

Ocean Wind

The Importance of Stakeholder Engagement in the Development of Offshore Wind Projects

May 2019

 Orsted

**Ørsted is the global leader
in offshore wind**

1991

**25+ years of experience and
track record in the offshore
wind power sector**

2019

**We built the world's first
offshore wind farm...**

Vindeby

5 MW

**...and the world's largest
operational offshore wind farm**

Walney Extension

659 MW

Unparalleled experience and track record

**25 offshore wind
farms in operation**

**5 offshore wind farms
under construction**

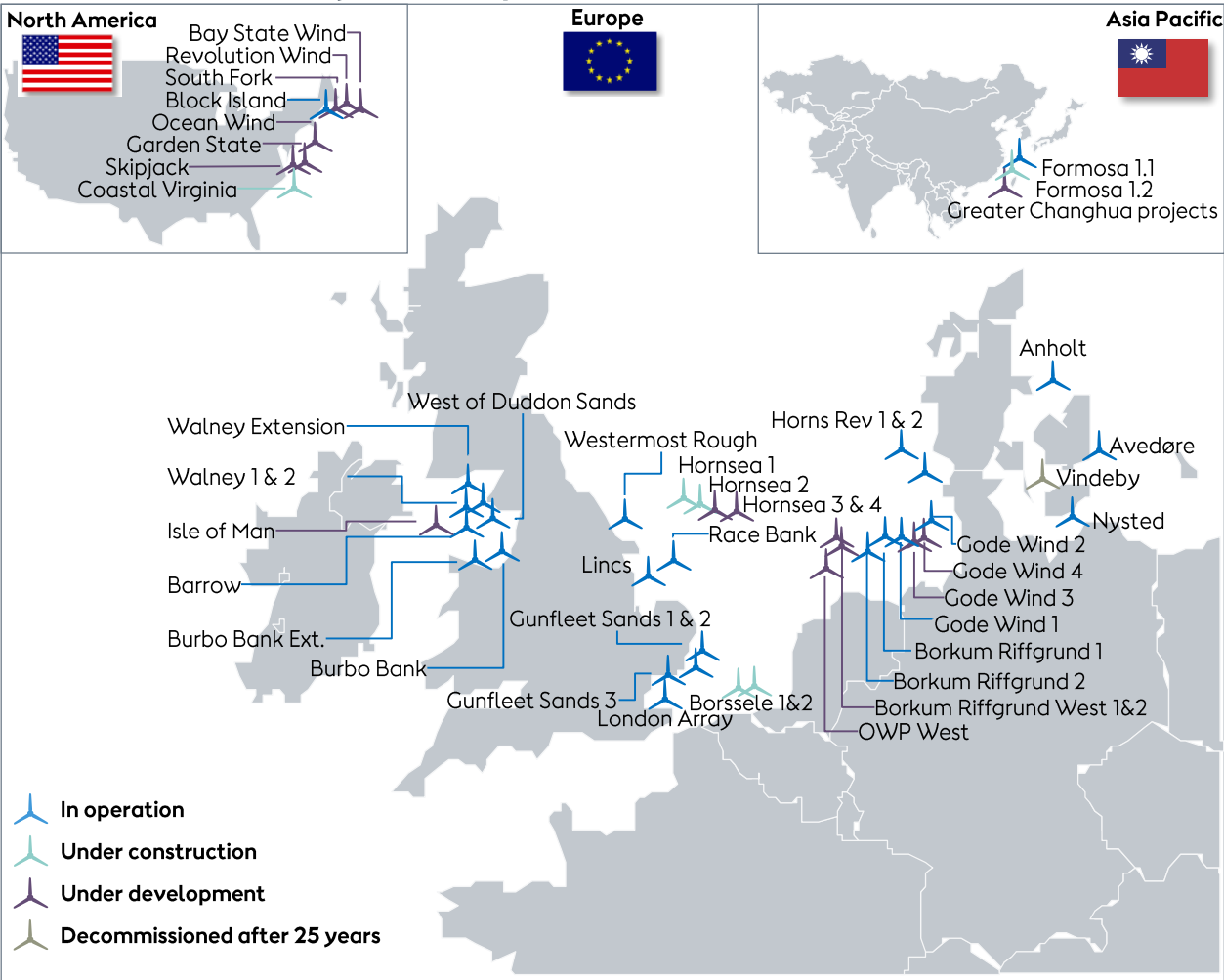
**5.6 GW
constructed
capacity**

**3.4 GW
under
construction**

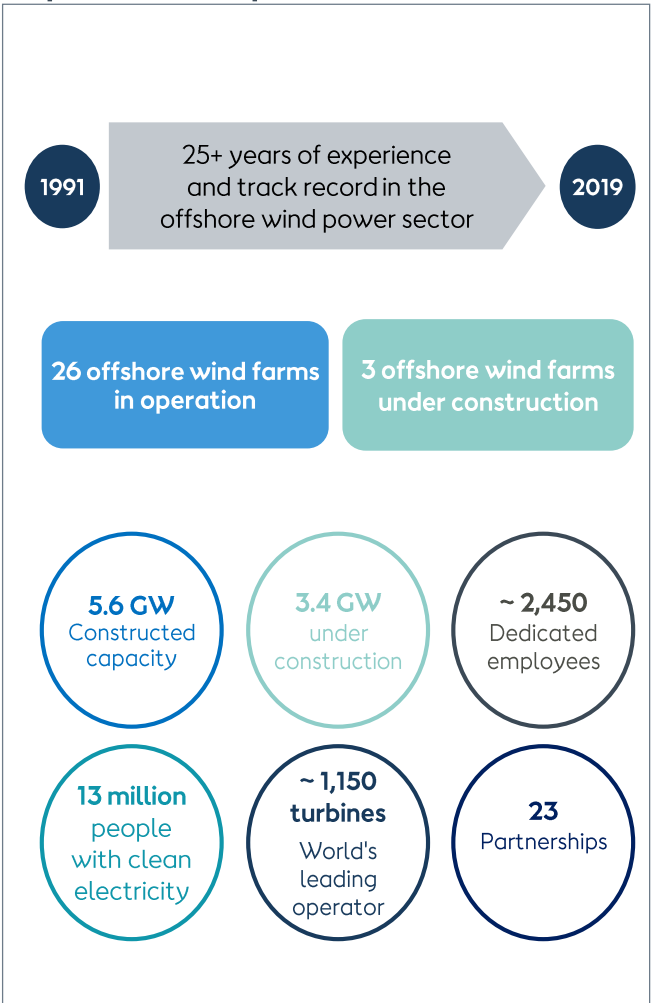
**~ 1,100
turbines
world's
leading
operator**

Ørsted Offshore overview

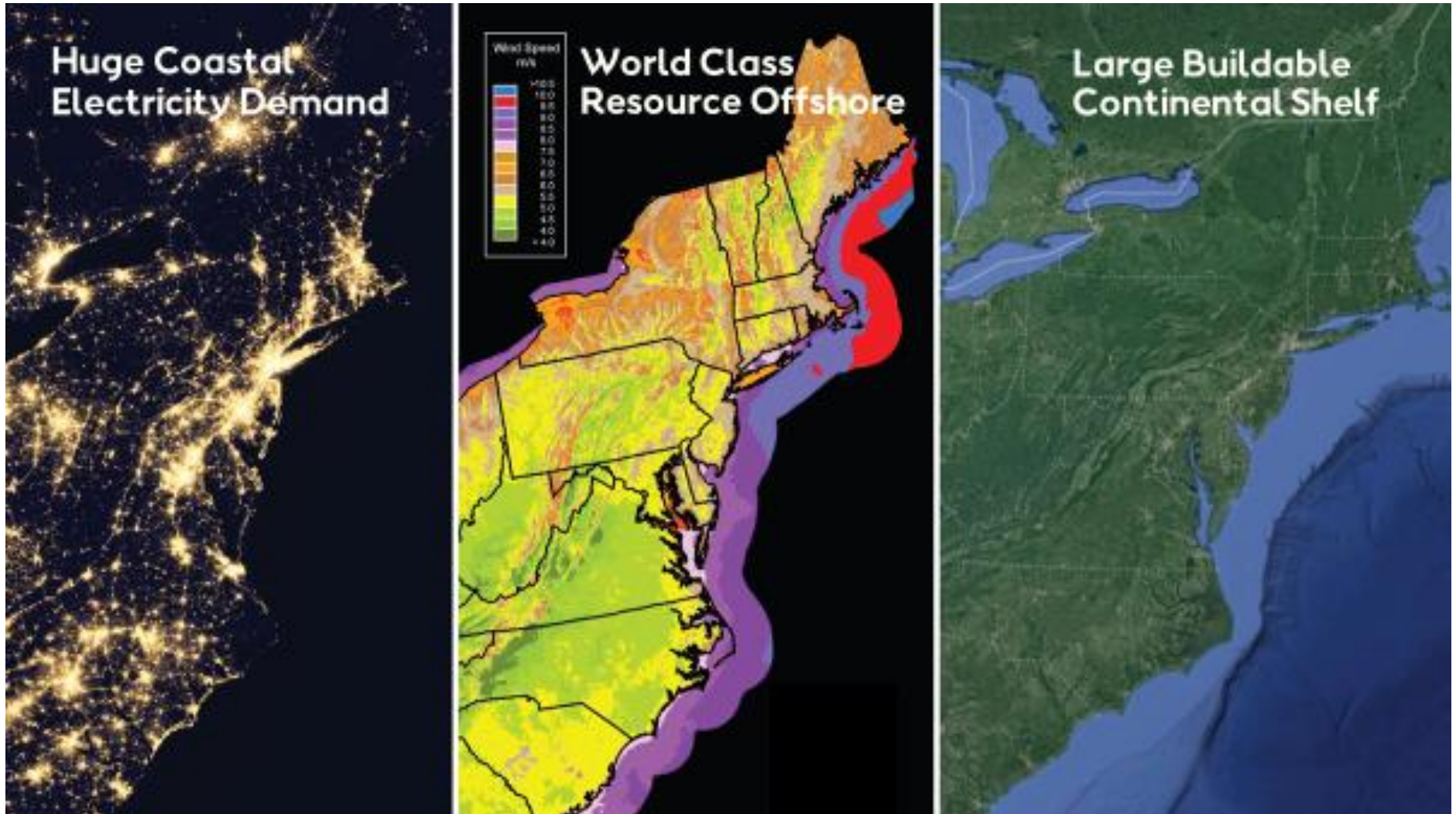
Ørsted offshore wind global footprint



Unparalleled experience and track record



Why Offshore Wind for New Jersey and the Region



Ocean Wind application

Ørsted, with the support of PSEG, has submitted an application to build New Jersey's first offshore wind farm



- Ocean Wind lease area
- 3,500MW potential capacity
 - 160,500 acre lease area
 - 65-100 feet water depths

As presented in its proposal to the NJBPU, the Ocean Wind project will:



Provide more than **half a million New Jersey homes** with clean, reliable power.



Directly create **several thousand construction jobs** along with thousands of ancillary jobs, and approximately 70 permanent jobs to support the project over its 25+ year lifetime



Make **significant investments** in New Jersey's offshore wind infrastructure through the **Ocean Wind Pro-NJ Trust**, which will support Minority Business Enterprises, Women Business Enterprises and small businesses entering the offshore wind industry and enable infrastructure resiliency projects throughout South Jersey.

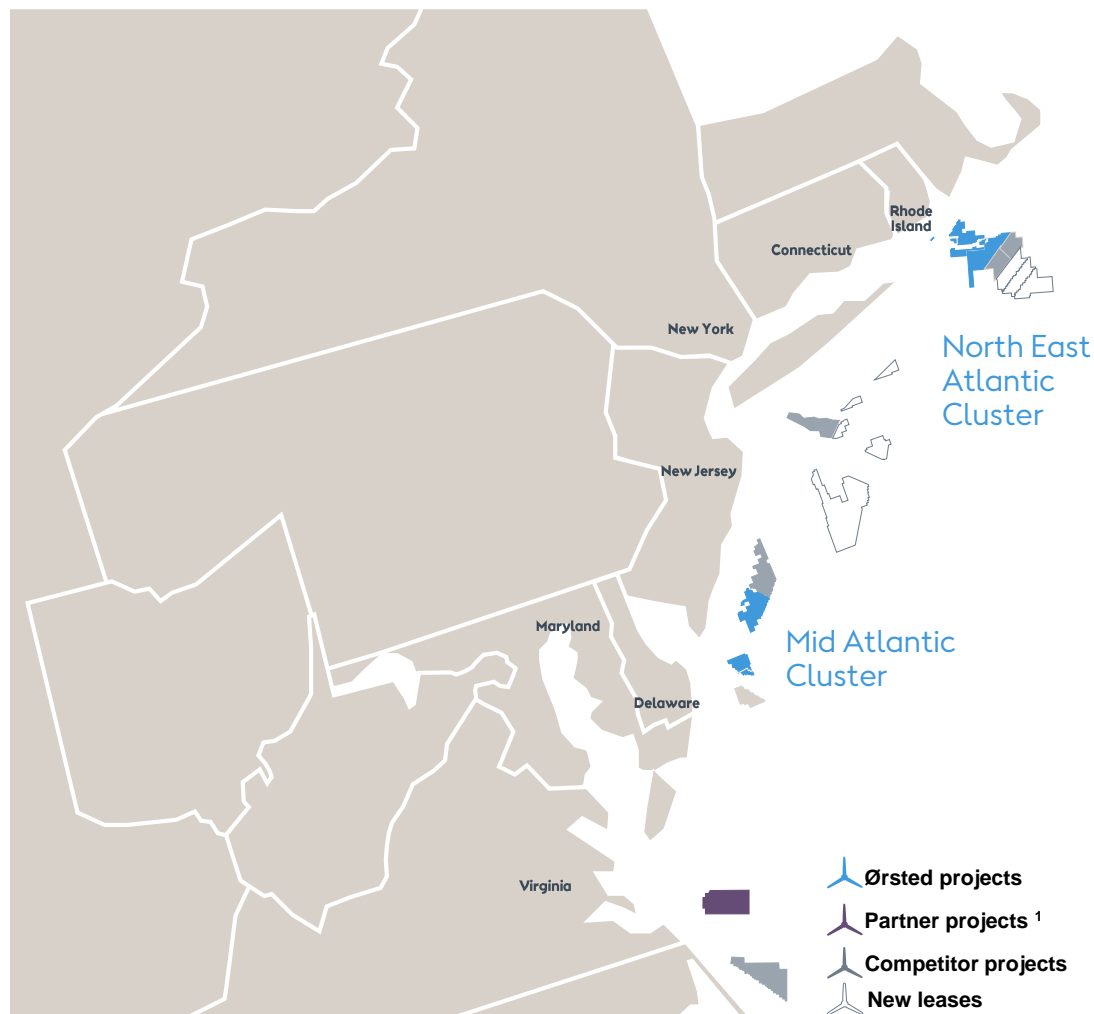


Partner with universities and research organizations to **support educational initiatives and R&D** on offshore wind.

Ørsted U.S. Offshore Wind

Attractive and geographically diverse portfolio of offshore wind assets with potential for 8-10GW

Ørsted U.S. offshore wind portfolio



Unique position with large adjacent projects

In operation

- **Block Island (30MW)** operational since December 2016. 20-year PPA, starting price USD 236/MWh and 3.5%

Under construction

- **Coastal Virginia Offshore Wind** 12MW (EPC contract)

Awarded

- **South Fork (130MW)** COD expected in 2022. 20-year PPA with LIPA
- **Skipjack (120MW)** COD expected in 2022. 20-year OREC contract, starting price USD 171/MWh and 1% price escalator
- **Revolution Wind (704MW)** COD expected in 2023. Long-term PPAs currently under negotiation in Rhode Island (400MW) and Connecticut (304MW)

Projects under development

- **Bay State Wind** up to 2GW
- **Ocean Wind** up to 3.5GW
- **Garden State** up to 800 MW off the coast of Delaware / New Jersey
- **Revolution Wind** up to 1.2 GW in Massachusetts adjacent to Revolution Wind and Bay State Wind

Note 1: in 2017 Ørsted and Dominion Energy entered into a strategic partnership in which Ørsted will construct two 6-megawatt turbines off the coast of Virginia. This may pave the way for future cooperation on further offshore wind development in Virginia to develop 2 GW of offshore wind capacity

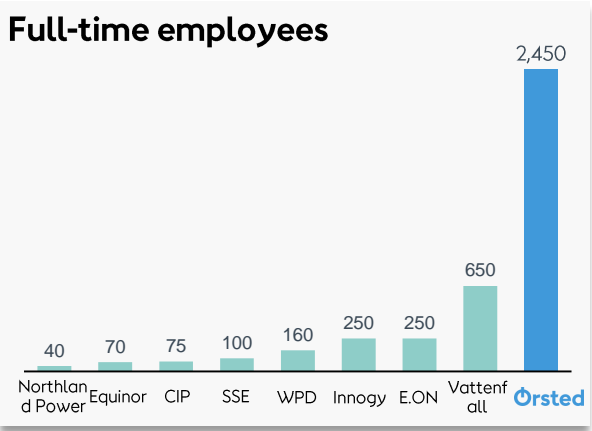
Ørsted built a strong integrated end-to-end business model – fosters strong drive for stakeholder engagement

Ørsted Offshore core competencies

~2,450 Full-time employees



- ✓ Ability to **design and optimize** projects with a '**total life-cycle cost of wind farm**' mindset
- ✓ Experience and expertise along the entire value chain allow for **better understanding and management of risks**
- ✓ End-to-end model reduces LCoE through **fast** feedback and **learning** across the entire organization



Environmental stewardship



- ✓ Environmental stewardship is our core principle: **we believe the world should run entirely on green energy**
- ✓ Seamlessly **collaborated and coexisted** with the fishing community and marine life for 25+ years
- ✓ Hired a dedicated **marine biologist** focusing on protecting marine mammals
- ✓ Hired local **Fisheries Liaisons** to work directly with the local fishing community

Basic stakeholder engagement principles



- Stakeholder engagement is as much about cultivating support as anticipating and addressing opposition
- Need a balanced strategy that addresses both facets
- Sometimes “getting to neutral” is the main goal, and accepting the fact that you may never get to no opposition

Areas of stakeholder sensitivity

- Viewshed
- Cost
- Impacts to existing ocean users
 - Commercial fishing
 - Recreational fishing
 - Shipping and other maritime uses
- Environmental issues
 - Marine mammals
 - Avian and bat species
- Local impacts at landfall locations



Rutgers University and Ørsted US Offshore Wind



- Metocean data sharing
- Monitoring marine mammal acoustic activity with marine gliders
- New materials for foundations
- Stakeholder engagement
- Policy initiatives