

## Georgia Power receives first nuclear fuel shipment for Vogtle Unit 3

**Represents the first nuclear fuel delivery for the newly-designed reactor in the U.S.**

**Signifies a major step for the nuclear expansion project towards operations**

**Unit 3 construction is now approximately 96% complete**



ATLANTA, Dec. 9, 2020 /PRNewswire/ -- Georgia Power has received the first nuclear fuel shipment for Vogtle Unit 3, representing the first nuclear fuel shipment for this newly-designed AP1000 reactor in the U.S. The milestone marks a major step for the Vogtle 3 & 4 nuclear expansion project towards operations and providing customers with a carbon-free energy source that is expected to put downward pressure on rates for decades to come.

"Since the start, the Vogtle expansion project has been an investment in our energy future. Today, as we receive our first nuclear fuel shipment, we remain committed to realizing the benefits this project will provide not only to our customers, but also our state and our country," said Paul Bowers, chairman and CEO of Georgia Power. "Achieving this historic milestone brings us closer to fuel load expected in April 2021, and, once online, these new nuclear units will provide clean, carbon-free energy for the next 60 to 80 years."

In order to receive nuclear fuel, construction of specific areas of Unit 3 had to be completed and inspected, ensuring critical infrastructure, such as the fuel vault and spent fuel pool, meet construction quality and design requirements. With site construction turning over the fuel handling area of Vogtle Unit 3 to operations, the Vogtle 3 & 4 site implemented specific and comprehensive policies, procedures and security measures to safely receive, handle and store the nuclear fuel.

With the receipt of the first nuclear fuel assemblies, the Vogtle 3 & 4 project remains focused on one of the last major milestones ahead for Unit 3, hot functional testing. This series of tests is the last critical step before fuel load and ultimately in-service operation.

### **Carbon-free energy source**

The new Vogtle units are an essential part of Georgia Power's commitment to deliver safe, clean, reliable and affordable energy for customers and play a significant role in supporting Southern Company's goal of net-zero carbon emissions by 2050.

Once operating, the two new units at Plant Vogtle will be able to power more than 500,000 homes and businesses. A diverse fuel mix, including nuclear, is also essential to maintaining a reliable and affordable energy infrastructure that attracts new investment, supports economic growth and creates jobs.

### **Nuclear fuel process**

One nuclear fuel pellet, roughly the size of a pencil eraser, provides as much energy as one ton of coal or nearly 150 gallons of oil. The nuclear fuel pellets are enclosed in nuclear fuel rods, which are then part of nuclear fuel assemblies. Consisting of 157 fuel assemblies with each measuring 14 feet tall, the fuel will be loaded into the reactor vessel to support startup once the reactor begins operating. After the initial fueling, approximately one third



of the total fuel assemblies will be replaced during each refueling outage after the units begin operating, similar to the process used at existing Vogtle Units 1 & 2.

Earlier this year, the Vogtle 3 & 4 project team successfully completed the pre-startup review process conducted by the World Association of Nuclear Operators (WANO), which assessed the Vogtle 3 & 4 nuclear expansion project's readiness to operate the new AP1000 reactors with safety and quality as the primary focus.

### **2020 Milestones Achieved**

- **Completion of Cold Hydro Testing for Unit 3** – Confirmed the reactor's coolant system functions as designed and verified the welds, joints, pipes and other components of the coolant system and associated high-pressure systems do not leak when under pressure.
- **Emergency Preparedness Drill** – Vogtle 3 & 4 completed a required emergency preparedness exercise for a simulated emergency event for Vogtle Unit 3. Teams participated in the simulation and demonstrated their ability to effectively and efficiently respond and protect the health and safety of the public.
- **Vogtle 3 & 4 Operators Receive Licenses** – The Nuclear Regulatory Commission (NRC) issued the first operator licenses to 62 Reactor and Senior Reactor Operators for Vogtle 3 & 4. To receive a nuclear operator license from the NRC, license holders must demonstrate they possess the required knowledge, skills and abilities to safely and effectively operate the plant.
- **Completion of Closed Vessel Testing** – The completion of this milestone prepared Unit 3 for cold hydro testing. Closed vessel testing verified the pipes and valves in the Unit 3 reactor coolant system were installed as designed and helped ensure safety systems function properly.
- **Completion of the Structural Integrity Test and Integrated Leak Rate Test** – Both tests were completed in succession and demonstrated the Unit 3 containment vessel meets construction quality and design requirements.
- **Placement of the final module for Unit 3** – The water tank that sits atop the containment vessel and shield building roof, known as module CB-20, is a major part of the AP1000 reactor's advanced safety system and will hold approximately 750,000 gallons of water ready to flow down in the unlikely event of an emergency to help cool the reactor.
- **Placement of the Unit 3 integrated head package (IHP) atop the reactor vessel** – Standing 48 feet tall, weighing 475,000 pounds and containing more than three miles of electrical cables, the IHP will eventually be used by highly-trained nuclear operators to monitor and control the nuclear reaction that will occur inside the Unit 3 reactor vessel.
- **Completion of Open Vessel Testing for Unit 3** – This successfully demonstrated how water flows from the key safety systems into the reactor vessel ensuring the paths are not blocked or constricted, and confirmed the pumps, motors, valves, pipes and other components of the systems function as designed.
- **Placement of the polar crane and containment vessel top for Unit 4** – This signified that all major lifts inside the containment vessels for both units are complete.

With more than 7,000 workers on site, and more than 800 permanent jobs available once the units begin operating, Vogtle 3 & 4 is currently the largest jobs-producing construction project in the state of Georgia.

### **Photos Highlight Progress**

Follow the progress being made at the site of the nation's first new nuclear units in more than 30 years through the [Plant Vogtle 3 & 4 Online Photo Gallery](#) and [Georgia Power's YouTube channel](#).

### **About Georgia Power**

Georgia Power is the largest electric subsidiary of Southern Company (NYSE: SO), America's premier energy

company. Value, Reliability, Customer Service and Stewardship are the cornerstones of the company's promise to 2.6 million customers in all but four of Georgia's 159 counties. Committed to delivering clean, safe, reliable and affordable energy at rates below the national average, Georgia Power maintains a diverse, innovative generation mix that includes nuclear, coal and natural gas, as well as renewables such as solar, hydroelectric and wind. Georgia Power focuses on delivering world-class service to its customers every day and the company is recognized by J.D. Power as an industry leader in customer satisfaction. For more information, visit [www.GeorgiaPower.com](http://www.GeorgiaPower.com) and connect with the company on Facebook ([Facebook.com/GeorgiaPower](https://Facebook.com/GeorgiaPower)), Twitter ([Twitter.com/GeorgiaPower](https://Twitter.com/GeorgiaPower)) and Instagram ([Instagram.com/ga\\_power](https://Instagram.com/ga_power)).

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

Certain information contained in this release 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 schedule for completion of construction and start-up of Plant Vogtle units 3 and 4, including expected timing of fuel load, expected job creation and rate impacts, and carbon emissions reduction goals. Georgia Power cautions that there are certain factors that can 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 year ended December 31, 2019, Quarterly Reports on Form 10-Q for the quarters ended March 31, 2020, June 30, 2020, and September 30, 2020, and subsequent securities filings, could cause actual results to differ materially from management expectations as suggested by such forward-looking information: the potential effects of the continued COVID-19 pandemic, including, but not limited to, extended disruptions to supply chains and further reduced labor availability and productivity, which could have a variety of adverse impacts, including a negative impact on the ability to develop, construct, and operate facilities, including, but not limited to, Plant Vogtle Units 3 and 4; the ability to control costs and avoid cost and schedule overruns during the development, construction, and operation of facilities or other projects, including Plant Vogtle Units 3 and 4, which includes components based on new technology that only within the last few years began initial operation in the global nuclear industry at this scale, and including changes in labor costs, availability and productivity, challenges with management of contractors or vendors, subcontractor performance, adverse weather conditions, shortages, delays, increased costs, or inconsistent quality of equipment, materials, and labor, contractor or supplier delay, delays due to judicial or regulatory action, nonperformance under construction, operating, or other agreements, operational readiness, including specialized operator training and required site safety programs, engineering or design problems, design and other licensing-based compliance matters, including, for nuclear units, the timely submittal by Southern Nuclear of the Inspections, Tests, Analyses, and Acceptance Criteria documentation for each unit and the related reviews and approvals by the NRC necessary to support NRC authorization to load fuel, challenges with start-up activities, including major equipment failure, or system integration, and/or operational performance; the ability to overcome or mitigate the current challenges at Plant Vogtle Units 3 and 4, including, but not limited to, those related to COVID-19, that could further impact the cost and schedule for the project; legal proceedings and regulatory approvals and actions related to construction projects, such as Plant Vogtle Units 3 and 4, including Public Service Commission approvals and NRC actions; under certain specified circumstances, a decision by holders of more than 10% of the ownership interests of Plant Vogtle Units 3 and 4 not to proceed with construction and the ability of other Vogtle owners to tender a portion of their ownership interests to Georgia Power following certain construction cost increases; the ability to construct facilities in accordance with the requirements of permits and licenses (including satisfaction of NRC 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; the inherent risks involved in operating and

constructing nuclear generating facilities; the ability of counterparties of Georgia Power to make payments as and when due and to perform as required; the direct or indirect effect on Georgia Power's business resulting from cyber intrusion or physical attack and the threat of physical attacks; catastrophic events such as fires, earthquakes, explosions, floods, tornadoes, hurricanes and other storms, droughts, pandemic health events or other similar occurrences; and the direct or indirect effects on Georgia Power's business resulting from incidents affecting the U.S. electric grid or operation of generating or storage resources. Georgia Power expressly disclaims any obligation to update any forward-looking information.

SOURCE Georgia Power



*Georgia Power has received the first nuclear fuel shipment for Vogtle Unit 3, representing the first nuclear fuel shipment for this newly-designed AP1000 reactor in the U.S. Photo Credit: Georgia Power*

For further information: Media Relations, (404) 506-7676 or (800) 282-1696, [www.georgiapower.com](http://www.georgiapower.com)