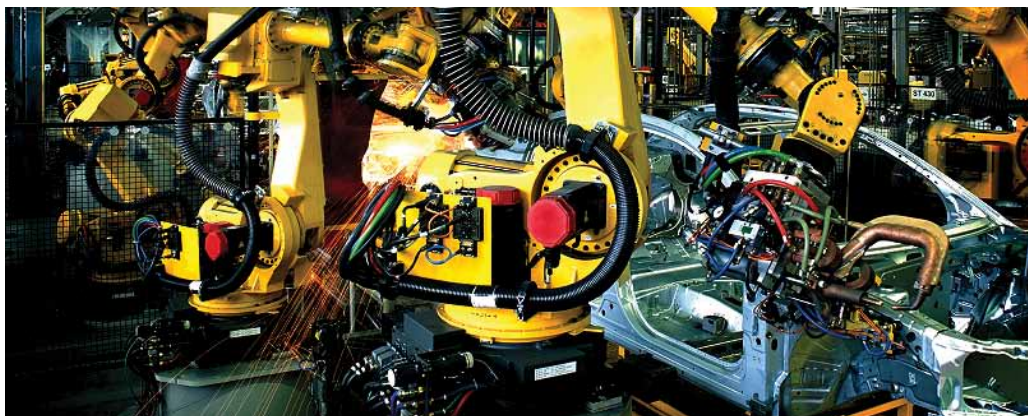


Michigan Industrial Resource Fact Sheet

Introduction

Michigan's economy is ranked 12th in the nation in terms of 2008 gross domestic product (GDP), generating \$382.5 billion annually. Industrial manufacturing is a vital sector of Michigan's economy, providing the state with 316,835 jobs and supplying \$133,402 million worth of goods. Based on the value of shipments, Michigan's leading industries include transportation equipment, machinery manufacturing, fabricated metals, and chemical manufacturing. In 2007, Michigan's industrial sector ranked 11th in the nation in terms of energy expended, accounting for 818.6 trillion British thermal units (Btu) or 27.0 percent of statewide energy consumption. The state's industrial natural gas consumption totaled 191.5 trillion Btu, which was ranked 10th highest in the nation in 2007. Moreover, the industrial sector accounted for approximately 25.4 million metric tons of carbon dioxide emissions in 2005.

Michigan's industrial manufacturers have a great opportunity to improve their energy efficiency and decrease their carbon emissions. In 2008, the Michigan State Senate passed the *Clean, Renewable and Efficient Energy Act*. The act set forth procedures and guidelines designed to optimize energy-efficiency and renewable-energy generation within the state. In addition to this comprehensive energy legislation, there are numerous other resources available throughout the state that plant managers can consult for energy-efficiency and/or renewable-energy information, or for assistance in financing energy-efficiency improvements and/or renewable-energy projects at their facilities.



State Programs

State Government: The State of Michigan offers programs designed to assist industrial operations in implementing energy-saving measures. For example, the Michigan Department of Energy, Labor, & Economic Growth offers programs that save energy, including the State Energy Program which provides financial and technical assistance. The Michigan Industrial Energy Center conducts energy audits at larger industrial manufacturing facilities, while the Retired Engineer Technical Assistance Program offers small businesses no-cost pollution prevention and energy efficiency assessments. The Energy Efficiency and Renewable Energy Loan Program provides low-interest loans, and the Michigan Technology Demonstration Grant Program provides matching grants to businesses for the implementation and demonstration of innovative energy efficiency and renewable energy technologies. Additionally, this agency bestows grants for large-scale photovoltaic installations. Another state office, the Michigan Department of Natural Resources and Environmental Quality, offers the Small Business Pollution Prevention Loan Program for projects that save energy or reduce waste. Finally, the Michigan Economic Development Corporation provides a property-tax exemption for renewable energy installations.

Utility Resources

Michigan utilities are providing a broad range of prescriptive and custom incentive rebates to businesses in response to the Clean, Renewable, and Efficient Energy Act of 2008. Eleven smaller utilities are offering incentives under the state administered plan called Efficiency United. Following are examples of incentives offered under both plans:

Investor-Owned Utilities: Programs provided by investor-owned utilities include Consumers Energy Business Solutions program, DTE Energy's Your Energy Savings program, Wisconsin Public Power's renewable energy rebate program, and Michigan Gas Utilities' business energy advisor program.

Public Power Utilities: Public power utilities offer Michigan's industrial manufacturers incentives to become more energy efficient. Multiple incentive programs are available to Lansing Board of Water and Light's industrial customers, including rebates on new energy-efficient lighting and other energy-saving devices.

INDUSTRIAL TECHNOLOGIES PROGRAM

Electric Cooperatives: Within the State of Michigan, there are several electric cooperatives offering industrial operations energy-efficiency incentives. Cloverland Electric Cooperative offers a cash rebate on purchases of efficient water heaters. For Midwest Electric Cooperative customers, incentive payments are available for installing an interruptible water heater, which turns off the water heater for small periods of time. Wolverine Power Supply Cooperative supplies energy audits to its customers.

Regional Resources

Nonprofit Organizations: The Midwest Energy Efficiency Alliance is a collaborative network advancing energy efficiency in the Midwest to support sustainable economic development and environmental preservation.

Clean Energy Application Center: The Midwest CHP Application Center works to develop technology-application knowledge and the educational infrastructure necessary to foster Combined Heat and Power (CHP) as a viable technical and financial energy, and environmental option in the Midwest. Additionally, the center strives to reduce any perceived risks associated with its implementation.

Local Resources

Nonprofit Organizations: Public Sector Consultants offers the *Michigan Saves* program, which finances the installation of energy-efficiency and renewable-energy upgrades with no upfront cost to utility customers. Furthermore, Clean Energy Coalition, Next Energy Center, Southeast Michigan Sustainable Business Forum, and Urban Options/ Northern Options all offer manufacturers technical assistance. Also, Detroit Economic Growth Authority provides technical, financial, and development assistance to the Detroit business community. Additionally, Northern Initiatives offers loans to businesses located in the Upper Peninsula and Northern Lower Peninsula of Michigan and provides technical assistance for LEAN principles. Furthermore, Clean Energy Coalition, Next Energy Center, Southeast Michigan Sustainable Business Forum, and Michigan Energy Options/ Northern Options all offer manufacturers technical assistance.

Industrial Assessment Center: The University of Michigan, with sponsorship from the Department of Energy, hosts an Industrial Assessment Center that provides small to midsize manufacturers with no-cost energy assessments.

Manufacturing Extension Partnership: The Michigan Manufacturing Technology Center provides Michigan's small- and medium-sized manufacturers with operational assessments, process improvement training, mentoring services, Web site technical assistance, and market diversification tactics.

For More Information

DOE Industrial Technologies Program (<http://www1.eere.energy.gov/industry/index.html>)

ITP Save Energy Now (<http://www1.eere.energy.gov/industry/saveenergynow/>)

ITP State Activities Web site - Michigan (http://www1.eere.energy.gov/industry/states/state_activities/map_new.asp?stid=MI)

ITP State Incentives and Resources Database (http://www1.eere.energy.gov/industry/about/state_activities/incentive_search.asp)

Energy Efficient Upgrades (<http://www.business.gov/expand/green-business/energy-efficiency/upgrades/office-equipment.html>)

Michigan Economic Development Corporation (<http://www.michigan.org/medc/ttc/Alternative.Energy/Financial.Incentives>)

Michigan Department of Energy, Labor & Economic Growth (<http://www.michigan.gov/dleg/0,1607,7-154-25676---00.html>)

Clean Energy Coalition (<http://www.cec-mi.org/>)

Cloverland Electric Cooperative (<http://www.cloverland.com/index.php?p=water>)

Detroit Economic Growth Authority (<http://www.degc.org/>)

Lansing Board of Water & Light (<http://www.lbwl.com/>)

Midwest Energy Cooperative (<http://www.teammidwest.com/interruptiblewaterheater.aspx>)

Michigan Gas Utilities (<http://www.michigangasutilities.com/business/bsa.aspx>)

Michigan Saves (<http://www.michigansaves.org>)

Next Energy Center (<http://www.nextenergy.org/>)

Northern Initiatives (<http://www.northerninitiatives.com/>)

Southeast Michigan Sustainable Business Forum (<http://www.smsbf.org/>)

Wisconsin Public Power (<http://www.wppienergy.org/services>)

Wolverine Power Supply Cooperative (<http://www.wpsci.com/EnergyEfficiency.aspx>)

Contacts

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Manufacturing Extension Partnership in Michigan
Michigan Manufacturing Technology Center
Director: Dan Luria
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Fax: (734) 451-4200
E-mail: inquiry@mmtc.org
Web site: <http://www.mmtc.org/>
Source: <http://blue.nist.gov/centers/MI>

Clean Energy Application Center for Region
Midwest CHP Application Center
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Web site: <http://www.chpcentermw.org/>
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