



# Agricultural Energy Efficiency

Your utility recognizes that energy efficiency is the premier low-cost source of new energy and works to bring energy savings to the agriculture industry. By saving energy, farmers may be able to reduce costs, increase irrigation uniformity, decrease the amount of water and fertilizer required, and potentially even increase yield. Through energy efficiency incentives, your utility offers services and financial reimbursements to farmers for eligible energy efficiency measures. By contacting your local public utility, you may be eligible for incentives to increase your efficiency in the following areas.

## Irrigation

### Irrigation Hardware Upgrades

Energy efficient irrigation hardware provides more uniform water application, reduces unnecessary irrigation, and saves energy. As equipment wears out, making the switch to more energy efficient hardware is one of the easiest ways for you to start saving water and power.

### Scientific Irrigation Scheduling

Scientific Irrigation Scheduling combines monitoring and analysis of detailed crop and weather information to create a comprehensive prescription that's tailored to your unique soil and climate conditions. You get a watering schedule that's scientifically optimized for better results, helps save up to 10% on water needs for the year, and can even improve overall crop yields in many cases.

### Irrigation Pump Testing

An irrigation system analysis or pump testing may identify opportunities to increase the efficiency of a pumping plant and irrigation delivery system. These opportunities include low-pressure conversion for center pivots and laterals, reduction of friction losses in piping, and rebuilding pumps and trimming pump impellers.

### Low Elevation Spray Application (LESA)

LESA can provide more uniform irrigation application for all of your crops through the conversion of your center pivot irrigation system to lower sprinkler heads so they are closer to crops. This greatly reduces water evaporation during irrigation, as well as reducing the overall pressure—and energy—required to efficiently water crops for a true low pressure way to save.

**CONTACT YOUR LOCAL UTILITY TO GET STARTED.**



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## **Variable Frequency Drives**

VFDs are designed to adjust water pump motor speed to match your changing irrigation needs, controlling the frequency of the electrical power that's supplied to your motor. Even small speed adjustments using a VFD can create big energy savings, often as much as 10-20%. At the same time you'll get greater precision and tighter control over water distribution and pressure, and help the pump match flow requirements.

## **Lighting**

In addition to energy cost savings between 25 to 50 percent, energy-efficient lighting upgrades can increase visual acuity and lighting equipment life; improve security; and improve worker safety, productivity and quality of work.

## **Dairies**

BPA supports utility incentives in dairies that include barn and area lighting, chiller improvements and variable frequency drive applications on vacuum pumps.

## **Wineries**

Many processing applications at wineries – including crushing, destemming, pumping, cooling and fermenting – are ripe for energy improvements. Energy saving enhancements such as lighting upgrades, HVAC, pipe insulation, compressed air, VFDs and refrigeration are all eligible opportunities for utility incentives.

## **Your utility is here to help.**

Your local utility has helped others save and has additional suggestions for ways you can save, too. Call your local utility today to learn more about Agricultural Energy Efficiency programs.