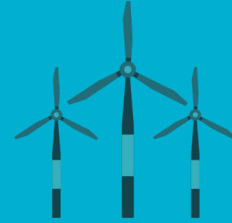


# New Jersey vs. Wind Turbines

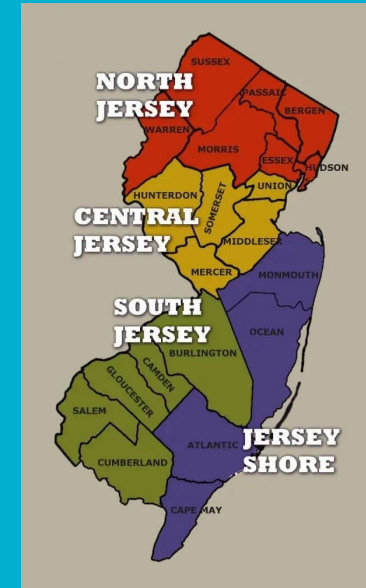
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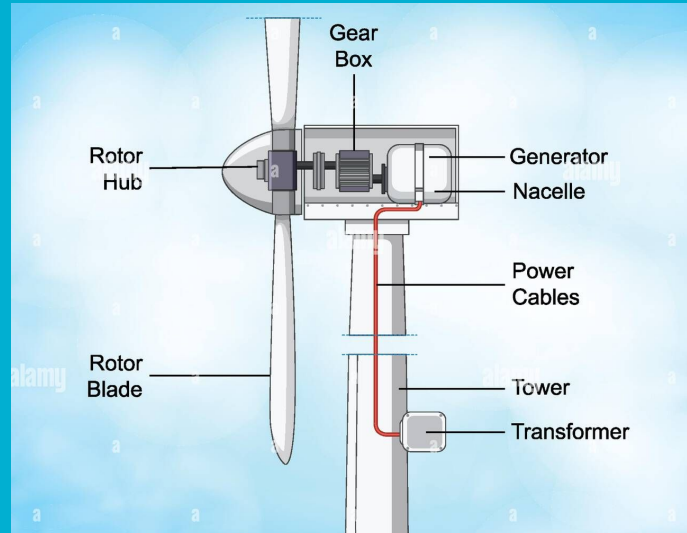
# How Wind Turbines Work

Wind is captured through the windmill which turns the turbine- the spinning of the turbine is converted into energy!



Horizontal Axis Turbine: Most commonly used & have 3 blades

Vertical Axis Turbine: Eggbeater style & automatically point towards the wind



landbase wind  
offshore wind  
distributed wind

# Pros & Cons

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## Pros

- Creates job opportunities
- Economic benefits
- Promising renewable energy source
- Cost effective
- Benefits local communities
- Wind turbines are versatile to different terrains
- Wind is abundant in NJ

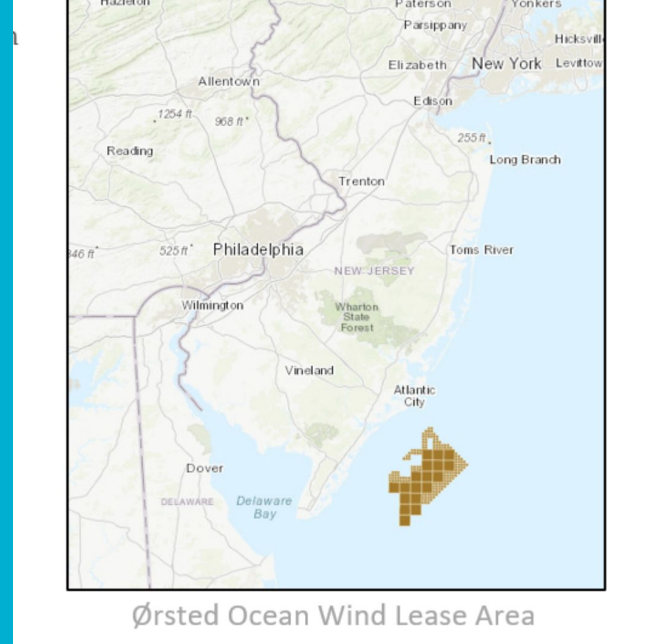
## Cons

- Have to compete with low cost energy sources (fossil fuels)
- Wind is not available 24/7
- Turbines produce noise
- Non- Aesthetic (visual pollution)
- Impact wildlife
- Will take years to have any significant impact of reducing climate change

# Energy Policy

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- New Jersey's Energy Plan (Executive Order 307): Goal of generating 11 GW of electricity by 2040 as part of the state's transition of 100% clean energy by 2035
- Offshore Wind Economic Development Act (2010)
- Executive Order No. 307 (2022)
- There are many programs & incentives for wind energy such as loans, tax credit, grants, and sales tax exemption that will benefit projects, small businesses and employment.



# Actors

## Major Actors:

- Orsted Ocean Wind
  - Operate wind farms 15 miles offshore from Atlantic City and provide energy for 500,000 homes
- Atlantic Shores Offshore Wind
- Shell New Energies US LLC
- EDF Renewables
- Governor Murphy
- Board of Public Utilities

## Unofficial actors:

- Shore residents
- Marine life



# Any Link to Whale Deaths?



The suspicious correlation between beached whales and the instillation of wind farms caused many people to dislike the idea of offshore wind

Main concern: The noise of the turbine was messing up SONAR in whales causing them to collide with vessels

There is no scientific evidence linking whale deaths and wind turbine installation however the state's rapid development is reckless.

Orsted has canceled 2 offshore wind projects due to supply chain and interest rate issues





# Possible Solutions & Implementations

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- Asses the harms of wind farm installation on marine life
- Conduct full studies about offshore wind
- Install wind farms farther offshore
- Revise policy based on findings from research



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