

Through its RE-Powering America's Land Initiative, the U.S. Environmental Protection Agency (EPA) encourages renewable energy development on current and formerly contaminated lands, landfills, and mine sites when aligned with the community's vision for the site.

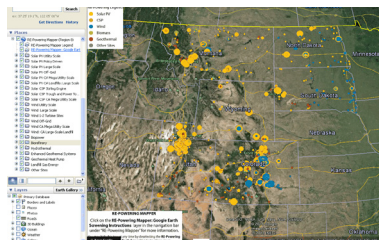
Building on an existing tool, the RE-Powering Initiative expanded screening to more than 80,000 EPA- and state-tracked sites, comprising over 43 million acres. Using screening criteria developed in collaboration with the U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL), each site was screened for developing solar, wind, biomass and geothermal facilities at various scales.

As part of this effort, EPA collaborated with state agencies from California, Hawaii, Illinois, Massachusetts, New York, New Jersey, Oregon, Pennsylvania, Texas, Virginia, and West Virginia to screen for renewable energy potential at over 47,000 state-tracked sites.

What mapping tools are available to identify sites with renewable energy potential?

EPA has developed a collection of mapping tools to help identify potentially contaminated lands, landfills, and mine sites with renewable energy potential. These tools enable the user to perform a preliminary screen of contaminated sites for renewable energy potential nationwide and include:

- **RE-Powering Mapper** – Search for potential sites in a particular area or across the country by renewable energy technology or type of contaminated site. View the site's location, acreage, resource availability, cleanup status and EPA contact, as well as site attributes such as nearby roads and buildings.
- **RE-Powering Screening Dataset** – View all of the data collected on contaminated lands, landfills, and mine sites with renewable energy screening results in a spreadsheet format and upload it into other applications. Allows sorting and filtering by any category, including state, renewable energy technology, and acreage.
- **National renewable energy maps** – Get a snapshot of nationwide contaminated sites with renewable energy potential.
- **Data Documentation for Mapping & Screening** – Review the methodology, data sources, screening criteria and key considerations used in the mapping analyses.



Screen shot from the Google Earth interactive mapping tool

EPA has developed additional tools, including: a project tracking matrix of completed renewable energy installations, success stories and case studies, best practices for siting solar projects on municipal solid waste landfills, a liability reference guide for siting renewable energy on contaminated land, and a handbook on siting renewable energy while addressing environmental issues. Visit the [RE-Powering website](http://www.epa.gov/renewableenergyland) for more information.

Potential installed capacity based on percentage of acreage screened and reused for renewable energy development

10% OF ACRES	25% OF ACRES	50% OF ACRES	100% OF ACRES
OVER 689,000 MW	OVER 1,700,000 MW	OVER 3,400,000 MW	OVER 6,890,000 MW

Renewable Energy Technologies Analyzed

Solar

- Utility scale photovoltaic (PV)
- Policy driven, utility-scale PV
- Large scale PV
- Off-grid PV
- Utility scale concentrating solar power (CSP)

Wind

- Utility scale wind
- Large scale wind
- 1-2 Turbine wind projects
- Non-grid connected wind

Biomass

- Biopower facility
- Biorefinery facility
- Landfill gas energy facility

Geothermal

- Hydrothermal energy
- Enhanced geothermal systems
- Geothermal heat pump

Types of Sites Currently Mapped

- Superfund
- RCRA Corrective Action
- Abandoned Mine Land
- Landfills
- Brownfield sites that have received EPA funding

EPA has also screened select state tracked sites with the mapping tool, including locations in California, Hawaii, Illinois, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Texas, Virginia, and West Virginia.

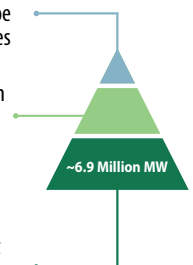
Estimating Total Technical Potential

Approximately 6.9 million MW

Market potential – The portion of the economic potential that could be achieved given current costs, policies and technical constraints.

Economic potential – The portion of the technical potential that is economically viable, but requires additional policies to break down market barriers.

Technical potential – Potential that is technically possible, without consideration of cost or practical feasibility.



For more information, visit www.epa.gov/renewableenergyland or contact cleanenergy@epa.gov