

## 6. Perform technology delivery activities to improve near- and mid-term energy efficiency

Industry can save enormous amounts of energy today — this year's savings exceed 200 trillion Btu/year — by implementing off-the-shelf technologies and energy management practices. ITP funds technical assistance activities to stimulate near-term adoption of the best energy-saving technologies and practices within industry. These activities include plant assessments, tool development and training, information and technology dissemination, and showcase demonstrations. To reach as many plants as possible, ITP also pursues a *replication* strategy.

- **Software tools and training** enable companies to self-assess their plant's steam, compressed air, motor, pumps, insulation, and process heating systems. Training plant managers to optimize energy use for specific utility systems or across an entire plant helps companies operate plants more efficiently with little or no capital investment. ITP's extensive library of publications on proven energy management practices also helps companies achieve immediate energy savings.
- **Plant assessments and audits** uncover inefficiencies in overall operations and in motor, steam, compressed air, pumping, and process heating systems. ITP cost-shares plant-wide assessments that save most companies at least \$1 million in annual energy savings after just one assessment. Energy productivity and waste assessments performed for small- and medium-sized plants over the past decade have led to cumulative annual energy savings of about 74 trillion Btu.
- **Showcase Demonstrations** highlight the benefits of energy efficiency and renewable energy technologies by applying them in an operating manufacturing plant. ITP participates in EERE-wide public events to demonstrate how a comprehensive approach to improving plant operations can increase productivity, cost and energy savings, and environmental benefits.
- **Replication** of energy efficiency technologies and practices is critical to ITP's strategy. EERE **Allied Partnerships** are true public-private partnerships that use this replication strategy. EERE provides practical tools and training materials and the Allied Partners train plant engineers and disseminate energy efficiency information. EERE also provides technical assistance to Allied Partner energy assessment teams, whose results are replicated at other facilities owned by the Allied Partner. The ultimate objective of the partnerships is to spread the best practices in energy management throughout industry.

## Internal Partnerships

ITP is an integral part of the new EERE organization and has lead responsibility for accomplishing EERE's Strategic Goal 6, *Increase the Energy Efficiency of Industry* and supporting responsibility on Goal 1, *Dramatically Reduce, or Even End, Dependence on Foreign Oil*. The realigned EERE management structure allows ITP to focus on its core competency: developing and managing energy technology portfolios to meet mission goals.

Integration with the entire EERE organization is an important operating strategy. ITP builds synergies with other technical programs to deliver a diverse portfolio of energy efficiency and renewable energy technologies to industrial partners and to bring advanced manufacturing



expertise to the renewable energy community. ITP coordinates with all EERE business functions to create a more efficient and accountable management process. The Golden Field Office has lead responsibility for managing ITP projects and industry procurements, allowing ITP to focus on developing and managing its technology portfolio. The DOE Regional Offices provide a network of capabilities throughout the country to implement ITP's technology delivery strategy.

People represent EERE's most valuable asset. By investing in human capital, ITP provides the expertise to effectively and efficiently accomplish its mission and implement its program. ITP will work with EERE to ensure that its human resources are adequate for the type and magnitude of program activities it conducts and are consistent with the needs and expectations of responsible program management.

ITP coordinates its activities with a variety of government programs that have mutual interests and goals. For example, ITP works with DOE's Basic Energy Sciences and Fossil Energy programs to coordinate research in areas such as nanotechnology and mining, respectively. In addition, ITP coordinates with other Federal agencies including the National Aeronautics and Space Administration (NASA), the National Science Foundation (NSF), the National Institute of Standards and Technology (NIST), the Environmental Protection Agency (EPA) and the Departments of Defense (DoD), Commerce (DOC), Agriculture (USDA), and Interior (DOI). On manufacturing technology issues, ITP collaborates through the GATE-M partnership with many of the participating agencies.

## Operating Principles

- Provide strategic leadership (Program Management) from EERE headquarters and rely on field Project Managers to oversee individual projects.
- Seek opportunities to work with all other EERE programs to collectively contribute to the success of the entire EERE team.
- Capitalize on the capabilities of the EERE Regional Offices to perform technology and information dissemination.
- Serve as good stewards of the public resources appropriated to carry out the mission.

### ITP Program Benefits to Date

- ❖ In 2002, industrial energy savings of over 265 trillion Btu worth \$1.3 billion
- ❖ Cumulative 1990-2002 energy savings estimated at over 2,650 trillion Btu
- ❖ 160 commercialized technologies
- ❖ Over 6,000 U.S. plants use EERE technologies and services

## Program Planning and Evaluation

Program planning and evaluation encompasses a variety of management functions to develop, review, track, evaluate, and adjust the ITP portfolio. Due to the complex nature of the industrial technology portfolio, sophisticated planning and evaluation techniques have been an important part of ITP and its predecessor organizations for many years. As a result, ITP has developed an outstanding track record of estimating program benefits, conducting external reviews, tracking technology impacts, and pioneering innovative technology

