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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 printed form (on request) to Green Power Switch participants. For more information, visit the Green Power Switch website at greenpowerswitch.com or contact your local public power company.



Green Power SwitchSM

the switch is on

April 22, 2001—Earth Day and the start of Green Power Switch's second year. In its first year, more than 3,000 Valley consumers signed on to this renewable energy option developed through a unique collaboration between the Tennessee Valley Authority, distributors of TVA power, and the environmental community.

We've learned a lot this year. We've learned that people who sign up for Green Power Switch care deeply about the world they inhabit and want to know more about Green Power Switch. For that reason, we created *Green Power Switch News* to keep you informed about the program's activities, progress, and challenges.

There is progress, especially in participation. We expected participants to sign up for 9,200 blocks of Green Power Switch the first year. They signed up for more than 10,500.

In fact, right now demand for Green Power Switch is greater than the supply, so the Green Power Switch team has developed a generation plan to erase the deficit and provide for continued growth.

The first goal is to complete the landfill gas generation facility this spring. This project was delayed, causing the production deficit. Once the facility comes on line, we can begin reducing the deficit. The next goal is to seek ways to add more wind power to the nearly two megawatts of capacity already operating for Green Power



CLETUS MITCHELL

The Southeastern United States' first commercial wind turbines, atop Buffalo Mountain in Anderson County, Tennessee. The 290-foot tall generators can begin producing power with only 10 mph of wind.

Switch. TVA is looking for ways to add as much as 10 times the capacity of the Green Power Switch wind generators in operation today on Buffalo Mountain near Oak Ridge.

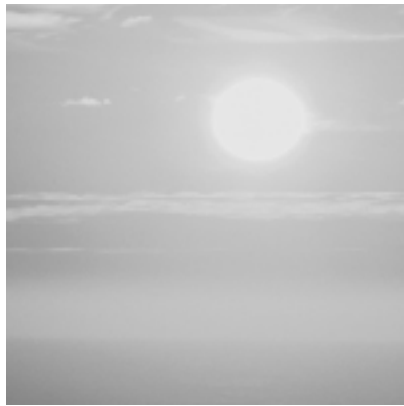
Finally, we plan to continue offering Green Power Switch through the 12 distributors of TVA power that participated in the market test and to add new distributors as supply allows.

Looking back over the past year, the program exceeded many expectations. The Green Power Switch team is committed to continuing to provide a Green Power Switch option worthy of your financial investment and continued public support.

If you have any questions, contact us at greenpowerswitch@tva.gov or call 615-232-6609.

—Gary Harris, Chairman
Green Power Switch Steering Committee
Green Power Switch Program Manager

TENNESSEE VALLEY AUTHORITY



Solar

Since the launch of Green Power Switch on Earth Day 2000 and the dedication of the 30-kilowatt solar installation at the Cumberland Science Museum in Nashville, Tennessee, eight more solar sites have been completed and two more are set to go online in June.

The science museum was the first solar installation to begin operating. The sites were selected as prime locations to promote the program and to increase green power generation. The sites provide opportunities to educate the public about the positive impact TVA and the distributors of TVA power want to have on the environment. More importantly,

the sites provide good sun exposure and space for the photovoltaic panels.

Other sites in Tennessee include Ijams Nature Center in Knoxville, Gibson County High School in Dyer, Dollywood Tram C in Sevierville, and Cocke County High School in Newport. Additional panels at Dollywood's Tram D/E and Tennessee's newest site at the American Museum of Science and Energy in Oak Ridge began operation in April. A site is also planned for Finley Stadium in Chattanooga.

In other states, Duffield Primary School in Duffield, Virginia, started operating in February, as did the SciQuest Science Museum in Huntsville, Alabama. Solar panels at the Lover's Lane Soccer Complex in Bowling Green, Kentucky, are also under construction.

The solar sites are expected to generate more than 400,000 kilowatt-hours of electricity a year—enough to meet the needs of 30 average-sized Tennessee Valley homes.

Wind

November 13, 2000, is destined to be historic for the Tennessee

Valley—that's when TVA dedicated three Green Power Switch wind turbines on Buffalo Mountain in Anderson County, Tennessee.

The wind turbines were erected on the site of a reclaimed strip mine and are the first wind turbines in commercial use in the Southeastern United States. Together, these turbines produce enough energy in a year to serve more than 400 average-sized Valley homes.

Power production from the turbines has continued to increase since startup. By the end of March, the turbines were available to produce power more than 90 percent of the time. Other sites around the Tennessee Valley are being evaluated to determine if they have enough wind to support additional generation.

Each wind-powered generator at Buffalo Mountain sits atop a tower that is 213 feet tall. Each generator has three 75-foot long blades and the diameter of the rotors' span is about 154 feet. The entire assembly is 290 feet from an upright rotor tip to the ground.

Sophisticated electronic technology allows the turbine to rotate and take advantage of the strongest wind in the area, but they can start producing power with a 10 mph wind.



Landfill Gas

Due to several setbacks, the Green Power Switch landfill gas generation

facility did not come on line to produce power for the program as expected. The facility was expected to start producing five megawatts of electricity in late 2000 using the methane gas produced at the Middle Point landfill near Murfreesboro, Tennessee. To help speed up the project, TVA bought the plant and its operations from the independent power producer first contracted to build and operate the facility. Today, construction crews are in the final stages of installing and testing generating equipment.

One of the lessons learned with this project is the importance of developing a "Plan B." The production estimates for this landfill gas generation site have been lowered to about 2.6 megawatts of electric capacity. TVA is looking at other landfill gas sites to make up for this power shortage, as well as other ways to install more solar and wind power.

If current plans go well, the Middle Point facility is expected to be producing power by early summer.



P E R S P E C T I V E S

Distributor's View

—Allen Robbins, Programs Administrator,
Sevier County Electric System

green power to 146 residential customers and 51 business customers, leading the Valley in business customer participation.

Sevier County is one of the oldest counties in the state, and because of our booming tourism industry, we're also one of the fastest growing in Tennessee. Our economy thrives on the business generated by visitors on their way to the Great Smoky Mountains National Park, which is the nation's most visited national park, with 10.2 million visitors in 2000 alone. Sevier County covers 660 square miles that include 515,000 scenic acres, 130 tree varieties, and 16 peaks all over 6,000 feet. We want to do all we can to protect our natural treasures.

The Green Power Switch program has been popular in Sevier County because our residents are committed to preserving this pristine environment we depend on for our business and pleasure, and for the pleasure of our visitors. This innovative program gives us the opportunity to protect this historic, 800 square-mile national park—95 percent of which is forested. By investing in clean air through programs like Green Power Switch, Sevier County residents hope to sustain the diversity of the park's plant and animal resources, the beauty of its mountains, the Southern Appalachian mountain culture, and the depth and integrity of the wilderness sanctuary within its boundaries.

We live in the vicinity of one the largest protected areas in the country, and we're glad we can provide cleaner, greener sources of power for our homes and businesses. We want to do everything we can to keep the countless visitors returning for our recreation and hospitality, and for our virtually endless entertainment, dining, and shopping opportunities.

Ramada Limited Music Road was our first commercial customer to sign up for the Green Power Switch program. This Ramada hotel and five local banks participating in the Green Power Switch program were

Giving something back. I am pleased to report that Sevier County Electric System has had an overwhelming response since we first offered the Green Power Switch program last April. We've sold blocks of



featured in our first television commercial that ran on our local stations to promote awareness of the program.

We also developed a card to place near the light switches in the hotel rooms to explain the program and to encourage energy conservation.

On and off the job, Sevier County residents are proud to show where we stand on environmental issues, and that we understand the need to protect our natural resources.

Environmentalists' View

—Stephen Smith, Executive Director,
Southern Alliance for Clean Energy

**Looking Back and Stepping Forward—
Celebrating our Earth.** Earth Day is an important celebration of efforts to protect the earth. With the beginning of the Green Power Switch program on the symbolic

date of Earth Day 2000, Earth Day is also a time to reflect on what we are doing in the promotion of clean renewable energy.

During this time of reflection, it is difficult not to be upbeat about the possibilities. People have been incredibly excited about the first large commercial wind turbines on Buffalo Mountain, a site and experience that has a powerful impact on all who visit the site. Wind power is such a graceful, simple way to generate electricity. Watching the new solar sites come on line has been equally exciting. It's difficult not to catch the enthusiasm felt by the children experiencing hands-on learning about solar power on the interactive kiosks.

Overall, we have a lot to be proud of about this unique program that has brought together the environmental community and the power distributors and TVA in a unique partnership. A lot of trust has been built and a lot has been accomplished. In the past year there has been more media and discussion about clean, renewable energy than in the past 20 years combined. People and businesses have signed up for Green Power Switch, willingly paying extra on their monthly bills because they believe in taking leadership, and they believe their actions can make a difference.

During this past year we have learned a lot about what it will take in the future to generate enough power for our needs in a clean and sustainable manner. With this knowledge and experience comes a challenge that is even greater. We have the technology, and people are beginning to understand the need to start the transformation from the dirty, nonrenewable fuels of the past to the new clean, green, renewable power of the future. We have planted the seed of change and watered it and now we need to nurture it and help it grow.

We have learned a lot in this test market of the first 12 distributors. The program has not flourished equally in all of its markets, and we have learned many lessons about how to promote a green power premium program. One of the lessons learned is the importance of having a program that is actively promoted by the local utility. What we have found out is simple: when people learn enough about the program, they support it. However, most people have still not heard about the program. We are learning that people are willing to pay more on their electric bill to make a statement about the future, and as we learn from the past, the future of green power Switch becomes even brighter. Developing this vision of the future will require making green power a part of everyday life.

Someday soon green power will be like recycling; if you care for the earth you will recycle, and you will sign up for green power. As we look back at the successes of the past year and learn how to become even more successful at promoting Green Power Switch in the coming year, a new set of challenges appear. The environmental community has been promoting clean, renewable technologies for a long time; technology is only now getting to the point where we can count on these technologies to meet our needs. Now it is the challenge of the average consumer of electricity to step up and help us make this transformation into a future that is bright and healthy for both the Earth upon which we live and the people who depend on the Earth to survive.



Generation update

Solar power sites (operational date)

Generation through March 31, 2001

Cumberland Science Museum (4/00)	26,830 kWh
Dollywood Tram C (5/00)	6,646 kWh
Gibson County High School (8/00)	7,124 kWh
Ijams Nature Center (9/00)	5,393 kWh
Cocke County High School (12/00)	2,290 kWh
Duffield Primary School (2/01)	1,747 kWh
Sci-Quest/North Alabama Science Center (2/01)	2,610 kWh
Total solar generation	52,640 kWh

Wind power site

Generation through March 31, 2001

Buffalo Mountain Wind Park (11/00)	1,165,400 kWh
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Participation Update

Largest concentration of Green Power Switch consumers:	Knoxville, Tennessee
Largest concentration of Green Power Switch business consumers:	Sevierville, Tennessee
Total number of green power blocks subscribed:	10,614
Number of green power blocks subscribed since January 1, 2001:	1,373
Number of residential customers subscribing:	3,260
Average number of green power blocks per residential customer:	1.7
Number of commercial customers subscribing:	150 business customers purchasing 4,931 blocks

These public power companies are partnering with TVA to bring Green Power Switch to you:

Alabama: Huntsville Utilities • **Kentucky:** Bowling Green Municipal Utilities •
Mississippi: Northeast Mississippi Electric Power Association,
 City of Oxford Electric Department • **Tennessee:** EPB (Chattanooga),
 Gibson Electric Membership Corporation, Knoxville Utilities Board,
 Nashville Electric Service, Newport Utilities, Oak Ridge Electric Department,
 Powell Valley Electric Cooperative, Sevier County Electric System



**fast
fact:**

The Associated Press named TVA's Green Power Switch program one of the top ten business stories of 2000 in Tennessee.

*We need to
hear from
you!*

Green Power Switch News is interested in knowing what you'd like to read in future issues of our quarterly newsletter. Please write us at the address below or send an e-mail message to greenpowerswitch@tva.com.

If you would like to help us save paper by receiving this newsletter online (available on the Web at www.greenpowerswitch.com) we will be happy to notify you by e-mail when future issues are published on the Internet.

Thanks for your help and your interest!

—Gary Harris
Program Manager,
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public power company*