



Case Study: Solar on Merton Community School District

PROJECT SUMMARY:

Until the state of WI changed the minimum per pupil revenue limit, Merton Community School District was the lowest per-pupil spending district in Waukesha County. With declining enrollment, we saw that our revenue limit (what we can spend) continued to decline. At this point, we began seeking other ways to continue saving money, especially in energy as this was continuing to be a “fixed cost” regardless of enrollment.

Then, in the Spring of 2018, a School Board member was pursuing their own solar energy 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 and we received some early calculations from SunVest which showed great potential. The district formally went to bid for the solar project in March 2019 and by December, our 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 energy which means we are contributing to a cleaner environment as well as saving money.

Both Merton Primary and Merton Intermediate have solar arrays on the roof tops. The anticipated sizing of the solar energy is projected to produce almost two-thirds of our 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, we 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 System Cost: \$568,185.67*
- Solar Installer: SunVest Solar Inc.
- Value of Grants, Rebates, Incentives: \$108,182.28
- Cost/Watt: \$1.46
- 30-Year IRR: 10.3%
- Average Annual Savings: \$70,000
- 30 Year Cashflow: \$1,419,921

* total system cost excludes the Solar on Schools in-kind module donation value estimated at \$40,000

“ 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:



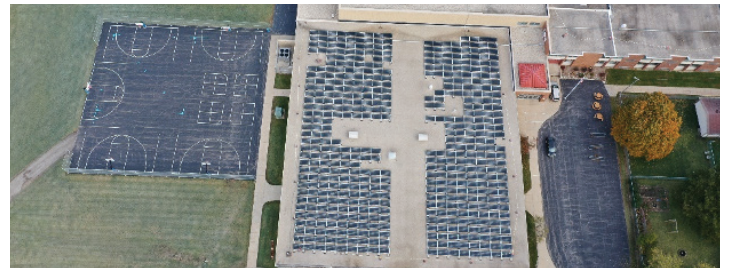
**Electrical Usage of
59 Homes**



**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. We are nestled in what is considered the “Lake Country” area in Waukesha County. We serve 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