& THE ENERGY EFFICIENCY & RENEWABLE ENERGY TRACKER

A West Virginia News Source | Summer 2016

PEOPLE & PLACES

WVDOE's Projects With Industry Program Gives Experience to Students and Advice to Businesses

Projects With Industry is a WVDOE partnership with West Virginia University's Department of Mechanical and Aerospace Engineering and headed by Dr. Ken Means. The program seeks to improve energy efficiency and productivity in manufacturing facilities, commercial establishments, school districts and municipalities throughout WV, while providing real world, hands-on experience for students.

The program is one of 28 in the nation recognized by the National Academy of Engineering as incorporating real world engineering training into curriculum. Participating businesses benefit from having emerging engineers work on problematic areas at their facilities. To date, more than 190 engineering students have participated in more than 84 energy projects and resulted in an estimated energy savings of nearly $500,000 annually for WV businesses.

In May 2016, 14 students completed three projects.

- **Novelis Aluminum - Fairmont, WV:** a sheet and light gauge fin/foil cold rolling facility. Students assessed heat loss from the facility's aging high temperature anneal furnaces to determine low-cost, short-term energy efficient solutions. Additional projects are planned.
- **B&E Aerospace Corporation - Fenwick, WV:** manufactures aviation products including deicers, aircraft panels, helicopter floats and in-flight refueling components. Projects have included designing an environmental system to catch water runoff from the plant and secure it through a natural basin, and methods to improve deicing boots produced for the aircraft industry.
- **Woodsdale Elementary School - Ohio County, WV:** Student teams worked with the County Schools Director to perform energy analysis and develop energy saving plans, from lighting improvements to HVAC improvements. Many are near to being designated Energy Star Schools.

SOURCE: WVDOE

New Spin on Appalachian Power's EE Program Allows Nonprofits to Receive Improvement Credits

Energy Efficient West Virginia (EEWV) and Appalachian Power have partnered to allow residential electricity customers to donate credits from receiving a home energy audit to nonprofits. Individuals who sign up for the home energy assessment can select who they want their credits to go to, from a list of participating nonprofits. The nonprofits can then use the credits for energy efficiency improvements at their facility.

Each participating nonprofit has a chance to win a $10,000 energy efficiency upgrade to their building and will get at least $10 worth of energy efficiency improvements for every home that gets an energy assessment. The program will continue through August.

SOURCE: EEWV

AEP APPALACHIAN POWER — EEWV ENERGY EFFICIENT WEST VIRGINIA

ACEEE Recommends Ways to Expand Low-Income Energy Efficiency

Two recent reports by ACEEE titled "Lifting the High Energy Burden in America's Largest Cities" and "Best Practices in Developing Energy Efficiency Programs for Low-Income Communities" recommend strategies for improving EE in low-income communities.

Data from the reports show that low-income households:

- Spend on average 7.2% of income on energy bills compared to 2.3% for non-low-income households;
- Spend more per square foot on energy despite having smaller homes;
- Face the highest energy burdens in the Southeast and Midwest regions of the U.S.

Recommendations include the following.

- Form a PSC- or utility-sponsored low-income program working group to advise on program design
- Have housing finance agencies work with utilities to identify communities with low-income households and build EE into low-income housing tax credits
- Have housing authorities work with energy performance contractors
- Deepen relationships and program delivery channels in existing weatherization programs
- Engage affordable housing owners and operators to improve the design and delivery of EE programs to increase participation
- Use low-income provisions in the Clean Power Plan
- Collect and report demographic data on utility EE program participation

SOURCE: aceee.org

ACEEE American Council for an Energy-Efficient Economy

PEOPLE & PLACES CONTINUED

Fort Bragg and Fayetteville Technical Community College to Join Part of USDOE's Solar Ready Vets and Solar Instructor Training Network

In May 2016, the USDOE announced five military bases will join Solar Ready Vets, a solar jobs training program that prepares service members for careers in the solar industry when they leave active duty. Fort Bragg, near Fayetteville, NC, was one of those five in addition to bases in Florida, New Jersey, Texas and Hawaii.

Fort Bragg will partner with Fayetteville Technical Community College, which will provide the training via the Solar Instructor Training Network. The program has provided training to more than 1,000 PV instructors, and as a result has trained more than 30,000 students throughout the U.S. for solar energy careers.

Both programs are part of the USDOE's SunShot Initiative. Solar Ready Vets is enabled by the Department of Defense's SkillBridge initiative, which allows exiting military personnel to pursue civilian job training up to 6 months prior to their separation date.
SOURCE: energy.gov

EVENTS

Renewable Energy Conference Held May 12

"Renewable Energy in West Virginia: Projects and Prospects in 2016" took place May 12 at the Brad D. Smith Foundation Hall at Marshall University in Huntington. Presenters were as follows.

- STF Group Inc. – developing in Greenbrier County what would be the first large-scale solar photovoltaic project in WV
- Advanced Hydro Solutions – developing hydroelectric projects at the Tygart and Jennings Randolph dams
- Hamer Pellet Fuels – manufacturer of wood pellets, made from residual sawdust from flooring mills for residential and commercial use
- MU CEGAS – WVDOE partner that enables small-scale solar and biomass projects in WV and conducts wind assessment on former surface-mined land
- Appalachian Power - potential upcoming investments in wind and solar as part of the utility's electricity supply mix
- Downstream Strategies – a consultant on energy efficiency, renewable energy and carbon policy
- Geostellar – a solar marketplace specializing in big data on solar insolation
- WVU Division of Forestry & Natural Resources – the ability of WV forests to sequester CO2
- Virginia Conservation Legacy Fund, Inc. – opportunities to bundle coal sales with carbon offset from land reclamation
- WVU Energy Institute - opportunities to demonstrate the potential of the geothermal hot spots in WV
- MU Department of Chemistry - research on producing biofuel from algae and nanoscale materials to build self-assembling solar cells
- West Virginia State University's Energy & Environmental Science Institute – research on genetic modification to increase carbon uptake and oil content of grasses

Presentations are available online by visiting www.energywv.org.

FUNDING

Support for Rural Small Business & Farm Energy Projects Available via NCIF and WVU

The WVDOE & WVU's Industrial Assessment Center were both recently awarded USDA Rural Energy for America Program (REAP) Energy Audit grants, which help to cover the cost of energy audits for rural small businesses and farms. In addition to project guidance, an energy audit provides access to REAP Renewable Energy System & Energy Efficiency Improvement Grants which help to cover the cost of actual upgrades; up to 25% of total project costs up to $500,000 for renewable energy and $250,000 for energy efficiency. The Energy Audit grant will cover 75% of the cost of an energy audit, which can be upwards of $5,000.

Natural Capital Investment Fund (NCIF) is administering the WVDOE grant and is coordinating energy audits for both programs. To learn more, visit ncifenergyinitiative.org or contact NCIF's Energy Project Manager Hannah Vargason at hvargason@conservationfund.org.
SOURCE: NCIF

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