

Unit 1 Fact Sheet



The TVA Board approved the restart of Unit 1 in May 2002 after a detailed schedule and cost study.

Unit 1 first began commercial operation in 1974 and has been shut down since 1985.

Currently, Unit 1 provides 1,155 megawatts of power. TVA plans to eventually increase each unit's capacity to 1,280 megawatts following approval from the NRC and installation and implementation of modifications.

Engineering

In October 2002, TVA awarded a five-year contract to Bechtel Power Corp. to provide engineering and technical services for the restart of Browns Ferry Unit 1 at a cost not to exceed \$300 million. TVA provided overall management of the project.

TVA planned the recovery effort in a manner so that designs were completed before the start of modifications to the plant.

Initial engineering focused on design changes required in the primary containment structure, a portion of the reactor building, and on regulatory programs.

After 17 months, in October 2003, the Browns Ferry Unit 1 restart project began to close out the engineering effort. The project then began to shift its focus from engineers producing design changes toward skilled craft workers doing the work necessary to repair or replace plant equipment and return systems to service.

The engineering was completed as planned with all design changes issued for the drywell and reactor building in October 2003, for the control building in December 2003, and for the turbine building in March 2004.

The peak engineering staffing was about 525 employees in mid-2003, and the engineering effort required about 4.3 million work hours.

Modifications and Maintenance

In 1994 the TVA Board adopted a new contracting policy, which included a decision to contract certain maintenance and modification work at generating plants. In May 1996 a competitively bid, six-year contract was awarded to Stone and Webster Construction Services Inc., for maintenance and modification work at TVA's nuclear plants.

In 2002 TVA sought proposals from five companies for maintenance and modifications at its nuclear plants, including the work necessary to restart Browns Ferry Unit 1. TVA renewed its contract with Stone and Webster Construction Services Inc. on July 23, 2002. The contract ceiling for the restart effort was \$987.6 million.

Crafts included boilermakers, carpenters, electricians, insulators, iron workers, laborers, millwrights, pipe fitters, sheet metal workers, teamsters, cement workers, machinists, painters, sprinkler experts and instrumentation mechanics.

The work to recover Browns Ferry Unit 1 required an average of about 2,400 craft and support personnel and 15.2 million work hours.

Material improvements for Unit 1 include installing such commodities as:

- 200 miles of electrical cable
- 35 miles of conduit
- 1.8 miles of cable tray
- 21,863 supports for conduits
- 127,480 electrical terminations
- 2.8 miles of large bore pipe
- 5.2 miles of small bore pipe
- 8,042 supports for pipes
- 188.5 tons of structural steel

The work to restart Unit 1 included replacing or refurbishing many plant components and doing the testing required to accept the equipment into Browns Ferry's ongoing maintenance and operations processes.

Maintenance work included replacing or refurbishing such components as:

- Large motors – 19
- Large pumps – 21
- Heater and heat exchanger repairs and upgrades – 48
- Check valves – 206
- Limitorque removals – 253
- Air operated valves – 403
- Limitorque installations – 231
- Relief valves – 209

Economic impact

TVA employs between 1,100 and 1,150 people at Browns Ferry to safely operate and maintain the three units.

The payroll for Browns Ferry is about \$73 million a year.

TVA paid \$ 93,427,798 to the State of Alabama in lieu of taxes in fiscal year 2006.

Of that amount, Alabama distributed \$5,551,448 to Limestone County, \$5,364,655 to Colbert County, \$4,541,047 to Lauderdale County, \$1,699,105 to Lawrence County, and \$12,476,938 to Morgan County.

TVA paid \$216.2 million to vendors and suppliers in Alabama in fiscal year 2006 for the restart of Unit 1, and \$26.8 million to vendors and suppliers in Alabama for the operation and maintenance of units 2 and 3.