

# Wind energy in Brazil

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wind

solar

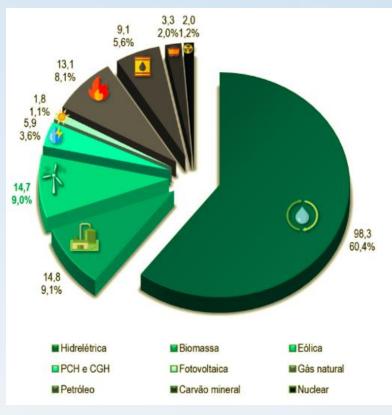


bio-gas





## wind energy in Brazil - facts & figures



electricity generation

- Brazil 8<sup>th</sup> largest generator of wind energy
- Current generation:
   14,7 GW (9% of BR matrix)
- 583 onshore wind parks
- > 7000 operating turbines
- Potential for onshore generation: 500 GW
- Potential for offshore generation: 606 GW\*





#### Strengths in (onshore) wind in Brazil

- Favourable wind conditions:
   strong, steady, from one direction.
   Sufficient availability of land.
- Wind energy: important sector for Brazilian government > favourable financing (BNDES).
- Transparent regulatory environment (auction system) and a developing private market.
- Growing energy demand, potential of 500GW.





#### Weaknesses in (onshore) wind in Brazil

- immature supply chain for equipment
- lack of qualified and specialized employees
- poor infrastructure: grid connections and transportation
- high project costs
- local content requirements





#### Opportunities in (onshore) wind in Brazil

- wind energy R&D
- design & engineering: blades, (smaller) turbines
- operation & management
- design of wind farms (with integrated grid connections)
- financial engineering & insurance





### Offshore wind energy in Brazil

- nothing spinning yet
- why invest in offshore when there is still huge potential for onshore?





#### Positive factors for offshore wind

- great offshore conditions:
   shallow waters, steady and strong winds
- populated coastal cities demand energy
- highly developed offshore oil & gas industry
- good port infrastructure
- still poor onshore grid connections
- big oil & gas companies and industry federations are showing interest.





#### Recent developments

- Petrobras: developing offshore wind pilot project expected to be spinning in 2022
- MoU between Petrobras and Equinor to develop offshore wind energy segment in Brazil
- World Bank & IFC have announced programme to fast-track adoption of offshore wind in emerging countries like Brazil.
- Industry Federation of Rio Grande do Sul plans to visit the Netherlands





#### Questions for you

- Unique selling points in Dutch onshore?
- Which markets for onshore / offshore wind have your interest?
- Which phase of development on Brazilian market has your interest?
- How can Consulate-General in Rio de Janeiro help?
   What kind of information do you need?





Muito obrigada!

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