



CASE STUDY: Solar on Lakeshore Technical College

PROJECT SUMMARY

The project aligns with LTC’s Mission to “Transform individuals to strengthen our communities through innovative and accessible learning” by supporting new and planned expanded instructional offerings in renewable energy. This solar PV system installation helps LTC actualize it’s vision to be “the community’s driver for individual, social, cultural, and economic vitality” by responding to industry needs and training workers for careers as solar technicians.

A 20.7 kW DC system in the form of 28 panels will be installed on roof mounts at the Cleveland Campus of LTC. The solar project will bring the college to about a 10% offset of the college’s annual electric needs through renewable energy. The college currently has multiple wind turbines, an industrial outdoor wind lab, two solar array systems, and embedded two pathways with credentials. At present, LTC has 117.5 kW DC of installed wind capacity and 4.8 kW DC solar.

In fall 2021, LTC will offer its first solar technician class, and plans to expand renewable energy offerings include training solar technicians. This project is supportive of LTC’s plans to train more solar workers and prepare students for solar careers. The college is planning to expand industry-recognized renewable energy (RE) curriculum in consultation with business and industry to define a larger renewable energy (RE) offering and develop skilled RE and solar technicians.



**LAKESHORE
TECHNICAL COLLEGE**

ABOUT LAKESHORE TECHNICAL COLLEGE

Lakeshore Technical College (LTC) is a public, two-year post-secondary Institution of Higher Education focused on technical education. LTC serves about 9,000 students each year, including more than 2,500 degree-seeking students. About half of entering degree-seeking students are low income, over a quarter of students are first-generation college students, and twenty percent are students of color.

HELPING WISCONSIN SCHOOLS GO SOLAR

The Couillard Solar Foundation Solar on Schools program is managed by Midwest Renewable Energy Association (MREA). The initiative educates schools on the benefits of solar energy, provides resources to simplify the project development process, and offers grants to lower the upfront cost of solar.

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

SYSTEM AT A GLANCE

Commissioned: May 2021

Electric Utility: WE Energies

System Size: 20.7 kW DC

Expected Annual Performance: 26,952 kWh

Solar Installer: Arch Electric

Total Billed System Cost: \$50,500

Cash Grants, Rebates, Incentives: \$13,090

Cost/Watt: \$ 0.05 kWh

Y1 Electric Savings: \$1,770

30 Year Electric Savings: \$66,073

30 Year Cash Flow: \$28,663

30 Year IRR: 3.73%

Array Tilt and Azimuth: Tilt: 23°; **Azimuth:** 180°

Racking: TerraGen TGR

Modules: Philadelphia 370W

Inverters: SolarEdge SE17.3K-US



ENVIRONMENTAL BENEFITS

In the first year the 20.7 kW DC system will offset CO2 emissions equivalent to:



88,811.65 lb CO2 emission saved



671.05 trees planted

PROJECT PARTNERS

