U.S. DEPARTMENT OF ENERGY

Center for Energy Efficiency & Renewable Energy at UMassAmherst

Industrial Assessment Center

Free assistance for industrial facilities to reduce energy and resource costs

The Industrial Assessment Center (IAC) at the University of Massachusetts Amherst conducts energy and resource assessments for manufacturing facilities and water/wastewater treatment plants and then provides specific, impartial recommendations to reduce operating costs. As one of 28 regional centers supported by the U.S. Department of Energy, our service comes with no cost or obligation.

Assessments are conducted by a team of engineering graduate students, under the leadership of Mechanical Engineering Professor Beka Kosanovic, who has three decades of experience in industrial energy efficiency.

First we compile and analyze the facility's energy bills. Then we make a one-day site visit, in which we talk with staff to understand site operations, production schedules, and any specific areas of interest or concern; walk through the facility to review equipment and manufacturing processes; and use our metering and diagnostic tools to collect performance data for key equipment.

Within 45 days, we send a report detailing our recommendations to reduce the facility's operating costs. Recommendations may include measures to reduce energy use, electrical demand, water use, or waste. The report includes estimates for implementation costs, resource and cost savings, simple payback periods, and emissions reductions. We can then work with your utility or energy efficiency program to help your company earn incentives or rebates toward implementation of our recommendations.

Eligibility

Your facility may be eligible for a no-cost assessment if it meets these criteria:

- A manufacturer within Standard Industrial Codes (SIC) 20-39, or a water or wastewater treatment facility
- Gross annual sales below $100 million
- Fewer than 500 employees on site
- Annual energy bills between $100,000 and $2.5 million
- No in-house staff to perform an assessment

Contact Us

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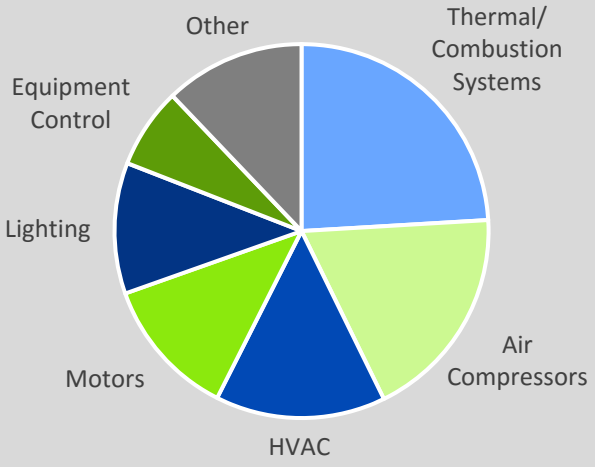
Practical Recommendations that Result in Cost-Effective Savings

800	assessments in New England and New York since 1984
$61,000	average annual cost savings *
1.5 year	average payback period *
150 tons	average reduction in CO_2 emissions *

Implemented Recommendations



* Average results of recommendations implemented from assessments conducted in the past 10 years

May 2017

Success Stories

Aircraft Component Manufacturer, 2015

- Implemented 8 of 9 recommendations
- Annual cost savings: $40,500
- Simple payback period: 8 months

Implemented recommendations include:

- Install controls for exhaust fan
- Install variable frequency drives on pumps, in place of throttling
- Use cooling tower rather than chiller during low outside temperatures

Commercial Bakery, 2013

- Implemented all 9 of our recommendations
- Reduced propane use by 20%
- Annual cost savings: $83,500
- Simple payback period: 1.9 years

Implemented recommendations include:

- Improve compressed air system
- Insulate steam pipes
- Upgrade lighting and install occupancy sensors
- Use oven exhaust to preheat combustion air

Dairy Facility, 2007

- Implemented 5 of 7 recommendations
- Annual cost savings: $55,800
- Simple payback period: 10 months

Implemented recommendations:

- Optimize boiler operation
- Optimize refrigeration system operation
- Repair leaks in compressed air system
- Upgrade lighting

Paper Mill, 2007

- Implemented 5 of 8 recommendations
- Annual cost savings: $2.9 million
- Simple payback period: 1.8 years

Implemented recommendations include:

- Insulate steam lines and condensate tanks
- Recover heat from dryer hood exhaust to preheat incoming air
- Replace oil boiler with a combined heat and power system including a wood-fired boiler and steam turbine

Seafood Facility, 2011

- Implemented 4 of 7 recommendations
- Annual cost savings: $47,200
- Simple payback period: 1.6 years

Implemented recommendations:

- Insulate hot water tank
- Optimize plant power factor
- Turn off equipment when not in use
- Upgrade boilers

Tooling Manufacturer, 2015

- Implemented all 7 of our recommendations
- Reduced oil use by 14%
- Annual cost savings: $52,500
- Simple payback period: 2.1 years

Implemented recommendations include:

- Eliminate unnecessary uses of compressed air
- Install variable frequency drives on pumps, in place of throttling
- Insulate steam lines
- Repair leaks in compressed air system
- Repair or replace failed steam traps

Contact us to find out if your facility is eligible for a free assessment