



## UMass Industrial Assessment Center Helps Kettle Cuisine Cook Up Energy Savings

Early in 2018, the Industrial Assessment Center (IAC) at the University of Massachusetts Amherst completed an in-depth assessment for the Kettle Cuisine facility in Lynn, Massachusetts. Kettle Cuisine produces premium soups, sauces and other products for foodservice operators and grocery retailers. This facility employs more than 100 people.

IACs are located in 29 universities around the country and funded by the U.S. Department of Energy's Advanced Manufacturing Office. They provide assessments of energy and resource use at no cost for small to midsized manufacturing and water/wastewater treatment facilities. The New England region is served by the IAC at the University of Massachusetts Amherst, based in the Mechanical and Industrial Engineering Department's Center for Energy Efficiency and Renewable Energy. Alan Gilbert, Kettle Cuisine's Health and Safety Manager, learned about the IAC at a workshop it cohosted about sustainability in the food processing industry.

The assessment was conducted by Professor Beka Kosanovic, Director of the UMass IAC, and four mechanical engineering graduate students. The team analyzed the facility's utility bills and then visited the site to meet with facility staff, learn about the manufacturing process and site operations, review all major energy consuming equipment in the facility, and measure performance of specific equipment using the IAC's metering and diagnostic tools.

The IAC provided a report with detailed analysis of several new opportunities for energy savings, as well as some that Kettle Cuisine staff had thought of but not had time to evaluate. The nine recommendations include recovery and use of waste heat, installation of automated controls on fan motors, improved insulation, lighting upgrades, and optimization of the facility's ammonia refrigeration system. In total, the projected annual savings is \$275,600, or 12% of energy costs. After utility incentives toward implementation costs, the savings would pay for the company's investment in less than two years. Kettle Cuisine is currently working with its utility and vendors to implement most of the IAC recommendations.



### Projected benefits:

- Electricity savings: 1,385 MWh/year
- Demand reduction: 419 kW
- Natural gas savings: 6,053 MMBtu/year
- Emissions reductions:  
1,000 tons CO<sub>2</sub>,  
1,300 pounds NO<sub>x</sub>,  
960 pounds SO<sub>2</sub>/year

### Annual cost savings:

- \$275,600 – 12% of total energy costs

### Simple payback period:

- 1.9 years

To learn more about the Industrial Assessment Center and find out if your facility is eligible for a free assessment, visit [www.ceere.org/iac](http://www.ceere.org/iac) or contact IAC Director Beka Kosanovic at 413-545-0684 or [kosanovic@umass.edu](mailto:kosanovic@umass.edu)