Penn State Students Blow Away the Competition

Project Background:
Penn State Schreyer student Bridget Dougherty came to the SBDC on behalf of a student team that was competing in a US Department of Energy (DOE) Collegiate Wind Competition. The business plan aspect of the competition would serve as Dougherty’s honor’s thesis.

The team was challenged to design and build a prototype and develop a business plan around parameters developed by the DOE: the end product had to be a “transportable wind turbine to power small electronic devices,” that would utilize components and meet specifications as defined by the agency.

Dougherty and her team, which consisted of students from across multiple colleges including Engineering, Earth and Mineral Sciences, Business and Communications, explored multiple market applications for small wind and ultimately decided to design a portable unit that would have community emergency response applications. The team designed and then prototyped a $1,200 unit that would be marketed to community groups and local first responders to facilitate the charging of portable electronics and communication devices in the event of wide-spread power outages such as after a natural disaster.

SBDC Assistance:
Dougherty and the team’s Faculty Coordinator, Dr. Susan Stewart, engaged the Penn State SBDC to assist in the development of the business plan. The team’s Business Consultant assisted them in evaluating various market applications and then helped to build the financial projections that reflected a technology commercialization effort.

Project Outcome:
The Penn State team was victorious! The team took top honors in the Market Issues category and just missed first place in the Overall Business Plan category by a few points. The team also scored well in the technical review of their prototype, ultimately winning the day by a sizable margin. Stewart remarked, “They were also the only team to be offered investment by the judges during the public business plan pitches. I think they had a totally rock solid business plan, and it really showed.”