# Saving Energy: 2017

How Electric and Natural Gas Utilities in South Carolina are Using Demand-Side Management





### Saving Energy: 2017

How Electric and Natural Gas Utilities in South Carolina are Using Demand-Side Management

### December 2017

Contact:
Stacey Washington
swashington@regstaff.sc.gov

South Carolina Office of Regulatory Staff

**Energy Office** 

1401 Main Street Suite 900 Columbia, SC 29201 (803) 737-8030

ENERGY.SC.GOV

Disclaimer: The information in this report is based on utility Integrated Resource Plans, responses to information requests and other public information sources. This agency does not assume responsibility for the accuracy or completeness of any information.

Disclaimer: This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.



### INTRODUCTION

Demand Side Management (DSM) is a strategy that electric and natural gas utilities employ to decrease or defer demand for their energy services. The State Energy Office, a division of the South Carolina Office of Regulatory Staff, is submitting this report pursuant to S.C. Code Ann § 58-37-30. This report is intended to summarize DSM activities deployed by South Carolina's electric and natural gas utilities as reported in 2017. Data used to create this report was taken from utility Integrated Resource Plans (IRPs) submitted during 2017 and utility responses to information requests. Consequently, the data and program descriptions represent the utilities' descriptions, goals, and objectives for their DSM activities. These IRPs include data from prior periods as well as future projections.

Utilities are encouraged by state legislation to adopt and implement DSM programs, which directly benefit utilities by reducing their need for wholesale energy purchases and potentially deferring infrastructure investments. Utilities regulated by the South Carolina Public Service Commission (PSC) receive regulatory incentives allowing them to recover costs associated with these programs. Some examples of infrastructure investments that may be minimized or deferred include the installation of pollution controls, the construction of new generation, and the construction of new transmission and distribution infrastructure. Customers can also directly benefit from DSM through reductions in their monthly energy consumption.

For the purposes of this report, DSM programs are defined, pursuant to S.C. Code Ann § 58-37-10, as activities conducted by electric and natural gas utilities for the reduction or more efficient use of energy in the following three major categories:

- Energy Efficiency and Conservation: Energy efficiency (EE) reduces energy consumption without requiring customers to sacrifice the benefits received from energy (for example, installing building insulation, purchasing efficient appliances.) Energy conservation reduces energy consumption by requiring customers to decrease their utilization of energy-consuming devices (for example, reducing thermostat temperature, turning off lights.) Although each achieves energy reduction in a different way, they are closely related and are grouped together in this report.
- Load Management: Reduces customer demand for energy during periods of peak demand when capacity is limited and the cost of energy provision is high.
- Public Information: Encourages customer participation in DSM programs and seeks to change behaviors through public campaigns, direct-to-customer communication, or increasing customer access to information about their consumption of energy services.

The following sections of this report provide a description of the DSM programs offered by the investor-owned utilities, Santee Cooper, electric cooperatives, and municipalities. Data used to create this report reflect utility IRPs submitted during 2017 and utility responses to information requests received during the same period. These plans were submitted between February and December of 2017 and cover both activities undertaken in the previous year and activities planned for the future. Due to their similarities and the way that the programs overlap, energy efficiency and conservation programs have been grouped together.

In 2017, 41 of 61 South Carolina electric and natural gas distribution utilities offered DSM programs. The widest variety of DSM programs were available from the three largest investor-owned electric utilities— Duke Energy Carolinas, LLC, Duke Energy Progress, LLC, and South Carolina Electric & Gas Company (SCE&G)— and from the state-owned South Carolina Public Service Authority (Santee Cooper), which offered a variety of DSM programs covering all of the major categories.

Central Electric Cooperative, reporting for the twenty member electric distribution cooperatives, has a longstanding load-control program that has been in effect for more than thirty years. Several electric cooperatives also offer low-interest loans for home weatherization through on-bill financing. Eight South Carolina municipal electric utilities, the largest being Rock Hill and the smallest being Abbeville, also maintain DSM programs. South Carolina's fourth investor-owned electric utility, Lockhart Power Company, has one primary DSM program through its Industrial Interruptible Service Rate.

Piedmont Natural Gas Company, one of South Carolina's two investor-owned natural gas distribution utilities, also offered DSM programs. In addition, six of South Carolina's municipal natural gas utilities maintain DSM programs.



# Summary: South Carolina Electric Distribution Utilities

Of the 46 Electric Distribution Utilities (EDUs) in South Carolina, 32 had ongoing DSM activities in 2017.<sup>1</sup> Their ongoing activities are discussed below. See Appendix A for a summary of all incentives offered by all utilities and refer to Appendix B for more detailed descriptions of programs offered by each utility.

### **Energy Efficiency and Conservation**

- Two EDUs provided financial incentives to builders and/or building occupants to promote energyefficient new construction.
- Five EDUs offered financial incentives to building occupants to encourage energy efficiency improvements in existing structures. Several electric cooperatives also offered assistance through on-bill financing.
- Eight EDUs offered on-site energy assessments to customers in which they provided trained personnel to evaluate facilities and suggest methods for improving energy efficiency.
- Four EDUs implemented energy efficiency and weatherization programs targeting low-income customers; the programs provide personalized assistance and financial support to assist those customers in making needed home improvements and lowering their monthly electric bill.
- Eleven EDUs offered financial incentives for the purchase and/or installation of energy-efficient appliances, equipment, and lighting.

### **Load Management**

- Twenty-six EDUs offered financial incentives to customers that opted to allow utilities to control
  their peak load by curtailing the operation of certain appliances or equipment during periods of
  peak demand.
- Four EDUs offered financial incentives to customers that agreed to partially or completely halt electricity consumption, or allowed the utility to interrupt service, during periods of peak demand.
- Four EDUs offered rates that reflected time-of-use, real-time, and/or seasonal capacity constraints and marginal generation costs during periods of peak demand.
- One EDU provided incentives for customers to switch to on-site standby electricity generation during periods of peak demand.

<sup>&</sup>lt;sup>1</sup> Information provided on this summary page does not include pilot projects.

### **Public Information**

- Nine EDUs maintained websites that offered energy efficiency and conservation tips and/or webbased systems for viewing and analyzing monthly electricity usage and cost.
- Eight EDUs communicated directly with customers through mailings and/or in-person assistance to publicize utility DSM programs and to offer energy efficiency and conservation tips and services.
- Four EDUs conducted public outreach campaigns through advertising and/or presence at community events to publicize utility DSM programs and offer energy efficiency and conservation tips.
- Three EDUs provided instructional programs and/or resources to K-12 schools to promote energy awareness.







Of the 15 natural gas utilities (NGU) in South Carolina, 9 had ongoing DSM activities in 2017. These activities are discussed below.

### **Energy Efficiency and Conservation**

- Two NGUs provided payments to builders to promote energy-efficient new construction.
- One NGU offered on-site energy assessments to customers in which they provided trained personnel to evaluate facilities and suggest methods for improving energy efficiency.
- Two NGUs implemented an energy efficiency and weatherization program targeting low-income customers.
- Two NGUs provide personalized assessments and home improvements to enable these customers to lower their monthly natural gas bills.
- Eight NGUs offered financial incentives for the purchase and/or installation of newer, more efficient natural gas appliances or equipment.

### **Load Management**

One NGU offered financial incentives to customers that allowed utilities to cut off or reduce their
natural gas deliveries during periods of peak demand. Interruptible-service customers are typically
commercial or industrial entities that have the ability to switch from utility natural gas to another
energy source or are willing to suspend operations during fuel curtailment periods.

### **Public Information**

- Four NGUs maintained websites that offered energy efficiency and conservation tips and/or webbased tools for viewing and analyzing monthly natural gas usage and cost.
- Two NGUs communicated directly with customers through mailings and/or in-person assistance to publicize utility DSM programs and offer energy efficiency and conservation tips and services.
- One NGU conducted public outreach campaigns through advertising and presence at community
  events to publicize utility DSM programs and offer energy efficiency and conservation tips.

Specific programs offered by each utility are listed on the following pages and described in greater detail in Appendix B.

### **INVESTOR-OWNED ELECTRIC UTILITIES**

### **Duke Energy Carolinas**

Duke Energy Carolinas (DEC) uses DSM and EE programs to efficiently and cost-effectively alter customer demands and reduce the long-run supply costs for energy and peak demand. These programs can vary greatly in their dispatch characteristics, size and duration of load response, certainty of load response, and level and frequency of customer participation. Following are the DSM programs currently available through



DEC. More information on these programs can be found on DEC's website for homeowners and businesses.

### **Residential Customer Programs**

- Appliance Recycling Program
- Energy Assessments Program
- Energy Efficiency Education Program
- Energy Efficient Appliances and Devices
- Heating, Ventilation and Air Conditioning (HVAC) Energy Efficiency Program
- Multi-Family Energy Efficiency Program
- My Home Energy Report
- Income-Qualified Energy Efficiency and Weatherization Program
- Power Manager
- Time-of-Use Rate
- Online Resources

### **Non-Residential Customer Programs**

- Non-Residential Smart \$aver® Prescriptive Program
- Non-Residential Smart \$aver® Custom Program
- Non-Residential Smart \$aver® Custom Energy Assessments Program
- Small Business Energy Saver
- Smart Energy in Offices
- PowerShare®
- EnergyWise® Business
- Online Resources

### **Pilot Programs**

- Business Energy Report Pilot
- Prepaid Advantage Program



### **Duke Energy Progress**

Like DEC, Duke Energy Progress (DEP) utilizes DSM and EE programs to efficiently and cost-effectively alter customer demands and reduce the long-run supply costs for energy and peak demand. These programs can vary greatly in their dispatch characteristics, size and duration of load response, certainty of load response, and level and frequency of customer participation. In general, programs are offered in two primary categories: EE programs that reduce energy consumption and DSM programs that reduce peak demand (demand-side management or demand-response programs and certain rate structure programs).

DEP's DSM portfolio currently consists of the following programs, as approved by the Commission. More information on these programs can be found on DEP's website for homes and businesses.

### **Residential Customer Programs**

- Home Energy Improvement
- Residential New Construction
- Neighborhood Energy Saver (Low-Income)
- Appliance Recycling Program
- My Home Energy Report
- Multi-Family Energy Efficiency
- Energy Efficiency Education
- Residential Energy Assessments
- Save Energy and Water Kit
- EnergyWise Home
- Time-of-Use Rate
- Online Resources

### **Non-residential Customer Programs**

- Energy Efficiency for Business
- Small Business Energy Saver
- Business Energy Report Pilot
- CIG Demand Response Automation Program
- Time-of-Use Rate
- EnergyWise Business
- Online Resources

### **Combined Residential/Non-Residential Customer Programs**

- Energy Efficient Lighting
- Distribution System Demand Response

### **Lockhart Power Company**

Lockhart Power Company's primary demand-side program is its Industrial Interruptible Service Rate (IS-1), available to industrial customers receiving service from the Company under Schedule I concurrent with a metered demand of 750 kilowatts or more served from the Company's transmission system. Under this rate the customer agrees, at the Company's request, to reduce and maintain its load at or below the level specified in the individual contract. The Company's request to interrupt service may be at any time the Company or its power supplier has capacity problems.

In addition, the standard residential rate (R) has an inclining feature— namely, Lockhart charges a somewhat higher rate for all usage above 1,000 kWh each month. This rate structure provides incentives to customers to reduce their consumption of electricity.



### South Carolina Electric & Gas Company

As stated in SCE&G's 2017 IRP, DSM can be broadly defined as the set of actions that can be taken to influence the level and timing of the consumption of energy. There are two common subsets of DSM: Energy Efficiency and Load Management (also known as Demand Response). Energy Efficiency typically includes actions



designed to increase efficiency by maintaining the same level of production or comfort, but using less energy input in an economically efficient way. Load Management typically includes actions specifically designed to encourage customers to reduce usage during peak times or shift that usage to other times.

A list of SCE&G's programs can be found below, and more information is available on their website for residents and businesses.

### **Residential Customer Programs**

- Energy Saver/Conservation Rate
- Seasonal Rates
- Home Energy Reports
- Home Energy Check-up
- ENERGY STAR® Lighting
- Heating & Cooling Rebates
- Neighborhood Energy Efficiency Program
- Appliance Recycling Program
- Online Resources

### **Non-Residential Customer Programs**

- EnergyWise for Your Business
- Small Business Energy Solutions
- Standby Generator
- Interruptible Load
- Real Time Pricing Rate
- Time-of-Use Rate
- Online Resources



### STATE-OWNED ELECTRIC UTILITY

### **Santee Cooper**

For over 20 years, Santee Cooper has offered DSM programs. These programs have measures that save energy and/or demand. The energy and/or demand impacts of the actual and projected participation of Santee Cooper's directly served retail customers are considered when updating the energy and/or demand needs in the generation plan.

Santee Cooper's programs are listed below. More information on these programs can be found on their website for residents and businesses.

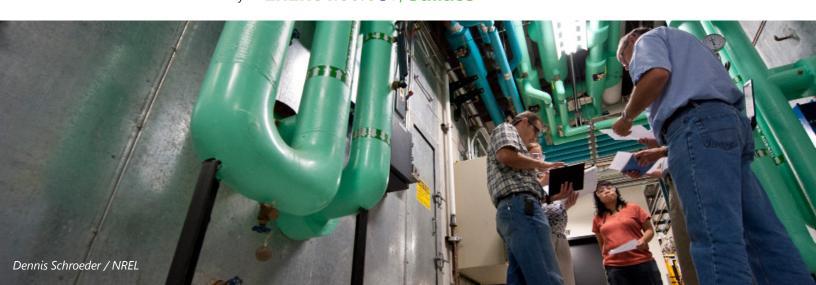
### **Residential Customer Programs**

- Smart Energy Loans
- Smart Energy Existing Homes
- Equipment and Lighting Incentives
- Smart Energy New Homes
- Onsite Energy Assessments
- Public Information Programs
- School Programs & Resources

### **Non-Residential Programs**

- Commercial Prescriptive
- Commercial Custom
- Onsite Energy Assessments
- Interruptible/Economy Power Pricing Rates

For more information regarding the DSM programs offered by the investor-owned utilities and Santee Cooper, see the IRPs for each utility at **ENERGY.SC.**GOV/**Utilities** 



### **ELECTRIC COOPERATIVES**

Central Electric Power Cooperative is reporting on behalf of the 20 distribution electric cooperatives in South Carolina. Here is a summary of their DSM and Energy Efficiency programs for the year 2017.



### **DSM**

An active demand response program currently exists whereby peak demands are reduced via electric water heater control, air conditioner control, voltage control, and interrupted loads. Central and its member cooperatives are reducing peak loads approximately 125 MW during winter months and 60 MW during summer months. These are longstanding programs that began 30 years ago. While many of the switches are controlled via a radio signal, South Carolina distribution cooperatives are increasingly turning to smart-grid applications that use power line carrier technology to communicate. Central and its member cooperatives began a "Beat the Peak" program in 2016. "Beat the Peak" allows members to voluntarily sign up to receive notifications of peak demand periods. Notifications are sent via text, email, and/or voice messages at times when they can help reduce electricity use. Central and its member cooperatives piloted a smart thermostat program in 2017 to test the demand impacts of adjusting thermostats via Wi-Fi during peak demand periods.

### **Energy Efficiency**

Utilizing the South Carolina on-bill financing statute, several electric power cooperatives offer retail members low-interest loans for home weatherization. Through 2017, over 700 homes have participated in the weatherization programs offered.

In addition to on-bill weatherization programs, some South Carolina distribution cooperatives offer on-bill heat pump replacement programs and special rates for members whose homes meet certain energy efficiency requirements.

Some of the cooperatives have additional programs. See the list below.

### Palmetto Electric Cooperative

More information on these programs can be found on the cooperative's website.

- Buried Treasure Rebate Program
- Dual-Fuel Heat Pumps
- H<sub>2</sub>O Select®

### **Aiken Electric Cooperative**

More information on the program can be found on the cooperative's website.

Water Heater Incentives

SAVING ENERGY 2017 / ELECTRIC COOPERATIVES 13

### **Berkeley Electric Cooperative**

More information on these programs can be found on the cooperative's website.

- Geothermal Heating and Cooling Incentive
- Dual Fuel Heating System
- H<sub>2</sub>O Advantage
- Home Advantage Loan Program
- Energy Audit

### **Blue Ridge Electric Cooperative**

More information on these programs can be found on the cooperative's website.

- H<sub>2</sub>O Select Water Heater Program
- Heat Pump Loan Program

### **Pee Dee Electric Cooperative**

More information on these programs can be found on the cooperative's website.

- Energy Resource Conservation Loan
- H<sub>2</sub>O Select
- Dual Fuel
- Energy Experts & Audits

### **York Electric Cooperative**

More information on these programs can be found on the cooperative's website.

- Dual Fuel Heat Pump Rebate
- Power Saver Rewards
- Energy Audit Program
- Heat Pump Financing Program

### **MUNICIPAL ELECTRIC UTILITIES**

### City of Abbeville

Online "Energy Depot" Toolkit



### **City of Clinton**

**Green Grid Rewards** 



### **Laurens Commission of Public Works**

The Laurens CPW has a DSM program for residential and qualifying commercial customers. An EE rate is currently offered to incentivize the use of switches to control air conditioning and pool pumps during high electricity demand periods.



Online "Energy Depot" Toolkit



### City of Rock Hill

### **Residential Customer Programs**

- **Smart Choice Program**
- **Smart Switches**
- Online "Energy Depot" Toolkit

### **Non-Residential Customer Program**

**Energy Management Consultation** 

### **City of Westminster**

- Weatherization
- Online "Energy Depot" Toolkit

### **Greer Commission of Public Works**

**Electricity Conservation Tips** 

### **Easley Combined Utilities**

Load Management Program









### **INVESTOR-OWNED NATURAL GAS UTILITIES**

### **Piedmont Natural Gas Company**

Piedmont Natural Gas Company (Piedmont) administers the following Energy Efficiency programs to customers in its South Carolina service territory:



- Low-Income Energy Efficiency Program
- Customer Education Program
- Natural Gas Appliance Rebates

### **South Carolina Electric & Gas Company**

SCE&G's DSM programs do not specifically target natural gas usage; many of its programs –particularly efficient new home incentives, energy assessments, and public information activities – have the effect of encouraging natural gas efficiency, conservation, and/or reduction of peak demand within its combined gas-electric service area. SCE&G does have natural gas rebates available to its natural gas customers.

### **MUNICIPAL NATURAL GAS UTILITIES**

### **Chester County Natural Gas Authority**

Chester County Natural Gas Authority's DSM programs for natural gas utilities are based on the increased efficiency of new natural gas appliances, which reduces demand on the gas system.



The Authority employs the following DSM Programs:

- Appliance Rebate Program
- New Construction Incentive Program
- Water Heater Program

### **Clinton-Newberry Natural Gas Authority**

Online Tips



### **Fort Hill Natural Gas Authority**

Fort Hill Natural Gas demand-side management activities for 2017 included interruptible-service contracts for its larger volume customer accounts and rebates for customers purchasing new natural gas appliances.





### **Greer Commission of Public Works**

- Natural Gas Conservation Tips
- Natural Gas Rebate Program

## CPW

### **Laurens Commission of Public Works**

Natural Gas Appliance Bill Credit



### **Orangeburg Department of Public Utilities**

The Orangeburg Department of Public Utilities (ODPU) has a rebate program that includes rebates for tankless water heaters and high efficiency heaters. The ODPU offers favorable rates for interruptible-service customers.

- Natural Gas Rebate Program
- Interruptible Rates



### **York County Natural Gas**

York County Natural Gas offers a rebate program for customers converting appliances to natural gas. Details regarding what appliances are eligible, rebate amounts, and the rebate request form can be found at



https://www.ycnga.com/index.php/residential/conservation-rebates.

- Residential Rebates
- Builder Rebate Program

### **APPENDIX A**

Electric and Natural Gas Demand Side Management Programs

# **Electric Demand Side Management Programs**

				Energy Efficiency	iency				Load Management	gement				Puk	Public Information		
Utility Name	Ownership	New Building Efficiency Incentives	Existing Building Retrofit Incentives	On-Site Energy Assessments	Low-Income Efficiency and Weatherization Assistance	Equipment and Lighting Incentives	Load Load Control	Interruptible Service Incentives	Time-of- Use or Seasonal Rates	Standby Generation Incentives	Thermal Storage Incentives	Voltage Reduction	Web- Based Customer Tips and	In-Home Real-Time Energy Monitoring	Direct-to- Customer Communication	Public Campaigns	School Programs & Resources
Abbeville, City of	Municipal												>		>		
Bamberg Board of Public Works	Municipal																
Bennettsville, City of	Municipal																
Camden, City of	Municipal											<b>&gt;</b>					
Clinton, City of	Municipal						>										
Town of Due West	Municipal																
Duke Energy Carolinas	Investor- Owned		>	>	>	>	>	>	>	>			>		`	>	>
Duke Energy Progress	Investor- Owned	>	>	>	>	>	>	>	>		`	<b>&gt;</b>	>		>	>	>
Easley Combined Utility System	Municipal											>					
Electric Cooperatives (20 Co-ops)	Cooperative		*	*			>				*				>		
Gaffney Board of Public Works	Municipal																
Georgetown, City of	Municipal																
Greenwood CPW	Municipal																
Greer CPW	Municipal												>				
Laurens CPW	Municipal						>						>				
Lockhart Power Co., Inc	Investor- Owned							>									
McCormick CPW	Municipal																
Newberry, City of	Municipal																
Orangeburg DPU	Municipal																
Town of Prosperity	Municipal																
Rock Hill, City of	Municipal						>						>			>	
Santee Cooper	State-Owned	>	>	>		`							`		`	>	>
Seneca Light & Water Plant	Municipal																
South Carolina Electric & Gas	Investor- Owned	>	>	>	>	>		>	>	>		>	>	>	>	>	
Union, City of	Municipal																
Westminster CPW	Municipal				>								>		>		
Winnsboro, Town of	Municipal																
Hoto crateling of Brail Co	Enorgy, Office and	نهد عن درستدر اور	History.														

SOURCE: Office of Regulatory Staff: Energy Office annual survey of utilities Note: This table does not include pilot projects. \*Avaliable from select Co-ops

# Natural Gas Demand Side Management Programs

			Energ	Energy Efficiency		Load Management		Public Information	
Utility Name	Ownership	New Building Efficiency Incentives	On-Site Energy Assessments	Low-Income Efficiency and Weatherization Assistance	Efficient Appliance or Equipment Inventives	Interruptible Service Incentives	Web-Based Customer Tools and Tips	Direct-to- Customer Communication	Public Campaigns
Bamberg Board of Public Works	Municipal								
City of Bennettsville	Municipal								
Chester County Natural Gas Authority	Municipal	>			>				
Clinton-Newberry Natural Gas Authority	Municipal						>		
Fort Hill Natural Gas Authority	Municipal				>				
Fountain Inn Natural Gas	Municipal								
Greenwood Commission of Public Works	Municipal								
Greer Commission of Public Works	Municipal				>		>		
Laurens Commission of Public Works	Municipal				>				
Orangeburg Department of Public Utilities	Municipal				>	>			
Piedmont Natural Gas Company	Investor- Owned			>	>			>	
South Carolina Electric & Gas Company	Investor- Owned	>	>		>		>	>	>
City of Union	Municipal								
Town of Winnsboro	Municipal								
York County Natural Gas Authority	Municipal	>			>		>		
Source: Office of Regulatory Staff. Energy Office annual survey of utilities									

Source: Office of Regulatory Staff- Energy Office annual survey of utilities. Note: This table does not include pilot projects.

### **APPENDIX B**

DSM / EE Incentives

### **Duke Energy Carolinas**

The following table lists residential incentives for Duke Energy Carolinas customers.

Program	Description
Appliance Recycling Program	Incentive for the collection and recycle of refrigerators and/or standalone freezers, which permanently removes the units from service. This program has been suspended. Duke Energy is working on collecting appliances that were not collected before program suspension. In December 2017 a letter was sent to the PSC requesting program closure.
Energy Assessments Program	Provides customers with a free energy audit of their home and an energy efficiency starter kit including LED bulbs, a shower head, and more.
Energy Efficiency Education Program	Engages school children with a live in-school theatrical presentation regarding energy efficiency and allows children to receive a home energy efficiency kit featuring weather stripping and LED bulbs.
Energy-Efficient Appliances and Devices	The Company provides financial incentives for customers to install energy-efficient equipment. The program consists of measures related to pool equipment, lighting, and hot water heating. Incentives range from \$100 - \$350.
Heating, Ventilation, and Air Conditioning (HVAC) Energy Efficiency Program	Provides customers with financial incentives to install or take action around making their homes or HVAC equipment more energy efficient. Incentives range from \$300 - \$400.
Multi-Family Energy Efficiency Program	Targeted at getting energy- and water-efficient measures including lighting, water heating, and weather stripping installed in multi-family dwellings. The property assessment and installation of the products is FREE.
My Home Energy Report	A periodic report is sent to customers to engage them around their energy usage by providing them with a comparison to similar customers. The report also provides customers with actionable energy-saving tips.
Income-Qualified Energy Efficiency and Weatherization Program	Provides income-qualified households with highly incentivized home weatherization. It also includes a program that uses neighborhood engagements to directly install low-cost measures such as efficient lighting in homes in a targeted neighborhood. Payments will be made to the administering agency on behalf of the customer.
Power Manager	Program provides customers with a financial incentive to allow the Company to cycle a customer's air conditioner during peak events. Participants will receive a total of \$32 in bill credits each year.
Prepaid Advantage Pilot Program	This program allows customers to pay for electric service before it is used, which allows them to pay in accordance with their desired payment frequency and amount.
Time-of-Use Rate	Under this rate, participants pay a higher rate during times of the day when demand for electricity is higher, and a lower rate during times when demand is lower.
Online Resources	Online tools and tips including energy calculators.

### **Duke Energy Carolinas**

The following table lists commercial/industrial incentives for Duke Energy Carolinas customers.

Program	Description
Non-Residential Smart \$aver® Prescriptive Program	Financial incentives for customers to install energy efficient equipment. The prescriptive program includes specific incentives for agriculture, chillers, lighting, variable frequency drives, pumps, HVAC, food service, IT, and process equipment.
Non-Residential Smart \$aver® Custom Program	Financial incentives for customers to install energy-efficient equipment that is outside of the Company's prescriptive programs. It is designed to give customers flexibility and incentives based on a specific customer application. Incentives range from 25 to 150 percent of the project's annual electric savings.
Non-Residential Smart \$aver® Custom Energy Assessments Program	Financial incentives for a customer to undertake an energy assessment that can be used to identify projects and help them through the custom application process. Participants receive up to a 50 percent subsidy of assessment costs.
Small Business Energy Saver	Targeted to provide small business customers with the installation of energy efficiency measures. Through this program, the business will receive up to 80 percent coverage on lighting and refrigeration improvements and up to 10 percent on HVAC upgrades.
Smart Energy in Offices	Designed to create a community engagement around energy efficiency in the office. The community-participating office buildings then receive important usage data, participate in behavioral campaigns targeting efficiency, and work toward a common efficiency goal. In December 2017 a letter was sent to the PSC requesting program closure effective June 30, 2018.
PowerShare®	Through this series of programs, the Company provides customers with financial incentives for the ability to require a customer to shed load during peak events. Incentives can total up to 8 percent or more off a monthly bill.
EnergyWise® Business	This program provides small-business customers with a financial incentive to allow the Company to cycle customers' air conditioners during peak events. Participants choose the operation level. Incentives range from \$25 to \$135.
Online Resources	Online tools and tips including energy calculators.
Business Energy Report Pilot	Designed to engage commercial customers around understanding their energy usage by providing them with periodic reports that feature a normative comparison to similar types of businesses and targeted actionable tips to become more efficient. This program was terminated in July 2017.

### **Duke Energy Progress**

The following table lists residential incentives for Duke Energy Progress customers.

Program	Description
Home Energy Improvement Program	Provides customers with financial incentives to install or take action around making their homes or HVAC equipment more energy efficient. Rebates range from \$100 - \$400.
Residential New Construction	Company provides financial incentives to builders to build new homes to a high efficiency standard. Incentives range from \$725 - \$9,000.
Neighborhood Energy Saver Program (Low-Income)	Program uses neighborhood engagements to educate low-income customers and directly install low-cost measures such as efficient lighting in homes in a targeted neighborhood.
Appliance Recycling Program	Incentive for the collection and recycle of refrigerators and/or standalone freezers, which permanently removes the units from service. This program has been suspended. Duke Energy is working on collecting appliances that were not collected before program suspension. In December 2017 a letter was sent to the PSC requesting program closure.
My Home Energy Report	A periodic report is sent to customers to engage them around their energy usage by providing them with a comparison to similar customers and with actionable energy-saving tips.
Multi-Family Energy Efficiency Program	Targeted at getting energy- and water-efficient measures including lighting, water heating, and weather stripping installed in multi-family dwellings. The property assessment and installation of the products is FREE.
Energy Efficiency Education	Engages school children with a live in-school theatrical presentation regarding energy efficiency and allows children to receive a home energy efficiency kit featuring weather stripping and LED bulbs.
Residential Energy Assessments	Provides customers with a FREE energy audit of their home and an energy efficiency starter kit including LED bulbs, a shower head, and more.
Save Energy and Water Kit	Financial incentives for customers to install energy-efficient measures related to hot water heating, such as faucet aerators and low-flow shower heads.
EnergyWise® Home Program	Program provides customers with a financial incentive to allow Duke Energy Progress to cycle their air conditioner during peak events. Participants receive a \$25 annual credit on their energy bill.
Online Resources	Online tools and tips including energy calculators.
Time-of-Use Rate	Under this rate participants pay a higher rate during times of the day when demand for electricity is higher, and a lower rate during times when demand is lower.

### **Duke Energy Progress**

The following table lists commercial/industrial incentives for Duke Energy Progress customers.

Program	Description
Energy Efficiency for Business	Financial incentives for customers to install energy-efficient lighting, chillers, HVAC equipment, and refrigeration equipment. The program consists of both prescriptive and custom incentives.
Small Business Energy Saver	Targeted to provide small-business customers with an audit of their facilities and the ability to have lighting, heating, and cooling measures installed. The program also includes incentives and payment options for any costs to install energy efficiency measures. Coverage for up to 80 percent on lighting and refrigeration improvements and up to 10 percent on HVAC upgrades.
Business Energy Report Pilot	Designed to engage commercial customers around understanding their energy usage by providing them with periodic reports that feature a normative comparison to similar types of businesses and targeted actionable tips to become more efficient. This program was terminated July 2017.
Commercial, Industrial, and Governmental Demand Response Automation Program	The Company provides customers with financial incentives for the ability to require a customer to shed load during peak events.
Time-of-Use Rate	Under this rate participants pay a higher rate during times of the day when demand for electricity is higher, and a lower rate during times when demand is lower.
EnergyWise® Business	Program provides small-business customers with a financial incentive to allow the Company to cycle customers' air conditioners during peak events. Incentives range from \$25 - \$135.
Online Resources	Online tools and tips including energy calculators.

### **Duke Energy Progress**

The following table lists combined residential/non-residential incentives for Duke Energy Progress customers.

Program	Description
Energy Efficient Lighting	Financial incentives for customers to install energy-efficient lighting and fixtures. The program provides incentives in the form of discounts applied at retail stores and online.
Distribution System Demand Response (DSDR)	This program provides the capability to reduce peak demand while maintaining customer-delivery voltage above the minimum requirement.

### SCE&G

The following table lists residential incentives for SCE&G customers.

Program	Description
Energy Saver/Conservation Rate	Homeowners will be on a reduced electric rate when existing homes are upgraded and new homes are built with a high level of energy efficiency.
Seasonal Rates	Many of SCE&G's rates are designed with components that vary by season. Energy provided in the peak usage season is charged a premium to encourage conservation and efficient use.
Home Energy Reports	Free monthly/bi-monthly reports comparing a customer's energy usage to their peer group and providing information to help identify, analyze, and act upon potential energy efficiency measures and behaviors.
Home Energy Check-up	Free in-home visual energy assessment performed by SCE&G staff with a leave- behind energy efficiency kit consisting of LED bulbs, water heater tank wrap, and pipe insulation, as appropriate.
<b>ENERGY STAR® Lighting</b>	Provides deep discounts on ENERGY STAR® qualified lighting products through their online store and lighting kits at various business office locations.
Heating & Cooling Rebates	Incentives for the purchase of new ENERGY STAR® qualified HVAC equipment that replaces older inefficient equipment. Incentives to encourage improvements in the efficiency of existing heat pump systems through complete duct replacements and duct insulation are also available. Rebates range from \$150 - \$400.
Neighborhood Energy Efficiency Program	Provides income-qualified customers energy efficiency education— an in-home energy assessment and direct installation of low-cost energy saving measures delivered in a neighborhood door-to-door sweep approach.
Natural Gas Rebates	Bill credits for installing natural gas equipment and for converting to natural gas. Incentives range from \$50 - \$200.
Appliance Recycling Program	Incentive for allowing SCE&G to collect and recycle less efficient, but operable, secondary refrigerators and/or standalone freezers, which permanently removes the units from service.
Online Resources	Online tools and tips including energy calculators.

### SCE&G

The following table lists commercial/industrial incentives for SCE&G customers.

Program	Description
EnergyWise for Your Business Program	Incentives for non-residential customers to become more energy efficient and invest in high efficiency lighting and fixtures, high efficiency motors, and other equipment. There is also a custom incentive path based on calculated efficiency benefits.
Small Business Energy Solutions Program	Turnkey program tailored to help owners of small businesses manage their energy costs by providing education and incentives for energy-efficient lighting, refrigeration, and electric water heating upgrades. Free on-site energy analysis completed. Financial incentives cover up to 80 percent (not to exceed \$6,000) of the total cost of most retrofit projects for lighting, electric water heating, and refrigeration controls.
Standby Generator Program	For wholesale customers. Provides about 25 megawatts of peaking capacity that can be called upon when reserve capacity is low on the system. A retail version of this program is also available that provides about 10 megawatts of additional capacity as needed.
Interruptible Load Program	Participating customers receive a discount on their demand charges for shedding load when SCE&G is short on capacity. Incentives range from \$2.75 per kW to \$4.50 per kW.
Real Time Pricing Rate	During peak usage periods throughout the year when capacity is low in the market, participants receive a high price signal that encourages conservation and load shifting. During low usage periods, prices are lower.
Time-of-Use Rate	Participants are charged higher rates during peak-usage periods and lower charges during off-peak periods to encourage customers to conserve energy during peak periods.
Online Resources	Online tools and tips including energy calculators.

### **Santee Cooper**

The following table lists residential incentives for Santee Cooper customers.

Program	Description
Smart Energy Loans	The loans reward customers when electricity use is reduced. Loans from \$500 - \$40,000 are available.
Smart Energy Existing Homes	This program offers home energy evaluations and financial assistance for energy efficiency improvements. HVAC, duct replacement, smart thermostat, and water heater rebates are available.
Equipment and Lighting Incentives	LED bulbs are given out through retail offices.
<b>Smart Energy New Homes</b>	Rebates for home builders based on Home Energy Rating System ratings.
Onsite Energy Assessments	Free energy assessments to residential customers upon request.
Public Information Programs	Program elements include web-based customer tips and tools, direct-to-customer communications and public campaigns.
School Programs & Resources	This program includes the Energy Educators Institute, educational publications, the Solar Schools' Project/Conservation and Energy Curriculum, E-SMART Kids and environmental bookmarks.

The following table lists commercial/industrial incentives for Santee Cooper customers.

Program	Description
Commercial Prescriptive	Rebates for lighting, HVAC, refrigeration, building envelope, pumps, and variable frequency drives.
Commercial Custom	Rebates for complex commercial projects not covered under prescriptive. Categories include HVAC controls, non-HVAC controls, lighting, and custom measures.
Onsite Energy Assessments	Free energy assessments to residential customers upon request.
Interruptible/Economy Power Pricing Rates	Rates to encourage reduction in peak demand.

### **Lockhart Power Company**

The following table lists residential incentives for Lockhart Power Company customers.

Program	Description
Standard Residential Rate	This rate has an inclining feature. A higher rate is charged for usage above 1,000 kWh each month.

The following table lists commercial/industrial incentives for Lockhart Power Company customers.

Program	Description
Industrial Interruptible Service Rate (IS-1)	Customer agrees, at the Company's request, to reduce and maintain its load at or below the level specified in the individual contract.

### **Palmetto Electric Cooperative**

The following table lists residential incentives for Palmetto Electric Cooperative customers.

Program	Description
Buried Treasure Rebate Program	\$200 per ton rebate for ground source heat pumps.
<b>Dual-Fuel Heat Pumps</b>	\$500 rebate per system.
H <sub>2</sub> O Select ®	Replace your water heater with a new model and get a rebate up to \$350.

### **Aiken Electric Cooperative**

The following table lists residential incentives for Aiken Electric Cooperative customers.

Program	Description
Water Heater Incentives	Incentives: Free high efficiency water heater; \$200 installation fee. Water heater and timer with normal installation: \$2.50 per month credit for 10 years. Timer only: \$200 cash payment and \$2.50 per month credit for 10 years. New construction contract home: \$250.

### **Berkeley Electric Cooperative**

The following table lists residential incentives for Berkeley Electric Cooperative customers.

Program	Description
Geothermal Heating and Cooling Incentive	Geothermal heat pumps, water heaters. The rebate is \$250 per ton.
<b>Dual-Fuel Heating System</b>	Dual-Fuel System rebate is up to \$500/home.
H <sub>2</sub> O Advantage	Water Heater rebates ranging from \$200 - \$400.
Home Advantage Loan Program	Geothermal heat pumps, water heaters, heat pumps, air conditioners, caulking/weather-stripping, duct/air sealing, building insulation, windows, doors, custom/others pending approval. Max loan \$15,000.
Energy Audit	A team of accredited auditors are available to help customers save money at their home or business at no cost.

### **Blue Ridge Electric Cooperative**

The following table lists residential incentives for Blue Ridge Electric Cooperative customers.

Program	Description
H <sub>2</sub> O Select Water Heater Rebate Program	Water heater rebates ranging from \$200 - \$300.
Heat Pump Loan Program	Heat pump and geothermal heat pump loans ranging from \$1,500 - \$20,000.

### **Pee Dee Electric Cooperative**

The following table lists residential incentives for Pee Dee Electric Cooperative customers.

Program	Description
Energy Resource Conservation Loan	Geothermal heat pumps, heat pumps, programmable thermostats, caulking/weatherstripping, building insulation, windows, doors. Max loan \$5,000.
H <sub>2</sub> O Select	A water heater rebate program for installing new, high efficiency, electric water heaters in existing or new construction homes. Rebates range from \$200 to \$250.
Dual Fuel	\$500 rebate when a dual-fuel heat pump is installed.
Energy Experts & Audits	Energy experts can go over a customer's bill and usage over the phone or perform an in-home energy audit.

### **York Electric Cooperative**

The following table lists energy incentives for York Electric Cooperative customers.

Program	Description
Dual-Fuel Heat Pump Rebate	Incentive: Dual-Fuel heat pumps: \$200 - \$700/system.
Power Saver Rewards	This program uses a device to cycle the flow of power to central air conditioners during times of high demand for electricity. Incentive: \$20 bill credit and \$5 per summer month. An additional unit can be added for an additional \$3 per month incentive.
Energy Audit Program	At a resident's request, personnel will visit homes and advise on improvements that can result in both energy and financial savings.
Heat Pump Financing Program	This program is designed to help customers purchase a new energy efficient heat pump. Loan rates for this program are up to 60% lower than normal.

### **City of Abbeville**

The following table lists energy incentives for City of Abbeville customers.

Program	Description
Online "Energy Depot" Toolkit	This website includes a personalized energy profile, energy reduction tips, do-it-yourself energy audit, and more.

### **City of Clinton**

The following table lists energy incentives for City of Clinton customers.

Program	Description
Green Grid Rewards	Participants will receive fiber/radio-controlled switches for their air conditioner so the energy can be managed during peak-demand periods. They also will be placed on the Green Rewards Rate which will typically allow a savings of \$25-\$50 per year and receive a \$25 restaurant gift certificate.

### **City of Rock Hill**

The following table lists energy incentives for City of Rock Hill customers.

Program	Description
Smart Choice Program	This program provides rebates or low-interest financing for the installation of high efficiency heat pumps and water heaters. Program participants also are eligible for the City's lowest residential electric rate schedule. Rebates range from \$225 - \$400. Financing is available for electric heat pump installations at an interest rate of 6 percent for a maximum of 60 months.
Smart Switches	Smart Switches are devices that control the flow of electricity to major appliances (water heater, air conditioner, or swimming pool pump) during times of peak demand, normally June through September. Customers with Smart Switches are entered into a drawing for a \$100 utility bill credit at each City Council meeting.
Online "Energy Depot" Toolkit	This website includes a personalized energy profile, energy reduction tips, do-it-yourself energy audit, and more.
Energy Management Consultation	The City of Rock Hill is available to provide consultation regarding energy management programs for its commercial and industrial consumers. For more information about energy management services, call 803-329-5500.

### **City of Westminster**

The following table lists energy incentives for City of Westminster customers.

Program	Description
Weatherization	This program is designed to assist low-income families with weatherization measures.
Online "Energy Depot" Toolkit	This website includes a personalized energy profile, energy reduction tips, do-it-yourself energy audit, and more.

### **Easley Combined Utilities**

The following table lists energy incentives for Easley Combined Utilities customers.

Program	Description
Load Management Program	This program helps reduce the amount of energy needed during peak hours. Participants allow the utility to control the operation of the participant's compressor. The customer receives a one-time \$20 account credit and will be placed on the Load Management Program Residential Rate.

### **Piedmont Natural Gas Company**

The following table lists energy incentives for Piedmont Natural Gas Company customers.

Program	Description
Low-Income Energy Efficiency Program	Provides energy efficiency measures and weatherization assistance to existing low-income residential customers.
Natural Gas Appliance Rebates	Provides rebates to customers who purchase and install qualifying high efficiency natural gas equipment to replace existing natural gas equipment. Rebates range from \$50 to \$300.
<b>Customer Education Program</b>	Targeted marketing approach to provide energy education, efficiency, and conservation messages.

### **Chester County Natural Gas Authority**

The following table lists energy incentives for Chester County Natural Gas Authority customers.

Program	Description
Appliance Rebate Program	Customers receive appliance rebates through this program. Rebates range from \$25 - \$300.
New Construction Incentive Program	The program provides an incentive for licensed builders and contractors to install natural gas appliances in new residential dwellings. Appliance rebates range from \$75 - \$300.
Water Heater Program	Chester County Natural Gas Authority will furnish customers with a free 40-gallon water heater to replace an electric water heater.

### **Clinton-Newberry Natural Gas Authority**

The following table lists energy incentives for Clinton-Newberry Natural Gas Authority customers.

Program	Description
Online Tips	Energy-saving tips to help customers lower their gas bill.

### **Fort Hill Natural Gas Authority**

The following table lists energy incentives for Fort Hill Natural Gas Authority customers.

Program	Description
Appliance Rebates	For customers purchasing new natural gas appliances. Receive a rebate ranging from \$100 - \$350.

### **Greer Commission of Public Works**

The following table lists energy incentives for Greer Commission of Public Works customers.

Program	Description
<b>Electricity Conservation Tips</b>	Energy saving tips and resource links.
<b>Natural Gas Conservation Tips</b>	Tips to conserve and save on natural gas bills and links to resources.
Natural Gas Rebate Program	Rebate program for customers who convert to natural gas and new installs. The rebate is \$400.

### **Laurens Commission of Public Works**

The following table lists energy incentives for Laurens Commission of Public Works customers.

Program	Description
Green Grid Reward	The rate is offered to incentivize the use of switches to control air conditioning and pool pumps during high electricity-demand periods. Customers in this program receive a \$25 bill credit and the lowest electric rate.
Online "Energy Depot" Toolkit	This website includes a personalized energy profile, energy reduction tips, do-it-yourself energy audit, and more.
Natural Gas Appliance Bill Credit	Residents receive a bill credit for installing natural gas appliances. Bill credits range from \$75 to \$450.

### **Orangeburg Department of Public Utilities**

The following table lists energy incentives for Orangeburg Department of Public Utilities customers.

Program	Description
Natural Gas Rebate Program	This program offers rebates to residential customers installing new natural gas appliances, replacing electric appliances with natural gas, or converting gas appliances from propane to natural gas. Rebates range from \$90 - \$250.
Interruptible Rates	Favorable rates are offered for interruptible-service customers.

### **York County Natural Gas**

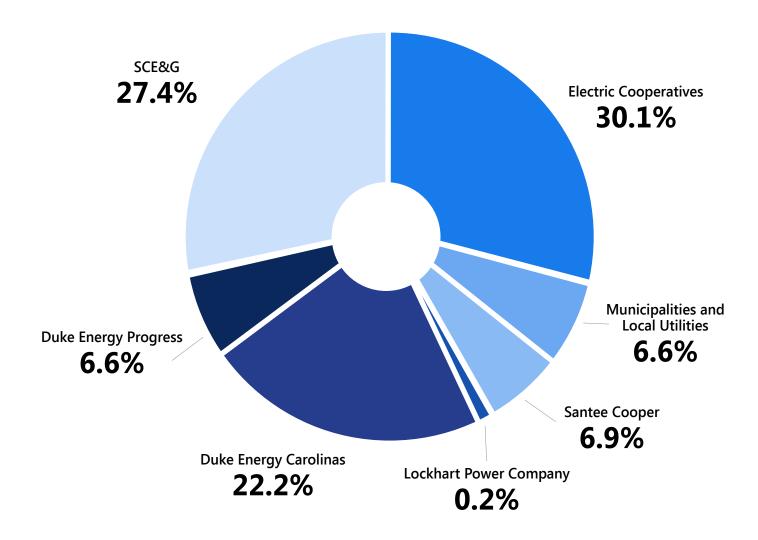
The following table lists energy incentives for York County Natural Gas customers.

Program	Description
Residential Rebate Program	This program is offered to customers converting eligible appliances to natural gas. The rebates will be credited to a customer's gas account or used to reduce the cost of new appliance purchases. Rebates range from \$75 - \$400.
Builder Rebate Program	This program is offered to builders as an incentive to install natural gas appliances in residential dwellings. The rebates will be applied to builder accounts. Rebates range from \$75 - \$400.

### **APPENDIX C**

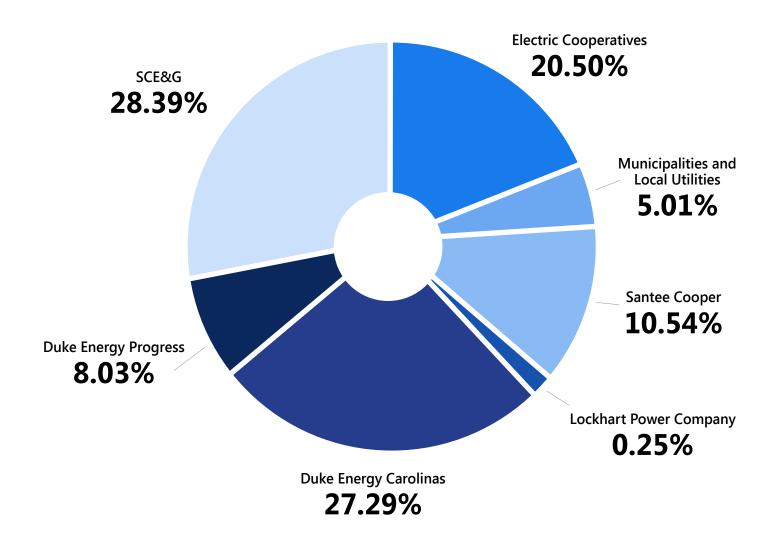
South Carolina Electric and Natural Gas Distribution Utility Market Share

# 2016 Electric Distribution Utility Market Share **Number of Customers**



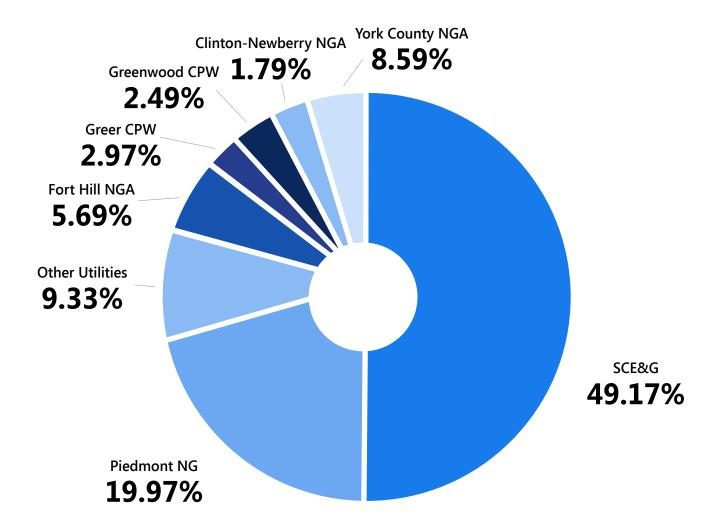
Source: U.S. Energy Information Administration, "Electric power sales, revenue, and energy efficiency Form EIA-861 detailed data files" https://www.eia.gov/electricity/data/eia861/index.html

# 2016 Electric Distribution Utility Market Share **Sales, in Megawatt-hours**



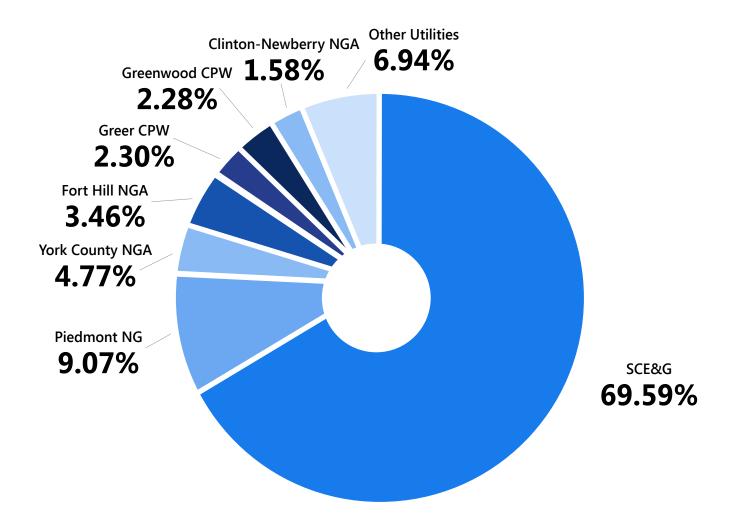
Source: U.S. Energy Information Administration, "Electric power sales, revenue, and energy efficiency Form EIA-861 detailed data files" https://www.eia.gov/electricity/data/eia861/index.html

# 2016 Natural Gas Distribution Utility Market Share **Number of Customers**



Source: U.S. Energy Information Administration, Natural Gas Annual Respondent Query System (EIA-176 Data through 2016), www.eia.gov/cfapps/ngqs/ngqs.cfm?f\_report=RP4&f\_sortby=&f\_items=&f\_year\_start=&f\_year\_end=&f\_show\_compid

# 2016 Natural Gas Distribution Utility Market Share **Sales, in Thousand Cubic Feet**



Source: U.S. Energy Information Administration, Natural Gas Annual Respondent Query System (EIA-176 Data through 2016), www.eia.gov/cfapps/ngqs/ngqs.cfm?f\_report=RP4&f\_sortby=&f\_items=&f\_year\_start=&f\_year\_end=&f\_show\_compid

## **APPENDIX D**

PURPA Qualifying Facilities

The Public Utilities Regulatory Policies Act of 1978 (PURPA) enables end users who generate power for their facilities to make any excess power available to the electric utilities supplying those users. PURPA also allows private companies to generate and to supply electricity to utilities if that power is generated using approved energy resources. "Qualifying facilities", as defined by PURPA, include both 1) small power production facilities using renewable fuel sources, such as wind, solar, hydroelectric, biomass, waste, or geothermal; and 2) cogeneration facilities that produce both electricity and thermal energy in a way that is more efficient than the separate production of both forms of energy. Utility companies are required to purchase power from qualifying facilities at a price equivalent to the avoided cost of additional generation. The purchase of electricity from qualifying facilities and other customer-owned generation helps utilities to offset growth in overall and peak demand.

Qualifying facilities are classified into two categories: 1) purchase, meaning that utilities purchase the power generated; and 2) displace, meaning that the power is used by the facility itself, displacing power that would otherwise be drawn from the electrical grid. As shown in the table below, qualifying facilities in South Carolina had the capacity to provide 585,418 kW of power as of September 30, 2017 for Duke Energy Carolinas and Duke Energy Progress and October 31, 2017 for SCE&G.

# SOUTH CAROLINA INVESTOR OWNED UTILITIES COGENERATION/SMALL POWER PRODUCERS PURCHASED UNDER PURPA

LLC - Solar*       Darlington Solar LLC - Solar*       Camden Coal NA       NA       Displace Deperating       Operating         olar LLC - Solar*       Darlington Solar LLC - Solar*       Darlington Solar LLC - Biomass*       Purchase Operating       Operating         rLLC - Biomass**       RockTenn CP, LLC - Biomass*       RockTenn CP, LLC - Biomass Negotiated (SC)       Purchase Operating       Purchase Operating         and Power, LLC - Solar*       Freedom Solar, LLC Biomass*       Solar Solar Solar       Negotiated (SC)       Purchase Operating         ames Anderson-Solar*       Eva Grey & James Anderson Solar Lloyd Fitzwater       Nichols Solar Solar CSP Purchase Operating         err - Solar*       Lloyd Fitzwater       Nichols Solar CSP Purchase Operating         cer - Solar*       Lloyd Fitzwater       Nichols Solar CSP Purchase Operating	Project (fc	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/ Displace	Planned/ Operate	Capacity kW
Sonoco ProductsHartsvilleW/CN/ADisplaceDarlington Solar LLCDarlingtonSolarNegotiated (SC)PurchaseRockTenn CP, LLCFlorenceBiomassNegotiated (SC)PurchaseFreedom Solar, LLCNicholsSolarPpPurchaseSumter Heat and Power, LLCSumterBiogasPPPurchaseLaney Development, Inc.HartsvilleSolar(SC)PurchaseBroad Grey & James AndersonNicholsSolar(SC)PurchaseBroad Grey & James AndersonNicholsSolarCSPPurchaseParlington County SchoolsDarlingtonSolarCSPPurchase	Invista Sarl	arl	Invista Sarl	Camden	Coal	N/A	Displace	Operating	28,000
Parlington Solar LLCDarlingtonSolar (SC)Purchase (SC)RockTenn CP, LLCFlorenceBiomassNegotiated (SC)PurchaseFreedom Solar, LLCNicholsSolar (SC)PurchaseSumter Heat and Power, LLCSumterBiogasPP PurchaseLaney Development, Inc.HartsvilleSolar (SC)PurchaseLloyd FitzwaterMicholsSolar (SC)PurchaseLloyd FitzwaterNicholsSolar (SC)Purchase* Darlington County SchoolsDarlingtonSolar (SSP)Purchase	Sonoco	Products Co	Sonoco Products	Hartsville	M/C	A/N	Displace	Operating	27,000
RockTenn CP, LLCFlorenceBiomassNegotiated (SC)PurchaseFreedom Solar, LLCNicholsSolarNegotiated (SC)PurchaseSumter Heat and Power, LLCSumterBiogasPPPurchaseLaney Development, Inc.HartsvilleSolar(SC)PurchaseLoyd FitzwaterMcBeeSolar(SC)PurchaseLloyd FitzwaterNicholsSolarCSPPurchase*Eva Grey & James AndersonNicholsSolarCSPPurchase	Darlingt	on Solar LLC - Solar*	Darlington Solar LLC	Darlington	Solar	Negotiated (SC)	Purchase	Operating	10,000
Freedom Solar, LLC  Sumter Heat and Power, LLC  Sumter Heat and Power, LLC  Sumter Heat and Power, LLC  Laney Development, Inc.  Eva Grey & James Anderson  Lloyd Fitzwater  Lloyd Fitzwater  Eva Grey & James Anderson  Nichols  Darlington County Schools  Pp  Purchase  Solar  (SC)  Purchase  Ph  Purchase  Purchase  Purchase	RockTer	Rock Tenn CP, LLC - Biomass*		Florence	Biomass	Negotiated (SC)	Purchase	Operating	10,000
Sumter Heat and Power, LLC  Laney Development, Inc.  Hartsville  Solar  (SC)  Negotiated (SC)  Purchase  Nichols  Solar  (SC)  Purchase  Nichols  Solar  CSP  Purchase  Purchase  Purchase  Purchase  Purchase  Purchase  Purchase  Purchase  Purchase  Solar  Solar  CSP  Purchase  Purchase	Freedor	n Solar, LLC - Solar*	Freedom Solar, LLC	Nichols	Solar	Negotiated (SC)	Purchase	Operating	2,000
31-Laney Development, Inc.HartsvilleSolarNegotiated (SC)Purchase31-Eva Grey & James AndersonNicholsSolar(SC)Purchase31-Eva Grey & James AndersonNicholsSolarCSPPurchase*Darlington County SchoolsDarlingtonSolarCSPPurchase	Sumter P Biomass	Heat and Power, LLC -		Sumter	Biogas	РР	Purchase	Operating	1,546
Lloyd Fitzwater Lloyd Fitzwater  Lloyd Fitzwater  Eva Grey & James Anderson  Nichols  Solar  CSP  Purchase  Purchase  Darlington County Schools  Darlington  Solar  CSP  Purchase	Laney D	evelopment, Inc Solar	Laney Development, Inc.	Hartsville	Solar	Negotiated (SC)	Purchase	Operating	11
Lloyd Fitzwater McBee Solar CSP Purchase Purchase CSP Purchase Darlington County Schools Darlington Solar CSP Purchase CSP	Eva Grey House*	Eva Grey & James Anderson-Solar- House*	Eva Grey & James Anderson	Nichols	Solar	(SC)	Purchase	Operating	9
Eva Grey & James Anderson Nichols Solar CSP Purchase Darlington County Schools Darlington Solar CSP Purchase	Lloyd Fi	Lloyd Fitzwater - Solar*	Lloyd Fitzwater	McBee	Solar	CSP	Purchase	Operating	2
Darlington County Schools Darlington Solar CSP Purchase	Eva Gre Barn*	y & James Anderson-Solar-	Eva Grey & James Anderson	Nichols	Solar	CSP	Purchase	Operating	2
	Darlingt	Darlington County Schools-Solar*	Darlington County Schools	Darlington	Solar	CSP	Purchase	Operating	2

\* denotes PURPA QF Updated 9/30/17

Total

81,579

# SOUTH CAROLINA INVESTOR OWNED UTILITIES COGENERATION/SMALL POWER PRODUCERS PURPA

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/ Displace	Planned/ Operate	Capacity kW
DEC	Cherokee County Cogeneration Partners LP - Other	Cherokee County Cogeneration Partners LP - NM	Gaffney	Natural Gas	Negotiated (SC)	Purchase	Operating	100,000
DEC	BMW	BMW Mfg Corp	Greer	Gas	HPX	Displace	Operating	10,000
DEC	Aquenergy Systems LLC-Ware Shoals- Hydroelectric	Aquenergy Systems, LLC - Ware Shoals	Ware Shoals	Hydroelectric	ЬР	Purchase	Operating	908'9
DEC	Cherokee Falls Hydroelectric, LLC- Hydro	Cherokee Falls Hydroelectric, LLC	Blacksburg	Hydroelectric	ЬР	Purchase	Operating	4,140
DEC	Northbrook Carolina Hydro - Holliday's Bridge	Northbrook Carolina Hydro, LLC - Hollidays Bridge - Hydro - NM	Honea Path	Hydroelectric	ЬР	Purchase	Operating	3,500
DEC	Pelzer Hydro Company Hydroelectric, LLC- Lower - Hydroelectric	Pelzer Hydro Company, LLC	Williamston	Hydroelectric	ЬР	Purchase	Operating	3,300
DEC	Greenville Gas Producer LLC-Landfill Gas	Greenville Gas Producer, LLC	Greer	Landfill Gas	ЬР	Purchase	Operating	3,200
DEC	Lockhart BioEnergy, LLC*	Lockhart BioEnergy, LLC	Enoree	Biomass	Negotiated (SC)	Purchase	Operating	3,200
DEC	Northbrook Carolina Hydro - Saluda	Northbrook Carolina Hydro, LLC - Greenville	Greenville	Hydroelectric	ЬР	Purchase	Operating	2,400
DEC	Pelzer Hydro Company,LLC- Hydroelectric-Upper	Pelzer Hydro Company,LLC	Anderson	Hydroelectric	ЬР	Purchase	Operating	2,020
DEC	Inman Mills LLC-Hydroelectric*	Inman Mills, LLC - NM	Enoree	Hydroelectric	ЬР	Purchase	Operating	1,600
DEC	Lockhart Power Company - Wellford - Landfill	Lockhart Power Company - NM	Wellford	Landfill Gas	Negotiated (SC)	Purchase	Operating	1,600
DEC	Northbrook Carolina Hydro LLC - Boyd's Mill - Hydro	Northbrook Carolina Hydro, LLC - Boyd's Mill - Hydro - NM	Ware Shoals	Hydroelectric	ЬР	Purchase	Operating	1,500
DEC	Converse Energy Incorporated- Hydroelectric*	Converse Energy Incorporated - NM	Spartanburg	Hydroelectric	ЬР	Purchase	Operating	1,250
DEC	Spartanburg Water System- Hydro	Spartanburg Water System - NM	Chesnee	Hydroelectric	ЬР	Purchase	Operating	1,000
DEC	Lockhart Minimum Flow Hydro	Lockhart Power Company - Minimum Flow Hydro	Lockhart	Hydroelectric	ЬР	Purchase	Operating	850
*	* Acceptance							

 <sup>\*</sup> denotes PURPA QF
 Updated 9/30/17

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/ Displace	Planned/ Operate	Capacity kW
DEC	Lockhart Lower Pacolet - Hydro	Lockhart Power Company - Lower Pacolet Hydro	Pacolet	Hydroelectric	Negotiated (SC)	Purchase	Operating	800
DEC	Aquenergy Systems, LLC- Piedmont-Hydroelectric	Aquenergy Systems, LLC- Piedmont - Hydroelectric	Piedmont	Hydroelectric	ЬР	Purchase	Operating	009
DEC	Vetroresina LLC - RNM 1770797127 - Solar*	Vetroresina LLC - RNM 1770797127	Greenville	Solar	ЬР	Purchase	Operating	282
DEC	Vetroresina LLC - PP - Solar*	Vetroresina LLC - PP	Greenville	Solar	РР	Purchase	Operating	225
DEC	Itron IncSolar*	Itron Inc NM	West Union	Solar	ЬР	Purchase	Operating	57
DEC	The Roper Group. LLC - Solar PP*	Roper Mountain Rd Selfstorage	Greenville	Solar	ЬР	Purchase	Operating	45
DEC	Clover School District 2- Solar*	Clover School District 2- NM	Clover	Solar	ЬЬ	Purchase	Operating	27
DEC	Greenville County Schools dba Roper MTN Science CNTR Park- Solar*	Greenville County Schools	Greenville	Solar	Д	Purchase	Operating	24
DEC	Yuze Holdings LLC - Solar*	Yuze Holdings LLC	Greenville	Solar	ЬР	Purchase	Operating	24
DEC	DEC David Zimmer- Solar - PP	David Zimmer	Greenville	Solar	ЬР	Purchase	Operating	12
DEC	Bartron, Jarrod - Solar*	Bartron, Jarrod	Travelers Rest	Solar	ЬР	Purchase	Operating	∞
DEC	Clark H. Mizell-Solar*	Clark H. Mizell	Gray Court	Solar	РР	Purchase	Operating	9
DEC	Thomas W. Bates-Solar*	Thomas W. Bates	Simpsonville	Solar	ЬР	Purchase	Operating	2
DEC	Betty Haygood - Solar*	Betty Haygood	Fountain Inn	Solar	РР	Purchase	Operating	2
DEC	Good Solar Electric LLC- Solar*	Good Solar Electric LLC	Greenville	Solar	ЬР	Purchase	Operating	2
DEC	Mfg Co, Minnesota Mining Minnesota Mining and Manufacturing Co - Solar*	Mfg Co, Minnesota Mining Minnesota Mining and Manufacturing Co	Greenville	Solar	<u>d</u>	Purchase	Operating	Ŋ
DEC	Jody Fine-Solar*	Jody Fine	Ware Shoals	Solar	ЬР	Purchase	Operating	2
DEC	Freightliner Corp-Dynamometer*	Freightliner Corp NM	Gaffney	Other	РР	Purchase	Operating	0
DEC	Lockhart Power Company - Upper Pacolet Hydro	Lockhart Power Company - Upper Pacolet Hydro	Pacolet	Hydroelectric	Negotiated (SC)	Purchase	Operating	0

Total

147,992

<sup>\*</sup> denotes PURPA QF Updated 9/30/17

# SOUTH CAROLINA INVESTOR OWNED UTILITIES COGENERATION/SMALL POWER PRODUCERS PURCHASED UNDER PURPA

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/ Displace	Planned/ Operate	Capacity kW
SCE&G	International Paper Corp	International Paper Corp	Eastover	M/C	Contract	Purchase	Operating	97,500
SCE&G	Saluda Solar, LLC*	Cypress Creek Renewables	Saluda	Solar	Contract	Purchase	Operating	008'9
SCE&G	Barnwell Solar, LLC*	Pinegate	Barnwell	Solar	Contract	Purchase	Operating	5,440
SCE&G	SCE&G Odyssey Solar, LLC*	Pinegate	Pelion	Solar	Contract	Purchase	Operating	8,160
SCE&G	Saluda Solar II, LLC *	Pinegate	Saluda	Solar	Contract	Purchase	Operating	3,400
SCE&G	Haley Solar, LLC*	Pinegate	Allendale	Solar	Contract	Purchase	Operating	8,160
SCE&G	Cameron Solar II, LLC*	Pinegate	Cameron	Solar	Contract	Purchase	Operating	4,080
SCE&G	Jerry Zucker Solar Park*	TIG Sun Energy Ⅲ	North Charleston	Solar	Contract	Purchase	Operating	504
SCE&G	Ridgeland Solar Farm I, LLC*	Dominion	Ridgeland	Solar	Contract	Purchase	Operating	10,000
SCE&G	Hampton Solar I, LLC*	Pinegate	Hampton	Solar	Contract	Purchase	Operating	008′9
SCE&G	Southern Current One, LLC*	Pinegate	Fairfax	Solar	Contract	Purchase	Planned	10,200
SCE&G	Estill Solar II, LLC*	Cypress Creek Renewables	Estill	Solar	Contract	Purchase	Planned	10,200
SCE&G	St. Matthews Solar, LLC*	Pinegate	St. Matthews	Solar	Contract	Purchase	Operating	10,200
SCE&G	SCE&G Gaston Solar I, LLC*	Cypress Creek Renewables	Gaston	Solar	Contract	Purchase	Planned	10,200
SCE&G	Estill Solar I, LLC*	Pinegate	Estill	Solar	Contract	Purchase	Operating	20,400
SCE&G	Hampton Solar II, LLC*	Cypress Creek Renewables	Hampton	Solar	Contract	Purchase	Operating	20,000
SCE&G	Gaston Solar II, LLC*	Pinegate	Gaston	Solar	Contract	Purchase	Planned	10,200
SCE&G	Champion Solar, LLC*	Pinegate	Pelion	Solar	Contract	Purchase	Operating	10,880
SCE&G	Swamp Fox Solar, LLC*	Pinegate	Pelion	Solar	Contract	Purchase	Operating	10,880
SCE&G	Cameron Solar, LLC*	Pinegate	Cameron	Solar	Contract	Purchase	Planned	20,000
SCE&G	Moffit Solar*	Dominion	Gillisonville	Solar	Contract	Purchase	Operating	71,400
SCE&G	Palmetto Plains Solar Project*	Cypress Creek Renewables	Orangeburg	Solar	Contract	Purchase	Planned	74.8
SCE&G	Blackville Solar II, LLC	Southern Current	Barnwell	Solar	Contract	Purchase	Planned	20
SCE&G	Diamond Solar, LLC	Southern Current	Lexington	Solar	Contract	Purchase	Planned	8.16

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/ Displace	Planned/ Operate	Capacity kW
SCE&G	SCE&G Edison Solar, LLC	Southern Current	Barnwell	Solar	Contract	Purchase	Planned	4.76
SCE&G	SCE&G Richardson Solar, LLC	Southern Current	Barnwell	Solar	Contract	Purchase	Planned	3.6
SCE&G	SCE&G Huntley Solar, LLC	Cypress Creek Renewables	Orangeburg	Solar	Contract	Purchase	Planned	75
SCE&G	SCE&G Lily Solar, LLC	Narenco	Allendale	Solar	Contract	Purchase	Planned	70
SCE&G	SCE&G Peony Solar, LLC	Pine Gate Renewables	Orangeburg	Solar	Contract	Purchase	Planned	39
SCE&G	SCE&G Seabrook Solar	Adger Solar	Jasper	Solar	Contract	Purchase	Planned	72.5
SCE&G	SCE&G Shaw Creek	Nextera	Aiken	Solar	Contract	Purchase	Planned	74.9
			-					
	Total							355,847
	Total for 77 stations							585,418

\* denotes PURPA QF Updated 10/31/17

# **ENERGY.SC.**GOV

Office of Regulatory Staff

1401 Main Street

Suite 900

Columbia, SC 29201

