

## Dairy

### DAIRY PLATE COOLER

Milk cooling is the largest energy expenditure on a dairy farm and is vital to milk quality. A dairy plate cooler pre-cools warm milk before it enters the bulk tank by utilizing a heat exchanger that extracts heat from the milk using cool well water. When the pre-cooled milk enters the bulk tank, the refrigeration compressor finishes cooling the milk.

- The dairy plate cooler reduces run time on the refrigeration compressor, saving energy and money.
- If a refrigeration compressor is operating near maximum cooling capacity, adding a less expensive plate cooler could increase cooling capacity and increase total milk production.

### MILK PUMP VFD

A VFD provides a consistent milk flow through the plate cooler, improving overall cooling efficiency. Using a plate cooler together with a milk-pump VFD can reduce the run time of the bulk tank compressor, resulting in roughly 30% energy savings.

- Reduces cooling costs in the bulk tank
- Helps maintain milk quality
- Helps reduce the temperature of the milk entering the bulk tank to within 4° F of the incoming cold water temperature.

### REBATE OVERVIEW

Equipment Type	Rebate Amount
Dairy plate cooler	\$2/cow
Milk Pump VFD	\$2/cow
Robotic milking system (RMS)	<del>\$X.XX</del> /stall
Vacuum Pump VFD	\$20/hp

### ROBOTIC MILKING SYSTEMS (RMS)

Robotic milking combines a milking stall, computerized milking machine, robotic arm assembly, milking pump, teat identification, cleaning equipment, steam cleaning, and a feed dispenser all in one stall. Each stall can milk an average of 55-65 cows per day. Benefits include:

- Information and connectivity
- Increased milk production
- Efficient labor management

### VACUUM PUMP VFD

Milking vacuum pumps are sized to provide the maximum vacuum level needed to operate the milking and washing systems. A VFD determines the exact vacuum required and adjusts the pump speed accordingly. As a result, the pump operates at a much lower speed most of the time and uses significantly less electricity to do the job.

### HOW DOES IT WORK?

Meet with a [Lake Region Electric Cooperative](#) energy expert to develop a plan that includes the most effective steps to improve your farm's energy efficiency.

### 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 [Lake Region Electric Cooperative](#).





### BUSINESS MEMBER INFORMATION

Name \_\_\_\_\_ Account # \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_ 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 \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_ Phone \_\_\_\_\_  
 Contact Name \_\_\_\_\_

### APPLICATION CHECK LIST

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

### DAIRY REBATES

Equipment	# of Cows	(\$/Cow)	Project Cost	Total Rebate
Dairy Plate/Pre Cooler		\$2		

Equipment	# of Stalls	(\$/Stall)	Project Cost	Total Rebate
Robotic Milking		<b>\$X.XX</b>		

Equipment	# of Cows	(\$/Cow)	Horsepower	\$/Horsepower	Project Cost	Total Rebate
Vacuum Pump VFD				\$20		
Milk Pump VFD		\$2				

### 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.

### MEMBER SIGNATURE

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.

**Rebate applications due no later than the third Friday of November.**

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