

2 N D Q U A R T E R

2001 Operational Report to Congress

J A N U A R Y - M A R C H 2 0 0 1

Overall

- Initial startup and operational testing began on 680 megawatts of additional peaking generation installed at the Lagoon Creek site in Haywood County, Tennessee. The combustion turbines will be available to help meet peak demands this summer. An additional 680 megawatts of peaking power is scheduled to be brought on line in the summer of 2002 to ensure TVA has an adequate and reliable supply of electricity to serve the region's economic growth.
- On January 3 TVA met a record winter peak power demand of 27,015 megawatts—almost 300 megawatts higher than the previous record set in December 2000.
- In March TVA campgrounds at reservoirs across the Tennessee Valley began opening. Improvements have been made at several campgrounds, picnic areas, and other public-use areas, but there are no changes in fees for the 2001 season. TVA operates about 100 public recreation areas, including 11 campgrounds.

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Milestones

OPERATIONS

- The February 2001 issue of *World Nuclear Performance* shows Browns Ferry Unit 2 (BFN2) ranks second and Sequoyah Unit 2 (SQN2) ranks 17th in the country for the highest 1998 - 2000 gross capacity factor average out of the 104 U.S. units reporting. BFN2 and SQN2 rank fifth and 29th, respectively, out of the 410 units reporting worldwide.
- TVA's transmission system reliability performance indicators—Load Not Served and Customer Connection Point Interruptions—were within target. Three delivery points were completed and placed in service, and about 20 equivalent miles of transmission line were constructed.
- Watts Bar Unit 1 completed the implementation of a Leading Edge Flow Meter modification in January, resulting in a net power increase of approximately 11 megawatts. As planned, Browns Ferry Unit 2 began the cycle 11 refueling outage on March 18, after 259 days of continuous operation.
- Eighteen Selective Catalytic Reduction systems are being installed at seven TVA fossil plants to further reduce nitrogen oxide (NOx) emissions. By 2005, TVA emissions of NOx during the summer ozone season will be reduced by about 75 percent compared to mid-1990 levels. The first of the facilities, constructed on Unit 2 at Paradise Fossil Plant, began operating last summer. Initial testing is underway on the Unit 1 facility at the Paradise plant, and construction is underway on three more facilities.
- A public meeting was held January 8 in Scooba, Mississippi, to gather comments on TVA plans to build 340 megawatts of combustion turbine capacity in Kemper County (for service in the summer of 2002). TVA also plans to install another 340 megawatts of combustion turbines at the Lagoon Creek site in Tennessee by the summer, 2002.
- TVA is considering building a 510-megawatt combined cycle plant at the Arnold Engineering Development Center near Tullahoma, Tennessee, for operation in 2003. A public meeting was held March 8 in Tullahoma to seek comments. The plant would use natural gas as its primary fuel.
- TVA hosted a meeting of the Combustion Turbine Operations Task Force in Nashville on March 5 - 9 to provide an opportunity for combustion turbine owners to discuss operational issues and solutions. About 120 representatives attended.
- Employees of TVA's Central Laboratory Services were recognized for reaching one million work hours without a lost-time injury. The last lost-time injury in the organization occurred on March 8, 1995.

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Paradise Fossil Plant.

- The Cumberland Fossil Plant generated 1,860,546 megawatt-hours of electricity in January, the most produced during one month by the plant and the highest monthly generation of any TVA power plant since the mid-1980s. The Cumberland generation during January was enough to serve about 130,000 homes for a year.
- Two of the eight generating units at the Widows Creek Fossil Plant set continuous run records. On February 26, Unit 7 reached 126 days of continuous operation, breaking the unit record set in 1993. On March 24, Unit 5 surpassed 290 days, which was the longest run for a Widows Creek unit since the plant started up 47 years ago. The unit ultimately set a record of 314 days of continuous operation.

RIVER SYSTEM OPERATIONS & ENVIRONMENT

- Drier than normal conditions continued in the Tennessee Valley. Rainfall for January - March was 87 percent of normal (1.8 inches below normal). Because of the long-term rainfall deficit, stream flows were 76 percent of normal for the quarter. Despite a reduction in hydro generation, integrated management of the available water provided adequate flows for water quality, water supply and navigation.
- The Regional Resource Stewardship Council held its seventh and eighth meetings, in Nashville, Tennessee, and Olive Branch, Mississippi, to conclude its first year of operation. The council received its first subcommittee recommendation on a policy for aquatic plant management from the Water Quality Subcommittee, and the Integrated River Management subcommittee also introduced recommendations.
- The Associated Press rated the launch of the Green Power SwitchSM initiative as the ninth top business story in Tennessee during 2000. Also during the quarter, TVA's seventh and eighth solar installations went on line at Sci-Quest (30 kW) in Huntsville, Alabama, and at the American Museum of Science and Energy (17.2 kW) at Oak Ridge, Tennessee. TVA currently has 148 kW of solar generation on line.
- The report on existing environmental conditions of the Red Bird Coal properties, required by the Foreign Operations, Export Financing, and Related Appropriations Act, 2001, was submitted to the Secretary of Agriculture.
- TVA received a Hammer Award for its teamwork in developing National Public Lands Day into a nationwide partnership to improve public lands and promote environmental awareness. For Public Lands Day 2000, TVA helped coordinate the work of 948 volunteers who contributed almost 3,200 hours.
- The Final Programmatic Environmental Impact Statement for Future Water Supply Needs in the Upper Duck River Basin was distributed to interested parties. It was recommended that one or more alternatives be pursued to meet anticipated water supply needs beyond 2015.

The successful Green Power Switch program was named one of Tennessee's top 10 business stories for 2000.

The Look Rock Air Quality
Supersite completed its
first intensive winter
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- The Final Environmental Impact Statement for the Columbia Water Supply Analysis was approved, and copies were distributed to interested parties.
- Apalachia Reservoir was lowered about 22 feet to allow the North Carolina State Historic Preservation Office to perform an archeological survey and to inspect the spillway gates.
- In March TVA held a public meeting at Blue Ridge, Georgia, on its proposed construction of a low-level outlet and repairs to the penstock at Blue Ridge Dam. No adverse comments were received from the 57 attendees.
- The inaugural meeting of the Public Power Institute Review Group was held March 28 in Muscle Shoals, Alabama. The group consists of 12 representatives from energy organizations, the environmental community, public power organizations, and universities. It will provide the TVA Public Power Institute with stakeholder input on technology research and development and public power issues.
- The Look Rock Air Quality Supersite in the Great Smoky Mountains National Park completed its first intensive winter monitoring period. Sampling was conducted 24 hours a day for three weeks as part of an ongoing study to measure particles that create haze and limit visibility. The data will be used to test models and simulate the relationship between atmospheric effects and air emissions. Partners in the study include TVA, DOE, the National Park Service, and the Electric Power Research Institute.
- In work funded by DOE, TVA scientists are investigating the use of coal combustion products to reduce carbon dioxide (CO₂) emissions. The process would produce methane and other recyclable carbon-containing products that could be used as fuel to produce electricity with no net increase in CO₂ production. TVA has submitted a recommendation to DOE to seek a patent on the process.
- TVA provided on-site support to the Panama Canal Authority (PCA) in designing a water quality laboratory and discussion of environmental data management and hydrological modeling. TVA is providing expertise to the PCA as it transitions to a Panamanian government-owned corporation. PCA is implementing an integrated watershed management approach similar to that used by TVA.
- A license agreement to use TVA's reciprocating constructed wetlands technology (ReCip™) was signed with VIP Development. The company will install the technology at its Indian Point resort complex near Branson, Missouri.
- The State of Tennessee released a Draft Concept Plan for the TVA Columbia Project properties. The draft is available for review, and a public meeting is scheduled April 12 at Columbia Central High School. Public comments are due to the state by April 30. The TVA Board is expected to consider a staff recommendation to transfer the lands to the state at its June meeting.

CUSTOMER SERVICE

- Two powerful storms struck Mississippi in February causing damage to TVA and local utility distribution systems. On February 16, winds up to 125 miles per hour struck central Mississippi, causing outages to about 85,000 local utility customers. Tornadoes associated with the second storm moved through northeast Mississippi the night of February 24, knocking out power to about 16,000 customers. Both areas were declared eligible for federal disaster relief. Crews from TVA and utilities in Tennessee and Alabama joined local crews to restore power. In both cases, TVA restored power to its distributor and direct-served customers by the following day.
- TVA provided temporary price relief for Variable Price Interruptible (VPI) customers to preserve interruptible power as a viable option. The temporary credit reduced the markup on VPI prices by 20 percentage points for October 1, 2000 through April 30, 2001. Interruptible prices exceeded the expected forecast this past fall and winter due to factors such as higher natural gas prices, lack of available hydro power, lower than normal temperatures, and plant outages.
- During the quarter, TVA approved \$5.1 million in economic development loans for business growth in the Valley. The loans are expected to leverage an additional \$89.9 million in capital investment and help create 1,863 jobs. Loans to Valley minority businesses totaled \$850,000.
- The Valley Coalition, a team involving TVA, regional banks, and financial institutions, was formed to increase economic development in the minority business community. The coalition is developing strategies to increase access to capital and expand the capacity for minority businesses and technical assistance organizations.
- TVA is supporting the Mississippi Crescent Initiative that was launched in January to involve more than 60 public and private leaders from northeast Mississippi in efforts to spur further economic development. The participants identified three primary issues—recruitment, support to existing industry, and entrepreneurial development. Teams are developing strategies to address the issues.
- The Hartsville Site Development Team is evaluating a portion of the former TVA nuclear plant site for industrial development. Local officials and economic developers will make recommendations to assist TVA in deciding alternative use of the property.
- TVA issued a request for proposals (RFP) on January 16 for up to 600 megawatts of baseload and peaking power. The RFP, which is open to TVA power distributors and other parties, seeks proposals for contracts up to 15 years duration beginning in 2004. TVA is also working with several distributors on proposals for peaking generation beginning as early as June 2001.

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- TVA Marketing staff and distributor customers continued discussions on redesigning the *energy right*[®] residential marketing programs. More than 60 distributors have participated. Common themes include greater flexibility at the local level and more emphasis on increasing customer awareness. The next steps involve creating program guidelines to accomplish the objectives.
- TVA is implementing a Web-based “marketplace” system to allow distributor and direct-served customers to make online purchases from selected TVA supplier catalogs. The customers will have access to prices negotiated through TVA leverage contracts, as well as contracts established for power distributors.
- TVA continued to take a proactive role in responding to the Telecommunications Act of 1996 by using its facilities to support the growing demand for personal communication services (PCS) and wireless (cellular) telephone antenna sites. TVA has issued site licenses for antennas on 38 TVA sites. TVA is also working with telecommunications companies to build optical ground wire facilities to improve the operation of TVA’s power system, while advancing expansion of telecommunications throughout the region.

FINANCIAL

- The General Accounting Office (GAO) published a report in February entitled, *Tennessee Valley Authority: Debt Reduction Efforts and Potential Stranded Costs*. While recognizing that TVA is making progress on its long-term business plan issued in 1997, the report criticized TVA for not meeting debt reduction estimates that were developed four years ago. TVA disagrees with some of the findings and maintains that it is on track toward meeting the principal objective of its long-term plan which is to ensure that TVA will continue to provide reliable and competitively-priced power to its customers.
- The fiscal year 2000 Annual Report of Public Electric Utilities (Form EIA-412) was submitted to the Energy Information Administration of the U.S. Department of Energy. Also, the Fiscal Year 2000 Statistical Summary report was submitted to the President and Congress, in accordance with the TVA Act.
- The TVA Retirement System Board approved a 3.24% cost-of-living allowance (COLA) for the monthly pension and the supplemental benefits paid to retirees and beneficiaries. The COLA is based on the percentage change in the Consumer Price Index and was effective with benefits payable in January 2001.
- Workshops for the “Life-Stage Planning Series” were held for employees. The workshops are provided through a partnership with Retirement Services, TVA University, and Fidelity Investments. The series included “Investment Strategies,” “Getting Started,” and “Getting Ready for Retirement.”

TVA was awarded the Points
of Light Foundation's
Daily Point of Light
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OTHER

- The Points of Light Foundation presented the Daily Point of Light Award to TVA in January for its work in the Weekend Academy. The program was founded by TVA in 1996 as a volunteer organization to offer educational and motivational instruction for inner-city students in Chattanooga, Knoxville, Memphis, and Nashville.
- Mike Ingram, a river systems program manager in Chattanooga, was named TVA Engineer of the Year for 2001. Ingram earned the award for helping develop technology that will save \$100 million in avoided power outages resulting from equipment loss. A TVA engineer for 13 years, Ingram was honored at the TVA Board meeting in January.
- Internet Services developed and posted a new InsideNet online ordering process in support of Earth Day and charitable foundations.
- Enterprise Document Management completed initial acceptance testing of electronic approval software for the Electronic Document Management System. The software will provide for online review and approval of electronic documents and records.
- Database Administration, in conjunction with the TVA Nuclear Methods organization, completed standardization of the Curator document management system at all nuclear plant and corporate locations. The initiative supports a directive by the Chief Operating Officer to standardize all operational and business functions to reduce administrative and maintenance costs.
- Information Services began replacing Microsoft Exchange e-mail software with the Outlook 2000 e-mail and calendar software. About 2,800 PCs received the deployment as of March 30. Complete deployment is scheduled for June 15.
- An enhanced version of TVA's Resource Logon Security communication banner was implemented. The process is designed to provide continuous TVA security awareness, communicate policy, and improve access control to IT assets.
- TVA Police participated in a federal Environmental Crimes Joint Task Force investigation into the illegal dumping of 81 drums of hazardous industrial waste in Scott County, Tennessee. The investigation led to an East Tennessee corporation and its president pleading guilty in federal court to environmental crimes. The task force targets environmental crimes in East Tennessee and leads the nation in environmental prosecutions and convictions.
- TVA Police is coordinating the TVA Continuity of Operations (COOP) program, which is mandated by Presidential Decision Directive 67, to ensure essential government operations in an all-hazards environment.

The TVA Police was instrumental in publishing a report that outlines methods of combatting electronic crime.

- TVA Police is involved in national, regional, and Valley-wide efforts to protect the energy infrastructure, specifically the TVA generation and transmission system. As a result of national concerns after the Murrah Building bombing and publication of Presidential Decision Directive 63 in May of 1998, TVA developed a security assessment methodology for hydro facilities. A version of the hydro methodology will be used for transmission security, and efforts continue to address security issues at other facilities.
- In an interagency agreement with the Department of Justice (DOJ), the TVA Police assisted the National Institute of Justice in identifying the roles and technology needs of federal, state, and local law enforcement agencies in dealing with cyber-crime. The TVA Police lead a team of federal, private, and academic researchers to author a report entitled *State and Local Law Enforcement Needs to Combat Electronic Crime*. The key findings include national strategy recommendations on training and awareness initiatives. In the final phase of the DOJ project, TVA Police is developing testing guidelines for expert witness testimony in the forensic examination of hard disc drives.