

Energy Efficiency @ Appalachian Power

Governor's Energy Summit
Stonewall Jackson Resort
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The Supply Side— it's where you get your Energy.

Supply comes from generation powered by coal, gas, hydroelectric and more recently wind powered generation.

The Demand side (usage) of the equation. It's how you *use* your energy. This side also abounds with options that the consumer controls from process to application. Most all options hinge on some form of cost/benefit evaluation.

What is DSM?



Demand Side

Supply Side

Energy Conservation
Energy Efficiency
Demand Response



Base Load Power Plant



Contract Spot Market
Transmission & Distribution
Peaking Plant



- **Helping customers control usage**
- **Environmental concerns**
- **Global competition for energy**
- **Aging infrastructure**
- **Economic impact**

- **SMART Lighting**
- **Commercial & Industrial Prescriptive**
- **Home Audit & Retrofit**
- **Low Income Weatherization**

- Program designed to promote the use of high efficient lighting
- Participants receive an instant discount at point of purchase on qualifying CFL bulbs
- Goal for the first 2 years of the program is 600,000 bulbs that will result in a decrease in usage of 29,937,000 kWh
- To date we have sold 358,000 bulbs through the program



- Program designed to promote the use of high efficient lighting & HVAC Products
- Participants receive rebates on a prescribed list of qualifying products
- Goal for the first two years of the program is reduced energy usage of 75,548,000 kWh
- To date we have provided \$628,930 in rebates for energy efficient projects through the program



HVAC Rebates Available

Appalachian Power Commercial and Industrial HVAC and VFD Rebates

Equipment Type	Size Range	Minimum Qualifying Efficiency	Incentive per ton
PTAC	All Sizes	13.08 - (0.2556 x BTUh/1000) EER	\$ 30
Unitary and Split Air Conditioning Units and Air Source Heat Pumps	< 65,000 BTUh (5.4 tons)	15.0 SEER	\$ 40
	≥ 65,000 BTUh (5.4 tons) and < 240,000 BTUh (20 tons)	12.0 EER	\$ 40
	≥ 240,000 BTUh (20 tons) and < 760,000 BTUh (63.33 tons)	10.8 EER	\$ 40
	≥ 760,000 BTUh (63.33 tons)	10.2 EER	\$ 40
Water Cooled Chillers	≤ 150 tons, centrifugal	0.7 kW/ton and 0.57 IPLV	\$ 30
	≤ 150 tons, screw	0.79 kW/ton and 0.62 IPLV	\$ 30
	> 150 tons and ≤ 300 tons, centrifugal	0.63 kW/ton and 0.51 IPLV	\$ 30
	> 150 tons and ≤ 300 tons, screw	0.72 kW/ton and 0.57 IPLV	\$ 30
	> 300 tons, centrifugal	0.58 kW/ton and 0.47 IPLV	\$ 30
	> 300 tons, screw	0.64 kW/ton and 0.51 IPLV	\$ 30
Air Cooled Chillers	All Sizes, reciprocating or screw	3.12 IPLV	\$ 30
VFD	HVAC Fan, HVAC Pump, Process Pump	N/A	\$40/hp
Programmable Thermostat	5 day, 7 day, 5-1-1 day	N/A	\$25/thermostat

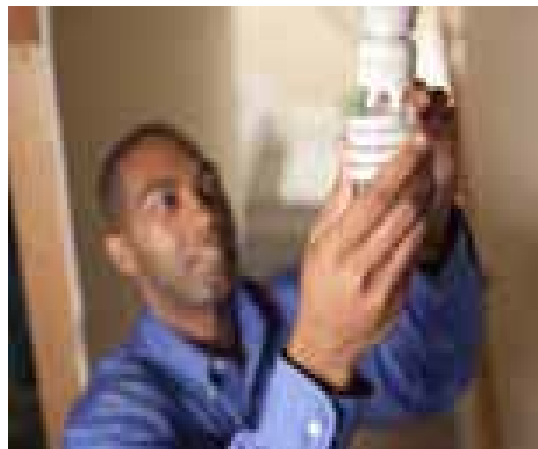
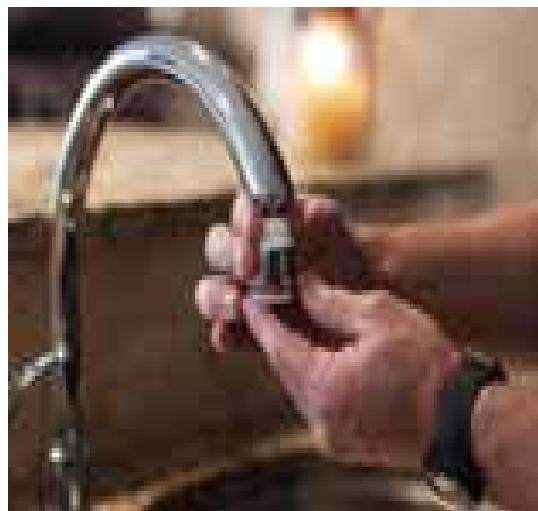


Lighting Rebates Available

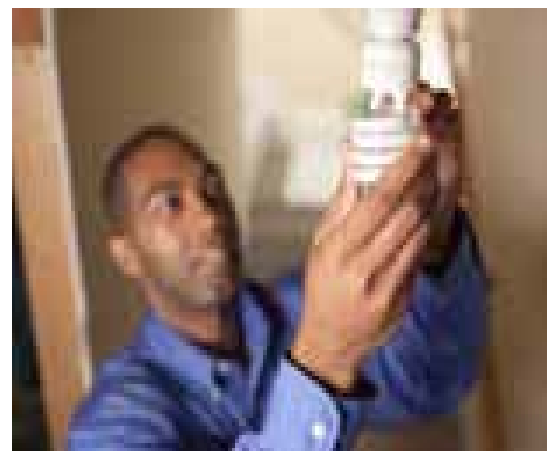
Appalachian Power Measures for Commercial Lighting Rebate Program

Item Number	New Fixture *Minimum Annual Operating Hours = 1500*	Replaces	Rebate per Item
T8 with Electronic Ballast			
1	T8 - 8ft 1 lamp	T12	\$ 9
2	T8 - 8ft 2 lamp	T12	\$ 10
3	T8 - 4ft 4 lamp	T12	\$ 10
4	T8 - 4ft 3 lamp	T12	\$ 9
5	T8 - 4ft 2 lamp	T12	\$ 5
6	T8 - 4ft 1 lamp	T12	\$ 3
7	T8 - 3ft 4 lamp	T12	\$ 5
8	T8 - 3ft 3 lamp	T12	\$ 3
9	T8 - 3ft 2 lamp	T12	\$ 3
10	T8 - 3ft 1 lamp	T12	\$ 3
11	T8 - 2ft 4 lamp	T12	\$ 6
12	T8 - 2ft 3 lamp	T12	\$ 5
13	T8 - 2ft 2 lamp	T12	\$ 3
14	T8 - 2ft 1 lamp	T12	\$ 2

- Program designed to educate customers on ways to conserve energy and incentives to encourage them to take action
- Participants receive a free walk-through audit including CFL lights, and an opportunity to get rebates for prescribed measures
- Goals for the first two years of the program are 6250 audits and a reduction in usage of 13,492,000 kWh
- To date we have performed 1,095 audits



- This program will be administered by the Governor's office of Economic Opportunity
- Program utilizes weatherization agencies operating in APCo's service territory to provide the services
- Participants receive a comprehensive evaluation of their home, efficiency upgrades will be installed free of charge, and customer's will be educated on usage reduction
- Goal for the program is a reduction in usage of 1,394,000 kWh





Program Details available @

appalachianpower.com/save/programs/

Depends on:

- **Economy and demand for energy**
- **Environmental controls**
- **Regulatory treatment**
- **Technology advancements**

Questions?