



September 20, 2024

BY UPS

Adam Teitzman  
Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

RECEIVED-FPSC  
2024 SEP 23 AM 4:07  
COMMISSION CLERK

Dear Mr. Teitzman:

Enclosed are four final and two legislative copies of proposed revisions to a Sumter Electric Cooperative, Inc. (SECO Energy) tariff sheet. The following rate sheets were modified:

- Electric Vehicle Smart Charging Rider
  - First Revised Sheet No. 9.4
  - Original Sheet No. 9.5
  - Original Sheet No. 9.6

The revisions to Sheet No. 9.4 and additional original sheets 9.5 and 9.6 reflect the expansion of SECO Energy's load management program and credit offerings. The proposed new Residential Load Management Rider replaces and incorporates the current Electric Vehicle Smart Charging Rider in addition to two new programs: Smart Thermostat Program and Battery Program.

We are proposing an effective date of November 1, 2024. During the review process, if you have any questions or need additional information regarding this filing, please contact me at 352-569-9622 or by email at [anh.reynolds@secoenergy.com](mailto:anh.reynolds@secoenergy.com).

Sincerely,

Anh Reynolds  
Vice President of Financial and Administrative Services

cc: Curtis Wynn, CEO

COM \_\_\_\_\_  
 AFD \_\_\_\_\_  
 APA \_\_\_\_\_  
 ECO \_\_\_\_\_  
 ENG \_\_\_\_\_  
 GCL \_\_\_\_\_  
 IBM \_\_\_\_\_  
 CLK \_\_\_\_\_

3 finals & 1  
Legislative  
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## RESIDENTIAL LOAD MANAGEMENT RIDER

### AVAILABILITY

Available throughout the territory served by the Cooperative in accordance with (1) the Cooperative's Rules and Regulations for Electric Service; and (2) the Cooperative's SECO Smart Connect Program Terms and Conditions. The Cooperative may modify or terminate any and all Programs in the Cooperative's sole discretion for any reason.

### APPLICABILITY

Applicable as an optional rider to members served under Residential Service – Schedule RS and becomes an additional rider to each standard electric service rate schedule that serves members approved to participate in the SECO Smart Connect Program.

### CHARACTER AND CONDITIONS OF SERVICE

Single phase or three phase, 60 Hertz, at the Cooperative's standard available voltage. Resale of service or standby service is not permitted hereunder.

### LIMITATION OF SERVICE

Service to member owned electrical equipment for those participating in the Load Management Program will follow the Cooperative's SECO Smart Connect Program Terms and Conditions.

### LOAD MANAGEMENT CREDIT PROGRAM

<b>Thermostat Program</b>	
Initial Enrollment credit	\$50 per home enrolled
Winter Season (October-March)	\$10 credit
Summer Season (April-September)	\$20 credit
<b>Electric Vehicle (EV) Charging Program</b>	
EV Charging Program	\$7 monthly credit
<b>Battery Program</b>	
Inverter power output credit	\$1/kW monthly credit
Energy credit	\$0.30kWh for Adjustment Events

(Continued on Sheet No. 9.5)



## RESIDENTIAL LOAD MANAGEMENT RIDER

Page 2 (Continued from Sheet No. 9.4)

### TERMS AND CONDITIONS SPECIFIC TO RESIDENTIAL LOAD MANAGEMENT RIDER

#### Thermostat Program

1. **Reward:** Participants can earn an initial (one-time) enrollment credit on their electric bill of \$50 per home enrolled. Participants can earn \$10 credit on their electric bill for participating in the winter season (October 1 - March 31) and remain enrolled for the entire season. Participants can earn \$20 credit on their electric bill for participating in the summer season (April 1 - September 30) and remain enrolled for the entire season. The Cooperative may terminate a Participant from the Program in the Cooperative's sole and reasonable discretion for any reason.
2. **Program Details:** Adjustment Events may only occur between 6:00 a.m. and 10:00 p.m. EST. The maximum allowable hours per season is 80 hours, not including the "pre-cool" or "pre-heat" period. An Adjustment Event may not exceed 4 hours, not including the "pre-cool" or "pre-heat" period.
3. **Program Period:** The Program Period is the duration of the program from January 1 through December 31 and consists of two seasons. The summer season runs from April 1 through September 30; the winter season runs from October 1 through March 31.

#### Electric Vehicle (EV) Charging Program

4. **Reward:** Participants can earn \$7 credit each month on their electric bill for participating in the program with no more than 1 instance of charging outside of the Program Details (as defined below) in each month. The Cooperative may terminate a Participant from the Program in the Cooperative's sole and reasonable discretion for any reason.
5. **Program Details:** Participants agree to home charge eligible EVs using a level 2 charger during Super Off-Peak hours (12:00 a.m. to 6:00 a.m. EST). The EV must be all-electric and owned or leased by the Participant.
6. **Program Period:** The Program Period is the duration of the program from January 1 through December 31.

(Continued on Sheet No. 9.6)



## RESIDENTIAL LOAD MANAGEMENT RIDER

Page 3 (Continued from Sheet No. 9.5)

### Battery Program

7. **Reward:** Participants can earn \$1/kW credit each month on their electric bill for participating in the program, based on their inverter's power output and with no more than 1 opt-out per month. Participants can earn \$0.30/kWh for energy participated in Adjustment Events, with no more than 5 opt-outs within the Program Period. The Cooperative may terminate a Participant from the Program in the Cooperative's sole and reasonable discretion for any reason.
8. **Program Details:** Adjustment Events may only occur between 6:00 a.m. and 10:00 p.m. EST. The maximum allowable hours per calendar year is 180 hours. An Adjustment Event may not exceed 4 hours. The battery must provide energy for 2 to 4 hours with a power output of 2 kW up to 10 kW. The battery will not discharge below 20% of capacity during an Adjustment Event. If a battery is less than 100% charged prior to an Adjustment Event, the battery will automatically charge prior to the Adjustment Event.
9. **Program Period:** The Program Period is the duration of the program from January 1 through December 31.



## **Electric Vehicle Smart Charging Rider**

### **AVAILABILITY**

Available throughout the territory served by the Cooperative in accordance with the Cooperative's Rules and Regulations for Electric Service.

### **APPLICABILITY**

Applicable as an optional rider to customers served under Residential Service—Schedule RS for electric vehicle charging during Super Off Peak hours as defined in this rider. Electric vehicles must be all-electric, registered with a state Department of Motor Vehicle, and either owned or leased by the customer.

### **MONTHLY CREDIT**

Customer shall receive a fixed monthly credit in the amount of \$7.00 per month.

### **TERMS AND CONDITIONS SPECIFIC TO THE EV RIDER**

1. Customer shall only charge electric vehicle during Super Off Peak hours. Super Off Peak Hours are defined as the hours from 12am to 6am daily.
2. In order to receive the monthly credit, customer must provide evidence (either digitally provided screen shot or picture) that shows the EV app or EV dashboard has been correctly programmed for Super Off Peak hours.
3. Cooperative will monitor, on an ongoing basis, the load profile of customer to ensure EV charging is occurring predominantly during Super Off Peak hours. Should it be determined that a customer is not charging predominately during Super Off Peak hours, Cooperative, at its sole discretion, may remove a customer from this optional rider and customer shall not receive the Monthly Credit.
4. Customers must charge the electric vehicle at home utilizing a Level 1 or Level 2 charger.

## **RESIDENTIAL LOAD MANAGEMENT RIDER**

### **AVAILABILITY**

Available throughout the territory served by the Cooperative in accordance with (1) the Cooperative's Rules and Regulations for Electric Service; and (2) the Cooperative's SECO Smart Connect Program Terms and Conditions. The Cooperative may modify or terminate any and all Programs in the Cooperative's sole discretion for any reason.

### **APPLICABILITY**



Applicable as an optional rider to members served under Residential Service – Schedule RS and becomes an additional rider to each standard electric service rate schedule that serves members approved to participate in the SECO Smart Connect Program.

**CHARACTER AND CONDITIONS OF SERVICE**

Single phase or three phase, 60 Hertz, at the Cooperative's standard available voltage. Resale of service or standby service is not permitted hereunder.

**LIMITATION OF SERVICE**

Service to member owned electrical equipment for those participating in the Load Management Program will follow the Cooperative's SECO Smart Connect Program Terms and Conditions.

**LOAD MANAGEMENT CREDIT PROGRAM**

<b>Thermostat Program</b>	
Initial Enrollment credit	\$50 per home enrolled
Winter Season (October-March)	\$10 credit
Summer Season (April-September)	\$20 credit
<b>Electric Vehicle (EV) Charging Program</b>	
EV Charging Program	\$7 monthly credit
<b>Battery Program</b>	
Inverter power output credit	\$1/kW monthly credit
Energy credit	\$0.30kWh for Adjustment Events

(Continued on Sheet No. 9.5)

# 2024 - DERMS INCENTIVES



07/29/2024

# DERMS OVERVIEW



## Distributed Energy Resource Management System (DERMS)

- Platform to monitor, control, and optimize distributed energy resources (DERs), such as solar and batteries
- Allows for the optimization and management of IoT (Internet of Things) devices, such as:
  - Thermostats
  - Automatic Transfer Switches (ATS)
  - Electric Vehicles (EV)
  - EV Chargers

## Benefits

- Peak Demand Reduction
  - Lower wholesale power costs for SECO Energy and its Members
  - Provides opportunities for Members to participate in Demand Response Programs
    - DR Programs provide financial incentives for reducing energy consumption during peak times



# SECO ENERGY DEVICE OPPORTUNITIES



Thermostats		
Manufacturer		# of Devices
Ecobee	Summer (Electric)	17,200
	Winter (Gas and Electric)	31,000
Google	Nest	36,000
Honeywell	Honeywell Home	11,931
	Total Connect Comfort	22,108
Total		118,239

Other Devices	# of Devices
Generators	3,292
Batteries	600
Electric Vehicles	214

# 2023 LOAD MANAGEMENT



In 2023, there were:

- 42 Load Management Events
- 105.5 total Load Management hours
- An average of 2.5 hrs/event

Month	Load Management Events	Hours
Jan	2	5.02
Feb	5	12.56
Mar	5	12.56
Apr	0	0.00
May	0	0.00
Jun	8	20.10
Jul	6	15.07
Aug	9	22.61
Sep	3	7.54
Oct	1	2.51
Nov	0	0.00
Dec	3	7.54
Total	42	105.5

# DERMS PROGRESS



- Development of Programs
  - SECO Energy is working with Virtual Peaker on development of the thermostat, electric vehicle charging and battery programs:
    - Incentive Program
    - Terms and Conditions
    - Marketing
    - Member Sign-up Work-Flow
    - Program Settings and Configuration
- SECO Energy hired The Sphigler Group, a company that helps validate business cases and assists in creating metrics and dashboards to measure value savings in programs and projects. They are assisting in the following projects and programs below but also helping validate the DERMS program incentives:
  - Automated Meter Infrastructure (AMI)
  - Distributed Energy Resource Management Systems (DERMS)
  - Conservation Voltage Reduction (CVR)
  - LED Lighting Replacements

# THERMOSTATS

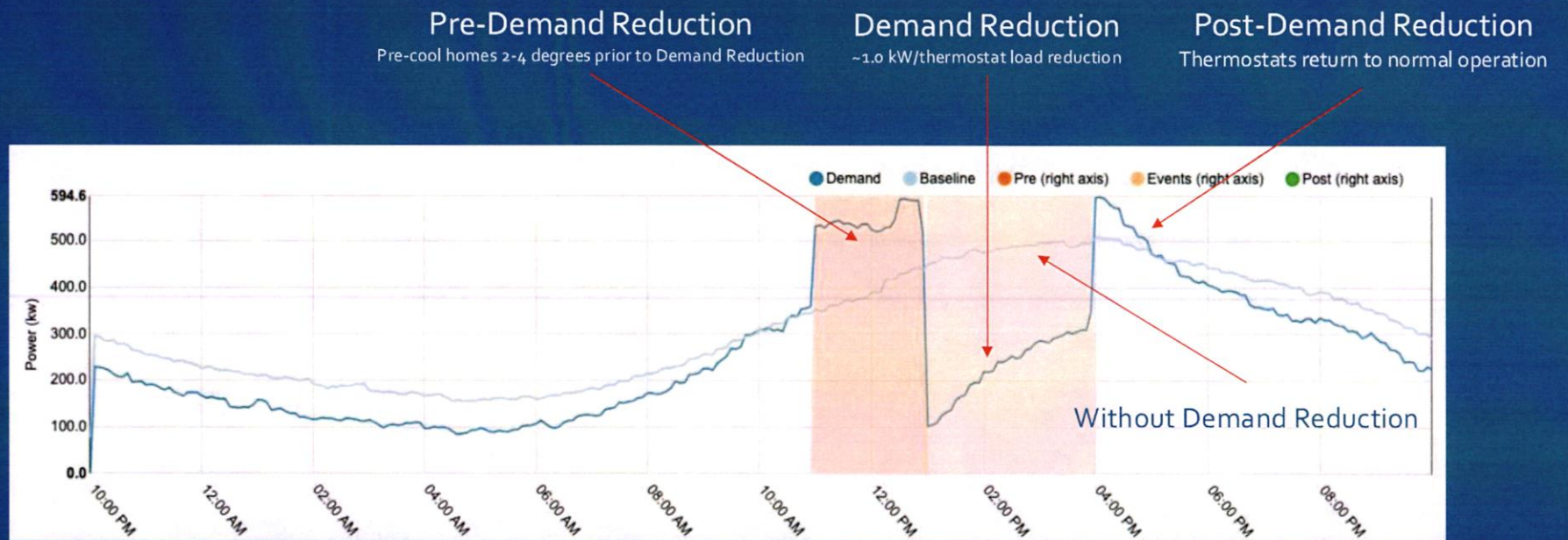


# THERMOSTAT PROGRAM



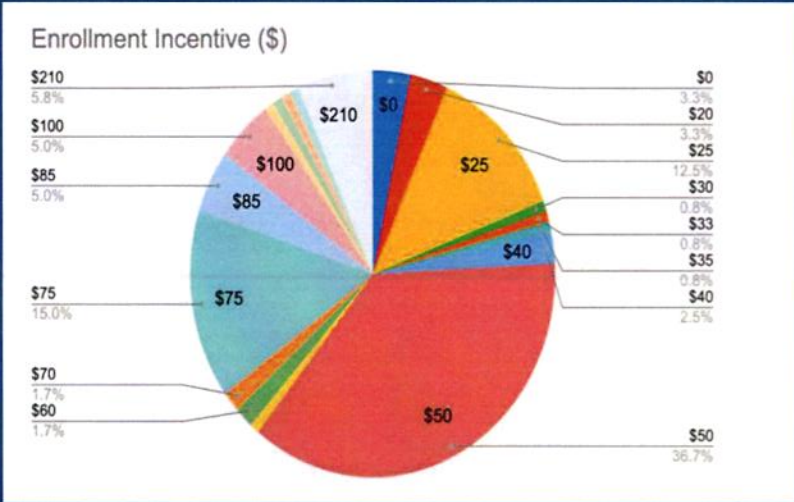
- Upfront Incentive - \$50/device
- Participation Incentives:
  - Summer - \$20/season (June-September)
  - Winter - \$10/season (December-March)
- Program:
  - Member always has option to opt out during planned events
  - Allowance of 80 hours of control per thermostat, per season, plus 60 hours of pre-cool/pre-heat for planned events
  - Prior to load management window, pre-cool/pre-heat homes 2-4 degrees
  - Post load management window, homes would revert back to original settings
  - Allow for maximum 2 opt-outs in Winter and 3 opt-outs in Summer
  - To remain in program, Member must not opt-out more than 5 times within a 12-month period

# DERMS THERMOSTAT EXAMPLE



The above graph shows a demand response from 229 thermostats

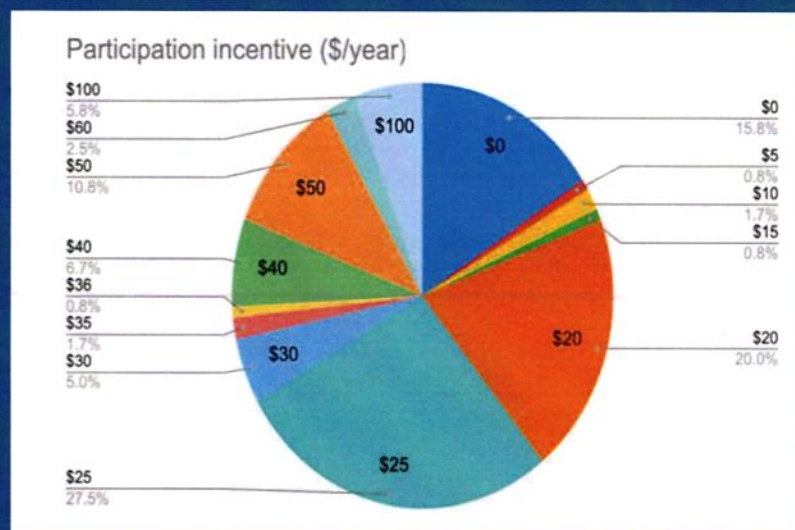
# TYPICAL THERMOSTAT ENROLLMENT INCENTIVES



57.6%  
of the typical  
enrollment incentive is  
between \$40 and \$75

Sample of 120+ utility smart thermostat DR Programs, source: Google Nest

# TYPICAL THERMOSTAT PARTICIPATION INCENTIVES



**61.7%**  
of the typical  
participation incentive  
is between \$20 and \$40

Sample of 120+ utility smart thermostat DR Programs, source: Google Nest



# EV CHARGERS



# EV CHARGING PROGRAM



- Participation Incentive:
  - \$7/month
- Program:
  - Members agree to charge all-electric EVs during Super Off-Peak hours (12 am – 6 am)
  - EVs must be owned or leased by the Member
  - Must be registered with a state Department of Motor Vehicles agency
  - Member must provide evidence that EV Charger has been programmed for Super Off-Peak hours
  - Hybrid vehicles or street legal golf carts called neighborhood electric vehicles (NEV) are not eligible for this monthly charging incentive

# BATTERY ENERGY STORAGE SYSTEM (BESS)



# BESS PROGRAM



- Participation Incentive:
  - \$1.00/kW/month continuing incentive
  - \$0.30/kWh for energy participated in load management
- Program:
  - Devices automatically opted-in, with option to Member to opt out
  - Minimum/Maximum Power Output – 2 to 10 kW
  - Minimum/Maximum Available Capacity – 2 to 4 hours
  - Minimum Charge Capacity – 20%
  - No more than 60 events per calendar year
  - Member may not opt-out more than once per month to receive continuing incentive
  - To remain in program, Member must not opt-out more than 5 times within a 12-month period

## NEXT STEPS



- SECO Energy Incentive Program Development
  - PSC Submittal and Approval
  - October Board Meeting – Final Approval and Adoption of Incentive Program Tariff
- DERMs Roll-out – November/December
  - Marketing
  - Member Sign-Up

# Program Summary



- Re-cap of Incentives
  - Thermostats
    - Upfront Incentive - \$50/device
    - Participation Incentives:
      - Summer - \$20/season (June-September)
      - Winter - \$10/season (December-March)
  - EV Charging
    - Participation Incentive:
      - \$7/month
  - Batteries
    - Participation Incentive:
      - \$1.00/kW/month continuing incentive
      - \$0.30/kWh for energy participated in load management