

National Offshore Wind Resource Assessment



Tags

Wind, Speed, Offshore, Resource

Summary

Provide information on the wind resource development potential for the Atlantic Coast (Connecticut, Delaware, Georgia, Massachusetts, Maine, Maryland, New Hampshire, New Jersey, New York, North Carolina, Rhode Island, South Carolina, and Virginia). Provide information on the wind resource development potential for the Great Lakes (Indiana, Illinois, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin). Provide information on the wind resource development potential for the western Gulf of Mexico (Texas and Louisiana).

Description

Annual average offshore wind speed for the Atlantic Coast (Connecticut, Delaware, Georgia, Massachusetts, Maine, Maryland, New Hampshire, New Jersey, New York, North Carolina, Rhode Island, South Carolina, and Virginia) at a 90 meter height. Annual average offshore wind speed for the Great Lakes (Indiana, Illinois, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin) at a 90 meter height. Annual average offshore wind speed for the western Gulf of Mexico (Texas and Louisiana) at a 90 meter height.

Credits

There are no credits for this item.

Use limitations

This GIS data was developed by the National Renewable Energy Laboratory ("NREL"), which is operated by the Alliance for Sustainable Energy, LLC for the U.S. Department of Energy ("DOE"). The user is granted the right, without any fee or cost, to use, copy, modify, alter, enhance and distribute this data for any purpose whatsoever, provided that this entire notice appears in all copies of the data. Further, the user of this data agrees to credit NREL in any publications or software that incorporate or use the data. Access to and use of the GIS data shall further impose the following obligations on the User. The names DOE/NREL may not be used in any advertising or publicity to endorse or promote any product or commercial entity using or incorporating the GIS data unless specific written authorization is obtained from DOE/NREL. The User also understands that DOE/NREL shall not be obligated to provide updates, support, consulting, training or assistance of any kind whatsoever with regard to the use of the GIS data. THE GIS DATA IS PROVIDED "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL DOE/NREL BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO CLAIMS ASSOCIATED WITH THE LOSS OF DATA OR PROFITS, WHICH MAY RESULT FROM AN ACTION IN CONTRACT, NEGLIGENCE OR OTHER TORTIOUS CLAIM THAT ARISES OUT OF OR IN CONNECTION WITH THE ACCESS OR USE OF THE GIS DATA. The User acknowledges that access to the GIS data is subject to U.S. Export laws and regulations and any use or transfer of the GIS data must be authorized under those regulations. The User shall not use, distribute, transfer, or transmit GIS data or any products incorporating the GIS data except in compliance with U.S. export regulations. If requested by DOE/NREL, the User agrees to sign written assurances and other export-related documentation as may be required to comply with U.S. export regulations.

ArcGIS Metadata

Topics and Keywords

* CONTENT TYPE Downloadable Data

Citation

* TITLE offshore_energy_potential_wind

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 10.0.4.4000

ARCGIS ITEM PROPERTIES

* NAME offshore_energy_potential_wind

* LOCATION

 * ACCESS PROTOCOL Local Area
 Network

Extents

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

 EXTENT TYPE Extent used for searching

 * WEST LONGITUDE -97.776108

 * EAST LONGITUDE -66.884980

 * NORTH LATITUDE 48.305121

 * SOUTH LATITUDE 25.954157

 * EXTENT CONTAINS THE RESOURCE Yes

BOUNDING RECTANGLE

 EXTENT TYPE Extent used for searching

 * WEST LONGITUDE -97.776108

 * EAST LONGITUDE -66.884980

 * NORTH LATITUDE 48.305121

 * SOUTH LATITUDE 25.954157

 * EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

 * WEST LONGITUDE -
 10884386.523900

 * EAST LONGITUDE -
 7445601.861000

 * SOUTH LATITUDE 2993404.161000

 * NORTH LATITUDE 6157767.107100

 * EXTENT CONTAINS THE RESOURCE Yes

Resource Constraints

CONSTRAINTS

LIMITATIONS OF USE

This GIS data was developed by the National Renewable Energy Laboratory ("NREL"), which is operated by the Alliance for Sustainable Energy, LLC for the U.S. Department of Energy

("DOE"). The user is granted the right, without any fee or cost, to use, copy, modify, alter, enhance and distribute this data for any purpose whatsoever, provided that this entire notice appears in all copies of the data. Further, the user of this data agrees to credit NREL in any publications or software that incorporate or use the data. Access to and use of the GIS data shall further impose the following obligations on the User. The names DOE/NREL may not be used in any advertising or publicity to endorse or promote any product or commercial entity using or incorporating the GIS data unless specific written authorization is obtained from DOE/NREL. The User also understands that DOE/NREL shall not be obligated to provide updates, support, consulting, training or assistance of any kind whatsoever with regard to the use of the GIS data. THE GIS DATA IS PROVIDED "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL DOE/NREL BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO CLAIMS ASSOCIATED WITH THE LOSS OF DATA OR PROFITS, WHICH MAY RESULT FROM AN ACTION IN CONTRACT, NEGLIGENCE OR OTHER TORTIOUS CLAIM THAT ARISES OUT OF OR IN CONNECTION WITH THE ACCESS OR USE OF THE GIS DATA. The User acknowledges that access to the GIS data is subject to U.S. Export laws and regulations and any use or transfer of the GIS data must be authorized under those regulations. The User shall not use, distribute, transfer, or transmit GIS data or any products incorporating the GIS data except in compliance with U.S. export regulations. If requested by DOE/NREL, the User agrees to sign written assurances and other export- related documentation as may be required to comply with U.S. export regulations.

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 3857

X ORIGIN -20037700

Y ORIGIN -30241100

XY SCALE 10000

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

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 102039
- * CODESPACE EPSG
- * VERSION 7.4.1

Spatial Data Properties

VECTOR

* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME offshore_energy_potential_wind

* OBJECT TYPE composite

* OBJECT COUNT 22650

ARCGIS FEATURE CLASS PROPERTIES

* FEATURE TYPE Simple

* GEOMETRY TYPE Polygon

* HAS TOPOLOGY FALSE

* FEATURE COUNT 22650

* SPATIAL INDEX TRUE

* LINEAR REFERENCING FALSE

Distribution

DISTRIBUTOR

AVAILABLE

FORMAT

* NAME Personal GeoDatabase Feature Class

TRANSFER

OPTIONS

* TRANSFER SIZE 0.000

ONLINE SOURCE

* LOCATION

* ACCESS PROTOCOL Local Area Network

* DESCRIPTION Downloadable Data

DISTRIBUTION

FORMAT

* NAME File Geodatabase Feature Class

Fields

DETAILS FOR OBJECT offshore_energy_potential_wind

* TYPE Feature Class

* ROW COUNT 22650

DEFINITION

90 m offshore wind speed for the Atlantic Coast, Great Lakes, Gulf of Mexico, and Pacific Coast

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 ID

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

FIELD GRIDCODE

- * ALIAS GRIDCODE
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0
- * FIELD DESCRIPTION
binned wind speed * 1000

FIELD Speed_90

- * ALIAS Speed_90
- * DATA TYPE Single
- * WIDTH 4
- * PRECISION 0
- * SCALE 0
- * FIELD DESCRIPTION
GRIDCODE / 1000

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 2012-05-24

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0
METADATA STYLE FGDC CSDGM Metadata
STANDARD OR PROFILE USED TO EDIT METADATA FGDC

CREATED IN ARCGIS 2011-12-27 14:56:06
LAST MODIFIED IN ARCGIS 2012-05-24 16:36:18

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes
LAST UPDATE 2012-05-24
16:36:06

Thumbnail and Enclosures

THUMBNAIL
THUMBNAIL TYPE JPG