



Global Case Study

Solis C&I Grid-Tied PV Inverters

Solis-125-EHV-5G-US-PLUS



CASE STUDY

EITRI FOUNDRY CASE STUDY

MINSTER VILLAGE

Solis Inverters Help Ohio Village Further Reduce Grid Use, Save \$250K+ Yearly

TMW Solar Ground Mount, Installed by Eitri Foundry, Unlocks Economic Benefits for Residents & Businesses of Minster.

Background: Reducing Grid Use in Phases

Minster is a village in Ohio, founded in 1832, and currently inhabited by over 3,000 residents. It is known as home to the world's largest yogurt plant which employs over 400 people. With rising energy costs beginning to affect homes and businesses throughout the community, village leadership sought after a financially beneficial, smart technology solution. As they discovered, due to its moderate size, Minster is well-suited to power its 2.11 square miles with solar.





 Ohio, USA  1MW  Solis-125-EHV-5G-US-PLUS

Since that time, two separate solar systems – totaling almost 10MWs – have already helped generate savings for local homes and businesses. However, Minster opted to continue expanding the project and recently, in 2023, a third system was proposed.

Not only would this ‘Phase Three’ installation further reduce energy costs for the town, but it would also enable more benefits for businesses, such as SRECs (solar renewable energy credits) and the ability for local residents and businesses to participate in shared savings.

The Challenge: Making Upfront Costs Work

Like many towns attempting to save on energy bills, Minster did not want to spend unnecessarily on potential upfront costs. They looked to work with a third party on a PPA (power purchase agreement) – allowing that party full system control in return for project funding.

The site itself is on a water well site, so proper planning and consideration for those critical resources was paramount. Minster is a rural community that places huge importance on farming and preserving natural resources (especially as it's needed to run the yogurt plant) so significant environmental considerations needed to be made in planning, development and execution.



The Solution: Minster Taps Eitri. Eitri Taps Solis.

Having ensured the successful completion of Minster's 'Phase 2' solar installation, national EPC and developer, Eitri Foundry (Eitri), was once again brought in to further expand smart energy generation for the village. Both phase 2 and 3 are financed and owned by Madison Energy Infrastructure. MEI has had a considerable amount of success in Ohio due to their partnership with Eitri and their desire to make an impact in the Midwest renewables market. Energy markets have been volatile even in Ohio. Eitri's solar PPA is set at a non-escalating rate so the initial rate is the same as what they'll be paying in 30 years. This grants them some level of predictability and stability in an otherwise unstable market.

In return, Eitri chose to install a 1MW ground-mount system featuring 8 of the Solis 125kW, Solis-125-EHV-5G-US-PLUS, which would further maximize clean energy for the village of Minster, while meeting all power and safety guidelines set by local government agencies; every Solis inverter features high quality NEMA 4X (IP66) aluminum enclosures, as well as string level monitoring, automatic alerts, and rapid shutdown.

Plus, because of its flexible string design and ability to perform under all weather conditions, Solis technology is ideal to overcome uneven ground conditions in the great outdoors of Ohio.

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“Communities like Minster are attracted to clean energy projects for their ability to generate substantial savings over time, but that is predicated on a system that is robust enough to endure Ohio’s harsh winters and still run reliably with minimal downtime for repairs and maintenance. As a result, choosing Solis for this project came down to flexibility, reliability and durability – because we can use strings of different lengths and work with almost any module or panel we want, we can ensure the system generates maximum solar over the entire project lifetime- not only at commercial operation. We are always happy to go with Solis and their expert team – who stays with you and provides hands-on support even well after system energization.”

– Lian Niu, Eitri Foundry

Community Benefits: Good for People. Good for Business.

As a result of the new solar ground mount system, the village of Minster is set to save exponentially on their energy costs, which will help homes and businesses drastically lower their energy bills. Plus, it will help powerhouse companies meet sustainability goals, receive SRECS and assist with the overall health of the local grid and environment.

Meanwhile, as the system expands, more opportunities in the smart energy sector continue to grow for the people of Minster – offering a new and viable way to fortify the local economy.

System Overview

- 4-acre site in Minster, Ohio
- 545W bi-facial modules
- 8 Solis-125-EHV-5G-US-PLUS
- 1,767 megawatt-hours (MWh) of annual solar production
- CO2 emissions savings equivalent to 1,360,413 pounds of coal burned
- Non-escalating cost of energy for 30-years

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