# <u>Section-DSM –</u> Heat Pump Retrofit Program

### Purpose

The Heat Pump Retrofit Program provides incentives for residential customers end-use cooperative members ("end-use members") members to replace their existing resistance heat source with a high efficiency heat pump.

### Availability

This program is available to residential end-use members served by Big Sandy Rural Electric Cooperative.

# **Eligibility**

This program is targeted to retail members who currently heat their home with a resistance heat source; this program is targeted to site built homes, manufactured homes, and multi-family dwellings. Eligibility requirements are:

- Incentive only applies when homeowner's primary source of heat is an electric resistance heat furnace, ceiling cable heat, or baseboard heat, electric thermal storage.
- Existing heat source must be at least 2 years old.
- New manufactured homes are eligible for the incentive.
- Air Conditioning, Heating, and Refrigeration Institute ("AHRI") ratings may range as follows: Seasonal Energy-Efficiency Ratio ("SEER") minimum 13; Heating Seasonal Performance Factor ("HSPF") minimum 7.5.
- Two (2) maximum incentive payments per location, per lifetime for centrally ducted systems.
- Ducted and Ductless mini-splits applying for the incentive will be incentivized at a rate of \$250 per indoor head unit up to a maximum of three head units per location, per lifetime.
- Participants in the Heat Pump Retrofit Program are not eligible for participation in the ENERGY STAR® Manufactured Home Program

### **Incentives**

Homeowners replacing their existing resistance heat source with a heat pump will qualify for the following incentive based on the AHRI Rating equipment type:

| AHRI RATING | INCENTIVE TO MEMBER |  |
|-------------|---------------------|--|
|             | <u> </u>            |  |
| 13 SEER     |                     |  |
| 7.5 HSPF    | <del>\$500</del>    |  |
| 7.0 1701    | φοσσ                |  |
| 44 CEEB     |                     |  |
| 14 SEER     |                     |  |
| 8.0 HSPF    | <del>\$750</del>    |  |
|             |                     |  |
| ≥15 SEER    |                     |  |
| >8.5 HSPF   | <del>\$1,000</del>  |  |
| _0.0 11011  | Ψ1,000              |  |

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| <u>Equipment Type</u>  | <u>Rebate</u> |
|--|---------------|
| Centrally Ducted Systems: Current Energy Conservation Standard established by the Federal Department of Energy "DOE" | \$500         |
| Current ENERGY STAR® level equipment or greater  | \$750         |
| Mini Split Systems: Ducted or Ductless Mini-Splits ENERGY STAR® level equipment or greater                           | \$250         |

# <u>Term</u>

The program is an ongoing program.

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Cancelling P.S.C. Original Sheet No.1

#### DSM - 4a

### **Button-Up Weatherization Program**

### **Purpose**

The Button-Up Weatherization Program offers an incentive for reducing the heat loss of a home. The retail member may qualify for this incentive by improving attic insulation, installing higher efficiency windows and doors, or by and reducing the air leakage of their home.

# **Availability**

This program is available in all service territories served by Big Sandy RECC.

### Eligibility

This program is targeted at older single-family, multi-family or manufactured dwellings. Eligibility requirements are:

- Home must be 2-years old or older to qualify for the incentive.
- Primary source of heat must be electricity.
- Eligible dwellings may qualify for one of four levels:

### **Button Up Level I**

The insulation portion of the Button Up incentive will promote the reduction of energy usage on the part of the retail member by providing an incentive of \$40 per one-thousand British thermal unit per hour (Btuh) reduced, up to \$520, resulting from improved insulation or installing higher efficiency windows or doors. Heat loss calculation of Btuh reduced will be made by using either the Manual J 8th Edition or through other methods approved by EKPC. Heat loss calculations in Btuh are based on the winter design temperature. In order to compensate for lost revenue, the owner-member will receive \$30 per thousand Btuh reduced (\$40 per thousand Btuh to the retail member and \$30 per thousand Btuh to the owner-member).

### **Button Up Level | Payment**

EKPC will provide a payment of up to \$1,040 to the owner-member to cover administrative costs, net lost revenue, and the incentive to the retail-member as noted in the Eligibility Section. A blower door test is not required to receive this incentive up to the maximum payment noted herein.

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# DSM-4a Button-Up Weatherization Program (continued)

# **Button Up Level I with Air Sealing**

The air sealing portion of the Button Up incentive will promote the reduction of energy usage through air sealing on the part of retail members. Typical air sealing could include caulking, improved weather stripping, sealing attic accesses, etc. To receive this incentive either an EKPC approved contractor or Big Sandy RECC representative must perform a "pre" and "post" blower door test to measure actual Btuh reduced. This portion of the incentive will also pay a total payment of \$70 per thousand Btuh reduced and increases the Button-Up-Level I maximum incentive to \$750 (\$40 per thousand Btuh to the retail member and \$30 per thousand Btuh to the owner-member).

The attic insulation portion of the Button Up incentive will promote the reduction of energy usage on the part of the retail members. Heat loss calculation of Btuh reduced will be made by using either the Manual J 8<sup>th</sup> Edition or through other methods approved by EKPC. Heat loss calculations in Btuh are based on the winter design temperature. In order to receive an incentive for attic insulation, an air seal must be completed.

### Incentives

The Button Up incentive will pay a total payment of \$40 per thousand Btuh reduced to the retail member up to the maximum rebate incentive of \$750.

### **Button Up Level I with Air Sealing Payment**

EKPC will provide a payment of up to \$1,545 to the owner-member to cover administrative costs, net lost revenue, and the incentive to the retail member as noted in the Eligibility Section. To qualify for the increased maximum payment as noted herein, a blower door test is required.

### **Button Up Level II**

The Button Up Level II portion of this incentive will promote energy conservation through a whole house approach. This level of incentive is targeted at retail members experiencing high energy bills as a result of excessive heat loss from multiple causes. The incentive promotes the retail member to address all of the problems in their home at one time. Retail members who reduce their home's energy needs by 26,500 Btuh, are eligible for the full Button Up Level I Air Seal incentive plus an additional \$310 for a total of \$1,060. To receive this incentive either an EKPC approved contractor or owner-member representative must perform a "pre" and "post" inspection/blower door and duct leakage test of the home to measure actual Btuh reduced. Each home must meet minimum requirements as determined by EKPC.

### **Button-Up Level II Payment**

EKPC will provide a payment of up to \$2,085 to the owner-member to cover administrative costs, net lost revenue, and the incentive to the retail member as noted in the Eligibility Section. To qualify for the increased maximum payment as noted herein, a blower door test is required.

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### DSM-4a Button-Up Weatherization Program (continued)

### **Button Up Level III**

The Button Up Level III portion of this incentive will promote energy conservation through a whole house approach. This level of incentive is targeted at retail members experiencing extremely high energy bills as a result of excessive heat loss from multiple causes. The incentive promotes the retail member to address all of the problems in their home at one time. Retail members who reduce their home's energy needs by 34,250 Btuh, are eligible for the full Button Up Level I Air Seal incentive plus an additional \$620 for a total of \$1,370. To receive this incentive either an EKPC approved contractor or owner-member representative must perform a "pre" and "post" inspection/blower door and duct leakage test of the home to measure actual Btuh reduced. Each home must meet minimum requirements as determined by EKPC.

# **Button Up Level III Payment**

EKPC will provide a payment of up to \$2,625 to the owner-member to cover administrative costs, net lost revenue, and the incentive to the retail member as noted in the Eligibility Section. To qualify for the increased maximum payment as noted herein, a blower door test is required.

### Term

The program is an ongoing program.

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### Section DSM - xx

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### **HVAC Duct Sealing Program**

# Purpose

The HVAC Duct Sealing Program offers blower door tests to evaluate and identify costly duct leaks and an incentive to seal leaking ductwork either with traditional mastic sealers or with the *Aeroseal* duct sealing program. Duct losses are to be reduced to 10% or less, and duct loss measurement requires the use of a blower door test and the blower door subtraction method.

### **Availability**

This program is available to residential members in all service territory served by <Name of Coop>.

# **Eligibility**

This program is targeted to single-family homes using electric furnaces or electric heat pumps. Eligibility requirements are:

- Limited to homes that have centrally ducted heating systems in unconditioned areas, using only electricity as a fuel source.
- Duct system must be 2 years old or older.
- Initial duct leakage must test greater than 10% of the fan's rated capacity.
- Contractor or Co-op Representative are required to conduct a "pre" and "post" blower door test to verify reductions. Only contractors trained or approved by EKPC may be used.
- Duct leakage per system must be reduced to below 10% of the fan's rated capacity (assuming 400cfm per ton, ex. 2 ton system= 800 cfm, thus duct leakage must be reduced to 80cfm or less). If duct system cannot be reduced to 10% of fan's rated capacity, contractor is expected to provide a detailed justification.
- All joints in the duct system must be sealed with foil tape and mastic. Foil tape alone does not qualify as properly sealing the duct system.
- For homes that have two separately ducted heat systems, each system will qualify independently for the incentive.

# **Incentive**

<Name of Coop> will-provide a \$250 incentive to residential members that meet the Eligibility requirements listed above.

### Term

The program is an ongoing program.

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|---|---|
| ISSUED-BY   | TITLE President & Chief Executive Officer                     |
| Issued by authority of an Order of the Pub<br>Case No Dated | elic Service Commission of Kentucky in                        |

4th Revised Sheet No.1 Cancelling P.S.C. 3rd Revised Sheet No.1

### DSM - 3a

### **Direct Load Control Program - Residential**

### Purpose

The Direct Load Control Program will encourage the reduction in growth of peak demand, enabling Big Sandy Rural Electric Cooperative to utilize its system more efficiently, manage market purchases, and defer the construction of new generation.

### Availability

The Direct Load Control Program is available to residential-retail-members in the service territories of Big Sandy Rural Electric Cooperative and will include the control of existing water heaters, existing and new air conditioners and heat pumps, and pool pumps.

Availability may be denied where, in the judgment of Big Sandy Rural Electric Cooperative, installation of the load control equipment is impractical.

### Eligibility

To qualify for this program, the *new* participant must be located in the service territory of Big Sandy Rural Electric Cooperative and have:

- 40-gallon-(minimum) electric water heating units, and/or
- Central air conditioning or heat pump units with single-stage compressors. and/or
- Pool pumps.

The above appliances may be electrically cycled or interrupted in accordance with the rules of this Tariff.

The participant may either own or rent the residence where the qualifying appliances are located. The residence may be either a single-family structure or a multi-family apartment facility.

The participant is responsible for obtaining the permission of the owner of the rented residence to participate in the load control program. Big Sandy Rural Electric Cooperative may require that a rental property agreement be executed between Big Sandy Rural Electric Cooperative and the owner of the rented residence.

### **Program Incentives**

Big Sandy Rural Electric Cooperative will provide an incentive to the participants in this program for the following appliances:

<u>Water Heaters:</u> Big Sandy Rural Electric Cooperative will reimburse provide the existing participating residential member \$10.00 per water heater annually or provide the incentive via other payment means including, but not limited to, a check. The existing participant will receive this credit regardless of whether the water heater is actually controlled.

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4th Revised Sheet No.2 Cancelling P.S.C. 3rd Revised Sheet No.2

### DSM - 3a Direct Load Control Program - Residential (continued)

<u>Air Conditioners and Heat Pumps:</u> Big Sandy Rural Electric Cooperative will provide an incentive to the participants in this program. The participant may select one of two *three* alternatives. The participant will receive one of these incentives regardless of whether the air conditioner or heat pump is actually controlled during any program month.

Alternative One: For each direct load control switch, Big Sandy Rural Electric Cooperative will reimburse provide the participating residential member \$20.00 bill credit annually or provide the incentive via other payment means including, but not limited to, a check per air conditioner or heat pump. (\$5 per summer months, June, July, August and September).

Alternative Two: When technically feasible, Big Sandy Rural Electric Cooperative may provide and install at no cost one or more digital Wi-Fi enabled thermostats as needed for control purposes or Big Sandy Rural Electric Cooperative may provide a Wi-Fi enabled thermostat and a rebate up to \$100 to offset the member's cost to have the thermostat installed by the member's own heating and air-conditioning contractor. The member must sign-up each Big Sandy Rural Electric Cooperative provided thermostat within 60 days or return it to Big Sandy Rural Electric Cooperative or be invoiced by Big Sandy Rural Electric Cooperative for the cost of the thermostat. Wi-Fi enabled means any thermostat utilizing the Wi-Fi communication protocol or similar local networking communication protocols. The member must have a fixed location, reliable internet for communication. Big Sandy Rural Electric Cooperative will reimburse the participating member \$20 per qualifying Wi-Fi enabled thermostat annually. After the initial selection of one of the alternatives, the participant may change to the other alternative subject to the following conditions:

- From bill credits to digital thermostats The change in alternative will be permitted in any
  month except for the summer months of June through September. In addition, the
  participant will pay fifty percent (50%) of the installed cost of each digital thermostat.
- From digital thermostats to bill credits This change in alternative will be permitted in any month except for the summer months of June through September. In addition, the participant will either reimburse Big Sandy Rural Electric Cooperative, through the owner-member, an amount equal to fifty percent (50%) of the originally installed cost of each digital thermostat that was initially installed if the participant keeps the thermostat or pay fifty percent (50%) of the cost to remove each digital thermostat that was initially installed.
- Only one change in incentive alternatives will be permitted during a 12-month-period.

Alternative Three Pool Pumps: Big Sandy Rural Electric Cooperative will reimburse provide the participating residential member \$20.00 bill credit per pool-pump qualifying Wi-Fi enable thermostat provided by the retail member that controls an air conditioner or heat pump annually or provide the incentive via other payment means including, but not limited to, a check. Big Sandy Rural Electric Cooperative will provide a rebate up to \$100 to offset the member's cost to have the thermostat installed by the member's own heating and air-conditioning contractor. The member must have a fixed location, reliable internet for communication. (\$5.00 per summer month, June, July, August and September). The participant will receive this credit regardless of whether the pool pump is actually controlled.

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4th Revised Sheet No.3 Cancelling P.S.C. 3rd Revised Sheet No.3

### <u>DSM – 3a Direct Load Control Program – Residential (continued)</u>

If the appliances noted above are controlled or interrupted during the time of EKPC's monthly billing peak, no additional monetary adjustments will be made. If the appliances noted above are not controlled or interrupted during the time of EKPC's monthly billing peak, then EKPC will credit the owner-member's bill by an amount which represents the savings that would have occurred had the control or interruption been made.

When the qualifying appliances are located in rental residences, program incentives will be paid to the participant, regardless of whether the participant owns or rents the residence where the qualifying appliances are located. Nothing contained in this Tariff will prohibit a further disposition of the program incentive between the participant and the owner of a rented residence.

### **Program Special Incentives**

Big Sandy Rural Electric Cooperative will provide a special incentive up to \$25.00 for new participants that install a load control switch on qualifying electric water heaters, air conditioners and heat pumps, and er peol pumps, utility supplied Wi-Fi enabled thermostat or retail member supplied Wi-Fi enabled thermostat. This one-time incentive will be in the form of a bill credit on the electric bill following the switch installation or provided via other payment means including, but not limited to, a check.

# Time Periods for Direct Load Control Program

<u>Water Heaters</u>: A load control switch will be placed on the water heater and Existing load control switches may be electrically interrupted for a maximum time period of six (6) hours per event during the May through September months indicated below and for a maximum time period of four (4) hours per event during the October through April months indicated below.

EKPC will cycle the water heaters only during the hours listed below.

Months
October through April

May through September

Hours Applicable for Demand Billing - EPT

6:00 a.m. to 12:00 noon 4:00 p.m. to 10:00 p.m. 10:00 a.m. to 10:00 p.m.

<u>Air Conditioners and Heat Pumps:</u> A load control device (switch or *Wi-Fi enabled* thermostat) will be placed on each central air conditioning unit or heat pump that will allow the operating characteristics of the unit to be modified to reduce demand on the system. Communication to the load control device will be accomplished via AMR, er-AMI, *Wi-Fi or similar communication technologies*.

EKPC will control the air conditioning units and heat pumps only during its summer on-peak billing hours listed below and up to (4) four hours per event.

Months
May through September

Hours Applicable for Demand Billing – EPT 10:00 a.m. to 10:00 p.m.

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4th Revised Sheet No.4 Cancelling P.S.C. 3rd Revised Sheet No.4

### DSM - 3a Direct Load Control Program - Residential (continued)

<u>Pool Pumps:</u> A load control switch will be placed on the pool pump and may be controlled for a six (6)-hour curtailment during on-peak days May through September. In addition, there may be a fifty percent (50%) cycling for the ensuing two (2)-hour recovery period to prevent creating a new peak.

# **Terms and Conditions**

- Prior to the installation of load control devices, Big Sandy Rural Electric Cooperative may inspect the
  participant's electrical equipment to ensure good repair and working condition, but Big Sandy Rural
  Electric Cooperative shall not be responsible for the repair or maintenance of the electrical equipment.
- 2. EKPC, on behalf of Big Sandy Rural Electric Cooperative, will install, in some cases, own, and maintain the load management devices controlling the participant's air conditioner or heat pump, or water heater for Alternatives One and Two as noted in this tariff. The participant must allow Big Sandy Rural Electric Cooperative, or their representative, reasonable access to install, maintain, inspect, test and remove load control devices. Inability of Big Sandy Rural Electric Cooperative to gain access to the load management device to perform any of the above activities for a period exceeding thirty (30) days may, at Big Sandy Rural Electric Cooperative's option, result in discontinuance of credits under this tariff until such time as Big Sandy Rural Electric Cooperative is able to gain the required access.
- 3. Participants may join the program at any time during the year. Participants with water heaters and/or pool pumps will receive the first annual incentive within twelve (12) months after the installation of the lead centrel device. Participants with air conditioning or heat pump units who join during the months of June through September can select an incentive alternative as described in this Tariff. If the bill credit incentive is selected, bill credits incentives will be provided annually, will not begin until after the installation of the lead centrel device and continue for the months remaining in the June through September time period for that year.
- 4. If a participant decides to withdraw from the program or change incentive alternatives, Big Sandy Rural Electric Cooperative will endeavor to implement the change as soon as possible.
- 5. If a participant decides to withdraw from the program, the participant may not apply to rejoin the program for a period of six (6) months. Returning participants for air conditioning and heat pump units will be required to initially select the bill credit alternative, but may change alternatives later as described in this Tariff.

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4th Revised Sheet No.5 Cancelling P.S.C. 3rd Revised Sheet No.5

# DSM-3b

### **Direct Load Control Program - Commercial**

### **Purpose**

The Direct Load Control Program will encourage the reduction in growth of peak demand, enabling Big Sandy Rural Electric Cooperative to utilize its system more efficiently, manage market purchases, and defer the construction of new generation.

### **Availability**

The Direct Load Control Program is available to commercial members in the service territories of Big Sandy Rural Electric Cooperative and will include the control of air conditioners and existing water heaters.

Availability may be denied where, in the judgment of Big Sandy Rural Electric Cooperative, installation of the load control equipment is impractical.

### Eligibility

To qualify for this Program, the *new* participant must be located in the service territory of Big Sandy Rural Electric Cooperative and have a central air conditioning *or heat pump* units. and/or a 40-gallen (minimum) electric water heating unit. The appliance may be electrically cycled or interrupted in accordance with the rules of this Tariff.

The participant is responsible for obtaining the permission of the commercial property owner to participate in the load control program. Big Sandy Rural Electric Cooperative may require that a rental property agreement be executed between Big Sandy Rural Electric Cooperative and the owner of the rented commercial property.

### **Program Incentives**

Big Sandy Rural Electric Cooperative will provide an incentive to the participants in this program for the following appliances:

Air Conditioners and Heat Pumps: The incentive will be based on the tonnage of the air conditioning unit. Units up to and including five (5) tons will receive \$5.00 20.00 per unit. Units over five (5) tons will receive an additional annual credit of \$1.00 \$4.00 per ton per unit. Big Sandy Rural Electric Cooperative will reimburse the participating commercial-member at the applicable incentive credit or provide the incentive via other payment means including, but not limited to, a check. during the months of June through September. The participant will receive the incentive regardless of whether the air conditioner is actually controlled during any program month.

<u>Water Heaters:</u> Big Sandy Rural Electric Cooperative will reimburse provide the existing participating commercial-member \$10.00 per water heater annually or provide the incentive via other payment means including, but not limited to, a check. The participant will receive this credit regardless of whether the water heater is actually controlled.

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4th Revised Sheet No.6 Cancelling P.S.C. 3rd Revised Sheet No.6

# DSM - 3b Direct Load Control Program - Commercial (continued)

### **Time Period for Direct Load Control Program**

<u>Air Conditioners and Heat Pumps:</u> A load control device will be placed on each central air conditioning unit or heat pump that will allow the operating characteristics of the unit to be modified to reduce demand on the system. The member must have internet for communication. Utility of member supplied Wi-Fi enabled thermostat programs may also be available. Communication to the load control device or thermostat will be accomplished via AMR, or AMI, Wi-Fi or similar communication technologies.

EKPC will control the air conditioning units only during its summer on-peak billing hours listed below and up to four (4) hours per event:

Months

Hours Applicable for Demand Billing - EPT

May through September

10:00 a.m. to 10:00 p.m.

<u>Water Heaters:</u> A load control switch will be placed on the water heater and Existing load control switches may be electrically interrupted for a maximum time period of six (6) hours per event during the May through September months indicated below and for a maximum time period of four (4) hours per event during the October through April months indicated below.

If the appliances noted above are controlled or interrupted during the time of EKPC's monthly billing peak, no additional monetary adjustments will be made. If the appliances noted above are not controlled or interrupted during the time of EKPC's monthly billing peak, then EKPC will credit the owner-member's bill by an amount which represents the savings that would have occurred had the control or interruption been made.

EKPC will cycle the water heaters only during the hours listed below.

Months
October through April

Hours Applicable for Demand Billing - EPT

6:00 a.m. to 12:00 noon 4:00 p.m. to 10:00 p.m.

May through September

4:00 p.m. to 10:00 p.m. 10:00 a.m. to 10:00 p.m.

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4th Revised Sheet No.7 Cancelling P.S.C. 3rd Revised Sheet No.7

### DSM - 3b Direct Load Control Program - Commercial (continued)

### **Terms and Conditions**

- Prior to the installation of load control devices, Big Sandy Rural Electric Cooperative may inspect the
  participant's electrical equipment to ensure good repair and working condition, but Big Sandy Rural
  Electric Cooperative shall not be responsible for the repair or maintenance of the electrical equipment.
- 2. EKPC, on behalf of Big Sandy Rural Electric Cooperative, will install, in some cases, own, and maintain the load management devices controlling the participant's air conditioner unit or heat pump water heater. The participant must allow Big Sandy Rural Electric Cooperative, or their representative, reasonable access to install, maintain, inspect, test and remove load control devices. Inability of Big Sandy Rural Electric Cooperative to gain access to the load management device to perform any of the above activities for a period exceeding thirty (30) days may, at Big Sandy Rural Electric Cooperative's option, result in discontinuance of credits under this tariff until such time as Big Sandy Rural Electric Cooperative is able to gain the required access.
- 3. Participants may join the program at any time during the year. Participants with air conditioning or heat pumps who join during the months of June through September will receive the bill credits annually. beginning after the installation of the load control device and continuing for the months remaining in the June to September time period for that year. Participants with water heaters will receive the first annual incentive within twelve (12) months after the installation of the load control device.
- 4. If a participant decides to withdraw from the program, Big Sandy Rural Electric Cooperative will endeavor to implement the withdrawal as soon as possible. If a participant decides to withdraw from the program, the participant may not apply to rejoin the program for a period of six (6) months.

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# ORIGINAL

For All Counties Served

P.S.C. No. 34

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First Revised Sheet No. 28

Canceling PSC No. 34

BIG SANDY RURAL ELECTRIC COOPERATIVE CORPORATION

Original Sheet No. 9

### Section DSM-5

# Commercial & Industrial Advanced Lighting Program

# Purpose

The Commercial & Industrial Advanced Lighting Program is an energy efficiency program that encourages commercial and industrial customers to install high efficiency lamps and ballasts in their facilities.

# Availability

This program is available to commercial and industrial facilities located in all service territory served by EKPC:

# Eligibility

To qualify for the Commercial & Industrial Advanced Lighting Program the customer must be on a retail commercial or industrial rate. The business must have been in operations for at least two years prior to January 1, 2011, and be current on its power bill payment to the Member System. No empty buildings, inactive warehouses, or inactive storage areas shall qualify. The business must be open or have its normal lighting load on for at least 50 hours per week. Retrofits of parking lot lighting, provided on photocoll control, are cligible.

### Rebate

EKPC and its Member Systems will provide an incentive to the customer of \$213 for each kW of lighting load reduction for businesses open 50 hours a week or more. EKPC will reimburse the Member System an additional \$320 for each kW of lighting load reduction, which is to compensate for lost revenue. For commercial customers, rebates are limited to \$15,000 per upgrade (total of both customer and distribution system rebates) for any facility. For industrial customers, rebates are limited to \$30,000 per upgrade (total of both customer and distribution system rebates) for any facility.

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TITLE President & Chief Executive Officer
TARIFF BRANCH

Case No. 2011-00148 Dated: September 30, 2011

EFFECTIVE

KENTUCKY
PUBLIC SERVICE COMMISSION

TITLE President & Chief Executive Officer
TARIFF BRANCH

EFFECTIVE

EFFECTIVE

9/30/2011 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

### BIG SANDY RURAL ELECTRIC COOPERATIVE CORPORATION

### Section-DSM-5 (cont.)

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### Term

The Commercial & Industrial Advanced Lighting Program is an ongoing program.

# Verification Procedure

Qualifying lighting must be identified or documented by EKPC or Member System staff prior to retrofitting. After the customer completes the retrofit, EKPC or Member System staff must verify the installed lighting retrofit. Domand and energy savings will be calculated based on lighting information gathered during the visits. EKPC will utilize the manufacturer's lighting fixture specifications and known measurements to calculate the savings; rebates under this tariff will be paid after these verification procedures are complete.

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| ISSUED BY Nay 1 8                  | TITLE Pre-                 | JEFF R. DERQUEN<br>ident & Chiev Executive of Artice OR |
| Issued by authority of an Order of | ·                          | n of Kentucky   |

EFFECTIVE

9/30/2011

PURSUANT TO 807 KAR 5:011 SECTION-9 (1)

# Cancelled

For All Counties Served P.S.C. No. 34 Original Sheet No. 11

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

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### BIG SANDY RURAL ELECTRIC COOPERATIVE CORPORATION

### Section DSM-6

# Industrial Compressed Air Program

### Purpose

The Industrial Advanced Compressed Air Program is a program designed to reduce electricity consumption through a comprehensive approach to efficient production and delivery of compressed air in industrial facilities. The program includes (1) training of plant staff; (2) a detailed system assessment of the plant's compressed air system including written findings and recommendations; and (3) incentives for capital intensive improvements.

# **Availability**

This program is available to commercial and industrial facilities using electric compressed air applications located in all service territory served by EKPC.

### **Eligibility**

To qualify for the Industrial Compressed Air Program, the customer must be on a retail industrial rate and must be a manufacturing operation with a compressed air system that is turned on during all the operating hours of the facility. The business must have been in operations for at least two years prior to January 1, 2011, and be current on its power bill payment to the Member System.

### Rebate

If the customer-reduces at least 60% of the compressed air leaks (CFMs), EKPC will reimburse through the Member System to the customer the cost of the original compressed air leakage audit up to \$5,000. The combination of the Member System lost revenue payment and the reimbursement of the compressed air leakage audit costs are limited to \$15,000 for any facility.

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| Issued by authority of an Order of the Public Service C | TARIFF BRANCH   |
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# BIG SANDY RURAL ELECTRIC COOPERATIVE CORPORATION

# Section DSM-6 (con't)

# <u>Term</u>

The Industrial Compressed-Air Program is an ongoing program.

### Verification Procedures

Determination of the amount of leakage reduction:

- 1. The leakage reduction will be determined by the measured reduction in compressed air leakage.
- 2. An ultrasonic compressed air leakage audit shall be performed and the results of this audit provided to the customer and EKPC. The report will contain an estimate of the amount of excess load in kW that the leaks are causing. The report will include a detail of leaks detected. The detail of leaks and the excess kW load will be based on the criteria for leak reporting.
- 3. Upon completion of repairs to the system, a follow-up ultrasonic compressed air leakage audit will be conducted for the documented leaks to measure the difference in the kW leakage load. The follow-up audit report will show the net kW leakage saved and results provided to the customer and EKPC. A lost revenue reimbursement will be paid to the Member System based on the difference in the kW leakage load and the cost of the original air-leakage audit will be reimbursed to the customer if a 60% reduction in CFMs air leakage is achieved.

### Criteria for leak reporting:

- 1. The criteria for reporting leaks shall be at the discretion of the auditor. At a minimum the report must detail the leak location, decibels measured, CFM of air leakage, and kW leakage load for each leak and summed for the facility.
- 2. The basic rule is that leaks that do not exceed 30 decibels in ultrasonic noise will not be reported or counted in the leakage kW load.
- 3. Exceptions to the 30 decibels rule are as follows:
- a. In a quiet environment with a minimal amount of compressed air, the minimum will drop to between 15 to 20 decibels.
- b. In a high noise environment, especially with robotic welding, the minimum will be raised to 40 to 50 decibels.
- e. Distance is also a factor. A 25-decibel-leak-in a trunk pipe in a 20-feet ceiling, in a noisy environment, will be documented and added to the leakage kW according to the distance.

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### Section DSM - 2

### **Touchstone Energy Home**

### **Purpose**

In an effort to improve new residential home energy performance, Big Sandy RECC has designed the Touchstone Energy Home Program. This program provides guidance during the building process to guarantee a home that is  $\geq 25-30$  45-20% more efficient than the Kentucky standard built home. The standard built new home in rural Kentucky typically receives a 400 105 on the Home Energy Rating System ("HERS") Index. A HERS Index Score of 100 means the home is built to only moderate levels of efficiency-generally the 2004 International Energy Conservation Code ("IECC").

# **Availability**

This program is available to residential members served by Big Sandy RECC.

# **Eligibility**

To qualify as a Touchstone Energy Home under Big Sandy RECC program, the participating single-family home must be located in the service territory of Big Sandy RECC and must meet the program guidelines following one of the three two available paths of approval. Multi-family dwellings pre-approved by East Kentucky Power Cooperative, Inc. may be eligible.

# Prescriptive Path:

- Home must meet each efficiency value as prescribed by Big Sandy RECC.
- Home must receive pre-drywall inspection and complete Big Sandy RECC's pre-drywall checklist (contact the Energy Advisor at Big Sandy RECC for a copy of the checklist)
- Home must receive a final inspection, pass a whole house air leakage test (<7 air changes per hour @50 pascals), and duct leakage test (<10% of the fan's rated capacity).
- Primary source of heat must be an Air Source Heat Pump <u>>14 Seasonal Energy Efficiency Ratio</u>
   ("SEER")/8.2Heating Seasonal Performance Factor ("HSPF") or Geothermal current ENERGY STAR®
   specification for Seasonal Energy Efficiency Ratio "SEER" and Heating Season Performance Factor
   "HSPF" or Geothermal.
- Water Heater must be an electric storage tank water heater that is ≥ .90 Energy Factor (EF) current
  Energy and Water conservation standards established by the Federal Department of Energy "DOE".

### Performance Path Level #1:

- Home must receive a HERS Index score between 80-85 (15-20% more efficient than the KY standard built home)
- Home must receive pre-drywall inspection and complete <Insert Coops Name>'s pre-drywall checklist (contact the Energy Advisor at <Insert Coop Name> for a copy of the checklist)
- Home must receive a final inspection, pass a whole house air leakage test (<7 air changes per hour @50 pascals), and duct leakage test (<10% of the fan's rated capacity).</li>
- Primary source of heat must be an Air Source Heat Pump ≥13SEER/7.5HSPF or Geothermal
- Home must pass 2009 IECC performance path.
- Water Heater must be an electric storage tank water heater that is ≥ .90 (EF)

DATE OF ISSUE:

January 30, 2019

DATE EFFECTIVE:

Service rendered on or after March 1, 2019

### Section-DSM -2 (continued)

# **Touchstone Energy Home**

# Performance Path-Level #2:

- Home must receive a HERS Index score of ≤79 75 (At least 24 30% more efficient than the KY standard built home).
- Home must receive pre-drywall inspection and complete Big Sandy RECC's pre-drywall checklist.
   (contact the Energy Advisor at Big Sandy RECC for a copy of the checklist)
- Home must receive a final inspection, pass a whole house air leakage test (<7 air changes per hour @50 pascals), and duct leakage test (<10% of the fan's rated capacity).
- Primary source of heat must be an Air Source Heat Pump ≥13SEER/7.5HSPF ≥ current Energy and Water conservation standard established by the Federal DOE or Geothermal.
- Home must pass 2009 IECC performance path.current energy code requirements established in the KY Residential Code.
- Water Heater must be an electric storage tank water heater that is <u>> current Energy and Water conservation standard established by the Federal DOE.90 (EF)</u>

### **Prescriptive Path Incentive**

Big Sandy RECC will provide an incentive of \$750 to residential members that build their new home to meet the requirements of either the Perscriptive Prescriptive or Performance Paths as listed above.

## Performance Path Level #1 Incentive

<Insert Coops Name> will provide an incentive of \$250 to residential members that build their new home to meet the requirements of the Performance Path Level #1 as listed above.

### Performance Path Level #2 Incentive

<Insert Coops Name> will provide an incentive of \$750 to residential members that build their new home to meet the requirements of the Performance Path Level #2 as listed above.

### Term

The program is an ongoing program.

DATE OF ISSUE:

January 30, 2019

DATE EFFECTIVE:

Service rendered on or after March 1, 2019

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| FOR All T  | erritory Served |    |
|------------|-----------------|----|
| PSC KY NO  | 34              |    |
| Original   | SHEET NO        | 18 |
| CANCELLING | PSC KY NO       |    |
|            | SHEET NO.       |    |

Big Sandy Rural Electric Cooperative (NAME OF UTILITY)

# Section DSM - Appliance Recycling Program

# **PURPOSE**

The Appliance Recycling Program ("ARP") offers an incentive for the removal and recycling of old energy-inefficient refrigerators and freezers resulting in lower energy consumption at the participating residences.

# **AVAILABILITY**

This program is available in all territories served by Big Sandy RECC.

# **ELIGIBILITY**

This program is targeted to existing single-family, multi-family, and manufactured homes that currently have old energy-inefficient refrigerators or freezers. The residential end-use cooperative member ("end-use member") may be eligible for this incentive by offering an existing refrigerator or freezer, subject to detailed eligibility requirements, to be picked-up and recycled. Detailed eligibility requirements are available at Big Sandy RECC and on Big Sandy RECC's website. General eligibility requirements are:

- Must be a residential end-use member of Big Sandy RECC;
- End-use member must own the appliance(s) being turned in for recycling;
- End-use member must be eligible for the incentive maximum two (2) incentives per metered account per calendar year;
- Appliance must be between 7.75 and 30 cubic feet;
- Appliance must be plugged in, operational, working and cooling when collection team arrives;
- Appliance must be empty and have a clear path for removal and
- Appliance must be picked up from the service address on the end-use member's billing account.

| DATE OF ISSUE       | January 13, 2015<br>MONTH/DATE/YEAR  |                 |
|---------------------|--------------------------------------|-----------------|
| DATE EFFECTIVE      | February 13, 2015<br>MONTH/DATE/YEAR | <u> </u>        |
|                     |                                      |                 |
| ISSUED-BY           | SIGNATURE-OF-OFFICER                 |                 |
| TITLE               | President & CEO                      | _               |
| BY AUTHORITY OF ORI | DER OF THE PUBLIC SERVICE COMMISS    | <del>ro</del> k |
| IN CASE NO.         | DATED                                |                 |

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| Cance  | lled                         |                     |  |                           |
|  | PSC KY                       | NO                  | 34                                       |                           |
| Big Sandy Rural Electric Cooperative   |                              |                     | _SHEET NO<br>PSC KY NO                   |                           |
| (NAME OF UTILITY)  |                              |                     | _SHEET NO                                |                           |
|  | . n                          |                     |  |                           |
| Schedule DSM – Appliance Red   | <del>eyenng Pro</del>        | <del>gram (</del>   | <del>cont.)</del>                        |                           |
| <u>LANDLORD/TENANT RELATIONSHIPS</u>   |                              |                     |  |                           |
| Notwithstanding the forgoing, a landlord who owns a quis an end-use member of Big Sandy RECC shall also be regardless of whether said landlord is also an end-use medigible for a maximum of two (2) incentives per metere | eligible to p<br>ember of Bi | particip<br>ig Sand | ate in the ARI<br><del>y RECC. A k</del> | program<br>andlord may be |
| PAYMENT  |                              |                     |  |                           |
| The end-use member will receive a \$50 incentive (reb Sandy RECC or its designated ARP contractor.   | <del>rate) per qu</del>      | alifyinį            | g appliance fr                           | om-either-Big             |
| <u>TERM</u>  |                              |                     |  |                           |
| The program is an ongoing program.   |                              |                     |  |                           |
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| ISSUED BY  |                              |                     |  |                           |
| SIGNATURE OF OFFICER  TITLE President & CEO  | _                            |                     |  |                           |
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BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION IN CASE NO. \_\_\_\_\_\_DATED\_\_\_\_\_

| Cancell   | ed   |
|---|--|
| Big Sandy Rural Electric Cooperative (NAME OF UTILITY)  | PSC KY NO5  Original SHEET NO133  CANCELLING PSC KY NOSHEET NO |
| Section DS  | <b>M</b>   |
| ENERGY STAR® Appl   | iance Program  |
| The ENERGY STAR® Appliance ("ESAP") Program off consumed by household appliances. The end-use cooper qualify for this incentive (rebate) by purchasing an ENE listed in this tariff.  | ative member ("end-use member") may                            |
| AVAILABILITY  This program is available in all territories served by Big S Sandy RECC").  | Sandy Rural Electric Cooperative ("Big                         |
| ELIGIBILTY  |  |
| This program is targeted to new single or multi-family homes or manufactured homes purchasing ENERGY STA are detailed below and are available at Big Sandy RECC (   | R <sup>®</sup> appliances. Eligibility requirements            |
| <ul> <li>Must be a residential end-user member of Big San</li> <li>Product must be certified by the Environmental Pr STAR® Appliance. Eligible models can be found</li> <li>Product must be purchased after October 15<sup>th</sup>, 201</li> <li>Product must be fully installed and operational;</li> </ul> | otection Agency ("EPA") as an ENERGY on ENERGYSTAR.GOV;        |
| DATE OF ISSUE December 10, 2014 MONTH/DATE/YEAR  DATE EFFECTIVE January 6, 2015 MONTH/DATE/YEAR   |  |
| ISSUED BYSIGNATURE OF OFFICER   | _  |

TITLE President & General Manager

IN CASE NO.\_\_\_\_\_DATED\_

BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION

FOR All Territory Served

| Se   | etion DSM—Continued      |
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|  | SHEET NO                 |
| Sandy Rural Electric Cooperative (NAME OF UTILITY) | CANCELLING PSC KY NO     |
|  | Original SHEET NO. 133.1 |
|  | PSC KY NO. 5             |
|  | FOR All Territory Served |

- Receipt must include the following information:
  - 1. Retailer's Name;
  - 2. Itemized listing of product(s), including description(s), manufacturer(s), model number(s) or other identifying information. The receipt information must match the product information from the rebate application;
  - 3. Purchase price and proof that full payment was made;
  - 4. Purchase date and date of delivery or installment (if installed by a contractor) and
  - 5. For new construction, a Big Sandy RECC advisor ("energy advisor") may enter the rebate application on behalf of the end-use member. For an application entered by the energy advisor, the application must be accompanied by a picture of the appliance model number and serial number. Rebate applications for new construction will only be accepted through an energy advisor.

# Refrigerators & Freezers

- Refrigerators must be greater than 7.75 cubic feet in capacity and at least 20% more energy efficient than the minimum federal government standard (NAECA).
- End-use members may apply for one ENERGY STAR® certified refrigerator and one ENERGY STAR® certified freezer rebate per calendar year per member metered account. A maximum of two (2) rebates within this appliance category (refrigerators and freezers) will be allowed per metered account.

| DATE OF ISSUE       | December 10, 2014            |         |
|---------------------|------------------------------|---------|
|                     | MONTH/DATE/YEAR              |         |
| DATE EFFECTIVE      | January 6, 2015              |         |
|                     | MONTH/DATE/YEAR              |         |
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| ISSUED BY           |                              |         |
|                     | SIGNATURE OF OFFICER         |         |
| TITLE Preside       | ent & General Manager        |         |
| TITLE               | on a donoral managor         |         |
| BY AUTHORITY OF ORD | ER OF THE PUBLIC SERVICE COM | MISSION |
| IN CASE NO          | DATED                        |         |

|   | FOR All Territory Served   |
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|   | PSC KY NO. 5   |
| Big Sandy Rural Electric Cooperative (NAME OF UTILITY)  | Original SHEET NO. 133.2  CANCELLING PSC KY NO. SHEET NO. SHEET NO.  |
| Section DSM Cont  | tinued .   |
| Dishwashers   |  |
| • End-use members may apply for one ENERGY :  | of two (2) rebates within this appliance category  |
| Clothes Washer  |  |
| <ul> <li>End use members may apply for one ENERGY sealendar year per metered account. A maximum (clothes washer) will be allowed per metered account.</li> </ul>  | of two (2) rebates within this appliance category  |
| Heat Pump Water Heater  • End-use members may apply for two ENERGY:  per-calendar year per premise/location. A maxim  category (Heat Pump Water Heaters) will be allo   | num of four (4) rebates within this appliance  |
| <ul> <li>Air Conditioner and Heat Pump</li> <li>Rebate application must be completed, signed an receipt and the Air Conditioning, Heating, and Robtained from the HVAC installer.         <ol> <li>AHRI certificate must list model numbers evaporator coil (indoor unit).</li> </ol> </li> <li>End use members may apply for up to three (3) I conditioner rebates per calendar year per premise.</li> </ul> | efrigeration Institute ("AHRI") certificate s for the condenser unit (outside unit) and ENERGY STAR® certified heat pumps or air |
| this appliance category (air conditioners and heat  |  |
|   |  |
| DATE OF ISSUE December 10, 2014  MONTH/DATE/YEAR  |  |
| DATE EFFECTIVE January 6, 2015  MONTH/DATE/YEAR   |  |
| ISSUED BYSIGNATURE OF OFFICER   |  |
| TITLE President & General Manager   |  |
| BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISS   | HON  |

IN CASE NO.\_

DATED\_

|   | FOR All Territory Served                                  |  |  |  |
|---|---|--|--|--|
|   | PSC KY NO. 5  |  |  |  |
| Big Sandy Rural Electric Cooperative (NAME OF UTILITY)  | Original SHEET NO. 133.3  CANCELLING PSC KY NO. SHEET NO. |  |  |  |
| Section DSM — Continued   |   |  |  |  |
| LANDLORD/TENANT RELATIONSHIPS:  |   |  |  |  |
| Notwithstanding the forgoing, a landlord who rents to a tenant who is an end-use member of Big Sandy RECC shall also be eligible to participate in the ESAP program regardless of whether said landlord is also an end-use member of Big Sandy RECC. A landlord may be eligible for the same number of incentives per calendar year as a metered tenant end-use member. |   |  |  |  |
| <u>PAYMENTS</u>   |   |  |  |  |
| Big Sandy RECC will provide an incentive (rebate) payment to the end-use member as noted in the following table:  |   |  |  |  |
| Appliances  | End-Use Member Rebate                                     |  |  |  |
| Refrigerator  | \$100   |  |  |  |
| Freezer   | <del>\$50</del>   |  |  |  |
| Dishwasher  | <del>\$50</del>   |  |  |  |
| Clothes Washer  | \$75  |  |  |  |
| Heat-Pump Water Heater  | <del>\$300</del>  |  |  |  |
| Air Source Heat Pump  | <del>\$300</del>  |  |  |  |
| Air Conditioner (Central)   | <del>\$300</del>  |  |  |  |
| TERM The program is an ongoing program.   |   |  |  |  |
|   | •   |  |  |  |
| DATE OF ISSUE December 10, 2014  MONTH/DATE/YEAR  |   |  |  |  |
| DATE EFFECTIVE January 6, 2015  MONTH/DATE/YEAR   |   |  |  |  |

SIGNATURE OF OFFICER

TITLE President & General Manager

IN CASE NO.\_\_\_\_\_DATED\_\_\_\_

BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION