

Detroit Manufacturing Systems

Case Study: Injection molding machines, lighting, VFDs and tune-ups



\$239,194
rebate dollars

4,200 MWh
saved annually

The Challenge

Detroit Manufacturing Systems (DMS) is a Value-Add Assembly and vertically integrated contract manufacturing company based in Detroit, Michigan. DMS is committed to manufacturing excellence and continuous improvement. With 1,700 hourly and salary team members, DMS prides themselves on having a culture of excellence that drives a higher standard in everything they do. This includes operating as efficiently as possible, including energy efficiency. By making essential investments in their facility, they upgraded interior and exterior lighting, improving employee satisfaction, safety, and their bottom line.

With such a large and fine-tuned operation, our Engineers and Energy Advisors worked closely with DMS to identify opportunity areas which offered the most cost-effective return on investment (ROI), that also improved employee satisfaction and safety. While there were some obvious opportunities in interior and exterior lighting, we took a deeper look into areas of manufacturing and production to assure that no stone was left unturned in their energy efficiency journey.

The Solution

When Detroit Manufacturing Systems made the decision to upgrade their facility to LEDs, they started with replacing their exterior lighting. Next, they decided to convert the entire manufacturing and warehouse areas from 400w metal halides and T5 fluorescent high bay fixtures to brand new LED high bay fixtures. Detroit Manufacturing Systems also installed ten new hybrid injection molding machines to help meet increased production demands from their customers efficiently. These offer significant savings when compared to the standard hydraulic injection molding machines. They also added Variable Frequency Drives (VFDs) to their process cooling system and have performed annual chiller tune-ups to maintain high-efficiency operations.

With such a strong focus on quality and efficiency, it's no surprise that Detroit Manufacturing Systems is also committed to energy efficiency and minimizing their environmental impacts. DMS has been an active participant in DTE Energy's Energy Efficiency Program for Business for several years.

Savings in Action

Recent improvements in lighting and process equipment have resulted in a positive return on investment and quick payback. Plus, Detroit Manufacturing Systems lowered their maintenance costs and improved lighting quality at the same time.

Projects at their Detroit assembly location received over \$200,000 in rebates and saved 4,200 MWh over the last several years. Detroit Manufacturing Systems is a standout in the industry for its commitment to energy efficiency and to its local community.



4,550 tons
CO₂ reduced
annually

Project Details

Hybrid Injection Molding Machines

2,485 MWh electric savings \$140,790 rebate

Interior LED Lighting

1,304 MWh electric savings \$75,437 rebate

Exterior LED Lighting

188 MWh electric savings \$13,097 rebate

VFDs on Process Pumps

120 MWh electric savings \$6,600 rebate

Occupancy Sensors

35 MWh electric savings \$1,830 rebate

VFDs on Process Fans

16 MWh electric savings \$900 rebate

Chiller Tune-Ups

12 MWh electric savings \$540 rebate

“We’re glad to be a part of the success story and revitalization going on in the city of Detroit. And with the help of DTE’s incentives, we have been able to operate more profitably while also improving energy efficiency, it’s a win-win!”

Scott Cieslak,
Chief Financial Officer at
Detroit Manufacturing Systems

Get Started

Updating your facility and performing routine maintenance can lower operating costs by thousands. Our Energy Advisors can get you started on your energy efficiency journey.

Call us at 855.748.2525



Reduced CO₂ emissions are equivalent to avoiding

362 Million

number of smartphones charged



Emissions saved are equivalent to removing

6,622

passenger vehicles from the road for a year



Reduced CO₂ emissions are equivalent to avoiding

3.3 Million

pounds of coal burned

DTE's internal database provides electric and natural gas savings numbers pulled by qualified business data analysts. Only Detroit Manufacturing System's energy efficiency project numbers have been included. All additional numbers were calculated using the EPA's Online Greenhouse Gas Equivalencies calculator.