

# 2015

TVA ENERGYRIGHT® SOLUTIONS

# HIGHLIGHTS REPORT

ENERGY EFFICIENCY • CUSTOMER SYSTEMS • RENEWABLE ENERGY



energyright®  
solutions 



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## EXECUTIVE MESSAGE

# 2015: Wow, what a year!

From rolling out eScore™ Valley-wide to reopening the EnergyRight® Solutions for Business & Industry program to launching Smart Communities and Community Solar projects, the EnergyRight Solutions team had its share of challenges and opportunities in FY2015. However, with everything that occurred, I am proud to say that the Valley successfully met and exceeded our goals for the **eighth straight year!**

Our success in 2015 was due to an amazing collaboration with our partners: local power companies (LPCs), TVPPA, Seven States Power Corporation, TVIC and our directly served customers. A lot of long hours, dedication, focus and hard work by all parties went into accomplishing all that we did in 2015.

Let me share a few highlights with you:

- eScore, an innovative milestone in TVA's energy efficiency efforts, was successfully launched on December 1, 2014. In FY2015 we saw almost 15,000 completed scores, with September showing the highest numbers ever, surpassing even the best month of the In-Home Energy Evaluation program.
- Home Depot, the first Retail eScore Partner (ReP), began its promotion of eScore in March and has referred over 1,000 customers to the program.
- Smart Communities launched with eight local power companies. A collaboration between TVA, LPCs, community organizations and state and local governments, this project will spend \$50 million on low-income home energy improvements across the Valley.
- EnergyRight Solutions for Industry exceeded goal by 37 percent while still managing LPC and end-use customer expectations around the program's reopening.
- Small Business Direct Install exceeded energy savings goal by 239 percent and demand savings goal by 382 percent.
- Green Power Providers launched an online application tool in January 2015 to streamline the application process for LPCs, applicants, installers and TVA, resulting in the processing of over 3,000 agreements and applications.

- In partnership with Appalachian Electric Cooperative and EPB of Chattanooga, we successfully launched two innovative community solar projects.
- EnerNOC ended the year with over 1,400 end-use customer sites and 125 participating LPCs in the peak load reduction program across the Valley.
- Conservation Voltage Regulation contracts were issued to three LPCs as part of the Voltage Optimization project.

While we celebrate these and many more accomplishments of 2015, we want to keep the momentum going into what we expect to be an important and highly productive 2016. This year we will again face challenges and together I know we will continue to rise to the occasion. Our energy efficiency performance helps to keep rates low, which translates into lower bills, which ultimately leads to cost savings for end-customers, while at the same time helping TVA avoid the cost of building additional generation assets.

We will strive to help the Valley prosper by continuing to meet the challenges and goals that lie ahead; working together to better promote clean energy and energy efficiency that will make our Valley a better place to live, work, play and raise happy families.



Sincerely,

*Cynthia L. Herron*

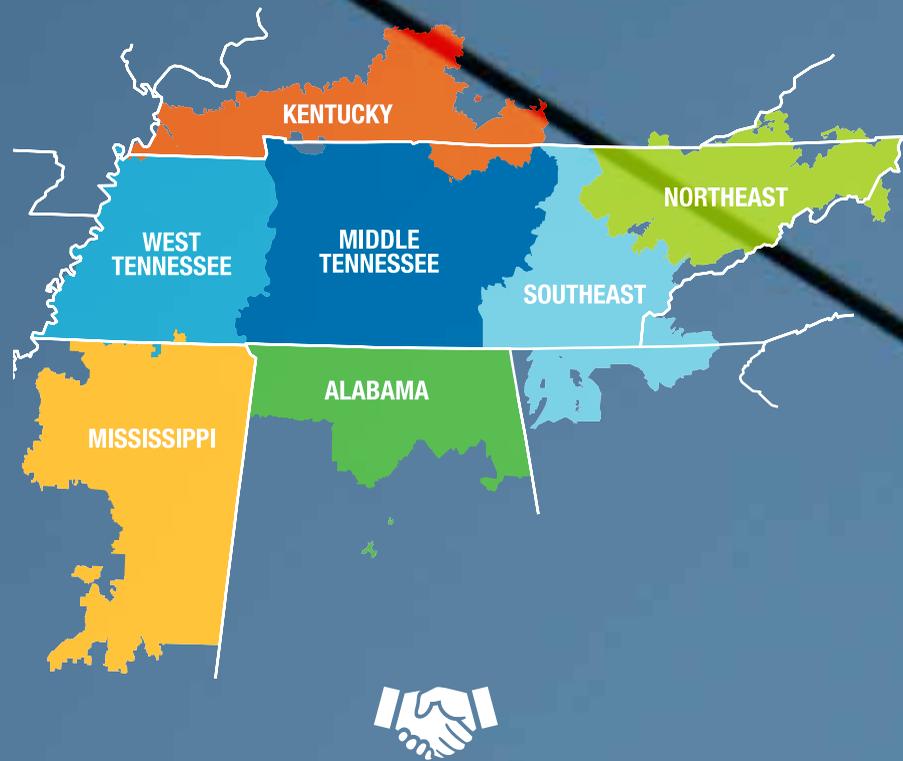
Cynthia L. Herron  
Vice President, EnergyRight® and Renewable Solutions

EXECUTIVE  
MESSAGEPOWERFUL  
PARTNERSHIPS

SUCCESS STORIES

PROGRAM HIGHLIGHTS  
OF 2015ERS FOR  
THE HOMEERS FOR BUSINESS  
AND INDUSTRYERS FOR  
CUSTOMER SYSTEMSRENEWABLE ENERGY  
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APPENDIX



## Powerful Partnerships

TVA would like to thank our local power company (LPC) partners and directly served customers, the Tennessee Valley Public Power Association Inc. (TVPPA), Seven States Power Corporation and the Tennessee Valley Industrial Committee (TVIC) for being an integral part of delivering EnergyRight Solutions (ERS) to people across the Valley. These programs would not be possible without the participation and partnership of these groups.





## Success Stories

Across the region, homeowners, businesses, industry and local power companies have put EnergyRight Solutions principles into practice with impressive results.

These are some of their stories:

eScore Unveiling

eScore Perfect 10

Memphis Music

Memphis Equipment Company

Bridgestone Arena and Nashville Predators

Airbus Helicopters Inc.

HEXPOL Compounding

Pickwick Solar Top 10



## ERSH Success Story



### New eScore Program Unveiled

eScore, an innovative home energy efficiency program developed through a partnership with local power companies and TVA, was launched across the Valley in December 2014.

The program offers rebates on eligible energy efficiency upgrades installed by TVA's Quality Contractor Network members. Participants receive a personalized improvement plan allowing them to work through a range of efficiency improvements from attic insulation to heat pump water heaters. Participants can re-engage with the program as needed to achieve a home score of 10, the home's best possible energy performance.

“The goal of every public power company is providing customers with safe, reliable electricity at the lowest possible cost,” says Frank Rapley, senior manager for TVA EnergyRight Solutions for the Home. “By working together to bring eScore to homeowners, TVA and local power companies are helping to fulfill that promise by making it easier than ever for homeowners to improve their energy efficiency, live comfortably and save money on their energy bills.”





## ERSH Success Story

### First Perfect 10 in eScore™ Program

The home of Erik Daugherty in Joelton, Tennessee, is the first in the TVA service area to score a perfect 10 in the eScore Program. The Daugherty family used rebates from the eScore Program to help offset the cost of energy efficiency upgrades made to their 30-year-old home. Their home renovation project is also paying off with lower power bills! eScore is an exciting residential energy efficiency program in which participants earn rebates for energy efficiency improvements.



## ERSB Success Story



### Memphis Music SMALL BUSINESS DIRECT INSTALL

The iconic Memphis Music store located on Beale Street in downtown Memphis, Tennessee, was retrofitted with new, more efficient lighting equipment as part of the MainStreet Efficiency Program. The linear fluorescent and incandescent lighting throughout the store was upgraded.

Owner Malcom Anthony said he would participate in similar programs. "I highly recommend it," he said. "It's definitely a plus for any small business."

# 4,683 kWh

ENERGY SAVINGS





## ERSB Success Story

MEMPHIS EQUIPMENT  
*Company*



### Memphis Equipment Company SMALL BUSINESS DIRECT INSTALL

The Memphis Equipment Company in Memphis, Tennessee, was upgraded with new, more efficient lighting equipment as part of the MainStreet Efficiency Program. The company's facilities were retrofitted with new lighting and equipment including long-lasting LEDs throughout the company's facilities. The owner of the Memphis Equipment Company invested over \$5,600 to ensure that the entire Memphis location was upgraded.

# 20,081 kWh

ENERGY SAVINGS





## ERSB Success Story



### Bridgestone Arena and Nashville Predators

Bridgestone Arena will become the sixth NHL venue to install a light-emitting diode (LED) lighting system, replacing the 368 metal halide fixtures used for the past 18 years with less than 140 LED fixtures. The upgraded lighting structure will offer benefits to the arena and patrons, including enhanced in-game presentation, energy savings, greater climate control which will lead to better ice conditions, truer color temperatures broadcast on television and even increased clarity for fans attending a hockey game or show.

# 908,872 kWh

ENERGY SAVINGS



## ERSI Success Story



### Airbus Helicopters Inc.

Airbus Helicopters Inc. manufactures, markets, sells and supports the broadest range of civil and parapublic helicopters in the United States. To meet its growing U.S. business volume, Airbus Helicopters Inc. operates a modern production center of excellence near Columbus, Mississippi. This facility opened in 2004 and spans 325,000 sq.ft. This facility produces the AS350 B2/B3 AStar commercial helicopter and the U.S. Army's UH-72A Lakota Light Utility Helicopter. The scope of this lighting project involved the replacement of 372 metal halide fixtures with LED fixtures.

535,701 kWh  
ENERGY SAVINGS



## Non-Road Electric Vehicle Success Story



### HEXPOL Compounding

HEXPOL Compounding of Jonesborough, Tennessee, produces a wide range of synthetic compounds for the transportation, tire, industrial and rolls markets. The Jonesborough facility has a fleet of 14 forklifts, two of which were replaced with electric units with the help of an Electric Forklift Program vendor, the Bailey Company. HEXPOL Compounding received a \$4,000 incentive from the Electric Forklift Program for making the switch.

The Electric Forklift Program provides financial incentives through participating local power companies to encourage industrial and commercial customers to switch from internal combustion to electric forklifts in their facilities.

“The switch to electric lift trucks made a fairly major impact in our daily operations, specifically in quieter operations and reduced emissions,” said Steve Young, maintenance manager of HEXPOL Compounding. “We plan to convert our remaining fleet by the end of 2016.”



## Renewable Energy Solutions Success Story

### Pickwick EC Wins National Solar Award

Pickwick Electric Cooperative of Selmer, Tennessee, claimed the top spot in the Solar Electric Power Association's (SEPA's) Top 10 rankings of U.S. utilities that added the most solar watts per customer. The eighth annual Top 10 rankings, announced April 29, 2015, at SEPA's Utility Solar Conference in San Diego, are part of the educational nonprofit's 2014 Utility Solar Market Snapshot report.

"The achievements of small cooperatives such as Pickwick underline solar energy's momentum across the United States. The market is no longer confined to California or a few other states," said Julia Hamm, SEPA's president and CEO. "Our Solar Market Snapshot also shows the leadership that utilities are providing as the industry works toward creating the new business models and regulatory frameworks needed to ensure a clean, affordable and sustainable energy future for all."



EXECUTIVE MESSAGE	POWERFUL PARTNERSHIPS	SUCCESS STORIES	PROGRAM HIGHLIGHTS OF 2015	ERS FOR THE HOME	ERS FOR BUSINESS AND INDUSTRY	ERS FOR CUSTOMER SYSTEMS	RENEWABLE ENERGY SOLUTIONS	DISTRICT HIGHLIGHTS OF 2015	APPENDIX
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## Highlights of 2015

Having a competitive position within our power system and resource planning models makes ERS a least-cost option. This enables us to reduce load and offset the possible need for additional resources.

**412 GWh**

FY 2015 ERS ACHIEVEMENT

The Valley has exceeded its load management targets eight years in a row.

**\$798 million**

CAPITAL AVOIDANCE AT \$700 PER KILOWATT OF INSTALLED COSTS

**2.0¢ per kWh**

AVERAGE LIFETIME COSTS FOR TVA'S ENERGY EFFICIENCY PROGRAMS

**1,140 MW**

AVOIDED CAPACITY ADDITION

**>2,850 GWh**

ENERGY NEEDS AVOIDED

Savings of EnergyRight Solutions programs from 2008 to 2015



## EnergyRight Solutions for the Home

EnergyRight Solutions for the Home offers a variety of programs to help customers save energy and money. Programs include:

eScore™ Program

Self Audit Program

Heat Pump Program

New Homes Program

Volume Heat Pump Program  
for Manufactured Homes

ENERGY STAR® Pilot Program  
for Manufactured Homes



EXECUTIVE MESSAGE	POWERFUL PARTNERSHIPS	SUCCESS STORIES	PROGRAM HIGHLIGHTS OF 2015	ERS FOR THE HOME	ERS FOR BUSINESS AND INDUSTRY	ERS FOR CUSTOMER SYSTEMS	RENEWABLE ENERGY SOLUTIONS	DISTRICT HIGHLIGHTS OF 2015	APPENDIX
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## eScore Program

The eScore™ program is designed to provide homeowners a simple path to making their home a “10” – its most energy efficient. Homeowners work towards an energy efficiency score for their home at their own pace, earning rebates on qualified upgrades performed by Quality Contractor Network (QCN) members, and re-engaging with the program as many times as needed to achieve their home’s best possible energy performance.

14,882 | 17.23 GWh  
 PROGRAM PARTICIPANTS | ENERGY SAVED

**TOP PERFORMERS**

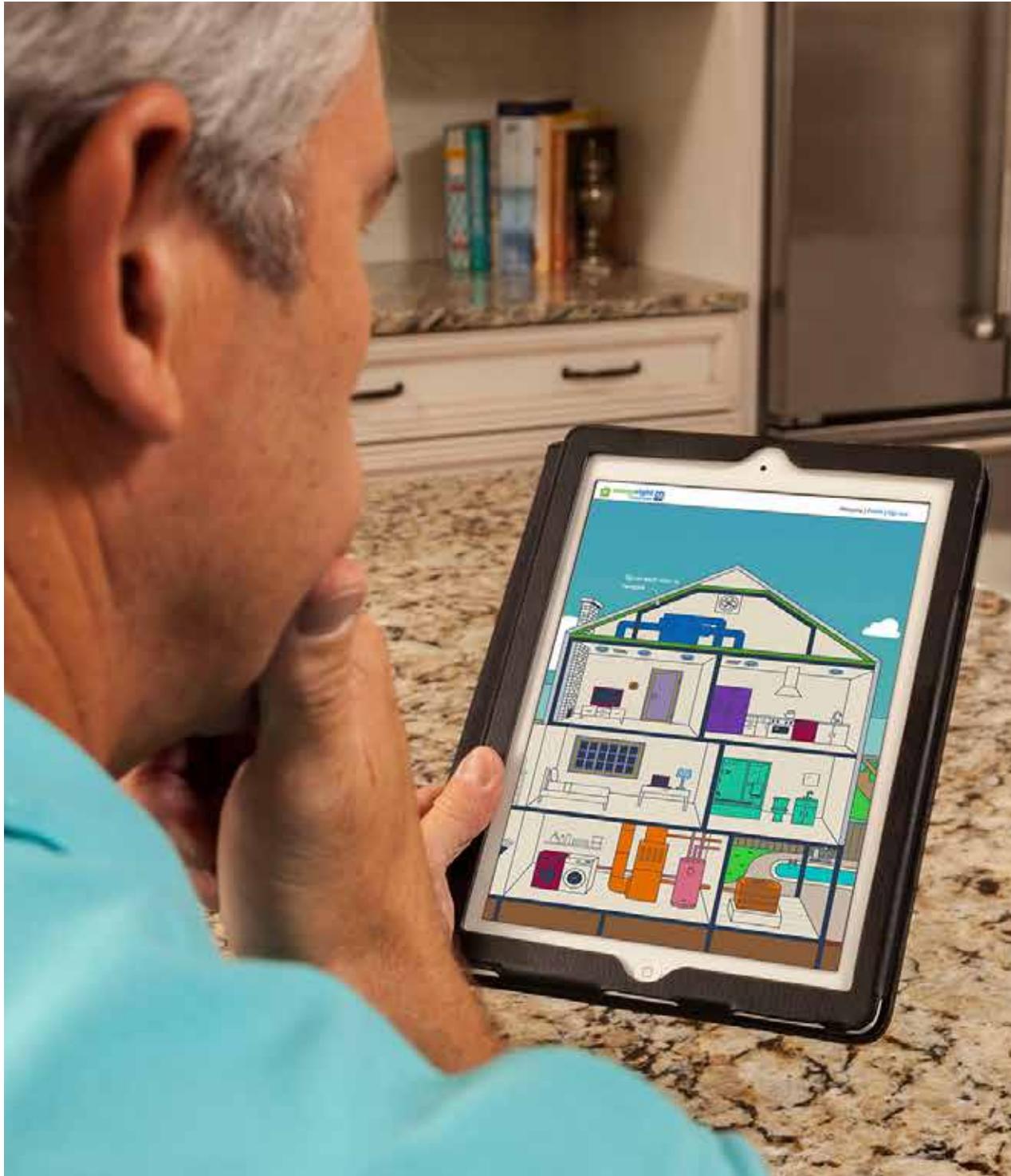
Nashville Electric Service	1,462,668 kWh
Electric Power Board of Chattanooga	1,111,518 kWh
Knoxville Utilities Board	1,079,846 kWh
Middle Tennessee Electric Membership Corporation	934,800 kWh
Volunteer Energy Cooperative	700,738 kWh

**TOP SAVINGS, PERCENT OF SALES**

McMinnville Electric System	0.13%
Amory Water & Electric	0.12%
Scottsboro Electric Power Board	0.12%
Appalachian Electric Cooperative	0.10%
Caney Fork Electric Cooperative	0.09%

More than 4,000 evaluations performed during FY2015 with more than 14,000 homeowners making improvements.

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## Self Audit Program

Self Audit is a do-it-yourself online program that allows residential customers to input information about their home and receive a personalized report with energy efficiency recommendations. Customers completing an audit may then participate in the eScore program and receive rebates for energy efficiency upgrades. First-time participants also receive an energy efficiency starter kit.



More than 190,000 homeowners have received a kit since the promotion began in 2008.

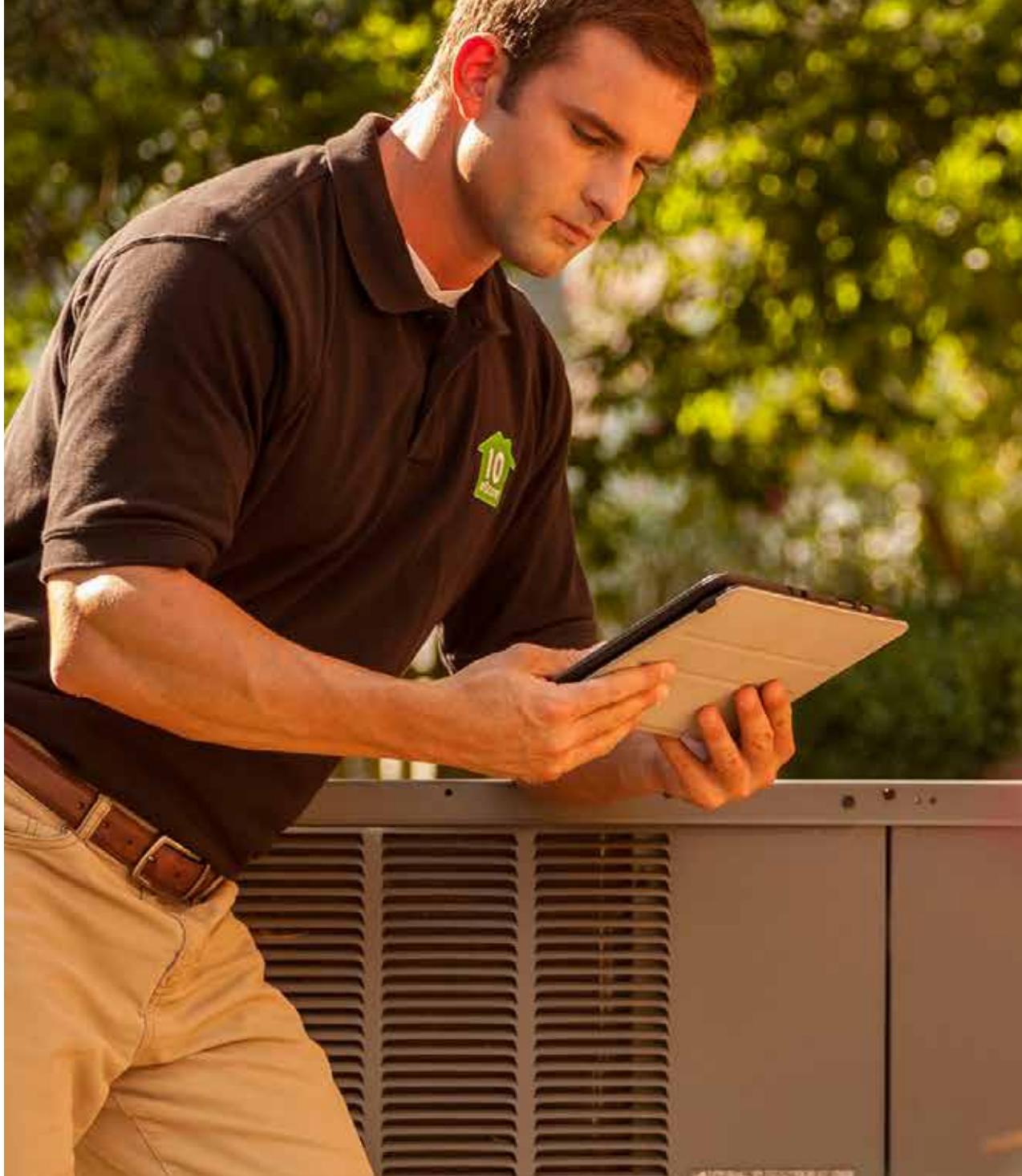
### TOP PERFORMERS

Memphis Light, Gas and Water Division	1,128,244 kWh
Nashville Electric Service	810,992 kWh
Knoxville Utilities Board	583,856 kWh
Middle Tennessee Electric Membership Corporation	550,368 kWh
Sequachee Valley Electric Cooperative	397,488 kWh

### TOP SAVINGS, PERCENT OF SALES

Scottsboro Electric Power Board	0.14%
Guntersville Electric Board	0.09%
Sequachee Valley Electric Cooperative	0.09%
North Alabama Electric Cooperative	0.07%
Marshall-DeKalb Electric Cooperative	0.06%

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## Heat Pump Program

One of TVA's longest running efficiency programs, the Heat Pump Program promotes the installation of high-efficiency heat pumps in homes and small businesses by offering incentives to local power companies for installations. TVA fosters a Quality Contractor Network (QCN) to maintain high installation standards.

4,029  
INSTALLATIONS

7.53 GWh  
ENERGY SAVED

### TOP PERFORMERS

Blue Ridge Mountain Electric Membership Corporation	516,229 kWh
North Georgia Electric Membership Corporation	380,835 kWh
Johnson City Power Board	298,417 kWh
Pennyrile Rural Electric Cooperative Corporation	227,948 kWh
Prentiss County Electric Power Association	226,079 kWh

### TOP SAVINGS, PERCENT OF SALES

Scottsboro Electric Power Board	0.15%
Prentiss County Electric Power Association	0.14%
Blue Ridge Mountain Electric Membership Corporation	0.12%
Fort Payne Improvement Authority	0.10%
Cookeville Electric Department	0.06%



## New Homes Program

Energy efficient new homes built to TVA’s standards not only save homeowners money on their energy bill each month and provide increased comfort, but may also be eligible for incentives from TVA and local power companies. Builders participating in the program find it flexible since they may achieve energy efficiency at three levels: EnergyRight, EnergyRight Platinum and EnergyRight Platinum Certified. Additional incentives are available for installing an advanced water heater.

2,348

NEW HOMES INCENTIVIZED

8.65 GWh

ENERGY SAVED

Alabama was the top performing district with 1,302 new homes.  
Over 67 percent of all new homes in the Alabama program were built in the Huntsville area.

**TOP PERFORMERS**

Huntsville Utilities	4,107,330 kWh
City of Athens Electric Department	578,358 kWh
Sevier County Electric System	371,319 kWh
Blue Ridge Mountain Electric Membership Corporation	300,564 kWh
City of Florence Electricity Department	251,928 kWh

**TOP SAVINGS, PERCENT OF SALES**

Muscle Shoals Electric Board	0.18%
Russellville Electric Board	0.16%
Huntsville Utilities	0.16%
Loudon Utilities	0.15%
Tuscumbia Electricity Department	0.10%



# Volume Heat Pump Program for Manufactured Homes

TVA's Volume Heat Pump Program for Manufactured Homes promotes the installation of electric heat pumps in qualified manufactured homes. This program is administered by working with and paying incentives directly to a network of HVAC wholesalers. Those wholesalers are incentivized for selling properly sized heat pumps in lieu of central air conditioning units. This allows homeowners to not only have efficient air conditioning, but save on their heating costs as well.

2,311

HEAT PUMPS INSTALLED

7.13 GWh

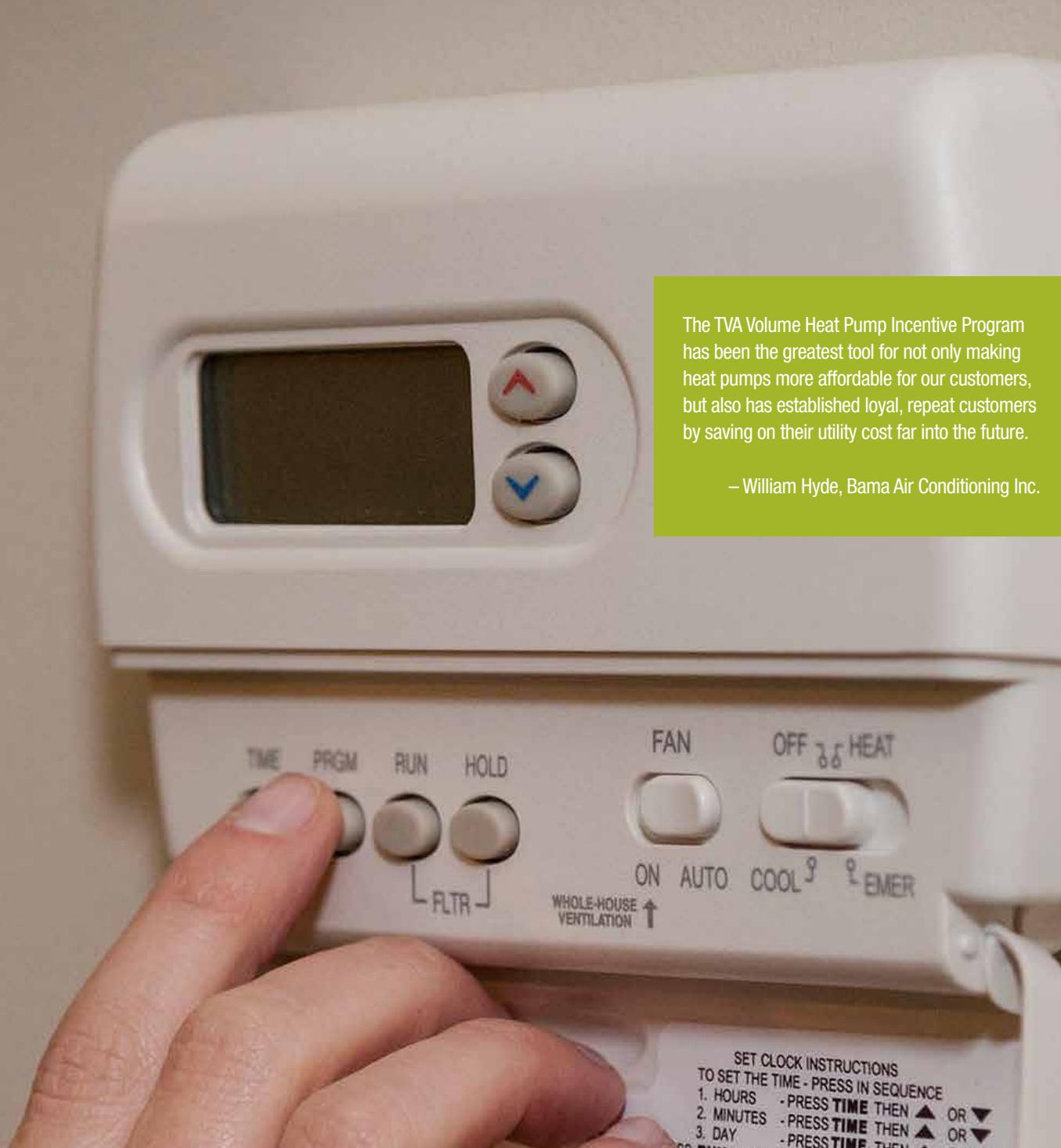
ENERGY SAVED

### TOP PERFORMERS

Volunteer Energy Cooperative	425,730 kWh
Knoxville Utilities Board	354,775 kWh
Powell Valley Electric Cooperative	203,610 kWh
Appalachian Electric Cooperative	197,440 kWh
Upper Cumberland Electric Membership Corporation	194,355 kWh
Greenville Light & Power System	194,355 kWh

### TOP SAVINGS, PERCENT OF SALES

Cullman Power Board	0.06%
Newport Utilities	0.06%
Powell Valley Electric Cooperative	0.06%
Sweetwater Utilities Board	0.06%
Plateau Electric Cooperative	0.05%



The TVA Volume Heat Pump Incentive Program has been the greatest tool for not only making heat pumps more affordable for our customers, but also has established loyal, repeat customers by saving on their utility cost far into the future.

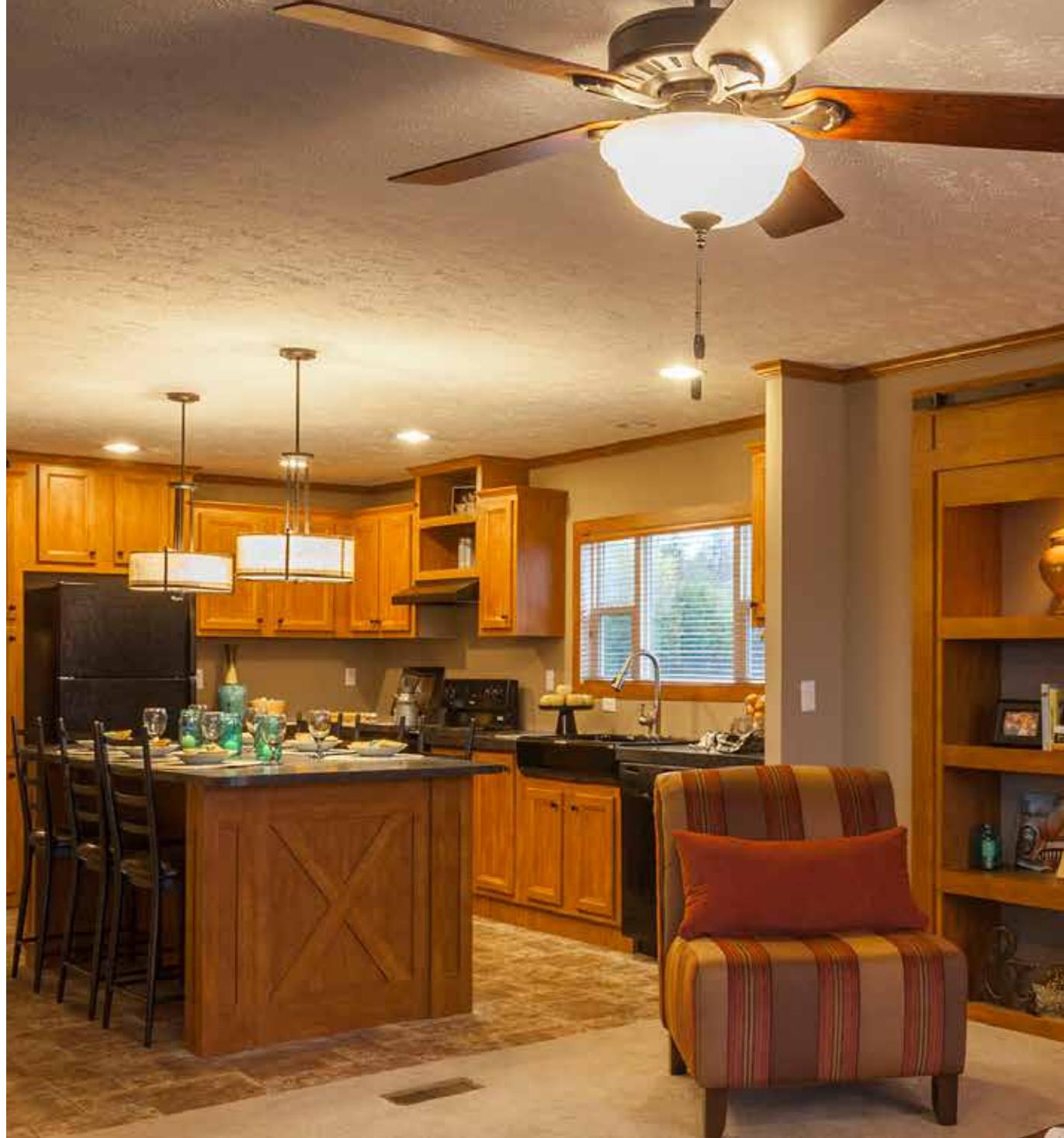
— William Hyde, Bama Air Conditioning Inc.

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## ENERGY STAR Pilot Program for Manufactured Homes

Through incentives paid to manufactured homes producers, TVA is helping to offset the cost of building ENERGY STAR qualified manufactured homes to be sited in the Valley with an electric heat pump. ENERGY STAR manufactured homes with a heat pump will lower home electric bills by \$50-\$70 per month, providing thousands of dollars in savings over the life of the home.

FY2015 installations increased 9 percent over FY2014.

# 1,818

ENERGY STAR MANUFACTURED HOMES

# 21.93 GWh

ENERGY SAVED

“Fleetwood Homes of Tennessee is proud to be a TVA partner and supporter of the ENERGY STAR Pilot Program for Manufactured Homes. The program is an ideal fit with our company’s commitment to provide our customers with homes that are affordable to buy and to own and a major step toward a sustainable future for generations to come.”

– Joseph Stegmayer, CEO, CAVCO/Fleetwood

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## Quality Contractor Network (QCN)

The QCN, a group of highly skilled and knowledgeable contractors, helps ensure that homeowners' energy efficiency upgrades are installed correctly, provides service down the road and even coordinates financing through the local power company. The QCN is integral to the eScore, Heat Pump and New Homes programs.

# 10,740

ESCORE INSPECTIONS IN FY 2015

# \$3.62 million

IN CUSTOMER SPENDING THROUGH ESCORE

# 4.57 out of 5

CUSTOMER SATISFACTION WITH QCN

# 81%

PARTICIPANTS  
ENTERING ESCORE  
PROGRAM THROUGH  
CONTRACTOR PATH





## EnergyRight Solutions for Business and Industry

EnergyRight Solutions for Business (ERSB) and EnergyRight Solutions for Industry (ERSI) provide assessments of energy use and incentives for qualifying businesses and industries that can reduce their electricity usage. In this section:

ERSB GWh Saved

ERSB Incentives Paid

ERSI GWh Saved

ERSI Incentives Paid

Preferred Partners Network (PPN)



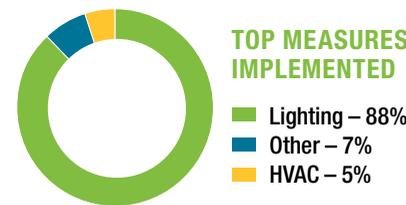


## ERSB GWh Saved

EnergyRight Solutions for Business helps businesses become more energy efficient by providing assessments of energy use and incentives for qualifying businesses.

115.37 GWh  
ENERGY SAVED

1.51 GWh  
AMOUNT EXCEEDED GOAL FOR ERSB

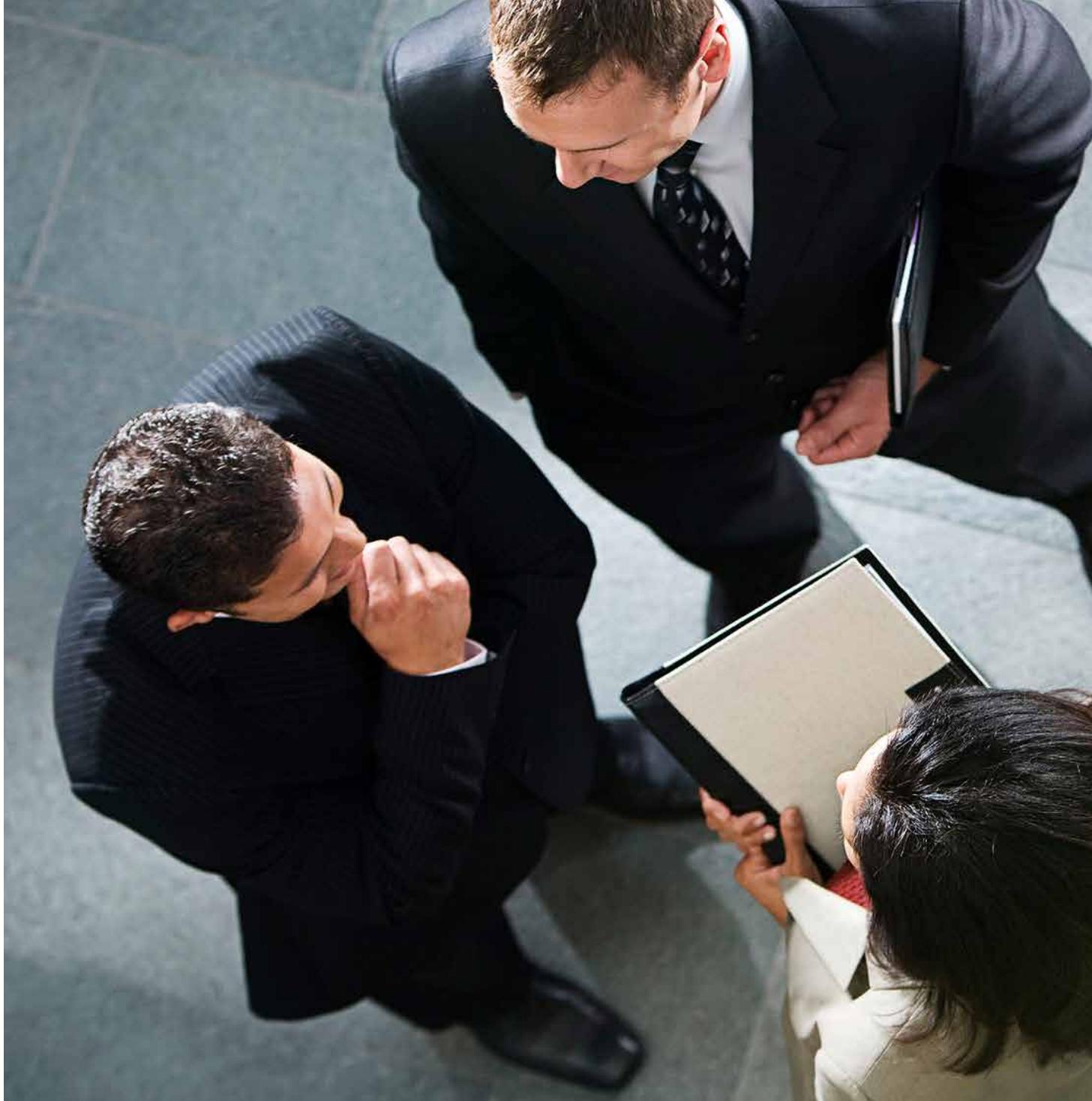


### TOP PERFORMERS

Memphis Light, Gas & Water Division	28,994,206 kWh
Nashville Electric Service	15,355,616 kWh
Central Electric Power Association	8,223,021 kWh
Knoxville Utilities Board	7,632,691 kWh
Lenoir City Utilities Board	3,592,843 kWh

### TOP SAVINGS, PERCENT OF SALES

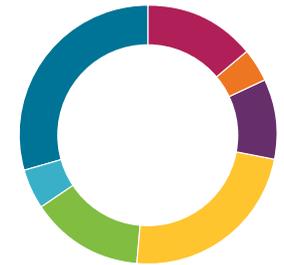
Central Electric Power Association	3.32%
McMinnville Electric System	1.80%
Muscle Shoals Electric Board	1.69%
Hickman Electric Plant Board	1.52%
Sand Mountain Electric Cooperative	1.45%



## ERSB Incentives Paid

**\$6.4 million**  
INCENTIVES PAID TO BUSINESS CUSTOMERS

**124** LOCAL POWER COMPANY PARTICIPANTS ACTIVE IN FY2015



**ENERGY SAVINGS BY DISTRICT**

- AL – 14%
- KY – 4%
- MS – 10%
- MID TN – 23%
- NE – 14%
- SE – 5%
- WEST TN – 29%

### TOP BUSINESS PROGRAM PARTICIPANTS

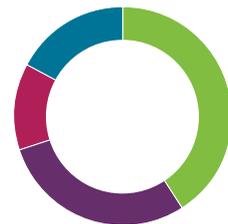
Retail Trade	15%
Transportation and Warehousing	13%
Wholesale Trade	10%
Agriculture, Forestry, Fishing and Hunting	4%
Other Services	58%



## ERSI GWh Saved

The industrial sector alone accounts for about one-third of U.S. energy use. Customized TVA technical assistance is available to industrial users of power to devise plantwide, holistic approaches to energy savings. TVA helps customers maximize efficiency, control expenses and boost their bottom lines.

**199.80 GWh**  
ENERGY SAVED



**TOP MEASURES IMPLEMENTED**

- Lighting – 41%
- Process Improvement – 29%
- Compressed Air – 13%
- All Others – 17%

**TOP PERFORMERS**

Warren Rural Electric Cooperative Corporation	8.75 GWh
Alcorn County Electric Power Association	8.40 GWh
Nashville Electric Service	7.20 GWh
Electric Power Board of Chattanooga	6.80 GWh
Fort Payne Improvement Authority	6.33 GWh

**TOP SAVINGS, PERCENT OF SALES**

Fort Payne Improvement Authority	8.12%
Arab Electric Cooperative	6.84%
Weakley County Municipal Electric System	4.77%
Bessemer Electric Service	4.14%
Alcorn County Electric Power Association	3.73%

Directly served customers reduced energy 88.62 GWh, or 44 percent of the total 199.80 GWh saved.



## ERSI Incentives Paid

# \$16.7 million

INCENTIVES PAID TO INDUSTRIAL CUSTOMERS



### ENERGY SAVINGS BY DISTRICT

- AL – 6%
- KY – 20%
- MS – 16%
- MID TN – 33%
- NE – 9%
- SE – 9%
- WEST TN – 6%

### TOP INDUSTRIAL PROGRAM PARTICIPANTS

Paper Mills	16%
Plastic Materials and Resins	13%
Primary Metals	9%
Motor Vehicles and Passenger Car Bodies	5%
Nonwoven Fabrics	5%
Other	52%

**\$7.8 million went to directly served customers and the rest to LPC-served customers.**



## Preferred Partners Network (PPN)

TVA's PPN is a network of general contractors, architects, engineers and trade allies who are experts in their field, and have training and insight into the ERSB and ERSI programs.

**315.17 GWh**  
 SAVED BY ERSB AND ERSI PROGRAMS

**75%**  
 OF GWH SAVINGS  
 BY PPN MEMBERS

**236.8 GWh**  
 SAVED BY PPN MEMBERS

**398**  
 TOTAL PPN MEMBERS  
 AS OF SEPT. 30, 2015

EXECUTIVE  
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PARTNERSHIPS

SUCCESS STORIES

PROGRAM HIGHLIGHTS  
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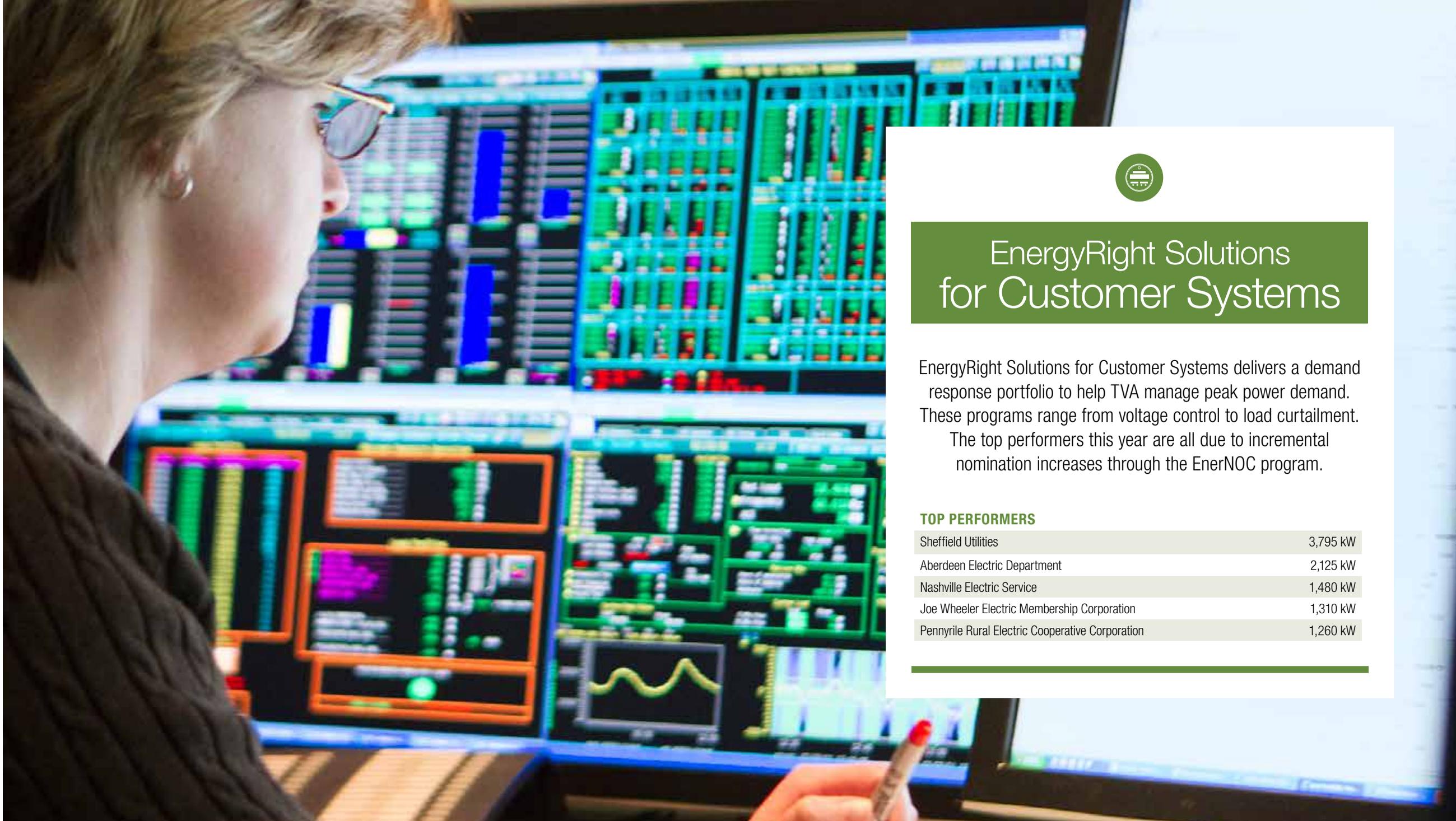
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## EnergyRight Solutions for Customer Systems

The energy business is a balance of power demand and generation. New systems of demand monitoring and response add megawatts to the balance, not by building brick and mortar power generation plants, but by using “virtual power plants” to lower power consumption.

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## EnergyRight Solutions for Customer Systems

EnergyRight Solutions for Customer Systems delivers a demand response portfolio to help TVA manage peak power demand. These programs range from voltage control to load curtailment. The top performers this year are all due to incremental nomination increases through the EnerNOC program.

### TOP PERFORMERS

Sheffield Utilities	3,795 kW
Aberdeen Electric Department	2,125 kW
Nashville Electric Service	1,480 kW
Joe Wheeler Electric Membership Corporation	1,310 kW
Pennyrile Rural Electric Cooperative Corporation	1,260 kW



## Renewable Energy Solutions

Renewable energy in the form of wind, solar, low-impact hydro and biomass is contributing significant generation to the TVA service area. These programs are adding to the mix:

Green Power Switch

Green Power Switch Pilot Sales

Green Power Providers

Renewable Standard Offer  
and Solar Solutions Initiative



# Green Power Switch

Green Power Switch offers a simple way for consumers to support renewable energy sources such as wind, solar, low-impact hydro and biomass. Each \$4 purchase ensures a block of 150 kilowatt-hours of renewable energy is added to the TVA grid, above and beyond what's already included in the general energy mix.

1,077,977 MWh

RENEWABLE GENERATION PROGRAM-TO-DATE

11,820

CURRENT CUSTOMERS

**TOP PERFORMERS**                      **BLOCKS SOLD**

Knoxville Utilities Board	164,251
Nashville Electric Service	78,995
Memphis Light, Gas & Water Division	50,321
Electric Power Board of Chattanooga	41,158
Murfreesboro Electric Department	40,678

609,826

BLOCKS SOLD FOR FY 2015

Since the program began, GPS customers have supported enough megawatt-hours of renewable power to supply the electricity needs for more than 69,500 average homes in the TVA service area.



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## Green Power Switch Pilot Sales

In 2015, Green Power Switch continued to pilot two additional customer options in a limited number of power company regions.

The Southeastern RECs pilot offers larger customers the opportunity to purchase regional renewable energy in bulk at a discounted rate and the Pure Solar pilot provides customers an opportunity to focus their support on locally installed solar energy.

123,010 MWh		88 MWh
SOUTHEASTERN RECS		PURE SOLAR*

*\*Pure Solar Pilot ended July 2015.*





## Green Power Providers

Green Power Providers incentivizes Valley homeowners and businesses to install and operate their own renewable energy systems.

2,522

PARTNER INSTALLATIONS  
PROGRAM-TO-DATE

93.07 MW

RENEWABLE GENERATION DC NAMEPLATE  
CAPACITY PROGRAM-TO-DATE

Another 303 projects, representing nearly 5.18 MW of additional power, were approved by TVA and were in various stages of construction as of September 30, 2015.

RESOURCE	OPERATING MW – DC NAMEPLATE
Solar	81.77
Biomass (including landfill gas and wastewater methane)	11.17
Wind	.13
Hydroelectric	.009
<b>Total Operating</b>	<b>93.07</b>



## Renewable Standard Offer and Solar Solutions Initiative

26 Projects to Date = 83.5 MW Operating

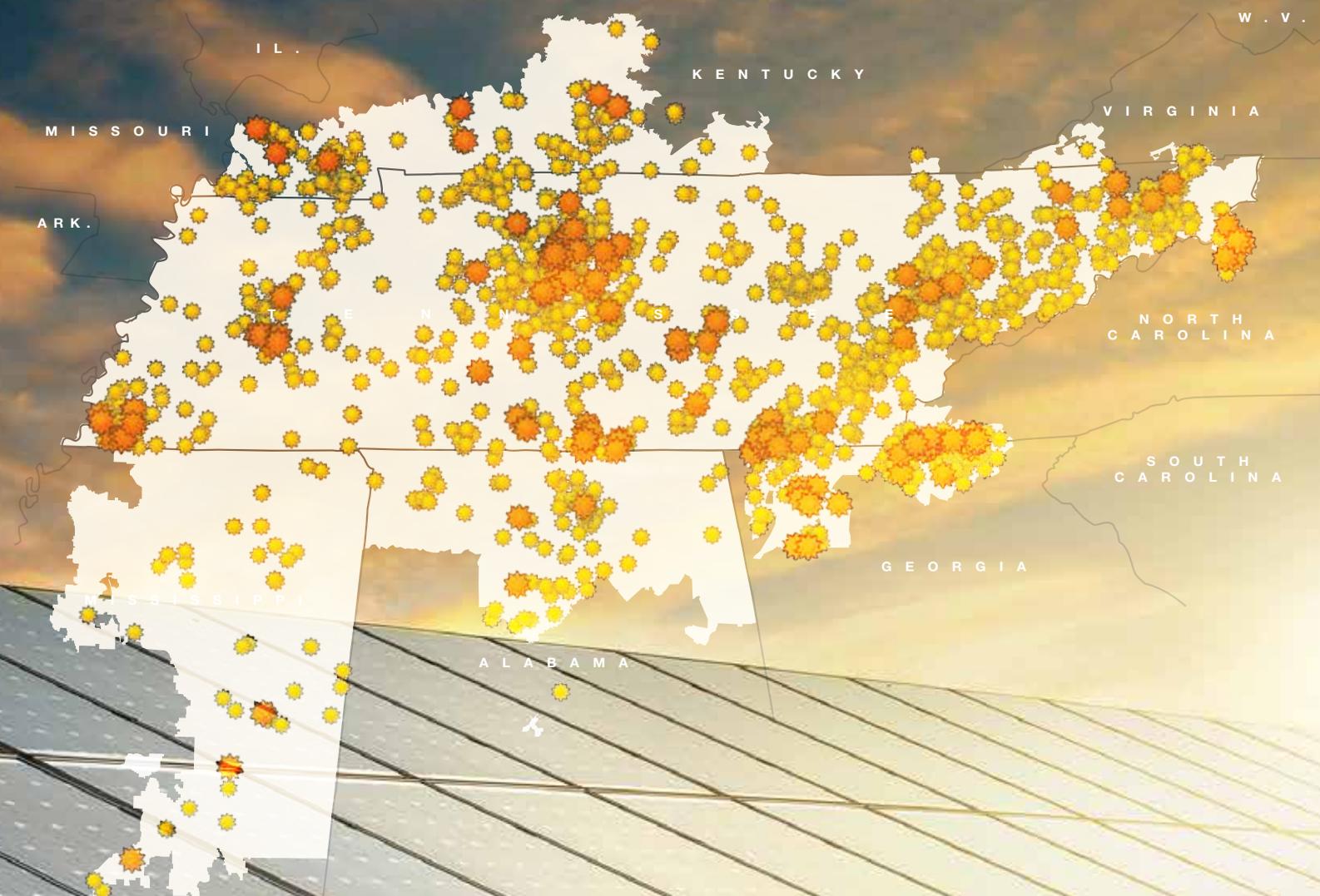
Another 55 project applications, representing about 194 MW of additional power, were either received or approved by TVA and were in various stages of construction as of September 30, 2015.

Of these totals, 15 projects (8.79 MW) were operating under the Solar Solutions Initiative, with another 41 projects (33.53 MW) at various stages of construction as of September 30, 2015.

RESOURCE	NAMEPLATE MW
Solar	50.34
Biomass	20.00
Landfill Gas	13.15
<b>Total</b>	<b>83.49</b>



# Operating Solar Installations



## SOLAR INSTALLATIONS

-  Up to and including 50 kW (2,333 installations)
-  More than 50 kW (199 installations)
-  TVA Service Area

EXECUTIVE MESSAGE	POWERFUL PARTNERSHIPS	SUCCESS STORIES	PROGRAM HIGHLIGHTS OF 2015	ERS FOR THE HOME	ERS FOR BUSINESS AND INDUSTRY	ERS FOR CUSTOMER SYSTEMS	RENEWABLE ENERGY SOLUTIONS	DISTRICT HIGHLIGHTS OF 2015	APPENDIX
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DISTRICT HIGHLIGHTS OF 2015

# Alabama District

## Heil Environmental

Heil Environmental, located in Fort Payne, Alabama, completed three EnergyRight Solutions for Industry projects in FY2015. They upgraded to LED lighting and installed VFDs on their exhaust fans for a total of 6.3 GWh in electrical savings.



## Poultry Farms in Alabama

There have been a total of 79 ERSB projects completed this year with poultry farms totaling over 5 GWh in energy savings. LED Lighting Seminars, hosted by TVA and tailored to poultry farmers, have contributed to this success.

## Energy Savings at Madison City School System

Four schools in the Madison City School System participated in the ERSB program. This resulted in over \$26,000 in incentives and over 344,000 kWh of energy savings.



## EnergyRight Solutions for the Home – New Homes Program

The Alabama District certified 1,302 new homes or over 55 percent of all



EnergyRight New Homes across the Valley for a savings of 5.2 million kWh. Huntsville Utilities certified 866 homes or over 67 percent of the new homes in the Alabama District.

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DISTRICT HIGHLIGHTS OF 2015

# Kentucky District

## Glasgow EPB-SET Award

Glasgow Electric Plant Board was awarded \$7.43 million as part of the Smart Energy Technologies (SET) project. The SET project is part of the EPA Smart Communities initiative. Glasgow EPB will implement innovative demand response and other smart technologies with a novel new “Infotricity Retail Rate.” The intent of this project includes exploring human interaction with smart grid technologies and demonstrating the value of the smart grid to consumers and the community.



## Renewable Leaders

Warren RECC and West Kentucky RECC ranked in the top 10 Valleywide for both installed capacity and the number of installations in the Green Power Providers Program.



Hopkinsville Electric System completed the installation of a 16 kW solar project at their office. They are the third local power company in the Kentucky District with an LPC-owned project that participates in the Green Power Providers Program.



Pennyrile RECC and Warren RECC also have solar installations that participate in Green Power Providers.



## Graves County School System

The Graves County School System participated in the EnergyRight Solutions for Business Program at seven different schools. This initiative was supported by West Kentucky RECC and Mayfield Electric & Water Systems. The school system implemented improvements which resulted in over 672,000 kWh in energy savings and earned incentives of over \$46,000.



## Mayfield Electric & Water Systems

Mayfield Electric & Water Systems implemented a street lighting retrofit project that yielded approximately 311,000 kWh in energy savings. This project also significantly improved the lighting quality for the public.





## DISTRICT HIGHLIGHTS OF 2015

# Middle Tennessee District

### First Perfect 10 in the Valley

A Nashville Electric Service customer earned the first perfect 10 in the Tennessee Valley through eScore, a program offering a clear path to make existing homes as energy efficient as possible. Thrilled with lowering their electric bill, these homeowners also benefit from improved indoor air quality. Plus, the homeowners have peace of mind knowing their two young children are growing up in a healthy environment and are learning to use energy wisely at an early age.



### eScore as Education and Outreach Tool

McMinnville Electric System (MES) sees the eScore program as an opportunity to better connect with their customers. Not only does the program help their customers save money but it also ensures quality installation of energy efficiency measures such as heat pumps and insulation. MES sees this program as an opportunity to serve their customers beyond just providing electric service. It is also a great educational and outreach tool with endless possibilities.



### Novamet Lighting Upgrade

Middle Tennessee Electric Membership Corporation partnered with Novamet to participate in the EnergyRight Solutions for Industry program. The project involved conversion of high bay lighting to energy efficient LED fixtures resulting in an annual energy savings of over 530,000 kWh and earned incentives of \$24,000.



### DREMC Awarded Demand Response Project

Duck River Electric Membership Corporation (DREMC) was awarded a 10-year contract representing approximately \$10.5 million as part of the Voltage Optimization project under the EPA initiative. DREMC will continuously optimize voltage levels on eligible control zones to enable energy savings estimated to deliver over 75 percent of the total Conservation Voltage Regulation program savings.



A Touchstone Energy® Cooperative





DISTRICT HIGHLIGHTS OF 2015

# Mississippi District



Projects that began generation during FY2015. Three 1 MW sites are in Okolona Electric Department's service territory with one 1 MW site in 4-County EPA's service territory.

### Poultry Farms

Central EPA, East Mississippi EPA and 4-County EPA attended the Mississippi Poultry Association Annual Convention. During 2015, Mississippi poultry farmers benefited from TVA's EnergyRight Solutions for Business programs. Mississippi local power companies had 75 poultry farm commercial projects in 2015 resulting in 3.8 GWh of savings.



### City of Tupelo's Minority Business Expo

The City of Tupelo Light & Water and TVA joined together to sponsor the City of Tupelo's Minority Business Expo. The event was part of the Mississippi Development Authority's Small Business Development Program.



### eScore Program

TVA joined with the City of Oxford Electric Department to promote eScore and self-audit programs during the Double Decker Art Festival. The festival is Mississippi's largest outdoor community event with 60,000 attendees.

### Renewable Energy

Mississippi had four 1 MW Renewable Standard Offer Solar



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DISTRICT HIGHLIGHTS OF 2015

# Northeast District



### Extreme Energy Makeover

TVA awarded the cities of Oak Ridge and Knoxville funding and contracts for Extreme Energy Makeover (EEM) projects. Both cities will be able to use the project funds to make a certain number of preselected residential homes more energy efficient. The ultimate goal of these EEM projects is to reduce energy usage by at least 25 percent in each of these homes. Common upgrades include weather stripping, HVAC upgrades, air sealing and insulation.



### Community Solar EPA Award

Appalachian Electric Cooperative won the Community Solar EPA contract from TVA and will be installing a community solar project in 2016.



### Jarden Zinc Lighting Upgrade

Greeneville Light & Power System helped Jarden Zinc retrofit its facility with LED lighting fixtures. This resulted in over 2.8 GWh of reduction in annual energy consumption and over \$160,000 in annual energy savings.



### TVA, KUB and EPRI Partnership

TVA, KUB and EPRI worked together and completed an Energy Efficiency Demonstration 2.0 – Controllable High Bay Lighting Demonstration Pilot Project at KUB’s warehouse facilities at its Middlebrook Pike campus.



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DISTRICT HIGHLIGHTS OF 2015

# Southeast District

## eScore Program

The Electric Power Board of Chattanooga ranked first in the Southeast District in the eScore Program for the highest kWh savings (1,111,518), number of installs (16,077) and incentive payout (\$160,571).



## Apache Mills Upgrade

North Georgia EMC helped Apache Mills upgrade their lighting by changing out 104 fluorescent fixtures, 353 metal halide fixtures and 84 high bay fluorescent fixtures to comparable LED fixtures. This project resulted in 117 kW of reduction in peak demand and over 1.2 GWh of reduction in annual usage. This energy reduction represents almost 10 percent of the entire EnergyRight Solutions for Business energy reduction for the Southeast District in 2015.



## EnergyRight Solutions for Youth Program

The Southeast District had the highest participation of all districts in the EnergyRight Solutions for Youth program with 11 out of 16 LPCs utilizing the program for a participation rate of 69 percent.



## Renewable Energy

Blue Ridge Mountain EMC leads all LPCs in program-to-date operating MWs at 30.29 with 620 solar installations.



**Blue Ridge Mountain EMC**



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DISTRICT HIGHLIGHTS OF 2015

# West Tennessee District

## Pickwick Electric Cooperative receives SEPA Award

Solar Electric Power Association awarded Pickwick Electric Cooperative with the No. 1 ranking for adding the most solar per watts per customer. This achievement shows solar energy’s momentum throughout the United States and within the Tennessee Valley region.



## MainStreet Efficiency Program

In partnership with TVA and MLGW, MainStreet Efficiency provides lighting upgrade incentives to small businesses and organizations to reduce electric use, lower utility bills and improve lighting quality. The program has performed over 6,200 free lighting assessments for small businesses and organizations with over 6,000 of them receiving lighting upgrades and the financial incentives.



## “Snuffing out” Energy Waste

American Snuff Company (ASC) in Memphis was honored recently for having the largest energy-saving project in West Tennessee for FY2015 for customers less than 5MW. Their new energy efficiency lighting design saved the company 2.25 GWh. ASC worked with TVA and Memphis Light Gas & Water to implement the new design and meet their energy efficiency goals. This project has now set the standard for their other facilities.



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## Appendix

For a complete list of activities  
by power company, [click here](#).

LPC Top Performers

Top Performers by Program

Description of Programs

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## LPC Top Performers

TOTAL PROGRAM SAVINGS		
TOP LOCAL POWER COMPANY PERFORMERS	KWH	% OF FY PROGRAM TOTAL
Memphis Light, Gas & Water Division	36,663,511	11.93%
Nashville Electric Service	26,283,816	8.55%
Knoxville Utilities Board	17,006,598	5.53%
Electric Power Board of Chattanooga	11,758,881	3.83%
Warren Rural Electric Cooperative Corporation	11,314,170	3.68%
Alcorn County Electric Power Association	8,927,801	2.91%
Huntsville Utilities	8,670,476	2.82%
Central Electric Power Association	8,667,743	2.82%
Middle Tennessee Electric Membership Corporation	7,281,980	2.37%
Fort Payne Improvement Authority	6,634,100	2.16%
<b>Program Total</b>	<b>307,268,705</b>	

SAVINGS TO SALES		
TOP LOCAL POWER COMPANY PERFORMERS	KWH	% OF FY SALES TOTAL
Fort Payne Improvement Authority	6,634,100	1.98%
Etowah Utilities	5,252,094	1.88%
Alcorn County Electric Power Association	8,927,801	1.37%
McMinnville Electric System	2,141,310	0.99%
Central Electric Power Association	8,667,743	0.91%
Brownsville Utility Department	1,852,307	0.84%
Muscle Shoals Electric Board	2,531,011	0.79%
City of Tupelo Water & Light Department	4,720,200	0.70%
Hickman Electric Plant Board	136,536	0.66%
Sweetwater Utilities Board	1,608,765	0.63%
<b>Program Total</b>	<b>307,268,705</b>	<b>0.22%</b>

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## Top Performers by Program

### TOP PERFORMERS – eSCORE

TOP LOCAL POWER COMPANY PERFORMERS	KWH	% OF FY PROGRAM TOTAL	KW	% OF FY PROGRAM TOTAL	TOTAL PARTICIPANTS	% OF SAVINGS VS SALES
Nashville Electric Service	1,462,668	9%	202	7%	19,682	0.03%
Electric Power Board of Chattanooga	1,111,518	6%	180	6%	16,077	0.05%
Knoxville Utilities Board	1,079,846	6%	228	8%	10,109	0.04%
Middle Tennessee Electric Membership Corporation	934,800	5%	167	6%	8,474	0.03%
Volunteer Energy Cooperative	700,738	4%	106	4%	4,015	0.05%
<b>Program Total</b>	<b>17,228,061</b>		<b>2,886</b>		<b>152,343</b>	

### TOP PERFORMERS – SELF AUDIT PROGRAM

TOP LOCAL POWER COMPANY PERFORMERS	KWH	% OF FY PROGRAM TOTAL	KW	% OF FY PROGRAM TOTAL	TOTAL PARTICIPANTS	% OF SAVINGS VS SALES
Memphis Light, Gas & Water Division	1,128,244	12%	385	17%	1,569	0.02%
Nashville Electric Service	810,992	9%	189	8%	1,114	0.02%
Knoxville Utilities Board	583,856	6%	136	6%	802	0.02%
Middle Tennessee Electric Membership Corporation	550,368	6%	129	6%	756	0.02%
Sequachee Valley Electric Cooperative	397,488	5%	93	4%	546	0.09%
<b>Program Total</b>	<b>9,385,584</b>		<b>2,313</b>		<b>12,912</b>	

### TOP PERFORMERS – HEAT PUMP PROGRAM

TOP LOCAL POWER COMPANY PERFORMERS	KWH	% OF FY PROGRAM TOTAL	KW	% OF FY PROGRAM TOTAL	TOTAL PARTICIPANTS	% OF SAVINGS VS SALES
Blue Ridge Mountain Electric Membership Corporation	516,229	7%	120	6%	321	0.12%
North Georgia Electric Membership Corporation	380,835	5%	98	5%	195	0.03%
Johnson City Power Board	298,417	4%	76	4%	154	0.03%
Pennyrile Rural Electric Cooperative Corporation	227,948	3%	57	3%	122	0.04%
Prentiss County Electric Power Association	226,079	3%	58	3%	116	0.14%
<b>Program Total</b>	<b>7,531,216</b>		<b>1,881</b>		<b>4,027</b>	

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## TOP PERFORMERS – NEW HOMES PROGRAM

TOP LOCAL POWER COMPANY PERFORMERS	KWH	% OF FY PROGRAM TOTAL	KW	% OF FY PROGRAM TOTAL	TOTAL PARTICIPANTS	% OF SAVINGS VS SALES
Huntsville Utilities	4,107,330	47%	949	48%	866	0.16%
City of Athens Electric Department	578,358	7%	140	7%	127	0.09%
Sevier County Electric System	371,319	4%	88	4%	91	0.07%
Blue Ridge Mountain Electric Membership Corporation	300,564	3%	73	4%	66	0.07%
City of Florence Electricity Department	251,928	3%	60	3%	62	0.04%
<b>Program Total</b>	<b>8,650,955</b>		<b>1,953</b>		<b>2,348</b>	

## TOP PERFORMERS – VOLUME HEAT PUMP PROGRAM FOR MANUFACTURED HOMES

TOP LOCAL POWER COMPANY PERFORMERS	KWH	% OF FY PROGRAM TOTAL	KW	% OF FY PROGRAM TOTAL	TOTAL PARTICIPANTS	% OF SAVINGS VS SALES
Volunteer Energy Cooperative	425,730	6%	-	-	138	0.03%
Knoxville Utilities Board	354,775	5%	-	-	115	0.01%
Powell Valley Electric Cooperative	203,610	3%	-	-	66	0.06%
Appalachian Electric Cooperative	197,440	3%	-	-	64	0.03%
Upper Cumberland Electric Membership Corporation	194,355	3%	-	-	63	0.03%
<b>Program Total</b>	<b>7,135,605</b>		<b>-</b>		<b>2,313</b>	

## TOP PERFORMERS – ENERGYRIGHT SOLUTIONS FOR BUSINESS

TOP LOCAL POWER COMPANY PERFORMERS	KWH	% OF FY PROGRAM TOTAL	KW	% OF FY PROGRAM TOTAL	TOTAL PARTICIPANTS	% OF SAVINGS VS SALES
Memphis Light, Gas & Water Division	28,994,206	25%	7069	38%	2,432	0.45%
Nashville Electric Service	15,355,616	13%	2024	11%	141	0.25%
Central Electric Power Association	8,223,021	7%	1513	8%	110	3.32%
Knoxville Utilities Board	7,632,691	7%	937	5%	141	0.33%
Lenoir City Utilities Board	3,592,843	3%	274	1%	58	0.50%
<b>Program Total</b>	<b>115,372,617</b>		<b>18,827</b>		<b>3,787</b>	

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### TOP PERFORMERS – ENERGYRIGHT SOLUTIONS FOR INDUSTRY

TOP LOCAL POWER COMPANY PERFORMERS	KWH	% OF FY PROGRAM TOTAL	KW	% OF FY PROGRAM TOTAL	TOTAL PARTICIPANTS	% OF SAVINGS VS SALES
Warren Rural Electric Cooperative Corporation	8,746,633	8%	705	5%	20	1.22%
Alcorn County Electric Power Association	8,402,563	8%	997	8%	5	3.73%
Nashville Electric Service	7,202,658	6%	976	8%	34	0.68%
Electric Power Board of Chattanooga	6,797,816	6%	676	5%	18	0.64%
Fort Payne Improvement Authority	6,324,642	6%	567	4%	3	8.12%
<b>Program Total</b>	<b>199,796,976</b>		<b>12,853</b>		<b>325</b>	

### TOP PERFORMERS – ENERGYRIGHT SOLUTIONS FOR CUSTOMER SYSTEMS

TOP LOCAL POWER COMPANY PERFORMERS	KWH	% OF FY PROGRAM TOTAL	KW	% OF FY PROGRAM TOTAL	TOTAL PARTICIPANTS	% OF SAVINGS VS SALES
Sheffield Utilities	151,800	NA	3,795	NA	-	0.03%
Aberdeen Electric Department	85,000	NA	2,125	NA	-	0.00%
Nashville Electric Service	59,200	NA	1,480	NA	25	0.05%
Joe Wheeler Electric Membership Corporation	52,400	NA	1,310	NA	1	0.00%
Pennyrite Rural Electric Cooperative Corporation	50,400	NA	1,260	NA	3	0.09%
<b>Program Total</b>	<b>(265,020)</b>		<b>(11,795)</b>		<b>128</b>	

### TOP PERFORMERS – GREEN POWER SWITCH

TOP LOCAL POWER COMPANY PERFORMERS	GPS BLOCKS SOLD	% OF FY PROGRAM TOTAL
Knoxville Utilities Board	164,251	26.93%
Nashville Electric Service	78,995	12.95%
Memphis Light, Gas & Water Division	50,321	8.25%
Electric Power Board of Chattanooga	41,158	6.75%
Murfreesboro Electric Department	40,678	6.67%
<b>Program Total</b>	<b>609,826</b>	

### TOP PERFORMERS – GREEN POWER PROVIDERS

TOP LOCAL POWER COMPANY PERFORMERS	OPERATING MW - DC NAMEPLATE CAPACITY	% OF TOTAL CAPACITY	INSTALLATIONS
Middle Tennessee Electric Membership Corporation	194.76	5.82%	15
Volunteer Energy Cooperative	192.17	5.74%	12
Electric Power Board of Chattanooga	182.46	5.45%	24
Nashville Electric Service	180.96	5.41%	22
Cumberland Electric Membership Corporation	180.95	5.41%	14
<b>Program Total</b>	<b>3,346.00</b>	<b>100%</b>	<b>282</b>

All rankings are based on energy savings with the exception of demand response, which is based on demand reduction.

## Description of Programs

### ENERGYRIGHT SOLUTIONS FOR THE HOME

#### eScore™ Program

eScore is an energy efficiency home improvement offer from TVA. The design of the program is to provide homeowners a simple path to making their home a “10” – its most energy efficient.

#### Self Audit Program

TVA’s do-it-yourself online audit helps homeowners take charge of saving energy from the comfort of their personal computer. With upgrade and behavioral suggestions, current product offers and an energy savings kit, using less is simpler than ever.

#### Heat Pump Program

Valley residents have been benefiting from TVA’s heating and cooling upgrade assistance for decades. Our Quality Contractor Network provides expert installation of energy efficient heat pumps to ensure high performance and customer satisfaction.

#### New Homes Program

TVA is encouraging the development of new, all-electric homes across the Valley. Homes built above code qualify as EnergyRight® Platinum or Platinum Certified (RESNET or ENERGY STAR® Certified). Buying a new, energy efficient home means savings from day 1.

#### Manufactured Homes Programs

TVA’s Manufactured Homes programs are reducing energy consumption in the Valley by incentivizing wholesalers to install electric heat pumps at point of sale and manufacturers to produce ENERGY STAR® Manufactured Homes for even greater efficiency. An energy efficient manufactured home saves energy and money right from the start.

### ENERGYRIGHT SOLUTIONS FOR BUSINESS

TVA helps businesses become more energy efficient by providing assessments of energy use and incentives for qualifying businesses that can reduce their electricity usage. The program helps save money in these areas: lighting, heating and cooling, and business equipment.

#### SMALL BUSINESS DIRECT INSTALL

This program, which focuses on interior lighting retrofits, offers a turnkey feature that provides an opportunity to reach small commercial customers who are unlikely to participate in other types of energy efficiency offers.

### ENERGYRIGHT SOLUTIONS FOR INDUSTRY

Customized TVA technical assistance is available to industrial users of power to devise plantwide, holistic approaches to energy savings. TVA helps customers maximize efficiency, control expenses and boost their bottom lines. In addition, program participants may be eligible for financial incentives to implement energy-saving changes in their operations and plant.

### RENEWABLE ENERGY SOLUTIONS

#### Green Power Switch®

This program offers a simple way to support regional renewable energy. Each block of Green Power Switch ensures 150 kilowatt-hours of electricity is generated by a renewable resource such as wind, solar or biomass.

#### Green Power Providers<sup>SM</sup>

Green Power Providers (up to 50 kW) replaced the successful Generation Partners pilot program that was initiated in 2003. Green Power Providers implements industry best practices to continue helping add sustainable solar and renewable energy in the Tennessee Valley.

### Solar Solutions Initiative

This pilot program is for solar projects in the Valley (> 50 kW up to 1 MW) that use local, NABCEP-certified installers, helping support regional jobs and investment. The program is open to consumers, developers and local power companies who wish to install mid-size solar energy systems. The purchase price includes a 10-year overlay to the base market prices offered in the Renewable Standard Offer.

#### Renewable Standard Offer

This program is for medium to larger renewable energy projects in the Valley (> 50 kW up to 20 MW). The program is open to consumers, developers and local power companies who wish to install mid- to large-size renewable energy systems. Eligible technologies include solar, wind and biomass energy. This is a 20-year wholesale or market-based program which helps support local jobs and investment as well as grow local clean energy sources at cost effective rates.

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## Description of Programs

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### **ENERGYRIGHT SOLUTIONS FOR CUSTOMER SYSTEMS** **Commercial and Industrial Direct Load Control**

A demand reduction program aimed at commercial and industrial customers that is available for dispatch up to 40 hours per year to mitigate high wholesale power prices, and allows unlimited hours for reliability calls. Program events are dispatched and monitored via near-real-time monitoring software. As an incentive, customers receive monthly capacity payments and energy payments based on performance during events. Current third party implementer is EnerNOC.

### **Conservation Voltage Regulation (CVR)**

This program uses conservation voltage regulation (CVR) with local power companies to achieve energy savings by optimizing voltage levels along electric system distribution feeders on an “always-on” basis. The program utilizes a feeder voltage feedback loop to bias voltage regulators to maintain the lowest acceptable feeder voltage. Year-round energy savings occur from end-use devices operating more efficiently at designed voltage levels.

### **Dispatchable Voltage Regulation (DVR)**

A component of the Smart Grid Pilot demonstration project in which 16 local power companies optimize distribution-level voltage to reduce 183 MW of peak demand. Electric system distribution feeders utilize a voltage feedback loop to bias voltage regulators to maintain the lowest acceptable feeder voltage. DVR is dispatched economically for up to 100 hours annually with energy cost tied to the variable Henry Hub natural gas index.

### **Residential Direct Load Control (DLC)**

This program utilizes direct load control switches or devices to reduce 2.5 MW of peak demand from two local power companies. Two-way communicating direct load control switches or devices (i.e., programmable communicating thermostats) connected to electric water heaters, air conditioners and pool pumps shut the device down during called peak events. DLC is dispatched economically for up to 100 hours annually with energy cost tied to the variable Henry Hub natural gas index.

### **Aggregated Demand Response (ADR)**

This program enables local power companies to aggregate and provide demand response load to TVA in a manner similar to the Commercial and Industrial DLC program. Under the current proof of concept pilot, demand reduction is available for dispatch up to 12 hours per year to mitigate high wholesale power prices, and allows unlimited hours for reliability calls. Program events are dispatched and monitored via near-real-time monitoring made available by local power companies and visible in the DR desk.

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