



Commercial Rebates

VARIABLE FREQUENCY DRIVES

QUALIFICATIONS/GUIDELINES

1. Qualifying businesses must operate a minimum of 4 consecutive hours daily between 2 p.m. and 8 p.m. weekdays, May 1 through October 31.
2. A pre-inspection of the facility/existing equipment is required on all proposed VFD installations before the rebate application is submitted.
3. All work must be performed in accordance with all applicable national, state, local, and manufacturers' codes and standards.
4. All equipment, technologies, or proposed strategies must have a documented minimum life expectancy of five years to qualify for payment.
5. Qualified small business and non-profit customers may be eligible for a 20% bonus on rebates.
6. The rebate payment for each energy project cannot exceed 50% of the total job cost, which includes equipment, installation and tax.
7. After receiving and reviewing your application, an Austin Energy Representative will schedule an inspection to verify the installation and determine the rebate amount.
8. The customer will receive their rebate check 4 to 6 weeks from the date of the final inspection.

SPECIFIC GUIDELINES

1. On HVAC system projects or any outside air temperature-dependent retrofits, the kW savings will be calculated based on summer design conditions of 100°F Dry Bulb (DB) and 74°F Wet Bulb (WB).
2. **Air-handling units with a 25hp motor or greater are not eligible for a rebate on new construction projects. (These are required by code.) Any VFD's required by the IECC 2006 energy code are not eligible to receive incentive funds.**
3. In order to maintain future demand savings, the facility must have established maintenance procedures and the control system parameters must be maintained for five years. The engineer of record (if any) should inspect the retrofit for compliance with the approved submittal.
4. VFD must include controls that modulate motor speed based on load. Eligible controls include static pressure, differential pressure, temperature, or a CO2 sensor to control outdoor makeup air. Manually adjusted VFD's for flow balancing are not eligible, this includes using VFD for flow matching. Exceptions may be made on a case-by-case basis.
5. For cooling towers applications where multiple cooling towers are controlled by VFD's all towers should be operated at the same speed to minimize total fan HP.
6. A sequence of operation may be required to document that VFD's operation and the associated rebate calculations match.

The Austin Energy guidelines and rebate levels are subject to change at any time, without notice.

A Austin Energy – Power Saver™ Program – Commercial Rebate

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Commercial Rebates

VARIABLE FREQUENCY DRIVES

The following formulas are applied to all variable frequency drive retrofits when used with HVAC equipment. The formulas apply to variable air volume air handling units, cooling tower fans, and variable flow primary and secondary chilled water pumps. These formulas only apply to the installation of variable (not constant) torque VFDs. **The rebate is calculated at \$250 per Direct kW.**

Air Handling Units:

If you had Inlet Guide Vane Air Volume Controls: Direct kW = 0.08 kW/hp x Motor hp

If you had Outlet Damper Air Volume Controls: Direct kW = 0.19 kW/hp x Motor hp

If you had a Constant Volume System with no Air Volume Controls:

Direct kW = 0.13 kW/hp x Motor hp

Cooling Tower Fans:

DFex and OFex are the diversity and oversize factors of the existing cooling towers. The table below shows the default diversity factors and the formula below shows the oversize factor calculation.

Diversity Factor

Number of Cooling Tower Fan Motors	DFex
1 or 2	1.0
3 or 4	0.9
Over 4	0.8

Oversize Factor [at design conditions, (@97°F DB and 75°F WB)]

OFex = Cooling Tower Rated Capacity / [Building Peak Load Tons]

Direct kW =

0.62 kW/hp x No. of Fan Motors x Fan Motor hp x [(1/OFex) – (1/OFex)³] x DFex

HVAC Water Pumps:

DFex and OFex are the diversity and oversize factors of the existing secondary chilled water pumping system. The table below shows the default diversity factors and the formula below shows the oversize factor calculation.

Diversity Factor

Number of Secondary Chilled Water Pumps	DFex
1 or 2	1.0
3 or 4	0.9
Over 4	0.8

Oversize Factor [at design condition, (@97°F DB and 75°F WB)]

OFex = Design Water Flow Rate (GPM) / Required Water Flow Rate at Peak Conditions (GPM)

Direct kW = 0.62 kW/hp x Pump Motor hp x [1-(1/OFex)³] x DFex



Power Saver Program *Saving Energy Together*

Variable Frequency Drives - Rebate Application

If you have any questions about this rebate application or any other services provided by our Commercial Rebate, please call 482-5346, email us at conservation@austinenergy.com or visit our website at: www.austinenergy.com

CUSTOMER INFORMATION

Electric Account Number of Installation Address:			Office Use Only: Please fill out any information that may apply.	
Installation Address (Street, etc.):		Zip Code:	File #	SBQ:
Customer/Business Name:			Day Phone #	
			Alternative Phone #	
Contact:			E-mail address:	
Facility Name:			Installation Date:	
Mailing Address (if different from above):			Permit # If Applies:	
City:	State:	Zip Code:	Tax ID #	

VENDOR / INSTALLER INFORMATION

Vendor's Name:		Day Phone #		
Vendor's Representative:		Alt. Phone #		
Vendor's Address:		City:	State:	Zip Code:

Variable Air Volume Air Handling Units

Office Use Only Approved by	Manufacturer	Model #	Number of Motors	Variable Air Volume (type) Inlet Guide Vanes, Outlet Damper, or Constant Volume	Motor hp	Rebate

Cooling Tower Fans

Office Use Only Approved by	Manufacturer	Model #	# of Cooling Tower Fans	Cooling Tower Rated Capacity (Tons)	Building Peak Load (Tons)	Fan Motor hp	Rebate

Variable Volume Primary and Secondary Chilled Water Pumps, Condenser Water Pumps and domestic pumps

Office Use Only Approved by	Manufacturer	Model #	Pump Type	Design Water Flow Rate (GPM)	Required Water Peak Flow Rate (GPM)	Pump Motor hp	Rebate

ADDITIONAL CUSTOMER AGREEMENT CLAUSE

As a qualified Austin Energy customer, I understand that the rebate I am applying for will under no circumstances exceed 50% of the installed cost of the work. I also agree to retain all qualifying equipment at the location in which it was originally installed, identified as the "installation address" on this application. The Customer is responsible for maintaining the operational efficiency of all qualifying measures for a period of no less than five (5) years from the date of this agreement. The Customer agrees to allow an Austin Energy Representative to inspect the referenced facility for compliance with this requirement for the duration of this agreement. In consideration of this rebate, customer assigns all rights to any and all environmental attributes and or credits, including any renewable energy credits, carbon offset credits, or similar environmental credits derived from the energy conservation associated with this rebate to Austin Energy for Austin Energy's use as it may choose.

Customer Signature:

Date:

AUSTIN ENERGY EMPLOYEE

Comments:

Date of Pre-Inspection: Qualified Non-Qualified

Date of Final Inspection: Pass Fail

A.E. Representative Signature:

A.E. Representative Signature: