

# Variable Frequency Drives (VFDs)

## Optimize motor speeds for substantial energy savings

A Variable Frequency Drive (VFD) enables motors to run only as fast as needed, which saves energy and reduces wear on equipment. Motor speeds that can be reduced by 50% can save up to 75% in energy costs, and often much more.



### Energy savings

A 10 ton rooftop unit VFD saves on average 6,100 kWh - \$915/year\*



### Quick payback

3 to 24 months (after rebate)



### Better reliability

Reduces equipment wear and associated maintenance costs

## Where can VFDs save energy?



### Fans

Air handlers  
Boiler draft fans  
Cooling tower fans  
Dust collectors  
Exhaust fans  
Return fans  
Rooftop units  
Supply fans



### Pumps

Chilled water pump  
Hot water pump  
Process pumps  
Water source heat pump loops

## Act now to receive rebates

### \$200/HP or \$150/HP

(3-5 HP motor)

(7.5-100 HP motor)

- Enlist an expert to help you identify the best VFD opportunities in your facility and to maximize their efficiency. Proper installation is key to performance.
- Our customer support team and energy consultants can provide technical support or quickly connect you with a building trade professional.

*\*Savings from a 3hp 10 ton rooftop unit supply fan are 6,100 kWh - \$915 per year at \$0.15/kWh.*



## To redeem savings

- ✓ Verify product eligibility, offer terms and conditions at: <https://www.encyvermont.com/vfd-equipment>
- ✓ VFDs must be new (not replacements), and must be controlled by an automatic signal.
- ✓ Purchase and install qualifying product. Complete, sign, and submit application. Include invoice copy as proof of purchase.

## Want to save even more?

See more energy saving incentives: <https://www.encyvermont.com/pumps-motors-drives>

## Get started today

Rebate offer subject to change

Call today to  
start saving

Efficiency  
Vermont

888-921-5990  
[encyvermont.com/vfd](https://www.encyvermont.com/vfd)



802-865-7337  
[burlingtonelectric.com/rebates](https://www.burlingtonelectric.com/rebates)

## VFD Application Success Story: Cooling Tower

**Summary.** Customer installed VFDs on all pumps & fans connected to a cooling tower that rejects heat from a series of water source heat pumps. VFDs allow the fan and pump motors to operate optimally for heat rejection requirements.

**Annual Energy Savings:** 765,000 kWh • **Simple payback:** 0.6 years

### Project Economics.

Estimated Cost of Efficiency Improvements	\$65,225
Efficiency Vermont Incentive	\$13,000
Your Net Cost After Incentives	\$52,225
Estimated First-Year Energy Savings	\$86,849
Estimated Simple Payback Period	0.6 years
Estimated Average Lifetime of Efficiency Improvements	11 years
Estimated Rate of Return on Your Investment (pretax)	166%

## VFD Application Success Story: Rooftop Units (RTUs)

**Summary.** Customer installed RTU controllers (pre-programmed VFDs) on the supply fans in their RTUs and reduced electrical energy by slowing the supply fans down proportional to the stages of cooling.

**Annual Energy Savings:** 105,000 kWh • **Simple payback:** 0.2 years

### Project Economics.

Estimated Cost of Efficiency Improvements	\$16,864
Efficiency Vermont Incentive	\$15,200
Your Net Cost After Incentives	\$1,664
Estimated First-Year Energy Savings	\$9,793
Estimated Simple Payback Period	0.2 years
Estimated Average Lifetime of Efficiency Improvements	15 years
Estimated Rate of Return on Your Investment (pretax)	589%

## VFD Application Success Story: Kitchen Hood

**Summary.** Customer installed RTU controllers (pre-programmed VFDs) on the supply fans in their RTUs and reduced electrical energy by slowing the supply fans down proportional to the stages of cooling.

**Annual Energy Savings:** 73,800 kWh + 7,800 gals • **Simple payback:** 0.85 years

### Project Economics.

Estimated Cost of Efficiency Improvements	\$27,328
Efficiency Vermont Incentive	\$11,000
Your Net Cost After Incentives	\$16,328
Estimated First-Year Energy Savings	\$19,300
Estimated Simple Payback Period	0.85 years
Estimated Average Lifetime of Efficiency Improvements	15 years
Estimated Rate of Return on Your Investment (pretax)	60%