

Grid connection for Watts Bar 2

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Tennessee Valley Authority's (TVA's) Watts Bar unit 2 has supplied its first electricity to the power grid. The 1165 MWe (net) pressurized water reactor was synchronized to the grid on 3 June.



Reactor operator Bill Hahn synchronizes Watts Bar 2 to the TVA power grid (Image: TVA)

The unit will now undergo test runs of generation equipment, followed by full-plant testing of systems and controls at increasing reactor power levels up to 100% as it prepares for full power operation.

Watts Bar 2, near Spring City, Tennessee, reached first criticality on 23 May, over 40 years after construction of the unit first began in 1972. Work on the unit was suspended in 1985 when it was about 55% complete, but TVA decided to resume work in 2007, awarding an engineering, procurement and construction contract to Bechtel.

Upgrades in response to the Fukushima Daiichi accident of 2011 required by the Nuclear Regulatory Commission of all US nuclear power plants have been incorporated into Watts Bar 2, with orders related to post-Fukushima regulatory requirements and cyber security issues adding \$125 million to TVA's original \$4.5 billion estimate to complete the project. A total estimated

project cost of \$4.7 billion was approved by TVA's board in February.

"This is another major step in fully integrating Watts Bar unit 2 as the seventh operating unit in TVA's nuclear fleet," TVA chief nuclear operator Joe Grimes said.

The unit is expected to begin commercial operation later this summer.

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