

# VOGTLE

## UNITS 3&4

 Georgia Power

 Southern Nuclear

# Vogtle 3 and 4 Update



**NUCLEAR DEVELOPMENT**

### **Cautionary Note Regarding Forward-Looking Statements**

Certain information contained in this presentation is forward-looking information based on current expectations and plans that involve risks and uncertainties. Forward-looking information includes, among other things, statements concerning the expected timing of completion of Plant Vogtle Units 3 and 4, job creation and the expected impact on customer rates. Georgia Power cautions that there are certain factors that could cause actual results to differ materially from the forward-looking information that has been provided. The reader is cautioned not to put undue reliance on this forward-looking information, which is not a guarantee of future performance and is subject to a number of uncertainties and other factors, many of which are outside the control of Georgia Power; accordingly, there can be no assurance that such suggested results will be realized. The following factors, in addition to those discussed in Georgia Power's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, and subsequent securities filings, could cause actual results to differ materially from management expectations as suggested by such forward-looking information: the impact of recent and future federal and state regulatory changes, as well as changes in application of existing laws and regulations; the uncertainty surrounding recently enacted tax reform legislation, including implementing regulations and Internal Revenue Service interpretations, actions that may be taken in response by regulatory authorities, and its impact, if any, on the credit ratings of Georgia Power; current and future litigation or regulatory investigations, proceedings, or inquiries; available sources and costs of fuels; the ability to control costs and avoid cost overruns during the development and construction of facilities, which includes the development and construction of generating facilities with designs that have not been previously constructed, including changes in labor costs and productivity, adverse weather conditions, shortages and inconsistent quality of equipment, materials, and labor, contractor or supplier delay, non-performance under construction, operating, or other agreements, operational readiness, including specialized operator training and required site safety programs, unforeseen engineering or design problems, start-up activities (including major equipment failure and system integration), and/or operational performance; state and federal rate regulations and the impact of pending and future rate cases and negotiations, including rate actions relating to fuel and other cost recovery mechanisms; the ability to construct facilities in accordance with the requirements of permits and licenses (including the satisfaction of Nuclear Regulatory Commission requirements), to satisfy any environmental performance standards and the requirements of tax credits and other incentives, and to integrate facilities into the Southern Company system upon completion of construction; advances in technology; legal proceedings and regulatory approvals and actions related to Plant Vogtle Units 3 and 4, including Georgia Public Service Commission approvals and Nuclear Regulatory Commission actions; and the ability of counterparties of Georgia Power to make payments as and when due and to perform as required. Georgia Power expressly disclaims any obligation to update any forward-looking information.





# Vogtle 3 and 4 Overview

- **Two units:** 1,117 MW each
- **Technology:** Westinghouse AP1000
- **Location:** Waynesboro, Ga.
- **Workforce:** More than 7,000
- **When completed, Vogtle 1-4:**
  - Will be the largest nuclear energy facility in U.S.
  - Expected to power 1+ million homes and businesses
- **Operating life:** 60-year license

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# Vogtle 3 and 4 Timeline

- 2006** Southern Nuclear files for Early Site Permit with NRC
- 2009** Georgia PSC approves construction of units 3 and 4  
NRC issues Early Site Permit  
Preliminary site work begins
- 2012** NRC issues Construction and Operating License (COL)  
Full construction begins
- 2021** Unit 3 expected to begin commercial operation
- 2022** Unit 4 expected to begin commercial operation

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# Project Co-owners



**Georgia Power**  
45.7 percent



**Oglethorpe Power Corporation**  
30 percent



**MEAG POWER**  
22.7 percent



**Dalton**  
UTILITIES  
1.6 percent

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# The Path Forward

- Westinghouse filed bankruptcy in March 2017
- Transition of project management from Westinghouse to Southern Nuclear and Georgia Power
- Bechtel selected as primary contractor
- The Georgia PSC unanimously approves Georgia Power's recommendation to complete units 3 and 4
- Co-owners have voted to continue construction

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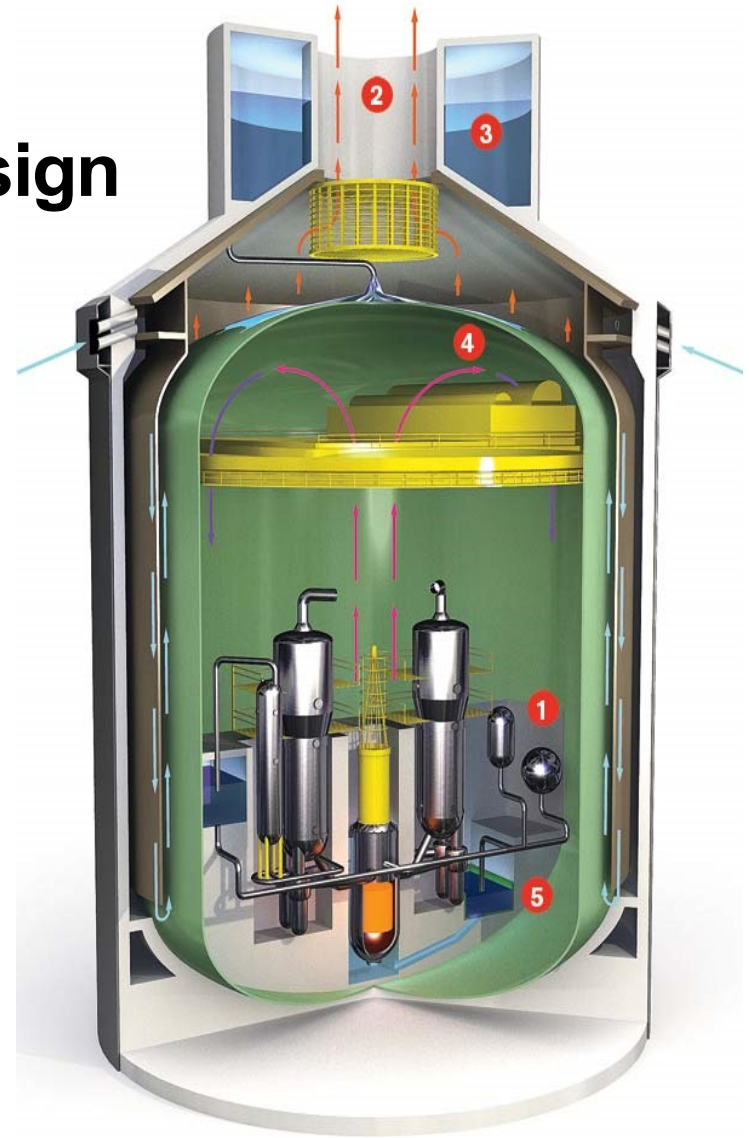
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# AP1000 (Advanced Passive) Design

- AC electrical power not required for safe shutdown
- Operator actions not required for 72 hours to maintain core and containment cooling
- Designed for core to remain covered with water
- Capable of holding more than 800,000 gallons of water



# Vogtle 3 and 4 Customer Impact

- The projected peak rate impact for Georgia Power customers has been reduced to **10.4 percent**, with more than half of this impact already in place on bills
- This projected rate impact is well below original projections of approximately **12 percent**
- New federal tax laws, anticipated customer benefits from federal production tax credits (PTCs), interest savings from DOE loan guarantees, and the fuel savings of nuclear energy have minimized the rate impact



# Vogtle 3 and 4 Fun Facts

- Largest lift: 2 million pounds (CA20 module)
  - 3X heavier than the Statue of Liberty
- More than 600,000 cubic yards of concrete have been poured to construct units 3 and 4
  - More than 60,000 concrete truck loads
  - Would build a sidewalk from Miami to Seattle

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# Vogtle 3 and 4 Site



Vogtle Units 3&4

December 2018

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# Unit 3



Vogtle Unit 3

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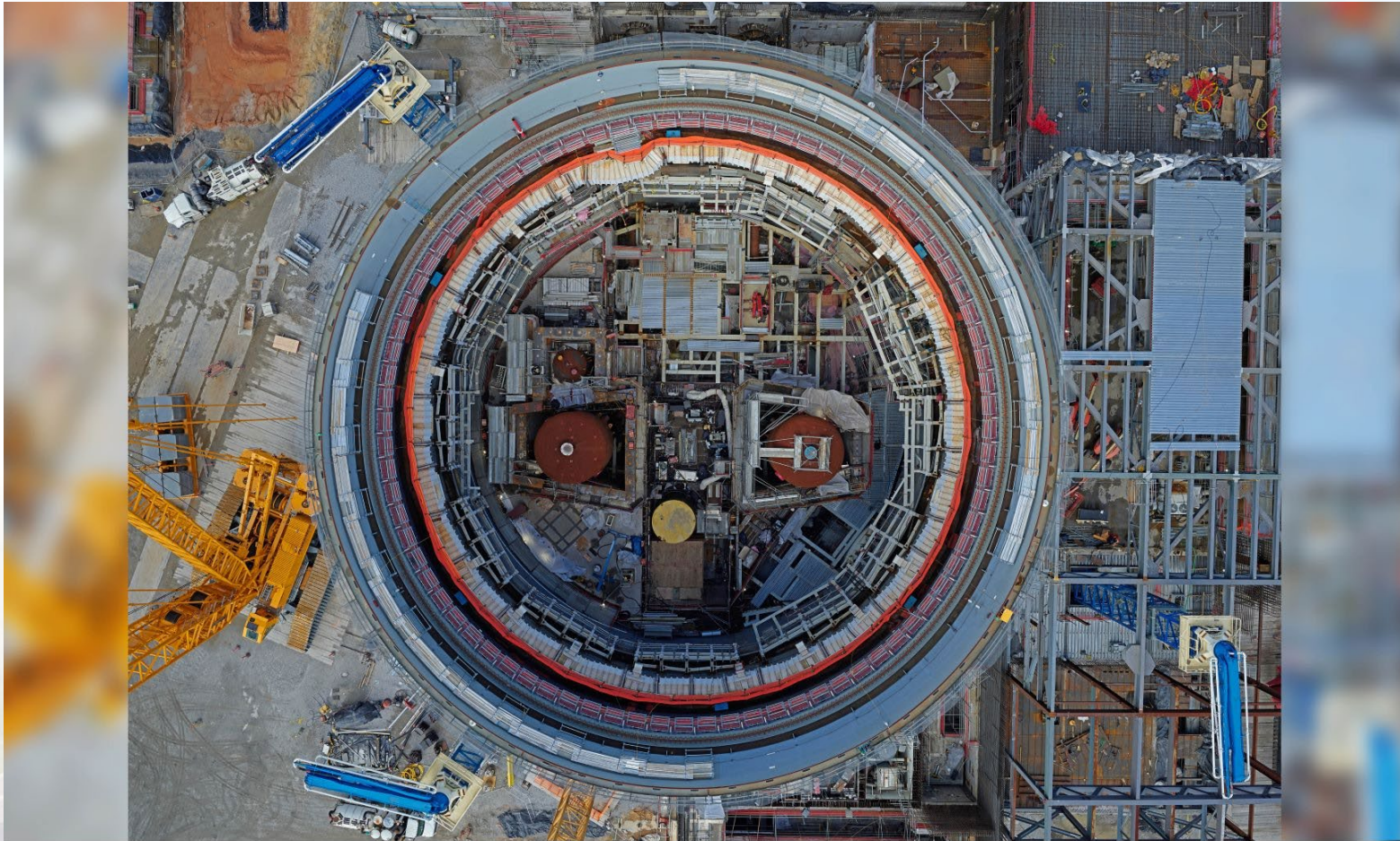
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# Unit 3 Nuclear Island



Vogtle Unit 3 Containment Vessel

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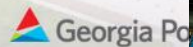
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# Unit 3 Ring 3 Placement



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# Unit 3 Reactor Vessel



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# Unit 4



Vogtle Unit 4

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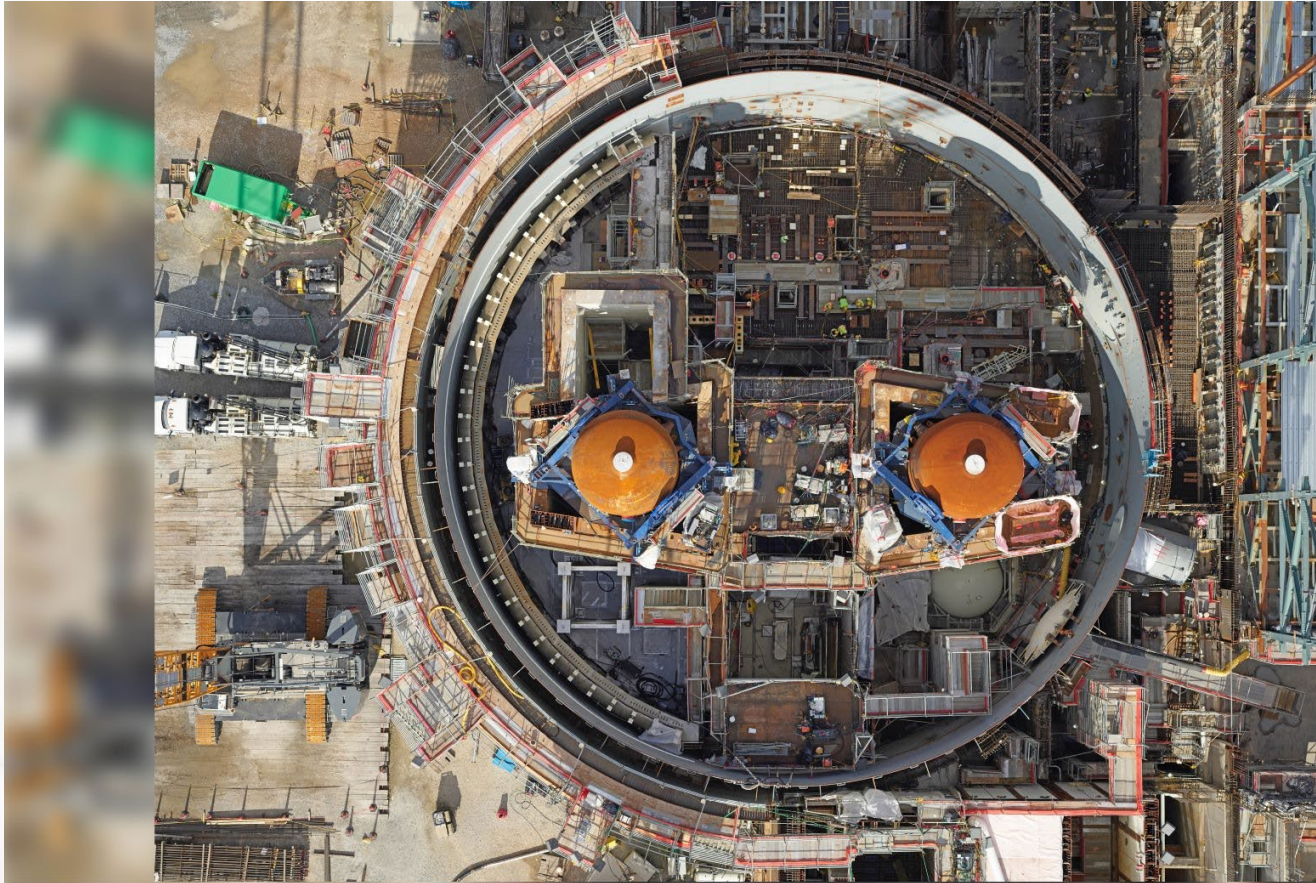
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# Unit 4 Containment Vessel



Vogtle Unit 4 Containment Vessel

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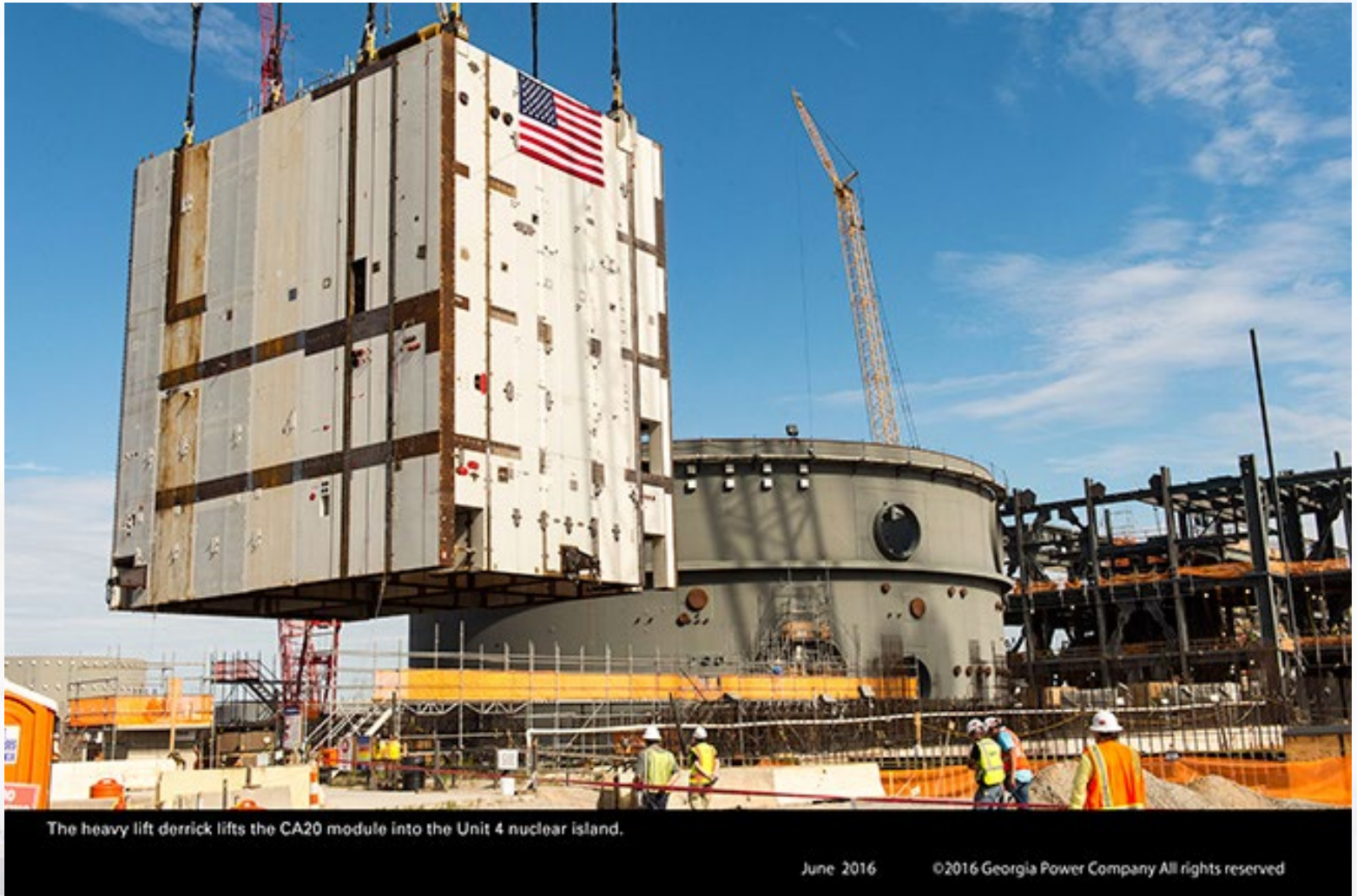
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# Unit 4 CA20 Module



The heavy lift derrick lifts the CA20 module into the Unit 4 nuclear island.

June 2016

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# Module Assembly Building



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