Sixteenth Semi-annual Vogtle Construction Monitoring Report

February 2017 • Docket No. 29849

Reactor vessel being placed inside the Unit 3 Nuclear Island.
## Vogtle Units 3 and 4
### Sixteenth Semi-Annual Construction Monitoring Report

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<th>Section</th>
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<td>5</td>
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</tbody>
</table>
Unit 3 Nuclear and Turbine Islands

As of December 2016
EXECUTIVE SUMMARY

I. Highlights

- Georgia Power Company (“Georgia Power”) and Southern Nuclear Operating Company (“SNC”), as agent for Georgia Power (collectively, the “Company”), are fulfilling their commitment to safety, quality and compliance.

During the reporting period of July 1, 2016 to December 31, 2016 (the “Reporting Period”), approximately 8.6 million work hours were performed safely with no lost time injuries. More than 25 million man-hours have been performed during the construction of Plant Vogtle Units 3 and 4 (the “Project”) since the last lost time injury.

The Company received no Notices of Violation and remained in favorable standing with the Nuclear Regulatory Commission (“NRC”), as indicated by its green status under the NRC’s Construction Reactor Oversight Process.

- Georgia Power is requesting verification and approval of $222 million of actual expenditures incurred during the Reporting Period.

<table>
<thead>
<tr>
<th>16th VCM Expenditures</th>
<th>(Includes amounts paid pursuant to Settlement)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dollars in Millions</strong></td>
<td></td>
</tr>
<tr>
<td>EPC</td>
<td>138</td>
</tr>
<tr>
<td>Quality Assurance, Compliance and Operations &amp; EPC Scope Change</td>
<td>69</td>
</tr>
<tr>
<td>Ad Valorem Tax</td>
<td>11</td>
</tr>
<tr>
<td>Transmission</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total 16th VCM Expenditures</strong></td>
<td><strong>$222</strong></td>
</tr>
</tbody>
</table>

- Company Executive and Project Management continue to provide oversight and actively address issues and concerns.

Westinghouse (“WEC”), as the single prime contractor (the “Contractor”), continues to provide concentrated efforts on improving Project productivity. The Company and Contractor engaged with the National Labor Unions to ensure necessary resources are available to meet Project needs. Additionally, efforts are ongoing to reduce risk to the Project by realigning work scope at key vendors.
• **The Project continues to progress and achieved significant milestones during the Reporting Period.**

Construction progress continued with the installation of several key modules and components, including the Unit 3 Reactor Vessel and structural modules CA01 and CA20 for Unit 4. As the Project transitions to operations, several key milestones were accomplished, including 18 candidates successfully completing the NRC Initial License Training exam and the submission of 144 Inspections, Tests, Analyses, and Acceptance Criteria (“ITAAC”) Closure Notifications (“ICNs”) to the NRC.

• **The forecasted in-service dates and related costs are expected to remain within the schedule and cost approved by Commission Order dated January 3, 2017.**

The Contractor recently provided the Company with its revised forecasted in-service dates of December 2019 and September 2020 for Plant Vogtle Units 3 and 4, respectively. The Company is currently reviewing a preliminary summary schedule supporting these dates that ultimately must be reconciled by the Contractor into a detailed Integrated Project Schedule (“IPS”).

• **The Project peak rate impact for customers continues to be 6-8 percent.**

The current projection for peak rate impact remains at 6 to 8 percent due to lower cost financing and other benefits of the Project that the Company proactively pursued as well as the fuel savings of nuclear.

• **Completing the Project remains the best cost option for our customers.**

The 60+ year operating life Vogtle Units 3 and 4 Project represents the best cost option for our customers even without considering the value that nuclear adds to the state of Georgia’s future in light of pending environmental regulations.

• **The EPC Agreement continues to protect customers.**

Our customers continue to be protected by the fixed and firm nature of the EPC Agreement, which assigns significant construction cost risks to the Contractor. The assignment of these risks to the Contractor has saved customers hundreds of millions of dollars over a “time and materials” contract. Georgia Power customers are protected, with very limited and specific exceptions, from a large portion of traditional construction cost risks such as Contractor’s increased construction costs, including lower production and productivity, increased cost of bulk materials and commodities, and Contractor’s own cost of delays.

Parties associated with the EPC Agreement have announced multi-billion dollar write downs on their nuclear business units. The strengths of the EPC Agreement have shielded Georgia Power and our customers from claims by the Contractor seeking to recover some of their losses.
RESPONSES TO STIPULATED QUESTIONS

As agreed in the Stipulation that was incorporated into the Certification Order, Georgia Power responds below to the 15 specified items in the order in which they appear in Section 2(d)(1-15) of the Stipulation. In this 16th VCM Report, and in accordance with the Commission’s Order on the Ninth/Tenth VCM Report (“9th/10th VCM Order”), Georgia Power has omitted Items 4, 10 and 13.

1. The reasons for any additional change in the estimated costs of the units since the process began.

The Total Construction and Capital Cost of the Project is forecasted to remain the same as the previous reporting period. This forecast represents the Company’s estimate of the amount that the Company will spend to complete the Project and, such amounts deemed prudent by the Commission, will be put into rate base when the Project goes into service.

The current and forecasted cost reports are provided in Tables 1.1 and 1.1.a. These tables reflect the to-date capital investment, the forecasted and approved changes to the capital forecast, and the amounts collected and forecasted to be collected under the Nuclear Construction Cost Recovery (“NCCR”) tariff.

This VCM Report is the second VCM Report filed after Unit 3 was originally scheduled to be in service on April 1, 2016. It is appropriate to continue tracking the impact of delay on customers.

Table 1.1.b shows the cost of replacement energy as required by the 12th VCM Order.
### Table 1.1

**Total Project Capital**

<table>
<thead>
<tr>
<th></th>
<th>Approved Cost (1)</th>
<th>Forecast</th>
<th>Variance</th>
<th>Project to Date</th>
<th>Actual</th>
<th>Variance</th>
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</thead>
<tbody>
<tr>
<td><strong>Construction &amp; Capital Cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPC Base</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Semi Annual Escalation</td>
<td>1,418</td>
<td>1,418</td>
<td>0</td>
<td>1,419</td>
<td>1,419</td>
<td>0</td>
</tr>
<tr>
<td>Indexed Escalation</td>
<td>470</td>
<td>470</td>
<td>0</td>
<td>230</td>
<td>207</td>
<td>-24</td>
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<tr>
<td>Other Fixed Escalation</td>
<td>668</td>
<td>668</td>
<td>0</td>
<td>668</td>
<td>668</td>
<td>0</td>
</tr>
<tr>
<td>Fully Escalated</td>
<td>746</td>
<td>746</td>
<td>0</td>
<td>326</td>
<td>213</td>
<td>-114</td>
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<td><strong>Total EPC Base</strong></td>
<td>3,302</td>
<td>3,302</td>
<td>0</td>
<td>2,843</td>
<td>2,506</td>
<td>-138</td>
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<tr>
<td>EPC Escalation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Semi Annual Escalation</td>
<td>176</td>
<td>176</td>
<td>0</td>
<td>176</td>
<td>176</td>
<td>0</td>
</tr>
<tr>
<td>Indexed Escalation</td>
<td>116</td>
<td>116</td>
<td>0</td>
<td>32</td>
<td>28</td>
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<tr>
<td>Other Fixed Escalation</td>
<td>110</td>
<td>110</td>
<td>0</td>
<td>109</td>
<td>109</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total EPC Escalation</strong></td>
<td>401</td>
<td>401</td>
<td>0</td>
<td>317</td>
<td>313</td>
<td>-4</td>
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<tr>
<td>Quality Assurance, Compliance and Operations &amp; EPC Scope Change</td>
<td>1,507</td>
<td>1,507</td>
<td>0</td>
<td>952</td>
<td>939</td>
<td>-13</td>
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<tr>
<td>Ad Valorem &amp; Other Fees</td>
<td>221</td>
<td>221</td>
<td>0</td>
<td>88</td>
<td>89</td>
<td>1</td>
</tr>
<tr>
<td>Test Fuel Offsets</td>
<td>-49</td>
<td>-49</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Transmission Interconnection</td>
<td>58</td>
<td>58</td>
<td>0</td>
<td>55</td>
<td>56</td>
<td>1</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td>5,440</td>
<td>5,440</td>
<td>0</td>
<td>4,055</td>
<td>3,902</td>
<td>-153</td>
</tr>
<tr>
<td>Contingency</td>
<td>240</td>
<td>0</td>
<td>-240</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Construction &amp; Capital Cost</strong></td>
<td>5,680</td>
<td>5,440</td>
<td>-240</td>
<td>4,055</td>
<td>3,902</td>
<td>-153</td>
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<tr>
<td>Other Capital Cost</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certification &amp; Independent Evaluator Fees</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Construction Monitor</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>1</td>
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<tr>
<td><strong>Total Other Capital Cost</strong></td>
<td>8</td>
<td>8</td>
<td>0</td>
<td>6</td>
<td>7</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Project Financing**

<table>
<thead>
<tr>
<th></th>
<th>Total Forecast</th>
<th>Actual</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Schedule Financing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on CWIP in Rate Base (3)</td>
<td>2,111</td>
<td>1,172</td>
<td>1,151</td>
</tr>
<tr>
<td>AFUDC - Accrued on CWIP Above Original Certified Cost</td>
<td>85</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AFUDC - Accrued through December 2010</td>
<td>91</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>Return on Unamortized AFUDC Balance</td>
<td>18</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total Project Schedule Financing</strong></td>
<td>2,305</td>
<td>1,282</td>
<td>1,260</td>
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</table>

**Total Capital Cost and Financing**

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Forecast</th>
<th>Actual</th>
<th>Variance</th>
</tr>
</thead>
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<tr>
<td><strong>Total Capital Cost and Financing</strong></td>
<td>7,745</td>
<td>5,338</td>
<td>5,162</td>
<td>-174</td>
</tr>
</tbody>
</table>

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**Footnotes:**

2. Includes approximately $283 million related to the Definitive Settlement Agreement, including change orders issued pursuant to that Settlement.
3. NCCR will only be collected on the certified capital cost of $4.418 billion per Order dated January 3, 2017.

Note: Details may not add to totals due to rounding.
### Table 1.1a (Trend)

**Vogtle 3&4 Project**  
**Georgia Power Company Cost Forecast - Subject to Commission Verification and Approval**  
**Through Period Ending December 31, 2016**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>($ millions)</td>
</tr>
<tr>
<td>470</td>
<td>6,083</td>
<td>110</td>
<td>159</td>
<td>4,460</td>
<td>674</td>
<td>674</td>
<td>674</td>
<td>674</td>
<td>674</td>
<td>674</td>
<td>674</td>
<td>674</td>
<td>674</td>
<td>674</td>
<td>746</td>
</tr>
</tbody>
</table>

**Construction & Capital Cost**

| EPC Base | Fixed Semi Annual Escalation | 1,978 | 1,976 | 1,976 | 1,976 | 1,976 | 1,976 | 1,976 | 1,976 | 1,976 | 1,976 | 1,976 | 1,976 | 1,976 | 1,418 |
|----------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Indexed Escalation | 468 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 |
| Other Fixed Escalation | 670 | 674 | 674 | 674 | 674 | 674 | 674 | 674 | 674 | 674 | 674 | 674 | 674 | 674 | 668 |
| Fully Escalated | | | | | | | | | | | | | | | |
| Total EPC Base | 3,116 | 3,121 | 3,121 | 3,121 | 3,121 | 3,121 | 3,121 | 3,121 | 3,121 | 3,121 | 3,121 | 3,121 | 3,121 | 3,302 | 3,302 |

**EPC Escalation**

| Indexed Escalation | 431 | 336 | 336 | 337 | 344 | 343 | 353 | 355 | 355 | 355 | 355 | 355 | 355 | 355 | 176 |
| Other Fixed Escalation | 142 | 142 | 142 | 142 | 119 | 118 | 120 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 166 |
| Total EPC Escalation | 573 | 572 | 572 | 573 | 585 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 582 | 400 |

**Quality Assurance, Compliance and Operations & EPC Scope Change**

| Ad Valorem & Other Fees | 111 | 111 | 111 | 111 | 111 | 111 | 125 | 159 | 159 | 159 | 241 | 241 | 241 | 241 | 221 |
| Transmission Interconnection | 37 | 40 | 40 | 40 | 40 | 41 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 58 |
| Total | 621 | 689 | 706 | 699 | 766 | 766 | 833 | 1,090 | 1,090 | 1,090 | 1,342 | 1,342 | 1,342 | 1,737 | 1,737 |

**Subtotal**

| Subtotal | 4,418 | 4,395 | 4,414 | 4,408 | 4,460 | 4,459 | 4,539 | 4,799 | 4,799 | 4,799 | 5,045 | 5,045 | 5,045 | 5,440 | 5,440 |

**Contingency**

| Contingency | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 |

**Total Construction & Capital Cost**

| Total Construction & Capital Cost | 4,418 | 4,395 | 4,414 | 4,408 | 4,460 | 4,459 | 4,539 | 4,799 | 4,799 | 4,799 | 5,045 | 5,045 | 5,045 | 5,440 | 5,440 |

**Other Capital Cost**

| Certification & Independent Evaluator Fees | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Construction Monitor | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 6 | 6 | 6 | 6 | 6 | 6 |

**Total Other Capital Cost**

| Total Other Capital Cost | 7 | 7 | 7 | 6 | 6 | 6 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |

### Vogtle 3&4 Facility

**Georgia Power Company Financing Cost Forecast - Recovered Pursuant to O.C.G.A. 46-2-25 (c.1)**  
**Project To Date**  
**Through Period Ending December 31, 2016**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>Forecast</td>
<td>($ millions)</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AFUDC - Accrued through Dec 2010</td>
<td>97</td>
<td>99</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>Total Project Schedule Financing</td>
<td>1,636</td>
<td>1,637</td>
<td>1,678</td>
<td>1,675</td>
<td>1,635</td>
<td>1,626</td>
<td>1,662</td>
<td>2,051</td>
<td>1,960</td>
<td>1,905</td>
<td>2,473</td>
<td>2,408</td>
<td>2,438</td>
<td>2,422</td>
<td>2,305</td>
</tr>
</tbody>
</table>

**Total Capital Cost and Financing**

| Total Capital Cost and Financing | 6,054 | 6,032 | 6,092 | 6,083 | 6,095 | 6,085 | 6,201 | 6,850 | 6,759 | 6,704 | 7,518 | 7,453 | 7,876 | 7,862 | 7,745 |

**Notes:**  
- No reforecast was filed in June 2013.  
- Details may not add to totals due to rounding.
### Table 1.1b

**Vogtle 3&4 Project**

**Georgia Power Company Replacement Energy Costs**

**April 1, 2016**

**Through Period Ending December 31, 2016**

**Millions of Dollars**

<table>
<thead>
<tr>
<th>Date</th>
<th>VCM</th>
<th>Replacement Energy Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>April-16</td>
<td>15th</td>
<td>3.0</td>
</tr>
<tr>
<td>May-16</td>
<td>15th</td>
<td>3.1</td>
</tr>
<tr>
<td>June-16</td>
<td>15th</td>
<td>4.8</td>
</tr>
<tr>
<td>July-16</td>
<td>16th</td>
<td>6.2</td>
</tr>
<tr>
<td>August-16</td>
<td>16th</td>
<td>6.1</td>
</tr>
<tr>
<td>September-16</td>
<td>16th</td>
<td>5.8</td>
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<tr>
<td>October-16</td>
<td>16th</td>
<td>5.3</td>
</tr>
<tr>
<td>November-16</td>
<td>16th</td>
<td>4.0</td>
</tr>
<tr>
<td>December-16</td>
<td>16th</td>
<td>5.4</td>
</tr>
</tbody>
</table>

**Total**

43.6

**Additional information:**

1. Replacement Energy Cost compares the actual hourly Pool Interchange Rate ("PIR") to the estimated Vogtle 3 and 4 average cost.
2. This analysis represents only one element of the impact to customers. It is not a complete "impact of delay" analysis.
3. Details may not add to totals due to rounding
2. A description of any cooperative actions between other builders of nuclear units in the southeast to address labor, crafts, engineering and management requirements.

As reported in previous VCM reports, SNC continues to actively participate as a member of APOG LLC (“APOG”) with other members, Florida Power & Light, NextEra, Duke Energy, and South Carolina Electric and Gas Company (“SCE&G”) to support multiple engineering, licensing, quality assurance, operational readiness and training initiatives.

To the extent allowed by the EPC Agreement, the Company has also engaged with SCE&G on the peer-to-peer level in each functional area of the oversight organization to ensure alignment and to utilize lessons learned and best practices. For example, SNC and SCE&G often participate in joint quality assurance audits and oversight surveillances of the Contractor. SNC and SCE&G construction personnel share construction lessons learned and best practices. Engineering and licensing personnel from the two companies communicate regularly to ensure alignment on resolution to standard design challenges, and also communicate potential impacts to licensing requirements. Collaboration with the SCE&G ITAAC team is ongoing and is resulting in identification and sharing of best practices to support implementation of an effective and streamlined ITAAC program. SNC and SCE&G will also collaborate as necessary with regard to the respective cyber security programs being developed and implemented by the Contractor. The Operational Readiness organizations for SNC and SCE&G are also aligned on the development of operations, maintenance and technical training programs which includes sharing lesson plans, task lists, qualification cards and providing joint support for APOG. As the Initial Test Program (“ITP”) continues to develop, SNC and SCE&G are committed to ensuring alignment on testing strategies (e.g., digital and first of a kind) through ongoing discussion and the sharing of lessons learned. Additionally, a cross-functional team, including WEC, SCE&G and SNC personnel, was formed to ensure configuration management of the plant and simulator, as well as efficient implementation of the Instrumentation and Controls design upgrade from Baseline 7 to Baseline 8.
3. **An explanation of how the indices used in the EPC contract are tracking.**

   There has been no change in the status of this item since the Eighth VCM Report.
4. Omitted per 9th/10th VCM Order.
5. The status of the Company’s loan guarantee application at the Department of Energy and to the extent that application is granted, then the Company shall also report on the impact it has or would have on the final expected in-service cost of the units.

<table>
<thead>
<tr>
<th>Available</th>
<th>Received</th>
<th>Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.46 Billion</td>
<td>$2.63 Billion</td>
<td>$0.83 Billion</td>
</tr>
</tbody>
</table>

The Department of Energy (“DOE”) Loan Guarantee does not have a material impact on the in-service cost of the Units, but it does provide benefits to customers through lower financing costs during construction and for many years beyond.
6. Whether the Company is using trust preferred financing and the impact it has or would have on the expected in-service cost of the units.

There has been no change in the status of this item since the Sixth VCM Report.
7. The extent to which the Company is using short term debt and the impact it has or would have on the expected in-service cost of the units.

There has been no change in the status of this item since the Third VCM Report.
8. An update of the estimated in-service cost and projected date of commercial operation of both units.

The in-service Total Construction and Capital Cost forecast has not changed since the 15th VCM. However, the Contractor recently provided the Company with its revised forecasted in-service dates of December 2019 and September 2020 for Plant Vogtle Units 3 and 4, respectively. The Company is currently reviewing a preliminary summary schedule supporting these dates that ultimately must be reconciled by the Contractor into a detailed IPS. Following receipt of the detailed schedule information from the Contractor, the Company will update the Project’s Total Construction and Capital Cost forecast. Those revised in-service dates and related costs are still expected to be within the schedule and cost approved by Commission Order dated January 3, 2017.

To achieve the in-service dates, the Contractor continues to evaluate and implement various mitigation approaches, including lessons learned, to improve Project productivity and performance. These approaches include, but are not limited to, the following:

- Concrete placement strategies:
  - Using approved engineering construction joints to support concrete placements.
  - Combining concrete placements inside installed shield building panels to minimize concrete curing times.
  - Combining concrete placements for the east cylindrical wall and inside containment to minimize construction joint preparation.
- Further modularization of shield building panel installation above elevation 149 feet 6 inches;
- Installation of a protective structure over the Unit 3 nuclear island containment vessel to shelter work activities from inclement weather;
- Process enhancements related to documentation and work packages;
- Effective and efficient allocation of resources (e.g., additional craft, equipment) across the site to maximize their utilization.
- Increasing production capability at key vendor facilities; adding vendors for critical components to meet procurement needs;
- Standardization of construction sequence above elevation 100 feet to synergize planning;
- Dedicated teams for key milestones such as shield building east wall to elevation 149 feet, reactor vessel set, and east steam generator set;
- Developing alternative engineering/construction means to increase productivity; and
- Increased focus on fabricating commodities on-site.
  - Established an on-site Project to fabricate rebar, embeds, and pipes.
9. A description of all major sources of changes (both increases and decreases) to the in-service cost and sources of change in commercial operation dates, if any.

The Contractor recently provided the Company with its revised forecasted in-service dates of December 2019 and September 2020 for Plant Vogtle Units 3 and 4, respectively. The Company is currently reviewing a preliminary summary schedule supporting these dates that ultimately must be reconciled by the Contractor into a detailed IPS. Those revised in-service dates and related costs are still within the schedule and cost approved by Commission Order dated January 3, 2017.

As construction continues, the risk remains that challenges with Contractor performance including labor productivity, fabrication, delivery, assembly, and installation of plant systems, structures, and components, or other issues could arise and may further impact Project schedule and cost. The Company expects the Contractor to employ mitigation efforts and believes the Contractor is responsible for any related costs under the Vogtle 3 and 4 EPC Agreement. The Company estimates its financing costs to be approximately $30 million per month (regardless of whether the Units are in service or not), with total construction period financing costs of approximately $2.5 billion. Additionally, the Company estimates its Owner’s costs to be approximately $6 million per month, net of delay liquidated damages and forfeiture of early completion bonuses.
10. Omitted per 9th/10th VCM Order.
11. The status of all other significant permits and licenses required from other governmental agencies.

All other required permits and licenses have been approved or are on track to be approved to meet construction need dates as shown in the Permits Update filed monthly with the Commission. The status for the Reporting Period can be found in the December 2016 Monthly Status Report.
12. The status of Quality and Compliance, Engineering, Procurement, Construction and Operational Readiness.

A. Quality and Compliance

- The Company continues to provide oversight of the Contractor, actively address issues and concerns, and provide guidance and support to the Contractor, as necessary.
- The Company completed 712 oversight surveillances during the Reporting Period.
- Lessons learned continue to be captured during first time evolutions for Unit 3 and incorporated into Unit 4.
  - Activities conducted for Unit 4 require fewer personnel and shorter durations than needed for Unit 3.
  - Construction joints were lowered in the Unit 4 Auxiliary Building to prevent the need for form savers, which have impacted construction on Unit 3.
  - Concrete walls in Area 2 of the Auxiliary Building were placed simultaneously to preclude having a large number of bulkheads and construction joints to prepare after each concrete placement.
  - CA01 for Unit 4 was set without the pressurizer compartment in order to progress concrete placements inside containment.
  - CA20 for Unit 4 was set in minimum configuration in order to commence wedge placements, which is a precursor for the Shield Building.
  - Concrete placement under the Containment Vessel Bottom Head (“CVBH”) from elevation 82 feet 6 inches to 94 feet was completed in a shorter timeframe due to formwork improvements.
- The Company continues to assess and allocate resources necessary to perform its oversight of the Contractor.

B. Engineering

- Site-specific piping design completion for Balance of Plant systems with the exception of the Chemical Feed System ("CFS").
- Site-specific mechanical design completion.
- Design engineering continued to support Construction for completion of Project activities:
  - Unit 3 Reactor Vessel installation
  - Unit 4 CA20 installation
  - Unit 4 CA01 installation
- Engineering process enhancements are reducing engineering impacts on construction.
  - Contractor on-site leadership manages both corporate and site Project engineering activities.
  - Co-location of field and design engineering resources closer to applicable work-fronts.
  - Advanced Constructability Review of work packages allows earlier issue identification and resolution.
C. Procurement

- The Company continues its oversight of the major equipment fabrication at international and domestic vendor locations. Challenges associated with design and/or testing are closely monitored by the Company to ensure adequate resolution before installation.

- The Company also remains focused on its oversight of safety-related commodity vendor locations. Oversight of the following commodities occurred during the Reporting Period: reinforcing steel, structural steel, embeds, pipe supports, piping penetrations and spools, cable tray and cabling.

- The Company’s Procurement Engineering Oversight team facilitated the sharing of SNC fleet Operating Experiences with the Contractor.
  - SNC expects to be added to the Contractor’s Qualified Supplier List (“QSL”), which will enable SNC to be an alternative supplier for hard-to-procure items and material.
  - SNC supported the Contractor with the development and implementation of blanket purchase orders for common bulk commodities.

<table>
<thead>
<tr>
<th>Component</th>
<th>Unit 3 Status</th>
<th>Unit 4 Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulator Tanks</td>
<td>On-site</td>
<td>On-site</td>
</tr>
<tr>
<td>Containment Vessel Components</td>
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</tr>
<tr>
<td>Core Makeup Tanks</td>
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</tr>
<tr>
<td>Deaerators</td>
<td>Installed</td>
<td>On-site</td>
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<tr>
<td>Diesel Generators</td>
<td>On-site</td>
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</tr>
<tr>
<td>Integrated Head Package</td>
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<td>On-site</td>
</tr>
<tr>
<td>Main Step-up Transformers</td>
<td>Installed</td>
<td>On-site</td>
</tr>
<tr>
<td>Main Turbine Generator</td>
<td>Installed</td>
<td>On-site</td>
</tr>
<tr>
<td>Moisture Separator Reheater</td>
<td>Installed</td>
<td>On-site</td>
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<tr>
<td>Passive Residual Heat Removal Heat Exchanger</td>
<td>Fabrication Complete</td>
<td>Fabrication Complete</td>
</tr>
<tr>
<td>Polar Crane</td>
<td>Fabrication Complete</td>
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<tr>
<td>Pressurizer</td>
<td>On-site</td>
<td>On-site</td>
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<td>Reactor Coolant Loop Piping</td>
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<td>On-site</td>
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<tr>
<td>Reactor Coolant Pumps</td>
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<tr>
<td>Reactor Vessel</td>
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<td>Reactor Vessel Internals</td>
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<td>Reserve Auxiliary Transformers</td>
<td>On-site</td>
<td>On-site</td>
</tr>
<tr>
<td>Squib Valves</td>
<td>Fabrication Complete</td>
<td>Fabrication Complete</td>
</tr>
<tr>
<td>Steam Generators</td>
<td>On-site</td>
<td>On-site</td>
</tr>
</tbody>
</table>

- Major equipment installed during the Reporting Period includes: Unit 3 Reactor Vessel, Unit 3 Moisture Separator Reheaters 01A and 01B, Unit 3 Turbine Building Crane.
Modules

Unit 3 Shield Building
- There are 147 of 167 panels on site (79 of 167 Unit 4 Shield Building panels have also been delivered).
- Newport News Inc. ("NNI") has been awarded the air inlet and tension ring scope of work.
  - NNI continued with building expansion and fabrication of mock-ups.
  - Panel fabrication is expected to begin in the first quarter of 2017.

Unit 4 CA03
- All 17 sub-modules were delivered to the site during the Reporting Period.
- Commenced upending sub-modules.
  - 11 of 17 sub-modules upended
- Commenced seam welding.

Unit 4 CA02
- All 5 sub-modules delivered to the site.
- Commenced upending submodules.
  - 3 of 5 sub-modules upended
- Commenced seam welding.

Lake Charles
- All remaining scope at CB&I Lake Charles was transitioned to other previously approved vendors or on-site during the Reporting Period.

Aecon
- NRC Vendor Branch performed an inspection during the week of July 25, 2016, resulting in no non-conformances or findings.
- Delivery and setting of Unit 3 Nuclear Island safety-related mechanical modules Q223, Q233, and Q240 occurred during the Reporting Period.
- Commenced fabrication of safety-related mechanical module Q601.

Photo 1 – Unit 3 Q233 (Direct Vessel Injection B)
D. Construction

**Unit 3 Nuclear Island**

- Significant progress continued during the Reporting Period.
  - Installed approximately 453 tons of rebar.
  - Placed approximately 2,175 cubic yards of concrete.
- Installed rebar and placed concrete to elevation 96 feet inside containment on the east side.
- Rebar installation to elevation 103 feet inside containment on the west side continues.
- Placed concrete under the CVBH to elevation 100 feet on the east side (placements 11A and 12S).
- Placed concrete floor to elevation 82 feet 6 inches in structural module CA20.
- Installed Area 3 precast panels in the Auxiliary Building to elevation 82 feet 6 inches.
- Placed concrete for RC-01 from elevation 100 feet to elevation 117 feet 6 inches.
- Set wall modules CB46 and CB47 for the Passive Core Cooling (“PXS”)-A valve room in the southeast quadrant of containment from elevation 96 feet to 105 feet 2 inches.
- Set wall modules CB42 and CB43 for the PXS-A accumulator room in the southeast quadrant from elevation 87 feet 6 inches to 96 feet.
- Set wall modules CB37, CB38 and CB39 for the Normal Residual Heat Removal System (“RNS”) valve room in east section of containment from elevation 94 feet to 105 feet 2 inches.
- Set wall modules CB34 and CB35 for the PXS-B valve room in the northeast quadrant of containment from elevation 96 feet to 105 feet 2 inches.
- Set wall module CB36 for the PXS-B accumulator room in the northeast quadrant of containment from elevation 96 feet to 105 feet 2 inches.
- Commenced welding structural module CA03 to CA02.
- Commenced welding structural module CA03 to CA01.
- Complete installation and weld out of Course 04, 05 and 06 Shield Building panels.
- Placed concrete in Course 04 Shield Building panels.
- Placed concrete in the Structural Main Steam/Feed Water penetration panel in the Shield Building North wall.
- Placed concrete for north K2/L2 in CA20 from elevation 87 feet 3 inches to 128 feet 1 inch.
- Installed main embedments, b-plates and rebar to support setting of the Reactor Vessel.
- Placed concrete to elevation 98 feet inside the reactor vessel cavity.
• Installed the Reactor Vessel on November 23, 2016.
• Installed the Containment Vessel Ring 2 on December 3, 2016.
• Installed Steam Generator lower and intermediate brackets.
• Set safety-related mechanical modules Q223, Q233 and Q240 inside containment.
• Installed mechanical module R161 and R104 in Area 5 of the Auxiliary Building.

Unit 3 Turbine Island
• Significant progress continued during the Reporting Period.
  o Installed approximately 1,864 tons of structural steel.
  o Placed approximately 1,202 cubic yards of concrete.
• Set 15-ton and 220-ton turbine bridge cranes.
• Installed the Low Pressure (“LP”) A and B turbine lower outer casing.
• Set moisture separator reheaters MSS-ME-01A and MSS-ME-01B.
• Completed all concrete placements to elevation 170 feet.
• Placed concrete for First Bay walls to elevation 122 feet.
• Continued structural steel installation above the turbine deck to elevation 255 feet.
• Completed installation of the remaining roof trusses.
• Continued installation of commodities (e.g., HVAC, piping).
**Unit 3 Annex Building**
- Continued progress on rebar installation and concrete placement during the Reporting Period.
  - Placed approximately 478 cubic yards of concrete.
  - Installed approximately 166 tons of rebar.
  - Installed approximately 56 tons of structural steel.
- Placed Area 2 concrete wall 25B to elevation 107 feet.
- Placed Area 2 concrete walls to elevation 117 feet 6 inches (walls 3, 20 and 23).
- Placed concrete slabs for Areas 1 and 2 to elevation 117 feet 6 inches.
- Installed Q-decking in Areas 1 and 2 at elevation 116 feet 10 inches (columns 4.1 – 13, E to H).
- Continued progress on Annex Building construction.
  - Areas 1 and 2 construction progressed to elevation 135 feet 3 inches.
  - Installation of HVAC duct, cable trays, supports, and battery racks in the battery and battery charger rooms.

**Unit 3 Cooling Tower**
- Began installing rebar for the cooling tower pump station floor and walls.

**Unit 4 Nuclear Island**
- Significant progress continued during the Reporting Period.
  - Installed approximately 761 tons of rebar.
  - Placed approximately 2,525 cubic yards of concrete.
- Placed concrete under the CVBH to elevation 90 feet 6 inches on the east side and elevation 96 feet on the west side.
- Placed concrete inside the CVBH to elevation 83 feet 6 inches.
- Set structural modules CA01 and CA20.
- Significant progress on Auxiliary Building walls including concrete placed up to elevation 82 feet 6 inches (placements 12, 13, 16, 17, 18, 23, 24, 25, 26 and 27).
- Placed concrete in the Area 1 floors of the Auxiliary Building to elevation 82 feet 6 inches.
- Placed concrete under the CVBH to elevation 82 feet 6 inches (wedge placement).
- Set the first Shield Building panel.

**Unit 4 Turbine Island**
- Continued vertical construction.
  - Placed approximately 782 cubic yards of concrete.
  - Installed approximately 181 tons of rebar.
  - Assembled approximately 1,055 tons of structural steel.
- Placed concrete for slab 3 to elevation 120 feet 6 inches.
• Placed concrete for slabs 4, 5 and 6 to elevation 141 feet 3 inches.
• Installed significant equipment including:
  o Condenser/water boxes A, B and C.

**Photo 6 – Unit 4 Turbine Building**

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**Unit 4 Annex Building**
• Placed concrete for Area 1 basemat to elevation 100 feet.

**Unit 4 Cooling Tower**
• Continued installation of internal precast supports and columns, permanent lighting, permanent handrails and access ladder.

**Balance of Plant**
• Continued to progress towards completion of Buildings 304 and 305.
• Buildings 307 and 322 turned over from WEC to SNC.
• Continued installation of underground pipe, electrical duct banks and cables.
• Completed civil construction of the Unit 3 waste water retention basin.
• Continued installation of the initial energization ground grid.
• Began construction of the raw water system floor and walls.

**Photo 7 – Communications Support Center**
Transmission/Switchyard

- Commenced the non-seg/isophase bus steel installation.
- Completed testing, dress-out and oil fill of the Unit 3 Reserve Auxiliary Transformers (“RAT”).
- Completed construction and pre-operational testing for the 230kV RAT lines and Unit 3 Transformer Switchyard.
- Completed the foundation for the Unit 4 Transformer Pad.
- Completed physical construction and breaker testing for the Unit 4 500kV Switchyard.

Licensing

- The Company received amendments to the Combined Operating License from the NRC during the Reporting Period that support construction activities as submitted by the following License Amendment Requests (“LAR”):
  - LAR-15-005, which requested changes to the Diverse Actuation System (“DAS”) Cabinet (Amendment No. 50);
  - LAR-15-021, which requested changes to Wall 11 design (Amendment No. 51);
  - LAR-16-001, which requested incorporation of the Core Reference Report into the Licensing Basis (Amendment No. 52);
  - LAR-16-005, which requested changes to the Core Makeup Tank Volume (Amendment No. 53);
  - LAR-15-004, which requested changes to the Consolidation of Uninterruptible Power Supply System Spare Battery Termination Boxes (Amendment No. 54);
  - LAR-16-004, which requested changes to the PXS design to address Potential Gas Intrusion (Amendment No. 55);
  - LAR-16-008, which requested Tier 1 editorial and consistency changes (Amendment No. 56);
  - LAR-15-011, which requested changes to the Radiologically Controlled Area Ventilation System (“VAS”) design (Amendment No. 57);
  - LAR-16-014, which requested changes to the Fire Pump Head and Diesel Fuel Day Tank (Amendment No. 58);
  - LAR-16-003, which requested changes to the Column Line N Wall ITAAC dimensions (Amendment No. 59);
  - LAR-16-020, which requested changes to the Qualified Data Processing System and Safety Display description (Amendment No. 60);
  - LAR-15-003, which requested changes to the Containment Hydrogen Igniter system (Amendment No. 61);
o LAR-16-012, which requested changes to the Automatic Depressurization System ("ADS") Stage 2, 3 and 4 Valve Flow Area changes and clarifications (Amendment No. 62); and
o LAR-16-013, which requested changes to the Debris Screen Related dimensions (Amendment No. 63).

**ITAAC**
- The Company planned and submitted 144 ICN in 2016.
- The Company also submitted 291 Uncompleted ITAAC Notifications ("UINs") to the NRC in 2016 (283 UINs originally planned).
- Submitted 113 ICNs and 171 UINs during the Reporting Period.
- Cumulative ICNs to date:
  o 181 submitted with 65 verified complete by the NRC.

**E. Operational Readiness**

**Transitioning to Operations**
- As the Project continues to progress toward operations, several key milestones were achieved during the Reporting Period.
  o Start Initial License Class #1 NRC exam.
  o Unit 3 – SNC Ready for Start of Initial Energization
  o Main Warehouse in Operation
  o Critical Spares Identified and Dispositioned
- The Company leveraged operational program development and established a turnover and acceptance process to systematically take over plant ownership from the Contractor.
  o The Company’s Operations, Maintenance and Engineering organizations are involved in the system turnover process as an integrated turnover acceptance team.
  o Company Operational Readiness personnel took ownership of the operation and maintenance of certain ancillary systems at Training Center B.
- The Company is engaged with WEC’s Component and Preoperational Test programs to leverage the testing effort to build staff knowledge, capabilities and ownership. The cross-organizational effort has the added benefit of improved oversight of WEC testing efforts, driving results within the testing organization and challenging construction completion efforts and schedule. Specific examples include:
  o Company Operators performed the clearance and tagging activities in the Auxiliary Pumphouse.
  o Company maintenance personnel performing component testing; and
  o Company engineering personnel engaging in preoperational testing as test engineers.
- A cross-functional team, including WEC, SCE&G and Company personnel, was formed to ensure configuration management of the plant and simulator, as well as efficient implementation of the Instrumentation and Controls design upgrade from Baseline 7 to Baseline 8.
Building the Operational Readiness Organization

- To ensure a successful transition to operations, the Company’s Operational Readiness organization is focused on establishing a high functioning team and developing its capabilities.
  - The Operational Readiness organization continues to manage resources by hiring maintenance technicians, engineers, chemistry technicians, security staff and operators.
- Project management dedicated time and resources toward personnel development, staffing, training, and qualification.
  - Initial License Training (“ILT”) Class 1 was completed with 18 operators passing the exam. ILT Class 2 is expected to complete in the first half of 2017. ILT Class 3 is expected to complete in 2018.
  - The Chemistry, Engineering and Maintenance training programs are in progress and continue to support Operational Readiness activities.
  - Radiation Protection training is scheduled to begin in 2017 to support emergency response drills and startup activities.
- A dedicated project team is managing final plant design and software configuration.
- Continued rotation of personnel between Construction and Operational Readiness to increase knowledge of the plant which benefits future Operations and Maintenance (“O&M”) work activities.

Testing, Turnover, and Start-up

- The Company’s Operational Readiness ITP organization is providing oversight to the Contractor’s ITP organization testing activities to improve process efficiencies, capture lessons learned, integrate Operational Readiness activities into the Contractor’s IPS and provide recommendations to the Contractor for testing improvements.
- Engineering and Operations personnel are progressing through the ITP Support Qualifications.
- Auxiliary Pumphouse (Building 315) activities continue to progress. Turnover of the first systems from construction to the Contractor’s ITP organization commenced in the fourth quarter of 2016.
  - Acceptance/turnover readiness review challenges occurring to ensure procedures and processes are in place to execute.
  - ITP oversight surveillances were performed on the completed testing activities to identify gaps and lessons learned.
- The ITP Administration Manual is a collection of procedures that govern how to implement testing on the Project. The NRC began the inspection of the ITP Administration Manual on January 23, 2017.

Digital Instrumentation and Controls

- NRC conducted several inspections during the Reporting Period; all resulting in no non-conformances or findings.
- Continued factory acceptance testing of digital control systems equipment/software.
The majority of the digital instrumentation and controls equipment are on-site.
  o The Unit 3 Plant Monitoring System (“PMS”) was delivered.
  o The Unit 4 PMS shipment was deferred to Spring 2017 to allow hardware changes to be implemented.
  o Radiation Monitoring System (“RMS”) shipment was delayed to early 2017 to address regulatory requirements for Special Nuclear Material (“SNM”) storage.

Updated digital systems software is planned to be released in batches to support ITP activities.
  o Batch 1 is expected to be released in the first quarter of 2017 to support Initial Energization.
  o Batches 2 and 3 are expected to be released in the third quarter of 2017 to support Cold Hydro and Hot Functional Testing.
  o Batch 4 is expected to be released in the first quarter of 2018 to support Nuclear Application Programs and Cyber Hardening of systems.
  o The batches are expected to be released to the SNC Simulator group for installation starting in March 2018 for Simulator 3A and May 2018 for Simulator 3B.

Cyber Security
  o The Contractor completed identification of the Critical Systems, identifying 90 systems, and evaluated those systems for Critical Digital Assets (“CDAs”).
  o The Contractor completed initial identification of CDAs, reviewing over 47,000 components and identifying more than 5,400 CDAs.
  o The Cyber Security Assessment Team (“CSAT”) continued oversight of the Contractors’ CDA identification efforts.
  o The Contractor has initiated assessments for the CDAs identified.
  o The Company initiated development of the internal SNC Vogtle 3 and 4 Cyber Security Program including issuance of the first procedures for control of Portable Mobile Media Devices (“PMMDs”).

Programs, Processes, and Procedures
  o The Company has developed an integrated Operational Readiness schedule that contains activities representing training, program development, ITAAC development and completion, and procedure development.
     o 59 of 96 programs have been approved by the Plant Review Board (“PRB”).
     o Initiated Phase II of the Equipment Reliability effort in partnership with SCE&G.
     o Completed, in conjunction with the Contractor, initial Pre-Service Inspection program inspections for both Units 3 and 4. The NRC also completed their initial inspection of the program with no findings.

Integrate the Four Unit Site
  o Approval of the common fleet emergency plan with a Vogtle 3 and 4 annex is expected from the NRC in the second quarter of 2017.
- Submitted a LAR to update the Emergency Preparedness Emergency Action Levels ("EALs") to the NRC and expect approval in the second quarter of 2017.
- Developed and validated three Emergency Preparedness ("EP") drill scenarios.
- Completed training for the first set of security officers to support construction-related activities within the Vogtle 1 and 2 controlled areas.
13. Omitted per 9th/10th VCM Order.
14. An updated comparison of the economics of the certified project to other capacity options.

The economic analysis performed for this 16th VCM Report has relied on the methodologies used in all previous economic evaluations conducted in Docket Nos. 27800 and 29849. The economic evaluation presented in this 16th VCM Report includes updates of all major underlying planning assumptions including fuel forecasts, load forecasts, and new generation technology costs.

The estimate of the capital cost to complete the Project has been updated from the 15th VCM Report along with pre-in-service O&M, post-in-service O&M, ad valorem taxes, spare parts inventories and nuclear fuel. Reflecting the terms of the Georgia Public Service Commission Order dated January 3, 2017, the equity cost of capital as applied to the Vogtle 3 and 4 capital expenditures is now set at 10.00% for years 2017 through 2020 and set at 10.95% beginning in 2021 through the end of life. However, the overall marginal cost of capital used in discounting the life-cycle revenue requirements has not changed from the 15th VCM. Decommissioning costs, spent fuel storage costs, post-in-service ongoing capital additions and the assumed operating characteristics of the Project have not changed. The analysis demonstrates that completing the Project remains the best cost option for our customers.

The analyses provided do not incorporate the revised forecasted in-service dates. A revised IPS has not yet been supplied by the Contractor, and this information is needed to properly reflect the impact of a change in schedule on the timing of capital spend and its resulting impact on the economic analysis. In addition, given the duration of the schedule extension and inclusion of the Contractor’s forfeiture of early completion bonuses, incorporating this information is unlikely to significantly change the results.

Also, the analyses provided do not include any potential cancellation fees or any fully-committed construction costs that would not be avoidable in the event the Project is cancelled. These costs have not been determined but could be in the hundreds of millions of dollars. Therefore, it is expected that inclusion of these costs in the analysis will have a considerable impact in favor of completing the Project. Since the results presented reflect significant savings to customers across a wide range of possible future fuel and carbon prices, a cancellation assessment is not warranted at this time.
Table 14.1

Relative Savings of the Project versus CC as of February 28, 2017
“Incremental Cost to Complete”
(In 2016 Dollars)
(Net present value of lifetime costs of CC minus the Project)

<table>
<thead>
<tr>
<th>Fuel \ CO₂</th>
<th>$0 CO₂</th>
<th>$10 CO₂</th>
<th>$20 CO₂</th>
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<tr>
<td>High</td>
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<tr>
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<tr>
<td>Low</td>
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<td>($274,000,000)</td>
<td>$436,000,000</td>
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</table>

Positive number means the Project is less costly than the gas-fired CC alternative.

The weighted average expected value of the relative savings for completion of the Project as compared to the gas-fired CC alternative is $1.7 billion based on the results provided in Table 14.1.

Table 14.2

Relative Savings of the Project versus CC as of February 28, 2017
“Break-Even Cost to Complete”
(In 2016 Dollars)
(Maximum Cost to Complete the Project and Remain Economic)

<table>
<thead>
<tr>
<th>Fuel \ CO₂</th>
<th>$0 CO₂</th>
<th>$10 CO₂</th>
<th>$20 CO₂</th>
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<td>$2,145,000,000</td>
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</table>

If the value is higher than the current estimated cost to complete of $1.7 billion of in-service and construction financing costs, the Project benefits customers. On an expected value basis, the Company’s results indicate that the cost to complete the Project could increase by $1.6 billion over the current estimated cost to complete the Project before becoming uneconomic. (This value can be derived by averaging the results from the nine scenarios above and then subtracting the current estimated cost to complete).
Table 14.3

Relative Savings of the Project versus CC as of February 28, 2017
June 2021 / June 2022 In-service (24 Month Delay) Scenario
“Break-Even Cost to Complete”
(In 2016 Dollars)
(Maximum Cost to Complete the Project and Remain Economic)

<table>
<thead>
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<th>$10 CO₂</th>
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</tr>
<tr>
<td>Moderate</td>
<td>$2,324,000,000</td>
<td>$2,995,000,000</td>
<td>$3,741,000,000</td>
</tr>
<tr>
<td>Low</td>
<td>$779,000,000</td>
<td>$1,490,000,000</td>
<td>$2,104,000,000</td>
</tr>
</tbody>
</table>

If the value is higher than this scenario’s estimated cost to complete of $2.4 billion of in-service and construction financing costs, the Project benefits customers.

Table 14.4

Relative Savings of the Project versus CC as of February 28, 2017
June 2022 / June 2023 In-service (36 Month Delay) Scenario
“Break-Even Cost to Complete”
(In 2016 Dollars)
(Maximum Cost to Complete the Project and Remain Economic)

<table>
<thead>
<tr>
<th>Fuel \ CO₂</th>
<th>$0 CO₂</th>
<th>$10 CO₂</th>
<th>$20 CO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>$4,658,000,000</td>
<td>$5,095,000,000</td>
<td>$5,839,000,000</td>
</tr>
<tr>
<td>Moderate</td>
<td>$2,495,000,000</td>
<td>$3,172,000,000</td>
<td>$3,914,000,000</td>
</tr>
<tr>
<td>Low</td>
<td>$969,000,000</td>
<td>$1,673,000,000</td>
<td>$2,302,000,000</td>
</tr>
</tbody>
</table>

If the value is higher than this scenario’s estimated cost to complete of $2.7 billion of in-service and construction financing costs, the Project benefits customers.
Table 14.5

Relative Savings of the Project versus CC as of February 28, 2017
June 2023 / June 2024 In-service (48 Month Delay) Scenario
“Break-Even Cost to Complete”
(In 2016 Dollars)
(Maximum Cost to Complete the Project and Remain Economic)

<table>
<thead>
<tr>
<th>Fuel \ CO₂</th>
<th>$0 CO₂</th>
<th>$10 CO₂</th>
<th>$20 CO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>$4,841,000,000</td>
<td>$5,278,000,000</td>
<td>$6,022,000,000</td>
</tr>
<tr>
<td>Moderate</td>
<td>$2,706,000,000</td>
<td>$3,387,000,000</td>
<td>$4,135,000,000</td>
</tr>
<tr>
<td>Low</td>
<td>$1,199,000,000</td>
<td>$1,911,000,000</td>
<td>$2,538,000,000</td>
</tr>
</tbody>
</table>

If the value is higher than this scenario’s estimated cost to complete of $3.1 billion of in-service and construction financing costs, the Project benefits customers.

**Economic Analysis Conclusion / Summary of Results**

In summary, these analyses clearly indicate that the Project would remain economic despite the additional costs associated with the delay scenarios. The delay scenarios do not represent the Company’s projection for the ultimate outcome of the Project but instead represent the delay scenarios ordered by the Commission in the 8th VCM proceeding.
15. The Company will be under a continuing obligation to supplement its response to PIA Staff DR STF-TN-1-2 by ensuring that the financing data reflected in the schedules attached to that DR response reflect the most current and updated information at the time of each semi-annual monitoring report. In addition, the Company will provide the most current information shared with each of the Rating Agencies.

Simultaneous with this filing, the Company has filed supplemental PIA Staff DR STF-TN-1-2, and has included in that filing the most current information shared with each of the Rating Agencies.