

Reducing Industrial Energy Intensity in the Southeast

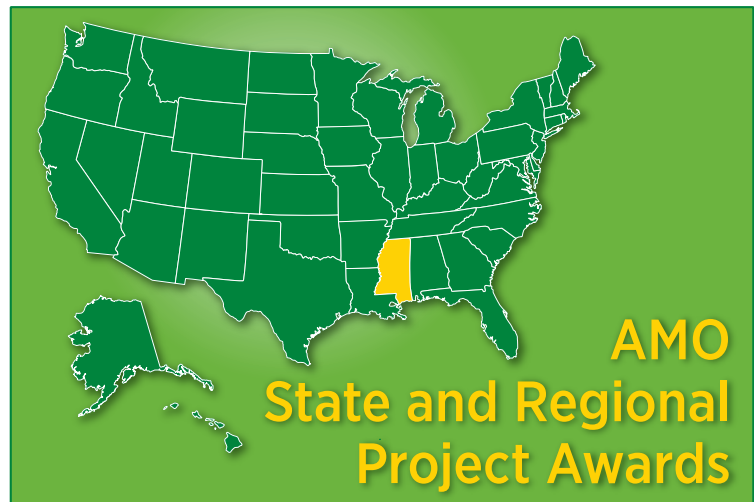
With leading manufacturing industries in the Southeast United States that include petroleum and coal products, forest products, transportation equipment, and food, the industrial manufacturing sector dominates the region's energy consumption and contributes to high per-capita usage. The Mississippi Development Authority and its project partners have established the Southeastern Center for Industrial Energy Intensity Reduction ("the Center") to inform industrial facilities about the U.S. Department of Energy (DOE) Advanced Manufacturing Office's (AMO) goals of reducing industrial energy intensity in the Southeastern region. The Center is also providing companies with assessments, energy management training, and implementation services. The project is creating partnerships among DOE, state and local government, universities, end users, utilities, and nongovernmental organizations (NGOs) to reduce energy intensity by 2.5% each year of the three-year project period regionally, or 7.5% overall.

This project offers a comprehensive marketing and outreach strategy to form effective energy efficiency programs throughout the region. In addition, the initiative will seek to operate without direct federal support by the end of the funding period; this will be accomplished by exploring alternative revenue streams, such as sponsorships, affiliate programs, or assessment fees. Efforts to identify initiatives to improve regional competencies and cooperation to enable clean energy opportunities identify business opportunities for existing regional businesses and facilitate alliances. Additionally, attracting inward investment opportunities and facilitating introductions, partnerships, and further projects will ensure that the Center becomes self-sustaining.

Progress and Milestones

Activity Description	Goal	Completed to Date
Assessments	39	35
Identified Energy Savings (Trillion Btu)	-	2.599
Implemented Energy Savings (Trillion Btu)	-	0.040
Trainings	4	5
Individuals Trained	-	78
Pilots / Demonstrations	-	-
Plants Impacted	-	190

(As of June 2011)



Project Description

Funding Amount: \$866,742

Funding Source: American Recovery and Reinvestment Act

Program Period: 9/30/2009 to 3/31/2013



Project Success Highlights

- Close collaboration between the three project partners—MSU, UF, and NCSU.
- Successful expansion of existing network presence on different layers of industry and energy markets, including industrial ratepayer groups, energy efficiency providers, and utilities.
- Held a workshop in collaboration with the Mississippi Energy Coordinator's Association in Philadelphia, Mississippi, in September 2010, where industrial representatives, energy efficiency providers, and policymakers conducted discussion and planning sessions to identify the best tactics to implement the Center's goals of reducing energy intensity in the Southeast.
- Completed 35 assessments and provided more than 80 hours of engagement and technical assistance to businesses, energy interest groups, and governmental organizations.

Project Success Highlights

- Conducted four AMO Qualified Specialist Training workshops in crosscutting technology areas of Steam Systems and Process Heating Analysis and Pumping Systems, as well as a Fundamentals of Compressed Air and Process Heating Analysis workshop, to facilitate the development of industrial energy efficiency.
- Published a newsletter to disseminate information on best practices in industry, events, regional resources, and knowledge of energy policy and incentives that affect the industrial sector in the Southeast.

Primary Investigator and Regional University Partners

Mississippi Development Authority, Jackson, MS
Mississippi State University, Mississippi State, MS
North Carolina State University, Raleigh, NC
University of Florida, Gainesville, FL

The Center will target its programs and resources to industry in Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

The project has made progress in developing and training the work force to support market penetration of DOE's Qualified Specialist training program, as well as to develop new short courses and distance learning course assets in specialized areas of concern to Southeast industries. Mississippi State University (MSU) has conducted DOE training for Pumping Specialists and Steam Tools. Two AMO training programs have also been conducted in crosscutting technology areas of Fundamentals of Compressed Air and Process Heating Analysis and Survey Tool Specialist Qualification Workshop. The University of Florida (UF) has developed three distance learning courses. Existing continuing education resources at the universities are targeted at graduating engineering students entering industry professions.

A comprehensive marketing and outreach strategy has been adopted to strengthen and expand the Southeast network of contacts and resources among industry and industrial energy efficiency market support, energy efficiency technology providers, utilities, policy and regulatory groups, and applied research interests. In support of these marketing and outreach efforts, MSU partnered with the Mississippi Energy Coordinators Association to provide a half-day seminar on the *Save Energy Now* project at the state-level conference held in September 2010. The *Save Energy Now* Southeast Partners Workshop was held in Atlanta, Georgia, in March 2011 to coordinate efforts in communications, branding, calendaring, and referrals. Involved in this meeting were key leaders of other state *Save Energy Now*-funded projects in the Southeast.

The program is also delivering technical assistance, and custom energy efficiency assessments in support of the expansion of Energy Savings Assessments (ESAs) and IAC activities. Through this program, 35 assessments have been completed utilizing the expertise of DOE energy auditors and the IACs at MSU, North Carolina State University (NCSU), and UF. The Center has provided approximately 80 hours of technical assistance to various businesses, energy interest groups, and governmental organizations; it also has participated in many regional events to discuss the important role of industrial energy efficiency in planning for the Southeast's energy future. These assessments and technical assistance efforts have identified potential opportunities to save energy to the benefit of companies in the defense contracting, furniture, graphics, light manufacturing, phosphate, plastics, and steel industries.

Future Plans

Establishing utility-industry partnerships on energy efficiency is important to increasing the implementation of industrial energy intensity reducing technologies, and the Center has been working to identify the characteristics of energy programs that will benefit all stakeholders. It is expected that the Center's support and involvement in the design and execution of next generation utility-industry programs will help sustain the resources that are needed to keep the region on track to become a leader in low-energy industry and manufacturing.

Project Partners

Florida Power and Light Company, Miami, FL
 GreenCo Solutions, Inc., Raleigh, NC
 Kentucky Division of Energy Efficiency and Conservation, Department for Energy Development and Independence, Frankfort, KY
 MARSPEC Technical Products, Mobile, AL
 North Carolina Sustainable Energy Association, Raleigh, NC
 Piedmont Natural Gas, Charlotte, NC
 Progress Energy, Raleigh, NC
 Resinall Corporation, Stamford, CT
 SIEMENS, Morrisville, NC
 Southeast CHP Application Center, Mississippi State, MS
 Tennessee Valley Authority, Chattanooga, TN

3 Year Project Benefits

- Projected 55.1 trillion Btu energy intensity reduction throughout the region over the three-year project period.
- Estimated emissions reduction of 3,300,000 tons of carbon dioxide; 5,230 tons of nitrogen oxide; and 13,941 tons of sulfur dioxide.
- Increased energy-management education opportunities and implementation of energy efficiency programs by training 660 professionals.

Applications in Our Nation's Industry

This project will establish partnerships among DOE, state and local governments, universities, end users, utilities, and NGOs to reduce industrial energy intensity in the Southeast by 2.5% each year of the project period and to provide companies with assessments, energy management training, and implementation services.

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.

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