

# RE-Powering News

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



## SPOTLIGHT

EPA identified 85 completed renewable energy projects on potentially contaminated lands in its updated Project Tracking Matrix publication. See below for more detail.

In November 2013, the U.S. Environmental Protection Agency's (EPA) RE-Powering America's Land Initiative updated its [Project Tracking Matrix](#). Using publically available information, RE-Powering maintains a list of completed renewable energy projects on contaminated lands, landfills and mine sites. To date, the RE-Powering Initiative has identified 85 renewable energy projects in 27 states and territories with a cumulative installed capacity just over 500 megawatts (MW).

Projects on this list include ground-mounted utility-scale systems, rooftop systems, and systems used for onsite power. Examples range from small solar arrays that power cleanup activities onsite, such as the 10 kilowatt (kW) project at the Refuse Hideaway Landfill in Wisconsin, to huge utility-scale projects like the 237 MW wind project on the Dave Johnston Mine Reclamation site in Wyoming. In addition, the Project Tracking Matrix includes summary statistics of the known installations and provides insight on the use of renewable energy on contaminated lands.

### 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.

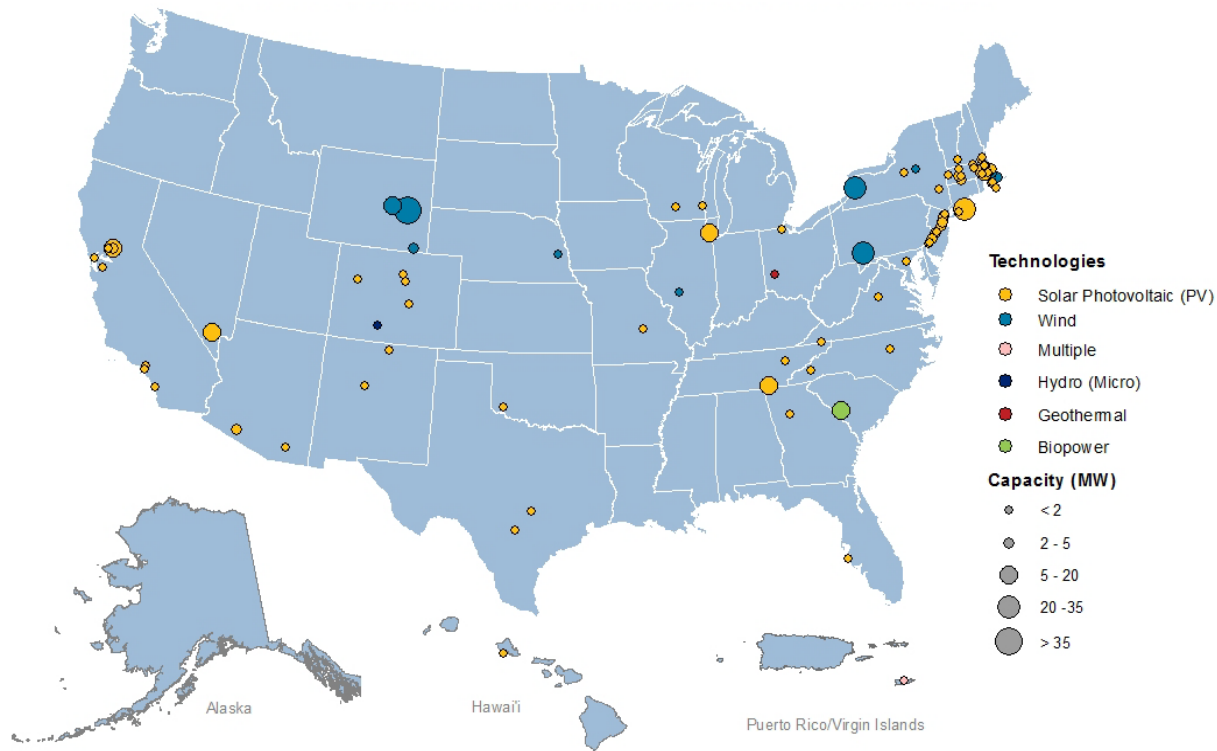
### Presidential Memo

On December 5, 2013, President Obama issued a [Presidential Memorandum on Federal Leadership on Energy Management](#). This memorandum supports the RE-Powering Initiative's mission by including the following provision:

#### Section 1. Renewable Energy Target (d):

*"Agencies shall consider opportunities, to the extent economically feasible and technically practical, to install or contract for energy installed on current or formerly contaminated lands, landfills, and mine sites."*

## Completed Renewable Energy Projects on Contaminated Lands, Landfills, and Mine Sites



The information in the matrix is gathered from public announcements of renewable energy projects in the form of company press releases, news articles, and in some cases, conversations with the parties involved. It may not be a comprehensive list of all projects completed on contaminated lands and is for informational purposes only. To provide information on additional projects—both completed and in various stages of planning/construction—email [cleanenergy@epa.gov](mailto:cleanenergy@epa.gov).



Sample of photovoltaic panels at MATC's PV Lab.

### CASE STUDY

[Milwaukee Area Technical College \(MATC\)](#) in Milwaukee, Wisconsin, is home to a 32-acre solar photovoltaic (PV) installation located on former city landfill property now owned by the school. The 540 kW system comprises several "fields" of various solar panels—2,590 panels in total—with sensors to measure ambient conditions and cloud cover. The site is used to train MATC students interested in solar and includes research facilities, a solar highway demonstration sign, and an electric car charging station. The installation is uniquely designed to be portable, so "fields" can be moved and used to demonstrate installations on other [underutilized or idle land](#) in the city. The \$7 million installation was developed in collaboration with Johnson Controls.

## Focus on Community Solar/Solar Gardens

Community solar is growing in popularity as a way to fund solar energy projects and provide solar benefits to community members. Community solar also provides a means through which solar power can be accessed by residents who otherwise could not install it, such as apartment dwellers or those whose dwellings have too much shade. The concept revolves around a centralized, grid-tied solar installation from which residents can 'adopt' a certain number of solar panels – and the associated power. The Solar Industry article, "[Clean Energy Grows In Community Solar Gardens](#)," compares solar gardens to community gardens: "[in a community garden,] people who don't have the resources for a garden on their own property can instead buy a share of a plot of land. In a community garden, participants get fruits and vegetables, and in a solar garden, utility customers receive a credit on their electric bills."

### *A New Community Solar Garden on a Brownfield In Colorado*

In March 2013, the National Renewable Energy Laboratory (NREL) and EPA published a [Feasibility Study](#) on the [Tower Road Site](#) in Aurora, Colorado. The study determined that the site, which EPA considers to be a brownfield because its redevelopment is complicated by historic contamination from the nearby air force base, could potentially support a solar energy system based on the resources availability, site conditions, and incentives available. In November 2013, the Tower Road site went online as a successful community solar project. It is a 498 kW system comprising 1,684 solar panels, and built on a 4.5-acre brownfield owned by the City of Aurora Water Department. Citizens and businesses can subscribe to "portions" of the array and receive credit for an equivalent amount of the electricity generated. Community solar customers receive the same rebates and incentives as residential system owners, and credit for the power produced appears directly on the owners' monthly energy bills. The Tower Road installation serves customers in [Aurora and Arapahoe counties](#) and was developed by Clean Energy Collective. More information—about community



*EPA Region 8 Administrator Shaun McGrath at Tower Road site Ribbon-cutting Ceremony  
– November 20, 2013*

"Community-owned solar is a big idea whose time has come. Projects like this will allow more people than ever to generate electricity – in effect, become their own little power company. And a funny thing happens when people start generating their own energy; they start to pay more attention to the energy they are using and look harder for ways to conserve energy. They also pay more attention to national and regional energy issues. It's critical that we as a society have a greater dialog about how we produce and consume energy - because it has a profound impact on our planet."

- Shaun McGrath,  
EPA Region 8 Administrator

solar and several projects—is included in NREL’s 2012 publication, "[A Guide to Community Shared Solar: Utility, Private, and Nonprofit Project Development](#).”

## Feasibility Studies

EPA and 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.

- **Biomass** – Putney, Vermont: [Basketville Warehouse Site](#)
- **Wind** – Newport, Indiana: [Newport Chemical Depot](#)
- **Geothermal**—Lakeview, Oregon: [Lakeview Uranium Mill](#)

## In the News

### [Structured Approach Can Help Solar Developers Fulfill Promise of Brownfields](#)

A useful one-stop summary article in Bloomberg Law highlighting the significant potential of brownfield sites for renewable energy development. The article breaks down key obstacles to successfully develop a utility-scale solar project on a brownfield site, outlines strategies to confront those obstacles and minimize their impacts, and identifies strategies for getting projects financed. According to author Peter Trimarchi, “Solar power systems provide an elegant solution to our country’s brownfields and energy problems.”

## Recent Webinars

[Spurring Local Economic Development with Clean Energy Programs](#) (November 7, 2013). DOE webinar discusses how communities can use energy efficiency and renewable energy programs for local economic development. Efforts to improve energy efficiency and generate renewable energy can benefit a local economy in much the same way as other development activities.

[Solar and the EPA’s RE-Powering America’s Land Initiative](#) (December 12, 2013). EPA’s RE-Powering America’s Lands webinar, in conjunction with the Solar Energy Industries Association (SEIA), discusses how to leverage existing infrastructure, improve project economics with reduced land costs and tax incentives, reduce project cycle times through streamlined permitting and zoning, and build a sustainable land development strategy by using contaminated lands. Access current and past SEIA webinars [here](#).

## Upcoming Events

[2014 Energy Outlook Conference](#). February 4-7, 2014. Washington, DC. The National Association of State Energy Officials (NASEO) and the Association of State Energy Research & Technology Transfer Institutions (ASERTTI) will focus on state-federal energy collaboration in a new budget and policy era. This year's conference will explore the national energy policy outlook and the state, federal and private sector partnerships that will advance U.S. energy policy.

[American Bar Association's Environment, Energy, and Resources Section, Spring Conference](#). March 20-22, 2014. Salt Lake, Utah. This is the nation's leading environmental, energy and resources law conference. A session focusing on renewable energy projects on contaminated lands is on the agenda.

[National Renewable Energy Policy Forum](#). March 26-27. Washington, DC. The American Council on Renewable Energy (ACORE) convenes this annual event with renewable energy leaders from Capitol Hill and across the United States. Forum participants will discuss the state of renewable energy policy and identify future policy recommendations.

## New Resources

[Working with the Department of Defense: Siting Renewable Energy Development](#). November 2013. The Natural Resources Defense Council (NRDC) and the U.S. Department of Defense (DoD) released this primer to support siting of renewable energy projects on or near DoD sites. The guide also offers information about NRDC's geospatial database, designed to help identify potential conflicts with DoD mission when siting renewable energy.

[ASTM E2893-13 Greener Cleanups Standard Guide](#). November 2013. Released by the American Society for Testing and Materials (ASTM) International, this for-purchase guide describes a process for evaluating and implementing activities to reduce the environmental footprint of site cleanups. It includes a section titled *Minimize Total Energy Use and Maximize Use of Renewable Energy*—which discusses reducing total energy use while also identifying means to increase the use of renewable energies such as wind and solar to power on-site cleanup activities.

[Utility Energy Services Contracts Guide: A Resource for Contracting Officers Working on UESC Projects](#). September 2013. Prepared by DOE's Federal Energy Management Program (FEMP), this guide is a compilation of samples and templates developed to help contracting officers implement task orders for utility energy service contracts under existing General Services Administration area-wide contracts.



[Memorandum of Understanding between the U.S. Department of Energy and the U.S. Fish and Wildlife Service Regarding Implementation of Executive Order 13186, “Responsibilities of Federal Agencies to Protect Migratory Birds.”](#) September 2013. DOE and the Department of the Interior’s (DOI) Fish and Wildlife Service have entered into a Memorandum of Understanding to promote conservation of migratory bird populations. The document includes an agreement to collaborate on issues related to migratory birds and energy technologies such as wind.

[Community Developments Investments: Investing in Wind Energy Using the Public Welfare Investment Authority.](#) Fall 2013. The U.S. Department of the Treasury’s Office of the Comptroller of the Currency (OCC) published a document showing how national banks and federal savings associations can use public welfare investment authority to invest in wind energy projects. See also [Investing in Solar Energy Using the Public Welfare Investment Authority](#), published by the OCC in July 2011.

## Contact Us

For more information, contact Marc Thomas via email at [thomas.marc@epa.gov](mailto:thomas.marc@epa.gov) or visit <http://epa.gov/renewableenergyland/>

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