

# Industrial Assessment Centers: AMO Technical Assistance Overview

John Smegal



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### **Industrial Assessment Centers Overview**

- DOE funds engineering programs at national universities to provide free assessments to identify significant energy savings, water and waste reduction recommendations, and productivity improvements at small and medium-sized manufacturers
  - Typical IAC plant historically has not focused on energy management
  - Approximately one-third of IAC recommended savings opportunities involve operational changes requiring little or no capital investment
  - Most implemented recommendations have an estimated payback of less than one year
  - Better Plants supply chain participants can make substantial progress towards their savings goals simply by receiving an IAC assessment
- This experience give students first-hand knowledge of energy engineering skills needed by American manufacturers
  - Nearly 60 percent of IAC graduates go on to careers in the energy industry



#### **Industrial Assessment Centers Overview**

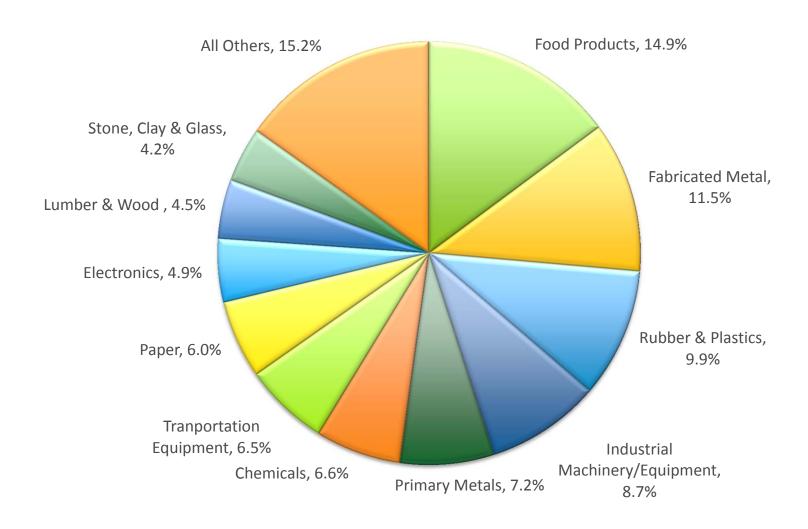
# Industrial Assessment Centers 2012-2016 **Oregon State** IOWA STATE MILWAUKEE Idaho State UNIVERSITY LEHIGH BRADLEY Colorado State ETSU: Southeast NC STATE UNIVERSITY MEMPHIS U.S. DEPARTMENT OF <u>Mıamı</u> **Energy Efficiency &** Renewable Energy

## **Industrial Assessment Centers Overview**

- Plants served
  - Program concentrates almost exclusively on industrial operations
  - Standard industrial classification codes (SIC) 20 through 39
  - Limited number (1-2 per year per center) of "non-traditional" assessments are allowed – with DOE approval (e.g., wastewater treatment, hospitals/institutions)
  - Plant normally located within 150 miles (242 kilometers) of an IAC
- Directed at small and medium sized manufacturers primary customer:
  - Has gross annual sales of <= \$100 million</li>
  - Consumes energy at a cost between \$100,000 and \$2.5 million/year
  - Employs no more than 500 people
  - Has no technical staff whose primary duty is energy management



# **Assessments at IAC Plants by Industrial Sector**





# **Industrial Assessment Centers Accomplishments**

- Assessments have identified nearly \$542M in energy savings and nearly 3.6
   million metric tons in CO2 emissions reductions since 2006
- On average, an IAC client will save more than \$47,000 in energy, waste and water savings, and productivity improvements
  - Annual energy savings to DOE cost ratio of 6 to 1
  - Accounting for persistence increases the ratio to more than 40 to 1
  - Annual savings do not account for any activities for IAC graduates
- Since 1981, IACs have participated in more than 16,000 assessments and provided nearly 121,000 recommendations for small and medium-sized manufacturing plants



## **Industrial Assessment Centers Database**

- Publicly available
  - http://iac.rutgers.edu/database/
- Contains:
  - Facility data
  - Recommendation data
  - Implementation data
- Searchable by
  - Size (in energy usage, employees, etc...)
  - Industry Type (NAICS or SIC)
  - Location
  - Recommendation Type
- Updated in real-time as the assessments are completed









#### **Industrial Assessment Centers FY14 Plan**

#### **Identify and Implement Energy Savings**

- Conduct assessments of small and medium-sized manufacturers
- Establish recognition program for exceptional energy savings by IAC plants
- Launch Better Plants Supply Chain initiative
  - Pilot phase involves a group of Legrand, North America suppliers
- Increase stakeholder (e.g., Utilities, EPA, NIST, industry, States) collaboration on assessments to drive increased implementation rates

#### **Workforce Development**

- Maintain IAC student population
- Provide applied energy efficiency research awards to selected students
- Develop plan for ABET-accredited degree program
- Recognize outstanding achievements by IAC students and alumni



#### **Industrial Assessment Centers Outlook**

- Increased emphasis on water supply/wastewater treatment facilities
- Increased coordination with Better Plants and CHP TAPs
- Formal agreements with utilities and/or state energy offices to enhance implementation rates
- Greater outreach with IAC alumni
- Complete third-party evaluation of impacts of IAC alumni and assessment activity on clients
- Begin re-scoping and rebid of the programs in 2015



## **Industrial Assessment Centers Get Involved**

#### As a manufacturer you can engage the IACs in many ways:

- 1. Participate in the Better Plants Supply Chain initiative
- 2. If your facilities fit the IAC criteria, sign up for an assessment
- 3. If your suppliers fit the IAC criteria, sign them up for an assessment
- 4. Recruit IAC grads as interns or employees
- 5. Sign up for the IAC quarterly newsletter for more information!

#### http://www.energy.gov/eere/amo/industrial-assessment-centers-iacs

#### **John Smegal**

Workforce Development Lead Advanced Manufacturing Office john.smegal@ee.doe.gov (202) 287-6225 – Office (202) 288-7415 – Mobile



