



Case Study: Solar on Merton Community School District

PROJECT SUMMARY:

Until the state of Wisconsin changed the minimum per pupil revenue limit, Merton Community School District was the lowest per-pupil spending district in Waukesha County. With declining enrollment, the district saw its revenue limit (what they could spend) continue to decline. At this point, school leadership began seeking other ways to save money, especially in energy as this was continuing to be a “fixed cost” regardless of enrollment.

In the Spring of 2018, a School Board member was pursuing solar for their home and brought the idea of solar PV to the district as a means to save on operating expenses. The School Board and Village Hall met several times to run numbers and build capacity through the Winter of 2018. The district received some early system calculations from SunVest which showed great economic potential. They formally went to bid for the solar project in March 2019 and by December, the 389 kW DC solar array was installed, commissioned, and online.

The Merton Community School District invested in solar energy as a way to continue to save on energy, contribute to a cleaner environment, and save money that can be reinvested into the district.

Both Merton Primary and Merton Intermediate have rooftop solar arrays. The anticipated sizing of the solar energy is projected to produce almost two-thirds of the district’s energy needs, which results in an average electricity savings of \$70,000 per year for the expected 30-year life of the system. To help fund this project, the district received a donation of a portion of the modules needed for each system through MREA’s Solar for Schools program and a \$68,000 RECIP Grant through the Focus on Energy program, together totaling over \$100,000 in incentives. The remaining balance was paid through district dollars as well as a low-interest, ten-year loan. It is anticipated that the simple payback period will be no more than eight years.



“ The district found this project to be very successful as a way to continue focusing our fiscal resources into education instead of just “keeping the lights on. ”
— Ronald Russ, Superintendent

PROJECT PARTNERS:





SYSTEM AT A GLANCE:

- **Commissioned:** December 2019
- **System Size:** 389kW DC
- **Expected Year 1 Performance:** 491,120 kWh
- **Racking:** Ecolibrium Ballasted Non-Penetrating
- **Modules:** Adani 72 Cell Tier 1 355W
- **Inverters:** SolarEdge + DC Optimizers
- **Monitoring:** SolarEdge Consumption + Production monitoring
- **Total Billed System Cost:** \$568,185.67
- **Solar Installer:** SunVest Solar Inc.
- **Cash Grants, Rebates, Incentives:** \$68,182.28
- **Cost/Watt (Excluding Cash Grants):** \$1.29
- **30-Year IRR:** 10.3%
- **Average Annual Savings:** \$70,000
- **30 Year Cashflow:** \$1,419,921

* Total Billed System Cost excludes Solar on Schools 50 kW in-kind grant value estimated at \$20,000.



MERTON
COMMUNITY SCHOOLS
THINKING AHEAD

“Our entire experience from start to finish was fantastic. School Districts need to, at a minimum, pursue the opportunity that solar power might afford their district. After we looked at grants, the opportunity to create our own power, and the very quick return on investment, [solar] was something we could not ignore. ■■
— Ronald Russ, Superintendent

ENVIRONMENTAL BENEFITS:

In the first year the 389kW DC system will offset CO2 emissions equivalent to:



**Electrical Usage of
59 Homes**



**861,641 Miles Driven by
an Average Passenger
Vehicle**



**382,612 Pounds of
Coal Burned**



ABOUT MERTON COMMUNITY SCHOOL DISTRICT:

The Merton Community School District is a 4K-8 grade public school district located in southeast Wisconsin in the beautiful Village of Merton. The Village of Merton is located 20 miles west of Milwaukee in Waukesha County, and is nestled in what is considered the “Lake Country” area in Waukesha County. The district serves roughly 900 students in two schools; Merton Primary School (grades 4-year-old kindergarten through fourth grade) and Merton Intermediate School (fifth grade through eighth grade).



Learn more and access resources at:
midwestrenew.org/solar-on-schools