SUNVEST SOLAR LLC

CASE STUDY

Making Our Mark in Minnesota

SunVest completes first of 14 community solar projects on the books

Expanding into Minnesota has been a goal of SunVest Solar LLC for some time. Because the state allows for third-party (i.e. non-utility) ownership of generating assets, such as solar arrays, SunVest can design, build, own, operate and maintain large scale solar arrays which we are known for. The perfect opportunity to see what SunVest could bring to Minnesota's solar establishment arose with the Schull Project in Mapleton, where we developed a community solar garden. The site provided plenty of level ground with zero obstructions from the sun, both of which are ideal for solar gardens.

Receiving permits for this development went smoothly. The site was already home to a 20-acre community solar garden, which gave SunVest a baseline for which to design our layout. In collaboration with the landowners, we determined that it would be best to expand to the north of the current garden.

Throughout the entire development, we stayed vigilant in maintaining the safety of the surrounding environment. To reduce stormwater pollution, a wet sediment basin and live storage berm were developed. This stores and treats stormwater prior to discharging from an emergency overflow and riprap outlet to the ground surface.

SUMMARY

With the completion of the Schull Project in Mapleton, SunVest has officially arrived in Minnesota! This community solar garden, which is owned, operated and maintained by SunVest, will generate enough clean energy to power 150 to 200 homes' electricity annually in Minnesota's Blue Earth County. This is the first of many community solar projects SunVest has planned for the state.

SOLUTION

- 3,600 Trina Solar 400-watt modules
- 8 SMA Sunny Highpower Peak 125 kW inverters
- Array Technologies Inc. Single Axis Tracking
- CAB wiring system
- AlsoEnergy Data Monitoring System
- 1.44 MW DC
- 1 MW AC
- Construction timeline: 3 months

BENEFITS

- Potential to provide 2.3 million kWh of clean electricity to homes and businesses near Mapleton, MN
- Establishes SunVest's presence in Minnesota through the ownership of this generating asset
- Supports Blue Earth County's 2018 Land Use Plan which encourages the use of renewable energy systems as a benefit to the environment

The installed system is made up of 3,600 Trina Solar 400-Watt modules, spanning 7 acres of land. The single-axis trackers from Array Technologies that are used at the site are calibrated to precisely follow the sun's path at that location to maximize production. The PV panels are wired together with messenger wire, electrically grounding the entire array, and providing support for CAB Solar hangers to which solar conductors can be attached. From the panels, DC power is directed to combiner boxes, and then to 8 SMA Sunny Highpower Peak 125 kW inverters. AC power is routed to a switchboard and disconnect, before being sent to a transformer for distribution to the community.

Within two weeks of finishing construction, SunVest planted a low growth seed mix specifically designed to create habitat for pollinating insects. This mix will help reduce any pre-existing soil contamination and help stimulate the local ecosystem through vegetation growth and the attraction of pollinators.

Community Solar in the Gopher State

Minnesota's community solar program offers citizens the chance to benefit from solar power without having to install arrays at their home. Our landowner partners lease their land to SunVest and we take care of the rest. Once operational, the solar garden supplies power to the local grid, subscribers save money from standard utility rates while helping to increase clean energy usage in their area.

Next Up in Minnesota

Schull is one of 14 projects that SunVest is currently involved in across Minnesota. Later this year, we will be completing a second community solar garden in Mazeppa. We are excited to be making our mark in Minnesota, and we cannot wait for what is on the horizon.

214
Passenger vehicles driven for one year

194
Homes' electricity use for one year

121 Million
Smartphones charged

16,452
Tree seedlings grown for 10 years

Source: U.S. EPA GHG Equivalencies Calculator

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