

# Energy Incentives from We Energies



## S U C C E S S S T O R Y

**Customer:** Mighty Grand Dairy LLC

**Project:** Dairy operations improvements

**Project 1:** High Volume Low Speed Fans

Incremental Project Cost: \$13,000  
Incentive: \$6,169  
Savings Achieved:  
Demand: 46.5 kW  
Energy: 133,920 kWh  
Cost: \$1,339  
Lead Source: Dave Daniels



**Project 2:** Scroll Refrigeration Compressors

Incremental Project Cost: \$3,000  
Incentive: \$375  
Savings Achieved:  
Demand: 1.1 kW  
Energy: 11,015 kWh/year  
Cost: \$1,101/year  
Lead Source: Dave Daniels

**Project 4:** Heat Recovery

Project Cost: \$2,800  
Incentive: \$750  
Savings Achieved:  
Energy: 1,342 gallons of propane/year  
Cost: \$2,952/year  
Lead Source: Eckhart Refrigeration

**Project 3:** Water Heater Upgrade

Project Cost: \$6,000  
Incentive: \$1,900  
Savings Achieved:  
Demand: 9.0 kW  
Energy: 35,220 kWh  
Cost: \$1,605/year  
Lead Source: Eckhart Refrigeration

**Project 5:** Plate Cooler

Project Cost: \$6,500  
Incentive: \$500  
Savings Achieved:  
Demand: 6 kW  
Energy: 33,143 kWh/year  
Cost: \$3,314/year  
Lead Source: Dave Daniels

### Why is this a success story?

Three neighboring Kenosha County dairy farmers assessed their businesses and determined they would be stronger with a consolidation of efforts. In 1997, Mighty Grand Dairy LLC was formed by combining three herds on a total of 1,000 acres.

Dave Daniels, Myron Daniels and Gene Weis and their families contribute with their individual expertise. The partners have organized each of the three sites to concentrate on different aspects of the business. There is a main site for the cows and milking process. A second site tends to the caring for the younger heifers until they reach a year old. The third site works with breeding-age heifers until it is time for them to transfer to the main site and have their calf. Each farmer brings his own expertise to the mix, too. Dave, who heads the milking process, also works with the veterinarian and oversees the general health of the herd. Myron lends his mechanical talents to equipment maintenance when he is not tending to the calves. Gene specializes in planting and crop-tending duties.

Together, they run a profitable operation with approximately 500 cows with a 30,000 pound rolling heard average daily. They sell their milk to Foremost Farms USA in Elkhorn, Wis.

### **Energy efficiency incorporated**

When the farm needed to make improvements, they considered incorporating energy efficiency. Turning to the We Energies Agricultural Services Program, they received assistance on rewiring and efficiency measures.

Some of the improvements made were:

- Switched to a direct load process and removed their bulk tank and plate cooler. Variable speed milk and vacuum pumps and scroll refrigeration compressors move 100 F milk from the cows to chillers where milk temperature is reduced to about 80 F. From there, milk moves to one of two holding tanks with storage temperatures of 39 F.
- Incorporated 10 High-Ventilation, Low-Speed (HVLS) fans in the milking barn to improve air circulation affecting the health of the heard.
- Improved lighting efficiency with compact fluorescent light bulbs that replaced incandescent bulbs. Pulse-start, metal-halide fixtures also were installed.
- Installed a high efficiency modulating boiler water heater for in-floor heating, as well as all of the domestic hot water for washing needs in the Parlor.
- Electric rewiring assistance from We Energies.

“We needed newer, better equipment for our operation. The We Energies Agriculture Program helped us understand that buying high efficiency might cost a little more up-front, but pays for itself quickly and saves money year after year,” said Dave.

### **Program support process**

We Energies supports agriculture operations with electric rewiring and energy efficiency programs. Both staffs coordinate with each other to ensure all farms receive optimal assistance.

Most improvements require an audit to be done in advance of the changes being implemented. Staff schedules a walk-through at the farmer’s convenience to assess existing equipment and recommend upgrades. These services are conducted free of charge to the farmer. Farmers then work with equipment vendors and trade allies of their choice, oftentimes comparing multiple quotes for improvements to be completed. Incentives are available for qualified energy-efficient equipment through the Energy Incentives from We Energies program. Program staff will assist with the incentive application process.

### **For more information about We Energies agriculture services programs**

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