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The Pennsylvania Technical Assistance Program (PennTAP) helps Pennsylvania companies improve their competitiveness by providing innovative technological assistance and information to help resolve specific technical questions or needs.

The program focuses on helping smaller firms that normally do not have the in-house expertise or resources to resolve specific technology questions or needs.

PennTAP technical specialists assist small companies by providing technical advice, technical information, and connections to other expertise, resources, or programs. PennTAP services the entire state of Pennsylvania through a network of technical specialists who have specific areas of technical expertise and are located throughout the state.

A program of Penn State University, PennTAP is a federal-state-university partnership for economic development. Helping Pennsylvania firms statewide since 1965, PennTAP is one of the nation's first technical assistance programs and remains a credible and valuable resource for helping Pennsylvania companies compete and grow.

In the sustainability domain, PennTAP offers programs to industrial, commercial, and institutional organizations in energy efficiency audits and assessments, pollution prevention, E3 reviews, ISO 50001 gap analysis and demonstration projects, clean manufacturing assessments, environmental assessments, ISO 14000 reviews, and sustainable food practices related to food processing and manufacturing.

In many instances, PennTAP provides free services to small business clients that are funded by Federal and State grants; and consistently collaborates with other economic development organizations such as Industrial Resource Centers (IRC), Local Development Districts (LDD), small business development centers (SBDC), Ben Franklin Technology Partnerships, Environmental Protection Agencies, etc. to provide multi-resourced innovative solutions for clients.

In 2010, PennTAP performed 255 cases of technical assistance in Pennsylvania, which resulted in \$24,515,073 in economic impact – 275 jobs created – and a 97% customer satisfaction rating.

Included below are 2 case write ups involving sustainable practice projects performed by PennTAP in our 2009/2010 fiscal year.

If more information is desired, please contact me at anytime.

Sincerely,

Wayne Figurelle
Director
Pennsylvania Technical Assistance Program (PennTAP)



Pennsylvania Pure Distilleries

County: Allegheny- Employees: 2 -Industry: Food processing

The need: Prentiss Orr and Barry Young, founders of Pennsylvania Pure Distilleries, wanted to produce a super-premium vodka from Pennsylvania potatoes. They requested assistance for comparing sources of potatoes and developing an efficient fermentation process.

PennTAP Connection: Dr. Luke LaBorde, of Penn State's Department of Food Science, referred Orr to a PennTAP food industry specialist who could help determine the feasibility of potato sources, as well as development of the fermentation process.

The project: The PennTAP food specialist contacted Dr. Wayne Curtis in Penn State's Department of Chemical Engineering, who assigned three of his undergraduate students to perform multiple "bench-scale" fermentation trials with various enzymes, process parameters, and potato sources. They also evaluated potato sources for feasibility of transportation, storage, processing requirements, and projected quality.

The outcome: The students developed an optimal set of fermentation parameters, which the company has successfully scaled up to commercial production. Pennsylvania Pure Distilleries' Boyd and Blair Potato Vodka is now the fifth best-selling super-premium vodka in Pennsylvania, and distributed in five states plus Washington, D.C. The company has taken wholesale potatoes, at 9 cents a pound, and generated revenues of nearly \$1.25 million, in Pennsylvania alone, in less than fourteen months since coming to PennTAP.

Client quote: *"PennTAP provided us with remarkable resources, namely a food science expert...who not only discovered sustainable sources for Pennsylvania-grown potatoes, but, once in hand, went the extra mile to prove for us a yet untried process of potato fermentation. We owe 90 percent of our quality to PennTAP."* *-Prentiss Orr, Chairman*
Pennsylvania Pure Distilleries



New Tech Wind, Inc.

County: York- Employees: 1 - Industry: Turbines for wind farms

The need: New Tech Wind, Inc., a start-up supplier of “big wind” turbines, plans to establish and market wind farms, but first needed help with designing a turbine that was taller than the current commercial ones and could take advantage of increased wind speeds at higher elevations. The company also wanted to create a new, lighter-weight generator for the turbine that could reduce both tower structural requirements and the cost of production.

PennTAP connection: The Ben Franklin Technology Partners of Central and Northern Pennsylvania referred New Tech Wind to a PennTAP technology specialist, who contacted Dr. Heath Hofmann, a member of the Penn State engineering faculty. Hofmann had conceived of new generator technology to reduce weight and increase power density.

The project: Funded by Ben Franklin Technology Partners, a small research project resulted in a promising initial generator design. The specialist worked with Penn State’s Intellectual Property Office and New Tech Wind to establish a way to develop the technology and secure the necessary intellectual property protection. More research will take place at Penn State, and external manufacturers will help to transition the generator technology from the University to the private sector. Connections are also being made with Penn State’s Applied Research Laboratory to explore composite materials technology that could improve the tower’s structure and blade designs.

The outcome: With the successful development of a lighter-weight generator and the supply chain in place for the remaining turbine components, New Tech Wind can produce a taller wind turbine that is fully functional, and offer power purchase agreements to potential customers.

Client quote: “The PennTAP technical specialist was quite helpful in identifying the University resource that was needed for our project. Then he followed through effectively. PennTAP’s role on New Tech Wind’s project is now complete. Well done!”

- John West, President New Tech Wind, Inc.