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APPLIED SOLUTIONS NEWS

Turning Local Resources into Local Economic Growth

In this issue, Applied Solution's Chief Economist Dr. James Barrett focuses on the value of local resources, the traditional energy model of outside ownership, and thinking globally while investing locally.

The full article is available at the Applied Solutions website Clean Economy Blog page.
WEBINARS

Upcoming Webinar: Three Business Models for Organic Waste to Energy

Wednesday, March 6th 10:00am-11:30am PST/1:00pm-3:30pm EST

Three different models of local government organic waste-to-energy (biodigestion) projects will be presented during this webinar. Representatives of these successful biodigester programs will be providing insight and advice to help guide others with their own program design with expertise ranging from garbage and food waste digestion, to wastewater digestion, to manure digestion.

Speaking on behalf of their programs are John Welch, Recycling Manager of Dane County, WI; George Dreckmann, Recycling Coordinator of Madison, WI; and Dale Doerr, Superintendent of the Wastewater Treatment Department of Sheboygan, WI.

Space is limited, register for the webinar here. For videos and materials from past webinars, please visit our website.

PROJECT PROFILES

Montpelier, Vermont: City Leads with Innovative Community District Energy System

The city of Montpelier, Vermont and the state of Vermont are working together to install a central district energy system fueled by locally-sourced renewable and sustainable-harvested wood chips. With this innovative system, power will be provided for some of the major state buildings in Montpelier including school buildings and buildings downtown. The entire design will be able to heat 1.8 million square feet and produce 1.8 million kilowatt hours of electricity annually. The City solicited construction bids in October and began evaluating them in November. This project is anticipated to invest approximately $100 million into the local Montpelier economy.

Read more about the district energy system here.

Hillsboro, Oregon: A True Leader in Preparing for the Electric Vehicle Future

The City of Hillsboro, Oregon has long been dedicated to their citizens and businesses and they have discovered sustainability as a best practice to maintain livability. Beginning in 2009, City leaders were at the forefront of EV infrastructure as they began to install charging infrastructure in the community. Since 2009, the City has installed 35 electric vehicle charging stations. The chargers are spread out across eight community locations in Hillsboro. The Level III Blink DC fast charger, the latest addition in 2012, was the first to be installed in Washington County, Oregon.

The City of Hillsboro has been avid about installing EV chargers before federal funding programs were in place, but now have been able to take advantage of such programs. The EV Project, a U.S. Federal Department of Energy (DOE) grant, has supplied funding for charging stations in Hillsboro and throughout Oregon and beyond. Hillsboro believes an important factor in the potential of EV success is partnerships with regional businesses. Private businesses have also joined the effort, and there are now over 50
chargers throughout the City. Their initiative of electric vehicles has allowed Hillsboro to attract electric vehicle tourists and create a unique environment. Hillsboro's leadership in electric vehicle infrastructure is helping to spur other cities to develop plans of their own. Much can be learned from the work of the City of Hillsboro and more information on their sustainability program can be found on their website.

CURRENT NEWS AND RESOURCES

New LBNL Report Forecasts Utility Energy Efficiency Programs

Lawrence Berkeley National Laboratory recently released a new report titled "The Future of Utility Customer-Funded Energy Efficiency Programs in the United States: Projected Spending and Savings to 2025." The study presents projections of future spending on energy efficiency programs funded by electric and gas utility customers in the United States through 2025, projections of electricity savings and the potential impact on load growth. Scenario assumptions also were informed by interviews with regional and national energy efficiency experts, program administrators, regulatory staff, and other industry stakeholders.

Read this story in full here and download the report here.

National Geographic Forecasts the Future of Water Demand by 2035

The largest strain on future water resources from the energy system according to the International Energy Agency's (IEA) predictions are coal fired electricity and increased biofuel production. The amount of fresh water consumed for world energy production is on the track to double within the next 25 years and even though fracking has been the focus of headlines lately, IEA sees its future impact as relatively small. In the energy realm, IEA sees coal-powered electricity driving the greatest demand for water now and in the future. Coal power is increasing in every regional of the world except the U.S. and may surpass oil as the world's main source of energy by 2017.

Although steam driving coal plants are moving to more advanced technologies that discharge much less heated water into bodies of water, they also lose much more water to evaporation in the cooling process. If today's trends of using coal plants continues, water consumption for coal electricity would jump 84 percent (from 38 to 70 billion cubic meters annually by 2035) making coal responsible for over half of all water consumed in energy production. After coal, biofuels are on the track to cause the largest share of water stress in the energy systems of the future.

The surest way to reduce water required for electricity generation is to move to alternative fuels. Wind and solar power have minimal water needs that account for less than one percent of water consumption for energy now and in the future. Sandra Postel, director of the Global Water Policy Project and National Geographic's Freshwater Fellow states, "The win-win of the water-energy nexus is that saving energy saves water."

Read the full story here.

Benefits, Innovations, and Options

A new report from the National Renewable Energy Laboratory examines relatively new, innovative financing methods for residential photovoltaics (PV) and compares them to traditional self-financing methods. This report provides policymakers with an overview and comparative analysis of several residential PV financing mechanisms, including: home equity loans; outright cash purchases; third party residential leases and power purchase agreements; utility loans; public-private co-financing; revolving loans; and property assessed clean energy (PACE). For the full article and link to the report please visit the NREL Renewable Energy Project Finance website.

12 Awards are Given for Recognizing the Relationship Between Energy and Water

For the first time ever the American Council for an Energy-Efficient Economy (ACEEE) and the Alliance for Water Efficiency (AWE) have together announced awards for efficiency programs that conserve both energy and water. Five exemplary award winning programs and 7 honorable mentions were given out for a total of twelve innovative program awards. The five exemplary programs represent market penetration and innovation in helping customers or stakeholders achieve water and energy savings through efficiency. The seven honorable mentions represent the innovative ways governments, utilities, businesses and nonprofits are cost-effectively savings water and energy.

"These awards highlight the huge potential for savings when you combine water and energy efficiency together," stated Steven Nadel, Executive Director of ACEEE. The lessons learned by all of these programs can be read at the report released Tackling the Nexus: Exemplary Programs that Save Both Energy and Water by the ACEEE and AWE. All of the nominated programs, along with the hundreds of other programs that save energy and water can be read here.

Read this story in full here.

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