OHIO SUCCESS STORIES

Case Study: Campbell Soup Company Solar Project

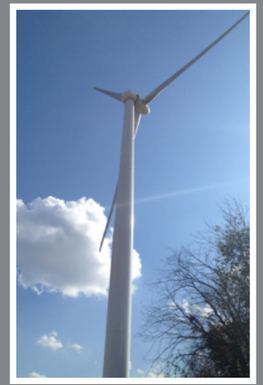
Campbell Soup Company established a primary environmental sustainability goal to reduce the company's environmental footprint by 50% by 2020. A supporting strategy to accomplish this goal includes sourcing 40% of their energy from alternative and renewable energy sources (Campbell Soup Company 2012 Corporate Responsibility Report, 2012). In February 2011, the Campbell Soup Company entered into a third-party power purchase agreement (PPA) and land-lease agreement to provide 9.8-megawatts of renewable solar energy to the company's largest plant in Napoleon, Ohio. Campbell will lease 60 acres of land to BNB Napoleon Solar LLC to design, build, own, and maintain a 9.8-megawatt (MW) solar project consisting of over 24,000 photovoltaic solar panels. Through the PPA, Campbell Soup will buy 100% of the electricity generated by the system for the next 20 years. The system became operational in December 2011 and is projected to eliminate 250,000 metric tons of CO_2 greenhouse gas emissions in the region and generate approximately 15% of the electricity needed to run the Napoleon operations. Over the course of the PPA, Campbell's estimates they could save up to $4 million based on U.S. Department of Energy projections.

Case Study: Cooper Farms Wind Project

Cooper Farms, a producer of poultry and pork products with four locations in northwest Ohio, employs more than 1,400 people. The company established a team to explore the feasibility of installing wind turbines to offset a portion of the electricity usage at the Van Wert facility. According to Jim Cooper, CEO of Cooper Farms, "Their finding was that it did make economic and sustainability sense to use wind energy for a portion of our electrical needs" (Cooper Farms, 2013). In September 2011, Cooper Farms started construction on an on-site distributed energy project that consisted of two 1.5-megawatt wind turbines on 85-meter towers. The two turbines were originally designed to generate 60 to 65 percent of the electricity needed at the Van Wert cooked meats facility. However, the success of the first two turbines was so significant that the company decided to install a third turbine in 2012, offsetting roughly 80% of the facility's electrical demands. A project similar to the one built at Cooper Farms has a projected payback period of 4- to 6-years, including warranty and maintenance costs.

Top Photo: *Campbell Soup solar project at their facility in in Napoleon, Ohio.*

Bottom Photo*: Cooper Farms Wind turbine behind their facility in Van Wert, Ohio.*



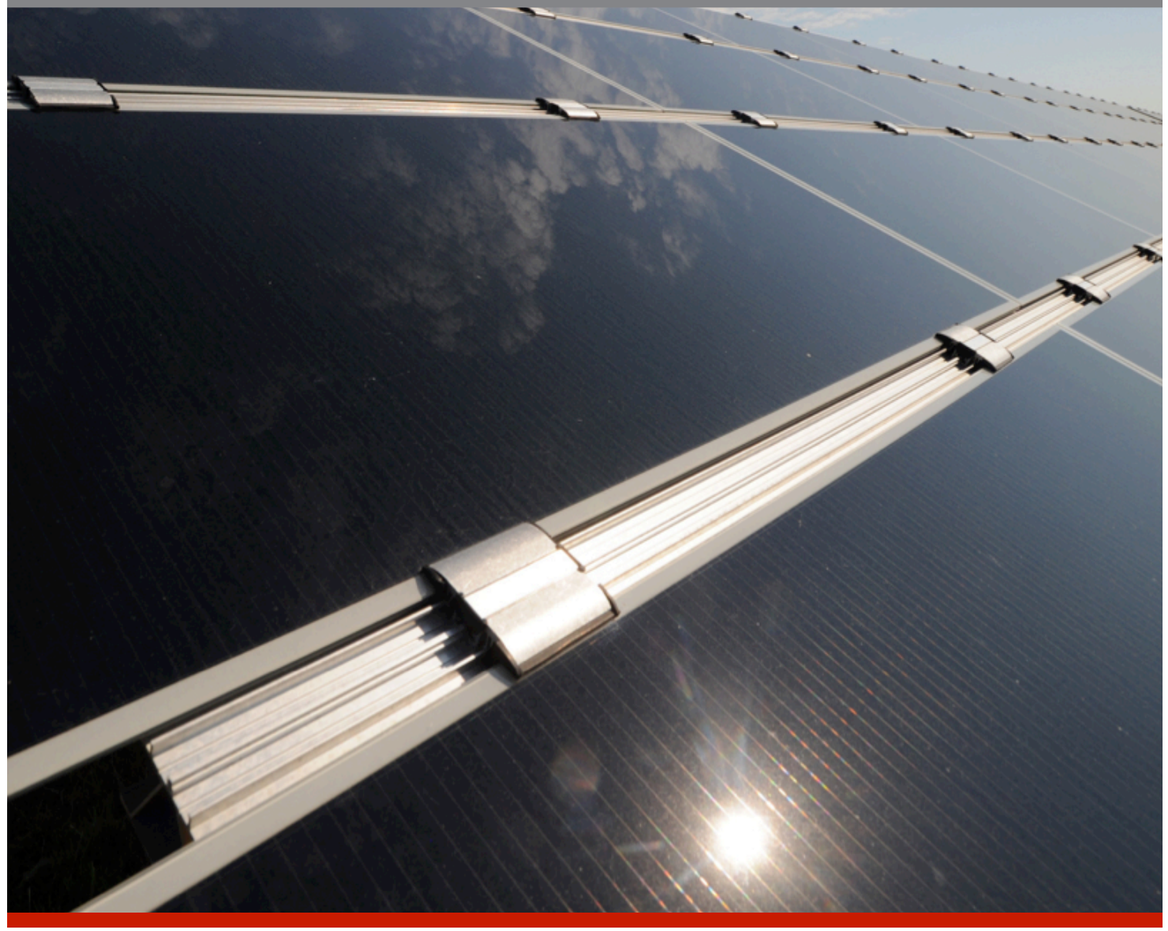
THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

Ohio State University Extension
Community Development
2120 Fyffe Road
Columbus, OH 43210
Phone: 740-725-6317

Developed By:
Eric Romich, romich.2@osu.edu
Myra Moss, moss.63@osu.edu
Nancy Bowen, bowen-ellzey.1@osu.edu
Website: www.energizeohio.osu.edu

OHIO STATE UNIVERSITY EXTENSION

Distributed Energy Generation as a BR&E Strategy



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ENERGIZE OHIO
An Ohio State University Extension
Signature Program
www.energizeohio.osu.edu

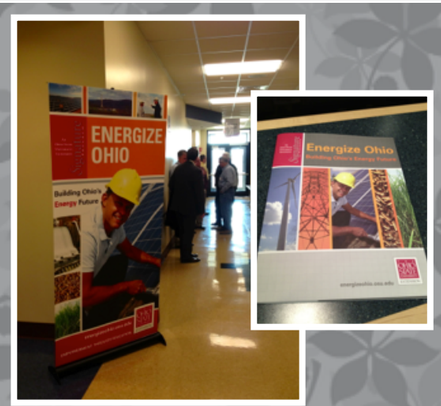
Program Spotlight: OSU Extension Offers Businesses Training, Advice on Renewable Energy Production

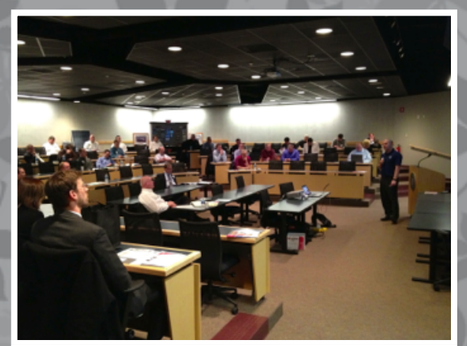
A growing number of Ohio companies, schools, farms and other organizations are turning to on-site distributed renewable energy generation projects to meet some or all of their electricity needs. As private sector investment in energy development gains popularity, Ohio State University Extension is offering training and other educational resources to help businesses and other organizations make informed decisions on energy investments, including the feasibility of implementing on-site renewable energy projects.

On-site renewable energy production is part of a larger trend called distributed energy generation (DEG), which involves the generation of power through small, modular, decentralized energy systems located in or near the place where the energy will be used. Expansion of distributed energy generation systems is being incentivized in many states via net-metering policies that allow consumers to generate their own electricity to offset a portion of what they purchase from a utility. In general, net metering means an electric customer can use an on-site DEG system to offset a portion of their total electric consumption regardless of when energy is used or produced; the customer is only charged for the net difference at the end of the billing cycle. Most net metering policies place a limit on the maximum capacity an on-site generator is eligible to produce. However, Ohio is one of only three states with essentially no capacity limit in place, allowing consumers to develop larger projects.

To disseminate details about Ohio's energy policy and share renewable energy strategies implemented by local companies, our team organized a workshop on March 14th titled *Energize Ohio Business and Manufactures Workshop - Developing and Financing On-Site Renewable Energy Projects*. The half-day workshop was held at Owens Community College in Findlay, Ohio and was co-sponsored by JobsOhio and OSU Extension. The program provided participants details about Ohio's energy policy and renewable energy development strategies implemented by businesses in northwest Ohio. The ultimate goal of the workshop was to provide Ohio businesses the tools and knowledge to make informed decisions on energy investments, allowing them to prosper, grow, and provide stabilized employment opportunities for Ohioans. In total, there were 49 participants in attendance and 22 businesses at the event. Following the event there was positive feedback from attendees, noting the workshop provided outstanding resources and speakers to address both general and advanced questions.

Our team is working with JobsOhio and other partner organizations to organize similar distributed renewable energy workshops in other regions of the state. The Findlay workshop is available online (PowerPoint slides and audio) at http://go.osu.edu/VEJ.





Photos from Energize Ohio Business and Manufactures Workshop - Developing and Financing On-Site Renewable Energy Projects held on March 14, 2013 at Owens Community College in Findlay, Ohio.

What Is Distributed Energy Generation (DEG)?

According to the U.S. Department of Energy, a distributed energy generation (DEG) system refers to on-site, small-scale electric generation systems typically owned by customers and interconnected to the grid to reduce the amount of electricity they purchase from the utility. They are "distributed" because they are placed at or near the point of energy consumption, unlike traditional "centralized" systems, where electricity is generated at a large electric power plant and then transmitted through the grid to the consumer. DEG systems include a wide range of technologies such as anaerobic digesters, wind turbines, solar systems, fuel cells, combined heat power, and natural gas systems.

How can DEG Impact Business Retention & Expansion?

Businesses that install DEG renewable energy systems, whether small-scale or highly complex, are making a significant investment in long-term facility improvements. Considering the site-specific nature of these projects, the amount and life span of the capital investment, and the potentially lengthy permitting process, businesses are unlikely to be planning a move or closure. Businesses that make the decision to invest in a DEG system are also making the decision to retain the business for at least the life of the project, or, at the very least, as long as they are able to make a return on investment (ROI). DEG projects, in large part because of project longevity, are as good as BR&E "gold" in the retention of existing businesses.

What You Get with an OSU Extension Business and Manufactures Energy Development Program

The primary objective of this program is to increase the knowledge, awareness of business owners and leaders concerning distributed energy generation, net metering, and renewable energy development. This program will provide participants the tools and knowledge to enhance decision-making capacity on energy investments, allowing ohio businesses to prosper, grow, and provide stabilized employment opportunities for Ohioans. The primary components from the program include:

- A customized business retention and expansion survey to be distributed to businesses in your community. This electronic survey will serve as a needs assessment, market the program to businesses, and collect critical data to assess overall compatibility with distributed energy projects.
- Presentation from OSU Extension providing renewable energy policy overview and foundation level information on distributed energy generation, net metering, and renewable energy projects.
- Expert Q&A panel session with utility, industry, and financial experts, to provide detailed information on net metering, rules, cost, construction, permitting, timing, and financing options.
- Case study sessions presented by business leaders who have successfully implemented distributed energy generation projects in Ohio and can highlight both opportunities and challenges with their respective projects.
- Meetings with panel representatives to advance project discussions to a more detailed level. Companies (participants) will bring electric consumption data with them to take advantage of this initial consultation with facility visits to follow at a later date, if the company chooses.