RE-Powering News | A Quarterly News Digest
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RE-Powering News

A Quarterly News Digest from EPA's RE-Powering America's Land Initiative

SPOTLIGHT

EPA's RE-Powering America's Land Initiative seeks public comment regarding its Action Plan 2.0. See below for more detail.

In 2010, the RE-Powering America's Land Initiative published its first Management Plan to help develop and articulate its goals and activities. The plan provided a useful framework to engage stakeholders on where the Agency might help foster renewable energy on contaminated lands and included a document to track progress.

The Initiative is updating its goals and activities and is seeking public comment on a draft version of its Action Plan 2.0, which will be available on the RE-Powering website in April. Comments are encouraged on the draft Action Plan and can be submitted to cleanenergy@epa.gov within thirty days of posting. Again, the purpose of this plan is to articulate the goals and objectives of the Initiative and to highlight expected activities for the next two years.

As members of the RE-Powering community, we especially value your perspective on whether the goals, objectives and activities described in RE-Powering's plan are optimal to facilitate more renewable development on contaminated lands, landfills and mine sites. Ultimately, the plan and the projects assisted by it will achieve and complement the mission of the EPA's brownfields and cleanup programs and forward the protection of human health and the environment.

Our Mission

EPA launched *RE-Powering America's Land: Siting Renewable Energy on Potentially Contaminated Lands, Landfills and Mine Sites* to encourage the siting of renewable energy on thousands of currently and formerly contaminated properties across the nation.

Focus on Payment in Lieu of Taxes (PILOT)

States and local governments often provide certain tax exemptions to make renewable energy installations more attractive to developers. Payment in Lieu of Taxes, or PILOT, is one way a local government may be compensated for some or all of this tax revenue. These arrangements offer a predictable payment, while avoiding complications of tax rates and abatements. Communities benefit from known and regular payments on the installation, and the compensation for tax revenue can help ease concern. PILOT agreements are often used in conjunction with other financial arrangements, such as reduced land lease prices.

PILOT programs are also providing benefits to cities with operating renewable energy installations on contaminated sites. For example, the Forbes Street Landfill in East Providence, Rhode Island, is now home to a 3.7 MW solar farm. By developing the site for solar production, the city found an economic way to close the landfill. As part of the winning bid, site developer CME Energy and partner Hecate Energy took responsibility for capping the landfill, saving the city the cost of doing so. In addition, CME Energy leases the land from the city for $40,000 annually, and pays another $30,600 annually under a PILOT arrangement.

Property tax concerns are also being addressed with PILOT at the Oliver Street Landfill in Easthampton, Massachusetts (MA). Property taxes for the site's 2.3 MW solar installation would have ended after a federally-mandated five-year depreciation period. To counter this revenue loss, the city executed a PILOT agreement with developer Borrego Solar to guarantee the city revenue of $365,000 over 20 years. The city also leases the land to Borrego for $1/year in exchange for an electricity price of $0.06 per kilowatt over the next 10 years.

Feasibility Studies

EPA and the National Renewable Energy Laboratory (NREL) are evaluating the feasibility of siting renewable energy production on potentially contaminated lands. This effort pairs EPA's expertise on contaminated sites with NREL's expertise in renewable energy.

The following feasibility studies were published recently on NREL's website. Links are also available on the RE-Powering America's Land website. This list includes feasibility studies that were funded by EPA headquarters and EPA Region 5.

- ***Solar –*** Ulster, New York: TechCity
- ***Wind –*** Onamia, Minnesota: Mille Lacs Band Tribal Community Dump Site

Binkley Solar Farm, Hermitage, TN. Photo courtesy MSCOT Services, LLC.

A 200-kW solar photovoltaic installation at Binkley Solar Farm in Hermitage, Tennessee, is the state's first PV installation on landfill property. A portion of the Class IV construction and demolition (C&D) landfill reached capacity in 1999 and was capped. The Binkley family, which owns the site, wanted to continue a tradition of sustainability by installing renewable energy on the landfill cap. The family funded the installation, which cost approximately $1 million and was eligible for a 1603 tax credit funded by the American Recovery and Reinvestment Act of 2009. The project also uses recycled grass and dirt garnered from Vanderbilt University's football field when the school switched to artificial turf. The landfill still accepts residential and commercial C&D waste as well as landscape waste, and the site now hosts a scrap metal recycling business. Electricity from the 832 solar panels offsets the recycling operation through a net metering agreement with Nashville Electric Service. A video of the installation shot by 12-year-old Albert Binkley is available on YouTube and DECK Monitoring tracks the farm's power production in real-time. The solar project went live in March 2012.

Liabilities into Assets—DuPont Solar Farm

On December 6, 2013, a ribbon-cutting ceremony commemorated the startup of a 548 kilowatt, five-acre solar installation on a former Superfund site in Newport, Delaware. The solar farm will generate approximately 729,000 kilowatt hours of power per year, enough electricity to power about 60 homes.

Contaminants at the site, formerly a landfill for a DuPont pigment manufacturing plant, included heavy metals and chlorinated solvents. This portion of the overall 120-acre site has been successfully remediated. With support from the U.S. Environmental Protection Agency (EPA) and the Delaware Division of Natural Resources & Environmental Control, DuPont collaborated with Tangent Energy Solutions to develop the solar project. In support of the redevelopment, EPA provided a comfort letter to Greenwood Energy, co-owners of the solar project through a joint venture with John Hancock Financial Services and Soltage, LLC. EPA generally issues comfort letters to facilitate the cleanup and reuse of contaminated properties on a site specific basis and is particularly interested in encouraging appropriate renewable energy development on environmentally impaired lands. The letter explains the history of the site and the measures in place to protect human health and the environment, describes Bona Fide Prospective Purchaser Liability Protection under CERCLA, and provides information EPA has evaluated regarding the site to date. Joseph Sacks, Vice President for Corporate Development at Greenwood Energy, said, “We are very proud to be involved with this powerful story—repurposing remediated land to host renewable power generation for the local Newport community. EPA Region 3’s support letter and general advocacy for the project were instrumental in providing comfort to all financing parties involved.”

The thin-film photovoltaic solar panels themselves were manufactured by DuPont subsidiary DuPont Apollo. Through Greenwood’s agreement with the Sustainable Energy Utility, renewable energy credits from the project will be sold to utility Delmarva Power. The project is DuPont’s fourth solar installation in Delaware and its first on a landfill.

“[Said] Shawn Garvin, regional administrator – EPA Mid-Atlantic Region 3. ’When we work together to turn an environmental problem into an opportunity, we create the best of what is possible – here solar energy will serve the families of Newport and inspire others to re-power America with alternative energy solutions.’” (From *Domestic Fuel,* “DuPont Starts Solar Project on Landfill Site”)

"Today, the Newport Solar Project is a shining example of reusing a Superfund site that has been cleaned up for renewable energy development. The project will reduce DuPont’s environmental footprint and by default the Newport Community’s greenhouse gas emissions by 350 tons a year, while providing economic benefits locally. This project has paid off handsomely in that the initial installation of the solar panels created nearly 120 jobs and will produce enough renewable energy to power 60 homes in the Newport Community."

—Shawn M. Garvin
EPA Region 3 Administrator

In the News

The Rural Electric Convenience Cooperative (RECC) was recently named one of the 2013 Wind Cooperatives by the Department of Energy. RECC teamed up with the Illinois Department of Natural Resources to transform a "brownfield" site into a source of clean, renewable energy. By installing a utility-scale turbine at Gobnob on the elevated section of an abandoned mine, RECC is able to capture a large amount of wind energy that is unavailable at a lower elevation.

Recent Webinars

U.S. Fish & Wildlife Service Training Broadcast on Wind Energy Guidelines (January 29, 2014). The U.S. Fish and Wildlife Service hosted a training to discuss the voluntary Land-Based Wind Energy Guidelines and other relevant wind energy topics. The webinar focused on how the guidelines apply to distributed wind energy projects, how to coordinate with state agencies, and the identification of "species of habitat fragmentation concern," as defined in the guidelines.

Upcoming Events

Solar Development on Landfills and Brownfields. April 15, 2014, Philadelphia, Pennsylvania. Electric Utility Consultants, Inc. is hosting a conference focused on the important components of developing solar energy on landfills and brownfields. The conference will convene utility personnel, developers, engineers, municipal officials, regulatory officials, attorneys, and insurance brokers with expertise in this topic.

AWEA WINDPOWER Conference & Exhibition. May 5, 2014, Las Vegas, Nevada. WINDPOWER is the annual conference and exhibition for the U.S. wind industry, hosted by the American Wind Energy Association (AWEA). Wind energy professionals attend this conference to generate actionable ideas for expanding the wind energy economy through technology and collaboration.

PV America. June 23, 2014, Boston, Massachusetts. Designed specifically for PV- focused solar professionals, the 2014 event will focus on PV-related issues challenging the Northeast; regional and national coverage of market trends, policy, and technology; and a comprehensive look at issues, information, and innovations on the forefront of the solar PV industry.

New Resources

Utility Community Solar Handbook - Understanding and Supporting Utility Program Development, Version 1: December 2013. Released by the Solar Electric Power Association (SEPA), this handbook provides a utility perspective on leading community solar program development and is a resource for government officials, regulators, community organizers, solar energy advocates, non-profits and interested citizens who want to support their local utility in implementing a solar project.

Grid Energy Storage Report. December 2013. This U.S. Department of Energy (DOE) report identifies the benefits of grid energy storage, the challenges that must be addressed to enable broader use, and the efforts of the DOE—in conjunction with industry and other government organizations—to meet those challenges.

U.S. Wind Industry Fourth Quarter 2013 Market Report. January 2014. AWEA released its U.S. Wind Industry Fourth Quarter 2013 Market Report, outlining 2013 industry growth and accomplishments. The report highlights that, at the end of 2013, 12,000 MW of new generating capacity were under construction, with a record-breaking 10,900 MW starting construction during the fourth quarter.

Active Power Controls from Wind Power: Bridging the Gaps. January 2014. DOE's NREL released a comprehensive study to provide understanding about how wind power technology can assist the power grid by controlling the active power output being placed onto the system. The rest of the power system's resources have traditionally been adjusted around wind to support a reliable and efficient system. The study challenges that concept, finding that wind power can support the power system by adjusting its power output to enhance system reliability.

Relationship between Wind Turbines and Residential Property Values in Massachusetts. January 2014. The Massachusetts Clean Energy Center commissioned this report, which investigates the impacts of wind facilities on nearby home values in the state. Researchers at Lawrence Berkeley National Laboratory and the University of Connecticut analyzed more than 122,000 home sales near 26 wind facilities in densely populated Massachusetts, finding no statistical evidence of an impact to property values.

On-Site Renewable Energy Generation: A Guide to Developing and Implementing Greenhouse Gas Reduction Programs. 2014. U.S. EPA's State and Local Climate and Energy Program released this guide which describes a variety of approaches local governments can use to advance climate and energy goals by meeting some or all electricity needs through on-site renewable energy generation. The guide discusses how local governments can work with utilities, local businesses, nonprofit groups, residents, state agencies, green power marketers and brokers to plan and implement on-site renewable energy generation projects at local government facilities and throughout the community.

Contact Us

For more information, contact Marc Thomas via email at thomas.marc@epa.gov or visit http://epa.gov/renewableenergyland/

EPA United States Environmental Protection Agency