

1 **DIRECT TESTIMONY OF**

2 **ASHLEY MILLWOOD**

3 **ON BEHALF OF**

4 **THE SOUTH CAROLINA PUBLIC SERVICE AUTHORITY**

5 **In the Matter of the Consideration of the Adoption of Certain Regulatory Standards**

6 **Pursuant to Section 111 of the Public Utility Regulatory Policies Act of 1978, as**

7 **amended by the Infrastructure Investment and Jobs Act of 2021 (IIJA)**

8 **I. INTRODUCTION**

9 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

10 A. My name is Ashley Millwood. My business address is the South Carolina Public
11 Service Authority (“Santee Cooper”), One Riverwood Drive, P.O. Box 2946101,
12 Moncks Corner, SC 29461-2901.

13 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
14 **PROFESSIONAL EXPERIENCE**

15 A. I am a Financial Analyst III and the Project Manager for Santee Cooper’s retail
16 customer demand response program, SmartRewards. I have worked for Santee Cooper
17 for over 10 years and have been in Program Development for approximately 9 of those
18 years. I hold a Bachelor of Arts degree in Business Administration with an emphasis in
19 Marketing and a Minor in Communications from Charleston Southern University and
20 a Master of Business Administration from The Citadel.

21 **Q. PLEASE DESCRIBE YOUR POSITION AND RESPONSIBILITIES AT**
22 **SANTEE COOPER.**

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

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

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

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

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

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

23 (20) Demand-response practices.--

24 (A) In general.--Each electric utility shall promote the

1 use of demand-response and demand flexibility practices by
2 commercial, residential, and industrial consumers to reduce
3 electricity consumption during periods of unusually high
4 demand.

5 (B) Rate recovery.--

6 * * *

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

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

14 **Q. PLEASE DESCRIBE THE HISTORY OF ENERGY EFFICIENT**
15 **PROGRAMS FOR RESIDENTIAL AND COMMERCIAL CUSTOMERS.**

16 **A.** In 2008, Santee Cooper's Board of Directors set a goal to provide programs that
17 would help residential and commercial customers save 209 GWh by 2020. Santee
18 Cooper reached this goal in 2018, two years earlier than anticipated, and energy
19 savings continue to grow.

20 Santee Cooper evaluates all energy efficient measures to determine if any new
21 offerings need to be included or removed from the program offerings each year.

22 Customers receive rebates for installing electric equipment with efficiency ratings
23 higher than the current standards in their homes and businesses.

1 **Q. WHAT DOES SANTEE COOPER’S CURRENT PORTFOLIO OF ENERGY**
2 **EFFICIENCY PROGRAMS, EmpowerSC, INCLUDE?**

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

10 Through the EmpowerSC umbrella, Santee Cooper also has programs for demand
11 response, electric vehicles, solar rooftop, and solar share. For our residential
12 customers, the Smart Energy Existing Homes Program offers home energy
13 assessments, rebates for high efficiency heat pumps, whole-home duct replacement,
14 heat pump water heaters, smart thermostats, pool equipment, and ENERGY STAR®
15 appliances. Residential energy-efficiency upgrades can be financed through low-
16 interest loans up to \$20,000 to approved customers for select qualifying equipment.
17 Energy assessments are conducted by Energy Advisors or Engineers upon request to
18 evaluate the energy efficiency of a customer’s home or business. Recommendations
19 are provided on how to make the customer’s home or business more efficient.
20 Residential customers are also given a Home Energy House Call Kit which contains
21 energy efficient products such as LED lightbulbs, weather stripping, and rope
22 caulking when a free assessment is conducted.

1 Santee Cooper also offers a Smart Energy New Homes Program which offers rebates
2 to builders whose homes meet the performance standards of the Home Energy Rating
3 System (HERS).

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

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

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

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1 **Q. DOES SANTEE COOPER HAVE A DEMAND RESPONSE PROGRAM?**

2 A. Santee Cooper launched a demand response program, SmartRewards, in January
3 2022, to all single-family residential customers aimed at reducing demand during
4 high peak times or system constraints, manage electricity costs, and reduce carbon
5 emissions. A switch or switches are installed at the customer's home to manage a
6 customer's central heating and cooling systems and/or electric water heaters. During
7 periods of peak demand or system constraints, Santee Cooper will cycle the switches
8 periodically to reduce demand. Customers who participate in this program receive an
9 enrollment incentive after the switch is installed and a recurring incentive each year
10 they participate in the program. While implementing the SmartRewards program,
11 Santee Cooper deployed a DERMS to have two-way communication with the
12 switches. This enables Santee Cooper to continuously know the status of each switch,
13 issue a command to the switches to activate an event, and then verify which switches
14 were not activated. The DERMS can communicate with program aggregators and
15 with different types of distributed energy resources (DERs) such as customer-owned
16 solar arrays, battery walls, electric vehicle charging stations, etc., which will be
17 valuable in the future as Santee Cooper develops programs for other demand response
18 technologies.

19 In November 2022, Santee Cooper launched the SmartRewards program to
20 multifamily customers. This program offers incentives to customers as well as the
21 property manager. This program is set up similarly to the single-family program and
22 will use switch technology.

1 **Q. PLEASE DESCRIBE SANTEE COOPER’S COMMUNCIATON TO**
2 **CUSTOMERS AND THE PUBLIC REGARDING ENERGY EFFICIENCY OR**
3 **REDUCING PEAK DEMAND.**

4 A. Santee Cooper communicates with their customers and the public regarding energy
5 efficiency and demand response by providing online energy savings tips for residential
6 and commercial customers, offering free energy assessments for residential and
7 commercial customers, sending monthly bill inserts and emails to customers to
8 highlight energy efficient, demand response, electric vehicle, and/or solar initiatives,
9 sending monthly emails, sometimes targeted to select customers, communicating and
10 promoting the SmartRewards program, distributing Home Energy House Call Kits to
11 customers during a home energy assessment which includes energy efficient products,
12 publishing blogs during the year to discuss topics like demand response, energy
13 efficiency, electric vehicles, and/or solar initiatives, including information on the
14 EmpowerSC programs in *PowerSource*, Santee Cooper’s publication, and redesigning
15 the company website to make it more user-friendly, updated, and functional.
16 Santee Cooper also has educational initiatives through Energy Educators Institute,
17 educational publications, Solar Schools Project, career days, E-SMART kids, local
18 chamber events, and through presentations given in classroom settings, events, and
19 HOAs.

20 **Q. DOES THIS CONCLUDE YOUR PREFILED DIRECT TESTIMONY?**

21 A. Yes.