Westinghouse Bankruptcy Filing Could Put New U.S. Nuclear Projects at Risk

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Westinghouse Electric Company, a <u>major nuclear technology firm</u> that supplied nearly half of the 99 currently operating U.S. commercial reactors, <u>filed for bankruptcy reorganization</u> on March 29, 2017. The bankruptcy filing raised fundamental questions about the future of the U.S. nuclear power industry, and particularly whether four new reactors that Westinghouse is constructing for electric utilities in Georgia and South Carolina will be completed. The four reactors are the first to begin construction in the United States since the mid-1970s, and the nuclear industry had hoped they would pave the way for <u>many more</u>.

Because the Georgia two-reactor project, whose lead owner is Georgia Power, received \$8.3 billion in <u>loan guarantees</u> from the Department of Energy (DOE), <u>concerns have also been raised</u> about potential federal liability should the borrowers default. The South Carolina project, with lead owner South Carolina Electric and Gas (SCE&G), did not receive DOE loan guarantees.

The Japanese industrial conglomerate Toshiba Corporation bought the majority of Westinghouse in 2006. In 2008, Westinghouse signed fixed-price contracts to build two 1,150 megawatt <u>AP1000</u> reactors at the <u>Vogtle nuclear plant</u> in Georgia and two more at the <u>V.C. Summer</u> plant in South Carolina. The fixed-price nature of the contracts meant that Westinghouse and Toshiba were to bear most of the risk for schedule delays and cost overruns. The four reactors were originally scheduled to be completed by 2016-2018 at a cost (excluding interest) of about \$4.8 billion per unit at Vogtle, according to Georgia Power's most recent progress report, and \$5.7 billion for each of the new Summer units, according to a recent SCE&G regulatory filing. (Cost estimates by the two states differ in scope and methodology.)

Schedule delays and rising costs occurred at both plants soon after major construction began. Resulting lawsuits were <u>settled</u> at the end of 2015 with the utilities agreeing to pay for some of the rising costs but with Westinghouse and Toshiba agreeing to pay for any future delays and cost overruns. Toshiba <u>announced</u> February 14, 2017, that the cost estimates for completing the four units had risen another \$6.1 billion since the 2015 settlements. Westinghouse filed for bankruptcy six weeks later. In a <u>statement</u> released with the bankruptcy filing, Toshiba said total debt accrued to Westinghouse and related companies was \$9.8 billion, including the nuclear cost overruns.

Continuation of Georgia and South Carolina Reactors

Westinghouse is continuing to operate during its Chapter 11 bankruptcy reorganization with \$800 million in <u>financing</u>. In a <u>statement</u> on the bankruptcy, Westinghouse said it would continue building the Vogtle and Summer nuclear units "during an initial assessment period," <u>reported</u> to be through April 28, 2017. Whether construction will continue beyond that date depends on decisions by the project owners, state regulators, and possibly the federal government.

The two new Summer reactors were 60.9% complete at the end of 2016, according to SCE&G's most recent <u>quarterly</u> <u>status report</u>. This includes the completion of 94.9% of engineering work, 84.6% of procurement, and 30.9% of construction. Completion percentages are not included in Georgia Power's latest status report for the Vogtle project, but it has generally been proceeding in parallel with Summer. Current projected completion dates for the four units at both sites range from 2019 to 2020.

The possibility that Westinghouse will have to be replaced as the construction contractor is one of the largest issues facing the Summer and Vogtle projects. Westinghouse's bankruptcy statement said the company would continue its "core businesses," which notably exclude new reactor construction. If the Summer and Vogtle projects were to continue without Westinghouse as construction manager (although the AP1000 design would still be used), the utilities that purchased the plants would have to take over construction or hire new project contractors, potentially causing further delays and cost increases. If completion is delayed beyond 2020, the reactors would miss the deadline under current law to receive <u>nuclear production tax credits</u>.

Despite Westinghouse's bankruptcy filing, Toshiba has guaranteed to cover the cost overruns under the Westinghouse contracts. However, Toshiba's <u>FY2016 financial report</u> said the Westinghouse obligations and other financial conditions raise "substantial doubt about the Company's ability to continue as a going concern." The ability of the Summer and Vogtle owners to continue construction may depend partly on Toshiba's ability to pay the contract guarantees and whether the bankruptcy court orders Westinghouse to make any payments as well.

Because Georgia Power and SCE&G are under cost-based economic regulation, their decision to continue construction will depend largely on the extent to which their respective state utility commissions allow any additional cost increases to be passed through to electricity ratepayers. The other members of the Summer and Vogtle ownership groups are electric cooperatives and public power agencies that are not subject to state electricity rate regulation, but they will be equally dependent on the willingness of their members or constituents to pay any cost increases.

Department of Energy Loan Guarantees

DOE has issued \$8.3 billion in loan guarantees to the three primary members of the Vogtle ownership consortium (see **Table 1**). The guaranteed loans were issued by the <u>Federal Financing Bank</u>.

Congressional concern has arisen that the Westinghouse bankruptcy could place taxpayers at risk for the DOEguaranteed loans that have been issued to date. DOE's loan guarantee agreements with <u>Georgia Power</u> and <u>Oglethorpe</u> stipulate that if the Vogtle project is terminated, the borrowers must repay the entire outstanding loan amount in five years. (The MEAG agreement was not found in an online search.) In addition, Title XVII the <u>Energy Policy Act of</u> <u>2005</u>, which established the loan guarantee program, allows the Secretary of Energy to modify the loan agreement terms and take other steps upon a default.

Table 1. Guaranteed Loan Disbursements for Vogtle Project

(\$ in millions)

Borrower	Loan	Total	Remaining
	Guarantee	Disbursements,	Guaranteed
	Amount	2014-2016	Amount
Georgia Power	3,400	2,625	775

Total	8,300	5,332	2,968
Municipal Electric Authority of Georgia	1.800	1.137	663
Oglethorpe Power	3,100	1,570	1,530

Source: Federal Financing Bank, monthly press release, February 2014 to February 2017, available at <u>https://www.treasury.gov/ffb/press-releases.shtml</u>.