



U.S. Department of Energy
Energy Efficiency and Renewable Energy

Industrial Technologies Program

IAC Program Update

IAC Student Meeting

February 1-2, 2007

Bill Prymak

**U.S. Department of Energy
Industrial Technologies Program (ITP)**

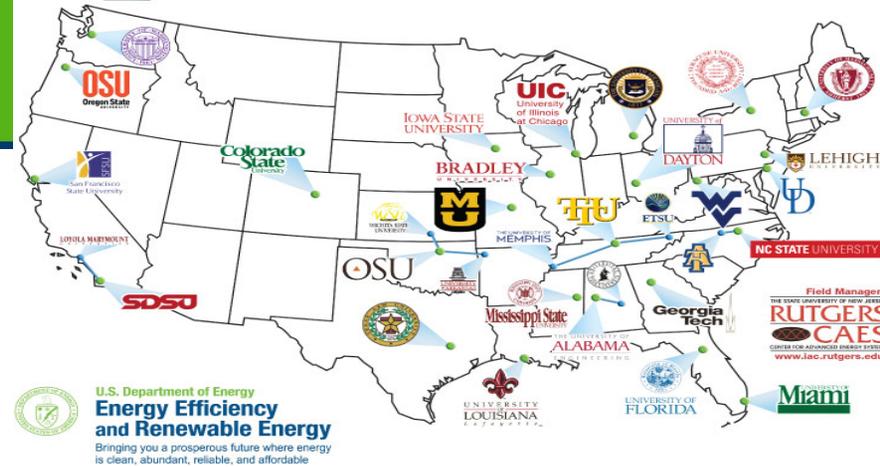


U.S. Department of Energy Energy Efficiency and Renewable Energy

Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable



Industrial Assessment Centers 2006-2011



IAC Background

- Industrial Assessment Centers (IAC) is a sub-program under the Industrial Technologies Program, in the Office of Energy Efficiency and Renewable Energy at the U.S. Department of Energy (ITEP).
- IACs are ITEP's nationwide network of energy savings teams.
- Core activities: performing assessments and training students.
- Unique program:
 - university-based;
 - internationally recognized experts;
 - motivated student workforce; and
 - continued energy service to industry through IAC alumni.



IAC Background (cont'd)

- IAC Program goals are:
 - Save energy, reduce waste and improve productivity of small- and medium-sized industrial manufacturers in the US; and
 - Train the “next generation” of energy-savvy engineers.
- The IACs serve small- and medium-sized manufacturers through a network of 26 IACs located at universities nationwide.
- Bottom line: wealth of knowledge and experience – motivated people with diverse capabilities poised to respond rapidly to new initiatives within ITP!



IAC Facts- Assessments and Centers

- The IAC started as the EADC (Energy Analysis and Diagnostics Centers) in the late 1970's.
- Since 1977, over 13,000 assessments have been conducted by over 2,500 engineering students.
- In 2005, the average implemented energy savings per assessment was 5,500 MMBtu/yr, or \$32,000 per year.





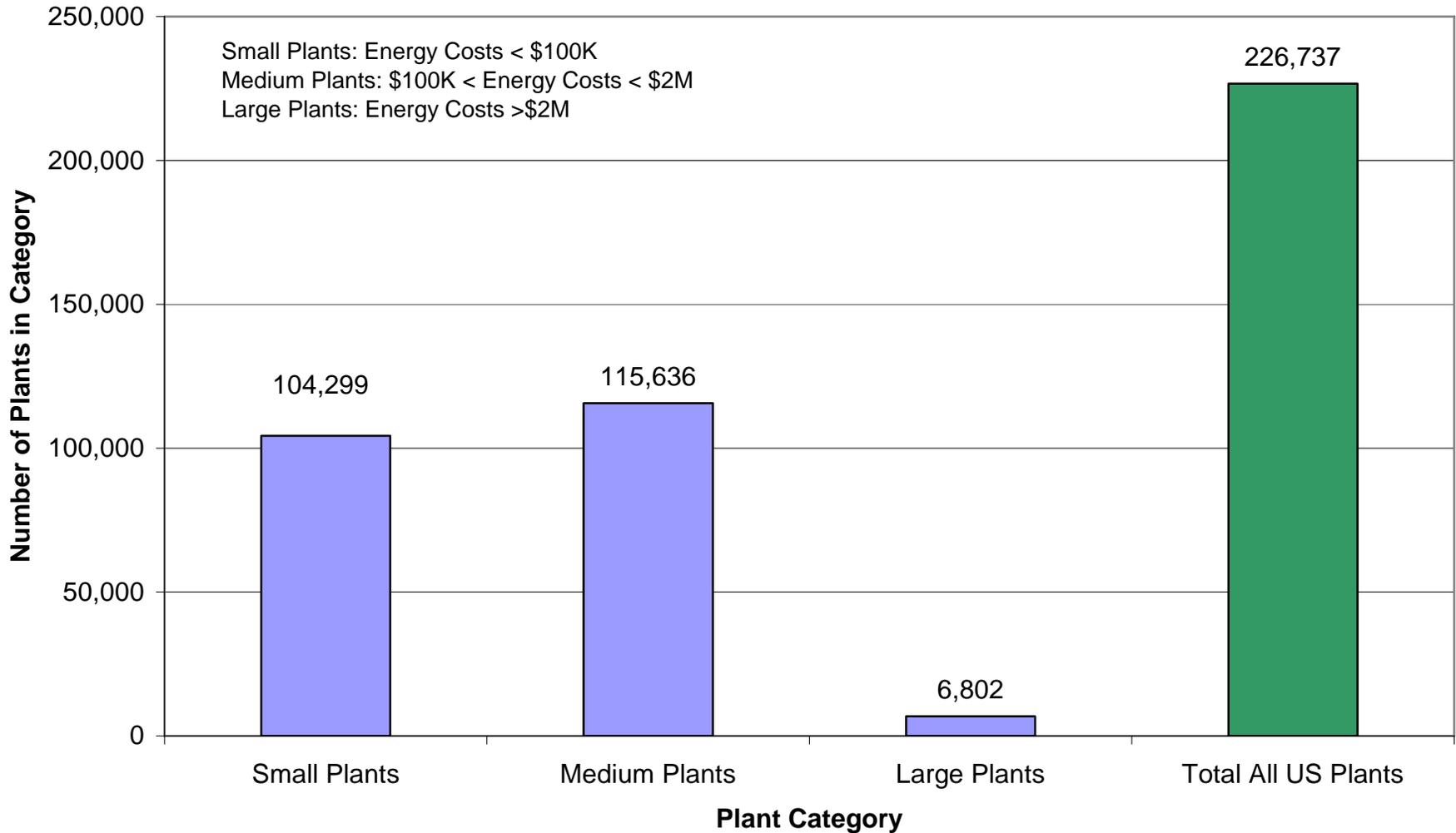
IAC Facts- Our Students

- Approximately **250** engineering students are employed annually
- Each year, 120-180 students graduate from the program
- 40% to 50% of our graduates move on to careers in energy
- Typical engineering fields: Mechanical, Industrial, Electrical
- Student status: Undergraduates – 67%, Graduates – 33%
- Average time spent working for IAC: 18 months



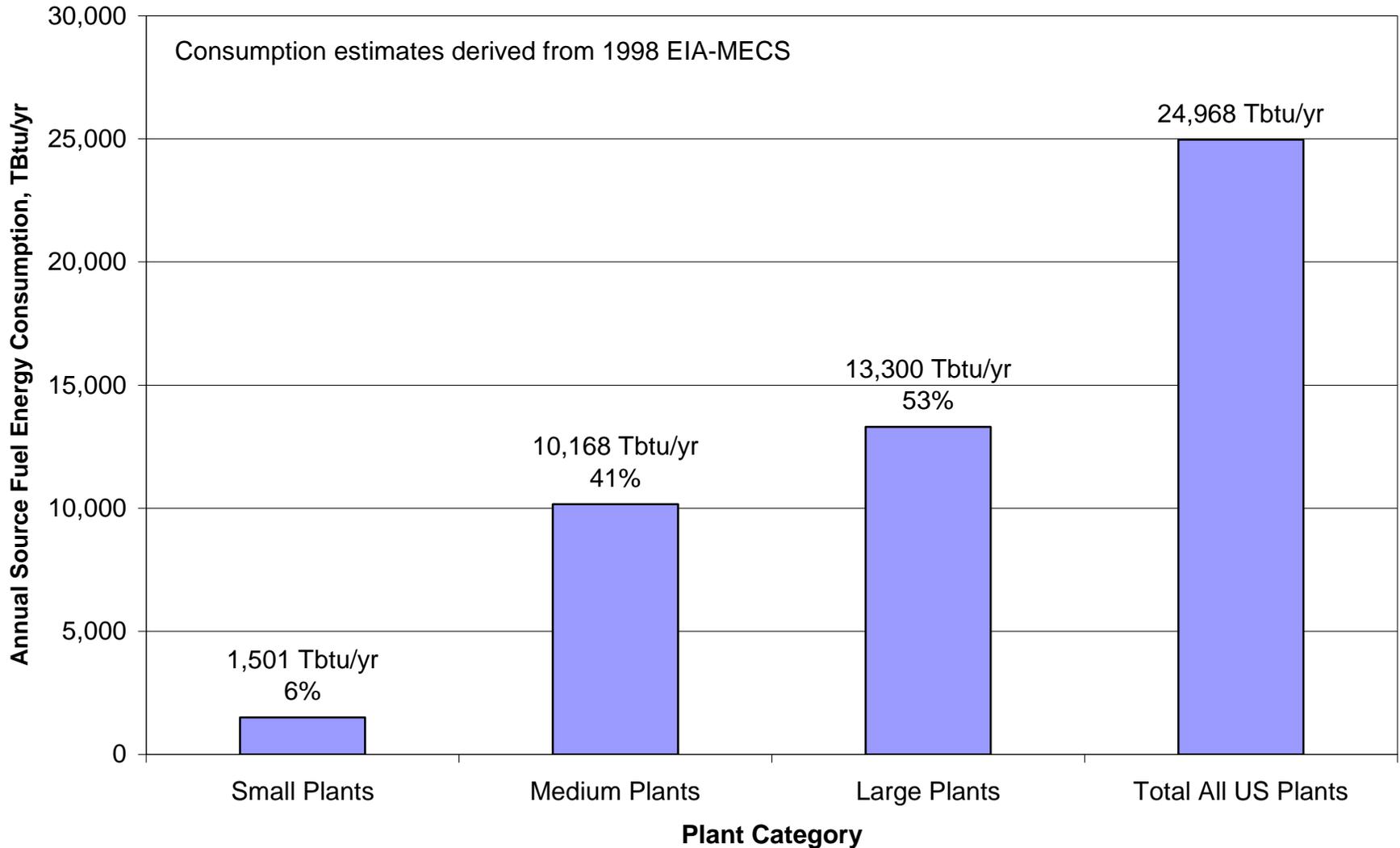


Distribution of U.S. Manufacturing Plants



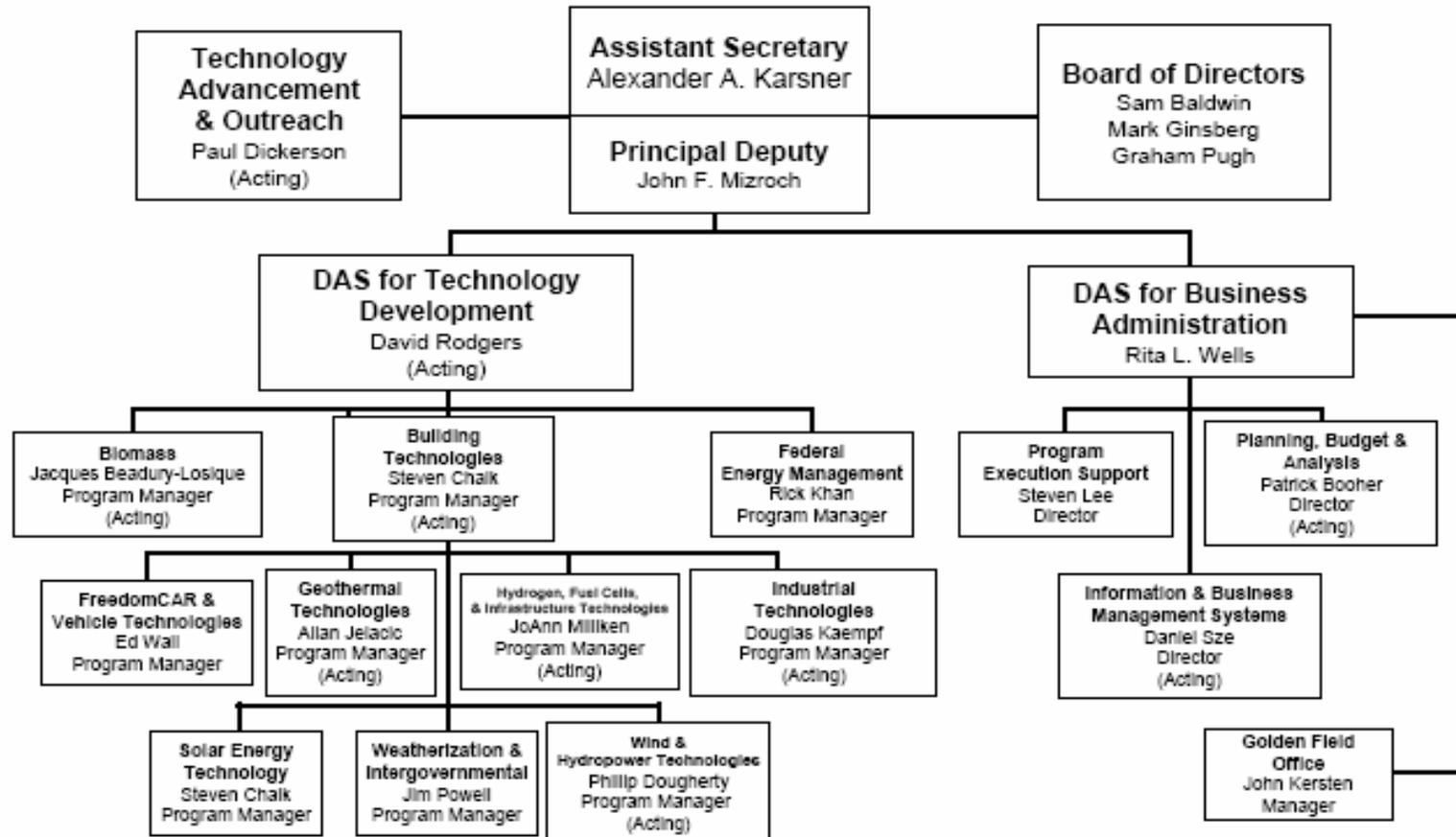


Consumption of Energy by U.S. Manufacturing Plants





Office of Energy Efficiency and Renewable Energy Organization Chart





Industrial Technologies Program (HQ)

Program Manager
Doug Kaempf

Technology Platforms
Sara Dillich

- Chemicals
- Sensors
- Materials
- Aluminum
- Glass
- Steel
- Forest Products
- Metal Casting

Technology Delivery
Paul Scheihing

- IACs**
- Save Energy Now (SEN)
- Inventions and Innovations
- International
- SBIR



EERE Project Management Center (PMC)

DOE HQ

Provide programmatic direction and funding to the PMC.
Decides the “what”.

PMC

Located at the Golden Field Office and the National Energy Technology Laboratory (NETL). Performs all the contracting and project oversight for EERE. Includes solicitations, reviews, funds distribution, and closeout of projects. PMC implements the strategy.

National Labs

Either work directly for DOE HQ or as partners with PMC recipients.



PMC (cont'd)

Golden

- Solar
- Hydrogen
- Biomass
- Wind
- **Industrial**
- Geothermal
- Native American
- FEMP

GO manages over 800 active projects with a federal share >\$1B; ~\$270M/yr. new funds.

NETL

- Building Technologies
- FreedomCar
- Weatherization
- Mining (ITP)
- Black Liquor



IACs Implement U.S. Energy Policy

- Often, we are “First Responders” in times of need
 - Save Energy Now (SEN) assessments for Industry
 - FEMP 2001 California assessments, 2006 Energy Savings Expert Teams (ESET)
 - ITP Showcases
- IACs have conducted assessments for small, medium *and large* energy-consuming plants.
- IACs cultivate regional relationships with industry and state organizations.
- IACs develop and test Best Practices software tools.
- IACs deliver DOE information materials and software to clients.



Priorities

Work Plan

- Conduct Industrial Assessments, increase the implementation of assessment recommendations, promote the IAC Program, provide educational opportunities and training for IAC students, and coordinate with other IAC activities

Save Energy Now Initiative

- SEN helps *large* industrial plants operate more efficiently by identifying ways to reduce energy use in key industrial process systems.



Priorities (cont'd)

Manufacturing Extension Partnership (MEP)

- Each Center will develop and implement an action plan for outreach to their local MEP(s) with the expectation to leverage the energy expertise of the IACs to greater numbers of manufacturers through the MEP network.

Other Activities

- Ensure that all active students are entered in the IAC Student Registry (located at www.iacforum.org).
- Ensure that all departing students take the exit interview, which is part of the student registry.



Fiscal Year 2007 Budget

- IAC Center solicitation closed January 24, 2006.
- Number of Centers selected: 26
- 5 new Centers selected:
 - University of Missouri
 - Tennessee Tech
 - University of Delaware
 - University of Alabama
 - University of Washington
- IAC Fiscal Year 2006 Budget - \$6.5 million.
- FY2007 budget request ~\$4 million.
- FY2007 budget not yet final.....



Questions or Comments?

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