

Penn State Facilities Engineering Institute

The Penn State Facilities Engineering Institute (PSFEI) provides facility engineering services, education programs, and energy management to Commonwealth of Pennsylvania state agencies, the federal government, and non-profit organizations. PSFEI aims to advance its customers' facilities engineering objectives through applied research, education, and innovation.



Education

From public short courses and workshops to ongoing client-contracted courses, **PSFEI's instructors bring more than 80 years of combined expertise** to provide a variety of facility-related topics.

Workshop topics are focused on technical shortfalls within the Commonwealth in the areas of:

- HVAC
- Electrical
- Boiler
- Water

Short course program subjects include:

- Effective facility management
- Fundamentals of medium voltage systems
- Electrical safety and arc flash training
- Heating, ventilating, and air conditioning (HVAC) system operation and maintenance
- Central boiler plant operation and maintenance
- Facility infrastructure fundamentals

PSFEI is currently developing certificate programs for facilities professionals and facilities technicians.

FOR MORE INFORMATION ABOUT EDUCATIONAL OPPORTUNITIES AND PROGRAMS, CONTACT:

William Lash, Education Program Manager | WLash@engr.psu.edu | 814-867-6276



Energy

PSFEI's Energy Team offers a wide breadth of experience on both the supply and demand sides of the utility meter, maximizing savings potential through strategic energy procurement while minimizing energy use through demand-side management.

Supply-side services from PSFEI include:

- Energy market monitoring and expertise
- Regulatory monitoring and interpretation
- Electricity and natural gas procurement services
- On-site power generation evaluation
- Tariff-rate analysis
- Contract and account management services

Demand-side services from PSFEI include:

- Strategic energy planning
- Performance contracting evaluations and support
- Energy conservation measure scoping
- Demand response program consultation
- Peak load contribution management

PSFEI's electricity procurement services to the Commonwealth since 2009 have resulted in over \$182 million in avoided electricity spend.

By now offering electricity procurement services to the Commonwealth's COSTARS members, PSFEI enables a wider audience to achieve cost savings under the same contractual agreements as the Commonwealth itself.

FOR MORE INFORMATION ABOUT THE ENERGY SERVICES PSFEI OFFERS, CONTACT:

Kurt Homan, Energy Program Manager | kurt.homan@engr.psu.edu | 814-867-0774



Engineering Services

PSFEI contracts with the Commonwealth to provide professional advice related to the mechanical, electrical, and water treatment engineering aspects of facilities. With 70 years of expertise, PSFEI conducts reviews, surveys, studies, and investigations for an array of engineering systems.

Examples of contracted services include:

- **Boiler Plants:** Review of operations, maintenance, and boiler-life studies; development of project scopes; and evaluation of new technologies.
- **HVAC:** Oversight of adjustments to and/or balancing of HVAC systems, analysis and advice on HVAC energy use, and assistance in design review.
- **Water Treatment:** Investigation and review of problems related to water treatment practices of central boiler plants, HVAC systems, potable water, and wastewater; review of water test records, diagnosis, and consultation regarding problem areas; and recommendation for changes and/or additions to the chemicals available through contracts for water treatment.
- **Electrical Systems:** High-voltage dielectric testing on power cables to determine insulation resistance; troubleshooting, testing, and minor adjustments to electrical equipment; and review of electrical design of projects.
- **Fuel Advisory:** Surveillance of coal-production facilities; quality control of coal as needed and development of cost-savings specifications for the purchase of coal; and investigation and recommendation of solutions as they relate to procurement regulations concerning the supply, quality, and delivery of coal.
- **Structural/Building Enclosure:** Assessment of problems related to building structures and enclosures, review of design submissions for structural systems, and advice on the impact of building code changes.

FOR MORE INFORMATION ABOUT ENGINEERING SERVICES, CONTACT:

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