New Jersey’s Commitment to Renewable Energy:
3,500 MW of offshore wind by 2030
100% Clean Energy by 2050
New Jersey offers access to the largest offshore wind lease area in the U.S.
The State is not only seeking the lowest cost but the **best value** for New Jersey...
“Best Value” is clearly defined under OWEDA

To receive ORECs, applicants must demonstrate “positive Net-Economic and Environmental Benefits for the State” (N.J.A.C. 14:8-6.5):

- **Environmental benefits** include greenhouse gas reductions and other reduced emissions;
- **Economic benefits include:**
  - In-State activity from construction, operations and maintenance, and equipment purchases;
  - In-State impacts or benefits from employment, wages, Indirect business taxes, and output,* with a particular emphasis on manufacturing employment.
New Jersey scientific research labs are supporting offshore wind

*Rutgers University - Center for Ocean Observing Leadership (RU-COOL)*

- NJDEP Ecological Baseline Assessment (2010)
- RU-COOL Advanced Offshore Wind Modeling (2010 – Present)
- Mid-Atlantic Regional Association Coastal Ocean Observing System (MARACOOS) covers the region of Cape Cod, MA to Cape Hatteras, NC
Big Picture of Addressing Climate Change

NJ Global Warming Response Act
Mandates that statewide greenhouse-gas emissions are limited to 80% below 2006 levels by 2050
How do we get there? What is the role of renewable energy?

2020 Emissions Reduction Goal
(Equivalent to 1990 GHG Emissions)

1990  2006  2015  2050

New Jersey’s GHG Emissions and Goals
(MMTCO₂e)

2050 Emissions Reduction Goal
(80% Decrease from 2006 Baseline)
New Jersey’s Greenhouse-Gas Emissions

Estimated NJ Greenhouse Gas Emissions, 2015,
(in million metric tons CO₂ equivalent, MMTCO₂e )
Total Net Emission 100.9 MMTCO₂e

Transportation 45.8
Electricity Generation 17.7
Residential 15.5
Commercial 10.8
Industrial 5.1
Highly Warming Gases 7.9
Waste Management 5.2
Land Clearing 1.0
Terrestrial Carbon Sequestration -8.1
Reducing Greenhouse-Gas Emissions is not just about Climate Change

Reducing our use of fossil fuels results in the reduction of other pollutants, such as:

- Carbon Monoxide
- Nitrogen Oxides
- Sulfur Dioxide
- Volatile Organics
- Particulate Matter
- Ammonia
- Mercury

This results in improved air quality and creates local health benefits.
## Offshore Wind and Greenhouse-Gas Reductions

<table>
<thead>
<tr>
<th>OFFSHORE WIND CAPACITY (MW)</th>
<th>PROJECTED GENERATION* (MWh)</th>
<th>ESTIMATED ANNUAL EMISSIONS AVOIDED** (Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CO\textsubscript{2}</td>
<td>NO\textsubscript{x}</td>
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<tr>
<td>3,500</td>
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<td>PM\textsubscript{25}</td>
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<td>NH\textsubscript{3}</td>
<td>CO</td>
</tr>
<tr>
<td>3,500</td>
<td>15,330,716</td>
<td>94</td>
</tr>
</tbody>
</table>

*50% capacity factor;  
**CO\textsubscript{2}, NO\textsubscript{x}, and SO\textsubscript{2} values estimated based on PJM emission factors (PJM-EIS public report on System Mix for 2017 @ https://gats.pjm-eis.com/GATS2/PublicReports/PJMSystemMix/Filter; other criteria pollutant values calculated based on USEPA Air Emissions Inventory @ https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data (2017) and generation data from USDOE Energy Information Administration @https://www.eia.gov/electricity/data/browser/ .
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