



*Helping businesses compete since 1965*

# ANNUAL REPORT

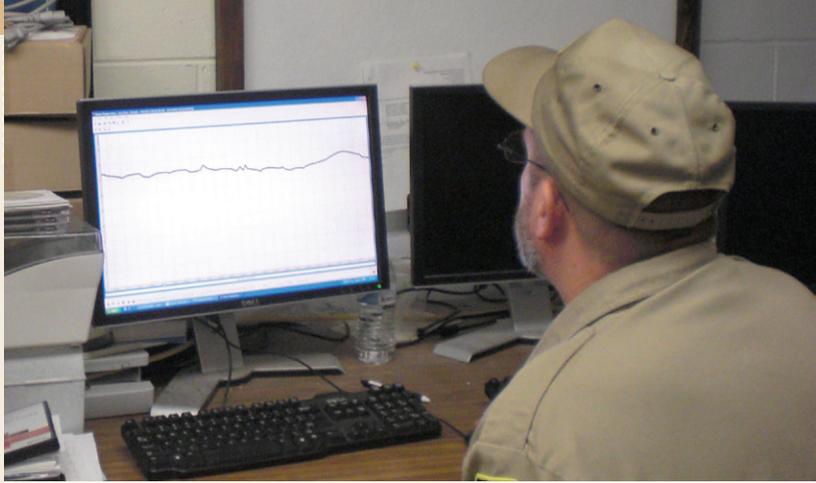
Over the last five years, PennTAP has provided more than 2,095 cases of technical assistance across the Commonwealth of Pennsylvania.

PENNS<sup>T</sup>ATE



[penntap.psu.edu](http://penntap.psu.edu)

# 2014 Results



Cases

**209**

**\$10,911,568**

Client Investment

Client Sales Increase

**\$1,063,800**

**\$2,234,555**

Client Cost Saving

Customer Satisfaction

**98%**

## Advanced IT Solutions

In 2014, the PennTAP Advanced IT technical specialists worked with for-profit businesses and anchor institutions across the Commonwealth and reached more than 890 people with sessions on social media, mobile websites, cloud computing, and cyber security. Two of the IT team's many successes included:

- partnership with Northern Tier Regional Planning and Development Commission—helping to bring improved broadband and a Governor's ImPact Award to the Soil Services Company, Inc., in Sullivan County, through connections with better Internet service providers and a microgrant application
- help provided to Personal Property Managers, Bucks County, through website evaluations and one-on-one search engine optimization/social media marketing training, resulting in \$138K in economic benefits

The IT team also helped to place 20 College of Information Sciences and Technology interns at Pennsylvania companies and organizations, giving them a hands-on learning experience while providing the organizations with technical capacity.

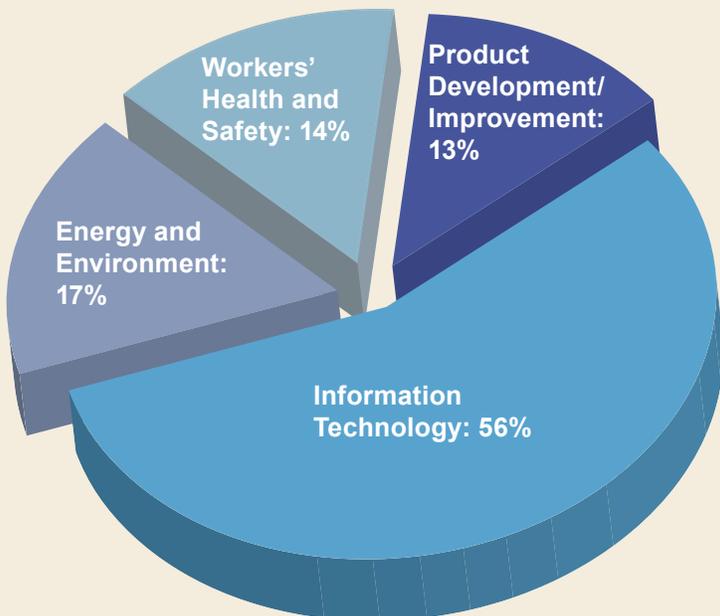
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*"Participating in the Superior Energy Performance program helped us achieve substantial energy and cost savings, as well as create the infrastructure needed to preserve and expand those savings going forward. Ongoing energy management is key to upholding our goal of continuously increasing the energy efficiency of our sites."*

—Matt Bell, Chief Operating Officer, MedImmune

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## Type of PennTAP assistance



**This publication is available in alternative media on request.**

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# Energy, Environment, and Worker Health

During 2014, the PennTAP Energy, Environment, and Worker Health team provided:

- pollution prevention/energy efficiency (P2/E2) site assessments
- economy-energy-environment (E3) events
- building retuning training
- manufacturer ISO 50001, ISO 14001, and ISO 18001 implementation, and Superior Energy Performance (SEP) certification
- worker safety training

One example of a 2014 PennTAP client is Anvil International in Columbia, Pennsylvania. PennTAP performed an E3 event that resulted in a projected annual savings of 400,000 kWh/yr and 25 million gallons of water/yr with a projected annual savings of \$65,000.

Twenty-two Penn State students also worked with an associate professor of energy and mineral engineering to take their learning experiences beyond the classroom. With exposure to supervised independent energy research at manufacturing facilities, they observed real-world applications and used the principles they learned in class to put theories into practice. Benefits to PennTAP's clients included reduced energy costs, improved profitability and competitiveness, and a stimulus to the local economy, creating or retaining jobs.

Air Emission Reduced:	<b>17,827.5 tons per year</b>
Carbon Dioxide Equivalent (CO <sub>2</sub> eq) Reduced:	<b>8,100 metric tons per year</b>
Megawatt Hours of Electric Energy Conserved:	<b>29,600 MWh</b>
Billions of British Thermal Units (BTU) of Total Energy Conserved (includes other + electric):	<b>70 BBTU</b>



## Innovation

Existing companies and entrepreneurial start-ups continue to need access to innovative methods and technical resources for new product development and job creation. In 2014, we at PennTAP successfully partnered with the Pennsylvania Department of Community and Economic Development (PA DCED) to help provide Commonwealth companies access to Penn State's technical capabilities, including engineering. Through the PA DCED's "Discovered in PA, Developed in PA" (D2PA) program, and our strong partnerships with other economic development organizations, PennTAP was able to provide needed technical assistance to help move company ideas forward through design, proof-of-concept, and prototype assistance.

In 2014, PennTAP programs helped match 86 companies with University faculty, graduate students, and undergraduate students to work on technical projects designed to move innovative products closer to commercialization. These programs include:

- the award-winning Penn State Learning Factory that matches undergraduate engineering design students with company-sponsored technical projects
- the College of Engineering's Integrated Design Solutions program that matches Penn State faculty and graduate students to difficult, company-scoped design projects
- a collaborative assistance arrangement with the Ben Franklin Technology Partners program that provides Pennsylvania start-up companies with training and resources for new product development

Going forward into 2015, PennTAP is excited about Penn State's renewed and expanded commitment to economic development in the Commonwealth. A new initiative, "Invent Penn State," has been launched that will provide access to new and broader resources for company and product development.





# ISO 50001

ISO 50001 is a new standard for implementing an energy management system based on the Plan-Do-Check-Act (PDCA) model of continual improvement, also used for other better-known standards, such as ISO 9001 for quality management systems or ISO 14001 for environmental management systems. ISO 50001 provides organizations with a framework for efficiently managing and improving their energy performance. By managing energy with this systematic approach, companies are able to:

- reduce energy costs
- continually improve energy performance
- improve their corporate image
- reduce greenhouse gas emissions
- align energy management with other business systems

PennTAP's experienced staff have trained and coached 12 manufacturers through their implementation of energy management systems. PennTAP staff certifications include:

- Certified Practitioner in Industrial Energy Management Systems (CPEnMS)
- Certified Superior Energy Performance (SEP) Performance Verifier
- ISO 50001 Auditor

If you are interested in learning more about how ISO 50001 can improve your business, contact PennTAP at 814-865-0427 or [penntap@psu.edu](mailto:penntap@psu.edu).

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*"The Gaithersburg Energy Management System will enable the site to meet and exceed its long-term energy conservation objectives and targets, paving the way for other sites to adopt a systematic approach to continuous energy efficiency improvement."*

—Wilbur Williams, GBC Energy Manager, MedImmune

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## PennTAP 2.0

As we prepare to mark our 50th anniversary in 2015, PennTAP has evaluated and refocused its services to meet the needs of companies and organizations in the Commonwealth, while balancing the learning needs of Penn State's more than 90,000 students. With the help of PennTAP's Action Council and other community partners, services have been focused to include those shown in this report:

- Advanced IT Solutions
- Energy, Environment, and Worker Health
- Innovation Services

Most services will be provided at no cost when public funding is available to offset operational costs. What sets us apart from other programs in Pennsylvania is our deep technical expertise—both in engineering and IT—that we can provide to companies. When more in-depth, hands-on assistance is needed, PennTAP can be the bridge to Penn State's world-class faculty, students, and facilities to meet company needs.

In fact, 193 companies took advantage of this bridge to Penn State last year, resulting in 14,600 hours of assistance from students provided to Pennsylvania companies.

As companies focus more on innovation, we have also innovated to become PennTAP 2.0—focusing on what companies need the most and what we do best. New assistance opportunities for small and medium-size companies, start-ups, and student entrepreneurial ventures are being offered via Pennsylvania Department of Community and Economic Development grants. Penn State is implementing initiatives to engage students in helping companies develop new products, and encouraging students to start new businesses of their own. New programs within Penn State's colleges are designed to give undergraduate and graduate students more opportunities to use their newly learned skills in business applications.

