

## Metadata for: brazil\_wind\_40km

### 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/m<sup>2</sup> 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

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### 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/m<sup>2</sup>, 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

## Spatial Reference Information

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**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

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**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/m<sup>2</sup>

**Attribute Label:** PW\_CLASS

**Attribute Definition:** wind power class (7 classes)

## Metadata Reference Information:

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**Metadata Date:** August 8, 2009

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**Metadata Contact:**

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