



Browns Ferry Nuclear Plant



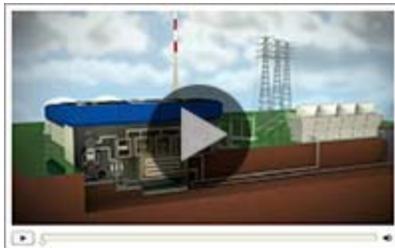
[Emergency Information Calendar](#)

[Emergency Planning Zone Map](#)

TVA's first nuclear plant, Browns Ferry is located on 840 acres beside Wheeler Reservoir on the Tennessee River, near Athens, Alabama. The plant is named after a ferry that operated at the site until the middle of the 20th century.

Browns Ferry's three boiling water reactors were the first in the world capable of powering generators that could produce more than 1,000 megawatts – 1 billion watts – of electricity each, making it the largest nuclear power plant in the world at that time.

How Browns Ferry Works



[Find out more about how Browns Ferry works](#)

The plant's maximum summer capacity of some 3,300 megawatts is about 10 percent of TVA's total generation capacity and enough electricity to meet the needs of about 2 million homes.

In 2010, Browns Ferry's total generation of 24,771,137 megawatt-hours was the second-highest among the nation's 104 commercial reactors, according to Electric Light & Power magazine.

TVA plans to increase the generating capacity of each unit at Browns Ferry to about 1,280 megawatts, following approval from the Nuclear Regulatory Commission and installation and implementation of modifications.

To improve generating capabilities in hot weather, TVA is investing \$160 million to construct a new cooling tower, upgrade four existing cooling towers, and improve cooling tower support systems at Browns Ferry.

TVA employs about 1,400 people to maintain and operate Browns Ferry.

The Browns Ferry Spirit Fund is an employee funded and volunteer-operated community assistance program that has helped plant and employee neighbors for more than 20 years.

Browns Ferry Unit 1

- TVA restarted Browns Ferry Units 2 and 3 in the 1990s. As part of a long-range integrated resource planning process, TVA deferred the decision in 1995 to recover Unit 1.
- In 2002, TVA completed a number of detailed studies and determined that restarting the long idled reactor was the best business decision to help meet growing demand for electricity in its service area.
- In 2002, when the TVA Board decided to authorize the restart project, TVA estimated Unit 1 would have to operate between seven and eight years to pay back the cost of recovery.
- When the \$1.9 billion project to restart Unit 1 completed in 2007 as scheduled, the payback period had dropped to about two and a half years due to the rising costs of power across the nation. In its first year of operation, Unit 1 saved TVA customers nearly \$800 million in avoided power purchases.
- The American Nuclear Society presented TVA with the 2007 Utility Achievement Award for Outstanding Improvement in Performance “in



recognition of the most extensive restart effort in the nuclear industry, culminating in the successful return to service of Unit 1 as the first nuclear generating plant to come online in more than a decade.”

Operating History

- Major construction on Browns Ferry began in 1967.
- Unit 1 began commercial operation on August 1, 1974.
- Unit 2 began commercial operation on March 1, 1975.
- Unit 3 began commercial operation on March 1, 1977.
- TVA shut down Browns Ferry and the rest of its nuclear fleet in 1985.
- TVA restarted units 2 and 3 in 1991 and 1995 respectively.
- TVA Board approved the restart of Unit 1 in May 2002.
- After an extensive recovery effort, Unit 1 became the nation’s first nuclear unit to come online in the 21st century when it was restarted on time in May 2007.
- Operating licenses for Browns Ferry Units 1, 2, and 3 were renewed in May 2006, which will allow continued operation of the units until 2033, 2034, and 2036.
- On April 7, 2012, with the beginning of a refueling outage at Unit 3, Browns Ferry set a site record for continuous operation of all three reactors. The new record – 114 days – was three days longer than the site’s previous best of 111 days set in 2011.