Industry size in Brazil

- **9,249** turbines in operation
- **812** wind farms
- **22GW** of installed capacity
- **12 states**
- **28.8 Million** of households per month can be supplied
- **72 TWh** of wind energy were generated in 2021
- **86.4 Million** of benefited inhabitants
- **27%** growth over the previous year
- **12%** of all the generation injected into the National Interconnected System in the period

**Brazilian electricity matrix in GW**

- Hydro: **56.1%**
- Wind: **22GW**
- Biomass: **16.2 GW**
- Small Hydro: **3.5 GW**
- Photovoltaic: **2.8 GW**
- Natural Gas: **8.9 GW**
- Fuel Oil: **8.8 GW**
- Coal: **6.4 GW**
- Nuclear: **0.1 GW**
- Other fossil fuel: **2.0 GW**

Solar energy has an additional **11.7 GW** of installed capacity of distributed generation

**Capacity installed evolution in MW**

Data up to July 2022

- **22.234 MW** installed
- **ABuilt up charge**
- **Now**

**Contributions to wind energy in Brazil**

- **US$35.8 Billion** Investments in the sector between 2011 and 2020
- **R$ 321 Billion** in economy
- **R$ 110.5 Billion** direct investment in the construction of wind farms
- **R$ 210.5 Billion** as indirect effects

- Brazil will have about **37.09GW** of wind power installed capacity until 2026*

- **15 jobs are created**

- From 2011 to 2020, the construction of wind farms created almost **196 thousand jobs**

- From 2016 to 2024, the Brazilian wind sector will have avoided **21.2 Million** tons of CO2 equivalent to the emission of about **20.9 million cars**

*Source: SIGA/ANEEL
**Source: Bloomberg New Energy Finance - BNEF / MCTIC / ABEEólica**

Biomass

Mineral Coal

Nuclear

Natural Gas

Small Hydro

Solar energy

Wind

Other fossil fuel
Records by area

<table>
<thead>
<tr>
<th>State</th>
<th>Installed Capacity (MW)</th>
<th>Wind farms</th>
<th>Wind turbines</th>
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<td>NE</td>
<td>6,764.94</td>
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<tr>
<td></td>
<td>22,034.37</td>
<td>812</td>
<td>9,249</td>
</tr>
</tbody>
</table>

There are another 981.8 MW in test operation, which should come into operation in the coming weeks.

**Benefits of wind energy**

- Generates income and improves life for landowners with lease for placement of towers
- Enables land-owners to continue planting or growing their animals
- It is renewable, it does not pollute, it contributes for Brazil to fulfill its objectives in the Climate Agreement
- Wind parks do not emit CO₂
- One of the best cost-effective energy tariffs
- Provides training and qualifications for local labor

The installation of wind farms contributes to increase the Gross Domestic Product (GDP) and the Municipal Human Development Index (MHDI), as identified by a study by GO Associados. Through a comparison between a group of municipalities that have wind farms and another that does not, it was possible to conclude that in the municipalities where there are wind farms: to identify that in the municipalities that received their installation:

- Real GDP increased by 21.15%  
  (period 1999 to 2017)
- The MHDI grew about 20%  
  (2000 to 2010 period)

Wind energy occupies little land, allowing the continuation of the creation of animals or plantations. Considering the space chosen for a wind farm, the turbines occupy about 8% of the area, and can reach about 6%.

Every BRL 1.00 invested in wind farms increased Brazilian GDP by around BRL 2.9.

It’s the power of the winds doubling the benefits!

The data are from the study “Estimativas dos impactos dinâmicos do setor eólico sobre a economia brasileira”, by Braulio Borges, associate researcher at FGV-IBRE and senior economist at LCA Consultores.

Brazil is ranked 6th in the World Ranking of wind energy installed capacity. In 2012, Brazil was ranked 15th.

Source: GWEC

Did you know?

80% of Brazilian wind farms are in the Northeast, a region that has one of the best winds in the world for producing wind energy.

**Favorable winds in Brazil**

The favorable winds for producing wind energy are more constant, have a stable speed and do not change direction frequently.

- 57.9% was the average monthly Capacity Factor achieved by wind farms in Brazil in 2021, in August.
- 43.6% was the average Capacity Factor in Brazil in 2021.
- 34% is the Capacity Factor approx. global average.

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