



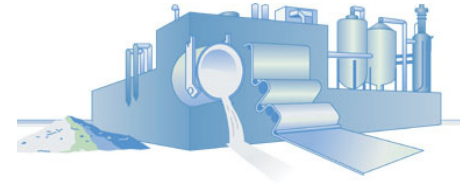
INDUSTRIAL TECHNOLOGIES PROGRAM

Development of a Regional Assessment/ Implementation *Save Energy Now* Delivery System

Energy assessments are a valuable resource for industrial plants to learn how to more effectively consume energy. Depending on the size of a plant, energy auditors will examine either the entire plant or a specific system and identify no- and low-cost opportunities to lower energy intensity. When implemented, the improvements will directly result in cost savings and reduced carbon emissions. However, although energy assessments are complimentary, there are still plants that are unaware of this opportunity.

West Virginia Division of Energy and Industries of the Future – West Virginia, along with their partners, plan to take a regional approach to reduce industrial energy intensity by developing and implementing a comprehensive energy-reduction package that incorporates an enhanced energy assessment process that includes investment grade cost analysis, creation of the Regional Energy

Efficiency Knowledge Center, and an Energy Management resource database. An Energy Management System will be implemented at a representative company to attain certification to the American National Standards Institute (ANSI) standard for energy management. The team is also developing a Regional Industrial Energy Efficiency Marketing and Outreach Center to promote the participation in the Regional Partnership, showcase success stories, provide information to the media, and serve as the central point of contact for inquiries about industrial energy efficiency tools, services, and resources. The goal is to ensure that more plants in West Virginia, eastern Ohio, western Pennsylvania, eastern and central Kentucky, eastern and central Tennessee and southwestern Virginia have access to this resource and other energy efficiency tools and begin to implement energy-efficient technologies and practices into their operations.



Benefits

- Projected 4 percent regional reduction in industrial energy intensity for 10 years
- Projected regional reduction of 26.34 million metric tons of CO₂
- Reduced energy intensity and carbon emissions at medium- and large-sized industrial plants in West Virginia, eastern Ohio, western Pennsylvania, eastern and central Kentucky, eastern and central Tennessee and southwestern Virginia
- Enhanced assessment process for a customized approach
- Improved media outreach of energy assessments and energy-saving tools.

Applications in Our Nation's Industry

When implemented, West Virginia's program will work to exceed the EPA's goal in West Virginia, eastern Ohio, western Pennsylvania, eastern and central Kentucky, eastern and central Tennessee and southwestern Virginia. The team further projects that its program will garner an average of a 4 percent energy savings rate per year or an overall savings of 127.4 trillion Btu over a decade.



Project Description

The overarching objective of West Virginia's program is to achieve the *Energy Policy Act of 2005's* (EPAAct) goal by reducing industrial energy intensity by 25 percent over a 10-year period.

The program plans to reach this goal by implementing the following multi-pronged approach in West Virginia, eastern Ohio, and western Pennsylvania to improve the current energy assessment program:

- **Enhanced Energy Assessments:** An energy assessment program will be developed based on key fundamentals of the U.S. Department of Energy's (DOE) Industrial Assessment Center, *Save Energy Now*, and former Plant-Wide Assessment Programs. The team will conduct energy assessments at industrial plants of all sizes. The team will upgrade the assessment process to include investment grade cost analysis, conduct post-assessment follow up activities, including measurement and verification assistance and training, for a two-year period to ensure that the plants are achieving the promised energy savings and to inform them of any new energy efficiency opportunities.
- **Advance the *Save Energy Now* LEADER Initiative:** The project team will work with the U.S. Department of Energy's to engage a company in the region as voluntary partner to participate in the development of a sustainable energy management system that complies with the energy management standard. This will include the completion of a baseline energy use analysis and demonstrated commitment to the continuous improvement of their energy performance. Measurement and validation protocols will be applied and tested in this pilot project and will be designed to document the key

performance indicators and validate energy savings.

- **Regional Industrial Energy Efficiency Marketing and Outreach:** Strategic partnerships will be developed or enhanced to deliver DOE resources to more industrials in the region. Companies will be publicly recognized and rewarded for implementing a continuous improvement approach to reducing energy intensity. In addition, the team will create the Energy Efficiency Knowledge Center to help with information dissemination.

Progress and Milestones

The project's planned tasks include:

- Conducting between 28 and 40 energy assessments in medium- to large-sized industrial facilities. The assessment process will come with pre- and post-assessment follow-up activities including training and verifying energy savings.
- Creating an Internet-based Energy Efficiency Knowledge Center to provide specific information to plants regarding their energy assessment results. The database will also house system-specific tools and information on energy efficiency improvements.
- Authoring case studies and creating an energy profile of plants that participate in the team's energy assessments.
- Holding a half-day meeting for potential clients/partners to hear about energy assessment successes. The team will also develop media outreach tools, a database of energy efficiency resources, and an exhibit to be showcased at conferences.
- Certification of a candidate plant to the ANSI Standard in 2011

Primary Investigator

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Project Partners

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E3M, Inc., North Potomac, MD
Fireline TCON Inc., Youngstown, OH
HK Engine Components, LLC, Weston,
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Northampton Community College
Energy Management Institute,
Bethlehem, PA
Southeast Missouri State University,
Cape Girardeau, MO
City of Tipp City, Tipp City, OH
Tennessee Technological University
Industrial Assessment Center
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