

Southeast Industrial Energy Alliance

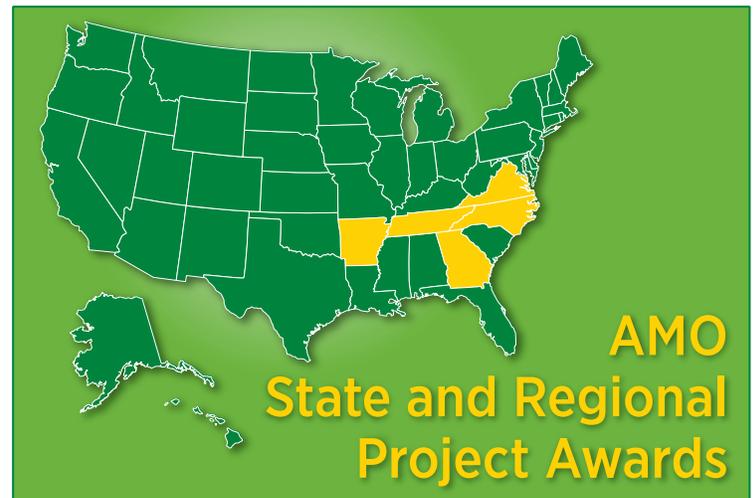
Energy efficiency is a priority for the Southeast states of Arkansas, Georgia, North Carolina, Tennessee, and Virginia, whose manufacturers are among the country's largest industrial consumers of energy. Improving the energy efficiency of the manufacturing plants in the Southeast will help to reduce their carbon footprints and improve their competitiveness by reducing energy costs.

Led by the Georgia Environmental Finance Authority, the Southeast team's multifaceted approach to helping reduce industrial energy intensity in the region consists of conducting energy assessments in order to teach manufactures how to identify energy saving opportunities, as well as hosting end-user and Qualified Specialist training to give companies the skills on how to use tools provided by the U.S. Department of Energy (DOE) Advanced Manufacturing Office (AMO) to identify system specific opportunities. In addition, the team is conducting a demonstration program to implement an American National Standards Institute (ANSI)-accredited Plant Certification program and technology demonstrations to show other plants how to implement energy management systems and see energy efficient technologies that work. Finally, the team is implementing a marketing and outreach strategy to engage manufactures in the program and disseminate results that can be replicated by others. The team's approach contains an education component to ensure that energy assessment or training participants obtain the skills to implement their knowledge far into the future.

Progress and Milestones

| Activity Description | Goal | Completed to Date (Reg. Project Funding) | Completed to Date (ARRA) |
|---|------|--|--------------------------|
| Assessments | 22 | 5 | 5 |
| Identified Energy Savings (Trillion Btu) | - | - | 1.04 |
| Implemented Energy Savings (Trillion Btu) | 6.4 | - | - |
| Trainings | 39 | 12 | 20 |
| Individuals Trained | - | 254 | 324 |
| Pilots / Demonstrations | 1 | 1 | 1 |
| Plants Impacted | - | 119 | 164 |

(As of June 2011)



Project Description

Funding Amount: \$738,000

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

Program Period: 11/1/2009 to 10/31/2012

Funding Amount: \$500,000

Funding Source: American Recovery and Reinvestment Act

Program Period: 9/30/2009 to 3/31/2012



Project Success Highlights

- A large North Carolina company with significant energy consumption agreed to be a candidate for the ISO 50001/ SEP certification program. The company has attended Phase I and Phase II regional trainings and is well on its way to developing an ISO 50001 certified energy management system.
- The first SEP demonstration project ever held in the Southeast began in June 2010 in Georgia.
- Partners in North Carolina, including the North Carolina State University Industrial Extension Service and Bridgestone Americas Tire Operations, participated in an ISO 50001 Energy Management System audit at the Nissan plant in Smyrna, TN.

Primary Investigator

Georgia Environmental Facilities Authority,
Atlanta, GA

Project Partners

Arkansas Economic Development Commission, Little Rock, AR
BCS, Incorporated, Laurel, MD
Georgia Tech Enterprise Innovation Institute, Atlanta, GA
North Carolina State University Industrial Extension Service, Raleigh, NC
Oak Ridge National Laboratory, Oak Ridge, TN
Southeast Energy Efficiency Alliance, Atlanta, GA
Tennessee Department of Economic and Community Development, Nashville, TN
Tennessee State Energy Division, Nashville, TN
Virginia Department of Mines, Minerals and Energy, Richmond, VA

Across its three-year project, the Southeast team is conducting its program with five main tasks:

- 1. American Society of Mechanical Engineers (ASME) Energy System Assessments**
The assessments offered through the program are at no cost to the industrial facilities and are conducted using DOE/ASME standards.
- 2. Superior Energy Performance (SEP) Plant Certification Demonstration**
Through the demonstration, the team will assist five manufacturing facilities in implementing the ISO 50001 standard in order to obtain SEP certification within two years. This aspect of the project will incorporate a train-the-trainers approach by building service delivery capacity in each state by training at least six Certified Practitioners in Energy Management Standards and Measurement & Verification.
- 3. Local Training Centers**
Local training centers have been established in Arkansas, Georgia, North Carolina, Tennessee, and Virginia. Each center provides end-user and Qualified Specialist training using AMO BestPractices tools.
- 4. Commercialization & Technology Demonstrations**
The team will complete two demonstrations that will encourage increased adoption of DOE-sponsored technologies in order to lead to reduced energy consumption.
- 5. Marketing & Outreach**
Led by the Southeast Energy Efficiency Alliance (SEEA) and BCS, Incorporated, the team is focused on recognition, motivation, identification of additional resources, and documentation of energy savings.

Now approaching the halfway point in the project period, the Southeast team is on track with or exceeding many of its goals.

For the team’s ASME System Assessments, the table below displays progress against goals:

| Partners | Number of Assessments | | | |
|------------|-----------------------|-----------|--------|-----------|
| | Year 1 | | Year 2 | |
| | Goal | Completed | Goal | Completed |
| GA, TN, NC | 2 | 5 | 2 | 2 |
| VA, AR | 2 | 2 | 3 | 2 |

The team plans to offer assessments during the first two years of the three-year project period. During the third year, the focus will shift to implementation.

The team also has been successful in launching the training portion of its project. The team has set a goal of providing end-user and Qualified Specialist training to between 100–150

Benefits

- It is anticipated that the Southeast team’s efforts will directly lead to energy reduction of 6.4 trillion Btu in the region.
- Greenhouse gas emissions will be reduced by more than 523,000 metric tons.
- Manufacturers in the Southeast region will receive training that will provide them with skills to reduce energy intensity, reduce waste, and improve overall plant system performance.

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 Georgia. 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.

workshop attendees in each state. These sessions will also be used to build partnerships with other state energy stakeholders that can take the lead on hosting similar trainings after the contract concludes. The team’s progress thus far is displayed below:

| Partners | Number of Training Events | | | | | |
|----------|---------------------------|-------------------------|--------|-------------------------|--------|-------------------------|
| | Year 1 | | Year 2 | | Year 3 | |
| | Goal | Completed/ Scheduled | Goal | Completed/ Scheduled | Goal | Completed/ Scheduled |
| GA | 3 | 3 | 3 | 2 | 3 | TBD |
| TN | 3 | 0 | 3 | 0 | 3 | TBD |
| NC | 3 | 3 | 3 | 1 | 3 | TBD |
| VA | 3 | 3 | 3 | 3 | 0 | 0 |
| AR | 3 | 3 | 3 | 1 | 0 | 0 |

Several tasks are still in the beginning stages. For example, the team is still in the process of assessing and vetting potential technologies for the Technology Demonstrations it will hold. Similarly, the Marketing & Outreach task is in its early stages.

For Additional Information:

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