Using ITP Decision Tools To Save Energy Now

Facts & Figures

- About one-third of the nation's total energy use is consumed in U.S. industries.
- Even plants with energy management programs can often save 10% to 15% more using best practices to increase their energy efficiency.

Benefits

- Energy efficiency improvements can reduce utility bills and improve your plant's bottom line.
- Many improvements require little or no extra investment, are easy to implement, and have payback times of less than a year.
- Strategies that increase energy efficiency can reduce operating and maintenance costs, minimize waste, and enhance production.
- Energy efficiency helps to reduce negative impacts on the environment and can enhance corporate community relations programs.

Resources

For more information, to obtain DOE's assessment and decision tools, and to learn more about DOE Qualified Specialists and training opportunities, visit the BestPractices Web site, www.eere.energy.gov/industry/bestpractices and see the Resources section.

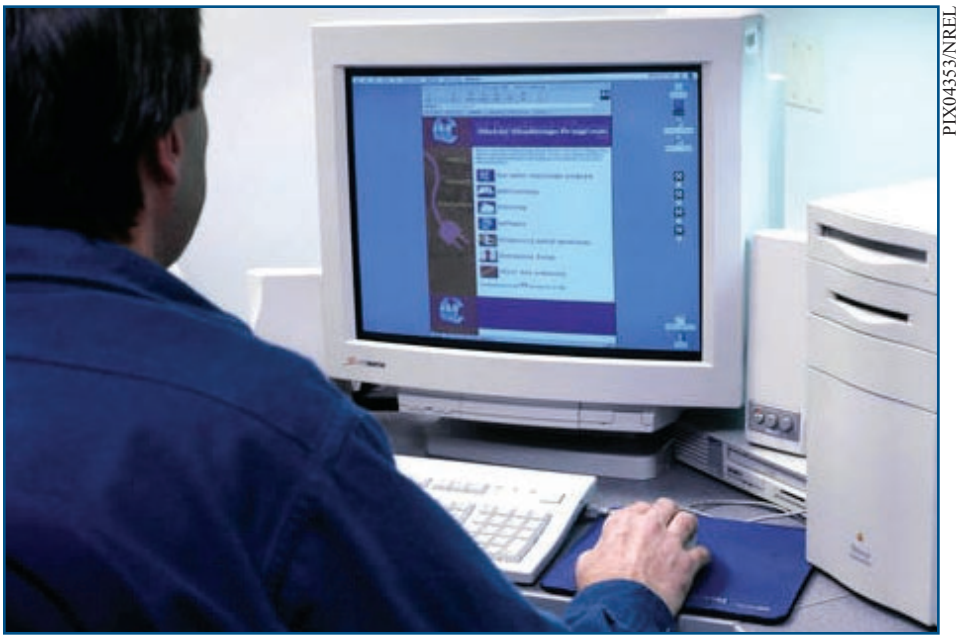
Additionally, you can contact the EERE Information Center at 1-877-EERE-INF (1-877-337-3463), or via the Web at www.eere.energy.gov/informationcenter.

The right tools and information can help you improve your plant's productivity, save money, and increase the reliability of your industrial systems and equipment. The U.S. Department of Energy's (DOE) Industrial Technologies Program (ITP) develops and distributes free analysis and decision-support software tools to help you identify opportunities for savings and improve plant operations.

The tools use analytical models to evaluate your process heating, steam, pumping, compressed air, motor, and other plant utility systems. They can help you identify, assess, and implement opportunities for savings without proposing a specific product, technical solution, or design change. Each decision tool was developed by a DOE-industry partnership; ITP has also developed training in applying the tool.

Potential for Savings

You can begin benefiting today by using ITP's software tools to manage energy use in your process heating, steam, pumps, compressed air, and other systems. Even plants with vigorous energy management programs can save as much as 10% to 15% more by using these tools to assess their actual energy use and identify savings. Download these free tools at www.eere.energy.gov/industry/bestpractices/software.html.



PIX04353/NREL

ITP software decision tools allow you to identify and analyze energy-saving opportunities.

ITP Decision Tools	
AIRMaster+	Allows skilled users to model existing and future system upgrades and evaluate the savings and effectiveness of energy efficiency measures.
Chilled Water System Assessment Tool (CWSAT)	Allows plants to assess how adjustments to their current technology and operations will affect energy consumption and costs, providing detailed and quantitative potential energy and cost comparisons.
Combined Heat and Power Application Tool (CHP Tool)	Evaluates the feasibility of using gas turbine-driven CHP in industrial heating systems such as fuel-fired furnaces, and provides estimates of system costs and paybacks as well as a what-if analysis for various utility costs.
Fan System Assessment Tool (FSAT)	Helps determine the efficiency of fan system operations by identifying savings opportunities, analyzing system data to rate efficiency, calculating energy savings, and pinpointing fan systems that are not operating at best capacity.
MotorMaster+	Includes an international motor price and performance database with information on more than 18,000 National Electric Manufacturer's Association (NEMA) 60 Hz motors. Features motor inventory management tools, maintenance logging, efficiency analysis, savings evaluation, energy accounting, and environmental reporting capabilities.
MotorMaster + International	Offers multi-language capabilities (English, Spanish, French) and allows users to conduct motor repair/replace analyses using any currency. Contains a manufacturer's motor performance database for more than 10,000 International Electrotechnical Commission (IEC) 50Hz metric motors.
NO_X and Energy Assessment Tool (N_XEAT)	Inventories existing equipment at petroleum refining and chemical plants and analyzes the effects of NO_X-reducing strategies and energy efficiency practices.
Plant Energy Profiler for the Chemical Industry (ChemPEP Tool)	Enables energy managers to assess overall plant energy use, identify energy-intensive equipment and operations, and determine energy savings opportunities with reasonable payback times.
Process Heating Assessment and Survey Tool (PHAST)	Surveys process heating equipment that uses fuel, steam, or electricity, and identifies the most energy-intensive equipment. Performs energy (heat) balances on selected equipment (furnaces) to identify ways to improve efficiency. Contains several calculators that compare the performance of individual pieces of equipment under various operating conditions.
Pumping System Assessment Tool (PSAT)	Assesses the efficiency of pumping systems and prioritizes energy efficiency opportunities by determining dollar and electrical energy savings.
Steam System Tool Suite	• **Steam System Scoping Tool** (SSST) – Evaluates a facility's steam system operation and compares your system against identified best practices. • **Steam System Assessment Tool** (SSAT) – Estimates the impacts of key steam system improvements. Generates results detailing the energy, cost, and emissions savings that could be achieved by up to 16 different improvements. • **3E Plus** – Calculates the most economical thickness of industrial insulation for operating conditions entered by the user.

ITP provides U.S. industries with software assessment tools, training, technical information, and assistance. These resources and energy management practices help plants improve the energy efficiency of their process heating, steam, pumps, compressed air, and other systems; reduce operating costs; and improve their bottom line.

BestPractices is part of the Industrial Technologies Program, and supports DOE's strategy to help the country's most energy-intensive industries improve their competitiveness. BestPractices brings together emerging technologies and energy-management best practices to help companies begin improving energy efficiency, environmental performance, and productivity right now.

BestPractices emphasizes plant systems, where significant efficiency improvements and savings can be achieved. Industry gains easy access to near-term and long-term solutions for improving the performance of process heating, steam, pumps, compressed air, and other motor-driven systems. In addition, the Industrial Assessment Centers provide comprehensive industrial energy evaluations to small- and medium-size manufacturers.

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.

For More Information, Contact:

EERE Information Center
1-877-EERE-INF
(1-877-337-3463)
www.eere.energy.gov

Or visit these Web sites:

Industrial Technologies Program (ITP)
www.eere.energy.gov/industry

ITP BestPractices
www.eere.energy.gov/industry/bestpractices

Save Energy Now
www.eere.energy.gov/industry/saveenergynow

U.S. Department of Energy
Energy Efficiency and Renewable Energy
Washington, DC 20585-0121

DOE/GO-102006-2279
February 2006