Potential Wind Capacity - 80-m (Near-Future)

Tags

There are no tags for this item.

Summary

80-Meter Hub Height (Near Future) Potential Wind Capacity.

Description

These estimates show, for each of the 48 states and the contiguous U.S., the land area with a gross capacity factor (GCF) of 35% and greater. The calculated area illustrates wind energy potential that could be possible from development of the “available” land area after exclusions. The “Potential Installed Capacity” shows the potential megawatts (MW) of rated capacity that could be installed on the available land area, and the “Annual Generation” shows annual wind energy generation in gigawatt-hours (GWh) that could be produced from the installed capacity. AWS Truewind, LLC developed the wind resource data for windNavigator® with a spatial resolution of 200 m. NREL produced the estimates of land area and energy potential, including filtering the estimates to exclude areas unlikely to be developed such as wilderness areas, parks, urban areas, and water features. (See the WINDExchange website for more details).

Credits

NREL Wind Prospector

Use limitations

There are no access and use limitations for this item.

Extent

West -124.733189 **East** -66.950004
North 49.384368 **South** 24.543944

Scale Range

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

ArcGIS Metadata

Topics and Keywords

* CONTENT TYPE Downloadable Data

Citation

TITLE Potential Wind Capacity - 80-m (Near-Future)
PRESENTATION FORMATS * digital map

Resource Details

DATASET LANGUAGES * English (UNITED STATES)
SPATIAL REPRESENTATION TYPE * vector
* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.3.0.4322
CREDITS
NREL Wind Prospector

Extents

EXTENT
GEOGRAPHIC EXTENT
BOUNDING RECTANGLE
EXTENT TYPE Extent used for searching
* WEST LONGITUDE -124.733189
* EAST LONGITUDE -66.950004
* NORTH LATITUDE 49.384368
* SOUTH LATITUDE 24.543944
* EXTENT CONTAINS THE RESOURCE Yes
EXTENT IN THE ITEM'S COORDINATE SYSTEM
* WEST LONGITUDE -13885235.092177
* EAST LONGITUDE -7452840.338583
* SOUTH LATITUDE 2819831.561664
* NORTH LATITUDE 6340333.968619
* 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 -22041545.367140558
Y ORIGIN -33272760.666300893
XY SCALE 135368852.55357128
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 8.2.6

Spatial Data Properties

VECTOR
* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only
GEOMETRIC OBJECTS
FEATURE CLASS NAME potential_wind_capacity_80_near_future
* OBJECT TYPE composite
* OBJECT COUNT 21548
ARCGIS FEATURE CLASS PROPERTIES
FEATURE CLASS NAME potential_wind_capacity_80_near_future
* FEATURE TYPE Simple
* GEOMETRY TYPE Polygon
* HAS TOPOLOGY FALSE
* FEATURE COUNT 21548
* SPATIAL INDEX TRUE
* LINEAR REFERENCING FALSE

Distribution

DISTRIBUTION FORMAT
* NAME File Geodatabase Feature Class

Fields

DETAILS FOR OBJECT potential_wind_capacity_80_near_future

* TYPE Feature Class
* ROW COUNT 21548

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 gid

* ALIAS gid
* DATA TYPE Integer
* WIDTH 4
* PRECISION 0
* SCALE 0

FIELD lat

* ALIAS lat
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD long

* ALIAS long
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD state

* ALIAS state
* DATA TYPE String
* WIDTH 254
* PRECISION 0
* SCALE 0

FIELD area_km2

* ALIAS area_km2
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD region

* ALIAS region
* DATA TYPE String

* Width 254
* Precision 0
* Scale 0

Field a30
* Alias a30
* Data type Double
* Width 8
* Precision 0
* Scale 0

Field a35
* Alias a35
* Data type Double
* Width 8
* Precision 0
* Scale 0

Field a40
* Alias a40
* Data type Double
* Width 8
* Precision 0
* Scale 0

Field Shape_Length
* Alias Shape_Length
* Data type Double
* Width 8
* Precision 0
* Scale 0
* Field description
  Length of feature in internal units.
* Description source
  Esri
* Description of values
  Positive real numbers that are automatically generated.

Field Shape_Area
* Alias Shape_Area
* Data type Double
* Width 8
* Precision 0
* Scale 0
* Field description
  Area of feature in internal units squared.
* Description source
  Esri
* Description of values
  Positive real numbers that are automatically generated.

Metadata Details

* Metadata language English (UNITED STATES)
* Metadata character set utf8 - 8 bit UCS Transfer Format
Scope of the data described by the metadata * dataset
Scope name * dataset
* Last update 2017-02-01
ArcGIS metadata properties
Metadata format ArcGIS 1.0
Metadata style FGDC CSDGM Metadata
Standard or profile used to edit metadata FGDC
Created in ArcGIS for the item 2017-02-01 13:05:22
Last modified in ArcGIS for the item 2017-02-01 13:06:32
Automatic updates
Have been performed Yes
Last update 2017-02-01 13:05:22