

MINNESOTA

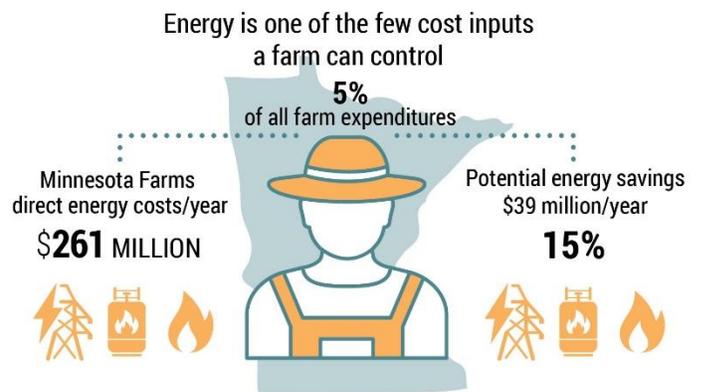
HIGHLIGHTS from the Minnesota Agriculture Energy Efficiency Potential Study

The U.S. agricultural sector is moving into the fifth year of low commodity prices and this recession has put a significant strain on the agricultural sector.

Regardless of the product – milk, grain, meat, or produce – the costs of production outmatch sales, resulting in a cash-strapped industry statewide. The number of farms in Minnesota has declined from 81,000 farms in 2009 to 73,200, as of June 2018.

The Good News is...energy is one cost that farms do have some control over and there are numerous programs available to help farmers find energy savings and funding sources to help with equipment upgrades.

This study shows the agricultural industry in Minnesota is spending approximately \$547 million annually for energy. **On farm direct energy use for electricity, LP, and natural gas costs Minnesota farmers about \$261 million dollars each year.** This study found estimates of up to 15% in energy savings possible for electric, natural gas, and LP, equaling potential savings of around \$39 million, annually. While energy makes up only approximately 5% of all farm expenditures, farms should be looking to ways to control their energy costs.



Producers in this study noted consistent barriers to making energy efficiency improvements including:

- High equipment and installation costs of some projects
- Inability to determine the most cost-effective projects
- Unaware of energy savings potential
- Not knowing what size/type of system to select
- Not knowing where to get financing
- Need assistance to access grant funding, utility funding, and other cost share opportunities.

In Minnesota, there are numerous utility, state, and federal programs available to help farms overcome many of these barriers.

Programs include low- or no cost energy audits through the NRCS–EQIP Program and utility programs, and renewable energy site assessments and financing guidance by the Clean Energy Resource Teams (CERTs). Energy audits allow a farm to understand where energy is going, the best opportunities to save energy, and potential funding assistance for energy saving projects.

Energy Audit Assistance	Technical Assistance	Financial Assistance
<ul style="list-style-type: none"> • NRCS-EQIP • Utility <ul style="list-style-type: none"> – GRE – Dairyland Power – CenterPoint – Great Plains • CERTs 	<ul style="list-style-type: none"> • NRCS • USDA • FSA • CERTs • University Extension • MN Department of Agriculture 	<ul style="list-style-type: none"> • Utility • CPACE • NRCS-EQIP • USDA-REAP • MN Department of Agriculture

Financial assistance for implementation of energy efficiency projects is available through NRCS-EQIP (payments of up to 75% cost share), USDA-REAP (up to 25% of project cost as a grant and low interest loans available), utility energy efficiency programs, and the Minnesota Department of Agriculture (various grant and loan programs). CERTs can also help a farm identify potential funding sources and financing options such as Property-Assessed Clean Energy (PACE) financing. PACE can finance energy efficiency projects and is repaid as a separate item on a business's property tax assessment. About 70% of the state of Minnesota has access to PACE.

This study determined energy efficiency may result in operational and production benefits, in addition to energy savings. Operational benefits may include reduced labor for equipment repairs or equipment maintenance, higher employee job satisfaction and improved employee safety. Production benefits can range from increased milk production, improved animal health and welfare, improved crop yields, and more.



MINNESOTA AGRICULTURE SECTOR

2017 TOTAL STATE Energy Use
1,807 TRILLION BTU of ENERGY

Total energy use in agriculture sector
28.5 TRILLION BTU of ENERGY

accounting for about
1.6%
of TOTAL STATE energy consumption



- 2.02 billion kWh ELECTRICITY



- 92 million gallons DIESEL



- 40.8 million gallons LPG



- 26.3 million gallons GASOLINE



- 20 million therms NATURAL GAS

The agriculture sector is extremely important to Minnesota's economy and decreasing costs where possible, such as energy costs, can help farms become more profitable.

Working together, we can help Minnesota farms maximize energy efficiency and improve their bottom line, ensuring farming continues to be a top economic sector in Minnesota for future generations.

For more information or additional assistance, contact the **Minnesota Farmers Union** at 651-639-1223.

