

Cadillac Casting



Cadillac Casting is a 275,000 square-foot manufacturing facility sitting on 43 acres in Cadillac, Michigan. Having gained a reputation for developing and manufacturing superior products for almost 100 years, Cadillac Casting has a long and rich history in beautiful Northern Michigan.

Originally built in 1922 as Cadillac Malleable Iron, quality and reliability have been their top priorities, making them a leader in their industry and the benchmark for environmental stewardship. They strive to keep their products and their facility unparalleled in the marketplace for technology advancements and excellence.

Case study

Cadillac Casting's recent energy waste reduction project serves as a benchmark for how ingenuity and creativity can work to improve their processes, reduce energy consumption and lower their operating expenses while also providing additional benefits including worker comfort and faster cycle times.

With the help of DTE Energy's incentives, the improvements were financially viable from the start providing a win-win-win from every direction.

A recent energy efficiency project at their facility, that falls under DTE's custom incentive category, was implemented to reduce waste heat and optimize system performance by improving their dwell ladle pre-heat method. This is a process which operates at 1,450 °F for up to 250 production days/year. By adding removable covers to their ladles and introducing customized sequencing controls, they are able to retain heat and dramatically increases the efficiency of their process.

Cadillac Casting is committed to continuous improvement in all areas of their business. The facility is IATF 16949 Quality Certified, ISO 14001 Environmentally Certified and they currently employ over 400 dedicated team members.

"It opened the doors for us to invest in capital that we may have not done otherwise"
- Eric, Maintenance Superintendent

DTE

Energy Efficiency Program for Business

Project summary

Three desulfurization ladles were required to pre-heat iron ore. These consisted of old, black pipe nozzles, with open flames at the top of the ladles. An engineering design firm developed custom-built heat retention lids to contain the open flames. They also developed advanced controls and sequencing that resulted in a more efficient combustion and preheat process.



Energy savings summary

The savings results of the energy efficiency improvements are summarized as follows:

Gas savings	Cost savings	Project Cost	Custom incentives	Simple payback period
11,000 MCF per year	\$38,500 per year	\$77,700	\$42,160	2.1 years



About our program

The DTE Energy Efficiency Program for Business offers a comprehensive set of incentives for both electric and natural gas users designed to help you invest in energy efficient technologies. Here are three ways to save:

Prescriptive

Prescriptive incentives are available for many common energy efficiency measures and typically average 20% to 50% of the incremental cost of the equipment or services provided. Incentives are based on predetermined energy savings.

Custom

Custom incentives are offered for capital investment projects that are not eligible for a prescriptive incentive. Incentives are determined on a case-by-case basis and are paid per unit energy saved. Custom incentives are capped at 50% of project costs.

New construction

New construction/major renovation incentives are available for new facilities, the renovation of existing facilities or a change of use project, such as converting a warehouse into an office complex. Incentives also are available for adding load.

*Funds will be awarded on a first-come, first-served basis; program based on availability of funding and may end at any time; certain other conditions apply

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