Saving Energy: 2024

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





Saving Energy: 2024

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

December 2024

Contact:
Gretchen Pool
apool@ors.sc.gov

South Carolina Office of Regulatory Staff

Energy Office

1401 Main Street Suite 900 Columbia, SC 29201 (803) 737-0800

ENERGY.SC.G@V

Disclaimer: The information in this Status Update 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 Status Update 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.

2024 DSM Status Update

The SC Energy Office, a division of the South Carolina Office of Regulatory Staff (Energy Office), compiles data regarding past, on-going, and projected **Demand-Side Management** (**DSM**) programs offered by South Carolina's electric and natural gas, utilities including investorowned utilities, the state-owned Santee Cooper, electric cooperatives, and municipal utility providers. This **DSM Status Update**, submitted pursuant to S.C. Code Ann. § 58-37-30(B), includes a brief summary of South Carolina's electric and natural gas utilities' DSM programs in **2023**. The complete, up-to-date listing of SC DSM programs is available at EnergySaver.sc.gov and in Appendix A.

What is DSM?

DSM is a strategy of planning, implementing, and monitoring activities to reduce or more efficiently use energy. **DSM programs** are "demand-side activities" conducted or proposed by electric and natural gas utilities to encourage customers to modify their level and pattern of energy usage to decrease or shift demand for energy services.

State legislation encourages utilities to adopt and implement DSM programs which benefit the utilities and utility customers. Utilities regulated by the South Carolina Public Service Commission (PSC) receive performance incentives and the recovery of costs associated with these programs. Customers may also directly benefit from DSM through reductions in their monthly energy consumption.

DSM programs also reduce the need for wholesale energy purchases and potentially defer costly infrastructure investments. Some examples of infrastructure investments that may be minimized or deferred due to DSM programs include the installation of pollution controls, the construction of new generation, and the construction of new transmission and distribution infrastructure.

What is the Energy Saver Tool?

The Energy Saver Tool was developed by the Energy Office in response to the 2016 State Energy Plan, which identified consumers needed a tool to find energy-saving tips and programs for which they may be eligible. The solution was development of the Energy Saver Tool publicly available through the EnergySaver.sc.gov website.

The Energy Office, by statute, compiles and annually updates a comprehensive listing of available DSM data for South Carolina, including the utilities' descriptions, goals, and objectives for their DSM activities and helpful utility website links.

The Energy Office organizes DSM data for South Carolina utilities into three overall categories.

1. Energy Efficiency and Conservation: Energy efficiency measures reduce energy consumption without requiring customers to sacrifice the benefits received from energy. Efficiency measures include activities such as installing building insulation or higher

efficiency appliances. Conversely, energy conservation reduces energy consumption by requiring customers to decrease their utilization of energy-consuming devices. Conservation measures include activities such as reducing thermostat temperature or turning off lights. Although energy efficiency and conservation achieve energy reduction in different ways, they are closely related and grouped together for this DSM Status Update and as found in the Energy Saver Tool.

- Load Management: Load management measures entail reducing customer demand for energy during periods of peak demand when capacity is limited, and the cost of energy provisions is high.
- 3. Public Information: Public information activities through consumer education and marketing seek to encourage customer participation in DSM programs and change behaviors through public campaigns, direct-to-customer communication, or increasing customer access to information about their consumption of energy services.

Summary: South Carolina Electric Distribution Utilities

Electric Distribution Utilities (EDUs) own and operate distribution system(s) that connect the transmission grid to the retail electric consumer. Of the 46 EDUs in South Carolina, 37 conducted DSM activities in 2024. Their ongoing activities are discussed below.

Energy Efficiency and Conservation

- Three EDUs provided financial incentives to builders and/or building occupants to promote energy-efficient new construction.
- Thirteen EDUs offered financial incentives to building occupants to encourage energy efficiency improvements in existing structures.
- Eleven EDUs offered on-site energy assessments to customers in which they provided trained personnel to evaluate facilities and suggest methods for improving energy efficiency.
- Three EDUs implemented energy efficiency and weatherization programs for lowincome customers. The programs provided personalized assistance and financial support to assist in making needed home improvements and lowering monthly electric bills.
- Eighteen EDUs offered financial incentives for the purchase and/or installation of energy-efficient appliances, equipment, and lighting.

Load Management

- Twenty-eight EDUs offered financial incentives to customers who allowed utilities to control their peak load by curtailing the operation of certain appliances or equipment during periods of peak demand.
- Three EDUs offered financial incentives to customers who agreed to partially or completely halt electricity consumption, or allowed the utility to interrupt service, during periods of peak demand.
- Five EDUs offered rates that encourage the reduction of energy use during times when there is a high demand for electricity.

• One EDU provided incentives for customers to switch to on-site standby electricity generation (i.e., generators) during periods of peak demand.

Public Information

- Thirty EDUs maintained websites that offered energy efficiency and conservation tips and/or web-based 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.
- Five EDUs conducted public outreach campaigns through advertising and/or attended 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.

Summary: South Carolina Natural Gas Distribution Utilities

Of the 15 natural gas utilities (NGUs) in South Carolina, 13 conducted DSM activities in 2024. The DSM activities are discussed below.

Energy Efficiency and Conservation

• Ten 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 eliminate or reduce their natural gas deliveries during periods of peak demand. Interruptible-service customers are typically commercial or industrial entities that can switch from utility natural gas to another energy source or are willing to suspend operations during fuelcurtailment periods.

Public Information

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

Investor-Owned Electric Utilities

Information regarding programs offered by South Carolina utilities can be found on their websites:

Dominion Energy South Carolina

Duke Energy Carolinas & Progress

Lockhart Power Company

Santee Cooper

Electric Cooperatives & Municipal Electric and Gas Utilities

Additional information regarding programs by specific cooperatives and municipal electric and gas utilities can be found using the <u>Energy Saver Tool</u>.

PURPA Qualified 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 may assist 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. A list of Qualified Facilities including capacity as of October 31, 2024, can be found in Appendix B.

APPENDIX A

Electric and Natural Gas
Demand Side Management Programs



Program Name	Description	
	Aiken Electric Cooperative	
Residential		
Aiken Electric Cooperative Help My House Program	Members can improve their home's energy efficiency with this energy efficiency audit and zero-down, low-interest loan program. An audit is performed on qualifying homes to identify energy improvement measures. Improvements can be financed by including monthly loan payments on the power bill.	
Aiken Electric Cooperative H2O Select Plus2 Program	H2O Select® PLUS2 is a residential water heater and timer incentive program. Members can choose a new high-efficiency electric water heater with cash incentives. The water heater, timer, and installation are free. A 10-year worry-free maintenance warranty is also available.	
Aiken Electric Cooperative Smart Thermostat Program	Members Receive an Ecobee Smart Thermostat for free, including installation, as well as a wireless router rebate of up to \$40 if needed. Then, enjoy the convenience and control of adjusting your home's temperature from anywhere, anytime. Gives members the opportunity to help save on heating and cooling costs by programming the thermostat to automatically adjust when they're not home. By participating in the program, members will agree to allow the cooperative to control the thermostat during "peak" periods. That helps hold down power costs for all our members.	
Aiken Electric Cooperative Beat the Peak	Aiken Electric provides this program through Central Electric Cooperative that informs members of how electricity usage varies during the day and across the seasons of the year. By signing up, they receive a notification (via text, email, and/or voice messages) at times when they can help reduce electricity use.	
	Bamberg Board of Public Works	
Residential		
Bamberg Board of Public Works Energy Saving Tips	Online energy tips	
	Berkeley Electric Cooperative	
Residential		
Berkeley Electric Cooperative Time- of-Day Rate	Voluntary program that rewards members with lower electric rate for shifting energy-intensive tasks – such as laundry, cooking, and heating/cooling – away from peak hours.	
Berkeley Electric Cooperative H2O Advantage	Rebate program designed to help members purchase and install energy-efficient water heaters. The program allows members to qualify for money back on a new electric water heater. Water heater rebates ranging from \$200 - \$400 for new electric water heaters with a load management switch.	
Berkeley Electric Cooperative Earth Connect Geothermal Heat Pump	Geothermal heat pump rebate of \$250 per ton up to \$1,250 limit.	
Berkeley Electric Cooperative Dual- Fuel Heating System	New Dual-Fuel Systems that replace gas heat qualify for rebates up to \$500/home.	
Berkeley Electric Cooperative Home Advantage Loan Program	A five percent interest rate loan, up to \$20,000, for energy efficiency home improvements to existing homes. Measures with a high return will be prioritized. These include items such as infiltration improvement, duct work leakage, air flow improvement, insulation upgrades, and	

Program Name	Description
	HVAC unit upgrades. This includes heat pumps, dual fuel heat pumps, and mini-splits. The loan payment will be added to the electric bill.
Berkeley Electric Cooperative Energy Advance Loan	These loans can help finance energy improvements from storm doors to large appliances and feature competitive interest rates.
Berkeley Electric Cooperative Energy Audit - Residential	A team of accredited auditors are available to help customers save money at their home or business at no cost. Assesses the customer's hourly kWh information to help them identify common sources for increased power bills such as HVAC and appliance issues. If unable to pinpoint the problem a free in-home audit will be scheduled.
Berkeley Electric Cooperative Smart Thermostat Rebates	Take advantage of all the benefits offered by smart thermostats when you purchase an Ecobee Smart Thermostat with voice control for just \$150 + tax. Members can purchase an Ecobee thermostat directly from the cooperative and either install it themselves or have it installed by an approved contractor. Once the Ecobee thermostat is installed and connected to Wi-Fi, you will qualify for a \$150 + tax bill credit (one per household). Members will also receive additional \$50 bill credits for active participation (credit applied in April). In exchange for the rebates, members will allow Berkeley Electric to adjust the thermostat settings around 4-8 times a month in order to reduce kilowatt-hour use during peak electricity demand periods. This helps the cooperative keep costs stable for all members while still allowing members to enjoy the comfort and energy efficiency savings of a smart thermostat.
Berkeley Electric Cooperative Energy-Saving Tips	Online energy-saving tips.
Non-Residential	
Berkeley Electric Cooperative Energy Audit - Business	A team of accredited auditors are available to help customers save money at their home or business at no cost.
	Black River Electric Cooperative
Residential	
Black River Electric Cooperative Help My House Program	Members are able to finance home energy improvements and make payments through their electric bill.
Black River Electric Cooperative Energy Efficiency Tips	Tips to reduce energy use.
	Blue Ridge Electric Cooperative
Residential	
Blue Ridge Electric Cooperative Energy Audit	On-site home energy audit.
Blue Ridge Electric Cooperative Smart Thermostat Program	Blue Ridge Electric's Smart Thermostat Program offers members the opportunity to purchase an Ecobee 3 or Ecobee 4 smart thermostat at a discounted rate. As a participant, the member will allow the cooperative to control the thermostat during peak periods. After 36 months, if the member opts out of load control less than 40% of the time, the co-op will rebate the amount of the thermostat back to the member.
Blue Ridge Electric Cooperative H2O Select Water Heater Program	With the purchase of a new electric storage tank water heater with at least a 40-gallon capacity, customers are eligible for a \$200 rebate or even more if they replace a gas unit.
Blue Ridge Electric Cooperative Heat Pump Loan Program	Heat pump loans ranging from \$1,000 - \$15,000.
Non-Residential	

Program Name	Description		
Blue Ridge Electric Cooperative - Business	No energy efficiency programs available.		
	Broad River Electric Cooperative		
Residential			
Broad River Electric Cooperative Smart Thermostats	This program offers a discount on smart thermostats ordered through the Cooperative.		
Broad River Electric Cooperative Energy Efficiency Rate	Alternative electric rate available to homes with certain energy efficiency measures that address insulation, windows, outside doors, water heaters, fireplace/chimney, attic ventilation, and HVAC. If your home does not meet the requirements, they will tell you what it will take to meet the requirements to earn the rate.		
Non-Residential			
Broad River Electric Cooperative - Business	No business energy efficiency programs available.		
Се	entral Electric Cooperative - All cooperative members.		
Residential			
Central Electric Cooperative Beat the Peak	Members voluntarily sign up to receive notifications of peak demand periods. Notifications are sent via text, email, and/or voice messages during peak times when members can help reduce electricity use.		
	Chester County Natural Gas Authority		
Residential			
Chester County Natural Gas Authority Rate 1	Customers with primary natural gas heating, natural gas water heater, natural gas dryer, and one natural gas appliance qualify. This rate allows customers to pay 3% less per therm than the regular rate.		
Non-Residential			
Chester County Natural Gas - Business	No business natural gas incentive programs available.		
City of Abbeville			
Residential	Residential		
City of Abbeville Energy Advisor	A set of online tools and resources to help you better understand and manage your home energy use and costs.		
Non-Residential			
City of Abbeville - Business	No business energy efficiency programs available.		
City of Bennettsville			
Residential			

Program Name	Description	
City of Bennettsville - Residential	No residential energy efficiency programs available.	
Non-Residential		
City of Bennettsville - Business	No business energy efficiency programs available.	
	City of Camden	
Residential		
City of Camden - Residential	No residential energy efficiency programs available.	
Non-Residential		
City of Camden - Business	No business energy efficiency programs available.	
	City of Clinton	
Non-Residential		
City of Clinton - Business	No business energy efficiency programs available.	
	City of Georgetown	
Residential		
City of Georgetown Consumption Audits for Residential Customers	Customers with unusually high electric energy consumption will be contacted to determine if they are interested in this program. An energy audit is conducted and ways to reduce energy consumption are identified.	
City of Georgetown Smart Energy Home Program	Low-interest loans with no down payment for HVAC units, weatherization, smart thermostats, and water heaters. Payment is added to the electric bill.	
Non-Residential		
City of Georgetown - Business	No business energy efficiency programs available.	
	City of Newberry	
Non-Residential		
City of Newberry Utilities - Business	No business energy efficiency programs available.	
	City of Rock Hill	
Residential		
City of Rock Hill 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.	
City of Rock Hill Energy Conservation Tools and Tips	Online energy tools and tips.	

Program Name	Description		
Non-Residential			
City of Rock Hill 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 Union		
Residential			
City of Union Conservation Tips	No conservation tips available.		
City of Union Online "Energy Depot" Toolkit	No energy efficiency programs available.		
City of Union Utility Department Natural Gas Rebate	No energy efficiency programs available.		
Non-Residential			
City of Union - Business	No business energy efficiency programs available.		
	City of Westminster		
Residential			
City of Westminster Online "Energy Depot" Toolkit	No energy efficiency programs available.		
City of Westminster Energy Saving Tips	No online energy tips available.		
Non-Residential	Non-Residential		
City of Westminster - Business	No business energy efficiency programs available.		
	Clinton-Newberry Natural Gas Authority		
Residential			
Clinton-Newberry Natural Gas Authority Energy Saving Tips	Online energy tips		
Non-Residential			
Clinton-Newberry Natural Gas - Business	No natural gas business programs available.		
Coastal Electric Cooperative			
Residential			
Coastal Electric Cooperative Energy Conservation Tools and Tips	Online tools and tips.		

Program Name	Description
Coastal Electric Cooperative Home Energy Checkup	This is a free home checkup where a trained Coastal Electric Member Services Advisor examines the energy efficiency of the entire home. A detailed report will be completed indicating problem areas with recommendations explaining steps that can be taken to reduce energy costs.
Coastal Electric Cooperative Energy Advance Loan	Loan program to assist with items such as high efficiency heat pumps, insulation, programmable thermostats and more. The loan payment is applied to the electric bill.
Coastal Electric Cooperative H2O Select Program	Through this program, a load management device can be added to your existing water heater to reduce energy demand, or you can receive financing for a new water heater.
Non-Residential	
Coastal Electric Cooperative - Business	No business energy efficiency programs available.
	Dominion Energy South Carolina
Residential	
Dominion Energy Time-of-Use Rate - Residential	Participants are charged higher rates during peak-usage periods and lower charges during off-peak periods and super off-peak periods to encourage customers to conserve energy during peak periods (Rate 5).
Dominion Energy Seasonal Rates	Many of Dominion'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 (Rate 7).
Dominion EnergyWise Savings Store (online)	Instant discounts off retail pricing on ENERGY STAR® certified products such as smart thermostats, advanced power strips, weatherization items and water saving measures to residential customers. All products conveniently mailed directly to your home. FREE shipping on qualified orders. Available to residential electric customers only.
Dominion Energy Year-Round Energy Saving Tips	Easy, straightforward ways to save energy every day, provided to customers on the Dominion website and via monthly emails.
Dominion Energy Heating & Cooling and Water Heating Rebates	Rebates to residential electric customers toward the cost of purchasing and installing new ENERGY STAR® qualified central air conditioners and heat pumps, replacing an electric furnace with an ENERGY STAR® certified heat pump water heater. Additionally, incentives to encourage customers to improve the efficiency of existing AC and heat pump systems through duct improvements. Rebates range from \$300 - \$750
Dominion Energy Home Energy Check-up and Home Energy Check- up Plus	Provides an in-home or virtual energy efficiency consultation to homeowners or renters in single family, multi-family or mobile homes. A professionally trained member of the Dominion Energy team reviews a variety of measures that impact a home's energy efficiency and reviews up to two years of usage data with the customer. Energy efficiency measures that may be directly installed during the visit include LED Bulbs (standard, candelabra, and globe), kitchen and bathroom faucet aerators, low flow shower heads, shower timers, water heater tank wrap, hot water pipe insulation, smart powerstrips, outdoor flood lights and indoor recessed lights and digital switch plate wall thermometers. After completion of the check-up, eligible electric-heat customers (homeowners only) may qualify for the Home Energy Check-up Plus program where limited incentives may be offered to homes with higher than average electric usage.
Dominion Energy Home Energy Reports	Free monthly reports comparing customer's electric energy usage to peer group and providing information to help identify, analyze, and act upon potential energy efficiency measures and behaviors. Residential electric customers are identified for participation and automatically enrolled into the program based on predetermined factors such as electric usage and propensity to save energy.
Dominion Energy Neighborhood Energy Efficiency Program (electric and electric/natural gas customers)	Provides income-qualified residential electric customers energy efficiency education, an inhome energy assessment, and direct installation of no-cost energy saving measures delivered in a neighborhood door-to-door sweep approach. Some of the energy saving

Program Name	Description
	measures installed include LED bulbs (standard, candelabra, and globe), HVAC filters (1-year supply), electric water heater and pipe insulation, weather stripping (doors and windows), door sweeps, kitchen and bathroom faucet aerators, low-flow shower heads and smart power strips. Following this core component participation, a mobile/manufactured homes subset is chosen to receive weatherization measures such as attic insulation, air and duct sealing, programmable thermostats, reflective roof coating, and bellyboard repair and insulation. Dominion Energy selects neighborhoods and mobile/manufactured homes to participate in this program. All installations are FREE of charge.
Dominion Energy Energy Saver/Conservation Rate	Homeowners are offered a reduced electric rate when existing homes are upgraded and new homes are built with a high level of energy efficiency (Rate 6).
Dominion Energy Natural Gas Rebates	Rebates for residential gas customers are offered for ENERGY STAR® qualified gas furnaces, water heaters and fireplace logs that replace older inefficient equipment. Rebates up to \$350 are available.
Dominion Energy Residential Multifamily	Provides energy education, an on-site energy assessment of the dwelling, and direct installation of select energy-saving measures specific to multifamily customers. Some of the energy saving measures include LED bulbs (standard, candelabra and globe), kitchen and bathroom faucet aerators and low-flow shower heads. Additional measures may be installed based on energy assessment. DESC pays 100% of in-unit residential costs. To receive in-unit upgrades, a commercial/common area must first receive at a minimum, one HVAC upgrade.
Dominion EnergyWise Online Savings Store - Gas	Discounts on gas saving measures such as faucet aerators, smart thermostats, and weather stripping for residential gas customers.
Non-Residential	
Dominion Energy Commercial Multifamily	Eligible energy efficiency measures recommended for common areas include Energy Star HVAC upgrades, LED lamps and/or fixtures and water conservation measures which will result in incentives for property owners. Additional measures may be recommended based on energy assessment. Dominion provides an incentive for 75% of common area costs.
Dominion Energy Municipal LED Lighting	This program offers municipalities in the Dominion service territory incentives to replace street lighting with high efficiency LED streetlights.
Dominion Energy Time-of-Use Rate - Non-Residential	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.
Dominion Energy Small Business Energy Solutions	A turnkey program tailored to help owners of small businesses manage their energy costs by providing incentives. Deep discounts available for energy efficient lighting, refrigeration, and HVAC upgrades. Includes a FREE on-site energy analysis for lighting, and/or HVAC and financial incentives up to 90% of project costs (up to \$6,000). Available to small business and nonprofit electric customers with five or fewer Dominion Energy electric accounts and an annual energy use of 350,000 kWh or less.
Dominion Energy EnergyWise for Your Business	Incentives for non-residential electric customers to become more energy efficient. Financial incentives include retrofit and new construction lighting, HVAC unitary, HVAC chillers, HVAC variable frequency drives, food service and refrigeration equipment, custom projects, building tune-up and technical services. Beginning late 2022, rebates for commercial gas customers will be offered for ENERGY STAR qualified equipment that replaces older inefficient equipment.
Dominion Energy Standby Generator Program	For wholesale customers. Provides about 27 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.
Dominion Energy Interruptible Load Program	Participating customers receive a discount on their demand charges for shedding load when Dominion Energy is short on capacity. Incentives range from \$2.75 per kW to \$4.50 per kW.
Dominion Energy 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.

Program Name	Description	
Duke Energy Carolinas (DEC) - Upstate		
Residential	Residential	
Duke Energy Carolinas (DEC) Online Resources	Online tools and tips including energy calculators.	
Duke Energy Carolinas (DEC) Energy Assessments	Provides customers with a free energy audit of their home and an energy efficiency starter kit including LED bulbs, a low flow shower head, and more. The customer will also receive a report with actions to take to increase the home's efficiency. Customers may also purchase discounted measures and blower door tests at a discounted rate.	
Duke Energy Carolinas (DEC) Energy Efficiency Education	Engages school children with a live in-school theatrical presentation regarding energy efficiency; and allows children who complete a home energy survey to receive an Energy Efficiency Starter Kit.	
Duke Energy Carolinas (DEC) Energy-Efficient Appliances and Devices	Provides incentives for customers to install energy-efficient equipment. The program consists of measures such as air purifiers, dehumidifiers, and LED fixtures, smart thermostats, smart power strips, and water heating, sold at local retailers and through the online store. Customers may also receive a free kit that includes water efficiency measures for those with electric water heaters.	
Duke Energy Carolinas (DEC) Income-qualified Energy Efficiency and Weatherization Assistance	This program consists of three components to provide energy efficiency to low-income customers. Neighborhood Energy Saver targets neighborhoods considered low-income for participation based on third-party and census data. Customers are provided with direct installation of measures into the home to increase energy efficiency and comfort level. Energy efficiency education is also provided. The Weatherization and Equipment Replacement Program provides funds to community action agencies and nonprofits for weatherization measures and/or heating system replacement. The Refrigerator Replacement Program includes replacement of inefficient operable refrigerators in low-income households.	
Duke Energy Carolinas (DEC) Multi- Family Energy Efficiency Program	Targeted at getting lighting- and water-efficient measures installed in multi-family properties. The program offers LEDs including A-Line, Globes, and Candelabra bulbs and energy-efficient water measures such as bath and kitchen faucet aerators, water-saving shower heads, air sealing, insulation, and pipe wrap. Program also addresses common areas with direct install measures.	
Duke Energy Carolinas (DEC) 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.	
Duke Energy Carolinas (DEC) Residential Smart \$aver Energy Efficiency	This program offers measures to reduce energy consumption in the home. Incentives are available for HVAC, smart thermostats, attic insulation/air sealing, duct sealing, high efficiency variable speed pool pumps, and heat pump water heaters. Rebates range from \$100 - \$450.	
Duke Energy Carolinas (DEC) Power Manager	Program provides customers with a financial incentive to allow the Company to interrupt or cycle a customer's heating or air conditioner during peak events. Participants will receive an initial payment of \$75 and an annual payment of \$25.	
Duke Energy Carolinas (DEC) Time- of-Use Rate Residential	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 Carolinas (DEC) Residential New Construction	Company provides financial incentives to builders of single-family and multi-family residential dwellings to build new homes to a high efficiency standard.	
Non-Residential		
Duke Energy Carolinas (DEC) Time- of-Use Rate Non-Residential	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.	

Program Name	Description
Duke Energy Carolinas (DEC) Non- Residential Smart \$aver Energy Efficient Products and Assessment Program	This program provides incentives to commercial and industrial customers to install high efficiency equipment in new construction, retrofit, and equipment replacement projects. Incentives are provided through prescriptive measures (lighting, HVAC, and refrigeration), custom measures (whole building, non-prescriptive), and technical assistance (energy audits, retro commissioning, design assistance).
Duke Energy Carolinas (DEC) Non- Residential Smart \$aver Performance Incentive	Financial assistance to customers to enhance their ability to adopt and install cost-effective electrical energy efficiency projects. Incentive payments are provided to offset a portion of the higher cost of energy-efficient installations that are not eligible under the prescriptive and custom programs. Incentives are based on actual measure performance.
Duke Energy Carolinas (DEC) Business Energy Saver	Targeted to provide business customers with direct installation of energy efficiency measures. Program measures address lighting, refrigeration, and HVAC and overcome initial barriers to participation. This program is available to non-residential customers who are not opted-out of the EE/DSM Rider. Customers with an average demand of 180 kW or less per active account work with an exclusive vendor and may be offered extended payment options.
Duke Energy Carolinas (DEC) 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.
Duke Energy Carolinas (DEC) EnergyWise Business	This program provides customers with a financial incentive to allow the Company to cycle customers' air conditioner or heat pumps using either a Wi-Fi thermostat or load-control switch during peak events. Participants choose the operation level. Incentives range from \$30 to \$135.
	Duke Energy Progress (DEP) - Pee Dee
Residential	
Duke Energy Progress (DEP) Residential Smart \$aver Energy Efficiency	This program offers measures to reduce energy consumption in the home. Incentives are available for HVAC, air conditioning, heat pumps, smart thermostats, attic insulation and sealing, high efficiency variable speed pool pumps, and heat pump water heaters. Rebates range from \$100 - \$450.
Duke Energy Progress (DEP) Residential New Construction	Company provides financial incentives to builders of single-family and multi-family residential dwellings to build new homes to a high efficiency standard.
Duke Energy Progress (DEP) Neighborhood Energy Saver Program	Program uses neighborhood engagements to educate low-income customers and directly install low-cost measures such as efficient lighting, refrigeration, air infiltration, and HVAC in homes in a targeted neighborhood. One-on-one energy education is also offered.
Duke Energy Progress (DEP) 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.
Duke Energy Progress (DEP) Multi- Family Energy Efficiency Program	Targeted at getting lighting- and water-efficient measures installed in multi-family properties. The program offers LEDs including A-Line, Globes and Candelabra bulbs, and energy-efficient water measures such as bath and kitchen faucet aerators, water-saving shower heads, air sealing, insulation, and pipe wrap.
Duke Energy Progress (DEP) Energy Efficiency Education	Engages school children with a live in-school theatrical presentation regarding energy efficiency, and allows children who complete a home energy survey to receive an Energy Efficiency Starter Kit.
Duke Energy Progress (DEP) Residential Energy Assessments	Provides customers with a FREE energy assessment of their home and a customized report. Customers also receive an energy efficiency starter kit including LED bulbs, a low-flow shower head, and more. Customers may also purchase discounted measures and blower door tests at a discounted rate.
Duke Energy Progress (DEP) EnergyWise Home Program	Provides customers with a financial incentive to allow cycling of the customer's air conditioner during peak events. Participants receive a \$25 annual credit on their energy bill.

Program Name	Description
Duke Energy Progress (DEP) Time- of-Use Rate - Residential	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 (DEP) Energy Efficient Lighting Program - Residential	Financial incentives for customers to install energy-efficient lighting and fixtures. Provides incentives in the form of discounts applied at retail stores or the Online Savings Store.
Duke Energy Progress (DEP) Distribution System Demand Response (DSDR) Program - Residential	This program provides the capability to reduce peak demand while maintaining customer- delivery voltage above the minimum requirement.
Duke Energy Progress (DEP) Energy Efficient Appliances and Devices	Provides incentives for customers to install energy efficient equipment. The program consists of measures such as air purifiers, dehumidifiers, and LED fixtures, smart thermostats, smart power strips, and water heating sold at local retailers and through the online store. Customers may also receive a free kit that includes water efficiency measures for those with electric water heaters.
Duke Energy Progress (DEP) Online Resources	Online tools and tips including energy calculators.
Duke Energy Progress (DEP) Residential Service Energy Conservation Discount	This program provides residential customers with a 5% discount on the energy and demand portions of their electricity bills when their homes meet certain thermal efficiency standards. Homes that are Energy Star receive a certificate as well as a 5% discount on their energy and demand portions of their electricity bills.
Non-Residential	
Duke Energy Progress (DEP) Small General Service Thermal Energy Storage Rate	This non-residential rate schedule uses two-period pricing with seasonal demand and energy rates applicable to thermal storage space conditioning equipment.
Duke Energy Progress (DEP) Real Time Pricing Rate	This rate is available to non-residential customers and uses a two-part real-time pricing rate design with baseline load representative of historic usage. Hourly rates are provided on the prior business day. A minimum of 1 MW load is required. This rate schedule is currently fully subscribed.
Duke Energy Progress (DEP) Large Load Curtailable Rates & Riders	Participants agree contractually to reduce their electrical loads to specified levels upon request by DEP. If customers fail to do so during an interruption, they receive a penalty for the increment of demand exceeding the specified level.
Duke Energy Progress (DEP) Non- Residential Smart \$aver Energy Efficient Products and Assessment	This program provides incentives to commercial and industrial customers to install high efficiency equipment in new construction, retrofit, and equipment replacement projects. Incentive are provided through prescriptive measures (lighting, HVAC, and refrigeration), custom measures (whole building, non-prescriptive), and technical assistance (energy audits, retro commissioning, design assistance).
Duke Energy Progress (DEP) Non- Residential Smart \$aver Performance Incentive	Financial assistance to customers to enhance their ability to adopt and install cost-effective electrical energy efficiency projects. Incentive payments are provided to offset a portion of the higher cost of energy-efficient installations that are not eligible under the prescriptive and custom programs. Incentives are based on actual measure performance.
Duke Energy Progress (DEP) Business Energy Saver	Targeted to provide business customers with direct installation of energy efficiency measures. Program measures address lighting, refrigeration, and HVAC and overcome initial barriers to participation. This program is available to non-residential customers who are not opted-out of the EE/DSM Rider. Customers with an average demand of 180 kW or less per active account work with an exclusive vendor and may be offered extended payment options.
Duke Energy Progress (DEP) 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.

Program Name	Description
Duke Energy Progress (DEP) EnergyWise Business	Program provides customers with a financial incentive to allow the Company to cycle customers' air conditioner or heat pump using either a Wi-Fi thermostat or load control switch during peak events. Incentives range from \$25 - \$135.
Duke Energy Progress (DEP) Energy Efficient Lighting Program - Business	Financial incentives for customers to install energy efficient lighting and fixtures. Provides incentives in the form of discounts applied at retail stores.
Duke Energy Progress (DEP) Distribution System Demand Response (DSDR) Program - Business	This program provides the capability to reduce peak demand while maintaining customer-delivery voltage above the minimum requirement.
	Easley Combined Utilities
Residential	
Easley Combined Utilities Load Management Program	This program helps reduce the amount of energy needed during peak hours. Participants allow the utility to install a load management device on their HVAC unit. The customer receives a one-time \$20 account credit and will be placed on the Load Management Program Residential Rate.
Easley Combined Utilities Online Resources	Online energy resources including conservation tips, an energy quiz, and Energy Resource Center.
	Edisto Electric Cooperative
Residential	
Edisto Electric Cooperative Do-It- Yourself Energy Audit	Booklet of articles, suggestions, and methods to reduce electricity usage.
Edisto Electric Cooperative Energy Saving Tips	Online energy tips.
	Fairfield Electric Cooperative
Residential	
Fairfield Electric Cooperative H2O Select	The cooperative will replace an old water heater with a 50-gallon high efficiency water heater and enroll you in a \$3 per month water heater maintenance program. A \$250 installation fee is required.
Fairfield Electric Cooperative Energy Tips	Online energy tips.
Fairfield Electric Cooperative Energy Experts	Energy Experts are available to answer questions concerning energy efficiency. Education programs for schools and civic groups are also available.
Fort Hill Natural Gas Authority	
Residential	
Fort Hill Natural Gas Authority Appliance Rebates	For customers purchasing new natural gas appliances. Receive a rebate ranging from \$100 - \$350.
Fort Hill Natural Gas Authority Energy Tips	Online energy tips

Program Name	Description		
Non-Residential	Non-Residential		
Fort Hill Natural Gas Authority - Business	Helps businesses find the most economical source of energy.		
	Gaffney Board of Public Works		
Residential	Residential		
Gaffney Board of Public Works Conservation Tips	Online energy tips		
Gaffney Board of Public Works Online Resources	Online energy saving resources tool.		
	Greenwood Commission of Public Works		
Residential			
Greenwood Commission of Public Works Policy for Promotion of Natural Gas Usage by Residential Owners and Builders	Incentives for installing natural gas appliances, replacing existing appliances with natural gas, using natural gas as the primary heat source, and installing a natural gas water heater. Incentives range from \$50 to \$450.		
	Greer Commission of Public Works		
Residential			
Greer Commission of Public Works Electricity Conservation Tips	Energy saving tips and resource links		
Greer Commission of Public Works Natural Gas Conservation Tips	Tips to conserve and save on natural gas bills and links to resources		
Lancaster County Natural Gas Authority			
Residential			
Lancaster County Natural Gas Authority Energy Tips	Online energy tips.		
Laurens Commission of Public Works			
Residential			
Laurens Commission of Public Works Green Grid Reward	The rate is offered to incentivize the use of switches to control air conditioning and heat pumps during high electricity-demand periods. Customers in this program receive the lowest electric rate.		
Laurens Commission of Public Works Blue Star-Switch to Gas	Residents receive a bill credit for installing natural gas appliances. Bill credits range from \$75 to \$450.		
Laurens Commission of Public Works Ways to Save	Online electricity and natural gas tips.		
Laurens Electric Cooperative			

Program Name	Description								
Residential									
Laurens Electric Cooperative Energy Star Rate Schedule	This is a separate energy efficiency rate for members with standard residential service with homes that meet Energy Star requirements.								
Laurens Electric Cooperative Home Rewards Program	Residential members who live in single-family homes receive cash back for making energy-efficiency improvements to their homes. Rebates for HVAC upgrades, ductwork, attic insulation, and dual-fuel heat pumps are available ranging from \$100 - \$500.								
Little River Electric Cooperative									
Residential									
Little River Electric Cooperative Help My House	Members are able to finance home energy improvements and make payments through their electric bill.								
Non-Residential									
Little River Electric Cooperative - Business	No business energy efficiency programs available.								
	Lockhart Power Company								
Residential									
Lockhart Power Company Standard Residential Rate	This rate has an inclining feature. A higher rate is charged for usage above 1,000 kWh each month.								
Lockhart Power Company Energy Saving Tips	Online tips to help customers save energy and money.								
Non-Residential									
Lockhart Power Company 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.								
	Lynches River Electric Cooperative								
Residential									
Lynches River Electric Cooperative Energy Tools and Tips	Online tools and tips.								
Lynches River Electric Cooperative H2O Select	Members receive a new water heater with no installation costs and a ten-year warranty for \$7 a month.								
Non-Residential									
Lynches River Electric Cooperative - Business	No business energy efficiency programs available.								
	Marlboro Electric Cooperative								
Residential									
Marlboro Electric Cooperative Energy	Online energy tips								

Program Name	Description							
Tips								
Marlboro Electric Cooperative Energy Resource Conservation Loan	A loan for items such as heat pumps, programmable thermostats, and insulation. The loan application fee is \$35, and if it is approved, up to \$5,000 is available for a repayment period of six years. It is a simple interest loan with a fixed 7% interest rate.							
Non-Residential								
Marlboro Electric Cooperative - Business	No business energy efficiency programs available.							
	McCormick Commission of Public Works							
Residential								
McCormick Commission of Public Works Conservation Tips	Online energy tips							
Non-Residential								
McCormick Commission of Public Works - Business	No business energy efficiency programs available.							
	Mid-Carolina Electric Cooperative							
Residential								
Mid-Carolina Electric Cooperative Energy Tips	Online energy tips							
Non-Residential								
Mid-Carolina Electric Cooperative - Business	No business energy efficiency programs available.							
	Newberry Electric Cooperative							
Non-Residential								
Newberry Electric Cooperative - Business	No business energy efficiency programs available.							
	Orangeburg Department of Public Utilities							
Residential								
Orangeburg Department of Public Utilities 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.							
Non-Residential								
Orangeburg Department of Public Utilities Interruptible Rates	Favorable rates are offered for interruptible-service customers.							
	Palmetto Electric Cooperative							

Program Name	Description
Residential	
Palmetto Electric Cooperative Buried Treasure Rebate Program	Receive up to \$1,000 for new qualifying ground-source heat pumps.
Palmetto Electric Cooperative Dual- Fuel Heat Pumps	Receive up to \$500 for new qualifying dual-fuel heat pumps.
Palmetto Electric Cooperative H2O Select	Off-peak water heating program offers up to \$350 rebate or a 60-month interest free turnkey plan for a new large capacity water heater.
Palmetto Electric Cooperative Smart Thermostat Program	Participants in this program receive a FREE Ecobee Smart Thermostat, FREE standard installation, and Smart Rewards up to \$5 per month bill credit.
Non-Residential	
Palmetto Electric Cooperative - Business	No business energy efficiency programs available.
	Pee Dee Electric Cooperative
Residential	
Pee Dee Electric Cooperative Energy Resource Conservation Loan	Five percent interest rate loan for items such as geothermal heat pumps, heat pumps, programmable thermostats, caulking/weather-stripping, building insulation, windows, doors. The maximum loan amount is \$5,000.
Pee Dee Electric Cooperative Energy Experts and Audits	Energy experts can go over a customer's bill and usage over the phone or perform an inhome energy audit.
	Piedmont Natural Gas Company
Residential	
Piedmont Natural Gas Company Energy Saving Tools and Tips	Online energy tips
Piedmont Natural Gas Company Natural Gas Appliance Rebates - Residential	Provides rebates to customers who purchase and install qualifying high efficiency natural gas equipment. Rebates range from \$50 to \$300.
Non-Residential	
Piedmont Natural Gas Company Natural Gas Appliance Rebates - Business	\$250 rebate for commercial customers who purchase an efficient tankless water heater.
	Santee Cooper
Residential	
Santee Cooper Energy Savings Tips - Residential	Online energy saving tips.
Santee Cooper Time-of-Use Rate - Residential	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.
Santee Cooper Smart Energy Loans	Loan program for financing energy-efficient improvements (up to \$20,000) and renewable

Program Name	Description
	energy resources (up to \$40,000).
Santee Cooper Smart Energy Existing Homes	This program offers home energy evaluations, incentive rebates, and financial assistance for energy efficiency improvements. Heat pump, smart thermostat, duct replacement, and heat pump water heater rebates are available. In addition, Energy Star rated clothes washers and refrigerators, high efficiency variable speed pool pumps and heat pump pool heaters are eligible for rebates.
Santee Cooper Smart Energy New Homes	Rebates for home builders based on Home Energy Rating System ratings.
Santee Cooper Onsite Energy Assessments	Free energy assessments to residential customers upon request.
Santee Cooper Public Information Programs	Program elements include web-based customer tips, direct-to-customer communications, and public campaigns.
Santee Cooper School Programs and Resources	This program includes the Energy Educators Institute, educational publications, the Solar Schools' Project/Conservation and Energy Curriculum, E-SMART Kids, and environmental bookmarks.
Non-Residential	
Santee Cooper Commercial Prescriptive Program	Rebates for qualified lighting, HVAC, commercial refrigeration, kitchen equipment, domestic water heaters, pumps, and motors.
Santee Cooper Small Business Energy Saver Program	Through this program, small businesses receive a free assessment and proposal for energy efficiency upgrades. After the assessment, a contractor installs lighting and/or refrigeration equipment upgrades. Santee Cooper will pay a portion of the project cost.
Santee Cooper Interruptible Service Rate	Customers served under this schedule must contract for at least 1,000 kW of demand and receive service directly from or near SC's transmission system.
Santee Cooper Seasonal Rate	This is a rate designed for businesses that operate on a seasonal basis.
Santee Cooper Energy Savings Tips - Non-Residential	Online energy saving tips.
Santee Cooper Time-of-Use Rate - Non-Residential	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.
	Santee Electric Cooperative
Residential	
Santee Electric Cooperative Smart Thermostat	Members can purchase an Ecobee 4 Smart Thermostat with Alexa for \$75 (MSRP \$249), or an Ecobee 3 Smart Thermostat for \$35 (MSRP \$169), and free standard installation by a licensed electrician to install the device—at no cost to you! You must have Wi-Fi in your home in order to participate.
Santee Electric Cooperative Help My House	Members receive a FREE home energy audit, choose a contractor to make energy improvements, finance the improvements with a low-interest loan, and pay for the improvements on the monthly electric bill.
Santee Electric Cooperative Energy Saving Tools and Tips	Online energy tools and tips.
Non-Residential	
Santee Electric Cooperative - Business	No business energy efficiency programs available.

Program Name	Description						
Seneca Light and Water							
Residential							
Seneca Light and Water Electricity Tips	Online energy tips						
Non-Residential							
Seneca Light and Water - Business	No business energy efficiency programs available.						
	Town of Due West						
Residential							
Town of Due West - Residential	No residential programs available.						
Non-Residential							
Town of Due West - Business	No business programs available.						
	Town of Prosperity						
Residential							
Town of Prosperity - Residential	No residential programs available.						
Non-Residential							
Town of Prosperity - Business	No business programs available.						
	Town of Winnsboro						
Residential							
Town of Winnsboro - Residential	No residential energy efficiency programs available.						
Non-Residential							
Town of Winnsboro - Business	No business energy efficiency programs available.						
	Tri-County Electric Cooperative						
Residential							
Tri-County Electric Cooperative Help My House	Members receive a FREE home energy audit, choose a contractor to make energy improvements, finance the improvements with a low-interest loan, and pay for the improvements on the monthly electric bill.						
Tri-County Electric Cooperative Residential Energy Efficiency Tools and Tips	Online energy tools and tips.						
Non-Residential							

Program Name	Description								
Tri-County Electric Cooperative Commercial Energy Efficiency Tools and Tips	Online energy tools and tips.								
	York County Natural Gas								
Residential									
York County Natural Gas 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 \$50 to a total of \$925.								
Non-Residential									
York County Natural Gas - Business	No natural gas business programs available.								
	York Electric Cooperative								
Residential									
York Electric Cooperative Dual-Fuel Heat Pump Rebate	A \$700 rebate is available for installation of a Dual-Fuel Heat Pump as well as \$200 for additional units.								
York Electric Cooperative 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.								
York Electric Cooperative Energy Tips	Online energy tips								
York Electric Cooperative Smart Thermostat Program	This program offers members the opportunity to purchase an Ecobee3 lite or Ecobee SmartThermostat with Alexa Voice Control at a discounted rate. As a participant, the member will allow the cooperative to control the thermostat during peak periods, saving money and energy for everyone. If a participant overrides 40 percent or fewer of the load control events during a 12-month period of connection, the member will be credited \$100.00 the 1st year and \$50.00 the 2nd year and each year going forward.								
Non-Residential									
York Electric Cooperative - Business	No business energy efficiency programs available.								

This information was downloaded from EnergySaver.sc.gov and is subject to change. Please check with the specific utility provider or organization for the most current information and program details.

December 19, 2024

APPENDIX B

PURPA Qualifying Facilities

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/Displac e	Planned/Operate	Capacity kW AC
DESC	Barnwell Solar, LLC	Pine Gate Renewables, LLC	Barnwell	Solar	Contract	Purchase	Operating	5,440
DESC	Beulah Solar, LLC	Pine Gate Renewables, LLC	Saluda	Solar	Contract	Purchase	Operating	74,970
DESC	Blackville Solar Farm, LLC	Dominion Solar Projects VII, Inc.	Barnwell	Solar	Contract	Purchase	Operating	7,200
DESC	Blackville Solar II, LLC	DP-C2 Episode 1	Barnwell	Solar	Contract	Purchase	Operating	20,000
DESC	Cameron Solar , LLC	EDP Renewables North America LLC	Cameron	Solar	Contract	Purchase	Operating	20,000
DESC	Cameron Solar II, LLC	Pine Gate Renewables, LLC	Cameron	Solar	Contract	Purchase	Operating	4,080
DESC	Champion Solar, LLC	Pine Gate Renewables, LLC	Pelion	Solar	Contract	Purchase	Operating	10,880
DESC	Curie Solar, LLC	Cypress Creek Renewables	Hampton	Solar	Contract	Purchase	Operating	2,000
DESC	Denmark Solar, LLC	Dominion Solar Projects VII, Inc.	Bamberg	Solar	Contract	Purchase	Operating	6,000
DESC	Diamond Solar, LLC	DP-C2 Episode 1	Lexington	Solar	Contract	Purchase	Operating	8,160
DESC	Edison Solar, LLC	DP-C2 Episode 1	Barnwell	Solar	Contract	Purchase	Operating	4,760
DESC	Estill Solar I, LLC	EDP Renewables North America LLC	Estill	Solar	Contract	Purchase	Operating	20,400
DESC	Estill Solar II, LLC	Cypress Creek Renewables	Estill	Solar	Contract	Purchase	Operating	10,200
DESC	Gaston Solar I, LLC	Cypress Creek Renewables	Gaston	Solar	Contract	Purchase	Operating	10,200
DESC	Gaston Solar II, LLC	Cypress Creek Renewables	Gaston	Solar	Contract	Purchase	Operating	7,480
DESC	Haley Solar, LLC	Pine Gate Renewables, LLC	Allendale	Solar	Contract	Purchase	Operating	8,160
DESC	Hampton Solar I, LLC	Pine Gate Renewables, LLC	Hampton	Solar	Contract	Purchase	Operating	6,800
DESC	Hampton Solar II, LLC	EDP Renewables North America LLC	Hampton	Solar	Contract	Purchase	Operating	20,000
DESC	Huntley Solar, LLC	Cubico USA, LLC	Orangeburg	Solar	Contract	Purchase	Operating	75,000
DESC	International Paper Corp	International Paper Corp	Eastover	W/C	Contract	Displaced	Operating	97,500
DESC	Lily Solar LLC	X-Elio	Allendale	Solar	Contract	Purchase	Operating	70,000
DESC	Midlands Solar LLC	Cubico USA, LLC	Calhoun	Solar	Contract	Purchase	Operating	72,100
DESC	Moffett Solar 1, LLC	Dominion Solar Holdings IV, LLC	Jasper	Solar	Contract	Purchase	Operating	71,400
DESC	Nimitz Solar, LLC	Cypress Creek Renewables	Japser	Solar	Contract	Purchase	Operating	8,000
DESC	Odyssey Solar, LLC	Pine Gate Renewables, LLC	Pelion	Solar	Contract	Purchase	Operating	8,160
DESC	Palmetto Plains Solar Project, LLC	Cubico USA, LLC	Orangeburg	Solar	Contract	Purchase	Operating	74,970
DESC	Peony Solar LLC	Pine Gate Renewables, LLC	Orangeburg	Solar	Contract	Purchase	Operating	39,000
DESC	Richardson Solar, LLC	DP-C2 Episode 1	Barnwell	Solar	Contract	Purchase	Operating	3,600

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/Displac e	Planned/Operate	Capacity kW AC
DESC	Ridgeland Solar Farm I, LLC	Dominion Solar Holdings IV, LLC	Ridgeland	Solar	Contract	Purchase	Operating	10,000
DESC	Saluda Solar , LLC	Cypress Creek Renewables	Saluda	Solar	Contract	Purchase	Operating	6,800
DESC	Saluda Solar II, LLC	Pine Gate Renewables, LLC	Saluda	Solar	Contract	Purchase	Operating	3,400
DESC	Seabrook Solar, LLC	Dominion Solar Projects VII, Inc.	Beaufort	Solar	Contract	Purchase	Operating	72,500
DESC	Shaw Creek Solar, LLC	NextEra Energy Resources	Aiken	Solar	Contract	Purchase	Operating	74,900
DESC	Shaw Industries Group, Inc.	Shaw Industries Group, Inc.	Columbia	Co-Generation	Contract	Displaced	Operating	16,271
DESC	Southern Current One, LLC	Pine Gate Renewables, LLC	Brunson	Solar	Contract	Purchase	Operating	10,200
DESC	Springfield Solar, LLC	Cypress Creek Renewables	Orangeburg	Solar	Contract	Purchase	Operating	6,000
DESC	St. Matthews Solar, LLC	Pine Gate Renewables, LLC	St. Matthews	Solar	Contract	Purchase	Operating	10,200
DESC	Swamp Fox Solar, LLC	Pine Gate Renewables, LLC	Pelion	Solar	Contract	Purchase	Operating	10,880
DESC	TIG Sun Energy III, LLC (Leeds)	TIG Sun Energy	North Charleston	Solar	Contract	Purchase	Operating	504
DESC	Tig Sun Energy IV, LLC (Otarre)	TIG Sun Energy	Cayce	Solar	Contract	Purchase	Operating	1,620
DESC	Trask East Solar, LLC	Dominion Solar Projects VII, Inc.	Beaufort	Solar	Contract	Purchase	Operating	12,000
DESC	TWE Bowman Solar Project, LLC	Pine Gate Renewables, LLC	Orangeburg	Solar	Contract	Purchase	Operating	74,970
DESC	United States of America - Parris Island	United States of America - Parris Island	Beaufort	Solar/CHP	Contract	Displaced	Operating	11,100
DESC	WestRock Charleston Kraft, LLC	WestRock Charleston Kraft, LLC	North Charleston	Co-Generation	Contract	Displaced	Operating	99,200
DESC	Yemassee Solar, LLC	Dominion Solar Projects VII, Inc.	Hampton	Solar	Contract	Purchase	Operating	10,000
DESC	Eastover Solar, LLC	Pine Gate Renewables, LLC	Richland	Solar/Battery Storage	Contract	Purchase	Planned	73,600
DESC	Wolf Pit Branch Solar	Birch Creek Development, LLC	Lexington	Solar/Battery Storage	Contract	Purchase	Planned	62,000
DESC	Lone Star Solar, LLC	Southern Current LLC	Calhoun	Solar/Battery Storage	Contract	Purchase	Planned	66,000

DESC Total 1,398,605

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/Displac	Planned/Operate	Capacity kW AC
DEC	Pelzer Hydro Company,LLC- Hydroelectric-Upper	Pelzer Hydro Company,LLC	Anderson	Hydroelectric	Negotiated (SC)	Purchase	Operating	2,020
DEC	Pelzer Hydro Company Hydroelectric, LLC- Lower - Hydroelectric	Pelzer Hydro Company, LLC	Williamston	Hydroelectric	Negotiated (SC)	Purchase	Operating	3,300
DEC	Aquenergy Systems LLC-Ware Shoals-Hydroelectric	Aquenergy Systems, LLC	Ware Shoals	Hydroelectric	Negotiated (SC)	Purchase	Operating	6,300
DEC	Aquenergy Systems, LLC- Piedmont-Hydroelectric	Aquenergy Systems, LLC	Piedmont	Hydroelectric	PP	Purchase	Operating	600
DEC	Cherokee Falls Hydroelectric, LLC- Hydro-Interconnected BTM (Broad River)	Cherokee Falls Hydroelectric Project, LLC	Blacksburg	Hydroelectric	Negotiated (SC)	Purchase	Operating	4,140
DEC	Lockhart BioEnergy, LLC*	Lockhart BioEnergy, LLC	Enoree	Biomass	Negotiated (SC)	Purchase	Operating	3,200
DEC	Yuze Holdings LLC - Solar*	Yuze Holdings LLC	Greenville	Solar	PP	Purchase	Operating	24
DEC	Hecate Energy West Newberry - Solar*	Hecate Energy West Newberry	Newberry	Solar	Negotiated (SC)	Purchase	Operating	3,330
DEC	Minnesota Mining & Mfg Co Solar - Active Contract see note*	Minnesota Mining & Mfg Co.	Greenville	Solar	PP	Purchase	Operating	5
DEC	Whitt Solar, LLC - Solar*	Whitt Solar, LLC	Piedmont	Solar	Negotiated (SC)	Purchase	Operating	2,000
DEC	Mohea Solar Energy Center, LLC*	Mohea Solar Energy Center, LLC	Gaffney	Solar	Negotiated (SC)	Purchase	Operating	5,000
DEC	Pelzer Solar 1, LLC*	Pelzer Solar 1, LLC	Pelzer	Solar	Negotiated (SC)	Purchase	Operating	1,001
DEC	Ace Solar LLC - Solar*	ACE Solar LLC	Piedmont	Solar	Negotiated (SC)	Purchase	Operating	1,001
DEC	Crown Solar Center LLC - Solar*	Crown Solar Center LLC	Heath Springs	Solar	Negotiated (SC)	Purchase	Operating	3,000
DEC	Go Store It Roper, LLC (The Roper Group, LLC)*	Go Store It Roper, LLC	Greenville	Solar	PP	Purchase	Operating	45

DEC	Vetroresina LLC - PP - Solar*	Vetroresina LLC - PP	Greenville	Solar	PP	Purchase	Operating	225
DEC	Limelight Solar III LLC F/K/A	Limelight Solar III LLC	Spartanburg	Solar	Negotiated (SC)	Purchase	Operating	3,333
	Limelight Solar 1 LLC- Solar 1*							
DEC	Adams Solar LLC - SC - Solar*	Adams Solar LLC - SC	Piedmont	Solar	PP	Purchase	Operating	2,000
DEC	ATOOD Solar II LLC*	ATOOD Solar II LLC	Cowpens	Solar	PP	Purchase	Operating	1,980
DEC	ATOOD Solar III LLC - A - Solar*	ATOOD Solar III LLC	Spartanburg	Solar	Negotiated (SC)	Purchase	Operating	1,999
DEC	Limelight Solar I LLC - Solar 2*	Limelight Solar I LLC	Spartanburg	Solar	PP	Purchase	Operating	1,980
DEC	AGA TAG Solar III LLC - Solar*	AGA TAG Solar III LLC	Spartanburg	Solar	Negotiated (SC)	Purchase	Operating	1,999
DEC	Converse Energy Incorporated- Hydroelectric*	Converse Energy Incorporated - NM	Spartanburg	Hydroelectric	PP	Purchase	Operating	1,250
DEC	Northbrook Carolina Hydro LLC - Holliday's Bridge - Hydro	Northbrook Carolina Hydro, LLC - Hollidays Bridge - Hydro - NM	Honea Path	Hydroelectric	Negotiated (SC)	Purchase	Operating	3,500
DEC	Boyds Mill Hydroelectric Plant - Hydro	Northbrook Carolina Hydro, LLC - Boyd's Mill - Hydro - NM	Ware Shoals	Hydroelectric	PP	Purchase	Operating	1,500
DEC	Itron IncSolar*	Itron Inc NM	West Union	Solar	PP	Purchase	Operating	57
DEC	Saluda Hydroelectric Plant - Hydro	Northbrook Carolina Hydro, LLC - Saluda - Hydro - NM	Greenville	Hydroelectric	Negotiated (SC)	Purchase	Operating	2,400
DEC	Greenville County Schools dba Roper MTN Science CNTR Park- Solar*	Greenville County Schools-NM	Greenville	Solar	PP	Purchase	Operating	24
DEC	Limelight Solar II LLC - Solar*	Limelight Solar II LLC	Spartanburg	Solar	Negotiated (SC)	Purchase	Operating	1,999

		COGENERATION						
DEC	Greenville Gas Producer LLC- Landfill Gas	Greenville Gas Producer, LLC - NM	Greer	Biomass	PP	Purchase	Operating	3,200
DEC	Augusta Solar, LLC - Solar*	Augusta Solar, LLC	Greenwood	Solar	PP	Purchase	Operating	2,000
DEC	Lamar Bailes - 910020878576 - Solar*	Lamar Bailes	Walhalla	Solar	PP	Purchase	Operating	5
DEC	RPSC Solar 3 LLC - Berry Rd - Solar*	RPSC Solar 3 LLC - Berry Rd	Pelzer	Solar	PP	Purchase	Operating	2,000
DEC	Anderson Solar Farm LLC - Solar*	Anderson Solar Farm LLC	Anderson	Solar	PP	Purchase	Operating	2,000
DEC	RPSC Solar 5, LLC Ballenger Rd*	RPSC Solar 5, LLC	Inman	Solar	PP	Purchase	Operating	2,000
DEC	JSD Flatwood PV-1, LLC*	JSD Flatwood PV-1, LLC	Spartanburg	Solar	PP	Purchase	Operating	2,000
DEC	JSD Pinson PV-1, LLC*	JSD Pinson PV-1, LLC	Woodruff	Solar	Negotiated (SC)	Purchase	Operating	20,000
DEC	Freightliner Corp BTM - 910036630870 - Dynamometer*	Freightliner Corp NM	Gaffney	Other	PP	Purchase	Operating	-
DEC	Spartanburg Water System- Hydro	Spartanburg Water System - NM	Chesnee	Hydroelectric	PP	Purchase	Operating	1,000
DEC	Clover School District 2- Solar*	Clover School District 2- NM	Clover	Solar	PP	Purchase	Operating	27
DEC	RPSC Solar 7 LLC - White Horse A - Solar*	RPSC Solar 7 LLC - White Horse A	Greenville	Solar	No Data	Purchase	Operating	2,000
DEC	Gold Mine Solar LLC - Solar*	Gold Mine Solar LLC	Greenwood	Solar	PP	Purchase	Operating	1,500
DEC	Briarwood Solar, LLC - Solar*	Briarwood Solar, LLC	Greenwood	Solar	PP	Purchase	Operating	2,000
DEC	Renewable Water Resources - PPA - Solar*	Renewable Water Resources	Greenville	Solar	PP	Purchase	Operating	996
DEC	BARRY STONE - 910035523519 - Solar*	Minnesota Mining Mfg Co	Greenville	Solar	PP	Purchase	Operating	6
DEC	Northbrook Carolina Hydro II, LLC- Gaston Shoals*	Northbrook Carolina Hydro II, LLC	Blacksburg	Hydroelectric	No Data	Purchase	Operating	8,500
DEC	Midway Green Solar, LLC- Interconnected BTM Lockhart*	Midway Green Solar, LLC- Interconnected BTM Lockhart	Union	Solar	Negotiated (SC)	Purchase	Operating	-

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/Displac e	Planned/Operate	Capacity kW AC
DEC	Blacksburg Environmental and Energy - PV Expansion*	Blacksburg Environmental & Energy LLC	Blacksburg	Solar	PP	Purchase	Operating	224
DEC Total								

*Denotes PURPA QF Updated 10/31/23

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/Displac e	Planned/Operate	Capacity kW AC
DEP	Sunflower Solar, LLC- Solar*	Sunflower Solar, LLC	Kingstree	Solar	Negotiated (SC)	Purchase	Operating	9,996
DEP	Carter Hill Farms LLC (W H Bundy) - Solar*	Carter Hill Farms LLC (W H Bundy)	Rembert	Solar	PP	Purchase	Operating	50
DEP	Laney Development, Inc Solar	Laney Development, Inc.	Hartsville	Solar	Negotiated (SC)	Purchase	Operating	11
DEP	Whitetail Solar, LLC- Solar*	Whitetail Solar, LLC	Dillon	Solar	Negotiated (SC)	Purchase	Operating	9,996
DEP	Rankin Solar Center LLC - Solar*	Rankin Solar Center LLC	Florence	Solar	Negotiated (SC)	Purchase	Operating	10,000
DEP	Sumter Heat and Power, LLC - Biomass	Sumter Heat and Power, LLC	Sumter	Biomass	PP	Purchase	Operating	1,546
DEP	Cherry Blossom Solar, LLC - Solar	Cherry Blossom Solar- LLC	Hemingway	Solar	Negotiated (SC)	Purchase	Operating	10,000
DEP	Freedom Solar, LLC - Solar*	Freedom Solar, LLC	Nichols	Solar	Negotiated (SC)	Purchase	Operating	5,000
DEP	Willis Solar, LLC - Solar*	Willis Solar, LLC	Pamplico	Solar	PP	Purchase	Operating	2,000
DEP	1634 Solar, LLC - Solar*	1634 Solar, LLC	Hartsville	Solar	PP	Purchase	Operating	2,000
DEP	Shorthorn Holdings, LLC - Solar*	Shorthorn Holdings, LLC	McColl	Solar	Negotiated (SC)	Purchase	Operating	8,900
DEP	Gary Solar, LLC - Solar*	Gary Solar, LLC	Bishopville	Solar	PP	Purchase	Operating	2,000
DEP	Cardinal Solar, LLC - 261 Curtis Floyd Rd - Solar*	Cardinal Solar, LLC - 261 Curtis Floyd Rd	Marion	Solar	Negotiated (SC)	Purchase	Operating	7,020
DEP	Watauga Solar, LLC - Solar*	Watauga Solar, LLC	Society Hill	Solar	PP	Purchase	Operating	2,000
DEP	Bond Solar, LLC - Solar*	Bond Solar, LLC	Summerton	Solar	PP	Purchase	Operating	2,000
DEP	Bishopville Solar II LLC - Solar*	Bishopville Solar II LLC	Bishopville	Solar	Negotiated (SC)	Purchase	Operating	9,600

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/Displac e	Planned/Operate	Capacity kW AC
DEP	River Solar LLC - Solar*	River Solar LLC	Lynchburg	Solar	PP	Purchase	Operating	1,980
DEP	Blacktip Solar LLC - Solar*	Blacktip Solar LLC	Scranton	Solar	PP	Purchase	Operating	2,000
DEP	South Solar LLC - Solar*	South Solar LLC	Pamplico	Solar	PP	Purchase	Operating	2,000
DEP	Bloom Solar LLC - Solar*	Bloom Solar LLC	Summerton	Solar	PP	Purchase	Operating	2,000
DEP	Gaines Solar LLC*	Gaines Solar LLC	Bishopville	Solar	PP	Purchase	Operating	2,000
DEP	DSM Nutritional Products LLC - Solar*	DSM Nutritional Products LLC	Kingstree	Solar	PP	Purchase	Operating	998
DEP	Bani Solar, LLC - Solar*	Bani Solar, LLC	Olanta	Solar	PP	Purchase	Operating	2,000
DEP	Washington Solar LLC - (SC) - Solar*	Washington Solar LLC - (SC)	Mullins	Solar	PP	Purchase	Operating	2,000
DEP	Sapphire Solar LLC - Solar*	Sapphire Solar LLC	Lake City	Solar	PP	Purchase	Operating	1,980
DEP	Chapman Solar LLC - Solar*	Chapman Solar LLC	Hartsville	Solar	PP	Purchase	Operating	1,980
DEP	Goldenrod Solar LLC - Solar*	Goldenrod Solar LLC	Pamplico	Solar	PP	Purchase	Operating	2,000
DEP	Vincent Solar LLC - Solar*	Vincent Solar LLC	Lynchburg	Solar	PP	Purchase	Operating	1,980
DEP	Darlington County Schools- Solar*	Darlington County Schools	Darlington	Solar	PP	Purchase	Operating	5
DEP	Jefferson Solar, LLC - Hartsville, SC - Solar*	Jefferson Solar, LLC - Hartsville, SC	Hartsville	Solar	Negotiated (SC)	Purchase	Operating	8,160
DEP	Jessamine Solar, LLC- Solar*	Jessamine Solar, LLC	Mullins	Solar	PP	Purchase	Operating	1,920
DEP	Abbot Solar, LLC - Solar*	Abbot Solar, LLC	Manning	Solar	PP	Purchase	Operating	2,000
DEP	Weaver Solar, LLC - Solar*	Weaver Solar, LLC	Lynchburg	Solar	PP	Purchase	Operating	1,980
DEP	Marshall Solar LLC - Solar*	Marshall Solar LLC	Hartsville	Solar	PP	Purchase	Operating	1,980
DEP	Ogburn Solar, LLC - Solar*	Ogburn Solar, LLC	Jefferson	Solar	PP	Purchase	Operating	2,000
DEP	Magdaline Solar LLC - Solar*	Magdaline Solar LLC	Lynchburg	Solar	PP	Purchase	Planned	2,000
DEP	RockTenn CP, LLC - Biomass*	RockTenn CP, LLC	Florence	Biomass	Negotiated (SC)	Purchase	Operating	10,000
DEP	Redwing Solar LLC - Solar*	Redwing Solar LLC	Darlington	Solar	PP	Purchase	Operating	2,000

COGENERATION/SMALL POWER PRODUCERS PURCHASED UNDER PURPA									
Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/Displac	Planned/Operate	Capacity kW AC	
DEP	Bonefish Solar, LLC - Solar*	Bonefish Solar, LLC	Manning	Solar	PP	Purchase	Operating	2,000	
DEP	Whitehall Solar, LLC - Solar*	Whitehall Solar, LLC	Timmonsville	Solar	PP	Purchase	Operating	2,000	
DEP	Stamey Solar LLC*	Stamey Solar LLC	Hartsville	Solar	PP	Purchase	Operating	1,980	
DEP	Honey Solar LLC - Solar*	Honey Solar, LLC	Sumter	Solar	PP	Purchase	Operating	2,000	
DEP	Birch Solar LLC - Solar*	Birch Solar LLC	Darlington	Solar	PP	Purchase	Operating	2,000	
DEP	Thomas Solar, LLC - Solar*	Thomas Solar, LLC	Lynchburg	Solar	PP	Purchase	Operating	2,000	
DEP	Tedder Solar LLC - Solar*	Tedder Solar LLC	Darlington	Solar	PP	Purchase	Operating	2,000	
EP To	tal							151,062	
Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/Displac e	Planned/Operate	Capacity kW AC	
SCPSA	Centerfield-Cooper LLC*	Birch Creek Development	Chesterfield	Solar	Contract	Purchase	Operating	75,000	
SCPSA	Gunsight LLC*	Silver Creek Energy	Swansea	Solar	Contract	Purchase	Operating	75,000	
SCPSA	Landrace Holdings LLC*	Birdseye Renewable Energy	Conway	Solar	Contract	Purchase	Planned	55,000	
SCPSA	Allora Solar LLC*	Silver Pine Energy Holdings	Gilbert	Solar	Contract	Purchase	Operating	75,000	
SCPSA	Chester White**	Birdseye Renewable Energy	Aiken	Solar	Contract	Purchase	Planned	20,625	
		-							

SCPSA Total 355,625

Solar

Solar

Contract

Contract

Purchase

Purchase

Planned

Planned

Andrews

Andrews

Utility	Project (formerly Plant Name)	Owner (formerly Plant Owner)	Location	Type Fuel	Rate Schedule	Purchase/Displac e	Planned/Operate	Capacity kW AC
Central	Georgetown	Silicon Ranch	Georgetown	Solar	Contract	Purchase	Planned	50,000
Central	Lambert I	Silicon Ranch	Andrews	Solar	Contract	Purchase	Planned	72,500
Central	Lambert II	Silicon Ranch	Andrews	Solar	Contract	Purchase	Planned	72,500
Central	Omtanke (Volvo)	DG Harvest Solar, LLC	Berkeley	Solar	Contract	Purchase	Operating	6,500

Cooperative Total

SCPSA

SCPSA

Lambert I**

Lambert II**

Silicon Ranch

Silicon Ranch

201,500

27,500

27,500

Total for all stations 2,215,462

^{*} denotes PURPA QF Updated

^{**} denotes Joint Projects with Central Electric Power Cooperative that have separate PPAs Updated 10/31/2024