



## INDUSTRIAL TECHNOLOGIES PROGRAM

### California Save Energy Now: State, Regional, and Local Delivery

The industrial sector in California accounts for approximately one-third of the state's natural gas consumption and one-sixth of the state's electricity consumption. With approximately 50,000 industrial plants in the state, California manufacturers account for approximately 20 percent of the state's carbon emissions. The state has established aggressive goals to help reduce energy consumption and carbon emissions that will require a reduction in energy use by the industrial sector. It has also adopted the *Energy Policy Act of 2005's* objective to reduce industrial energy intensity 2.5 percent annually during a 10-year period.

To help reach these goals, the Industrial Program of the California Energy

Commission (CEC) has put forth a comprehensive approach toward reducing industrial energy intensity in California during a short time period. It anticipates that its approach of sponsoring trainings, conducting energy assessments, hosting technology demonstrations, piloting a resource efficiency program, assisting in the piloting of an American National Standards Institute (ANSI) standard for plant certification, and implementing a comprehensive communications and outreach plan will help the project reduce industrial energy consumption by 20 trillion Btu and eliminate over 1 million metric tons of carbon emissions over the project period.



### Benefits

- Reduction of industrial energy intensity by 2.5 percent each year of the project period, or 7.5 percent overall
- Energy assessments to identify energy savings opportunities for manufacturers in the state
- Knowledge of compressed air, process heating, and steam systems and training in how to make them more energy efficient.

### Applications in Our Nation's Industry

This project will expand a partnership among academia, state offices, and utilities that will continue to help reduce the energy intensity of industrial manufacturers in California. The Industrial Program's industrial energy efficiency project will reduce industrial energy intensity and its associated carbon emissions throughout the state.

## Project Description

The Industrial Program plans to reduce the industrial energy intensity in California a minimum of 7.5 percent during the project term by implementing the following strategy:

- **BestPractices Training Workshops:** The CEC Industrial Program will sponsor 45 BestPractices Workshops on compressed air, processing heating, and steam systems. Workshops on pumps, motors, and fans will be hosted if requested. All training sessions will include workbooks and instruction on the U.S. Department of Energy's (DOE's) BestPractices suite of tools. Workshops will be hosted by the program's utility partners in locations throughout the state.
- **Energy Assessments:** Qualified Specialists will conduct at least 30 energy assessments at industrial facilities throughout the state to identify short- and long-term cost and energy savings. The assessments will focus on improving compressed air, process heating, or steam systems. Plant personnel who participate in an energy assessment will first be required to attend a workshop to be trained in using the DOE tools to monitor a system's energy intensity after the energy assessment is completed. CEC staff will also track performance and energy savings.
- **Technology Demonstrations:** One facet of CEC is the Public Interest Energy Research Program (PIER), which finances energy-efficient technologies and helps move them to market. The Industrial Program will partner with PIER to host three technology

demonstrations and author final reports based on the results of the demonstrations.

- **Resource Efficiency Pilot Program:** The Industrial Program will partner with a food processor to conduct a full plant assessment that will identify energy savings from improved water efficiency and waste water recycling.
- **ANSI Standard:** Partnering with two university-based Industrial Assessment Centers, the Industrial Program will work with utilities and their industrial customers to help pilot the ANSI standard for plant certification in at least three plants.
- **Communications and Outreach:** The project team's communications and outreach plan involves utilizing its strategic partners (i.e., utilities, trade associations, and state government offices) to disseminate energy efficiency resources and tools to industrial manufacturers in California. A technical writer will be hired to help author case studies on successful energy assessments and a video production company will produce a streaming video on energy efficiency in compressed air systems.

## Progress and Milestones

The project's planned tasks include:

- Sponsoring 45 BestPractices Workshops on compressed air, process heating, and steam system efficiency
- Conducting a minimum of 30 energy assessments at California plants
- Hosting three technology demonstrations and authoring reports on their results.

## Primary Investigator

California Energy Commission,  
Sacramento, CA

## Project Partners

California League of Food Processors,  
Sacramento, CA  
California Manufacturers and  
Technology Association, Sacramento,  
CA  
City of Lodi Electric Utility Department,  
Lodi, CA  
Edison CTAC, Irwindale, CA  
Imperial Irrigation District, Imperial, CA  
Manufacturers Council of the Central  
Valley, Modesto, CA  
Pacific Gas and Electric Company, San  
Francisco, CA  
Sacramento Municipal Utility District,  
Sacramento, CA  
San Diego State University, San Diego,  
CA  
San Francisco State University, San  
Francisco, CA  
Southern California Gas Company, Los  
Angeles, CA  
State of California Employment Training  
Panel, Sacramento, CA

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