Milestones, along with details regarding the delays provided by SCE&G and the Consortium is attached as Appendix B. ORS continues to review and monitor these milestones closely.

ORS reviews all invoices associated with the Milestone Schedule and during the Review Period, there were three (3) invoices paid. ORS reviews invoices to ensure that the invoices are paid in accordance with Company policies and practices and in accordance with the terms of the EPC contract. ORS also reviews the escalation applied to these invoices for consistency with the appropriate Handy-Whitman inflation indices.

## Specific Construction Activities

Site construction activities continue to progress. The critical path for Unit 2 is defined by the successful fabrication, assembly and setting of the structural modules in the Nuclear Island ("NI") and then continues through the completion of the Auxiliary Building walls and the Shield Building walls. The near term modules requiring completion are CA04, CA20, CA01 and CA03. Recent important developments on CA04 and CA20 are discussed below. As of December 31, 2013, CA01 and CA03 remain in fabrication with no sub-modules delivered to the site.

Approximately 2,000 WEC/CB&I (including subcontractors) and 430 SCE&G personnel are currently on site. Major construction activities during the Review Period are listed below:

- The Unit 2 CA04 module was set in place in the Containment Vessel Bottom Head ("CVBH") on September 27, 2013; however, work continued during the Review Period to properly align and adjust the module to meet design tolerances. The CA04 will house the lower portion of the Reactor Vessel.

- Installation of the plates that make up the Unit 2 Containment Vessel ("CV") Rings continued. The attachment plate welding and coating in preparation for the lifting and setting for the Unit 2 CV Ring 1 continued. Weld and radiographic testing of the welds for Unit 2 CV Ring 2 neared completion. Unit 3 CVBH work also continued through the quarter.

- Significant progress was made on the Unit 2 Turbine Building. All three of the lower and upper sections of the Unit 2 Main Condenser have now been installed. Work on the major structural modules for the turbine building continues.

- Structural work for Cooling Towers 2A and 3A were substantially completed at the end of 4th quarter of 2013. Work continues on Cooling Towers 2B and 3B and the basemat for the circulating water pump house.

- Progress continued on the Unit 2 CA20 sub-modules inside the Module Assembly Building. As of December 31, 2013, all of the 72 CA20 sub-modules had been delivered to the site from CB&I Lake Charles ("CB&I-LC") with an on-hook date for setting CA20 of late March 2014.

- The concrete placement of the Unit 3 NI basemat was successfully completed on November 4, 2013, and, after the requisite curing period, erection of the CR10 module which will support the Unit 3 CVBH was begun in place on the basemat.

- Several major components were delivered to the site during this quarter including:
    - Unit 2 Core Make-Up Tanks (2 of 2)
    - Unit 2 Accumulator Tanks (2 of 2)
    - Unit 2 Main Step Up Transformers (4 of 4)
    - Unit 2 Auxiliary Transformers (2 of 3)

Photographs of construction activities during the Review Period are shown in Appendix C.

## Transmission

On February 28, 2011, SCE&G entered into a contract with Pike Electric for the permitting, engineering and design, procurement of material, and the construction of four (4) 230 kilovolt ("kV") transmission lines and associated facilities related to the Units. This project will consist of two phases.

Phase 1 consists of construction of two new 230 kV transmission lines in support of Unit 2: the VCS1–Killian Line and the VCS2–Lake Murray Line #2. The VCS1–Killian Line will connect the existing V.C. Summer Switchyard ("Switchyard 1") to the Company's existing Killian Road 230 kV Substation. The VCS2–Lake Murray Line #2 will connect the newly-constructed Switchyard ("Switchyard 2") to the Company's existing Lake Murray 230 kV Substation. Switchyard 2 will allow the connection of both the Unit 2 and Unit 3 generators to the grid. Also, for Phase 1, two new 230 kV interconnections between Switchyard 1 and Switchyard 2 have been constructed. The VCS1–Killian Line is nearing completion, with a small scope of work to be completed during the Spring 2014 VCS-1 refueling outage.

Phase 2 consists of construction of two new 230 kV transmission lines and associated facilities in support of Unit 3. The construction of these lines and associated facilities was approved in Order No. 2012-730. Facilities in Phase 2 are the VCS2–St. George Line #1, VCS2–St. George Line #2, St. George 230 kV Switching Station, and Saluda River 230/115 kV Substation. SCE&G plans to energize the segment of the VCS2–St. George 230 kV Line #1 when the remaining segment of that line is complete.

Preliminary construction activities have begun on the remaining segment of the VCS2-St. George 230 kV line #1 and VCS2-St. George 230 kV line #2. Completion of the VCS2-Lake Murray 230 kV Line allowed for the dismantling of the old structure to occur during this Review Period. During the Review Period, installation began for the foundations for the Unit 2 transformers which are located adjacent to the Unit 2 Turbine Building.

A map which shows the geographical location of SCE&G's new transmission lines and other associated facilities to support the Units is available in Appendix D.

# Licensing and Inspection Activities

## Federal Activities

As of December 31, 2013, SCE&G has identified the need to submit numerous License Amendment Requests ("LAR") to the NRC. An LAR is the process by which a licensee requests changes to the COL issued by the NRC. The licensee may seek a Preliminary Amendment Request ("PAR") to accompany an LAR. PARs allow the licensee to continue with construction at its own risk while awaiting final dispensation of the LAR. As of December 31, 2013, 24 LARs have been submitted to the NRC with 6 of these submitted during the Review Period. Also, as of December 31, 2013, the NRC has approved 9 LARs and is reviewing the remaining 15 LARs. A table of LARs submitted to the NRC, and accompanying PARs, if requested, is attached as Appendix E. Issues surrounding the approval of LARs are discussed in more detail in the section entitled "Construction Challenges."

**Status of LARs**

| Submitted | Approved | Under Review |
|---|---|---|
| 24 | 9 | 15 |

The NRC conducts routine site inspections to monitor construction progress. On October 22, 2013, the NRC held an Inspection Exit Meeting covering the 3rd quarter of 2013 and identified no violations. The NRC completed an inspection of the Unit 3 first nuclear concrete placement during the Review Period with no findings or violations.

## State Activities

As of December 31, 2013, there are currently no major state construction-related permits outstanding.

# Approved Budget Review

ORS's budget review includes an analysis of the 4th quarter 2013 capital costs, project cash flow, escalation and Allowance for Funds Used During Construction ("AFUDC").

## Capital Costs

To determine how consistently the Company adheres to the budget approved by the Commission in Order No. 2012-884, ORS evaluates 9 major cost categories for variances. These cost categories are:

1. Fixed with No Adjustment
2. Firm with Fixed Adjustment A
3. Firm with Fixed Adjustment B
4. Firm with Indexed Adjustment
5. Actual Craft Wages
6. Non-Labor Cost
7. Time & Materials
8. Owners Costs
9. Transmission Projects

ORS monitors variances due to project changes (e.g., shifts in work scopes, payment timetables, construction schedule adjustments, Change Orders). The current approved base project cost (in 2007 dollars) is $4.548 billion. There has been no increase in the total base project cost (in 2007 dollars). The approved gross construction cost of the project is $5.754 billion. As of December 31, 2013, due to current escalation rates, the forecasted gross construction cost of the plant is $5.680 billion, which represents a decrease of approximately $74 million.

**Budget in 2007 Dollars ("000")**
**{Base Project Cost}**

| Order No. 2012-884 | Q4 2013 | Change |
|---|---|---|
| $4,548,405 | $4,548,405 | $0 |

**Budget in Future Dollars ("000")**
**{Gross Construction Cost}**

| Order No. 2012-884 | Q4 2013 | Change |
|---|---|---|
| $5,754,565 | $5,680,188 | ($74,377) |

## Budget in 2007 Dollars

Change Orders may impact the base project base cost and may result in a filing before the Commission to increase the budget (in 2007 dollars). During the Review Period, no Change Orders or Amendments were executed (See Appendix F). However, the Company is currently negotiating several Change Orders:

**Change Order #16:** Execution of this Change Order has been delayed pending the resolution of a question regarding the application of the Handy-Whitman inflation indices; however, during the Review Period, SCE&G and the Consortium reached an agreement on this matter and expect to issue this Change Order soon. SCE&G reports to ORS that resolution of the Handy-Whitman issue will not increase the budget.

**Commercial Issues:** This Change Order incorporates design changes to the offsite water treatment system for the removal of bromide from the raw water intake source. It also addresses the transfer of certain scopes of work from the Time and Materials cost category to the Target Price and Firm Price cost categories. SCE&G reports to ORS that this Change Order will not increase the budget.

**Cyber Security:** This Change Order would incorporate Phase II of the cyber security changes previously catalogued in Change Order #14. During the reporting period, the Company received additional information concerning the Physical and Cyber Security work needed to address on-going regulatory issues. The impact to the budget has yet to be determined.

**Health Care:** This Change Order addresses WEC's costs associated with federal health care legislation. The Company is in the process of reviewing this information and expects to issue a Change Order. The impact to the budget has yet to be determined.

**Fabrication Delays:** The Company continues to discuss this matter with the Consortium. SCE&G has estimated the costs associated with the delay in the substantial completion dates for Unit 2 and Unit 3 to be approximately $200 million in future dollars (or $115 million in 2007 dollars)[3].

## Budget in Future Dollars

The Handy-Whitman escalator indices may increase or decrease the gross construction cost of the Units. As of December 31, 2013, due to current escalation rates, the forecasted gross construction cost of the Units is approximately $74 million below the approved budget. Since the Base Load Review Order issued by the Commission allows for escalation, the impact of escalation cost on the project will not result in a filing to increase the budget.

[3]Since SCE&G has not accepted responsibility for these costs, this report includes no increases to the project cash flow attributable to the delay in the substantial completion dates.

## Project Cash Flow

As shown in Appendix 2 of the Company's Report, the cumulative amount spent on the project as of December 31, 2013 was $2.311 billion. With reference to Appendix 2, ORS evaluated the total revised project cash flow (Line 37) with respect to the annual project cash flow, adjusted for changes in escalation (Line 16). This evaluation provides a comparison of the Company's current project cash flow to the cash flow schedule approved by the Commission in Order No. 2012-884. To produce a common basis for the comparison, Line 16 adjusts the approved cash flow schedule to reflect the current escalation rates. Table 4 shows the cumulative variance from the approved cash flow schedule through the life of the project. As of December 31, 2013, the variance was approximately $532 million below the capital cost schedule approved in Order No. 2012-884, updated for current escalation rates. Due to escalation, however, an increased project cash flow of approximately $96.436 million is necessary to complete the project in 2018.

Table 4 shows the annual and cumulative project cash flows as compared to those approved in Order No. 2012-884.

## Table 4:

**Project Cash Flow Comparison**

*$'s in Thousands* [4]

| | | Annual Over/(Under) | Cumulative Over/(Under) |
|---|---|---|---|
| Actual | 2007 | - | - |
| | 2008 | $0 | $0 |
| | 2009 | $0 | $0 |
| | 2010 | $0 | $0 |
| | 2011 | $0 | $0 |
| | 2012 | ($142,003) | ($142,003) |
| | 2013 | ($389,906) | ($531,909) |
| Projected | 2014 | ($1,981) | ($533,890) |
| | 2015 | **$130,871** | ($403,019) |
| | 2016 | **$188,631** | ($214,388) |
| | 2017 | **$210,291** | ($4,097) |
| | 2018 | **$100,533** | **$96,436** |

[4] Slight variances may occur due to rounding.

## AFUDC and Escalation

The forecasted AFUDC for the total project as of December 31, 2013 is $261 million and is currently based on a forecasted 7.27% AFUDC rate.

Changes in the AFUDC rate, timing changes in project spending due to construction schedule shifts, and five-year average escalation rates are all factors that impact the projected project cash flow. Due to changes in escalation rates, as well as changes to the timing of payments due to construction delays, the overall project cost has decreased.

## Annual Request for Revised Rates

Pursuant to the BLRA, SCE&G may request revised rates no earlier than one year after the request of a Base Load Review Order or any prior revised rates request. SCE&G filed its Annual Request for Revised Rates with the Commission in Docket No. 2013-150-E on May 30, 2013, the anniversary date of SCE&G's previous request for revised rates. The Commission approved an increase of $67,240,232 (2.87%) in Order No. 2013-680(A) on October 2, 2013.

Table 5 below shows the requested increases and approved increases from all prior Revised Rate Filings with the Commission.

## Table 5:

**Requested vs. Approved Increases**
***SCE&G Revised Rate Filings***

| Docket No. | Order No. | Requested Increase | ORS Examination | Approved Increase | Retail Increase |
|---|---|---|---|---|---|
| 2008-196-E | 2009-104(A) | $8,986,000 | ($1,183,509) | $7,802,491 | 0.43% |
| 2009-211-E | 2009-696 | $22,533,000 | $0 | $22,533,000 | 1.10% |
| 2010-157-E | 2010-625 | $54,561,000 | ($7,260,000) | $47,301,000 | 2.31% |
| 2011-207-E | 2011-738 | $58,537,000 | ($5,753,658) | $52,783,342 | 2.43% |
| 2012-186-E | 2012-761 | $56,747,000 | ($4,598,087) | $52,148,913 | 2.33% |
| 2013-150-E | 2013-680(A) | $69,671,000 | ($2,430,768) | $67,240,232 | 2.87% |

# Additional ORS Monitoring Activities

ORS continually performs the following activities, as well as other monitoring activities as deemed necessary:

- Audits capital cost expenditures and resulting AFUDC in Construction Work in Progress
- On-site observations of construction activities and progress
- Bi-monthly on-site review of construction documents
- Holds monthly update meetings with SCE&G
- Meets quarterly with representatives of the Consortium
- Participates in NRC Public Meetings regarding SCE&G COL and other construction activities
- Visits vendor fabrication facilities

# Construction Challenges

Based upon the information provided by the Company in its Report, as well as information obtained via additional ORS monitoring activities, ORS identifies the following ongoing challenges in the construction of the Units.

## Structural Modules

As identified in previous ORS quarterly reports, the most significant, current challenge to construction of the Units remains the continued inability of CB&I-LC to reliably and predictably meet the quality and schedule requirements. The critical path to completion of Unit 2 runs through the completion of modules CA20 then CA01, and is dependent upon the delivery of the sub-modules that comprise the components of these modules from CB&I-LC. Previous ORS reports identified SCE&G and Consortium efforts to improve the performance of CB&I-LC, and considerable progress has been made on CA20 with the projected on-hook date for setting CA20 remaining at the end of March 2014. However, improvement still must be demonstrated in the completion and delivery of the sub-modules for CA01. The on-hook date for CA01 is the 3rd quarter of 2014; however, as of December 31, 2013, no CA01 sub-modules have been delivered to the site. Therefore, ORS finds that meeting the scheduled on-hook date for CA01 will continue to be a challenge for the Company.

With regard to Unit 3 sub-modules, SCE&G advised ORS that the Consortium plans to transfer responsibilities from CB&I-LC to additional fabrication vendors and will finalize these plans soon. This is seen by ORS as positive step toward addressing the structural module issues.

## Shield Building Modules

As previously reported, shield building module fabrication has been reassigned to Newport News Industrial ("NNI"). However, NNI's sustained, reliable performance has not yet been demonstrated, and a delivery schedule had not yet been provided as of December 31, 2013. ORS remains concerned about the significant fabrication and erection challenges that will be presented by the complex configurations of the shield building modules. A firm delivery schedule for all the shield building modules needs to be established in the near future, and NNI needs to begin the delivery of high quality modules to the site.

## Structural Design Compliance

Design reviews and modifications will be captured as part of the revised integrated project schedule and their impact should be apparent once the revised schedule is provided in the 3rd quarter of 2014.

## Instrumentation and Control Design

No further delays have been identified in this area with the design and procurement reported as on schedule, but the completion schedule is still tight and remains an area of focus.

## Overlapping Unit 2 & Unit 3 Construction Schedules

This is an area that will be specifically addressed in the revised integrated project schedule to be provided in the 3rd quarter of 2014. ORS will revisit this matter at that time.

## Manufacturing of Major Equipment

As previously reported, several major components were delivered during the Review Period. The progress in this area is encouraging; however, this will remain an area of continued focus for ORS.

## License Amendment Reviews

As of December 31, 2013, the Company has identified multiple LARs for the Units, and this number continues to increase each month. This remains a challenge for the Units and an area of focus by ORS.

# Notable Activities Occurring after December 31, 2013

The BLRA allows SCE&G 45 days from the end of the current quarter to file its Report. Items of importance that occurred subsequent to the closing of the 4th quarter of 2013 are reported below.

## SCE&G Purchase of an Additional 5% Ownership from Santee Cooper

On January 27, 2014, SCE&G announced that it had reached an agreement to acquire from Santee Cooper an additional 5% (110 MWs) ownership in the Units (See Appendix G). The agreement is tied to the Commercial Operation Date ("COD") of Unit 2, as shown below. Ultimately, under the new agreement, SCE&G will own 60% and Santee Cooper will own 40% of the Units. Under the current agreement, SCE&G owns 55% and Santee Cooper owns 45%. This purchase and the specific terms are subject to Commission approval.

| Timing | Incremental Percentage | Current Cost Estimate | Unit 2 and 3 Ownership | MWs |
|---|---|---|---|---|
| COD of Unit 2 | +1% | $100 million | 56% | +22 MWs |
| 1st Anniversary of Unit 2 COD | +2% | $200 million | 58% | +44 MWs |
| 2nd Anniversary of Unit 2 COD | +2% | $200 million | 60% | +44 MWs |
| **Total** | **+5%** | **$500 million** | **60%** | **+110 MWs** |

## Federal Loan Guarantees

On February 20, 2014, Southern Company announced that its subsidiary Georgia Power secured loan guarantees from the U.S. Department of Energy in support of the new nuclear construction of Plant Vogtle Units 3 and 4 in Georgia. ORS met with SCE&G and learned that SCE&G is maintaining its application for the loan guarantees but has not elected to secure the guarantees at the this time. SCE&G intends to continue to maintain its application in the event it elects to secure the federal loan guarantees in the future.

## NRC Licensing

NRC LAR 13-07, dealing with changes to the Chemical and Volume Control System, was approved by the NRC and issued on February 24, 2014.

## ORS Allowable Ex Parte Communication Briefing

On February 26, 2014, ORS conducted an allowable ex parte communication briefing before the Commission to provide an update on its monitoring activities regarding the construction of the Units. The presentation is posted on ORS's website at:
http://www.regulatorystaff.sc.gov/Documents/News%20Archives/ORS%20NND%20Update%20to%20PSC%20February%202014_Final.pdf

## Equipment Delivery

Subsequent to the Review Period, the Unit 3 Accumulator Tanks, modules for CA01 and the Shield Building were delivered to the site.

## ORS Letter to the Commission

In a letter dated March 20, 2014, ORS advised the Commission of a temporary change in the way milestone schedule information is provided to ORS. ORS's ability to monitor and provide updates to the Commission on the status of milestone activities during this interim period will be impacted, particularly as it relates to milestones equal to or greater than 16 months. ORS's letter is attached as Appendix H.

# Appendix A

*Detailed Milestone Schedule*

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 1 | Approve Engineering, Procurement and Construction Agreement | 5/23/2008 | | No | No | 5/23/2008 | |
| 2 | Issue Purchase Orders ("P.O.") to Nuclear Component Fabricators for Units 2 and 3 Containment Vessels | 12/3/2008 | | No | No | 12/3/2008 | |
| 3 | Contractor Issue P.O. to Passive Residual Heat Removal Heat Exchanger Fabricator – First Payment - Unit 2 | 8/31/2008 | | No | No | 8/18/2008 | |
| 4 | Contractor Issue P.O. to Accumulator Tank Fabricator – Unit 2 | 7/31/2008 | | No | No | 7/31/2008 | |
| 5 | Contractor Issue P.O. to Core Makeup Tank Fabricator - Units 2 & 3 | 9/30/2008 | | No | No | 9/30/2008 | |
| 6 | Contractor Issue P.O. to Squib Valve Fabricator- Units 2 & 3 | 3/31/2009 | | No | No | 3/31/2009 | |
| 7 | Contractor Issue P.O. to Steam Generator Fabricator - Units 2 & 3 | 6/30/2008 | | No | No | 5/29/2008 | 1 Month Early |
| 8 | Contractor Issue Long Lead Material P.O. to Reactor Coolant Pump Fabricator - Units 2 & 3 | 6/30/2008 | | No | No | 6/30/2008 | |
| 9 | Contractor Issue P.O. to Pressurizer Fabricator - Units 2 & 3 | 8/31/2008 | | No | No | 8/18/2008 | |
| 10 | Contractor Issue P.O. to Reactor Coolant Loop Pipe Fabricator - First Payment - Units 2 & 3 | 6/30/2008 | | No | No | 6/20/2008 | |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 11 | Reactor Vessel Internals – Issue Long Lead Material P.O. to Fabricator - Units 2 & 3 | 11/21/2008 | | No | No | 11/21/2008 | |
| 12 | Contractor Issue Long Lead Material - P.O. to Reactor Vessel Fabricator - Units 2 & 3 | 6/30/2008 | | No | No | 5/29/2008 | 1 Month Early |
| 13 | Contractor Issue P.O. to Integrated Head Package Fabricator - Units 2 & 3 | 7/31/2009 | | No | No | 7/31/2009 | |
| 14 | Control Rod Drive Mechanism – Issue P.O. for Long Lead Material to Fabricator - Units 2 & 3 - First Payment | 6/21/2008 | | No | No | 6/21/2008 | |
| 15 | Issue P.O.'s to Nuclear Component Fabricators for Nuclear Island Structural CA20 Modules | 7/31/2009 | | No | No | 8/28/2009 | |
| 16 | Start Site Specific and Balance of Plant Detailed Design | 9/11/2007 | | No | No | 9/11/2007 | |
| 17 | Instrumentation & Control Simulator - Contractor Place Notice to Proceed - Units 2 & 3 | 10/31/2008 | | No | No | 10/31/2008 | |
| 18 | Steam Generator - Issue Final P.O. to Fabricator for Units 2 & 3 | 6/30/2008 | | No | No | 6/30/2008 | |
| 19 | Reactor Vessel Internals - Contractor Issue P.O. for Long Lead Material (Heavy Plate and Heavy Forgings) to Fabricator - Units 2 & 3 | 1/31/2010 | | No | No | 1/29/2010 | |
| 20 | Contractor Issue Final P.O. to Reactor Vessel Fabricator - Units 2 & 3 | 9/30/2008 | | No | No | 9/30/2008 | |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 21 | Variable Frequency Drive Fabricator Issue Transformer P.O. - Units 2 & 3 | 4/30/2009 | | No | No | 4/30/2009 | |
| 22 | Start Clearing, Grubbing and Grading | 1/26/2009 | | No | No | 1/26/2009 | |
| 23 | Core Makeup Tank Fabricator Issue Long Lead Material P.O. - Units 2 & 3 | 10/31/2008 | | No | No | 10/31/2008 | |
| 24 | Accumulator Tank Fabricator Issue Long Lead Material P.O. - Units 2 & 3 | 10/31/2008 | | No | No | 10/31/2008 | |
| 25 | Pressurizer Fabricator Issue Long Lead Material P.O. - Units 2 & 3 | 10/31/2008 | | No | No | 10/31/2008 | |
| 26 | Reactor Coolant Loop Pipe - Contractor Issue P.O. to Fabricator - Second Payment - Units 2 & 3 | 4/30/2009 | | No | No | 4/30/2009 | |
| 27 | Integrated Head Package - Issue P.O. to Fabricator - Units 2 & 3 - Second Payment | 7/31/2009 | | No | No | 7/31/2009 | |
| 28 | Control Rod Drive Mechanism - Contractor Issue P.O. for Long Lead Material to Fabricator - Units 2 & 3 | 6/30/2008 | | No | No | 6/30/2008 | |
| 29 | Contractor Issue P.O. to Passive Residual Heat Removal Heat Exchanger Fabricator - Second Payment - Units 2 & 3 | 10/31/2008 | | No | No | 10/31/2008 | |
| 30 | Start Parr Road Intersection Work | 2/13/2009 | | No | No | 2/13/2009 | |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 31 | Reactor Coolant Pump - Issue Final P.O. to Fabricator - Units 2 & 3 | 6/30/2008 | | No | No | 6/30/2008 | |
| 32 | Integrated Heat Packages Fabricator Issue Long Lead Material P.O. - Units 2 & 3 | 10/31/2009 | | No | No | 10/1/2009 | 1 Month Early |
| 33 | Design Finalization Payment 3 | 1/31/2009 | | No | No | 1/30/2009 | |
| 34 | Start Site Development | 6/23/2008 | | No | No | 6/23/2008 | |
| 35 | Contractor Issue P.O. to Turbine Generator Fabricator - Units 2 & 3 | 2/28/2009 | | No | No | 2/19/2009 | |
| 36 | Contractor Issue P.O. to Main Transformers Fabricator - Units 2 & 3 | 9/30/2009 | | No | No | 9/25/2009 | |
| 37 | Core Makeup Tank Fabricator Notice to Contractor Receipt of Long Lead Material - Units 2 & 3 | 11/30/2010 | | No | No | 12/30/2010 | Delayed 1 Month |
| 38 | Design Finalization Payment 4 | 4/30/2009 | | No | No | 4/30/2009 | |
| 39 | Turbine Generator Fabricator Issue P.O. for Condenser Material - Unit 2 | 8/31/2009 | | No | No | 8/28/2009 | |
| 40 | Reactor Coolant Pump Fabricator Issue Long Lead Material Lot 2 - Units 2 & 3 | 4/30/2009 | | No | No | 4/30/2009 | |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 41 | Passive Residual Heat Removal Heat Exchanger Fabricator Receipt of Long Lead Material - Units 2 & 3 | 5/31/2010 | | No | No | 5/27/2010 | |
| 42 | Design Finalization Payment 5 | 7/31/2009 | | No | No | 7/31/2009 | |
| 43 | 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 | | No | No | 12/18/2009 | Delayed 2 Months |
| 44 | Reactor Vessel Fabricator Notice to Contractor of Receipt of Flange Nozzle Shell Forging - Unit 2 | 7/31/2009 | | No | No | 8/28/2009 | |
| 45 | Design Finalization Payment 6 | 10/31/2009 | | No | No | 10/7/2009 | |
| 46 | Instrumentation and Control Simulator - Contractor Issue P.O. to Subcontractor for Radiation Monitor System - Units 2 & 3 | 12/31/2009 | | No | No | 12/17/2009 | |
| 47 | Reactor Vessel Internals - Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2 | 6/30/2011 | | No | No | 7/29/2011 | |
| 48 | Turbine Generator Fabricator Issue P.O. for Moisture Separator Reheater/Feedwater Heater Material - Unit 2 | 4/30/2010 | | No | No | 4/30/2010 | |
| 49 | Reactor Coolant Loop Pipe Fabricator Acceptance of Raw Material - Unit 2 | 4/30/2010 | | No | No | 2/18/2010 | 2 Months Early |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 50 | Reactor Vessel Internals - Fabricator Start Weld Neutron Shield Spacer Pads to Assembly - Unit 2 | 7/31/2012 | | No | No | 8/28/2012 | |
| 51 | Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 2 | 6/30/2009 | | No | No | 6/30/2009 | |
| 52 | Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 2 | 11/30/2010 | | No | No | 12/23/2010 | |
| 53 | Start Excavation and Foundation Work for the Standard Plant for Unit 2 | 3/15/2010 | | No | No | 3/15/2010 | |
| 54 | Steam Generator Fabricator Notice to Contractor of Receipt of 2nd Steam Generator Tubesheet Forging - Unit 2 | 2/28/2010 | | No | No | 4/30/2010 | Delayed 2 Months |
| 55 | Reactor Vessel Fabricator Notice to Contractor of Outlet Nozzle Welding to Flange Nozzle Shell Completion - Unit 2 | 2/28/2010 | | No | No | 12/30/2010 | Delayed 10 Months |
| 56 | Turbine Generator Fabricator Notice to Contractor Condenser Fabrication Started - Unit 2 | 5/31/2010 | | No | No | 5/17/2010 | |
| 57 | Complete Preparations for Receiving the First Module On Site for Unit 2 | 8/18/2010 | | No | No | 1/22/2010 | 6 Months Early |
| 58 | Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Transition Cone Forging - Unit 2 | 4/30/2010 | | No | No | 4/21/2010 | |
| 59 | Reactor Coolant Pump Fabricator Notice to Contractor of Manufacturing of Casing Completion - Unit 2 | 11/30/2010 | | No | No | 11/16/2010 | |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 60 | Reactor Coolant Loop Pipe Fabricator Notice to Contractor of Machining, Heat Treating & Non-Destructive Testing Completion - Unit 2 | 12/31/2010 | | No | No | 3/20/2012 | Delayed 14 Months |
| 61 | Core Makeup Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 2 | 9/30/2012 | | No | No | 11/26/2012 | Delayed 1 Month |
| 62 | Polar Crane Fabricator Issue P.O. for Main Hoist Drum and Wire Rope - Units 2 & 3 | 2/28/2011 | | No | No | 2/1/2011 | |
| 63 | Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 3 | 6/30/2011 | | No | No | 6/14/2011 | |
| 64 | Turbine Generator Fabricator Notice to Contractor Condenser Ready to Ship - Unit 2 | 10/31/2011 | | No | No | 3/26/2012 | Delayed 4 Months |
| 65 | Start Placement of Mud Mat for Unit 2 | 6/29/2012 | | No | No | 7/20/2012 | |
| 66 | Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Tubing - Unit 2 | 1/31/2011 | | No | No | 9/28/2010 | 4 Months Early |
| 67 | Pressurizer Fabricator Notice to Contractor of Welding of Upper and Intermediate Shells Completion - Unit 2 | 10/31/2010 | | No | No | 10/28/2011 | Delayed 12 Months |
| 68 | Reactor Vessel Fabricator Notice to Contractor of Closure Head Cladding Completion - Unit 3 | 6/30/2012 | | No | No | 6/28/2012 | |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 69 | Begin Unit 2 First Nuclear Concrete Placement | 8/24/2012 | | No | No | 3/9/2013 | Delayed 6 Months |
| 70 | Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 2 | 9/30/2011 | | No | No | 12/1/2011 | Delayed 2 Months |
| 71 | Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2 | 6/30/2011 | | No | No | 7/29/2011 | |
| 72 | Steam Generator Fabricator Notice to Contractor of Completion of 1st Steam Generator Tubing Installation - Unit 2 | 5/31/2011 | | No | No | 1/27/2012 | Delayed 8 Months |
| **73** | **Reactor Coolant Loop Pipe - Shipment of Equipment to Site - Unit 2** | **12/31/2012** | | **No** | **No** | **12/19/2013** | **Delayed 11 Months** |
| 74 | Control Rod Drive Mechanism - Ship Remainder of Equipment (Latch Assembly & Rod Travel Housing) to Head Supplier - Unit 2 | 6/30/2012 | | No | No | 7/16/2012 | |
| 75 | Pressurizer Fabricator Notice to Contractor of Welding of Lower Shell to Bottom Head Completion - Unit 2 | 10/31/2010 | | No | No | 12/22/2011 | Delayed 13 Months |
| 76 | Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 2 | 5/31/2012 | | No | No | 5/4/2012 | |
| 77 | Design Finalization Payment 14 | 10/31/2011 | | No | No | 10/31/2011 | |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 78 | Set Module CA04 For Unit 2 | 11/6/2012 | 2/28/2014 | No | No | | **Delayed 15 Months** |
| 79 | Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Final Post Weld Heat Treatment - Unit 2 | 6/30/2010 | | No | No | 5/24/2011 | Delayed 10 Months |
| 80 | Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Completion of Tubing - Unit 2 | 5/31/2012 | | No | No | 5/29/2012 | |
| 81 | Polar Crane Fabricator Notice to Contractor of Girder Fabrication Completion - Unit 2 | 10/31/2012 | | No | No | 10/23/2012 | |
| 82 | Turbine Generator Fabricator Notice to Contractor Condenser Ready to Ship - Unit 3 | 8/31/2013 | | No | No | 8/26/2013 | |
| 83 | Set Containment Vessel Ring #1 for Unit 2 | 1/7/2013 | 3/7/2014 | No | No | | **Delayed 14 Months** |
| 84 | Reactor Coolant Pump Fabricator Delivery of Casings to Port of Export - Unit 2 | 7/31/2012 | | No | No | 7/6/2013 | Delayed 11 Months |
| 85 | Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 3 | 8/31/2013 | | No | No | 7/18/2013 | 1 Month Early |
| 86 | Reactor Vessel Fabricator Notice to Contractor of Receipt of Core Shell Forging - Unit 3 | 9/30/2012 | | No | No | 3/29/2012 | 6 Months Early |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 87 | Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 3 | 1/31/2013 | | No | No | 11/9/2011 | 14 Months Early |
| 88 | Set Nuclear Island Structural Module CA03 for Unit 2 | 6/26/2013 | 10/31/2014 | No | No | | **Delayed 16 Months** |
| 89 | Squib Valve Fabricator Notice to Contractor of Completion of Assembly and Test for Squib Valve Hardware - Unit 2 | 5/31/2012 | | No | No | 5/10/2012 | |
| 90 | Accumulator Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3 | 3/31/2013 | | No | No | 9/16/2013 | Delayed 5 Months |
| 91 | Polar Crane Fabricator Notice to Contractor of Electric Panel Assembly Completion - Unit 2 | 3/31/2013 | | No | No | 3/6/2013 | |
| 92 | Start Containment Large Bore Pipe Supports for Unit 2 | 6/28/2013 | 10/13/2014 | No | No | | **Delayed 15 Months** |
| 93 | Integrated Head Package - Shipment of Equipment to Site - Unit 2 | 3/31/2013 | 2/1/2014 | No | No | | **Delayed 10 Months** |
| **94** | **Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 2** | **5/31/2013** | | **No** | **No** | **12/17/2013** | **Delayed 6 Months** |
| 95 | Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 3 | 6/30/2013 | 1/31/2014 | No | No | | Delayed 7 Months |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 96 | Steam Generator Fabricator Notice to Contractor of Satisfactory Completion of 1st Steam Generator Hydrotest - Unit 2 | 1/31/2013 | | No | No | 1/14/2013 | |
| 97 | Start Concrete Fill of Nuclear Island Structural Modules CA01 and CA02 for Unit 2 | 4/3/2014 | 4/18/2015 | No | No | | **Delayed 12 Months** |
| 98 | Passive Residual Heat Removal Heat Exchanger - Delivery of Equipment to Port of Entry - Unit 2 | 12/31/2012 | 3/30/2014 | No | No | | **Delayed 15 Months** |
| **99** | **Refueling Machine Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 2** | **11/30/2013** | **3/19/2014** | **No** | **No** | | **Delayed 3 Months** |
| **100** | **Deliver Reactor Vessel Internals to Port of Export - Unit 2** | **1/31/2014** | **11/14/2014** | **No** | **No** | | **Delayed 9 Months** |
| 101 | Set Unit 2 Containment Vessel #3 | 4/24/2014 | 6/18/2015 | No | No | | **Delayed 14 Months** |
| 102 | Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 2 | 7/31/2013 | 7/25/2014 | No | No | | **Delayed 11 Months** |
| 103 | Turbine Generator Fabricator Notice to Contractor Turbine Generator Ready to Ship - Unit 2 | 4/30/2013 | | No | No | 5/28/2013 | |
| **104** | **Pressurizer Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3** | **3/31/2014** | **3/28/2014** | **No** | **No** | | |

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|---|---|---|---|---|---|

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|---|---|---|---|---|---|---|---|
| **105** | **Polar Crane - Shipment of Equipment to Site - Unit 2** | **1/31/2014** | **2/6/2015** | **No** | **No** | | **Delayed 12 Months** |
| 106 | Receive Unit 2 Reactor Vessel On Site From Fabricator | 5/13/2014 | | No | No | 7/31/2013 | 9 Months Early |
| 107 | Set Unit 2 Reactor Vessel | 6/23/2014 | 4/28/2015 | No | No | | **Delayed 10 Months** |
| **108** | **Steam Generator Fabricator Notice to Contractor of Completion of 2nd Channel Head to Tubesheet Assembly Welding - Unit 3** | **12/31/2013** | **6/30/2014** | **No** | **No** | | **Delayed 6 Months** |
| 109 | Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 3 | 8/31/2014 | 2/27/2015 | No | No | | Delayed 6 Months |
| **110** | **Reactor Coolant Pump - Shipment of Equipment to Site (2 Reactor Coolant Pumps) - Unit 2** | **10/31/2013** | **6/13/2014** | **No** | **No** | | **Delayed 7 Months** |
| **111** | **Place First Nuclear Concrete for Unit 3** | **10/9/2013** | | **No** | **No** | **11/2/2013** | |
| 112 | Set Unit 2 Steam Generator | 10/23/2014 | 7/29/2015 | No | No | | Delayed 9 Months |
| 113 | Main Transformers Ready to Ship - Unit 2 | 9/30/2013 | | No | No | 7/31/2013 | 2 Months Early |

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|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| **114** | **Complete Unit 3 Steam Generator Hydrotest at Fabricator** | **2/28/2014** | **10/30/2014** | **No** | **No** | | **Delayed 8 Months** |
| 115 | Set Unit 2 Containment Vessel Bottom Head on Basemat Legs | 10/11/2012 | | No | No | 5/22/2013 | Delayed 7 Months |
| 116 | Set Unit 2 Pressurizer Vessel | 5/16/2014 | 5/8/2015 | No | No | | **Delayed 11 Months** |
| 117 | Reactor Coolant Pump Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 3 | 2/28/2015 | 4/30/2015 | No | No | | Delayed 2 Months |
| 118 | Deliver Reactor Vessel Internals to Port of Export - Unit 3 | 6/30/2015 | 10/30/2015 | No | No | | Delayed 4 Months |
| 119 | Main Transformers Fabricator Issue P.O. for Material - Unit 3 | 2/28/2015 | 2/2/2015 | No | No | | |
| 120 | Complete Welding of Unit 2 Passive Residual Heat Removal System Piping | 2/5/2015 | 10/10/2015 | No | No | | Delayed 8 Months |
| 121 | Steam Generator - Contractor Acceptance of Equipment At Port of Entry - Unit 3 | 4/30/2015 | 1/1/2015 | No | No | | 3 Months Early |
| 122 | Refueling Machine - Shipment of Equipment to Site - Unit 3 | 2/28/2015 | 4/3/2015 | No | No | | Delayed 1 Month |
| 123 | Set Unit 2 Polar Crane | 1/9/2015 | 9/22/2015 | No | No | | Delayed 8 Months |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 124 | Reactor Coolant Pumps - Shipment of Equipment to Site - Unit 3 | 6/30/2015 | 6/5/2015 | No | No | | |
| 125 | Main Transformers Ready to Ship - Unit 3 | 7/31/2015 | 5/31/2015 | No | No | | 2 Months Early |
| 126 | Spent Fuel Storage Rack - Shipment of Last Rack Module - Unit 3 | 7/31/2014 | 7/3/2014 | No | No | | |
| 127 | Start Electrical Cable Pulling in Unit 2 Auxiliary Building | 8/14/2013 | 11/11/2014 | No | No | | **Delayed 15 Months** |
| 128 | Complete Unit 2 Reactor Coolant System Cold Hydro | 1/22/2016 | 10/28/2016 | No | No | | Delayed 9 Months |
| 129 | Activate Class 1E DC Power in Unit 2 Auxiliary Building | 3/15/2015 | 2/5/2016 | No | No | | **Delayed 10 Months** |
| 130 | Complete Unit 2 Hot Functional Test | 5/3/2016 | 2/28/2017 | No | No | | **Delayed 10 Months** |
| 131 | Install Unit 3 Ring 3 for Containment Vessel | 8/25/2015 | 1/20/2016 | No | No | | Delayed 4 Months |
| 132 | Load Unit 2 Nuclear Fuel | 9/15/2016 | 7/25/2017 | No | No | | **Delayed 10 Months** |
| 133 | Unit 2 Substantial Completion | 3/15/2017 | 12/15/2017 | No | No | | Delayed 9 Months |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 134 | Set Unit 3 Reactor Vessel | 10/22/2015 | 2/20/2016 | No | No | | Delayed 4 Months |
| 135 | Set Unit 3 Steam Generator #2 | 2/25/2016 | 6/7/2016 | No | No | | Delayed 3 Months |
| 136 | Set Unit 3 Pressurizer Vessel | 7/16/2015 | 2/22/2016 | No | No | | Delayed 7 Months |
| 137 | Complete Welding of Unit 3 Passive Residual Heat Removal System Piping | 6/16/2016 | 8/12/2016 | No | No | | Delayed 1 Month |
| 138 | Set Unit 3 Polar Crane | 5/9/2016 | 7/27/2016 | No | No | | Delayed 2 Months |
| 139 | Start Unit 3 Shield Building Roof Slab Rebar Placement | 5/26/2016 | 10/10/2016 | No | No | | Delayed 4 Months |
| 140 | Start Unit 3 Auxiliary Building Electrical Cable Pulling | 11/7/2014 | 9/4/2015 | No | No | | **Delayed 10 Months** |
| 141 | Activate Unit 3 Auxiliary Building Class 1E DC Power | 5/15/2016 | 11/25/2016 | No | No | | Delayed 6 Months |
| 142 | Complete Unit 3 Reactor Coolant System Cold Hydro | 3/22/2017 | 8/31/2017 | No | No | | Delayed 5 Months |
| 143 | Complete Unit 3 Hot Functional Test | 7/3/2017 | 1/4/2018 | No | No | | Delayed 6 Months |

| Key: | Milestones Not Completed | Completed Prior to Q4-13 | Current Quarter | Scheduled to Be Completed Q1-14 | ORS Caution Milestone |
|---|---|---|---|---|---|

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Outside 18 - 24 Month Contingency? | Impact to Substantial Completion Date? [1] | Actual Completion Date | Deviation from Order No. 2012-884 |
|---|---|---|---|---|---|---|---|
| 144 | Complete Unit 3 Nuclear Fuel Load | 11/15/2017 | 6/20/2018 | No | No | | Delayed 7 Months |
| 145 | Begin Unit 3 Full Power Operation | 4/8/2018 | 11/25/2018 | No | No | | Delayed 7 Months |
| 146 | Unit 3 Substantial Completion | 5/15/2018 | 12/15/2018 | No | No | | Delayed 7 Months |

**Notes:**

| |
|---|
| **White highlighting represents Future or Historical Milestones that have not been completed.** |
| **Grey highlighting represents Future or Historical Milestones that were completed prior to the 4th Quarter 2013.** |
| **Yellow highlighting represents those Milestones that are scheduled to be or have been completed during the 4th Quarter 2013. This is based on the schedule approved by the Commission in Order No. 2012-884.** |
| **Green highlighting represents Future Milestones that are scheduled to be completed in the 1st Quarter of 2014. This is based on the schedule approved by the Commission in Order No. 2012-884.** |
| **Red highlighting represents "Caution Milestones." Caution Milestones are those that are delayed by 10 months or greater.** |

# Appendix B

*Caution Milestones*

# Caution Milestones

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Deviation from Order No. 2012-884 | Reason Given for Delay |
|---|---|---|---|---|---|
| 78 | Set Module CA04 For Unit 2 | 11/6/2012 | 2/28/2014 | Delayed 15 Months | The delays are associated with First Nuclear Concrete (FNC) and fabrication delay for CA04, which sits in the reactor cavity and supports the reactor vessel. |
| 83 | Set Containment Vessel Ring #1 for Unit 2 | 1/7/2013 | 3/7/2014 | Delayed 14 Months | The Containment Vessel Ring 1 sits atop the Containment Vessel Bottom Head, which sits atop the CR10 module. The delays here are due to engineering and design approvals, notably design approvals related to the basemat concrete. The setting of the Containment Vessel Ring #1 previously also depended on the setting of the CA20 module, but a work around for this has been established. A bulkhead is being installed to allow concrete to be poured around the CVBH prior to the setting of the CA20 module. |
| 88 | Set Nuclear Island Structural Module CA03 for Unit 2 | 6/26/2013 | 10/31/2014 | Delayed 16 Months | Delays are due to delays associated with the fabrication and setting of the CA01 module, as well as schedule resequencing. Manufacturing of the sub-modules for the CA03 module was moved from CB&I-LC to Pegasus Steel, LLC earlier in the year to allow CB&I-LC to focus on the CA01 module. WEC also discovered a problem in the logic of the previous schedule, as the proper support for the CA03 module will not be available until both the placement of the CA01 module and the concrete pour associated with that activity have been completed. |

# Caution Milestones

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Deviation from Order No. 2012-884 | Reason Given for Delay |
|---|---|---|---|---|---|
| 92 | Start Containment Large Bore Pipe Supports for Unit 2 | 6/28/2013 | 10/13/2014 | Delayed 15 Months | Delays are due to delays associated with the fabrication and setting of the CA01 module, as well as schedule resequencing. WEC discovered a problem in the logic of the previous schedule, as the Containment Vessel Large Bore Pipe Supports cannot be installed until activities associated with the placment of the CA01 module have been completed. The revised date for the setting of the CA03 module still supports a target substantial completion date of December 14, 2017 for Unit 2. |
| 93 | Integrated Head Package - Shipment of Equipment to Site - Unit 2 | 3/31/2013 | 2/1/2014 | Delayed 10 Months | The delay is due to design changes to the radial arm hoist to resolve issues with system integration. |
| 97 | Start Concrete Fill of Nuclear Island Structural Modules CA01 and CA02 for Unit 2 | 4/3/2014 | 4/18/2015 | Delayed 12 Months | The delay is due to delays associated with the fabrication and setting of the CA01 module. This milestone is also impacted by a construction activity resequencing that calls for the welding of the Pressurizer and Steam Generator Supports to be welded to the CA01 wall prior to the placement of concrete after the setting of CA01. |
| 98 | Passive Residual Heat Removal Heat Exchanger - Delivery of Equipment to Port of Entry - Unit 2 | 12/31/2012 | 3/30/2014 | Delayed 15 Months | The delay is due to schedule refinement and the need for engineering design approval prior to shipment. |
| 101 | Set Unit 2 Containment Vessel Ring #3 | 4/24/2014 | 6/18/2015 | Delayed 14 Months | The delay is due to delays associated with the fabrication and setting of the CA01 module. |

# Caution Milestones

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Deviation from Order No. 2012-884 | Reason Given for Delay |
|---|---|---|---|---|---|
| 102 | Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 2 | 7/31/2013 | 7/25/2014 | Delayed 11 Months | The delay is due to overall schedule resequencing. |
| 105 | Polar Crane - Shipment of Equipment to Site - Unit 2 | 1/31/2014 | 2/6/2015 | Delayed 12 Months | The delay is due to overall schedule resequencing. |
| 107 | Set Unit 2 Reactor Vessel | 6/23/2014 | 4/28/2015 | Delayed 10 Months | The delay is primarily due to delays associated with the fabrication and setting of the CA01 module. A portion of the delay is also due to a schedule change related to the installment of overlay plates for the supports for major components. |
| 116 | Set Unit 2 Pressurizer Vessel | 5/16/2014 | 5/8/2015 | Delayed 11 Months | The delay is due to delays associated with the fabrication and setting of the CA01 module. |
| 127 | Start Electrical Cable Pulling in Unit 2 Auxiliary Building | 8/14/2013 | 11/11/2014 | Delayed 15 Months | The delay is associated with engineering and licensing approvals and delay of FNC |
| 129 | Activate Class 1E DC Power in Unit 2 Auxiliary Building | 3/15/2015 | 2/5/2016 | Delayed 10 Months | The delay is associated with engineering and licensing approvals and delay of FNC |
| 130 | Complete Unit 2 Hot Functional Test | 5/3/2016 | 2/28/2017 | Delayed 10 Months | The delay is associated with delivery, receipt and fabrication of module CA01. |
| 132 | Load Unit 2 Nuclear Fuel | 9/15/2016 | 7/25/2017 | Delayed 10 Months | The delay is associated with delivery, receipt and fabrication of module CA01. |

# Caution Milestones

| Activity No. | Milestone | Completion Date Approved in Order No. 2012-884 | Scheduled Completion Date as of Q4-13 | Deviation from Order No. 2012-884 | Reason Given for Delay |
|---|---|---|---|---|---|
| 140 | Start Unit 3 Auxiliary Building Electrical Cable Pulling | 11/7/2014 | 9/4/2015 | Delayed 10 Months | The delay is due to overall schedule resequencing. |

# Appendix C

*Construction Site Photographs*

# Unit 2 Containment Vessel Bottom Head

# Unit 2 Turbine Building

# Unit 2 CA20 in MAB

# Unit 2 Cooling Tower

# Unit 2 Circulating Water Excavation

# Unit 2 Accumulator Tanks

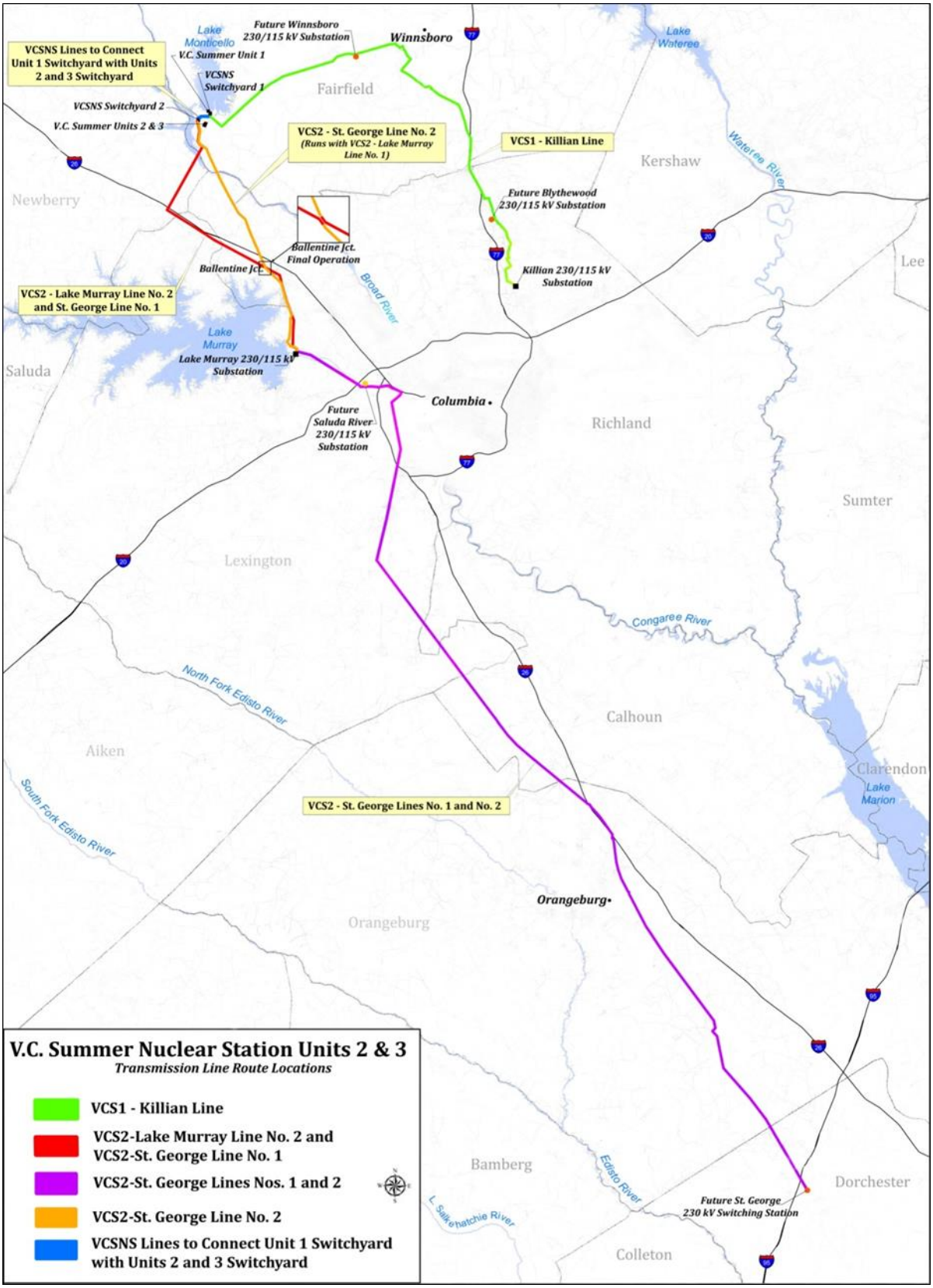
# Unit 3 Basemat

# Unit 3 Cooling Tower

# Appendix D

*SCE&G Transmission Line Map*

# New SCE&G Transmission Lines and Facilities Supporting V.C. Summer Units 2 & 3



# Appendix E

*License Amendment Requests*

# License Amendment Requests

| NRC LAR No. | Summary | LAR Submittal Date | LAR Status | LAR Approval Date | PAR Status | PAR No Objection Letter Date |
|---|---|---|---|---|---|---|
| 12-01 | Stud Spacing around Electrical Penetrations | 8/29/2012 | Approved | 7/1/2013 | | |
| 12-02 | Definition of Wall Thickness in Table 3.3.1 | 9/26/2012 | Approved | 5/30/2013 | Approved | 1/16/2013 |
| 13-01 | Basemat Shear Reinforcement Design Spacing | 1/15/2013 | Approved | 2/26/2013 | Approved | 1/29/2013 |
| 13-02 | Basemat Shear Reinforcement Design Details | 1/18/2013 | Approved | 3/1/2013 | Approved | 1/29/2013 |
| 13-03 | Turbine Building Eccentric and Concentric Bracing | 2/7/2013 | Approved | 7/1/2013 | | |
| 13-04 | Reconciliation of Tier 1 Value Differences | 2/7/2013 | Under Review | | | |
| 13-05 | Structural Module Shear Stud Size and Spacing | 2/14/2013 | Approved | 5/23/2013 | | |
| 13-06 | Primary Sampling System Changes | 2/7/2013 | Approved | 8/22/2013 | | |
| 13-07 | Changes to Chemical and Volume Control System | 3/13/2013 | Under Review | | | |
| 13-08 | Module Obstructions and Details. *Superceded by LAR 13-20.* | 2/28/2013 | Withdrawn | | | |
| 13-10 | Human Factors Engineering Integrated Plan | 3/13/2013 | Under Review | | | |
| 13-11 | Nuclear Island Walls Reinforcement Criteria | 3/26/2013 | Approved | 6/6/2013 | Approved | 4/10/2013 |
| 13-12 | Fire Area Boundary Changes | 7/17/2013 | Under Review | | | |
| 13-13 | Turbine Building Layout Changes | 7/30/2013 | Under Review | | | |
| 13-14 | Turbine Building Battery Room Electrical Changes | 10/2/2013 | Under Review | | | |

# License Amendment Requests

| NRC LAR No. | Summary | LAR Submittal Date | LAR Status | LAR Approval Date | PAR Status | PAR No Objection Letter Date |
|---|---|---|---|---|---|---|
| 13-16 | Human Factors Engineering Verification Plan | 9/25/2013 | Under Review | | | |
| 13-17 | Human Factors Engineering Verification Plan | 9/25/2013 | Under Review | | | |
| 13-18 | Revision to Human Engineering Issue Resolution Plan | 10/3/2013 | Under Review | | | |
| 13-19 | Revise to Human Factors Engineering Plan | 10/3/2013 | Under Review | | | |
| 13-20 | Module/Stud Channel Obstructions Revisions | 7/17/2013 | Approved | 11/19/2013 | | |
| 13-25 | Tier 1 Editorial and Consistency Changes | 7/2/2013 | Under Review | | | |
| 13-26 | EP Rule Changes | 12/17/2013 | Under Review | | | |
| 13-32 | Liquid Waste System Changes | 8/30/2013 | Under Review | | | |
| 13-37 | VCSNS Units 2&3 Tech Spec Upgrade | 12/4/2013 | Under Review | | | |
| 13-38 | ACI Code Compliance With Crical Higher Elevations | 11/7/2013 | Withdrawn | | | |
| 13-41 | Coating Thermal Conductivity- Revise DCD Tier 2 Document | 11/26/2013 | Under Review | | | |

# Appendix F

*Change Orders and Amendments*

# Change Orders and Amendments

| No. | Summary | Cost Categories Involved | Type of Change | Date Approved | Status |
|---|---|---|---|---|---|
| **1** | Operator training for WEC RV Systems and Simulator training | Fixed Price with 0% escalation [1] | Owner Directed | 7/22/2009 | Approved |
| **2** | Limited Scope Simulator | Firm Price | Owner Directed | 9/11/2009 | Approved |
| **3** | Repair of Parr Road | Time and Materials | Owner Directed | 1/21/2010 | Approved |
| **4** | Transfer of Erection of CA20 Module from WEC to Shaw | Target Price work shifting to Firm Price | Contractor Convenience | N/A | Superseded by Change Order No. 8 |
| **5** | **Supplements Change Order No. 1** Increased training by two (2) weeks | Fixed Price with 0% escalation [6] | Owner Directed | 5/4/2010 | Approved |
| **6** | Hydraulic Nuts | Fixed Price | Owner Directed | 7/13/2010 | Approved |
| **7** | St. George Lines #1 & 2 | Firm and Target Price Categories | Entitlement | 7/13/2010 | Approved |
| **8** | Target to Firm/Fixed Shift | Target, Firm and Fixed Price Categories | Owner Directed | 4/29/2011 | Approved |
| **9** | Switchyard Lines Reconfiguration | Firm and Target Price Categories | Owner Directed | 11/30/2010 | Approved |
| **10** | Primavera | Fixed Price with 0% escalation | Owner Directed | 12/16/2010 | Approved |
| **11** | COL Delay Study | Fixed Price, but would be applied to T&M Work Allowances | Owner Directed | 2/28/2011 | Approved |
| **12** | 2010 Health Care Act Costs (Shaw) | Firm | Entitlement | 11/14/2011 | Approved |
| **13** | Ovation Workstations | No Cost | Owner Directed | 3/12/2012 | Approved |
| **14** | Cyber Security Phase I | Firm Price and T&M Price | Entitlement | 3/15/2012 | Approved |
| **15** | Liquid Waste System Discharge Piping | Firm Price | Owner Directed | 3/15/2012 | Approved |
| **16** | Resolves WEC/CB&I claims related to COL Delay & other items | Target & Firm Price | Entitlement | N/A | Pending |

| | | |
|---|---|---|
| **Amendment #1** | Includes Change Orders 1 and 2 | Executed on 8/2/2010 |
| **Amendment #2** | Incorporates Change Orders 3, 5-11 | Executed on 11/15/2011 |
| **Amendment #3** | Includes modified insurance wording | Executed on 4/30/12 |

[1] Fixed Price with 0% escalation, but would be applied to Time and Materials Work Allowances by adding a new category for Simulator Instructor training and reducing Startup Support by a commensurate amount.

The definition for each type of Change Order is found below:

- **Contractor Convenience:** These changes are requested by the contractor. They are undertaken at the contractor's own expense, and are both generally consistent with the contract and reasonably necessary to meet the terms of the contract.

- **Entitlement:** The contractor is entitled to a Change Order in the event certain actions occur, including changes in law, uncontrollable circumstances, and other actions as defined in the contract.

- **Owner Directed:** These changes are requested by the Company.

# Appendix G

*SCE&G Purchase of an Additional 5% Ownership from Santee Cooper*

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# SCE&G TO ACQUIRE INCREASED SHARE OF NUCLEAR UNITS FROM SANTEE COOPER

**MONCKS CORNER, S.C., January 27, 2014,** South Carolina Electric & Gas Company (SCE&G), principal subsidiary of SCANA Corporation (NYSE: SCG), and Santee Cooper, South Carolina's state-owned electric and water utility, announced an agreement for SCE&G to acquire from Santee Cooper a 5 percent ownership interest in the two new nuclear units which are currently under construction at V.C. Summer Station in Jenkinsville, S.C.

The Santee Cooper Board of Directors approved today the sale of 5 percent of V.C. Summer units 2 and 3 to SCE&G. Under the terms of the transaction, SCE&G will own 60 percent of the new nuclear units and Santee Cooper, 40 percent. Under the current ownership agreement, SCE&G owns 55 percent and Santee Cooper owns 45 percent.

The 5 percent ownership interest would be acquired in three stages, with one percent to be acquired at the commercial operation date of the first new nuclear unit, which is anticipated to be in late 2017 or the first quarter of 2018, an additional two percent to be acquired no later than the first anniversary of such commercial operation date and the final two percent to be acquired no later than the second anniversary date of such commercial operation date. The purchase price would be equal to Santee Cooper's actual cost of the percentage conveyed as of the date of the conveyance. Such cost is anticipated to be approximately $500 million for the entire 5 percent interest based on current project cost. The agreement also provides that Santee Cooper will not transfer any of its remaining ownership interest in the two new units until both units have been completed. The transaction is subject to customary closing conditions, including receipt of necessary regulatory approvals.

Santee Cooper has been exploring opportunities to reduce its ownership level since 2011, to better match the new units' capacity with business needs when the units come online and still provide generating diversity that takes into account regulatory and fuel cost considerations.

"The past few years have shown unprecedented volatility in base load fuel costs and increasing regulatory pressures on fossil-fueled generation. Today's action reduces our costs to customers somewhat, while still preserving an ownership level that will position us well for the flexibility we will need going forward," said Lonnie Carter, Santee Cooper president and CEO.

"SCE&G has done a stellar job as managing partner of V.C. Summer Unit 1, and they are supervising construction of our two new units in similar fashion," Carter continued. "Today's board decision lets us

strengthen that longstanding relationship with SCE&G. It also gives Santee Cooper a more precise future nuclear capacity that meets our generating targets and our customer needs."

"We were pleased to work with our partner Santee Cooper to support the transfer of a portion of their ownership in the V.C. Summer new nuclear project to SCE&G," said Kevin Marsh, chairman and CEO of SCANA. "The addition of approximately 110MW from this purchase will help us replace a portion of 345MW of older coal fired generation expected to be retired over the next five years. This increment of nuclear power fits nicely into our updated Integrated Resource Plan, which is scheduled to be filed with the SC Public Service Commission in February 2014.

"A 5 percent increase in our ownership of the new nuclear project will delay the need to build new gas fired capacity after 2020 with clean, non-emitting nuclear energy. Once the new nuclear units are completed and go into commercial operation, we would expect to pay for the additional 5 percent with internal funding without the need for long-term external financing."

PROFILE

SCE&G is a regulated utility engaged in the generation, transmission, distribution and sale of electricity to approximately 675,000 customers in South Carolina. The company also provides natural gas service to approximately 325,000 customers throughout the state. More information about SCE&G is available at www.sceg.com.

SCANA Corporation, headquartered in Cayce, S.C., is an energy-based holding company principally engaged, through subsidiaries, in electric and natural gas utility operations and other energy-related businesses. The Company serves approximately 675,000 electric customers in South Carolina and more than 1.2 million natural gas customers in South Carolina, North Carolina and Georgia. Information about SCANA and its businesses is available on the Company's website at www.scana.com.

Santee Cooper is South Carolina's largest power producer, the largest Green Power generator and the ultimate source of electricity for 2 million people across the state. Through its low-cost, reliable and environmentally responsible electricity and water services, and through innovative partnerships and initiatives that attract and retain industry and jobs, Santee Cooper powers South Carolina. To learn more, visit www.santeecooper.com.

# SAFE HARBOR STATEMENT

Statements included in this press release which are not statements of historical fact are intended to be, and are hereby identified as, “forward-looking statements” for purposes of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements include, but are not limited to, statements concerning key earnings drivers, customer growth, environmental regulations and expenditures, leverage ratio, projections for pension fund contributions, financing activities, access to sources of capital, impacts of the adoption of new accounting rules and estimated construction and other expenditures. In some cases, forward-looking statements can be identified by terminology such as “may,” “will,” “could,” “should,” “expects,” “forecasts,” “plans,” “anticipates,” “believes,” “estimates,” “projects,” “predicts,” “potential” or “continue” or the negative of these terms or other similar terminology. Readers are cautioned that any such forward-looking statements are not guarantees of future performance and involve a number of risks and uncertainties, and that actual results could differ materially from those indicated by such forward-looking statements. Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements include, but are not limited to, the following: (1) the information is of a preliminary nature and may be subject to further and/or continuing review and adjustment; (2) regulatory actions, particularly changes in rate regulation, regulations governing electric grid reliability and pipeline integrity, environmental regulations, and actions affecting the construction of new nuclear units; (3) current and future litigation; (4) changes in the economy, especially in areas served by subsidiaries of SCANA; (5) the impact of competition from other energy suppliers, including competition from alternate fuels in industrial markets; (6) the impact of conservation and demand side management efforts and/or technological advances on customer usage; (7) growth opportunities for SCANA’s regulated and diversified subsidiaries; (8) the results of short- and long-term financing efforts, including prospects for obtaining access to capital markets and other sources of liquidity; (9) changes in SCANA’s or its subsidiaries’ accounting rules and accounting policies; (10) the effects of weather, especially in areas where the generation and transmission facilities of SCANA and its subsidiaries (the Company) are located and in areas served by SCANA's subsidiaries; (11) payment and performance by counterparties and customers as contracted and when due; (12) the results of efforts to license, site, construct and finance facilities for electric generation and transmission; (13) maintaining creditworthy joint owners for SCE&G’s new nuclear generation project; (14) the ability of suppliers, both domestic and international, to timely provide the labor, components, parts, tools, equipment and other supplies needed, at agreed upon prices, for our construction program, operations and maintenance; (15) the results of efforts to ensure the physical and cyber security of key assets and processes; (16) the availability of fuels such as coal, natural gas and enriched uranium used to produce electricity; the availability of purchased power and natural gas for distribution; the level and volatility of future market prices for such fuels and purchased power; and the ability to recover the costs for such fuels and purchased power; (17) the availability of skilled and experienced human resources to properly manage, operate, and grow the Company’s businesses; (18) labor disputes; (19) performance of SCANA’s pension plan assets; (20) changes in taxes; (21) inflation or deflation; (22) compliance with regulations; (23) natural disasters and man-made mishaps that directly affect our operations or the regulations governing them; and (24) the other risks and uncertainties described from time to time in the periodic reports filed by SCANA or SCE&G with the United States Securities and Exchange Commission. The Company disclaims any obligation to update any forward-looking statements.

# Appendix H

*ORS Letter to the Commission*

C. DUKES SCOTT
EXECUTIVE DIRECTOR

1401 Main Street, Suite 900
Columbia, SC 29201

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DAN F. ARNETT
CHIEF OF STAFF

shudson@regstaff.sc.gov

*Shannon Bowyer Hudson*
*Counsel for ORS*

March 20, 2014

**VIA U.S. MAIL**

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

Re: V.C. Summer Nuclear Station Units 2 & 3

Dear Ms. Boyd:

During the Allowable Ex Parte Communication Briefing on February 26, 2014, the South Carolina Office of Regulatory Staff ("ORS") informed the Public Service Commission of South Carolina ("the Commission") that South Carolina Electric & Gas Company ("SCE&G") will be receiving from Westinghouse Electric Company, CB&I Stone & Webster, Inc. (collectively "the Consortium") a revised integrated project schedule in the 2014 third quarter. Generally, SCE&G and ORS have been receiving monthly updates from the Consortium on the Base Load Review Act ("BLRA") milestones to compare with the Commission's approved milestone schedule. The most recent update was provided during January 2014. At the time of the Allowable Ex Parte Communication Briefing, ORS and SCE&G had no reason to believe there would be any change to this past practice of monthly updates.

This week, SCE&G informed ORS that the Consortium will not be providing either SCE&G or ORS monthly updates to the BLRA milestone schedule until the revised integrated project schedule is complete. The revised integrated project schedule is still expected in the third quarter of this year. Pursuant to ORS's nuclear monitoring of V.C. Summer Units 2 & 3 according to S.C. Code § 58-33-277 of the BLRA, ORS is advising the Commission of this temporary change in practice as it will impact ORS's ability to monitor and provide updates to the Commission on the status of milestone activities during this interim period, particularly as it relates to milestones equal to or greater than sixteen months.

Sincerely,

Shannon B. Hudson

Shannon Bowyer Hudson

cc: K. Chad Burgess, Esquire