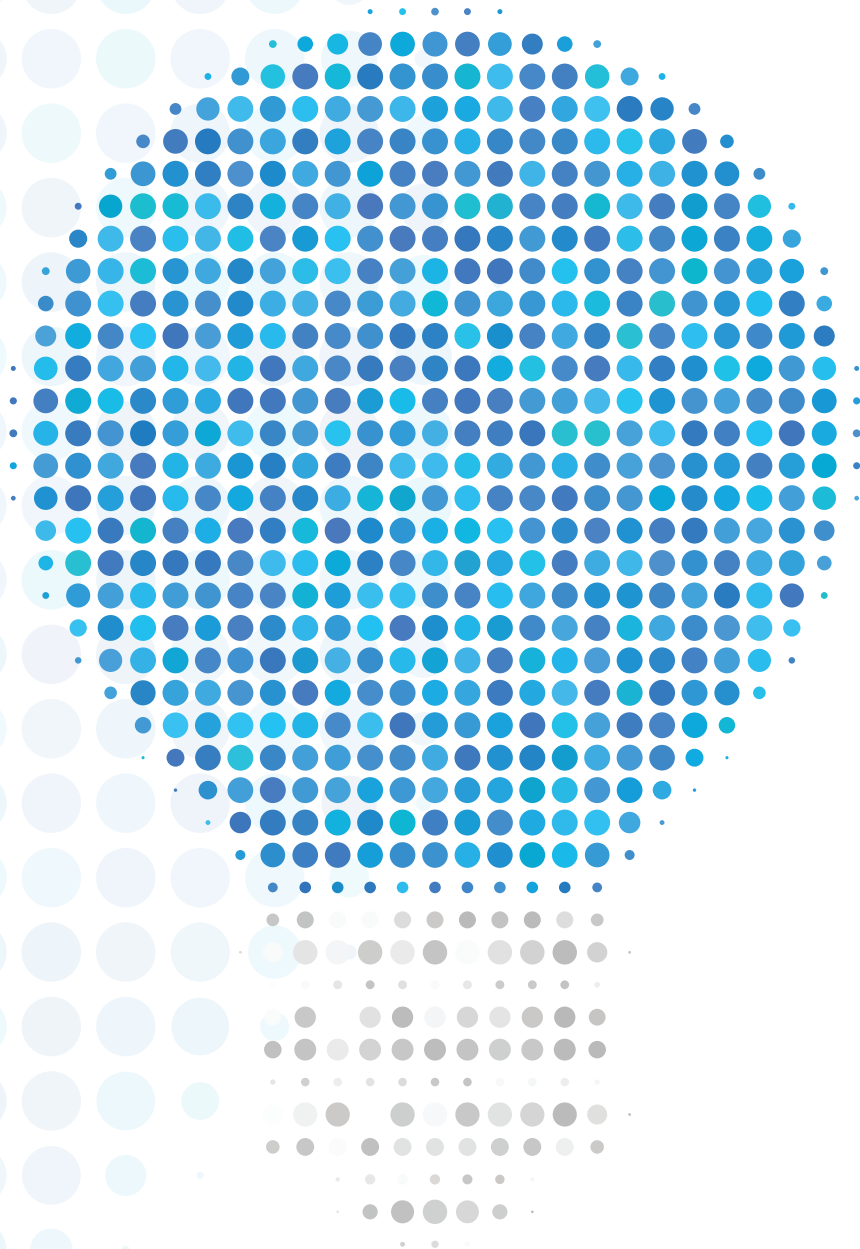


# DSM

Demand Side Management  
2019 Annual Report





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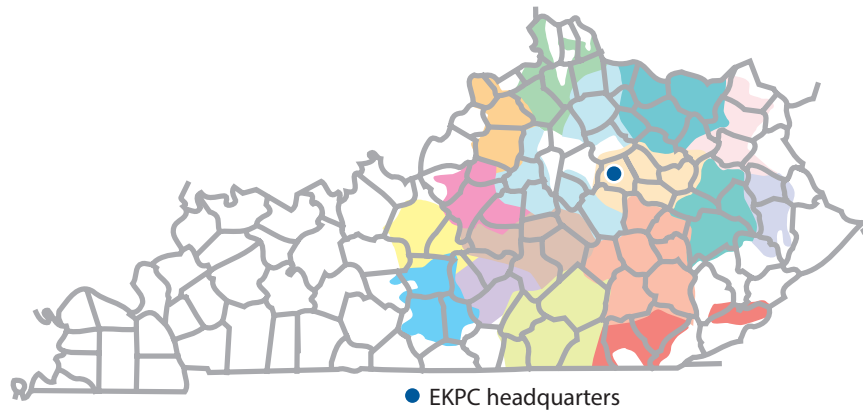
In 2019, the Kentucky Public Service Commission approved requests to sunset several Demand Side Management programs. Throughout the years, programs have been added, changed and discontinued to meet ever-evolving needs. When a program is no longer cost-effective for the membership, it becomes necessary to eliminate it. Our responsibility has always been to provide members with affordable energy, and we will continue to do so.

Discontinued programs include: HVAC Duct Sealing, ENERGY STAR Appliance Rebates, Appliance Recycling, commercial and industrial advanced lighting and industrial compressed air.

# Who We Are

Located in the heart of the Bluegrass state, East Kentucky Power Cooperative is a not-for-profit generation and transmission (G&T) electric utility with headquarters in Winchester, Ky. Our cooperative has a vital mission: to safely generate and deliver affordable, reliable electric power to 16 owner-member cooperatives serving more than one million Kentuckians.

Together, with our 16 owner-members, we're known as Kentucky's Touchstone Energy Cooperatives. The member co-ops distribute energy to over 530,000 Kentucky homes, farms, businesses and industries across 87 counties. We're leaders in energy efficiency and environmental stewardship. And we're committed to providing power to improve the lives of people in Kentucky.



## Sixteen distribution cooperatives, which are called the member systems, own EKPC. The 16 co-ops include:

- Big Sandy RECC
- Blue Grass Energy Cooperative
- Clark Energy Cooperative
- Cumberland Valley Electric
- Farmers RECC
- Fleming-Mason Energy Cooperative
- Grayson RECC
- Inter-County Energy
- Jackson Energy Cooperative
- Licking Valley RECC
- Nolin RECC
- Owen Electric Cooperative
- Salt River Electric Cooperative
- Shelby Energy Cooperative
- South Kentucky RECC
- Taylor County RECC

## East Kentucky Power Generation

<b>Coal</b>	<b>Generation</b>	<b>Natural Gas</b>	<b>Generation</b>	<b>Landfill</b>	<b>Generation</b>
Spurlock	1,346 net MW	Smith	Summer	Bavarian	4.6 net MW
Cooper	341 net MW	Combustion	753 net MW	Laurel Ridge	3.0 net MW
		Turbine	Winter	Green Valley	2.3 net MW
<b>Total</b>	<b>1,687 net MW</b>	Units	989 net MW	Pearl Hollow	2.3 net MW
		Bluegrass**	Summer	Pendleton	3.0 net MW
<b>Hydro</b>	<b>Generation</b>	Combustion	501 net MW	Glasgow***	0.9 net MW
Southeastern	170 MW	Turbine	Winter	<b>Total Landfill</b>	<b>16.1 net MW</b>
Power Adm. (SEPA)		Units	567 net MW		
		<b>Total Natural Gas Summer</b>	<b>1,254 net MW</b>	<b>SolarGeneration</b>	
		<b>Total Natural Gas Winter</b>	<b>1,556 net MW</b>	Cooperative Solar	8.5 net MW

\*\* Under an existing agreement, which continues until April 2019, a third party receives the output of one Bluegrass Generating Station unit.

\*\*\* Under an existing agreement, a third party receives the output of Glasgow in a 10-year power purchase agreement.

# Residential Lighting:

Since 2003, EKPC and its owner-member cooperatives have provided more than one million compact fluorescent lights (CFL) and light-emitting diodes (LED) bulbs to members.

**In 2019, cooperatives provided more than 53,540 LEDs to its members. Each member who participated in a free, online energy audit called BillingInsights™ received an LED, along with Annual Meeting attendees. These LEDs are expected to result in a lifetime savings of 10,280 MWh and 20,559,360 pounds of carbon dioxide emissions.**



# HVAC Duct Sealing:<sup>\*</sup>

Since the 1990s, EKPC and its owner-member cooperatives have offered this program to reduce the energy loss through a home's HVAC duct system. This program provides incentives to members who seal ductwork through traditional mastic sealers. Duct loss measurement requires the use of a blower door test (before and after the duct sealing work is performed). Duct leakage per system must be reduced to below 10 percent of the fan's rated capacity. All joints in the duct system must be sealed with foil tape and mastic. This program was targeted to single-family homes using electric furnaces or electric heat pumps. All participating homes must have duct systems that are at least two years old to qualify for the incentive. The program was offered only to homes that had centrally-ducted heating systems in unconditioned areas.

**In 2019, 7 HVAC Duct Sealing rebates were provided to members, resulting in a lifetime savings of 100 MWh and 199,296 pounds of carbon dioxide emissions.**

*\* This program was discontinued in 2019.*



# Button-Up Weatherization:\*

Since the early 1990s, EKPC and its owner-member cooperatives have offered this program to improve a home's energy efficiency, comfort, and reduce energy use. This program offers incentives to members who add insulation materials or use other weatherization techniques to reduce heat loss in the home. Any member who resides in a site-built or manufactured home that is at least two years old and uses electricity as their primary source of heat is eligible.

This program offers a whole-house approach with multiple levels.

## **Button-Up Weatherization with Air Sealing:**

*This version of the Button-Up encourages members to air seal the envelope of their home in addition to the regular Button-Up improvements. A blower door test is required to demonstrate the impact in kW demand reduction, and an added incentive is paid based on that reduction.*

## **Advanced Weatherization Level 2:**

*Level 2 encourages homeowners to address all of their home's inefficiencies at one time. The resulting BTUh savings can be as much as 150 percent of Button-Up Level I. Achieving this level of savings results in a greater incentive.*

## **Advanced Weatherization Level 3:**

*This version represents the highest level. Level 3 also encourages homeowners to address all of their home's inefficiencies at one time. The resulting BTUh savings can be as much as 200 percent of Button-Up Level I. Achieving this level of savings results in an even greater incentive.*



Levels 2 and 3 of this program are targeted to members who currently heat their home with electricity, particularly homes with unfinished basements, homes that have partition walls separating a crawl space or garage, and Cape Cod style homes (1.5 stories).

In 2019, 140 Button-Up rebates were provided to members, resulting in a lifetime savings of 4,975 MWh and 9,950,591 pounds of carbon dioxide emissions.

*\* This program was adjusted to one level in 2019, the Button-Up Weatherization with Air Sealing.*

# Touchstone Energy Home:

Since 2003, EKPC and its owner-member cooperatives have offered this program to increase energy efficiency in new-home construction. This program is designed to encourage new homes to be built to higher standards for thermal integrity and equipment efficiency, as well as to choose a geothermal or an air-source heat pump, rather than less efficient forms of heating and cooling. Homes built to Touchstone Energy Home standards typically use 30 percent less energy than the same home built to typical construction standards. Plans are submitted before the home is built, a pre-drywall inspection is made, and a blower door test is administered after the home is built to verify that the home meets the standard.

This program is targeted towards the residential new construction market and members who are constructing new site-built homes.

**In 2019, 298 Touchstone Energy Home rebates were provided to members, resulting in a lifetime savings of 17,645 MWh and 35,291,520 pounds of carbon dioxide emissions.**

EKPC's owner-members have also used this program to partner with Kentucky's affordable housing builders. Relationships with these organizations have led to improved efficiency in affordable housing and lower monthly energy costs for recipients of these homes.





## CARES:

The Community Assistance Resources for Energy Savings (CARES) program began in early 2015, and provides an incentive to enhance the weatherization and energy efficiency services provided to the end-use members by the Kentucky Community Action Agencies (CAA) network. EKPC and its owner-members provide an incentive to the CAA implementing the project on behalf of the end-use member.

This program is available to end-use members who qualify for weatherization and energy-efficiency services through their local CAA in all service territories of participating cooperatives. The maximum incentive possible per household is \$2,000.

**In 2019, 53 CARES incentives were provided, resulting in a lifetime savings of 3,761 MWh and 7,522,290 pounds of carbon dioxide emissions.**



## Heat Pump Retrofit:

For decades, EKPC and its owner-member cooperatives have offered this program to lower the cost of heating homes and increase comfort. This program provides incentives for members to replace their existing resistance heat source with a high-efficiency heat pump through three levels of rebates.

Level 1 offers a rebate for a 13 SEER/7.5 HSPF heat pump. Level 2 offers a rebate for a 14 SEER/8.0 HSPF heat pump. Level 3 offers a rebate for a 15 SEER/8.5 HSPF or higher heat pump. The existing heating system must be two years or older to qualify for incentives unless the heat pump is being installed in a new manufactured home. New manufactured homeowners who install a heat pump qualify based on the levels above.

The program is targeted to members who currently use a resistance heat source. Incentives are offered when the homeowner's primary source of heat is an electric resistance furnace, ceiling cable heat, or baseboard heat in both site-built and manufactured homes.

**In 2019, 380 Heat Pump Retrofit rebates were provided to members, resulting in a lifetime savings of 14,669 MWh and 29,337,400 pounds of carbon dioxide emissions.**





## Direct Load Control:<sup>\*</sup>

Since 2008, EKPC and its owner-member cooperatives have offered this program to manage peak usage. This program offers incentives to members who enroll central air-conditioners and electric water heaters. Switches are installed and, during periods of high demand, the utility briefly cycles the appliance off in order to reduce system peaks and save on costs for peak power. Although EKPC's system typically peaks in winter, member's heating appliances are not interrupted to lower peak. Member comfort and safety are top priority.

This program is targeted to any member with central air-conditioning, heat pump or electric tank water heaters, 40 gallons or greater.

**In 2019, 75 switches were installed, resulting in a reduction of 0.070 MW during the summer months and 0.004 MW in the winter.**

*\* Electric water heater switches are no longer being installed, due to program changes.*



## Appliance Recycling:<sup>\*</sup>

The Appliance Recycling program began in 2014 in an effort to encourage members to recycle old, inefficient refrigerators and freezers. Members receive a \$50 incentive for recycling refrigerators and/or freezers that meet qualifying conditions. The appliances must be in working condition, plugged in and running at scheduled pick-up, between 7.75 and 30 cubic feet, and empty and defrosted with water lines disconnected.

EKPC and its owner-member cooperatives partner with Appliance Recycling Centers of America, Inc. (ARCA) for proper recycling procedures that meet all federal and state requirements.

This program was available to all end-use members who qualify.

**In 2019, 117 incentives were provided to members, resulting in a lifetime savings of 624 MWh and 1,247,232 pounds of carbon dioxide emissions.**

*\* This program was discontinued in 2019.*



# ENERGY STAR Manufactured Home:

The ENERGY STAR Manufactured Home program began in 2014. An upstream program, EKPC works directly with the manufacturer to automatically upgrade the home to ENERGY STAR certified standards. EKPC utilizes a third-party administrator, Systems Building Research Alliance (SBRA), to verify information and ensure quality control.

Once the installation address is verified to be on a participating cooperative's service lines, the member will automatically receive the upgrade. An ENERGY STAR certified manufactured home is a home that has been designed, produced and installed by the home manufacturer to meet ENERGY STAR requirements for energy efficiency. These manufactured homes feature efficient heating and cooling equipment, water heaters, properly installed insulation, high-performance windows, tight construction and sealed ducts.

This program is available to all end-use members who qualify.

**In 2019, 20 rebates were provided to members, resulting in a lifetime savings of 3,347 MWh and 6,694,980 pounds of carbon dioxide emissions.**



# ENERGY STAR Appliance Rebate:\*

The ENERGY STAR Appliance Rebate program began in 2014 in an effort to encourage members to purchase new, energy-efficient appliances. EKPC and its owner-member cooperatives provide the incentives to members who purchase and install the ENERGY STAR certified appliances listed in the table.

This program was available to all end-use members who qualify.

**In 2019, 1,979 rebates were provided to members, resulting in a lifetime savings of 7,862 MWh and 15,725,866 pounds of carbon dioxide emissions.**

ENERGY STAR Appliances	Rebate
Refrigerator	\$100
Freezer	\$50
Dishwasher	\$50
Clothes Washer	\$75
Heat Pump Water Heater	\$300
Heat Pump	\$300
Central Air Conditioning	\$300

*\* This program was discontinued in 2019.*

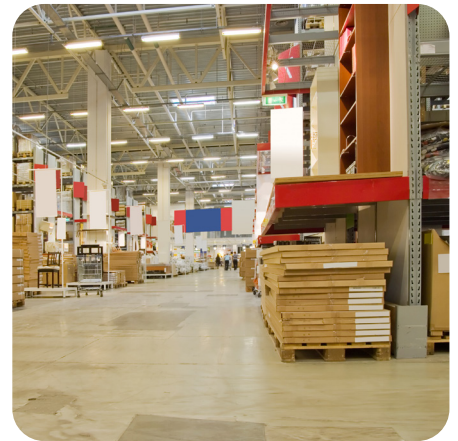
# Commercial Program:

## Commercial & Industrial Advanced Lighting

For several years, EKPC and its owner-member cooperatives have offered this program to improve lighting in commercial or industrial facilities. This program offers incentives to install high-efficiency lamps and ballasts, including, but not limited to, LED exit signs, T-5 fluorescent fixtures and advanced controls.

This program was targeted to any existing commercial or industrial facility in the service territory of a distribution cooperative. The facility and its lighting must have been in service for at least two years.

**In 2019, 81 C&I Advanced Lighting rebates were provided to members, resulting in a lifetime savings of 60,814 MWh and 121,628,063 pounds of carbon dioxide emissions.**



# Impact Measures:

## System summary of 2019 DSM program savings

### DSM program totals for installed measures in 2019

All programs	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Lifetime energy savings (MWh)	Cost of demand saved (\$/kW)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
All DSM Programs	57,001	10,623	1.845	2.168	\$3,707,613	\$1,150	125,375	0.031	250,750,124

### Appliance Recycling

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
Appliance Recycling	117	89	0.013	0.009	\$38,786	7	624	\$0.41	1,247,232

### Button-Up Weatherization

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
Button-Up level 1	129	238	0.056	0.184	\$100,492	15	3,576	\$0.03	7,152,232
Button-Up level 2	1	5	0.001	0.004	\$2,085	15	78	\$0.03	156,673
Button-Up level 3	10	88	0.021	0.068	\$26,250	15	1,321	\$0.02	2,641,686

### CARES

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
CARES	53	251	0.038	0.076	\$129,972	15	3,761	\$0.03	7,522,290

## Commercial and Industrial

C&I programs	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
Lighting upgrade	81	6,081	1.110	0.737	\$695,691	10	60,814	\$0.011	121,628,063

## Direct Load Control

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Cost of Demand saved (\$/KW)
DLC Air Conditioner	67	0.335	0.067	0	\$71,864.38	\$1,072.60
DLC Water Heater	8	0.08	0.003	0.004	\$8,580.82	\$2,898.93
DLC total	75	0.415	0.070	0.004	\$80,445.20	\$1,149.87

## Energy Audits

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
In-home	1	162	0.000	0.000	\$428	8	1,294	\$0.00	2,587,744
Online	310	1	0.000	0.000	\$132,572	5	3	\$45.86	5,782

## ENERGY STAR® Appliance Rebate

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
ES Heat Pump	359	293	0.110	0.000	\$218,731	15	4,402	\$0.05	8,803,800
ES Central Air Conditioner	59	21	0.020	0.000	\$16,261	15	309	\$0.05	618,930
ES Clothier Washer	354	94	0.008	0.019	\$34,610	12	1,126	\$0.03	2,251,200
ES Dishwasher	494	35	0.004	0.004	\$36,093	10	352	\$0.10	704,680
ES Freezer	82	4	0.001	0.000	\$4,308	12	46	\$0.09	91,656
ES Heat Pump Water Heater	74	86	0.008	0.020	\$17,909	13	1,115	\$0.02	2,230,800
ES Refrigerator	557	43	0.002	0.004	\$97,069	12	512	\$0.19	1,024,800

## ENERGY STAR® Manufactured Home

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
ES Manufactured Home	20	223	0.010	0.053	\$81,680	15	3,347	\$0.02	6,694,980

## Heat Pump Retrofit

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
Heat Pump	380	733	0.036	0.000	\$696,895	20	14,669	\$0.05	29,337,400

## HVAC Duct Seal

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
HVAC Duct Sealing	7	8	0.002	0.008	\$4,000	12	100	\$0.04	199,296

## Residential Lighting

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
LEDs	53,540	1,285	0.128	0.214	\$49,809	8	10,280	\$0.00	20,559,360

## Touchstone Energy Home

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
TSE Home Prescriptive	73	195	0.048	0.181	\$102,350	20	3,903	\$0.03	7,806,560
TSE Home Performance	225	687	0.158	0.582	\$323,400	20	13,742	\$0.02	27,484,960



## 2019 Basic Program Assumptions <sup>1</sup>

### Measure: Button-Up Level 1

Annual kWh Saved:	2,205
Winter Demand Savings:	1.71
Summer Demand Savings:	0.52
Lifetime of Savings:	15 years
Installation Rate:	100%
TRC: <sup>2</sup>	1.45

### Measure: Button-Up Level 2

Annual kWh Saved:	4,567
Winter Demand Savings:	3.53
Summer Demand Savings:	1.07
Lifetime of Savings:	15 years
<i>(Weighted mix of measures)</i>	
Installation Rate:	100%
TRC:	1.52

### Measure: Button-Up Level 3

Annual kWh Saved:	6,090
Winter Demand Savings:	4.71
Summer Demand Savings:	1.43
Lifetime of Savings:	15 years
<i>(Weighted mix of measures)</i>	
Installation Rate:	100%
TRC:	1.56

### Measure: Button-Up w/Air Seal

Annual kWh Saved:	3,045
Winter Demand Savings:	2.35
Summer Demand Savings:	0.720
Lifetime of Savings:	15 years
Installation Rate:	100%
TRC:	1.44

### Measure: HVAC Duct Sealing

For a typical heat pump in typical residence to same home reduced by 12% savings

Annual kWh Saved:	1,038
Winter Demand Savings:	1.07
Summer Demand Savings:	0.40
Lifetime of Savings:	12 years
Installation Rate:	100%
TRC:	1.15

### Measure: Heat Pump SEER 13

From Electric Furnace and Central Air to ENERGY STAR SEER 13, HSPF 7.5

Annual kWh Saved:	7,174
Winter Demand Savings:	0
Summer Demand Savings:	0.15
Lifetime of Savings:	20 years
Installation Rate:	100%
TRC:	1.52

### Measure: Heat Pump SEER 14

From Electric Furnace and Central Air to ENERGY STAR SEER 14, HSPF 8.0

Annual kWh Saved:	7,533
Winter Demand Savings:	0
Summer Demand Savings:	0.32
Lifetime of Savings:	20 years
Installation Rate:	100%
TRC:	1.32

### Measure: Heat Pump SEER 15

From Electric Furnace and Central Air to ENERGY STAR SEER 15, HSPF 8.5

Annual kWh Saved:	7,978
Winter Demand Savings:	0
Summer Demand Savings:	0.45
Lifetime of Savings:	20 years
Installation Rate:	100%
TRC:	1.08

#### Measure: Touchstone Energy Home

Prescriptive and Performance Level #2 – Encourages new homes to be built to a standard of at least SEER 14.5, HSPF 8.2; HERS Rating of 79 and below

Annual kWh Saved:	2,568
Winter Demand Savings:	2.48
Summer Demand Savings:	0.66
Lifetime of Savings:	20 years
Installation Rate:	100%
TRC:	1.98

#### Measure: Touchstone Energy Home

Performance Level #1 – Encourages new homes to be built to a standard of at least SEER 14.5, HSPF 8.2; HERS rating of 80-85

Annual kWh Saved:	1,758
Winter Demand Savings:	1.7
Summer Demand Savings:	0.45
Lifetime of Savings:	20 years
Installation Rate:	100%
TRC:	2.06

#### Measure: LEDs

Annual kWh Saved:	24
Winter Demand Savings:	0.0040
Summer Demand Savings:	0.0024
Lifetime of Savings:	8 years
Installation Rate:	80%
TRC:	2.13

#### Measure: Commercial Advanced Lighting

Unit is 1 kW connected load savings

Annual kWh Saved:	4,252
Winter Demand Savings:	0.45
Summer Demand Savings:	0.85
Lifetime of Savings:	10 years
Installation Rate:	100%
TRC:	2.22

#### Measure: Industrial Compressed Air

Annual kWh Saved:	3,800
Winter Demand Savings:	0.30
Summer Demand Savings:	0.75
Lifetime of Savings:	7 years
Installation Rate:	0
TRC:	1.62

#### Measure: Water Heater >40 gals

Annual kWh Saved:	10
Winter Demand Savings:	0.52
Summer Demand Savings:	0.37
Lifetime of Savings:	20 years
Installation Rate:	100%

#### Measure: Central Air Conditioning

Annual kWh Saved:	5
Winter Demand Savings:	0.0
Summer Demand Savings:	1.0
Lifetime of Savings:	20 years
Installation Rate:	100%

TRC for Load Control Program	2.68
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**Measure: ENERGY STAR® Appliances**

TRC: 1.49 in aggregate

**Measure: ENERGY STAR® Heat Pump**

Annual kWh Saved: 804  
 Winter Demand Savings: 0.00  
 Summer Demand Savings: 0.30  
 Lifetime of Savings: 20 years  
 Installation Rate: 100%

**Measure: ENERGY STAR® Central Air**

Annual kWh Saved: 529  
 Winter Demand Savings: 0.00  
 Summer Demand Savings: 0.52  
 Lifetime of Savings: 15 years  
 Installation Rate: 100%

**Measure: ENERGY STAR® Clothes Washer**

Annual kWh Saved: 350  
 Winter Demand Savings: 0.07  
 Summer Demand Savings: 0.03  
 Lifetime of Savings: 12 years  
 Installation Rate: 100%

**Measure: ENERGY STAR® Dish Washer**

Annual kWh Saved: 79  
 Winter Demand Savings: 0.01  
 Summer Demand Savings: 0.01  
 Lifetime of Savings: 10 years  
 Installation Rate: 100%

**Measure: ENERGY STAR® Freezer**

Annual kWh Saved: 67  
 Winter Demand Savings: 0.01  
 Summer Demand Savings: 0.01  
 Lifetime of Savings: 12 years  
 Installation Rate: 100%

**Measure: ENERGY STAR® Refrigerator**

Annual kWh Saved: 100  
 Winter Demand Savings: 0.01  
 Summer Demand Savings: 0.01  
 Lifetime of Savings: 12 years  
 Installation Rate: 100%

**Measure: ENERGY STAR® Heat Pump Water Heater**

Annual kWh Saved: 2,200  
 Winter Demand Savings: 0.51  
 Summer Demand Savings: 0.20  
 Lifetime of Savings: 13 years  
 Installation Rate: 100%

**Measure: Appliance Recycling**

Annual kWh Saved: 696  
 Winter Demand Savings: 0.07  
 Summer Demand Savings: 0.10  
 Lifetime of Savings: 7 years  
 Installation Rate: 100%  
 TRC: 2.01

**Measure: CARES**

Annual kWh Saved: 4,731  
 Winter Demand Savings: 1.44  
 Summer Demand Savings: 0.72  
 Lifetime of Savings: 15 years  
 Installation Rate: 100%  
 TRC: 1.34

**Measure: ENERGY STAR® Manufactured Home**

Annual kWh Saved: 11,947  
 Winter Demand Savings: 2.88  
 Summer Demand Savings: 0.51  
 Lifetime of Savings: 15 years  
 Installation Rate: 100%  
 TRC: 4.09

<sup>1</sup> Savings numbers are "ex ante" or as planned gross savings except where noted.  
<sup>2</sup> Total Resource Cost (TRC) is an overall program benefits/costs analysts ratio.





A Touchstone Energy Cooperative 

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