

ICORE/E3 Success Story

MCLAUGHLIN BODY COMPANY



Founded in 1902, McLaughlin Body Company (MBC) once thought of strictly as a leader in the

manufacturing of Rollover Protection Structures, today, in addition to best-in-class enclosure technology for vehicles in military, construction, agriculture, mining and other rugged work environments, is a leader in operator protection systems and metal components or heavy-duty equipment manufacturing. MBC is committed to good business practices which benefit people, planet and profit. Efficient use of resources, recycling and emissions reduction as well as a focus on continuous improvement are just a few recent successes at their two manufacturing facilities.

SITUATION

MBC's main goals were to have the E3 assessment uncover opportunities to reduce cost, environmental footprint and look for continuous improvement opportunities. The two day assessment reviewed the paint line process at the Rock Island facility; from weld through final inspection. The facility has an area of about 500,000 ft².

THE E3 PROCESS

This E3 program, developed in part by the U.S. Environmental Protection Agency and the U.S. Department of Energy, is designed to improve production and profitability while reducing energy usage and environmental impact. The E3 review involves a hands-on assessment of production processes, recommendations for improvement, and assistance with implementation.

Three Illinois organizations teamed up to provide this assistance to MBC.

MidAmerican Energy provided recommendations on energy improvements. **ISTC** focused on environmental performance. The **Illinois Manufacturing Excellence Center** (IMEC) provided economic and process efficiency advice.

MBC showed its commitment to the E3 process by involving top management, engineers, and floor supervisors in assisting the E3 team. Following the assessment, the team reviewed its recommendations with MBC decision-makers and produced a final list of specific action areas in each of the three areas of focus.



E3: ECONOMY - ENERGY - ENVIRONMENT
A SUSTAINABLE GROWTH STRATEGY

www.e3.gov



ILLINOIS SUSTAINABLE
TECHNOLOGY CENTER
PRAIRIE RESEARCH INSTITUTE

KEY STATS

Implemented Savings



369,800 kWh electricity consumption reduced



5,000,000 gallons of water saved



372.2 tons of CO₂ emissions avoided



\$113,240 annual savings

About MBC

Founded: **1902**

Headquarters: **Moline, IL**

of Employees: **300**

Industry: **Motor Vehicle Parts Manufacturing**

NAICS Code: **336211**

Number of E3 Recommendations Made

ENERGY	14
ECONOMY	12
ENVIRONMENT	30

This E3 Success Story is part of a series of case studies, produced by ISTC, exploring environmental and business improvements which are repeatable at other facilities and organizations.

Please contact ISTC for more information: istc-info@illinois.edu



ABOUT THE ICORE PROJECT

This E3 Project was funded by the US Environmental Protection Agency as part of the ICORE Project.

Illinois Conservation of Resources and Energy (ICORE) strives to achieve measurable energy and water conservation improvements in smaller, rural municipalities and businesses, focusing primarily upon the manufacturing sector. ISTC engineers provide on-site technical assistance to municipal water-wastewater treatment plants and industrial facilities to improve efficiency in:

- Water consumption
- Wastewater generation
- Hazardous material/waste
- Energy consumption
- Carbon emissions

QUALIFICATIONS OF A GOOD E3 CANDIDATE FACILITY

Management Commitment to reducing:

- ✓ ENERGY USAGE
- ✓ WATER USAGE
- ✓ WASTE GENERATION
- ✓ PRODUCTION EFFICIENCY
- ✓ CULTURE OF CONTINUOUS IMPROVEMENT

Resources Available for the Project:

- ✓ PERSONNEL
- ✓ UTILITY USE DATA
- ✓ WASTE GENERATION DATA
- ✓ CAPITAL FOR IMPROVEMENTS

Employees:

- ✓ DEDICATED TO MAKING THE FACILITY BETTER
- ✓ WILLINGNESS TO CHANGE HOW THINGS ARE DONE

Please contact ISTC to schedule a site visit in your community:
istc.illinois.edu/sitevisit

MCLAUGHLIN BODY COMPANY

Q: How did you learn about ISTC and the programs that they offer?

MBC: We had been looking at ways to reduce our waste and energy use. We received an e-mail and started to investigate services ISTC provides.

Q: What did you expect to receive from the assessment performed by the TAP?

MBC: A list of ideas and action items for reducing our waste and energy usage. This was a very beneficial assessment that identified numerous opportunities. The availability of external expertise motivated us to move forward with the project.

Q: What were your initial E3 expectations? Did the E3 meet or exceed them?

MBC: We expected an extensive assessment within the three areas covered by the E3. Our expectations centered on having highly experienced representatives doing a detailed assessment and providing numerous opportunities to reduce cost, reduce our environmental footprint and look for continuous improvement opportunities. The opportunities identified exceeded our expectations.

Q: The E3 requires the use of resources from the facility. Can you describe the resources that McLaughlin expended during the course of the E3?

MBC: McLaughlin assembled an extensive team to support this initiative, including representatives from EH&S, Human Resources, Operations, Quality, Facility/Maintenance and Engineering. There was a high level of commitment from the organization as we separated into teams for each area of the E3.

Q: Overall, how would you describe your experience with the E3 model and the service that you received?

MBC: The experience and service was excellent. I was an intense two days. The external team assembled for the E3 were very experienced and also worked very well with our staff.

Q: What are some characteristics that you feel are important for a successful E3 experience?

MBC: The completion of the pre-assessment is beneficial. A very detailed agenda benefits to make the most out of the two day event. It is essential that the company dedicates the necessary resources to have a successful E3.

Q: In your opinion, what would the perfect E3 candidate-client look like?

MBC: A small to mid-sized business that has limited resources to be able to take on this type of assessment on their own. Having a company involved that has a broad range of manufacturing capabilities is also beneficial due to the various opportunities that are possible for a successful E3.

Q: What dollar value would you place on the E3 assessment? What would you be willing to pay for this service?

MBC: \$10,000 to \$20,000, yes, after we participated in the assessment, we found the value of the services that were provided.

Q: How is McLaughlin using the E3 report information within the facility?

MBC: Our continuous improvement team is using the opportunities identified to map our progress forward and reduce our environmental footprint.

