



POWERING Ohio

Employing Efficiency. Fueling Growth.

Energy Efficiency

Energy Efficiency is working for Ohio manufacturers to improve their competitiveness in a global economy.

Ohio

John R. Kasich, Governor

**Development
Services Agency**

David Goodman, Director

Energy Efficiency Program for Manufacturers

The work of the **Ohio Development Services Agency's Office of Energy** is focused on leading the transformation of a new energy economy in Ohio built on the state's long history of excellence in manufacturing and innovation. To this end, the Office of Energy administers many federal and state-funded programs and provides technical assistance on clean energy technologies to improve the competitiveness of Ohio businesses and to enhance the quality of life of residential customers.

Among these programs is the **Energy Efficiency Program for Manufacturers**, which is a multi-phase energy efficiency program that helps Ohio manufacturers reduce costs through facilitation services and financial assistance that diagnose, plan and implement cost-effective energy improvements at their facilities. Funding is made available through the U.S. Department of Energy's State Energy Program and Ohio's Energy Loan Fund. The program is designed in four phases:

- **Phase I** is the identification of energy cost saving actions through a facilitated process in which the company management team examines their energy use within their business systems.
- **Phase II** is the development of an energy plan that combines changes in business process methodologies with the identification of cost-effective measures through the completion of a technical energy audit of the company's facilities.
- **Phase III** is the installation of energy cost saving measures. Many companies are eligible for financing through the Office of Energy's Energy Loan Fund to implement these measures.
- **Phase IV** is measurement and verification of the energy cost saving measures.

Real Results:

This program is enabling hundreds of Ohio's manufacturers to realize cost savings and improve the efficiency of their operations, ultimately putting companies in a better position with worldwide competitors. To date, the program has invested more than \$25 million in Ohio's manufacturing sector to reduce energy usage for a combined annual savings of 1 billion cubic feet (gas, oil, other) and 79,000 megawatt hours.

Success Story

Performance Plastics | Cincinnati, OH

Performance Plastics, founded in 1982, is a manufacturer of high-performance plastic parts for the medical, energy, aerospace/defense, industrial, electronic and food and beverage industries. The results from Phase I and II of the Energy Efficiency Program for Manufacturers suggested to Performance Plastics a replacement of three hydraulically-actuated, plastic injection molding machines with newer, energy efficient electric models. With the purchase of these new machines, Performance Plastics has been able to increase the uptime of production and hire four full-time employees.

Total Public Funds Invested: \$200,008

Phase II: \$2,850

Phase III: \$197,238

Total Project Cost: \$395,916

Project Impacts: Expected energy reduction of 77 percent, which will save 176,148 kWh annually.



Step-by-Step Program Guide

Below are the steps that participating companies take through each phase of the program to achieve their energy, economic and environment benefits from implementing energy efficiency projects.

Step I – Complete an Energy Management Diagnostic (2-4 weeks)

First, a customer background form is completed by the company and then a two-hour diagnostic session is scheduled and conducted at the facility.

1. Depending on annual energy usage, your company will be enrolled either in the EnVinta One-2-Five® or the Energy Achiever. Both are free of charge for companies participating in the program.
 - a. The One-2-Five® Program targets companies that spend \$350,000 a year or more on energy.
 - b. The Energy Achiever Program targets companies that spend less than \$350,000 a year on energy.
2. Key company representatives will participate in a discussion with facilitators to examine how your business thinks about energy and to identify opportunities for improved business systems that achieve sustainable energy cost savings. At a minimum, your company should provide data on annual energy use and cost, NAICS or SIC codes and information on how the business operates and manufactures product. The key people that should be attending the diagnostic session include the Plant Manager, Operations/Production Manager, Maintenance Manager, Financial Manager and Energy Manager.
3. Five "Action Steps" will be identified by the diagnostic.

Step II – Develop an Energy Management Plan/Technical Opportunities Assessment (4-6 weeks)

4. Companies will work with a facilitator to develop the energy management plan and a list of technical opportunities that increase energy efficiency at the manufacturing facility.
5. Currently, the Office of Energy funds 50 percent of the plan to a maximum of \$15,000. The total average cost of management plans in Phase II has ranged from \$4,000 to \$29,000.

Step III – Project Implementation/Resources for Funding (up to 2 years)

Project implementation timeline depends on the number and complexity of installed energy measures.

6. Implement energy efficiency measures identified from the technical assessment completed in Phase II.
7. Financing from the Office of Energy's Energy Loan Fund may be available.

Step IV – Measurement and Verification (1 year following project completion)

8. Upon completion of installed technologies and measures, companies will work with their program facilitators to verify the estimated energy savings data.

Success Story

Royal Ice Cream | Cleveland, OH

Royal Ice Cream has been producing ice cream in Cleveland since 1932. When long-range planning led to the decision to construct a new 35,000-square-foot manufacturing facility, Royal signed up for the Energy Efficiency Program for Manufacturers to help create a more sustainable process. During the first two phases of the program, Royal identified multiple areas within the operation for energy savings. In Phase III, Royal installed energy efficient ice cream production equipment, refrigeration controls, and energy efficient lighting. Features also incorporated in the new facility include skylights and windows which provide natural light, equipment that makes use of the process heat and cooling for air conditioning and heat, and motion sensors that control lighting in parts of the building.

Total Public Funds Invested: \$512,365

Phase II: \$12,365

Phase III: \$500,000

Total Project Cost: \$1,130,364

Project Impacts: New equipment increased energy efficiency by more than 15 percent and reduced natural gas usage by more than 20 percent, allowing Royal to increase capacity with minimal impact on energy costs.



Success Story

Energy Efficiency Program for Manufacturers wins 2013 Midwest Energy Efficiency Alliance Innovation Award!



"This program perfectly illustrates why energy efficiency is good business. MEEA is proud to recognize the Ohio Development Services Agency and the state of Ohio for developing this trailblazing program that other government agencies across the nation can follow," said Jay Wrobel, MEEA's executive director.

ODSA's Office of Energy received the 2013 Inspiring Efficiency Innovation Award for its Energy Efficiency Program for Manufacturers from the Midwest Energy Efficiency Alliance. The program helps Ohio manufacturers to reduce their costs through energy improvements at their facilities.

In today's global economy, Ohio companies are competing with manufacturers from around the world. The Ohio Development Services Agency's Office of Energy helps Ohio companies through its Energy Efficiency Program for Manufacturers to reduce costs through identification and implementation of energy and cost saving measures. This real effect on the bottom line will put Ohio companies in a better competitive position with worldwide competitors.

The Office of Energy provides a portfolio of tools and services from Ohio technical assistance providers for use by Ohio manufacturers to use as a resource bank in developing the technical answers to the energy management plan. In the long run, the Energy Efficiency Program for Manufacturers can help the Ohio manufacturing sector retain and create jobs through the cost savings achieved from the diagnostic process to implementation of identified energy strategies.



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