

# Business Energy Solutions Program



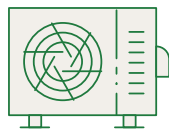
## INCENTIVES

Appalachian Power offers cash incentives for energy efficiency improvements that, in addition to reliable electric service at a reasonable cost, can make your place of business comfortable, productive and safe. You can help your bottom-line while being an environmental leader with our energy saving tips and programs.

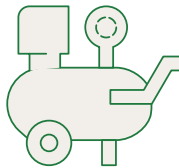
Businesses can fund up to 30% of their total project costs, with generous incentive maximums of \$100,000 each for lighting and non-lighting projects - for a total of \$200,000. Incentives are available for various projects, including:



LIGHTING



HVAC



COMPRESSED  
AIR



REFRIGERATION



KITCHEN  
EQUIPMENT

**Get started today!**

All lighting measures must be DLC or ENERGY STAR® certified and must replace an existing incandescent, fluorescent, CFL, or HID lamp or fixture with equivalent lumens. Retrofit kits shall replace all components of the existing fixture except the outer shell.

Please reference the numbered footnotes for specific details.

Lighting	Lighting Description	Incentive
<b>Exit Sign</b>	LED Exit Sign	\$10 each
<b>Recessed Downlight</b>	LED Recessed Downlight Luminaire: < 1,500 Lumens	\$3 per fixture
	LED Recessed Downlight Luminaire: 1,500 - 2,999 Lumens	\$9 per fixture
	LED Recessed Downlight Luminaire: 3,000 Lumens or Above	\$16 per fixture
<b>Screw-in Omnidirectional</b>	LED Standard A-Type (Medium-Base): < 1,500 Lumens	\$2 per lamp
	LED Standard A-Type (Medium-Base): 1,500 - 2,999 Lumens	\$4 per lamp
	LED Standard A-Type (Medium-Base): 3,000 Lumens or Above	\$6 per lamp
	LED 3-Way, Bug, Marine, Rough Service, Infrared: < 1,500 Lumens	\$2 per lamp
	LED 3-Way, Bug, Marine, Rough Service, Infrared: 1,500 or Above	\$4 per lamp
<b>Screw-in Directional</b>	LED Reflector (Medium-Base w/ Bulb Diameter ≤ 2.25"): 400 - 1,199 Lumens	\$2 per lamp
	LED ER30, BR30, BR40, or ER40 (Bulb Diameter > 2.26" and ≤ 2.5"): 400 - 649 Lumens	\$2 per lamp
	LED BR30, BR40, or ER40 (Bulb Diameter > 2.26" and ≤ 2.5"): 650 - 1419 Lumens	\$3 per lamp
	LED R20 (Bulb Diameter > 2.26" and ≤ 2.5"): 400 - 719 Lumens	\$2 per lamp
	LED Other R, PAR, ER, BR, BPAR, or Similar Bulb Diameter > 2.26" and ≤ 2.5": 540-999 Lumens	\$2 per lamp
	LED Other R, PAR, ER, BR, BPAR, or Similar Bulb Diameter > 2.26" and ≤ 2.5": 1,000-2,189 Lumens	\$4 per lamp
	LED Other R, PAR, ER, BR, BPAR, or Similar Bulb Diameter > 2.26" and ≤ 2.5": 2190 Lumens and Above	\$7 per lamp
	LED Other R, PAR, ER, BR, BPAR, or Similar Bulb Diameter >2.5": 640-1179 Lumens	\$2 per lamp
	LED Other R, PAR, ER, BR, BPAR, or Similar Bulb Diameter >2.5": 1,180-2,579 Lumens	\$4 per lamp
	LED Other R, PAR, ER, BR, BPAR, or Similar Bulb Diameter >2.5": 2,580 Lumens or Above	\$6 per lamp
	LED All Reflector Lamps Below Lumen Ranges Specified Above	\$1 per lamp
<b>Screw-in Decorative</b>	LED Decorative (Shapes B, BA, C, CA, DC, F, G, Any-Base, < 500 Lumens)	\$1 per lamp
	LED Decorative (Medium-Base, ≥ 500 Lumens)	\$3 per lamp
	LED Decorative (Candelabra or Intermediate-Base, ≥ 500 Lumens)	\$3 per lamp
	LED Globe (Any-Base, <500 Lumens)	\$1 per lamp
	LED Globe (Medium-Base, ≥ 500 Lumens)	\$3 per lamp
<b>Pin-Based</b>	LED Pin Based: < 1,499 Lumens	\$6 per lamp
	LED Pin Based: 1,500 - 2,999 Lumens	\$15 per lamp
	LED Pin Based: 3,000 Lumens or above	\$30 per lamp
<b>Troffer Luminaire and Retrofit Kit</b>	1x4 Tube or Strip LED Troffer	\$6 per fixture
	1x8 Tube or Strip LED Troffer	\$9 per fixture
	2x2 Tube or Strip LED Troffer	\$6 per fixture
	2x4 Tube or Strip LED Troffer	\$12 per fixture
	2x8 Tube or Strip LED Troffer	\$18 per fixture
	1x4 LED Troffer Retrofit Kit	\$7 per kit
	1x8 LED Troffer Retrofit Kit	\$9 per kit
	2x2 LED Troffer Retrofit Kit	\$7 per kit
	2x4 LED Troffer Retrofit Kit	\$14 per kit
2 x 8 LED Troffer Retrofit Kit	\$18 per kit	
<b>Linear Lamp</b>	LED Linear Replacement Lamp: 2 ft	\$4 per lamp
	LED Linear Replacement Lamp: 4 ft	\$6 per lamp
	LED Linear Replacement Lamp: 8 ft	\$8 per lamp
	LED Linear Replacement Lamp: 2 ft - Controlled by Occupancy Sensor <sup>1</sup>	\$7 per lamp
	LED Linear Replacement Lamp: 4 ft - Controlled by Occupancy Sensor <sup>1</sup>	\$11 per lamp
LED Linear Replacement Lamp: 8 ft - Controlled by Occupancy Sensor <sup>1</sup>	\$14 per lamp	

Please reference the numbered footnotes for specific details.

Lighting	Description	Incentive
<b>High/Low Bay Luminaire</b>	High-Bay Luminaires: 5,000 - 9,999 Lumens	\$25 per fixture
	High-Bay Luminaires: 10,000 - 19,999 Lumens	\$50 per fixture
	High-Bay Luminaires: 20,000 - 29,999 Lumens	\$100 per fixture
	High-Bay Luminaires: 30,000 - 39,999 Lumens	\$150 per fixture
	High-Bay Luminaires: 40,000 Lumens or Above	\$200 per fixture
<b>Exterior Lighting</b>	LED Omnidirectional: < 1,499 Lumens	\$2 per lamp
	LED Omnidirectional: 1,500 - 2,999 Lumens	\$6 per lamp
	LED Omnidirectional: 3,000 Lumens or Above	\$10 per lamp
	LED Directional: < 1,499 Lumens	\$2 per lamp
	LED Directional: 1,500 - 2,999 Lumens	\$6 per lamp
	LED Directional: 3,000 Lumens or Above	\$10 per lamp
	LED Decorative: < 1,499 Lumens	\$2 per lamp
	LED Decorative: 1,500 - 2,999 Lumens	\$6 per lamp
	LED Decorative: 3,000 Lumens or Above	\$10 per lamp
	LED Luminaires: 5,000 - 9,999 Lumens	\$13 per fixture
	LED Luminaires: 10,000 - 19,999 Lumens	\$25 per fixture
	LED Luminaires: 20,000 - 29,999 Lumens	\$50 per fixture
	LED Luminaires: 30,000 - 39,999 Lumens	\$75 per fixture
	LED Luminaires: 40,000 Lumens or Above	\$100 per fixture
<b>Refrigerated Case Lighting</b>	Refrigerated Case Lighting: 4 ft - Cooler	\$25 per fixture
	Refrigerated Case Lighting: 5 ft - Cooler	\$31 per fixture
	Refrigerated Case Lighting: 6 ft - Cooler	\$37 per fixture
<b>Delamping</b>	Delamping	\$200 per 1000 watts removed
Lighting Controls	Description	Incentive
<b>Controls</b>	Dual Daylight & Occupancy Sensor	10¢ per watt controlled
	Daylight Continuous Dimming Control	10¢ per watt controlled
	Luminaire Level Lighting Control with Local or Cloud Server	14¢ per watt controlled
	Occupancy Sensor: Wall, Fixture, or Remote-Mounted: ≤ 200 Watts Controlled	10¢ per watt controlled
	Occupancy Sensor: Wall, Fixture, or Remote-Mounted: ≥ 200 Watts Controlled	\$60 per sensor
HVAC <sup>2</sup>		Incentive
<b>Minimum Requirements</b>		
Packaged Terminal Heat Pumps < 7 kBtu/h	≥ 13 EER & ≥ 3.5 COP	\$20 per unit
Packaged Terminal Heat Pumps ≥ 7 and < 15 kBtu/h	≥ 12 EER & ≥ 3.4 COP	
Packaged Terminal Heat Pumps ≥ 15 kBtu/h	≥ 10.7 EER & ≥ 3.4 COP	
Packaged Terminal Air Conditioners < 7 kBtu/h	≥ 13 EER	\$15 per unit
Packaged Terminal Air Conditioners ≥ 7 and < 15 kBtu/h	≥ 12 EER	
Packaged Terminal Air Conditioners ≥ 15 kBtu/h	≥ 10.1 EER	
Single Package Vertical Heat Pumps ≤ 5.4 tons	≥ 12 EER & ≥ 3.5 COP	\$15 per ton
Single Package Vertical Heat Pumps > 5.4 and ≤ 11.25 tons	≥ 12 EER & ≥ 3.5 COP	
Single Package Vertical Air Conditioners ≤ 5.4 tons	≥ 12 EER	\$12 per ton
Single Package Vertical Air Conditioners > 5.4 and ≤ 11.25 tons	≥ 12 EER	
Air Source Heat Pumps - Split and Single Package ≤ 5.4 tons	≥ 17.5 SEER or ≥ 16.7 SEER2 & ≥ 9.2 HSPF or ≥ 7.9 HSPF2	\$15 per ton
Air Source Heat Pumps - Split and Single Package > 5.4 and ≤ 11.25 tons	≥ 17 IEER & ≥ 3.6 COP	\$20 per ton
Air Source Heat Pumps - Split and Single Package > 11.25 and ≤ 20 tons	≥ 16 IEER & ≥ 3.4 COP	
Air Source Heat Pumps - Split and Single Package > 20 tons	≥ 15 IEER & ≥ 3.4 COP	
Water Source Heat pump ≤ 1.4 tons	≥ 17 EER & ≥ 5 COP	\$15 per ton
Water Source Heat pump > 1.4 and ≤ 5.4 tons	≥ 17.5 EER & ≥ 5 COP	
Water Source Heat pump > 5.4 and ≤ 11.25 tons	≥ 17.5 EER & ≥ 5 COP	

Please reference the numbered footnotes for specific details.

HVAC <sup>2</sup>		Minimum Requirements	Incentive
Air Conditioners - Split and Single Package ≤ 5.4 tons		≥ 17.5 SEER or ≥ 16.7 SEER2	\$15 per ton
Air Conditioners - Split and Single Package > 5.4 and ≤ 11.25 tons		≥ 17 IEER	
Air Conditioners - Split and Single Package > 11.25 and ≤ 20 tons		≥ 16 IEER	
Air Conditioners - Split and Single Package > 20 and ≤ 63.3 tons		≥ 15 IEER	
Air Cooled Chillers ≤ 150 tons		≥ 16 EER @ IPLV	\$8 per ton
Water Cooled Chillers - Positive Displacement ≤ 75 tons		≤ 0.51 kW/ton @ IPLV	\$5 per ton
Water Cooled Chillers - Positive Displacement > 75 and ≤ 120 tons		≤ 0.48 kW/ton @ IPLV	\$5 per ton
Water Cooled Chillers - Centrifugal ≤ 150 tons		≤ 0.40 kW/ton @ IPLV	\$10 per ton
Ductless, Mini Split Air Conditioners ≤ 5.4 tons		≥ 17.5 SEER	\$10 per ton
Ductless, Mini Split Heat Pumps ≤ 5.4 tons		≥ 17.5 SEER & ≥ 9.2 HSPF	\$15 per ton
HVAC Controls	Description		Incentive
<b>Economizers<sup>3</sup></b>	Dual Enthalpy Economizer ≤ 5 tons		\$18 per control
	Dual Enthalpy Economizer > 5 tons		\$55 per control
<b>Smart Thermostats<sup>4</sup></b>	Smart Thermostat - AC and Electric Resistance Heat		\$30 each
	Smart Thermostat - AC and Heat Pump		\$20 each
	Smart Thermostat - AC and Gas Heat		\$12 each
<b>EC Motors</b>	EC Motors-Hydronic Heating Pumps <1 HP		\$85 each
	EC Motors-Hydronic Heating Pumps ≥ 1HP and ≤ 10 HP		\$275 per HP
	EC Motors-Hydronic Cooling Pumps <1 HP		\$35 each
	EC Motors-Hydronic Cooling Pumps ≥ 1HP and ≤ 10 HP		\$115 per HP
	EC Motors-Hydronic DHW Pumps <1 HP		\$45 each
	EC Motors-Hydronic DHW Pumps ≥ 1HP and ≤ 10 HP		\$140 per HP
HVAC Misc.	Description		Incentive
<b>Fan Belts</b>	Notched Belt for HVAC		\$30 each
	Synchronous Belt for HVAC		\$80 each
<b>Tune-Ups<sup>5</sup></b>	Chiller Tune-Up		\$3 per ton
	HVAC Tune-Up		\$4 per ton
VFD	Description		Incentive
<b>VFD for HVAC Application<sup>6</sup></b>	VFD: Fan or Pump		\$150 per HP
Hot Water	Description		Incentive
<b>Water Heater</b>	Hot Water ENERGY STAR Heat Pump Electric Storage Water Heater ≤ 55 Gallons		\$80 each
	Hot Water ENERGY STAR Heat Pump Electric Storage Water Heater > 55 Gallons		\$90 each
Compressed Air	Description		Incentive
<b>Condensate Drains<sup>7</sup></b>	Compressed Air No-Loss Condensate Drains		\$225 each
<b>VSD Air Compressor<sup>8</sup></b>	VSD Air Compressor		\$42.50 per HP
<b>Air Nozzle<sup>9</sup></b>	Air Nozzle		\$50 each
<b>Thermal Mass Dryer<sup>10</sup></b>	Cycling Refrigerated Thermal Mass Dryer		12¢ per kWh saved
<b>Storage Tank<sup>11</sup></b>	Storage Tanks for Load/No Load Screw Compressors		12¢ per kWh saved
<b>Plant Optimizer<sup>24</sup></b>	Compressed Air Plant Optimizer	<b>NEW</b>	12¢ per kWh saved

Please reference the numbered footnotes for specific details.

Kitchen	Description	Incentive
<b>Pre-Rinse Spray Valve</b> <sup>12</sup>	Pre-Rinse Spray Valve 1.15 GPM: Electric Water Heating: Full Service Restaurant	\$100 each
	Pre-Rinse Spray Valve 1.15 GPM: Electric Water Heating: Limited Service (Fast Food) Restaurant	
	Pre-Rinse Spray Valve 1.15 GPM: Electric Water Heating: Other Facility	
<b>Commercial Griddle</b> <sup>13</sup>	Electric Commercial Griddle	\$500 each
<b>Commercial Fryer</b> <sup>13</sup>	Electric Fryer: Standard Size	\$200 each
	Electric Fryer: Large Vat	
<b>Commercial Steam Cooker</b> <sup>13</sup>	Steam Cooker: Steam Generator Baseline	\$1,200 each
	Steam Cooker: Boiler Based Baseline	
<b>Commercial Oven</b> <sup>13</sup>	Electric Commercial Ovens: Convection, Half Size	\$100 each
	Electric Commercial Ovens: Convection, Full Size	\$400 each
	Electric Commercial Ovens: Combination, Pans <15	\$800 each
	Electric Commercial Ovens: Combination, Pans ≥15	\$1,000 each
<b>Commercial Dishwasher</b> <sup>13</sup> (Electric Hot Water Only)	Dishwasher: Low Temperature Under Counter	\$280 each
	Dishwasher: Low Temperature Stationary Single Tank Door	\$1,000 each
	Dishwasher: Low Temperature Single Tank Conveyor	\$1,200 each
	Dishwasher: Low Temperature Multi Tank Conveyor	\$1,500 each
	Dishwasher: High Temperature Under Counter	\$350 each
	Dishwasher: High Temperature Stationary Single Tank Door	\$1,300 each
	Dishwasher: High Temperature Single Tank Conveyor	\$1,000 each
	Dishwasher: High Temperature Multi Tank Conveyor	\$2,000 each
	Dishwasher: Pot, Pan, and Utensil	\$370 each
Refrigeration	Description	Incentive
<b>ECM Motor Retrofits</b> <sup>14</sup>	Cooler <0.0667 HP [<1/15 HP]	\$75 each
	Cooler 0.0667 - <0.25 HP [1/15 - <1/4 HP]	\$260 each
	Cooler 0.025 - <0.5 HP [1/4 - <1/2 HP]	\$400 each
	Cooler >0.5 HP [> 1/2 HP]	\$550 each
	Freezer <0.0667 [<1/15 HP]	\$75 each
	Freezer 0.0667 - <0.25 HP [1/15 - <1/4 HP]	\$260 each
	Freezer 0.025 - <0.5 HP [1/4 - <1/2 HP]	\$400 each
	Freezer >0.5 HP [> 1/2 HP]	\$550 each
<b>Anti-Sweat Heater Control</b> <sup>15</sup>	Anti-Sweat Heater Control: Cooler, On/Off Controls	\$100 per door
	Anti-Sweat Heater Control: Cooler, Micropulse Controls	\$100 per door
	Anti-Sweat Heater Control: Freezer, On/Off Controls	\$120 per door
	Anti-Sweat Heater Control: Freezer, Micropulse Controls	\$120 per door
<b>Automatic Door Closer</b> <sup>16</sup>	Automatic Door Closer: Cooler	\$100 each
	Automatic Door Closer: Freezer	\$150 each
<b>Vending Machine Controls</b> <sup>17</sup>	Vending Machine Control: Refrigerated	\$100 each
	Vending Machine Control: Glass Front Refrigerated Cooler	\$100 each
	Vending Machine Control: Non Refrigerated	\$20 each
<b>Door Gasket</b> <sup>18</sup>	Door Gasket: Reach-in Cooler	\$2 per linear foot
	Door Gasket: Walk-in Cooler	
	Door Gasket: Reach-in Freezer	\$4 per linear foot
	Door Gasket: Walk-in Freezer	
<b>Night Cover</b> <sup>19</sup>	Night Cover for Vertical Refrigerated Case	\$22 per linear ft

Please reference the numbered footnotes for specific details.

Refrigeration	Description	Incentive
<b>Commercial Freezer<sup>13</sup></b>	Solid Door Commercial Freezer < 15 cubic feet (AHAM interior volume)	\$65 each
	Solid Door Commercial Freezer 15 - <30 cubic feet (AHAM interior volume)	\$65 each
	Solid Door Commercial Freezer 30 - <50 cubic feet (AHAM interior volume)	\$80 each
	Solid Door Commercial Freezer 50 - 90 cubic feet (AHAM interior volume)	\$110 each
	Glass Door Commercial Freezer < 15 cubic feet (AHAM interior volume)	\$50 each
	Glass Door Commercial Freezer 15 - <30 cubic feet (AHAM interior volume)	\$90 each
	Glass Door Commercial Freezer 30 - <50 cubic feet (AHAM interior volume)	\$140 each
	Glass Door Commercial Freezer 50 - 90 cubic feet (AHAM interior volume)	\$225 each
	Glass Door Chest Freezers any size	\$60 each
	Solid Door Chest Freezers any size	\$60 each
<b>Display Case Doors</b>	Display Case Doors on Open Display Cases	\$25 per linear foot
<b>Controls</b>	Glass Front Refrigerated Cooler Control	\$80 each
	Floating Head Pressure Controls	\$55 per ton
	Evaporator Fan Motor Control Walk-in or Reach-in Cooler	\$55 per motor
	Evaporator Fan Motor Control Walk-in or Reach-in Freezer	\$70 per motor
<b>Compressor</b>	Variable Speed Refrigeration Compressor	\$200 per ton
<b>Misc.</b>	<b>Description</b>	<b>Incentive</b>
<b>Appliances &amp; Plug Load</b>	Advanced Power Strip	\$2 each
	Commercial Ice Machines 0-100 lbs/day	\$10 each
	Commercial Ice Machines 101-250 lbs/day	\$20 each
	Commercial Ice Machines 251-500 lbs/day	\$40 each
	Commercial Ice Machines 501-1000 lbs/day	\$80 each
	ENERGY STAR Computers	\$8 each
	ENERGY STAR Imaging	\$14 each
	ENERGY STAR Uninterruptible Power Supplier (UPS)	\$13 per kVA
	Small Network PC Controller	\$25 per PC controlled
<b>Other</b>	<b>Description</b>	<b>Incentive</b>
<b>Agriculture</b>	Engine Block Heat Timer	\$50 per heater
	Automatic Milker Take Off <sup>20</sup>	\$225 each
	Dairy Scroll Compressor <sup>21</sup>	\$450 each
	Heat Reclaimers <sup>22</sup>	\$1,000 each
	Livestock Waterer	\$35 each
	Dairy Vacuum Pump VSD Controls	\$330 each
	Low Pressure Irrigation Agriculture <sup>23</sup>	\$20 per acre
	Low Pressure Irrigation Golf Course <sup>23</sup>	

- 1 All LED linear lamp replacements shall be controlled by an occupancy sensor. Occupancy sensors may be used to control multiple fixtures/lamps. This incentive may not be combined with the occupancy sensor incentive.
- 2 All HVAC equipment must meet or exceed ASHRAE 90.1 - 2019 requirements. AHRI certificate and specification sheets must be provided for all new HVAC equipment.
- 3 HVAC systems with existing economizers are not eligible.
- 4 Thermostat shall be an ENERGY STAR certified smart thermostat.
- 5 Tune-Up projects require completion of the program Tune-Up checklist.
- 6 Motor(s) being controlled must be 200 HP or less and operate a minimum of 2,000 hours per year. Incentives are available for VFDs only in a retrofit situation where no VFD has been in use previously. Replacement of failed VFDs are not eligible for incentives.
- 7 Requires baseline conditions of compressed air systems with standard condensate drains operated by a solenoid and/or timer.
- 8 Limited to 200 HP or less. Eligible unit must be a screw compressor with variable speed control to match motor output to load. Backup compressors are not eligible. Please contact the program for units greater than 200 HP.
- 9 Must replace continuous open blow-offs. Must meet SCFM rating at 80 psig less than or equal to: 1/8" 11 SCFM, 1/4" 29 SCFM, 5/16" 56 SCFM, or 1/2" 140 SCFM.
- 10 Unit must replace non-cycling (e.g., continuous) air dryer with a capacity of 600 CFM or below. The replacement of desiccant, deliquescent, heat-of-compression, membrane, or other types of dryers does not qualify under this measure.
- 11 Requires the installation of new air receivers for load/no-load compressors that increases total system storage by at least 3 gal/CFM.
- 12 Must meet GPM requirements and facility must use electric hot water.
- 13 Must be ENERGY STAR certified and replace an existing unit.
- 14 Must replace an existing PSC motor. Upgrade should not be installed if existing equipment is near end of its service life or very low efficiency, in which case full equipment replacement is recommended.
- 15 Must be installed on a commercial glass door cooler or freezer with a standard heated door running 24 hours a day, seven days per week (24/7) with no controls installed.
- 16 Must be installed in unit with no existing auto closer. The walk-in door perimeter must be ≥ 16 feet.
- 17 Must be installed on an existing standard refrigerated beverage vending machine that does not contain control systems to shut down the refrigeration components and lighting during times of low customer use. This measure can not be applied to ENERGY STAR qualified vending machines as they already have built-in controls.
- 18 Old and/or damaged gasket must have at least six inches of damage for reach-in units and at least two feet of damage for walk-in units.
- 19 Must be installed on a unit with no existing night cover.
- 20 Automatic milker takeoffs must replace existing manual takeoffs on dairy milking pump systems. The vacuum pump system must be equipped with a variable speed drive (VSD).
- 21 Must replace an existing reciprocating compressor or to be installed in a new construction application.
- 22 Only dairy parlors with electric water heating equipment are eligible.
- 23 Requires a minimum of 50% reduction in irrigation pumping pressure through the installation of a low-pressure irrigation system in agriculture or golf course applications.
- 24 Plant optimizer must include a master controller programmed to control and sequence multiple air compressors. To be eligible, the controller must be installed in a system that operates at least 6,240 hours per year where no existing master controller exists.