



MENOMONIE MIDDLE SCHOOL SOLAR PROJECT DETAILS FALL 2021

After a detailed analysis of electric use at Menomonie Middle School and consulting with the district's representative at Xcel Energy we are recommending a solar photovoltaic (PV) system size of 100 kW.

- The anticipated electricity production from this project is approximately 141,000 kWh/year or approximately 19% of the average annual electric use at Menomonie Middle School. This percentage will increase as efficiency upgrades such as LED lighting are completed.
- The solar PV system will be installed on either the roof of Menomonie Middle School or the berm to the north of the middle school. A risk-benefit analysis will be completed by the district staff to determine the most suitable location for the system.
- The cost of the project before Focus on Energy incentives or grant funding is anticipated to be \$250,000. The anticipated cost after the Focus on Energy special sector incentive is \$219,000.
- Other grant funding will be pursued but is not guaranteed.
- The system is expected to have a 25-30 year life expectancy. The system may have a useful life of 40 years or more with proper maintenance.
- The net value to the district with a 30 year life expectancy is anticipated to be approximately \$217,000 using a 2.3% annual increase in electricity costs and a 0.8% solar panel degradation rate. (2.3% was the average annual electric cost increase between 2000 and 2021)
- The project has an anticipated internal rate of return of approximately 5% while providing educational opportunities to the students and decreasing the district's dependence on fossil fuels. The simple payback period is anticipated to be approximately 16 years without grant funding.