

CLIMATE

# The U.S. Backs Off Nuclear Power. Georgia Wants to Keep Building Reactors.

By BRAD PLUMER AUG. 31, 2017

WASHINGTON — Even as the rest of the United States backs away from nuclear power, utilities in Georgia are pressing ahead with plans to build two huge reactors in the next five years — the only nuclear units still under construction nationwide.

On Thursday, Georgia Power asked state regulators to approve its proposal to complete the reactors at the Alvin W. Vogtle generating station near Augusta, home to two existing nuclear units built in the 1980s. The company, which has partnered with three other utilities on the project, said it expected the new reactors would cost roughly \$19 billion and come online in 2021 and 2022.

In July, South Carolina utilities abandoned efforts to build two similar reactors, advanced designs known as AP1000s, after delays and cost overruns associated with the project caused local utility bills to soar. That decision left Georgia as the American nuclear industry's sole hope for an expansion in the near term.

While China is building 20 nuclear reactors, including four AP1000s, the United States has largely abandoned the construction of costly new nuclear plants. Utilities have focused instead on building smaller, less financially risky plants fueled by natural gas, wind or solar power.

Ernest J. Moniz, a secretary of energy under President Barack Obama, warned in July that the decline of the domestic nuclear industry could mean the loss of a valuable tool to tackle climate change, since nuclear plants do not generate carbon

dioxide emissions. He also argued that ceding the global nuclear industry to China and Russia could weaken nonproliferation standards. “The U.S. position as a valued supplier is rapidly being eroded,” Mr. Moniz wrote.

For now, Georgia’s utilities insist they can succeed where South Carolina failed. In March, Georgia Power took over control of the Vogtle expansion after Westinghouse, the lead contractor in both states, filed for bankruptcy amid endless construction woes.

“Our experience provides every indication that we can do a better job than Westinghouse alone as we move forward to complete the project,” Paul Bowers, the chief executive of Georgia Power, said in a statement. “The two new units at Plant Vogtle will be in service for 60 to 80 years and will add another low-cost, carbon-free energy source to our already diverse fuel mix.”

But it is not certain that the Georgia reactors, first proposed in 2006, will actually be finished. In its filing, Georgia Power said that completion of the project depended on Congress extending a federal tax credit for new reactors. The company is also counting on \$3.7 billion in payments from Toshiba, the parent company of Westinghouse, as part of the latter’s bankruptcy agreement.

Georgia’s Public Service Commission will conduct a six-month review of the Vogtle expansion before making a final decision. In July, Stan Wise, the chairman of the commission, argued that Georgia may be better positioned to finish its reactors than South Carolina, in part because costs would be borne by a broader base of customers: 2.4 million for Georgia Power compared with 700,000 for South Carolina Electric & Gas.

The Vogtle expansion is also backed by \$8.3 billion in federal loan guarantees awarded by the Obama administration.

Critics noted that the Vogtle project could still be plagued by cost overruns, which would be passed on to ratepayers. The AP1000 is a novel reactor design, reported to have more safety features than previous models, and engineers have so far struggled with the project. Construction began before Westinghouse had finalized

its design, and several safety changes had to be made midway through the process that pushed costs far past the initial estimates of \$14 billion.

Utilities in other states have found the cost of large new reactors prohibitive. Last week, Duke Energy Florida announced it would spend \$6 billion expanding solar power while abandoning plans for a nuclear plant in Levy County estimated to cost as much as \$22 billion.

Meanwhile, more than a dozen older nuclear plants around the United States are retiring early in the face of low natural gas prices, portending a grim future for the industry.

Nuclear power still provides 20 percent of the United States' electricity, the largest source of carbon-free power. But in a recent interview, Maria G. Korsnick, head of the Nuclear Energy Institute, an industry group, said that share could fall below 10 percent by midcentury if retirements continue and few new units are built.

"We are in dire circumstances right now," Ms. Korsnick said.

A revival of nuclear power would depend on several factors, Ms. Korsnick said, none of them assured. States would need to act to support their existing fleets of financially troubled reactors, as New York and Illinois have done. Georgia Power would need to finish its AP1000s, allowing the United States to export the technology to the rest of the world.

Other companies would also have to develop smaller, more advanced reactors, meant to be easier to build than the hulking light-water reactors of old. In January, Oregon-based NuScale Power submitted the first application for a small modular reactor to federal regulators, but the technology remains unproven, and the company does not expect to build its first working reactor until the 2020s.

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