

FY 2013 Capital Improvement Program

Energy Efficiency Initiative

HVAC Incentive Application (Attachment 4a)



Instructions: 1) Review the minimum efficiency requirements and select high efficiency equipment meeting or exceeding the minimum required efficiency. 2) Download the latest version of Adobe Reader, available at <http://get.adobe.com/reader/?promoid=BUIGO> 3) Complete this application and submit along with the capital improvement program application. 4) Include the following as attachments to the application:

- Equipment specification sheets for all equipment that demonstrate compliance with efficiency requirements.
- Application material and written approval of utility incentives, where available. Note that if a utility incentive is available for your project, you must apply for it. If written approval of the rebate cannot be obtained, present evidence that an effort was made to obtain an available rebate and did not succeed, or evidence that no rebate is available.
- Please include a separate application for each project.

Incentives: Equipment meeting the minimum efficiency requirements will be eligible for up to 15% of construction cost, reduced by utility incentives. Note that the total funding from this FY13 CIP-EEI incentive and the regular FY14 CIP state match cannot exceed 98% of project cost, reduced by utility incentives. The minimum project size is \$100,000.

PROJECT INFORMATION

LEA					
School Name and Project Type		Priority Number		Date	
Brief Project Description					

MINIMUM EFFICIENCY REQUIREMENTS

SPLIT OR PACKAGED HVAC (INCLUDES HEAT PUMPS AND VARIABLE REFRIGERANT FLOW SYSTEMS)

Size (tons)	System Type	Minimum Efficiency			
		Air Cooled	Water Cooled	Geothermal	VRF
<5.4	Split	15.0 SEER and 12.5 EER	14.0 EER	17.1 EER	14.0 SEER and 12.0 EER
	Packaged	15.0 SEER and 12.0 EER	14.0 EER	17.1 EER	N/A
≥5.4 and <11.25	Split or Packaged	12.0 EER and 12.2 IEER	14.0 EER	17.1 EER	11.3 EER and 14.2 IEER
≥11.25 and <20	Split or Packaged	12.0 EER and 12.2 IEER	14.0 EER	17.1 EER	10.9 EER and 13.7 IEER
≥20 and <63.3	Split or Packaged	10.85 EER and 11.0 IEER	14.0 EER	17.1 EER	10.3 EER and 12.5 IEER
≥63.3	Split or Packaged	10.2 EER and 10.3 IEER	14.0 EER	17.1 EER	10.3 EER and 12.5 IEER

THROUGH THE WALL UNITS (PTACs AND PTHPs)

Size (tons)	Minimum Efficiency	
	PTAC	PTHP
<0.75	11.8 EER	11.5 EER and 3.3 COP
≥0.75 and <1.0	11.0 EER	10.8 EER and 3.2 COP
≥1.0	10.3 EER	10.1 EER and 3.1 COP

CHILLERS

Chiller Type	Size	Minimum Efficiency	
		Full Load	IPLV
Air Cooled	All Sizes	10.2 EER	N/A
Water Cooled Reciprocating	All Sizes	.71 kW/ton	N/A
Water Cooled Screw	<150 tons	.71 kW/ton	N/A
	≥150 tons and <300	.58 kW/ton	.47 kW/ton
Water Cooled Centrifugal (screw chillers ≥300 tons also eligible)	<150 tons	.59 kW/ton	N/A
	≥150 tons and <300	.59 kW/ton	.56 kW/ton
	≥300 tons	.56 kW/ton	.38 kW/ton

HEATING AND HOT WATER

Equipment	Size	Minimum Efficiency
Gas or Oil Furnace	Any Size	92% AFUE
Hot Water Condensing Boiler	<300 kBtu/h	90% AFUE
Hot Water Condensing Boiler	≥300 kBtu/h	90% Thermal Efficiency
Tankless Gas Hot Water Heater	Any Size	.82 EF, Electric Ignition

ADDITIONAL INCENTIVES

In addition to the equipment listed in the Minimum Efficiency Requirements section, the following equipment is also eligible for incentives (incentive rates are up to 15% of construction costs reduced by utility incentives).

- **Demand Controlled Ventilation (DCV)** – This control strategy uses CO₂ levels to control ventilation rates. CO₂ monitoring may be done in the space or in the return duct. Outdoor air dampers must be controlled to maintain CO₂ levels at no less than 900 ppm. Retrofit only, DCV in new equipment is ineligible.
- **Economizer Retrofit** – Economizer cooling uses outdoor air to provide cooling when cooling is called for and outdoor air is cooler than return air. Retrofit only, economizers in new equipment are ineligible.
- **Variable Frequency Drives (VFDs)** – VFDs vary the speed of the motors they are controlling, resulting in energy savings. Incentives for VFDs on RTUs or air handlers are for retrofit only, VFDs on new RTUs or air handlers are ineligible.

INCENTIVE APPLICATIONS

HVAC APPLICATION (SPLIT OR PACKAGED SYSTEMS AND CHILLERS)

Equipment	Manufacturer and Model #	Size (tons)	Qty	EER or full load kW/ton	SEER, IEER, or IPLV	Installed Cost per Unit (without Engineering and Contingency)

HEATING AND HOT WATER APPLICATION

Equipment	Manufacturer and Model #	Size (kBtu/h)	Qty	Efficiency	Installed Cost per Unit (without Engineering and Contingency)

DCV & ECONOMIZER APPLICATION

Equipment	Air Handler cfm	Qty	Installed Cost per Unit (without Engineering and Contingency)

VFD APPLICATION

Motor hp	Qty	Installed Cost per Unit (without Engineering and Contingency)

TOTAL INSTALLED HVAC COSTS