

# ENERGY WISE

for your Business



**Are motors part of your business? Did you know you can save money and energy by changing the speed of the motor as the load on the motor changes?**

## MOTORS AND DRIVES

### VARIABLE FREQUENCY/SPEED DRIVES:

#### Value for Your Business

Most motors turn at nearly constant speed. They are designed to operate most efficiently at their horsepower (hp) rating. However, sometimes the work motors need to perform is less than the maximum design speed. You can save energy by only using the power you need from a motor. This speed reduction can be accomplished with either a Variable Frequency Drive (VFD) or Variable Speed Drive (VSD).

VFDs and VSDs vary the frequency of the Alternating Current (AC) power. The motor speed varies in proportion to the drive operated frequency.

Drives also provide soft starting, allowing a motor to start slowly and then speed up, reducing mechanical stress on the motor and equipment driven by the motor. Drives can also reduce the voltage sag that can occur when a large motor starts quickly. Rebates are not available for replacement VFDs or VSDs, soft starts, power factor correction or harmonic correction applications.

#### How does it work?

The rebates are available for new drives. Drives must be tied to an automated control system and have a true power factor of .90 or greater.

Approved applications of VFDs/VSDs include:

- HVAC fans
- Pumps
- Cooling towers
- Process equipment
- Industrial fans

Please submit drive-controlled chillers and refrigeration compressors through Nobles Cooperative Electric's custom rebate program. The VFD/VSD will be evaluated in conjunction with the equipment operating efficiency and loading. The rebate is based on the rated controlled horsepower or horsepower of the motor, whichever is lowest.

#### Who can participate?

Any commercial or industrial cooperative customer can participate. The increased sophistication and proliferation of these drives have pushed energy savings into HVAC pumps, fans, conveyor motors and other smaller applications in a variety of commercial and industrial areas. Where the load fluctuates, there is potential for a drive to save money.

#### What you'll receive

A \$30 rebate per hp based on rated control hp or hp of motor, whichever is lower.

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# Invest in Premium Efficiency Motors and watch the savings add up

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## FRACTIONAL HORSEPOWER MOTORS

Replacing inefficient shaded pole or permanent split capacitor motors with fractional horsepower motors can help you consume less wattage. Though often unseen, the fan motors inside your equipment could actually be making a big presence on your utility bill. On average, they run 75% more efficiently.

In addition to significant energy cost savings, they deliver:

1. Quieter operation
2. Less energy consumption
3. Reduced heat load
4. Longer equipment lifespan

## Value For Your Business

Energy and cost savings available when replacing serviceable standard efficiency motor with an EPC-level or NEMA premium motor.

## Who can participate?

Any commercial building or business retrofitting an old standard motor can qualify. New or retrofit motors qualify.

## What you need to do

1. You are responsible for checking with **Nobles Cooperative Electric** to verify funding availability and program parameters.
2. Installation must be complete before funds will be issued.



3. Invoices must itemize labor charges, quantity and price of the equipment installed.
4. Specifications must include manufacturer and model numbers for the installed equipment.
5. The cooperative reserves the right to conduct inspections.
6. The maximum rebate amount is limited to 50% of the project costs, up to a maximum dollar amount deemed by the cooperative.

## CONTACT US AND START SAVING TODAY

If you have any questions or need assistance in making these savings a reality for your business; please contact your local energy expert at **your cooperative**.