



Top Ten and Growing

Green Power Switch has received a Top 10 ranking from the U.S. Department of Energy's National Renewable Energy Laboratory (NREL), which issues a periodic list of leading utility "green pricing" programs. Using information provided by utilities, NREL develops rankings of the top utility programs in various categories. Evaluated by customer participation rates, Green Power Switch is the 10th-ranked program in the nation. That success is due to the outstanding support it receives from distributors across the Valley. Thanks to the efforts of many people, Green Power Switch keeps expanding—and bigger and better things are yet to come.

For more information on the leading green pricing programs, visit NREL online at www.nrel.gov.

www.greenpowerswitch.com

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*TVA and your local public
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PERMIT NO. 366

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Green Power Switch News is produced cooperatively by the Tennessee Valley Authority, distributors of TVA power, and the environmental community to provide information about the status and growth of Green Power Switch—a renewable energy option.

Green Power Switch News is available electronically, or in print form to Green Power Switch subscribers upon request. For more information, visit the Green Power Switch Web site at www.greenpowerswitch.com, or contact your local public power company.

For alternate formats of this document, call 865-632-6824 and allow five working days for processing.



Green Power Switch®

The Switch Is On at the Johnson City Power Board

By Angela Shrewsbury of the JCPB

At the beginning of this year, the Johnson City Power Board (JCPB) kicked off its Green Power Switch program with a “green breakfast,” followed by a “green PowerPoint presentation.” The following week, in order to increase awareness about Green Power Switch, an incentive program was put into play, and employees were encouraged to attend a “green hot dog lunch.” During the lunch, those serving not only dressed in green, but also painted “GP” on their faces. The face-painting and free lunch definitely captured employees’ attention. The incentive program theme was “The Switch Is On,” and employees could qualify to receive cash or time-off incentives based on the number of green power blocks they sold to commercial and residential customers.

In addition to rallying employees for Green Power Switch, the JCPB marketing staff has been busy spreading the word in the community. Green power has been introduced to the community via various public meetings with schools, civic clubs, and other



Pictured: Homer G’Fellers, Manager of Marketing and Customer Relations, explains the employee incentive program to employees at the “green hot dog lunch.”

organizations such as the Sierra Club and Southern Alliance for Clean Energy. The community meetings have been well received, and media coverage has been phenomenal. An advertising campaign was also coordinated and included radio advertisements, print ads in various publications, bill inserts, messages on customers’ bills, and lobby posters. In its first two months, JCPB sold blocks to 110 residential and five commercial customers, surpassing its original signup goal. On average customers are buying 2.5 blocks of green power per person, the highest average in the Tennessee Valley.

Big Orange goes green

The University of Tennessee at Knoxville was one of the first Green Power Switch participants in the Knoxville Utilities Board service area. The university began purchasing green power in May 2000 and since then has bought 375 blocks per month. According to Terry Ledford (pictured at left), Assistant Director of Maintenance and Operations for the Physical Plant Department, “UT is proud to be a part of the Green Power Switch program and to support the use of environmentally friendly sources of power.”





**Comments?
Suggestions?
Let us hear from you!**

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—Gary Harris
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Straight from the mountaintop

TVA's Buffalo Mountain Wind Farm is showing much promise as a member of the Green Power Switch generating lineup. The wind farm has generated 4.8 million kilowatt-hours since its fall 2000 start-up, somewhat less than projected but still a good showing for the plant's initial shakedown period. Minor start-up problems have been addressed, and work has been completed on communications equipment that will allow better management and operational control.

Although initial output has been less than anticipated, the wind turbines have functioned extremely well and have been available for production 95 percent of the time since April 2001. Gustly wind conditions and delays in the delivery of replacement parts have been the primary causes of lost production.

Wind-speed variation at the site can be extreme, with wind speeds changing from less than 10 mph to more than 35 mph within a single second and bursts of up to 70 to 100 miles per second. Under these conditions, sensors cause the wind turbines to go offline, and they have to be manually inspected before they can be returned to service.

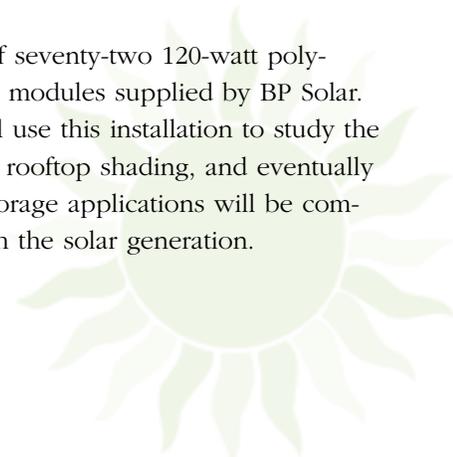


Wind measurements continue to be recorded at the Buffalo Mountain site. Additional data will be gathered over the next several years to help improve the accuracy of long-term projections on wind resources in the region. Based on data from the first year of operations, the production output is expected to be 4.6 million kilowatt-hours of electricity each year.

Twelfth Green Power Switch solar facility is up and running

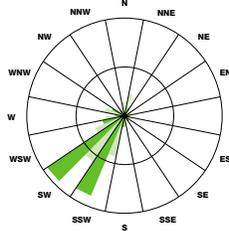
TVA's 12th Green Power Switch solar facility went online February 25. The facility is located at the Oak Ridge National Laboratory in Oak Ridge, Tennessee, and can produce about 10,500 kilowatt-hours of electricity a year. The 8.6-kilowatt direct current installation

consists of seventy-two 120-watt polycrystalline modules supplied by BP Solar. ORNL will use this installation to study the effects on rooftop shading, and eventually various storage applications will be combined with the solar generation.



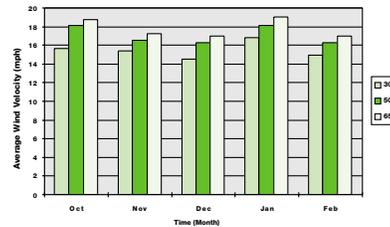
The figure at right shows that the winds that generate power on Buffalo Mountain generally originate from a westerly direction. When the wind blows from the east, the velocity is greatly reduced and generation is negligible. Since the amount of energy produced is proportional to wind velocity to the cubed power, a slight increase in wind velocity significantly increases production.

**Tennessee Valley Authority
Buffalo Mountain, Tennessee
50m Wind Rose Graph
January - December 2001**



The chart at right illustrates the average monthly wind velocity at the Buffalo Mountain Wind Farm and the effect of wind velocity shear. Wind velocity increases with a rise in elevation, and a small increase in wind velocity creates a significant jump in power production. That's the reason the taller 65-meter towers were chosen. Towers continue to be made taller as wind technology progresses.

EFFECT OF VELOCITY WIND SHEAR



Mark Your Calendar

April 19: Chattanooga, TN

The University of Tennessee at Chattanooga and the Chattanooga Environmental Education Alliance are hosting an Earth Day event called the Public Interest Environmental Symposium. The event is scheduled for all day on the campus of UTC. Contact Jerri Phillips at 423-877-2688 for additional information.

April 13: Hunstville, AL

Burritt on the Mountain is hosting "Energy, Energy Conservation, and Alternative Conservation." This educational event will highlight energy conservation at home. For more information, contact Jeff Hughes at 256-512-0146 or go to www.burrittmuseum.com.

April 20: Knoxville, TN

Come and join this year's EarthFest 2002 activities from 10 a.m. to 6 p.m. Call John Homa at 865-215-2872 or log on to www.knoxearthfest.org to find out more.

April 20: Nashville, TN

Join the City of Nashville and Earth Day Festival Partners at Centennial Park from noon to 7 p.m. for Nashville's Earth Day Festival 2002, whose theme is Protect Our Home. For more information contact the coordinating committee at 615-242-5600 or sharon.smith@nashville.gov. Also check the Web site at www.nashville.gov/pw/earthday/.

April 22: Earth Day

April 27: Gatlinburg, TN

The first annual Gatlinburg Earth Day Celebration will include fun activities, educational programs, and music for children and adults. To find out more, call Michael Hughes at 865-436-0339 or visit www.earthdayalliance.org.

Generation update

Solar power sites

Generation January 1 - February 28

Cumberland Science Museum	58,722 kWh
Dollywood Tram C	16,589 kWh
Dollywood Tram D/E	12,116 kWh
Gibson County High School	24,933 kWh
Ijams Nature Center	24,159 kWh
Cocke County High School	13,243 kWh
Duffield-Pattonville Elementary School	14,158 kWh
Sci-Quest/North Alabama Science Center	41,389 kWh
American Museum of Science & Energy	17,831 kWh
Lovers Lane Soccer Complex	36,337 kWh
Finley Stadium	54,232 kWh
Oak Ridge National Laboratories	90 kWh
Total solar generation	313,799 kWh

Wind power site

Generation January 1 - February 28

Buffalo Mountain Wind Park	928,099 kWh
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Methane gas sites

Generation January 1 - February 28

Middle Point Landfill Gas Facility	1,407,588 kWh
Allen Fossil Plant Methane Facility	(preliminary) 1,888,136 kWh

Participation update

Total number of green power blocks subscribed:	14,389
Number of green power blocks subscribed since January 1, 2002:	778
Number of residential customers subscribing:	4,858
Average number of green power blocks per residential customer:	1.7
Number of business customers subscribing:	222 business customers purchasing 6,069 blocks