

## 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 choosen 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

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

## Entity and Attribute Information

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

## Metadata Reference Information:

<b>Metadata Date:</b> August 8, 2009
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**Metadata Contact:**

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