

## 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 about 20% of the state's carbon emissions. The state has established aggressive goals to help reduce energy consumption and carbon emissions by requiring a reduction in energy use by the industrial sector. California also has adopted the Energy Policy Act of 2005 objective to reduce industrial energy intensity 2.5% annually during a 10-year period.

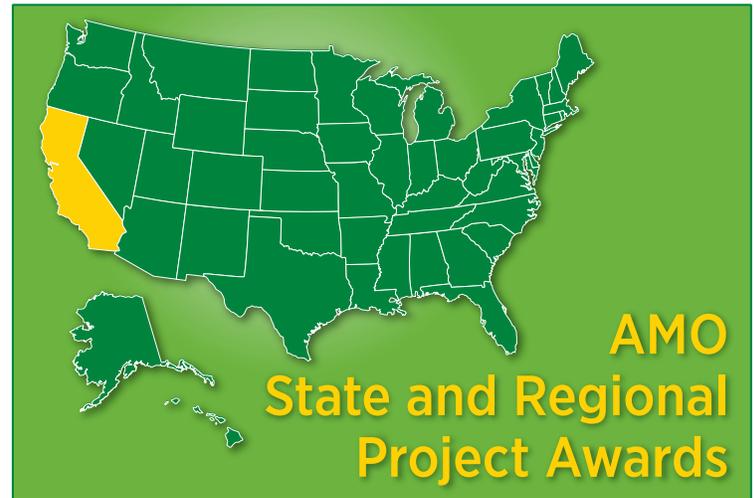
The California Energy Commission's Industrial Energy Efficiency Program and its key program partners are delivering a comprehensive package of training and technical assistance services to improve energy efficiency in California's industry.

The Program is delivering these services over a three-year period through a project award from the U.S. Department of Energy (DOE) Advanced Manufacturing Office (AMO). This project aims to achieve more than 40 million kWh in annual savings, more than 22 million therms of annual natural gas savings, 20 trillion Btu of energy savings, and more than one million tons of reduced carbon dioxide emissions over the three-year period.

### Progress and Milestones

Activity Description	Goal	Completed to Date
Assessments	30	0
Identified Energy Savings (Trillion Btu)	-	3.16
Implemented Energy Savings (Trillion Btu)	20	0
Trainings	45	15
Individuals Trained	-	428
Pilots / Demonstrations	3	0
Plants Impacted	-	311

*(As of June 2011)*



### Project Description

**Funding Amount:** \$900,000

**Funding Source:** U.S. Department of Energy, Advanced Manufacturing Office

**Program Period:** 10/31/2010 to 10/31/2012

### Project Success Highlights

- Completed four BestPractices Qualified Specialist training workshops on pumping systems, steam systems and compressed air systems.
- Collaboration with the California Air Resources Board (ARB) to conduct required energy assessments at large industrial facilities in the state.
- Collaboration with UCD CIFAR to begin pilot projects within the food and agricultural industries in California.

### 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

The Program has offered 15 BestPractices Workshops, four of which were Qualified Specialist trainings. Across these 15 training sessions, there were 428 participants from 311 unique companies or entities represented. The workshops ranged from 1–3.5 days in length and addressed the following topics:

- Fundamentals of Compressed Air
- Advanced Management of Compressed Air Systems Training
- Compressed Air System Qualified Specialists Certification Training
- Pumping Systems Management
- Pumping System Qualified Specialists Certification Training
- Steam Systems Management
- Steam System Qualified Specialists Certification Training.

The Energy Commission Team is continuing to work with utility training coordinators, utility industrial account representatives, and BestPractices Qualified Instructors to conduct energy savings assessments (ESAs) in coordination with the Qualified Specialist trainings. This approach of connecting ESAs with scheduled workshops has engaged participants who are highly motivated to improve and update their technical skills. Additionally, holding an ESA after the workshop has further demonstrated to participants how to implement energy efficiency improvements discussed in the workshop setting.

The Team is pursuing a university-based partnership with the University of California at Davis (UCD), California Institute of Food Agricultural Research (CIFAR). Proposed projects include pilot projects within the food and agricultural industries. These pilots are focusing on capturing significant energy savings through the adoption of both energy and water efficiency methods, as well as from increasing the number of waste-water reuse cycles.

The projects that the Team is discussing with UCD will require approval by the State Energy Commissioners. Energy Commission approval and DOE approval must be attained before these scope-of-work revisions can proceed and the initial conversations seeking approval get underway.

**For Additional Information:**

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**Benefits**

- Reduction of industrial energy intensity by 2.5% each year of the project period, or 7.5% overall.
- Energy assessments to identify energy savings opportunities for manufacturers in the state.
- Knowledge of compressed air, process heating, and steam systems, as well as training regarding how to make these areas 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 energy efficiency project will reduce industrial energy intensity and its associated carbon emissions throughout the state.

**A Strong Energy Portfolio for a Strong America**

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy’s Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.