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Economic Development, Job Creation and the Development of Robust Offshore Wind and Solar Industries in Maryland

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The Worker Institute at Cornell University's ILR School

Maryland Commission on Climate Change: Mitigation Working Group

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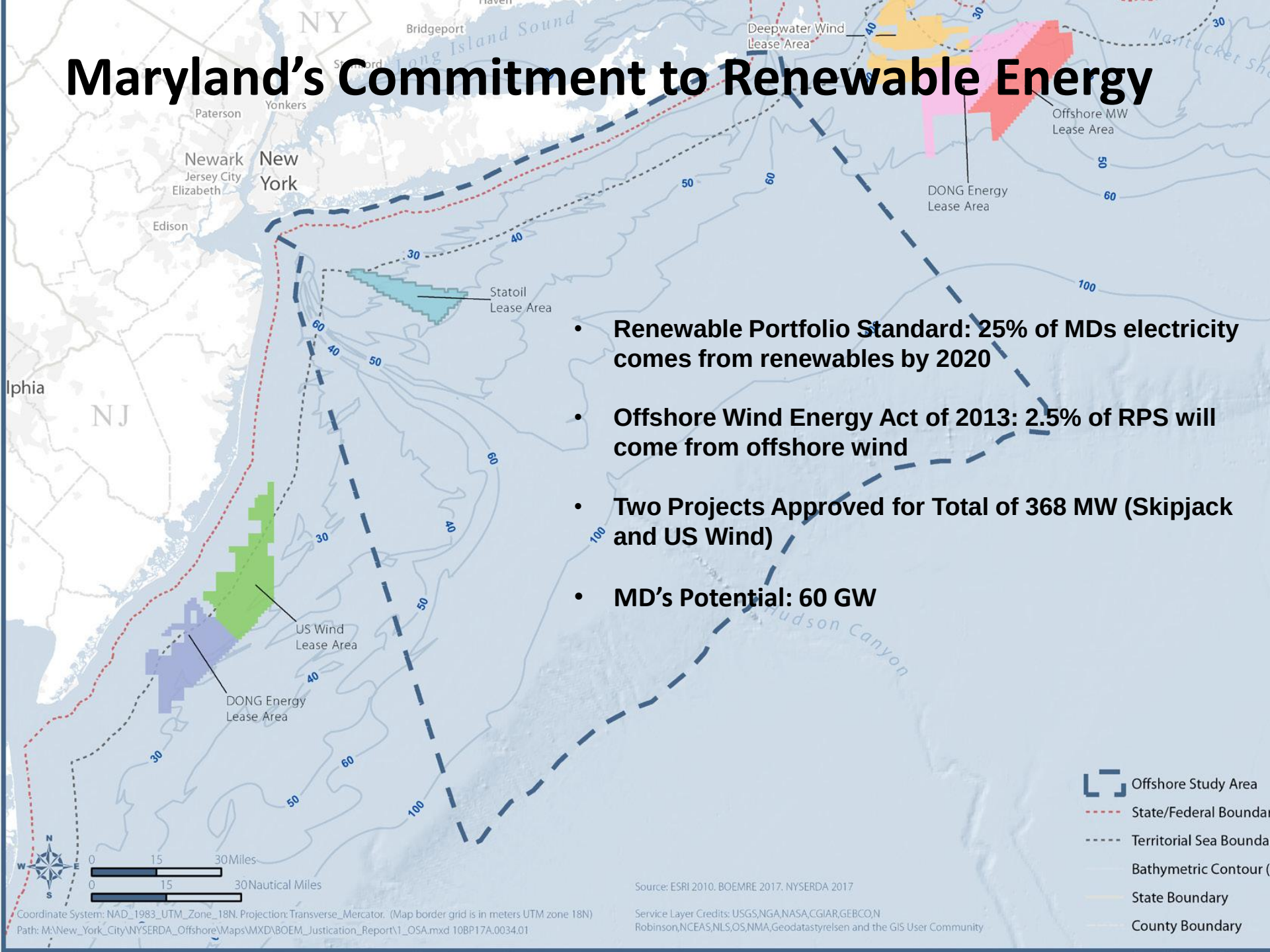
Maryland's Commitment to Renewable Energy



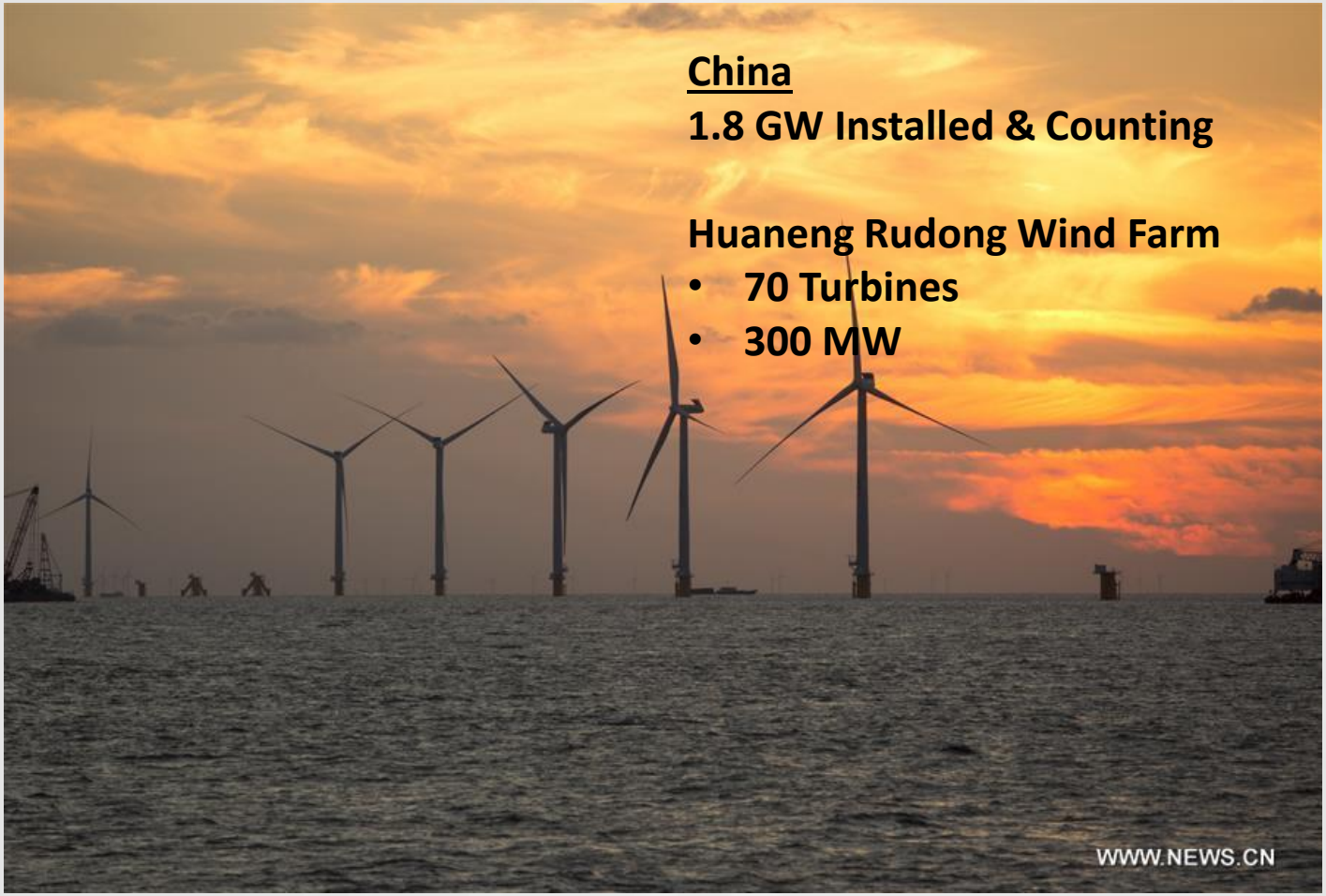
- **Renewable Portfolio Standard: 25% of MDs electricity comes from renewables by 2020**
- **Offshore Wind Energy Act of 2013: 2.5% of RPS will come from offshore wind**
- **Two Projects Approved for Total of 368 MW (Skipjack and US Wind)**
- **MD's Potential: 60 GW**

How does MD Compare to Other U.S. States?

MA: 1,600 MW by 2027
RI: 30 MW Block Island Farm
NJ: 3,500 MW by 2030
MD: 480 MW by 2020
VA: Created VA OSW Development Authority; 1st Project in Development (Dong)
NC: 1st Project in Development (Avangrid)
NY: 2,400 MW by 2030; 800 MW in 2018 and 2019

How does MD Compare to Europe?

How does MD Compare to China?



China

1.8 GW Installed & Counting

Huaneng Rudong Wind Farm

- **70 Turbines**
- **300 MW**

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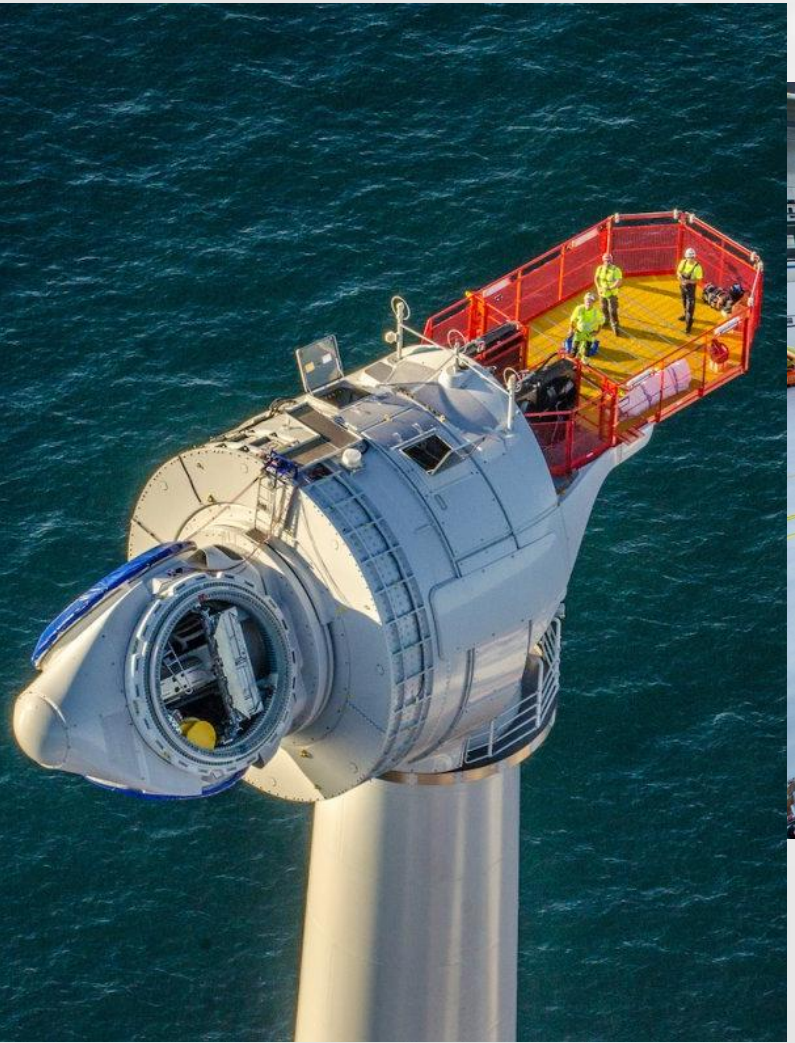
OSW: Major Economic Development and Job Creation Opportunity for MD



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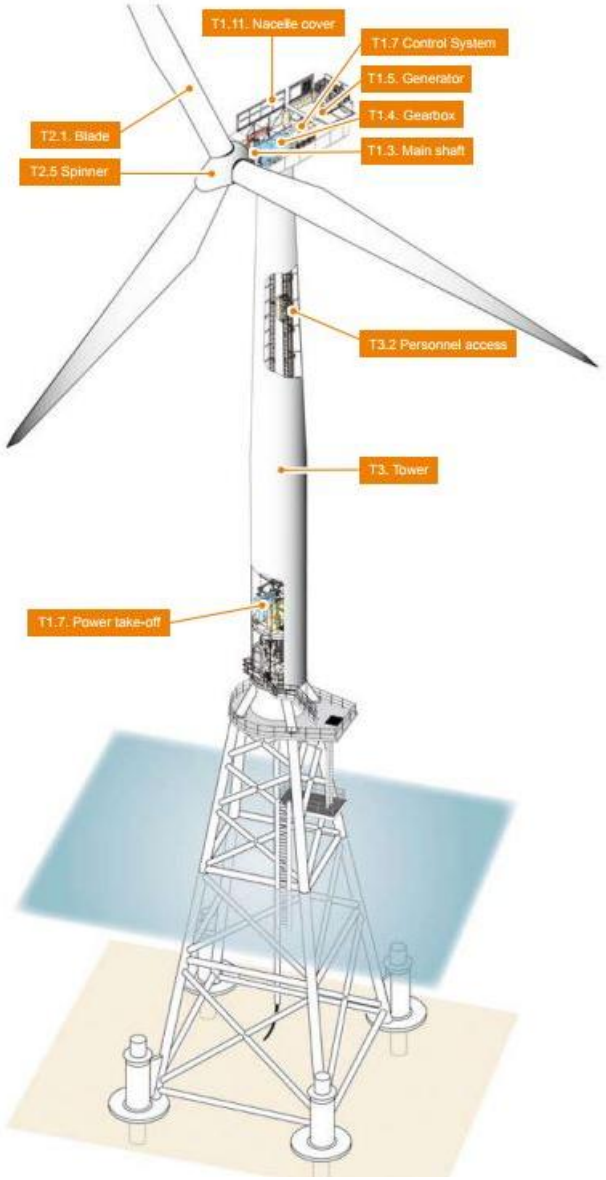
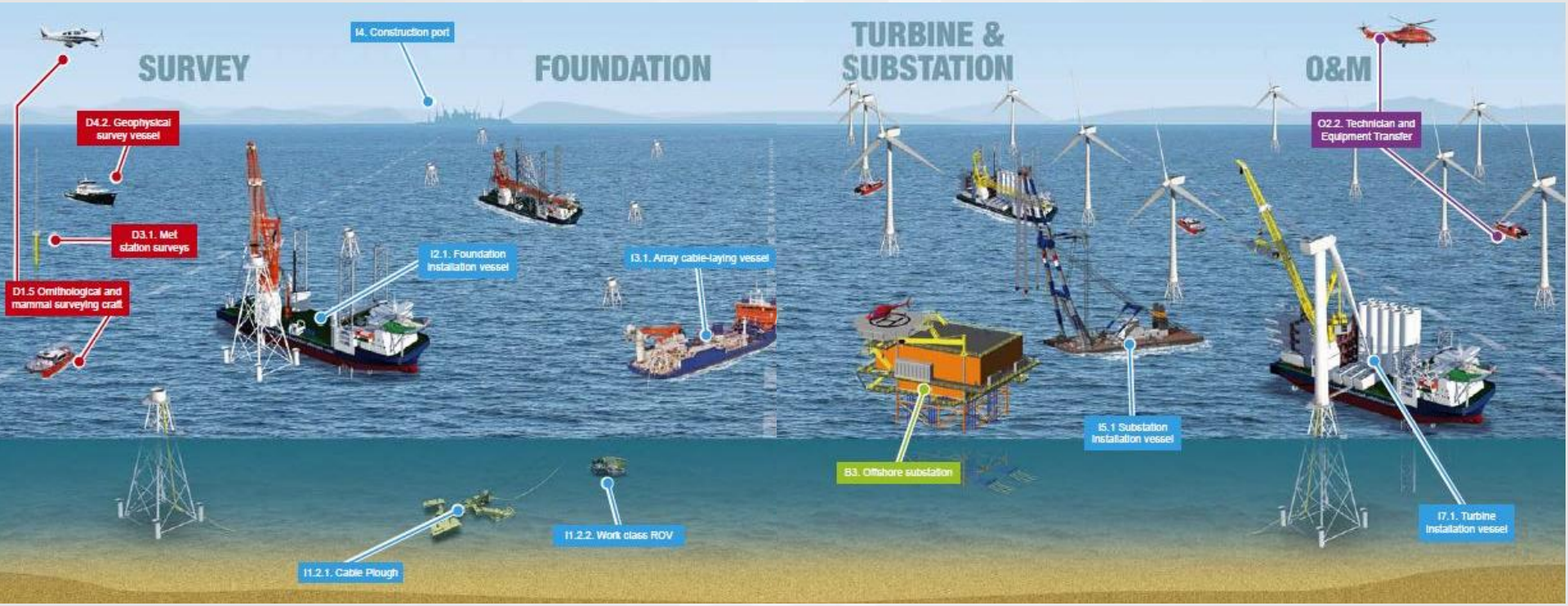
Manufacturing Jobs

Element	Subelement
Project development and management	
Turbine supply	Nacelle, rotor and assembly
	Blades
	Tower
Balance of plant	Foundation
	Array cables
	Export cable
	Substation supply and operational infrastructure
Installation and commissioning	Turbine
	Foundation
	Subsea cable
	Other installation
Operation, maintenance and service	Wind farm operation
	Turbine maintenance and service
	Foundation maintenance and service
	Subsea cable maintenance and service
	Substation maintenance and service



Full OSW Construction Lifecycle



Developing Specialized Ports to Accommodate OSW

Figure 2. Representation of a staging facility, as envisioned at Red Hook Brooklyn

Source: COWI 2017; Trimble Inc. (SketchUp, Google Earth Imagery)

Developing Specialized Ports to Accommodate OSW

Figure 3. Representation of a blade manufacturing facility, as envisioned at the Port of Albany-Rensselaer

Source: COWI 2017; Trimble Inc. (SketchUp, Google Earth Imagery)

Renewable Energy Presents a Major Opportunity for MD

BUT:

Will the state move forward at the scale and pace necessary to become the leading center of the offshore wind and solar industries?

Will the state ensure the jobs created by solar and wind – from manufacturing to construction to operations and maintenance – are good, middle-class jobs with benefits that reverse inequality?

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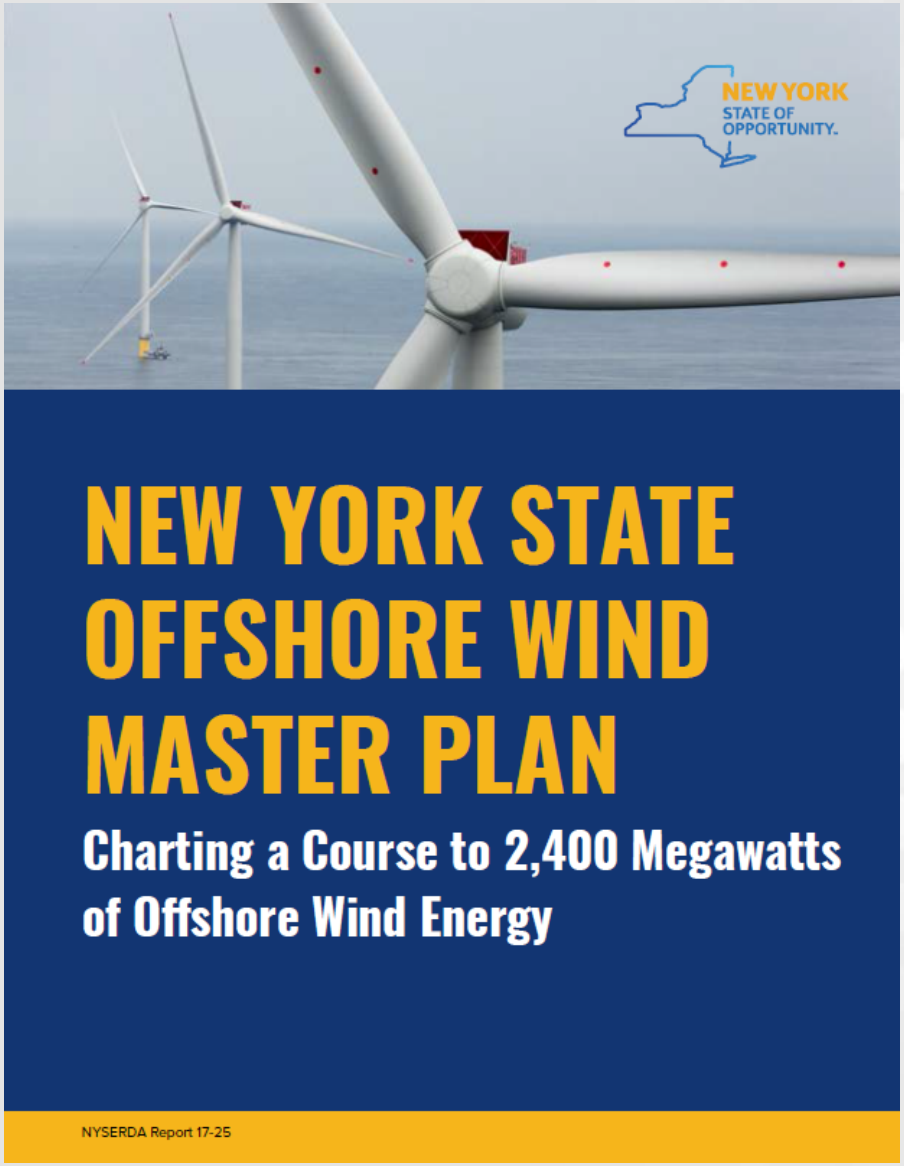

Will MD Commit to and Execute Necessary Ambition and Scale to Become a Leading Center of the Offshore Wind Industry in the U.S.?

- **Ambitious RE and OSW Targets**
- **Commitment to Long-Term, Large Scale OSW Program**
- **Lay Groundwork to scalable OSW program that moves future OSW projects forward**

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Will MD's Renewable Energy Plans Address or Exacerbate Inequality?

To create middle-class jobs with benefits the following is required:

- **Project Labor Agreement (PLA) and Prevailing Wage required in all of the state's solicitations for renewable energy**
- **Labor peace agreements for manufacturing work**
- **Commitment to and additional funding for state certified apprenticeship programs to support the workforce needs of clean energy industries**
- **Proactive collaboration between state, the offshore wind industry, and unions to develop local manufacturing capacity for offshore wind and solar industries.**

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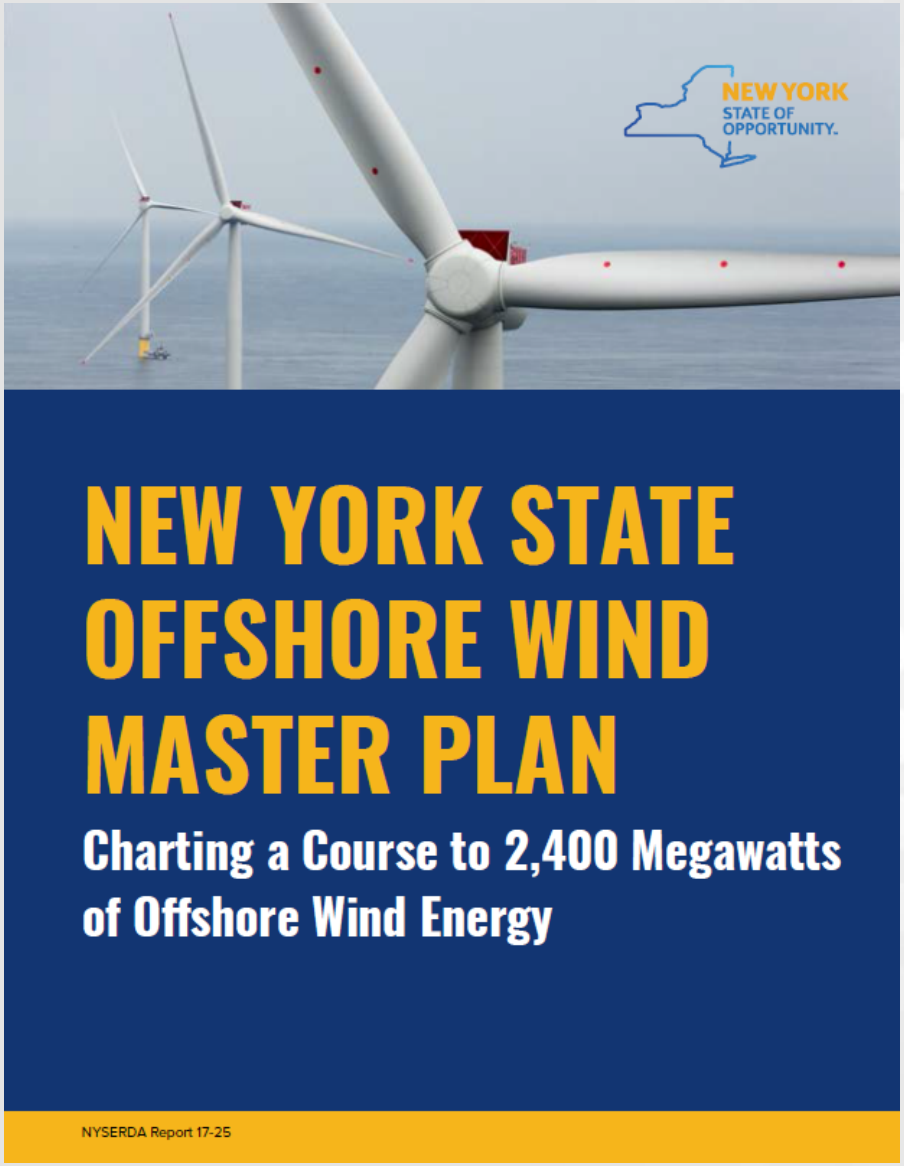

Importance of Requiring PLA and Prevailing Wage Standards:

- High productivity per worker results in significant cost savings
- Projects completed on time, ahead of schedule and safely
- Lost time incident rate significantly lower
- Increased consumer confidence, purchasing power and tax revenues
- Commitment by all stakeholders creates positive identification to timely, high-quality completion of project

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Thank you!

For questions, please contact Lara Skinner at Lara.Skinner@cornell.edu