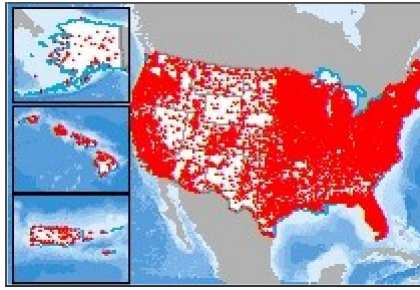


EPA Brownfield Sites (RE-Powering Americas Land)



Tags

re-powering, solar, wind, biomass, geothermal, heatpump, capacity, landfill, brownfield, superfund, rcra, aml

Summary

This layer shows location and attribute data for a national set of contaminated lands, landfills and mine sites that have pre-screened favorably for solar (PV), wind, biomass and geothermal heatpump resource potential. It includes data that covers the United States and U.S. territories. The site data comes from EPA program offices and 22 states. The data were last updated in September 2021. Detailed information about data sources, screening criteria and screening methodology can be found in the Data Documentation file found here: <https://www.epa.gov/re-powering/mapper-technical-documents>.

Description

The U.S. Environmental Protection Agency (EPA) Office of Land and Emergency Management (OLEM) Office of Communications, Partnerships and Analysis (OCPA) initiated the RE-Powering America's Land Initiative to demonstrate the enormous potential that contaminated lands, landfills, and mine sites provide for developing renewable energy in the United States. EPA developed national level site screening criteria in partnership with the U.S. Department of Energy (DOE) National Renewable Energy Laboratory (NREL) for wind, solar, biomass, and geothermal facilities. While the screening criteria demonstrate the potential to reuse contaminated land for renewable energy facilities, the criteria and data are neither designed to identify the best sites for developing renewable energy nor all-inclusive. Therefore, more detailed, site-specific analysis is necessary to identify or prioritize the best sites for developing renewable energy facilities based on the technical and economic potential. Please note that these sites were only pre-screened for renewable energy potential. The sites were not evaluated for land use constraints or current on the ground conditions. Additional research and site-specific analysis are needed to verify viability for renewable energy potential at a given site.

Credits

US EPA Office of Land and Emergency Management (OLEM), RE-Powering America's Land Initiative

Use limitations

There are no access and use limitations for this item.

Extent

West -178.303943 **East** -64.703198
North 71.274721 **South** 17.706000

Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:150,000,000

Topics and Keywords

* CONTENT TYPE Downloadable Data

Citation

TITLE EPA Brownfield Sites (RE-Powering Americas Land)

PRESENTATION FORMATS * digital map

Resource Details

DATASET LANGUAGES * English (UNITED STATES)

SPATIAL REPRESENTATION TYPE * vector

* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.0.12790

CREDITS

US EPA Office of Land and Emergency Management (OLEM), RE-Powering America's Land Initiative

ARCGIS ITEM PROPERTIES

* NAME epa_renewable_energy_site_230501_v5

Extents

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

* WEST LONGITUDE -178.303943

* EAST LONGITUDE -64.703198

* NORTH LATITUDE 71.274721

* SOUTH LATITUDE 17.706000

* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE -19848704.141200

* EAST LONGITUDE -7202727.054100

* SOUTH LATITUDE 2003164.866700

* NORTH LATITUDE 11496866.317500

* EXTENT CONTAINS THE RESOURCE Yes

Spatial Reference

ARCGIS COORDINATE SYSTEM

* TYPE Projected

* GEOGRAPHIC COORDINATE REFERENCE GCS_WGS_1984

* PROJECTION WGS_1984_Web_Mercator_Auxiliary_Sphere

* COORDINATE REFERENCE DETAILS

PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 102100

X ORIGIN -22041258.62706707

Y ORIGIN -33265068.604224768

XY SCALE 135385249.94349548

Z ORIGIN -100000
Z SCALE 10000
M ORIGIN -100000
M SCALE 10000
XY TOLERANCE 0.001
Z TOLERANCE 0.001
M TOLERANCE 0.001
HIGH PRECISION true
LATEST WELL-KNOWN IDENTIFIER 3857
WELL-KNOWN TEXT PROJCS["WGS_1984_Web_Mercator_Auxiliary_Sphere",GEOGCS
["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID
["WGS_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT
["Degree",0.0174532925199433]],PROJECTION["Mercator_Auxiliary_Sphere"],PARAMETER
["False_Easting",0.0],PARAMETER["False_Northing",0.0],PARAMETER
["Central_Meridian",0.0],PARAMETER["Standard_Parallel_1",0.0],PARAMETER
["Auxiliary_Sphere_Type",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",3857]]

REFERENCE SYSTEM IDENTIFIER

* VALUE 3857
* CODESPACE EPSG
* VERSION 8.8(9.3.1.2)

Spatial Data Properties

VECTOR

* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME epa_renewable_energy_site_230501_v5

* OBJECT TYPE point
* OBJECT COUNT 190976

ARCGIS FEATURE CLASS PROPERTIES

FEATURE CLASS NAME epa_renewable_energy_site_230501_v5

* FEATURE TYPE Simple
* GEOMETRY TYPE Point
* HAS TOPOLOGY FALSE
* FEATURE COUNT 190976
* SPATIAL INDEX TRUE
* LINEAR REFERENCING FALSE

Distribution

DISTRIBUTION FORMAT

* NAME File Geodatabase Feature Class

Fields

DETAILS FOR OBJECT epa_renewable_energy_site_230501_v5

* TYPE Feature Class
* ROW COUNT 190976

FIELD OBJECTID

* ALIAS OBJECTID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
Internal feature number.

* DESCRIPTION SOURCE

Esri

* DESCRIPTION OF VALUES

Sequential unique whole numbers that are automatically generated.

FIELD SHAPE

* ALIAS SHAPE

* DATA TYPE Geometry

* WIDTH 0

* PRECISION 0

* SCALE 0

* FIELD DESCRIPTION

Feature geometry.

* DESCRIPTION SOURCE

Esri

* DESCRIPTION OF VALUES

Coordinates defining the features.

FIELD Ref

* ALIAS Cross-Reference Number

* DATA TYPE Integer

* WIDTH 4

* PRECISION 0

* SCALE 0

FIELD EPARegion

* ALIAS EPA Region

* DATA TYPE SmallInteger

* WIDTH 2

* PRECISION 0

* SCALE 0

FIELD State

* ALIAS State

* DATA TYPE String

* WIDTH 2

* PRECISION 0

* SCALE 0

FIELD Program

* ALIAS Program

* DATA TYPE String

* WIDTH 100

* PRECISION 0

* SCALE 0

FIELD SiteID

* ALIAS Site ID

* DATA TYPE String

* WIDTH 50

* PRECISION 0

* SCALE 0

FIELD SiteInfo

- * ALIAS Site Information
- * DATA TYPE String
- * WIDTH 200
- * PRECISION 0
- * SCALE 0

FIELD SiteName

- * ALIAS Site Name
- * DATA TYPE String
- * WIDTH 150
- * PRECISION 0
- * SCALE 0

FIELD Address

- * ALIAS Address
- * DATA TYPE String
- * WIDTH 250
- * PRECISION 0
- * SCALE 0

FIELD City

- * ALIAS City
- * DATA TYPE String
- * WIDTH 75
- * PRECISION 0
- * SCALE 0

FIELD County

- * ALIAS County
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD ZipCode

- * ALIAS Zip Code
- * DATA TYPE String
- * WIDTH 10
- * PRECISION 0
- * SCALE 0

FIELD Acreage

- * ALIAS Acreage (Acres)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD Landfill

- * ALIAS Known Landfill
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD AML

- * ALIAS Known Abandoned Mine Land
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD REPwrPrfle

- * ALIAS RE-Powering Profile
- * DATA TYPE String
- * WIDTH 75
- * PRECISION 0
- * SCALE 0

FIELD EstPVCap

- * ALIAS Estimated PV Capacity (MW)
- * DATA TYPE Single
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD UtilPV

- * ALIAS Utility Scale PV
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD DistribPV

- * ALIAS Distributed Scale PV
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD OffgridPV

- * ALIAS Off-Grid PV
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD NoAcrePV

- * ALIAS No Acreage PV
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD GHI

- * ALIAS Maximum Annual GHI (kWh/m2/day)
- * DATA TYPE Single
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD EstWindCap

- * ALIAS Estimated Wind Energy Capacity (MW)
- * DATA TYPE Single
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD UtilWnd

- * ALIAS Utility Scale Wind
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD CommunWnd

- * ALIAS Community Scale Wind
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD FacilWnd

- * ALIAS Facility Scale Wind
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD NoAcreWnd

- * ALIAS No Acreage Wind
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD WS40m

- * ALIAS Wind Speed at 40 m (m/s)
- * DATA TYPE Single
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD WS80m

- * ALIAS Wind Speed at 80 m (m/s)
- * DATA TYPE Single
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD WS100m

- * ALIAS Wind Speed at 100 m (m/s)
- * DATA TYPE Single
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD BioPwrPot

- * ALIAS Biopower Facility Potential
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD BioRefPot

- * ALIAS Biorefinery Facility Potential
- * DATA TYPE String
- * WIDTH 1
- * PRECISION 0
- * SCALE 0

FIELD CumBioRes

- * ALIAS Cumulative Biopower Residues (metric tons / year within 50 miles)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD CumRefRes

- * ALIAS Cumulative Biorefinery Residues (metric tons / year within 50 miles)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD Crops

- * ALIAS Crop Residues (metric tons / year within 50 miles)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD Forest

- * ALIAS Forest Residues (metric tons / year within 50 miles)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD PrimMill

- * ALIAS Primary Mill Residues (metric tons / year within 50 miles)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD SecMill

- * ALIAS Secondary Mill Residues (metric tons / year within 50 miles)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD UrbanWW

- * ALIAS Urban Waste Wood Residues (metric tons / year within 50 miles)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD **GeoHeatPmp**

- * **ALIAS** Geothermal Heat Pump Potential
- * **DATA TYPE** String
- * **WIDTH** 1
- * **PRECISION** 0
- * **SCALE** 0

FIELD **SurfTemp**

- * **ALIAS** Surface Temperature (C)
- * **DATA TYPE** SmallInteger
- * **WIDTH** 2
- * **PRECISION** 0
- * **SCALE** 0

FIELD **PermFrost**

- * **ALIAS** Permafrost Presence
- * **DATA TYPE** String
- * **WIDTH** 1
- * **PRECISION** 0
- * **SCALE** 0

FIELD **SSDist**

- * **ALIAS** Distance to Nearest Substation (miles)
- * **DATA TYPE** Double
- * **WIDTH** 8
- * **PRECISION** 0
- * **SCALE** 0

FIELD **SSVoltage**

- * **ALIAS** Nearest Substation Voltage (Volts)
- * **DATA TYPE** SmallInteger
- * **WIDTH** 2
- * **PRECISION** 0
- * **SCALE** 0

FIELD **TransDist**

- * **ALIAS** Distance to Nearest Transmission Line (miles)
- * **DATA TYPE** Double
- * **WIDTH** 8
- * **PRECISION** 0
- * **SCALE** 0

FIELD **TLStatus**

- * **ALIAS** Nearest Transmission Line Status
- * **DATA TYPE** String
- * **WIDTH** 15
- * **PRECISION** 0
- * **SCALE** 0

FIELD **TLkV**

- ALIAS** Nearest Transmission Line kV (kilovolts)
- * **DATA TYPE** SmallInteger
- * **WIDTH** 2
- * **PRECISION** 0
- * **SCALE** 0

FIELD **RdDist**

- * **ALIAS** Distance to Nearest Road (miles)
- * **DATA TYPE** Double
- * **WIDTH** 8
- * **PRECISION** 0
- * **SCALE** 0

FIELD RailDist

- * ALIAS Distance to Nearest Rail (miles)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD Latitude

- * ALIAS Latitude
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD Longitude

- * ALIAS Longitude
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

Metadata Details

- * METADATA LANGUAGE English (UNITED STATES)
- SCOPE OF THE DATA DESCRIBED BY THE METADATA * dataset
- SCOPE NAME * dataset
- * LAST UPDATE 2024-01-03
- ARCGIS METADATA PROPERTIES
 - METADATA FORMAT ArcGIS 1.0
 - STANDARD OR PROFILE USED TO EDIT METADATA FGDC
 - METADATA STYLE FGDC CSDGM Metadata
 - CREATED IN ARCGIS FOR THE ITEM 2023-12-13
 - LAST MODIFIED IN ARCGIS FOR THE ITEM 2024-01-03
 - AUTOMATIC UPDATES
 - HAVE BEEN PERFORMED Yes
 - LAST UPDATE 2024-01-03