

Dairy Energy Efficiency Program



“I am saving energy, saving money, and EnSave helped me through the whole process—simple and easy.”

—Don Gomes, California
Dairy Farmer



“We cut our energy bill in half by installing a VSD. Rebates paid for half of the system, and the energy savings paid for the rest within one year.”

—Scott Silveira, California
Dairy Farmer

The California Dairy Energy Efficiency Program (DEEP) was developed in 2006 as an extension of the 2004–2005 California Multi Measure Farm Program. The three-year program was designed and implemented by EnSave on behalf of Pacific Gas and Electric Company (PG&E). The program was designed specifically for dairy farmers in PG&E’s service territory. As such, the program covered 43 counties in the central part of the state.

The program’s main function was to educate dairy producers about energy efficiency and provide them with incentives to install energy efficient equipment. Rebates were offered on equipment commonly found in dairy operations (lighting, motors, ventilation fans), and equipment that also helped the operations save considerable money but might not be on every farm (plate coolers, variable speed drives).

EnSave developed close working relationships with equipment manufacturers, dealers and the agricultural community to ensure the process was simple and easy.

DEEP Qualifying Energy Efficient Equipment

- **Variable Speed Drives (VSDs):** VSDs regulate the speed of pumps and can be installed on either vacuum or milk pumps.
- **Plate Coolers:** Also known as pre-coolers, are a series of stainless steel plates installed in the milk line before the bulk tank.
- **Compressor Heat Recovery Units:** This equipment captures heat removed from milk by the compressors and uses it to pre-heat water.
- **Scroll Compressors:** These are used to cool milk instead of reciprocating compressors. They run quieter, use less electricity, and more durable.
- **Lighting:** The program offered many incentives for different kind of energy efficient lights. This is one of the quickest and easiest ways to save electricity.
- **Time Clocks:** These are an effective control device to regulate lighting, to ensure they come on only when they are needed.
- **Ventilation:** There were multiple incentives for different ventilation fans, depending on the size needed.

DEEP Statistics

kWh Savings

Program running 2006–2008	kW	kWh
Total Goal	1,577	8,000,000
Total Accomplishments	1,577	8,286,984
Percentage of Goal Accomplished	100%	104%

Additional Program Information	
Contract Amount	\$2,163,000
Number of Participants in Program	289
Total Amount of Rebates Paid	\$554,772
Total Value of Energy Savings (calculated at \$0.00/kWh saved)	\$0,000,000

EnSave also provided each program participant with a customer satisfaction survey in order to better gauge how they felt about the program. They were asked to use a 1 to 5 ranking scale, with 1 being “not at all satisfied” and 5 being “extremely satisfied.” Here are the averages of the 87 respondents:

- The quality of the program information received: 4.7
- The professionalism of EnSave’s staff: 4.9
- The ease of the program process: 4.8
- Time it took to receive incentive payment: 4.8
- Overall experience with the program: 4.8

About EnSave

Since 1991, EnSave has supported the American agricultural sector with innovative energy efficiency and pollution prevention programs. EnSave provides agricultural producers and food processors with cost-effective ways to reduce operating costs while saving energy and conserving our nation’s resources.

Summary

EnSave reached the program’s original goal of 5 million kWh saved in May of 2008. As a result, PG&E increased the goal to 8 million kWh. At the end of the program in December of 2008, EnSave again surpassed goal.

EnSave’s marketing approach consisted predominately of a telephone outreach and targeted direct mail campaigns. Calls were made to equipment manufacturers, dealers and the agricultural community.

Once EnSave had verification that the qualifying equipment had been installed, a check would be mailed to the farmer. The average turn-around time between verification and check mailing was 7 days.

“The program was very easy to apply for, and the incentive really helped make it that much more cost effective. EnSave did a great job...and the check was mailed to me as soon as the project was complete.”

— Loek Van Warmerdam,
California Dairy Farmer