harvest solar

LAKESHORE DIE CAST

ALUMINUM & ZINC DIE CASTING
BARODA, MI | CASE STUDY

Through the successful implementation of 150 kW and 1.5MW ground-mounted solar arrays, Lakeshore Die Cast has achieved annual savings of $215,860.

AT A GLANCE

CHALLENGES

- High Initial Investment
- Zoning & Building Codes
- Weather Dependency
- High Energy Demand

BENEFITS

- Energy Bill Savings
- Performance Monitoring
- Energy Independence
- Hedge Against Future Electric Rate Increases
- Operational Stability

"With Harvest Solar, they gave me the template to do all the work I needed to do, to actually get the project done the right way. Since we started installing solar here at the shop, we've almost completely gotten rid of our electric bill. My projects with Harvest Solar really went to plan, and I really didn't have to worry about it which is the best you can ask for."

ADAM SCHALLER
Vice President of Lakeshore Die Cast

Scan the QR Code to learn more about Lakeshore Die Cast's Solar Success Story!

OBJECTIVES

Lakeshore Die Cast's operations demand immense energy, from running powerful 500- to 1,000-ton die cast machines to maneuvering massive steel components. With utility costs projected to rise unpredictably, energy efficiency isn't just a priority—it's a necessity. To safeguard cost stability and fuel long-term growth, the company embraced a forward-thinking, sustainable energy strategy.

SOLUTIONS

Recognizing the need for a reliable and cost-effective energy solution, Ken Zebarah designed two solar systems tailored to Lakeshore Die Cast's high-power demands: a 150kW ground-mounted array, followed by a larger 1.5MW system. The 150kW array was implemented first as a proof of concept, allowing Lakeshore Die Cast to test performance and validate Harvest Solar's expertise. After seeing successful results, Adam confidently moved forward with the larger project. Engineered for optimal sunlight capture, these systems have drastically reduced operational energy costs and provided long-term rate stability. Our in-house team expertly managed the installation, and our service department maintains ongoing system monitoring and direct communication with Adam to ensure peak efficiency and performance.

FAST FORWARD

Estimated kWh Generation
With a combined nameplate capacity of 150 kWdc and 1,493.1 kWdc, these solar arrays were expected to generate 2,215 MWh annually. They outperformed expectations, producing 2,310 MWh in 2024 and 2,230 MWh in 2023.

Estimated Savings
The projected savings on utility bills over 25 years from both solar array's amount to approximately $12,270,678.

Estimated CO2 Offset
These solar array's offset as much CO2 as burning 2.8 million pounds of coal and emitting 173 metric tons of CO2.

Estimated Tax Incentives, Rebates, etc.
Lakeshore Die Cast has factored in a 26% Federal Investment Tax Credit, accelerated depreciation and the initial 150kW system was awarded the USDA REAP Grant (25%) for this project to reduce the ROI to 4.5 years.