

Save Energy Now – South Carolina

South Carolina is home to a diverse manufacturing base with over 3,500 industries. The manufacturing sector in South Carolina accounts for approximately 40% of the energy consumed in the state. The South Carolina Manufacturing Extension Program (SCMEP) and South Carolina Energy Office (SCEO) have partnered to help the state's industrial sector reduce its energy intensity by 2.5% annually.

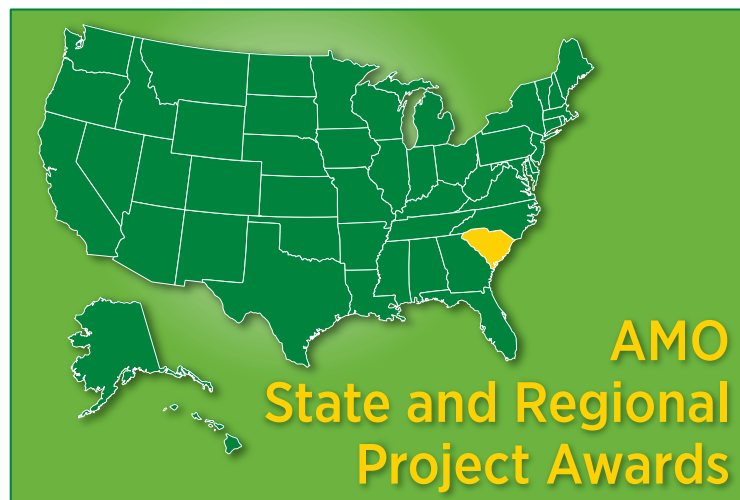
South Carolina's project is designed to be accomplished in 36 months. The initial start date was October 1, 2009, and the project is anticipated to be completed on September 30, 2012. However, funding has been awarded only for the first two years, covering the project through September 30, 2011.

The overall objective of the *Save Energy Now* – South Carolina project is to improve the operational energy efficiency of South Carolina manufacturers, ultimately improving their competitiveness and their bottom line. To achieve this goal, SCEO and SCMEP will deliver Industrial Assessment Center assessments and energy savings assessments to small- and medium-sized manufacturers throughout the state. In addition, the team will conduct training for industrial stakeholders to provide them with the skills to identify and implement energy efficiency improvements and reduce waste in their facilities. The South Carolina team will also host a symposium that will offer a venue for manufacturers and vendors of energy-efficient technologies to network and demonstrate their products and services.

Progress and Milestones

Activity Description	Goal	Completed to Date
Assessments	16	10
Identified Energy Savings (Trillion Btu)	-	0.085
Implemented Energy Savings (Trillion Btu)	-	0.026
Trainings	9	7
Individuals Trained	-	> 100
Pilots / Demonstrations	0	2
Plants Impacted	-	11

(As of June 2011)



Project Description

Funding Amount: \$898,908

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

Program Period: 9/30/2009 to 9/30/2011

Project Success Highlights

- Completed energy assessments at 10 industrial facilities, identifying approximately 85,000 MMBtu of potential savings.
- Initiated the process to pilot the ISO 50001 Energy Management Standard and Superior Energy Performance (SEP) with two companies: Spirax Sarco and Eaton Corporation.
- Initiated six implementation plans based on recommendations that came from completed energy assessments.
- Conducted one specialized training session titled *Industrial Energy Strategy & the Role of Audits*.

Primary Investigator

South Carolina Energy Office, Columbia, SC

Project Partners

Britt Marketing and Communications, Columbia, SC
Central Electric Power Cooperative, Columbia, SC
Clemson University, Clemson, SC
Duke Energy, Charlotte, NC
Industrial Technology Associates, Gaston, SC
Palmetto Economic Development Corporation, Columbia, SC
Palmetto Energy Solutions, Incorporated, Blythewood, SC
Piedmont Natural Gas Company, Atlanta, GA
Progress Energy, Raleigh, NC
Santee Cooper, Moncks Cooper, SC
South Carolina Department of Commerce, Columbia, SC
South Carolina Department of Health and Environmental Control, Columbia, SC
South Carolina Economic Developers Association, Columbia, SC
South Carolina Electric and Gas Company, North Charleston, SC
South Carolina Manufacturers Association, Columbia, SC

SCEO and SCMEP have developed a targeted approach for project delivery with the following goals:

Host and sponsor EERE BestPractices training events using associated software, tools and resources. SCEO and SCMEP organized a one-day training session utilizing the DOE BestPractices Pumping System Assessment Tool (PSAT). A DOE-certified instructor taught the course to 23 attendees representing 11 companies. The team also held five special subject training sessions.

Host and sponsor specialized training events focused on strategies to reduce energy waste and improve environmental effectiveness in manufacturing processes. Topics include lean manufacturing initiatives and carbon reduction strategies aimed at reducing greenhouse gas emissions. Recently, the team conducted a specialized training session titled Industrial Energy Strategy & the Role of Audits, which attracted 51 attendees from 18 companies and six governmental agencies. This was the sixth specialized training session conducted. Previous sessions in the series covered topics such as Energy Strategy and the Bottom Line, Lean and Green, and Making Energy Audits Work for Your Business.

Conduct energy assessments for qualifying industries in South Carolina. The South Carolina team has completed energy assessments at 10 industrial facilities. Of those, the team is working with six plants to initiate implementation plans for recommended efficiency improvements. The assessments have identified approximately 85,000 million Btu of potential savings, equal to \$1.4 million in bottom-line impacts for clients.

Provide industrial companies with technical assistance to implement energy-saving recommendations, with the specific goal of reducing energy intensity, without negatively impacting product throughput. Technical assistance has been provided to the two companies recruited to participate in ANSI/MSE: 2000:2005 Energy Management pilots. Save Energy Now – South Carolina has completed four sessions with each company to prepare for their pilot Phase 3 training. Following the preparation, the South Carolina team completed the pilot Phase 3 training with both companies.

Pilot the ANSI/MSE: 2000:2005 Energy Management protocol. The team is working to pilot the ANSI/MSE: 2000:2005 Energy Management protocol with two companies. Prior to initiating the pilots, the South Carolina team attended an initial DOE training conducted by Georgia Tech to learn about the ISO 50001 Energy Management Demonstration Project. Following the training, the team initiated the process to pilot energy management demonstrations with two local industrial companies—Spirax Sarco, which produces steam system products, and Eaton Corporation, a diversified power management

Project Partners - continued

South Carolina Manufacturing Extension Partnership, Columbia, SC
South Carolina Technical Colleges, Columbia, SC
University of South Carolina, Columbia, SC

Benefits

- Decrease the energy intensity of impacted plants by 2.5% per year over the project period.
- Provide training to manufacturers in South Carolina, equipping them with the skills needed to reduce energy intensity, reduce waste, and improve overall efficiency.
- Provides South Carolina with a go-to organization offering a variety of energy efficiency services for industrial manufacturers in the state.

Applications in Our Nation's Industry

This project provides South Carolina's industrial manufacturers with a go-to resource to help improve their energy efficiency, reduce waste, and improve their operations.

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.

company and global technology leader in electrical systems. In addition to working closely with Spirax Sarco and Eaton Corporation, the team has participated in monthly and quarterly conference calls with Georgia Tech.

Calculate, capture and report the net energy savings on identified and implemented energy saving projects. Through the completed assessments, approximately 85,000 million Btu of potential savings have been identified, equal to \$1.4 million in bottom-line impacts for clients.

For Additional Information:

Tom Hudkins

South Carolina Energy Office

1201 Main Street

Suite 430

Columbia, SC 29201

Phone: 803-737-8030

E-mail: THudkins@energy.sc.gov