DIRECT TESTIMONY OF
ASHLEY MILLWOOD
ON BEHALF OF
THE SOUTH CAROLINA PUBLIC SERVICE AUTHORITY

In the Matter of the Consideration of the Adoption of Certain Regulatory Standards
Pursuant to Section 111 of the Public Utility Regulatory Policies Act of 1978, as
amended by the Infrastructure Investment and Jobs Act of 2021 (IIJA)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
A. My name is Ashley Millwood. My business address is the South Carolina Public Service Authority ("Santee Cooper"), One Riverwood Drive, P.O. Box 2946101, Moncks Corner, SC 29461-2901.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE
A. I am a Financial Analyst III and the Project Manager for Santee Cooper’s retail customer demand response program, SmartRewards. I have worked for Santee Cooper for over 10 years and have been in Program Development for approximately 9 of those years. I hold a Bachelor of Arts degree in Business Administration with an emphasis in Marketing and a Minor in Communications from Charleston Southern University and a Master of Business Administration from The Citadel.

Q. PLEASE DESCRIBE YOUR POSITION AND RESPONSIBILITIES AT Santee Cooper.
A. I am employed by Santee Cooper as a Financial Analyst III and Project Manager for the SmartRewards program in the Conservation and Energy Efficiency department. My primary responsibilities include leading the SmartRewards residential program and evaluating additional technologies to include in the demand response portfolio. At a more granular level, my responsibilities encompass all the phases of developing demand response program offers – research, development, and implementation in order to build a comprehensive portfolio. Part of this process includes establishing program offers that resonate with customers, establishing roles and responsibilities to administer these programs, and coordinating with Corporate Communications to effectively market to our customers. I also play a key role in marketing for Santee Cooper’s other retail customer programs for energy efficiency, electric vehicles, solar rooftop, and solar share.

Q. **WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. I am testifying on behalf of Santee Cooper on the subject of Santee Cooper’s response to the Infrastructure Investment and Jobs Act of 2021 standards in the area of demand response, as found in PURPA Section 111(d)(20).

II. **PROMOTING DEMAND RESPONSE AND DEMAND FLEXIBILITY**

Q. **WHAT IS THE REQUIREMENT WITH RESPECT TO CONSIDERATION OF DEMAND-RESPONSE PRACTICES IN PURPA SECTION 111(d) (20)?**

A. The IIJA of 2021 amended the Public Utility Regulatory Policies Act of 1978 to, among other things, require that non-regulated utilities, like Santee Cooper consider for adoption a policy to promote demand response. The portion of the standard states:

   (20) Demand-response practices.--

   (A) In general.--Each electric utility shall promote the...
use of demand-response and demand flexibility practices by commercial, residential, and industrial consumers to reduce electricity consumption during periods of unusually high demand.

(B) Rate recovery.--

* * *

(ii) Nonregulated electric utilities.--A nonregulated electric utility may establish rate mechanisms for the timely recovery of the costs of promoting demand-response and demand flexibility practices in accordance with subparagraph (A)."

My testimony will only discuss Santee Cooper’s programs that promote the use of energy efficiency and demand response practices by our customers.

Q. **PLEASE DESCRIBE THE HISTORY OF ENERGY EFFICIENCY PROGRAMS FOR RESIDENTIAL AND COMMERCIAL CUSTOMERS.**

A. In 2008, Santee Cooper’s Board of Directors set a goal to provide programs that would help residential and commercial customers save 209 GWh by 2020. Santee Cooper reached this goal in 2018, two years earlier than anticipated, and energy savings continue to grow. Santee Cooper evaluates all energy efficient measures to determine if any new offerings need to be included or removed from the program offerings each year. Customers receive rebates for installing electric equipment with efficiency ratings higher than the current standards in their homes and businesses.
Q. **WHAT DOES SANTEE COOPER’S CURRENT PORTFOLIO OF ENERGY EFFICIENCY PROGRAMS, EmpowerSC, INCLUDE?**

A. Santee Cooper’s current focus is on developing and offering demand side management (DSM) programs to their residential and commercial customers. Santee Cooper customers receive rebates on qualifying energy efficiency equipment they have installed in their home or business. Energy efficiency programs help reduce both electricity consumption and demand during both system peak and non-peak times. The more energy efficient homes and businesses are, the less strain there is on the power grid.

Through the EmpowerSC umbrella, Santee Cooper also has programs for demand response, electric vehicles, solar rooftop, and solar share. For our residential customers, the Smart Energy Existing Homes Program offers home energy assessments, rebates for high efficiency heat pumps, whole-home duct replacement, heat pump water heaters, smart thermostats, pool equipment, and ENERGY STAR® appliances. Residential energy-efficiency upgrades can be financed through low-interest loans up to $20,000 to approved customers for select qualifying equipment.

Energy assessments are conducted by Energy Advisors or Engineers upon request to evaluate the energy efficiency of a customer’s home or business. Recommendations are provided on how to make the customer’s home or business more efficient.

Residential customers are also given a Home Energy House Call Kit which contains energy efficient products such as LED lightbulbs, weather stripping, and rope caulking when a free assessment is conducted.
Santee Cooper also offers a Smart Energy New Homes Program which offers rebates to builders whose homes meet the performance standards of the Home Energy Rating System (HERS).

Santee Cooper offers a Commercial Prescriptive Program that offers rebates to customers who upgrade to more energy efficient equipment. A direct install Small Business Energy Saver program is targeted to small commercial customers, where an implementer identifies and recommends energy efficient upgrades for the customers. Santee Cooper may pay a portion of the upgraded project costs.

Q. DOES SANTEE COOPER HAVE ANY TECHNOLOGY IN PLACE TO REDUCE DISTRIBUTION SYSTEM PEAK DEMAND?

A. Santee Cooper has installed a mesh network and a Conservation Voltage Reduction application that utilizes SCADA (supervisory control and data acquisition), regulator controls, and new AMI meters in the Horry, Georgetown, and Berkeley County areas. Santee Cooper also launched a demand response program, SmartRewards, in 2022, to its single-family residential customers. This program, described below, focuses on reducing demand during high peak times or system constraints while maintaining Santee Cooper’s high reliability. As part of this launch, Santee Cooper implemented a Distributed Energy Resource Management System (DERMS). This system allows virtual power plants to be created and demand response events to be called through the system when needed. This DERMS will be very valuable as Santee Cooper expands the demand response program.
Q. DOES SANTEE COOPER HAVE A DEMAND RESPONSE PROGRAM?

A. Santee Cooper launched a demand response program, SmartRewards, in January 2022, to all single-family residential customers aimed at reducing demand during high peak times or system constraints, manage electricity costs, and reduce carbon emissions. A switch or switches are installed at the customer’s home to manage a customer’s central heating and cooling systems and/or electric water heaters. During periods of peak demand or system constraints, Santee Cooper will cycle the switches periodically to reduce demand. Customers who participate in this program receive an enrollment incentive after the switch is installed and a recurring incentive each year they participate in the program. While implementing the SmartRewards program, Santee Cooper deployed a DERMS to have two-way communication with the switches. This enables Santee Cooper to continuously know the status of each switch, issue a command to the switches to activate an event, and then verify which switches were not activated. The DERMS can communicate with program aggregators and with different types of distributed energy resources (DERs) such as customer-owned solar arrays, battery walls, electric vehicle charging stations, etc., which will be valuable in the future as Santee Cooper develops programs for other demand response technologies.

In November 2022, Santee Cooper launched the SmartRewards program to multifamily customers. This program offers incentives to customers as well as the property manager. This program is set up similarly to the single-family program and will use switch technology.
Q. PLEASE DESCRIBE SANTEE COOPER’S COMMUNICATION TO CUSTOMERS AND THE PUBLIC REGARDING ENERGY EFFICIENCY OR REDUCING PEAK DEMAND.

A. Santee Cooper communicates with their customers and the public regarding energy efficiency and demand response by providing online energy savings tips for residential and commercial customers, offering free energy assessments for residential and commercial customers, sending monthly bill inserts and emails to customers to highlight energy efficient, demand response, electric vehicle, and/or solar initiatives, sending monthly emails, sometimes targeted to select customers, communicating and promoting the SmartRewards program, distributing Home Energy House Call Kits to customers during a home energy assessment which includes energy efficient products, publishing blogs during the year to discuss topics like demand response, energy efficiency, electric vehicles, and/or solar initiatives, including information on the EmpowerSC programs in PowerSource, Santee Cooper’s publication, and redesigning the company website to make it more user-friendly, updated, and functional.

Santee Cooper also has educational initiatives through Energy Educators Institute, educational publications, Solar Schools Project, career days, E-SMART kids, local chamber events, and through presentations given in classroom settings, events, and HOAs.

Q. DOES THIS CONCLUDE YOUR PREFILED DIRECT TESTIMONY?

A. Yes.