

2 N D Q U A R T E R

2003 Operational Report to Congress

J A N U A R Y - M A R C H 2 0 0 3

Highlights

- TVA and TVA power distributors met record power demands during extremely cold weather in January. TVA set an all-time record for power demand at 29,866 megawatts on January 24, and many distributors set records, as well. During the highest demand period, some industrial customers with contracts for interruptible power were asked to suspend operations. These interruptible contracts benefit both TVA and customers, as customers get lower rates and TVA can quickly reduce demand during extreme conditions. During the peak, all but two of TVA's 59 coal-fired units and all but three of its 72 combustion turbine peaking units were generating power for the system. Also on January 24, TVA set an all-time 24-hour generation record of 584,278 megawatt-hours.
- For only the second time in 16 years, it appears likely that TVA staff will be recommending a rate increase, this one necessary to support capital investments in clean air. TVA also has proposed a rate change for firm power that would more equitably distribute the costs of serving residential, commercial, and industrial groups and better position these rates relative to regional market prices. TVA and the Tennessee Valley Public Power Association have sponsored two meetings to provide TVA power distributors with information about these potential actions, and TVA will continue to work with distributor representatives throughout the process.
- TVA's management of the Tennessee River system and its role as steward of the Valley's natural resources earned the highest possible rating for effectiveness in an evaluation of federal programs by the U.S. Office of Management and Budget. TVA management of the river system for flood control, navigation, water quality, and recreation received an "effective" rating—the highest given. TVA was commended for "effectively managing the Tennessee River system to meet vital public needs." Only 6 percent of the programs rated by OMB received this highest rating.
- Significant economic development projects announced during the quarter totaled more than \$213 million and 3,000 jobs.

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Milestones

POWER SYSTEM

- TVA Nuclear received the Tennessee Quality Excellence Award for demonstrated excellence in practices and achievements. Winning organizations are examples of quality organizations in the State of Tennessee and serve as “world class” role models for others.
- Sequoyah Unit 1 completed a “breaker-to-breaker” continuous run—running continuously from one refueling to the next—of 478 days. This was the first breaker-to-breaker run for Sequoyah Nuclear Plant and the second for TVA’s nuclear system. Unit 1 then entered into a refueling outage during which the unit’s four steam generators are being replaced.
- TVA is installing selective catalytic reduction (SCR) systems or similar equipment on 25 generating units at seven fossil plants to further reduce emissions of nitrogen oxide (NOx). By 2005, TVA emissions of NOx during the summer ozone season will be reduced by about 75 percent compared to 1995 levels. Four SCRs are now operational; two others will be online at the start of the 2003 ozone season.
- A groundbreaking ceremony was held for the construction and installation of a scrubber to reduce sulfur dioxide emissions from Paradise Fossil Plant. TVA plans to build five additional scrubbers to reduce sulfur dioxide emissions from its fossil power system. The scrubbers will cost about \$1.5 billion and collectively will reduce emissions by more than 200,000 tons per year. This will reduce TVA’s total sulfur dioxide emissions by 85 percent since 1977.
- Lynn Petty, an engineering supervisor in TVA’s fossil system, was recognized as TVA’s Engineer of the Year for his efforts in maintaining environmental compliance at TVA fossil plants. Petty was selected particularly for his work in the areas of oil containment and waste-pond management; he is recognized as a fossil plant authority in environmental permitting for TVA.
- TVA’s Paradise Fossil Plant received a Return on Environmental Partnership award from the Specialty Materials Division of General Electric. The award recognizes joint efforts by Paradise and GE to reduce the potential for water permit violations from the plant’s ash pond.
- The North American Electric Reliability Council recognized TVA as one of the best of the 22 Reliability Authority organizations audited in North America.
- Approximately 40 miles of new transmission line were constructed, and four delivery point projects were placed in service.

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For the second year in a row, Green Power Switch® has earned two top-10 national rankings.

- The Watts Bar Hydro Recovery Project ended the quarter 13 days ahead of its stretch schedule. Three of the five units are expected to return to service in April, with completion of the remaining two units expected in June and July.
- The Watts Bar Hydro Plant Group surpassed the milestone of a million employee work-hours with no lost-time injury or illness. Kentucky Hydro Plant reached a milestone of 20 years without a lost-time accident, and Pickwick completed 19 years without a lost-time accident. Boone Hydro Plant completed six years without a lost-time accident, and Wheeler Hydro Plant surpassed the 600,000-hour mark without a lost-time accident.
- Nickajack Hydro began outages to replace aging transformers. Nickajack is the first plant to get new transformers as part of TVA's hydro plant transformer replacement project.

CUSTOMER SERVICE AND MARKETING

- A new interruptible product offering became available for certain industrial loads. Qualified customers can get a reduction in their demand charge in exchange for interruption rights with five minutes' notice. TVA worked with the TVPPA New Products Study Team to design the product.
- Ninety-five percent of power distributors responding to the most recent Customer Service Quarterly Survey are satisfied or extremely satisfied with TVA as their wholesale power supplier. In addition, 96 percent of directly served account contacts rated the performance of their account manager as satisfactory or higher.
- For the second year in a row, Green Power Switch®, a renewable energy program offered by TVA and TVA power distributors, has earned two top-10 national rankings from the U.S. Department of Energy. Green Power Switch ranked seventh in the nation for the amount of renewable energy sold and ninth in the nation for the number of customers participating.
- Green Power Switch® Generation Partners, a program to support the development of consumer-owned solar and wind generating facilities, became available to residential and small commercial consumers through participating power distributors. TVA will purchase the output of these facilities, increasing the amount of green power available to Green Power Switch subscribers.

RIVER SYSTEM OPERATIONS & ENVIRONMENT

- Work is continuing on the evaluation of preliminary alternatives for the Reservoir Operations Study:
 - TVA's Water Quality Model has been used to determine how temperature and dissolved oxygen levels will vary under different operating schemes

and to predict impacts to industries that use the water for assimilative capacity.

- o Direct economic effects for recreation and property value have been evaluated and will be used to estimate the potential economic development impact for each alternative.
- o Navigation tools are being used to analyze the potential impacts on shipper savings from the availability of barge transportation on the Tennessee River system versus the next least expensive method of shipping.
- o Two joint meetings of the ROS Interagency Team and the Public Review Group were conducted. TVA presented the results of the Water Quality Model, impacts to property values, direct economic effects from recreation, and the process for determining shipper savings.

TVA is inventorying abandoned

coal-mined lands on

750,000 acres in the Daniel

Boone National Forest under

contract to the U.S.

Forest Service.

- The Tennessee Valley averaged 12.6 inches of rainfall—84 percent of normal—during the quarter, and runoff was 100 percent of normal. Rainfall in February totaled more than eight inches, making this the eighth-wettest February since 1890. The reservoir system was in a flood-control operation in late February, and flood damages averted were estimated at \$37 million.
- TVA gave a presentation on its Environmental Management System (EMS) at a federal facility workshop sponsored by the Environmental Protection Agency and the U.S. Department of Energy. TVA is the only federal agency to have all facilities covered by an EMS, which has helped TVA achieve a 50 percent reduction in audit findings, a 35 percent reduction in reportable environmental events, and a 92 percent reduction in repeat audit findings.
- A five-year project to reconcile plant and animal records in the databases of TVA's Natural Heritage Project and the Tennessee Natural Heritage Program has resulted in more accurate environmental reviews for both organizations. This saves time and money by reducing delays in proposed projects.
- TVA is inventorying abandoned coal-mined lands on 750,000 acres in the Daniel Boone National Forest under contract to the U.S. Forest Service. The project is expected to be a model for other Forest Service districts.
- The Public Power Institute Review Group held its semiannual meeting in February. Members represent regional and national public power organizations and TVA power distributors. TVA staff led discussions on TVA's river operations, current and future science and technology projects, and external partnership activities.

ECONOMIC DEVELOPMENT

- TVA approved a total of \$3.6 million in economic development loans for business growth in the Tennessee Valley. These loans are expected to leverage an additional \$15.6 million in capital investment and help create or retain 1,028 jobs. Loans to Valley minority businesses totaled \$855,000 for the quarter.

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- Eleven projects are being considered for \$4.3 million of TVA funding through the Valley Advantage, which focuses on large economic development projects. The projects being considered would leverage \$957 million in capital investment from partners and help companies create 3,000 jobs.

- Significant economic development projects announced during the quarter include the following:
 - J.M. Smucker in Scottsville, Kentucky, \$51 million in capital investment and 150 jobs.
 - Medtronic Sofamor Danek in Memphis, Tennessee, \$50 million and 600 jobs.
 - Thomson Multimedia of Memphis, Tennessee, \$85 million and 1,260 jobs.
 - PeopLoungers in Mantachie, Mississippi, \$3 million and 200 jobs.
 - Biodiesel in Nettleton, Mississippi, \$16 million and 46 jobs.
 - Appliance Controls Group in Chattanooga, Tennessee, \$7 million and 200 jobs.
 - ACE Metals in Scottsboro, Alabama, \$1 million and 45 jobs.
 - Bodine Aluminum in Jackson, Tennessee, \$300 million and 500 jobs.

- Nine regional banks participate in the Valley Coalition to support minority-owned businesses. For the quarter, the Coalition approved one loan for \$150,000 in TVA funding, leveraging \$576,000 from banking partners and helping create 12 jobs. Since the program began, TVA has invested \$3.2 million, leveraging \$13.3 million from banking partners and helping create or retain 387 jobs in Valley communities.

- TVA completed 108 technical services projects for Valley communities and industries during the quarter. Notable projects include the following: speculative industrial building and site evaluation for Paris, Tennessee; industrial park evaluation and design for Edmonson County, Kentucky; conceptual design for an industrial site in Limestone County, Alabama; supplier, labor, and transportation research for Simpson County, Kentucky; and demographic and employment data for Winston County, Mississippi.

- A welcoming reception for Anne Pope, newly confirmed Federal Co-Chair of the Appalachian Regional Commission, was co-hosted by TVA and Knox County, Oak Ridge National Laboratory, and the Tennessee Valley Corridor Summit Group. TVA partners with the commission to administer grants that promote economic development in the Valley. Currently, TVA administers 41 grants with a value of \$17 million.

- Installation of air pollution control equipment at Paradise Fossil Plant will create 300 construction jobs and 40 full-time positions. TVA will install similar equipment at Bull Run, Kingston, and Colbert fossil plants; the supplier, Advatech, has opened corporate offices in Franklin, Tennessee.

- TVA met with the State Directors of the Department of Agriculture’s Rural Development offices for Tennessee, Alabama, Kentucky, Georgia, and Mississippi to review programs and opportunities for increasing collaboration.

- The 2003 spring racing weekend in Bristol was a success for TVA and partners from the Tennessee Valley Industrial Development Association and the Northeast Valley region. More than a dozen company representatives attended the race, including eight who are considering Valley projects. Potential projects could result in the creation of more than 2,000 jobs, capital investment of \$645 million, and 62 megawatts of additional power load.
- TVA distributed the first edition of its electronic newsletter, “The Valley Connection,” which showcases the Valley’s favorable business climate and links the reader to other information sources.

FINANCE

- TVA’s interest expense was \$336 million during the quarter, for a savings of \$21 million compared to budget.
- TVA called \$381 million of existing bonds in order to refinance this debt at lower interest rates.
- TVA refinanced \$142 million of long-term debt by offering eight electronotes® issues with a weighted average interest rate of 4.05 percent. Total electronotes® outstanding at the end of the quarter were \$1.13 billion.
- Through the second quarter, TVA has received prepayments of \$47.3 million from 34 distributors participating in the Discounted Energy Units program. The program allows distributors of TVA power to prepay a portion of their load for 10 years in exchange for a discount of 2.5 cents per kilowatt-hour on that power.
- TVA has adopted new corporate practices consistent with the goals of the Sarbanes-Oxley Act of 2002, including the following:
 - Certification of TVA’s financial statements by the TVA Board of Directors and Chief Financial Officer.
 - Adoption of a financial code of ethics.
 - Formalization of a disclosure policy and creation of a Disclosure Control Committee to implement that policy.
 - Phasing out of non-audit services performed by TVA’s external auditor.
 - Increased reliance on the Inspector General to ensure external auditor independence.
 - Enhanced information offered to investors, rating agencies, and analysts.
 TVA met with the Securities & Exchange Commission to discuss TVA’s commitment to disclosure, and TVA’s Disclosure Control Committee held its first meeting.
- TVA’s Seventh Annual Financial Analyst and Investor Meeting was attended by rating agencies, institutional investors, investment bankers, brokers, and analysts. The meeting gave members of the financial community information on TVA’s financial health, strategic direction, and operational performance.

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- The TVARS Board approved a 1.49 percent cost-of-living allowance in the monthly pension and the supplemental benefits payable to retirees and beneficiaries, effective January 2003.

TVA's Supply Chain System

Project was recognized

as one of the top 10

"Best in Class" in this

year's competition

sponsored by

Computerworld magazine.

CORPORATE

- TVA continued development of a Strategic Plan that will allow TVA to balance, in the context of evolving wholesale electricity markets, (1) how it achieves its mission of providing low-cost power, promoting economic prosperity in the Valley, and serving as steward of the region's environment and (2) its financial goal to continue the trend of debt reduction.
- Members of the TVA Police attended the Chemical Weapons tabletop exercise as part of the Department of Justice's Domestic Preparedness Program. Participants included representatives of local law enforcement, the Federal Emergency Management Agency, FBI, U.S. Attorney's Office, Department of Health and Human Services, Tennessee Emergency Management Agency, and Tennessee Office of Homeland Security.
- As part of its efforts to use office space more efficiently, TVA sold the Old Post Office building in Chattanooga at public auction, subleased more than 11,000 square feet of space, and received commitments from buyers for an additional 140,000 square feet.
- TVA has significantly increased security for its Web sites www.tva.com and energyright.com to reduce the risk of intrusion by hackers. When the "Slammer" worm attacked Internet service around the world in January, TVA's virus protection hardware and software blocked more than 19,000 attempts to enter TVA's network.
- TVA's Supply Chain System Project was recognized as one of the top 10 "Best in Class" in this year's competition sponsored by Computerworld magazine.
- A "reverse auction" saved TVA \$2.8 million on the estimated cost of stainless steel condenser tubing. In the reverse auction, suppliers competed in real-time bidding and could see offers by other vendors.

STATE NEWS

ALABAMA

- January 9, 2003, was proclaimed "TVA Resource Stewardship Day" by the City of Huntsville. The community recognized TVA for building partnerships with the City and for supporting such programs as illegal dump site cleanups, Huntsville

City Schools Ecological Education, Flint River Festival, forestry and horticultural projects, Green Power, and Clean Marina and Boating campaigns.

- Colbert County selected TVA's patented Reciprocating Constructed Wetlands Technology (ReCip®) for domestic wastewater treatment at its Barton Riverfront Industrial Park.
- TVA facilitated a meeting of the Tennessee Valley Poultry Task Force in Cullman. The goal of the task force is to identify projects to address the nutrient management and removal of poultry litter from the Tennessee Valley watershed. The state's poultry industry generates more than \$3 billion a year.
- TVA is collaborating with the Little Bear Millennium Group to improve water quality and shallow water habitat in Little Bear Creek Reservoir in Franklin County in an effort to enhance the fishery.
- TVA, in partnership with the City of Scottsboro, stabilized 945 feet of the shoreline at Goose Pond recreational area. When complete, this project will have stabilized 1,500 linear feet of critically eroded shoreline.
- The Muscle Shoals reservation was recertified as a Wildlife Habitat Council Corporate Home for Wildlife.
- TVA has partnered with five Alabama organizations to recruit Japanese industry: the Huntsville/Madison County Chamber, Morgan County Economic Development Association, Limestone County Economic Development Association, Lawrence County Economic Development Association, and the Huntsville Airport.

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GEORGIA

- TVA worked with biologists from the Georgia Department of Natural Resources to assess the environmental quality of Fightingtown Creek in Fannin County.
- The final report of the Fannin County Quality Communities process was presented at a public meeting. The report was developed by a team of 35 community leaders and facilitated by TVA.

MISSISSIPPI

- TVA participated with Mississippi Power Company, Entergy, the Electric Power Association of Mississippi, the University of Southern Mississippi, and BellSouth in sponsoring the state's first U.S. Department of Agriculture Rural Development conference.

NORTH CAROLINA

- TVA partnered with the North Carolina Wildlife Resources Commission to install the first public handicap-accessible fishing pier on Chatuge Reservoir. Fish habitat also was constructed.

- A TVA loan is helping Clay County purchase 32 acres in potential industrial-park property.

TENNESSEE

- The public was invited to an open house at TVA's Lagoon Creek Combustion Turbine site, where TVA formally donated a truck to the Haywood County Fire Department for use as a first-response vehicle.
- The TVA Police hosted a visit by Major General Jerry Humble, the newly appointed Director of Tennessee Homeland Security. He was briefed on security measures and toured TVA's facilities, including Watts Bar Nuclear Plant.
- The annual meeting of the Nickajack Aquatic Plant Management Stakeholder Group was held in Jasper, Tennessee, and the annual meeting of the Chickamauga Aquatic Plant Management Stakeholder Group was held in Chattanooga. These groups work with TVA to create and implement balanced aquatic plant management plans.
- TVA partnered with the Tennessee Wildlife Resources Agency to establish a special fishing rodeo at Lake Junior on the Chickamauga Dam Reservation. The partnership allowed the area to be reopened.
- TVA and its partners have completed the City of Charleston's 620-foot shoreline stabilization project. This is the first completed project among five critically eroding shoreline stabilization projects in the Chickamauga Reservoir area this fiscal year. TVA also hosted a native plant workshop in Charleston to inform residents about the use of native vegetation to protect shorelines and improve water quality.
- TVA conducted two shoreline stabilization workshops for homeowners on Tims Ford Reservoir.
- TVA, the U.S. Geological Survey, and the Athens Utilities Board have entered into a joint venture to provide data on environmental conditions in the Oostanaula Creek watershed. The creek's listing by the state as an impaired water body impedes development in the area because of constraints on increased wastewater loads to the stream.
- The Seaman Corporation, located in Bristol, was presented the "Ozzie" award from the Ozone Action Partnership. The award recognizes efforts to prevent the formation of ozone (or air pollution) in northeast Tennessee or southwest Virginia. TVA played a key role in the Seaman project by providing an economic development loan to help the company purchase pollution control equipment. The equipment purchases also enabled the company to increase production at the facility, which was

**TVA Police hosted a visit by
Major General Jerry
Humble, the newly
appointed Director of
Tennessee Homeland
Security.**

approaching the limits of its air permit. The project was done in cooperation with the Bristol Tennessee Electric System as part of its existing industry assistance program.

- TVA presented results of the Little River Integrated Pollutant Source Identification project in Blount County. This information supports long-term planning for economic development while ensuring protection of water resources.
- The final report of the Red Bank Quality Communities process was presented. The report was developed by a team of 44 community leaders and facilitated by TVA.
- TVA is working with the Women's Resource Center to facilitate more Economic Development loans to minority- and women-owned companies. The 120,000 women-owned firms in Tennessee employ 196,000 people and generate sales of almost \$23 billion.
- TVA provided planning and organizational development assistance to Economic Ventures Inc., an arm of the Knoxville Community Development Corporation.
- TVA facilitated a planning workshop for the Ocoee Stakeholders Steering Committee, which is developing an integrated strategy for economic growth in the Ocoee area.
- TVA and the Chattanooga Electric Power Board (EPB) helped a local school set up a science lab. TVA donated 20 surplus computers and office supplies to Chattanooga's Brainerd High School. EPB, a distributor of TVA power, provided the electrical connections and is wiring the room in which the science lab is located.

**TVA participated in a
Virginia Department
of Transportation
pre-construction meeting
for a bridge replacement
over Wallen Creek in
Lee County.**

VIRGINIA

- More than six acres of abandoned mine land was reclaimed and 10 direct residential sewage discharges were removed in the Guest River Watershed in southwest Virginia.
- TVA participated in a Virginia Department of Transportation pre-construction meeting for a bridge replacement over Wallen Creek in Lee County.
- Representatives from Volunteers in Service to America (VISTA) and the Office of Surface Mining (OSM) toured the Clinch and Powell Rivers' watersheds in southwest Virginia. VISTA and OSM are interested in building partnerships and improving water quality in the coal mining regions of Virginia, Tennessee, Kentucky, West Virginia, and Pennsylvania. VISTA plans to use these projects as demonstration models for activities in other coal mining regions.