

Identification Information

Originator: CEPEL (Electric Energy Research Center/Federal University of Rio de Janeiro) - Brazil

Title: Wind Energy in Brazil

Description: Annual average of the aeolic potential at 50m. Content: wind speed in m/s, power class (7 classes), power density in W/m² and Weibull k value organized into cells with 40km x 40km

Time period for which the data is relevant: indefinite

Spatial Extend of Data: Brazil

Bounding Coordinates:

West Bounding Coordinate: 78°10' W

East Bounding Coordinate: 28°30' W

North Bounding Coordinate: 8°10' N

South Bounding Coordinate: 36°10' S

Constraints:

Access: No restrictions

Use: Quoting the source is required: "CEPEL (Electric Energy Research Center/Federal University of Rio de Janeiro) - Brazil"

Contact Information:

Contact Organization: CEPEL - Electric Energy Research Center

Contact Person: Antônio Leite de Sá

Mailing Address:

CEPEL - Centro de Pesquisas de Energia Elétrica

Universidade Federal do Rio de Janeiro

Avenida Um, s/n

Ilha do Campus Universitário

Rio de Janeiro - RJ - Brasil

CEP 21941-590

Phone Number: +55 21 2598-6380

Email Address: alsa@cepel.br

Website: <http://www.cepel.br>

Data Quality Information

Lineage: The thematic map by code of colors permits quick viewing of all the Brazilian territory dataset. That map indicates, for the height of 50m, the annual average, in W/m², of wind speed, power class, power density and Weibull k value

Attribute Accuracy: The information is organized into cells measuring 10 x 40km. The wind potential maps were calculated from simulations produced by the MesoMap(*) for 360 days, extracted of a period of 15 years of data. The days were chosen by means of random sampling at several heights, so that each month and season be considered in a representative way.

(*) MesoMap is an integrated group of atmospheric simulation models, geographical and meteorological databases, nets of computers and storage systems. The MesoMap has been checked by high quality anemometric measurements in a large wind regimens range.

Source Scale Denominator: 1

Metadata for: brazil_wind_40km

Spatial Reference Information

Spatial Object Type: Vector - polygon
Horizontal Coordinate Scheme: ---
Horizontal Units: Decimal degrees
Resolution: Latitude: 0.07° Longitude: 0.04°
UTM Zone Number: ---
Map Projection: Name: Geographic Parameters: Longitude of Central Meridian: 54° W Latitude of Projection Origin: 0° False Easting: 0 False Northing: 0
Other Coordinate System Definition: ---
Cells: Width: 40km Height: 40km
Geodetic Model: Horizontal Datum Name: SAD-69 Ellipsoid Name: Reference ellipsoid 1967 (International Astronomical Union)

Entity and Attribute Information

Entity and attribute overview: Annual average of the aeolic potential at 50m organized into cells with 40km x 40km
Entity Label: brazil_wind_40km.shp
Attribute Label: ID_CEL Attribute Definition: cell identification
Attribute Label: LONGITUDE Attribute Definition: longitude of the cell center
Attribute Label: LATITUDE Attribute Definition: latitude of the cell center
Attribute Label: WEIBULL Attribute Definition: Weibull k value
Attribute Label: SPEED Attribute Definition: wind speed in m/s
Attribute Label: PW_DENSITY Attribute Definition: wind power density in W/m2
Attribute Label: PW_CLASS Attribute Definition: wind power class (7 classes)

Metadata for: brazil_wind_40km

Metadata Reference Information:

Metadata Date: August 8, 2009

Metadata Contact:

Organization: INPE - National Institute for Space Research

Person: Enio Bueno Pereira

Mailing Address:

INPE - Instituto Nacional de Pesquisas Espaciais
Av. dos Astronautas, 1758 - São José dos Campos
SP - Brasil - CEP 12227-010

Phone Number: +55 12 3945-6741

Email Address: enio.pereira@cptec.inpe.br

Website: <http://www.inpe.br>
