

## IRRIGATION VFD

Pivot field irrigators installed with a variable frequency drive (VFD) can provide varying motor horse power based on variable well water tables. Higher water tables require less horse power to pump water for irrigation.

- VFDs ramp the motor up and down to optimize horse power requirements for pumping water; saving energy and money. Soft start controls do not vary pump speed and therefore do not provide energy savings or qualify for a rebate.
- Non-energy benefit of, VFD's include built-in soft-start capability, which reduces wear on motors.

## LIVESTOCK WATERER

Electrically heated waterers are commonly used to provide clean water for livestock during winter months when temperatures may drop below freezing. Only waterers meeting the two inch minimum insulation requirements are eligible for rebates.

- Energy efficient waterers have at least two inches of insulation, resulting in the use of smaller heating elements (less than 250 watts).
- Energy-free waterers have at least two inches of insulation and no heating element, as they use ground source water to prevent freezing.

## LED LIGHTING

LED Lighting improves production efficiency in dairy, swine and poultry operations by enabling precise daylighting schedules – while making this strategy operationally affordable.

- Reduced operating costs – LED lighting reduces energy use and costs with minimal maintenance.
- Increased production – Extended daylighting hours improves heifer growth and milk production, increases hog piglet suckling and food intake in growers/finishers, and poultry growth and egg production resulting in increased revenue.

## VENTILATION FANS

Dairy and livestock farms utilize ventilation fans to control air quality and comfort.

- Air quality control improves oxygen levels, moisture, odors, and temperature, while eliminating airborne contaminants and disease.
- Automated ventilation controls optimize fan speeds and run time based on weather conditions to reduce operating costs.

## CUSTOM PROJECTS

Custom projects require pre-approval and will follow the custom project rules. Diesel to electric motor conversion is an example of a custom project.

## HOW DOES IT WORK?

Meet with your cooperative's energy expert to set up a plan and they will recommend the best actions to make your farm more energy efficient.

## REBATE OVERVIEW

EQUIPMENT TYPE	REBATE AMOUNT
Ag audit	75% of project cost
Engine block heater timer	\$5/timer
Irrigation VFD	\$10/HP
LED lighting	Varies
Livestock waterer	\$75/Waterer
High efficiency ventilation fan	\$20 per high efficiency fan \$400/High volume/ low speed (HVLS)

## CONTACT US

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 electric cooperative.

# Agricultural

## Rebate Application

### BUSINESS MEMBER INFORMATION

Business Name \_\_\_\_\_  
Installation Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_  
Contact Name \_\_\_\_\_ Account # \_\_\_\_\_  
Email \_\_\_\_\_ Phone \_\_\_\_\_

### REBATE RECIPIENT

To release the rebate incentive check to an alternate party other than the cooperative business member, the member must specify an alternative mailing address and authorize with a signature below.

Please Send Rebate to (check one):

Business Member       Alternative Recipient

Recipient Name \_\_\_\_\_  
Mailing Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_  
Contact Name \_\_\_\_\_

### APPLICATION CHECK LIST

- Rebate application with signature
- Itemized project invoices (labor & materials)
- Equipment specifications

The undersigned does hereby certify that the undersigned is solely responsible for the accuracy of the information contained in this application. All rules of the program have been followed and the installation is complete. The undersigned acknowledges that nothing contained in the application imposes any liability on the cooperative for the work performed and information presented by the member, member's engineer, contractor, or vendor. The undersigned also authorized payment of incentive directly to the specified rebate recipient.

### MEMBER SIGNATURE

Member Signature \_\_\_\_\_ Date \_\_\_\_\_

### WARRANTY INFORMATION

Rebate qualifications do not imply any representation or warranty of such equipment, design or installation by the cooperative. The cooperative shall not be responsible or liable for any personal injury or property damage caused by this equipment. The cooperative does not guarantee that a specific level of energy or cost savings will result from the implementation of energy conservation measures or the use of products funded under this program. In no event shall the cooperative be liable for any incidental or consequential damages.

### ADDITIONAL PROGRAM RULES

1. Evaluation must be complete before funds will be issued for the rebate.
2. Members and vendors must submit itemized equipment invoices, along with rebate application and worksheet, to the cooperative. To ensure that the equipment installed meets the cooperative's performance standards, these invoices must itemize labor charges, quantity and price of the equipment installed, as well as information regarding the manufacturer and model numbers for all equipment included in the rebate.
3. Rebates must be applied for within 12 months of invoice date.
4. The cooperative reserves the right to conduct random inspections of installations.
5. Project must comply with all program specific rules and qualifications.
6. The member is responsible for checking with the cooperative to determine funding availability and to verify program parameters.
7. Due to limited funding, this rebate offer can be withdrawn at any time without notice. Applications will be processed on a first-come, first-served basis. Include a final, detailed copy of the original sales receipt, completed rebate form and photo. All rebated equipment is subject to SWCE inspection/verification. Submit forms, photos and receipts to rebates@swce.coop.

# Agricultural

## Equipment & Rebate Information

### AGRICULTURAL HIGH EFFICIENCY VENTILATION FANS

#### High efficiency fans – \$20/each

Fan Diameter (in.)	Actual CFM/watt	Quantity	Total Rebate

Note: Fan CFM/watt must exceed minimum required CFM/watt shown in the minimum eligibility details below.

#### High-Volume, Low-Speed (HVLS) fans \$400/each

Quantity	Rebate

#### Rebate information

Project Cost

Rebate

#### Minimum efficiencies

**Circulation fans** – generally used to regulate airflow and temperature. As the diameter of fan increases, so should the efficiency. These fans work best in free stall barns with two, four, or six rows and are generally located in 30-40 foot intervals over the feed alley and free stall area.

**Exhaust fans** – generally used for ventilation. To achieve cross ventilation, fans are installed on one wall to pull air from one side of the barn to the other. Exhaust fans also can be designed for tunnel ventilation where fans are installed on one end of the barn and move air across to the rest of the barn. Generally thermostatically controlled to turn on banks of fans when the temperature hits the set point. Exhaust fans should be installed away from prevailing winds. Similar with circulation fans, when exhaust fan diameter increases, efficiency should also increase.

**HVLS fans** – these fans move large volumes of air over a large area. They are available in a range of sizes, typically from starting around four feet and ranging up to 24 feet in diameter. Energy savings is achieved through use of fewer fans to move the same CFM with a more efficient design. HVLS fans should be fewer in quantity than the old fans.

Fan Diameter	Minimum Required CFM/watt
24-35 in.	11.9
36-47 in.	15.5
48-71 in.	17.7

All CFM/watt ratings must use static pressure of .10 inches of water gauge (w.g.) for rebate eligibility.

# Agricultural

## Equipment & Rebate Information

### ENGINE BLOCK HEATER TIMER

This rebate is for the installation of a plug-in timer that controls the operation of an engine block heater timer to modulate operation, saving energy and reducing costs.

#### Equipment Information

Quantity of timers

#### Rebate Information – \$5/timer

Project Cost

Rebate

### LIVESTOCK WATERER

This rebate is for the installation of insulated or energy free livestock waterers in place of standard electric waterers.

#### Equipment Information

- New Construction  
 Electric Heat Replacement

Quantity of waterers\*

\*quantity based on insulated or energy free waterers

#### Rebate Information – \$75/waterer

Project Cost

\$75 / Waterer

*Rebate program is subject to change or cancellation without notice. Due to limited funding, this rebate offer can be withdrawn at any time without notice. Applications will be processed on a first-come, first-served basis. Include a final, detailed copy of the original sales receipt, completed rebate form and photo. All rebated equipment is subject to SWCE inspection/verification.*

### IRRIGATOR VFD

Installing a variable frequency drive (VFD) allows the pump to speed up or slow down to provide uniform application of water and maintain correct pressures throughout the irrigation system. Typically, a VFD will be most beneficial for a system that has end guns or swing arms, precision application packages or one pump supplying water to multiple irrigation systems.

#### Irrigator Information

Motor HP

Annual Hours of Operation\*

\*typically 600-900 hrs/year

#### Rebate Information – \$10/HP

Project Cost

\$10/Horsepower