



## **EERE's Industrial Technologies Program: Proven Returns on Federal and Industrial Investments**

**Higher energy prices in the U.S.** are the result of an imbalance between supply and demand. Uncertainty in the Middle East, hurricanes in the Gulf and global political uncertainties increase prices. Increased energy supply and improvement in energy efficiency are U.S. public policy goals.

**The Industrial Technologies Program (ITP) improves energy efficiency** through partnerships in vital high energy-use Materials Manufacturers: aluminum, chemicals, forest products, glass, metal casting, and steel. These industries collectively consume 75% of energy used by U.S. industry (or 25% of total U.S. energy), supply 90% of materials vital to our economy, produce \$1 trillion in annual shipments, directly employ 3 million people, and indirectly provide additional 12 million jobs. ITP has been working with these energy consuming industries for over two decades to develop energy-efficient manufacturing technologies with great success. For example, steel making energy intensity has been reduced 28% since 1990, as reported by the American Iron and Steel Institute. Other sectors have made similar strides. That this track record was achieved during the period ITP was fully funded is not coincidental—and this track record says similar increases can be made over the next two decades, should the program return to 2001 funding levels.

**Every federal dollar spent on ITP saves \$7.06 a year** in energy costs and saves 1.3 million in annual source BTUs. For each federal dollar invested there is at usually least one dollar of industry money spent. Industry participation and input is key. This is the cheapest energy that can be bought by an investment of federal dollars. In one case alone, lightweight car and truck designs based on materials and models developed in this program saved the U.S. consumer 121.9 million barrels of oil and 49.1 million tons of CO<sub>2</sub> in 2004. This saved U.S. consumers \$9.1 billion in gasoline costs based on the average price of \$1.88 per gallon of gasoline in 2004. Unfortunately, at a time of maximum need, this manufacturing program [ITP] is being targeted for elimination. Since FY 2001 to FY 2006 the budget request for ITP has decreased 69.6%.

**The EERE-ITP program supports engineering education in manufacturing.** Global competition requires an innovative economy. Innovation depends on a technology infrastructure that includes industry, government, and universities. Universities are extremely sensitive to public investment in technology. Private investment in manufacturing is proprietary, limited and product-specific. Elimination of public co-investment in these technologies will lead directly to loss of the private funding. Universities will abandon support for facilities and faculty. Maintaining the technology infrastructure at public universities has always been a benefit of the program, for example since the inception of the ITP metalcasting portfolio, approximately 350 students have participated in the research, and over half have pursued careers in the U.S. metal casting industry.

**The EERE-ITP program is vital to national security.** The ability to defend the U.S. will depend on advanced technology. Manufacturing technology superiority is an essential prerequisite to military technology superiority. As the U.S. military adopts a global supply strategy, critical links of manufacturing technology will inevitably migrate offshore. The elimination of this program will significantly accelerate that trend, exposing the U.S. to the security risks of depending upon foreign suppliers for our next generation of technology.