



CASE STUDY

Agriculture

THE MASCHHOFF'S FEED MILL

THIS U.S. PORK PRODUCER USED SOLAR ENERGY TO STOP ENERGY COSTS FROM CHOKING ITS BUSINESS

OVERVIEW

In 2020, The Maschhoffs, one of the nation's largest pork producers, saw energy costs double at their primary feed mill in Griggsville, Illinois. This was before energy costs soared in 2022. The Maschhoffs' grain operations are critical to the health of the 150,000 sows the company maintains across its Midwest operations. Any interruption in power or loss of heat can alter the chemistry of their feed, which impacts the growth of their animals. Maschhoffs' VP of Operations Gerry Daignault summed it up best: "Rising energy costs were not something we could absorb and remain profitable. We had to do something."

THE ISSUES

America's rapidly rising energy costs are choking the competitiveness of the nation's agriculture, livestock, grain and feed industries. If energy costs can't be controlled, farmers will be undercut by overseas agribusinesses with lower operating costs. Another challenge to U.S. agriculture is adopting more sustainable practices such as renewable energy to lower their environmental impact. Consumer products companies, consumers, and the government are pushing for more sustainability in farming.



Rising energy costs



Threat to pork producer's competitiveness



Desire to adopt renewable energy



THE SOLUTION

In 2019, Solential Energy was introduced to The Maschhoffs to find an energy solution for their Griggsville feed mill. The mill was served by an electric cooperative whose energy charges were 50% higher than market averages. After reviewing their utility rate tariffs and the mill's energy use, Solential began modeling energy solutions that included microgrids, solar PV and energy storage.

The determining factor came down to federal and state incentives. The State of Illinois offers financial incentives to businesses for generating renewable energy. Compensation comes in the form of Solar Renewable Energy Credits (SRECs). For each unit of energy a solar array produces, that unit is converted into a credit for the solar array owner to sell back to the state through the Illinois Shines Program. The state-funded incentive was the best option for The Maschhoffs. The family-owned company approved a plan to deploy a solar-only solution for the Griggsville mill.

In 2022, Solential commissioned a 3.06-megawatt solar array on 11 acres adjacent to the mill. The project was worth the wait as it will offset more than 50% of the Griggsville mill's energy consumption. The projected first year energy savings are \$320,000. Add in the State of Illinois' SREC incentives and the annual financial impact increases to about \$700,000. With federal tax credits and depreciation, this Solential energy solution will pay for itself in five years, with another 35 years of energy generation capacity to power The Maschhoffs' mill.



Annual first-year energy savings of \$320,000



Another \$380,000 of annual state incentives



Going solar advances sustainability goals

ABOUT SOLENTIAL ENERGY

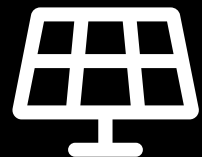
Based in Carmel, Indiana, Solential is a leading provider of innovative energy solutions to the wastewater and water treatment industry that increase energy resilience, reduce costs and create more sustainable operations and communities. Other offerings include:



Energy audits identifying use + opportunities



Microgrid energy generation + storage



Floatovoltaic solar arrays mounted over lagoons