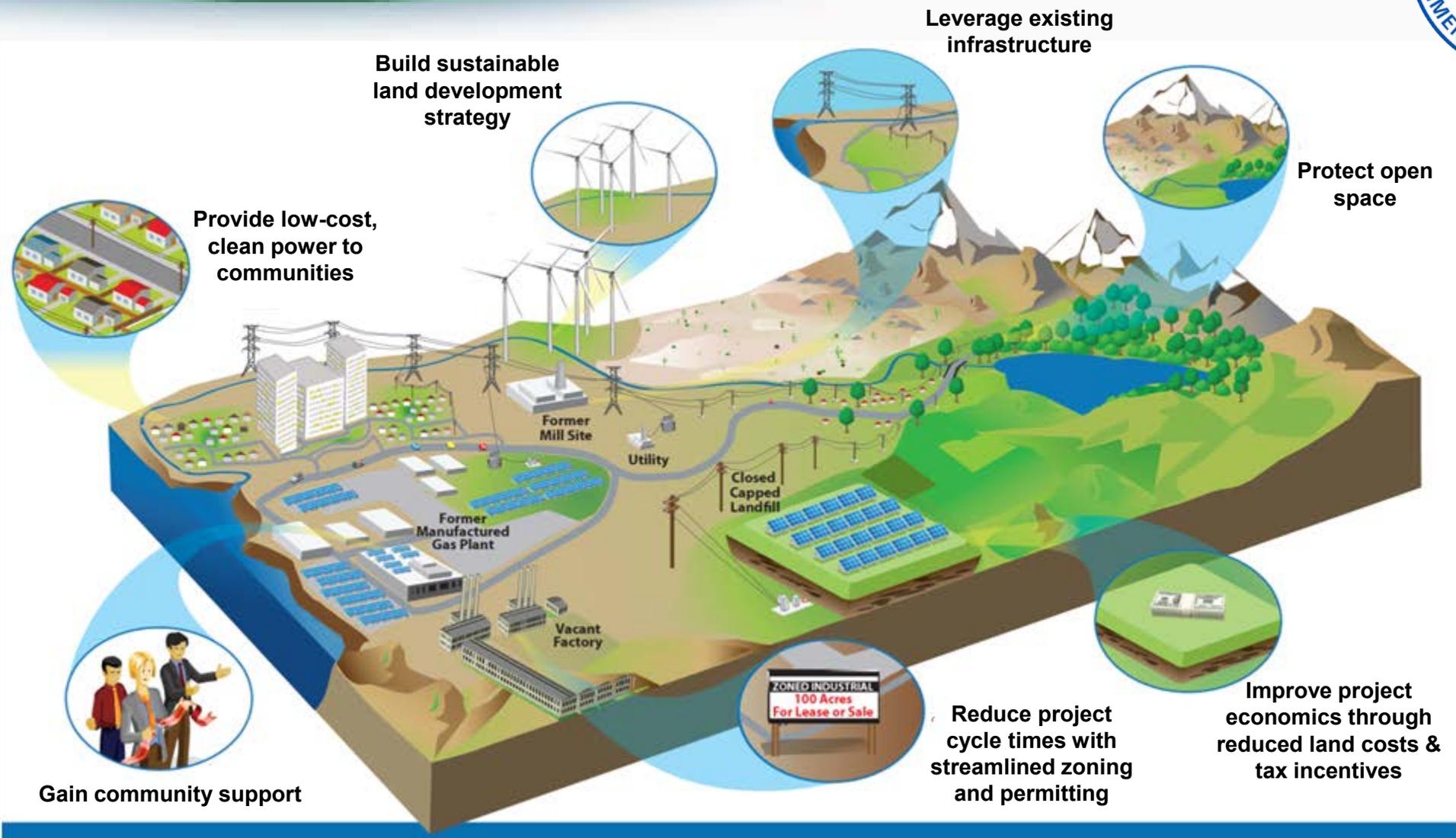


Renewable Energy on Contaminated Lands and Brownfields Sites



**Ben Machol, Manager
Clean Energy & Climate Change Office
U.S. Environmental Protection Agency, Region 9**

Why Renewables on Potentially Contaminated Lands?



Build sustainable land development strategy

Leverage existing infrastructure

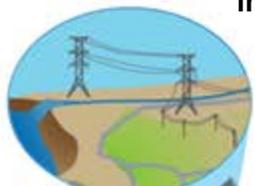
Protect open space

Provide low-cost, clean power to communities

Gain community support

Reduce project cycle times with streamlined zoning and permitting

Improve project economics through reduced land costs & tax incentives



RE-Powering America's Land

www.epa.gov/renewableenergyland/



Encouraging siting renewable energy on current or formerly contaminated lands, landfills and mine sites when aligned with the community's vision

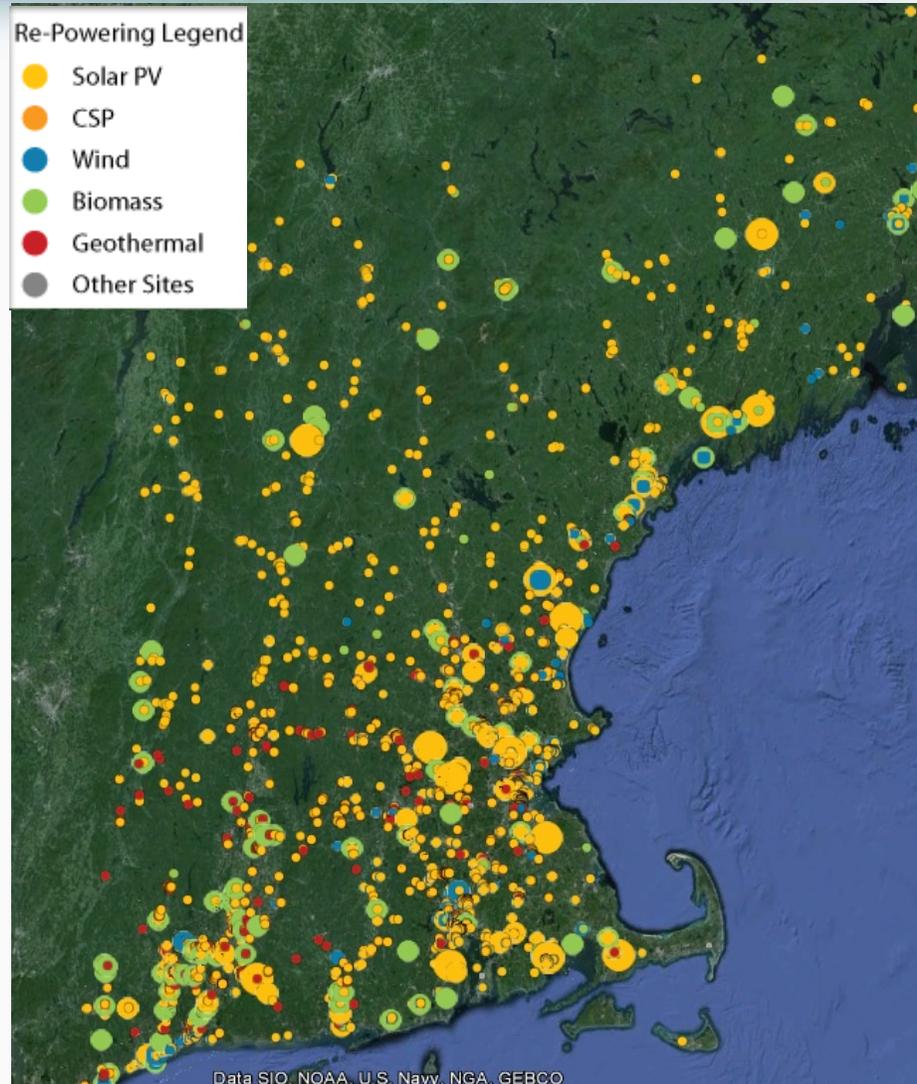


- Mapping & Site Screening Tools
- Informational Resources
- Fact Sheets & Success Stories



RE-Powering Mapper

Google Earth Overlay



Mapped inventory of 80,000+ EPA and select state tracked sites (over 43 million acres of land)

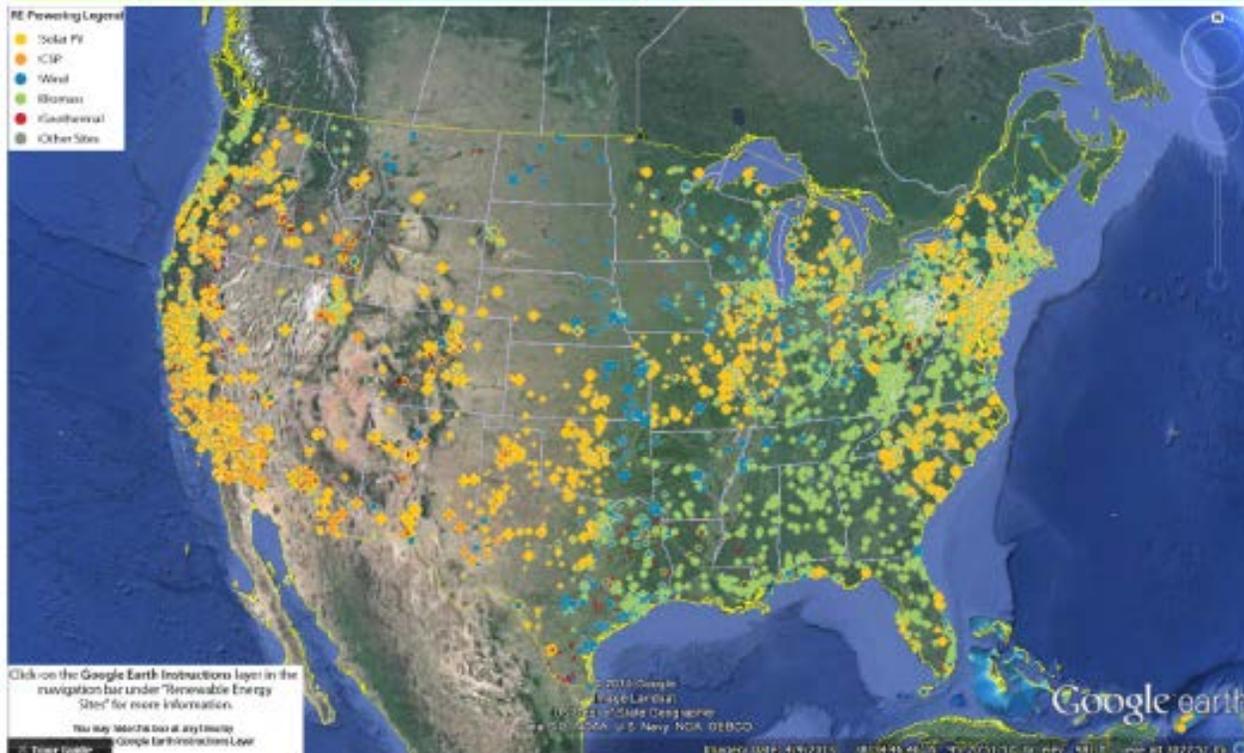
Incorporates data from:

- EPA Cleanup and Landfill Programs
- National Renewable Energy Lab
 - Wind, Solar, and Biomass Resources
- Southern Methodist University and USGS
 - Geothermal
- Department of Homeland Security
 - U.S. Highways
 - Railroads
 - Transmission Lines
 - Substations
- State Agencies from CA, HI, IL, MA, NJ, NY, OR, PA, TX, VA, and WV

Potential Power Generation Capacity



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



Google Earth depiction of utility-scale sites screened as part of the RE-Powering Mapper project.

Brownfields



- Real property - the expansion, redevelopment or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant
- Targeted Brownfields Assessments - funds environmental site assessments, cleanups and job training activities
- Grants
 - Assessments
 - Revolving Loan Funds
 - Cleanup
 - Area-Wide Planning
 - Environmental Workforce Development and Job Training
 - Pilots, Training Research, Technical Assistance
 - 128(a) State and Tribal Response Programs





- <https://www.epa.gov/re-powering>
- <https://www.epa.gov/brownfields>

Ben Machol, Manager
Clean Energy & Climate Change Office
EPA Region 9
machol.ben@epa.gov