






Energy Efficiency on the Farm

American farmers have shifted to more energy-efficient production practices to reduce operating costs and increase profits¹. This means that to remain competitive today farmers must closely monitor their energy consumption and adopt cost-effective energy conservation measures to optimize their farm's bottom line! NIPSCO's Energy Efficiency Programs can help your farm operate more efficiently and reduce your cost of production. Cash rebates help pay for energy-efficient upgrades to farm buildings, equipment and processes.

Check out NIPSCO's full list of agricultural measures eligible for incentives on page 3.

Because small farms, in particular, operate on profit margins well below 10%, improving energy efficiency can make a real difference in their budgets¹.

TOP TECHNOLOGY USES IN AGRICULTURE

-  **Pumps & Motors**
-  **Cooking & Refrigeration**
-  **Lighting**

Source: 1ouc.bizenergyadvisor.com



Recommended energy conservation measures for farms include:

Lighting

- Efficient fluorescent (T5/T8) or LED lighting systems
- LED Exit signs
- Occupancy sensors/lighting controls
- LED exterior lighting with controls
- Daylight Sensors

Irrigation

- Efficient irrigation pumps, including variable speed pump motors
- Frequent management/maintenance of irrigation systems
- Low pressure sprinkler nozzle
- Proper pump-sizing on irrigation systems
- Energy efficient high-speed fans
- Upgrade to more efficient irrigation system, e.g. from wheel lines to pivot or linear sprinkler systems, sprinkler to drip irrigation systems

Process Improvements

- VFD on dairy milking, vacuum, and transfer pumps
- Milk pre-cooler
- Scroll compressor for dairy refrigeration
- VSD milk pump w/plate cooler heat exchanger
- Dairy refrigeration heat recovery – electric / natural gas
- Refrigerated cycling thermal mass air dryer
- Energy efficient broiler house technologies
- Livestock waterers
- Scroll compressors for refrigeration, both with and without plate cooler heat exchanger
- Heat exchangers for pre-cooling and/or pre-heating
- Livestock heat pads

Heating, Air Conditioning and Ventilation (HVAC)

- Energy efficient space cooling
- High efficiency heaters
- VFD's for fans
- Energy efficient high-speed fans
- High-volume low-speed (HVLS) fans

Building/Greenhouse Improvements

- Energy management system
- Double covering on greenhouse sidewalls and end walls
- Infrared film for greenhouse
- Greenhouse thermal curtains
- Poly with an infrared inhibitor on the inner layer of greenhouse can give 15% energy savings
- Energy efficient LED lighting/grow light systems
- Humidity control
- Oxygen sensors
- Fan thermostat controller
- Weather stripping (doors, vents, fan openings) and lubricating louvers (a partially open louver may allow several air changes per hour)
- High efficiency heat pump and/or ENERGY STAR hot water heaters

Equipment Improvements

- Energy efficient compressed air systems, including storage on load/no load systems
- Motors and drives
- Variable speed drives (VSD) on pumps and motors
- Engine block timer



Energy efficient lighting solutions



VFD on dairy milking, vacuum, and transfer pumps

Get Started Saving!

Now that you know what to upgrade, visit [trcsavesenergy.com/TradeAlly/TradeAllySearch](https://trcsavesenergy.com/TradeAlly/) to find an experienced contractor or contact a Field Engineer in your area by visiting trcsavesenergy.com/Home/ContactUs or calling **1-800-299-2501**.



Prescriptive Agriculture Incentives

Efficient Equipment Replacement		Unit	Incentive
Electric Measures			
	Dairy Refrigeration Heat Recovery	Unit	\$3,500.00
	Engine Block Timer <i>(Replacing Manual Engine Block Heater)</i>		\$10.00
	High Speed Fans (24-35 in.)		\$39.00
	High Speed Fans (36-47 in.)		\$65.00
	High Speed Fans (48-71 in.)		\$110.00
NEW	High Volume Low Speed Fan – Dia. < 18.0 ft.		\$715.00
NEW	High Volume Low Speed Fan – 18 ft. ≤ Dia. > 24 ft.		\$900.00
NEW	High Volume Low Speed Fan – Dia. ≥ 24 ft		\$1,000.00
	Milk Pre-Cooler <i>(Replacing Milk Bulk Tank without Cooler)</i>		\$1,550.00
	VSD Milk Pump w/ Plate Cooler Heat Exchanger <i>(Replacing Constant Speed Milk Transfer Pump)</i>		\$1,600.00
	Low Pressure Sprinkler Nozzle	\$1.10	
Natural Gas Measures			
	Dairy Refrigeration Heat Recovery	Unit	\$121.00
	Greenhouse Thermal Curtains	Square Feet	\$0.55
	Infrared Film for Greenhouse		\$0.02

Incentivized measures must replace costly, less efficient systems or equipment on a one-for-one basis.

*If the customer participates in the Midstream Channel by purchasing qualifying equipment from a participating distributor, they are not eligible to participate in the Custom, Prescriptive, SBDI, New Construction or any other NIPSCO programs for an incentive on the same piece of equipment.