

PSO Business Rebates HVAC and HVAC Variable Frequency Drives (VFD) Technical Requirements

Application Requirements

- Project pre-approval is required when the project includes the installation of more than 250 total tons of HVAC equipment, or more than 125 total horsepower of VFDs.
- For projects that do not require pre-approval, a rebate application must be submitted within 60 days of the invoice date.

HVAC Equipment Requirements

- Eligible systems are new: electric heat pumps, single packaged units, and split systems.
- Unitary and split system cooling equipment must meet Air Conditioning and Refrigeration Institute (ARI) standards (210/240, 320 or 340/360), be UL listed, and use a minimum ozone-depleting refrigerant (e.g., HCFC or HFC).
- Qualifying split systems must have both a new condenser and a new coil that meets ARI specifications and where the matched system performance (condenser and coil) meets or exceeds the minimum SEER/IEER outlined in the table.

Tonnage	Tier 1 Min. Requirement	Tier 1 Rebate	Tier 2 Min. Requirement	Tier 2 Rebate	Tier 3 Min. Requirement	Tier 3 Rebate
Air Conditioners - Unitary and Split Systems						
<5.4	15 SEER	\$75/ton	16 SEER	\$150/ton	18 SEER	\$200/ton
≥ 5.4 and < 11.25	11.7 IEER		12 IEER		13 IEER	
≥ 11.25 and < 20	11.4 IEER		12.2 IEER		12.5 IEER	
≥ 20 and < 63.3	10.8 IEER		11 IEER		12 IEER	
≥ 63.3	10 IEER		10.3 IEER		11 IEER	
Split Air Source Heat Pump						
<5.4	15 SEER & 8.5 HSPF	\$75/ton	16 SEER & 9 HSPF	\$150/ton	18 SEER & 9.5 HSPF	\$200/ton
≥ 5.4 and < 11.25	11.7 IEER & 8.5 HSPF		12.2 IEER & 9 HSPF		13 IEER & 9.5 HSPF	
≥ 11.25 and < 20	11.4 IEER & 3.5 COP		12.2 IEER & 4 COP		12.5 IEER & 4.5 COP	
≥ 20 and < 63.3	10.8 IEER & 3.4 COP		11 IEER & 3.7 COP		12.0 IEER & 4 COP	
≥ 63.3	10 IEER & 3.4 COP		10.3 IEER & 3.7 COP		11 IEER & 4 COP	
Unitary Air Source Heat Pump						
<5.4	15 SEER & 8.2 HSPF	\$75/ton	16 SEER & 8.5 HSPF	\$150/ton	18 SEER & 9 HSPF	\$200/ton
≥ 5.4 and < 11.25	11.7 IEER & 8.2 HSPF		12.2 IEER & 8.5 HSPF		13 IEER & 9 HSPF	
≥ 11.25 and < 20	11.4 IEER & 3.5 COP		12.2 IEER & 4 COP		12.5 IEER & 4.5 COP	
≥ 20 and < 63.3	10.8 IEER & 3.4 COP		11 IEER & 3.7 COP		12.0 IEER & 4 COP	
≥ 63.3	10 IEER & 3.4 COP		10.3 IEER & 3.7 COP		11 IEER & 4 COP	
Water Source Heat Pump						
<5.4	13 IEER	\$75/ton	15 IEER	\$150/ton	18 IEER	\$200/ton
≥ 5.4 and < 11.25	13 IEER		15.30 IEER		18 IEER	
≥ 11.25 and < 20	13 IEER		15.30 IEER		17 IEER	

Note: Tons are based on 12,000 BTUH net output per ton.

Packaged Terminal Units

Tonnage	Minimum Rating	Rebate
Packaged Terminal Air Conditioner (PTAC)		
< 0.75	11.8 EER	\$30/ Unit
≥ 0.75 and < 1.0	11.0 EER	
≥ 1.0	10.3 EER	
Packaged Terminal Heat Pump (PTHP)		
< 0.75	11.5 EER & 3.3 COP	\$30/ Unit
≥ 0.75 and < 1.0	11.5 EER & 3.3 COP	
≥ 1.0	10.1 EER & 3.3 COP	

Economizer Controls

- Eligible only on new HVAC units.

Upgrade	Rebate/Unit
Dual Enthalpy (DE) Economizer Control	\$50

General Variable Frequency Drives (VFDs) Equipment Requirements

- Rebates are for new VFDs on existing HVAC equipment only; used or refurbished equipment is not eligible. The replacement of failed VFDs or those installed in new construction also do not qualify.
- It is good engineering practice to ensure that the application of VFDs within a facility does not cause excessive facility harmonic distortion. See IEEE 519 for further information.
- If the cable length between a VFD and controlled motor is greater than 50 feet, additional motor winding insulation on the first few winding or the installation of an LC filter on the output of the inverter may be required.
- The VFD should be grounded in accordance with manufacturer's grounding requirements for noise as long as their requirement complies with applicable electric codes.
- The facility owner may want to consider VFD startup by manufacturer representative, overcurrent trip protection, and critical frequency lockout.

VFD Equipment Eligibility

- Prescriptive rebates will be provided for the installation of VFDs from 2–200 horsepower for ONLY the HVAC applications listed in the "VFD Rebates" table below. If the VFD does not fall in one of these categories than please call 888.776.1366 and ask for an account manager or engineer to discuss if a custom app is required.
- For chilled water and heating pump installations, at least 75% of pump capacity must be controlled by 2-way valves.
- VFDs must be controlled by an automatic signal in response to varying air or water flow. Controlled motors must operate a minimum of 2,000 hours per year.
- Published manufacturer's information must be submitted with the application to demonstrate compliance for each of the following criteria:
 - 15 Millisecond Minimum Ride-through on the VFD Control at Full Load and No Inertia

For more information, visit PowerForwardWithPSO.com, or call 888.776.1366.

- Auto Restart
- Flying Restart (Start into Rotating Motor, Speed Search)
- Under Voltage Trip 85% or Less
- Minimum 3% In Line Reactor or Equivalent (Choke, Isolation Transformer) Based on Drive Horsepower
- 95% Minimum Drive Efficiency at Full Load and Full Speed
- 0.95 Minimum Displacement Power Factor
- Warranty of at least one year for parts

VFD Rebates		
VFD Installation Type	Horsepower	Rebate
Building Exhaust Fan	2	\$150
	3	\$200
	4	\$250
	5	\$325
Make-up Air Fan	7.5	\$500
	10	\$650
HVAC Return Air Fan	15	\$700
	20	\$925
Heat Water Pump	25	\$1,200
	30	\$1,400
Cooling Tower Fan	40	\$1,850
	50	\$2,300
HVAC Supply Air Fan	60	\$2,750
	75	\$3,500
Chilled/Condenser Water Pump	Over 100	\$45/HP
	Over 200	Requires Custom Application
Water Source Heat Pump Circulator Loop		

Ready to submit an application? Click [here](#) to begin.