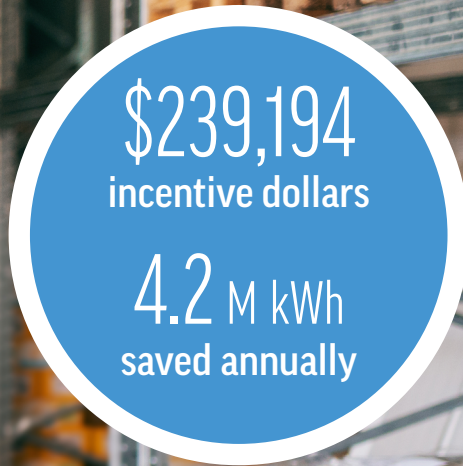


Detroit Manufacturing Systems

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



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 team of engineers and energy advisors worked closely with DMS to identify those areas which offered the most cost-effective return on investment and that also improved employee satisfaction and safety. While there were some obvious opportunities in interior and exterior lighting, we also 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.

Their project at their Detroit assembly location received over \$200,000 in incentives and saving 4 million kWh 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

\$140,790 incentives | 2,485,010 kWh annual energy savings

Interior LED lighting

\$75,437 incentives | 1,303,910 kWh annual energy savings

Exterior LED lighting

\$13,097 incentives | 187,660 kWh annual energy savings

VFDs on process pump

\$6,600 incentives | 119,037 kWh annual energy savings

VFDs on process fans

\$900 incentives | 15,960 kWh annual energy savings

Occupancy sensors

\$1,830 incentives | 35,166 kWh annual energy savings

Chiller tune-ups

\$540 incentives | 11,996 kWh annual energy savings

“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 your operating costs by thousands. Our Energy Advisors can guide you through our incentive program and the online application process.

Call us at 866.796.0512 (option 3)



Reduced CO₂ emissions
are equivalent to avoiding

362 M

number of smartphones
charged



Emissions saved are
equivalent to removing

6622

passenger vehicles from
the road for a year



Reduced CO₂ emissions
are equivalent to avoiding

3.3 M

pounds of coal
burned