

Ørsted

# Ørsted Offshore North America

NCBIWA Fall Conference

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Hayes Framme, Ørsted



# Ørsted Offshore: Global overview

25+ years of experience and  
unparalleled track record



## The global leader in offshore wind

- 7.6 GW installed capacity
- 2.3 GW under construction
- 1,500+ turbines spinning
- 28 offshore wind farms in operation

## America's first

Block Island Wind Farm, 2016

30 MW



## The world's largest

Hornsea 1, 2020

1.2 GW

## The world's first

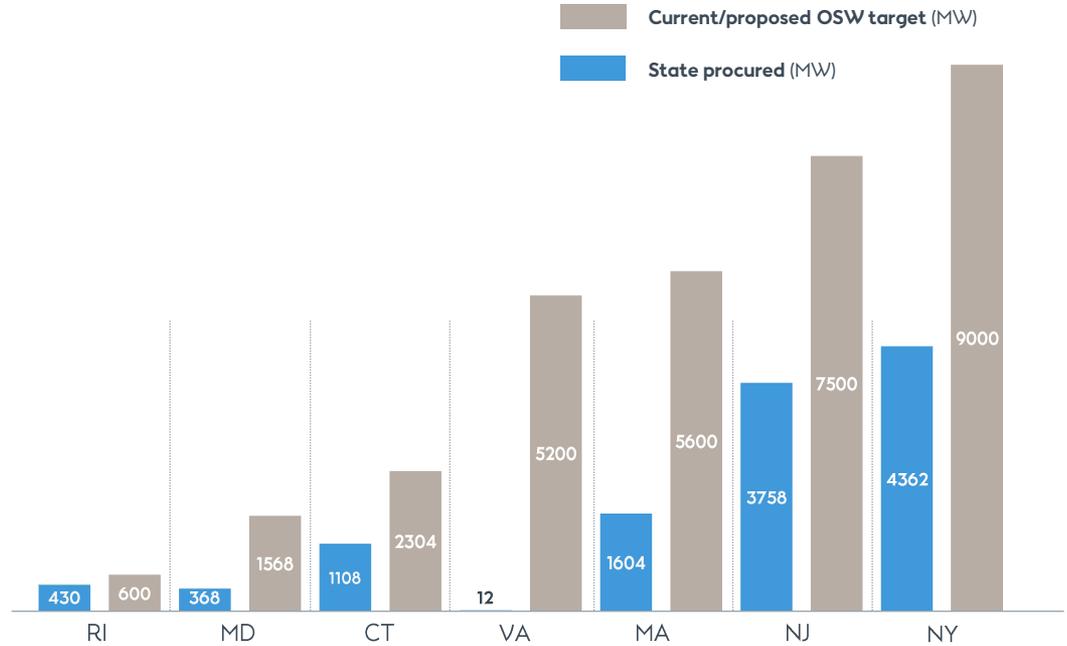
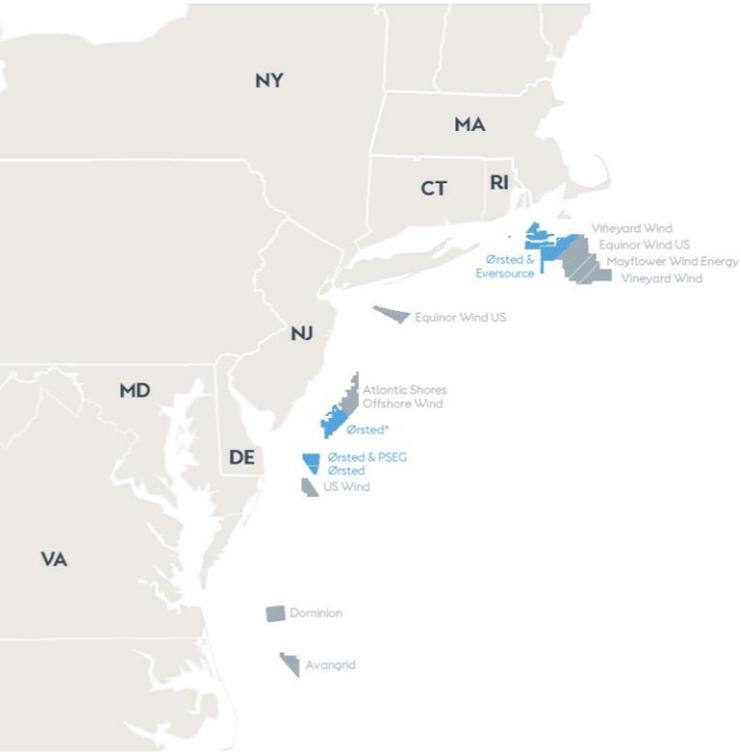
Vindeby, 1991

5 MW



# Offshore wind market on the East Coast

## Potential for 25+ GW



# Rapid advances in offshore turbine technology



**Boeing 747**

Length: 250 ft



**Vindeby**

Year: 1991  
Diameter: 115 ft  
Tower Height: 115 ft  
Capacity: 0.45 MW



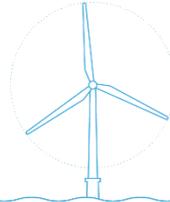
**Middelgrunden**

Year: 2001  
Diameter: 250 ft  
Tower Height: 210 ft  
Capacity: 2.00 MW



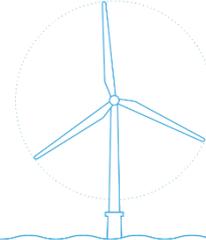
**Anholt**

Year: 2013  
Diameter: 394 ft  
Tower Height: 270 ft  
Capacity: 3.60 MW



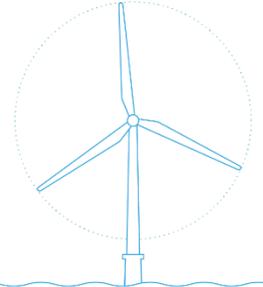
**Block Island Wind Farm**

Year: 2016  
Diameter: 505 ft  
Tower Height: 335 ft  
Capacity: 6.00 MW



**Burbo Bank Extension**

Year: 2017  
Diameter: 538 ft  
Tower Height: 370 ft  
Capacity: 8.00 MW

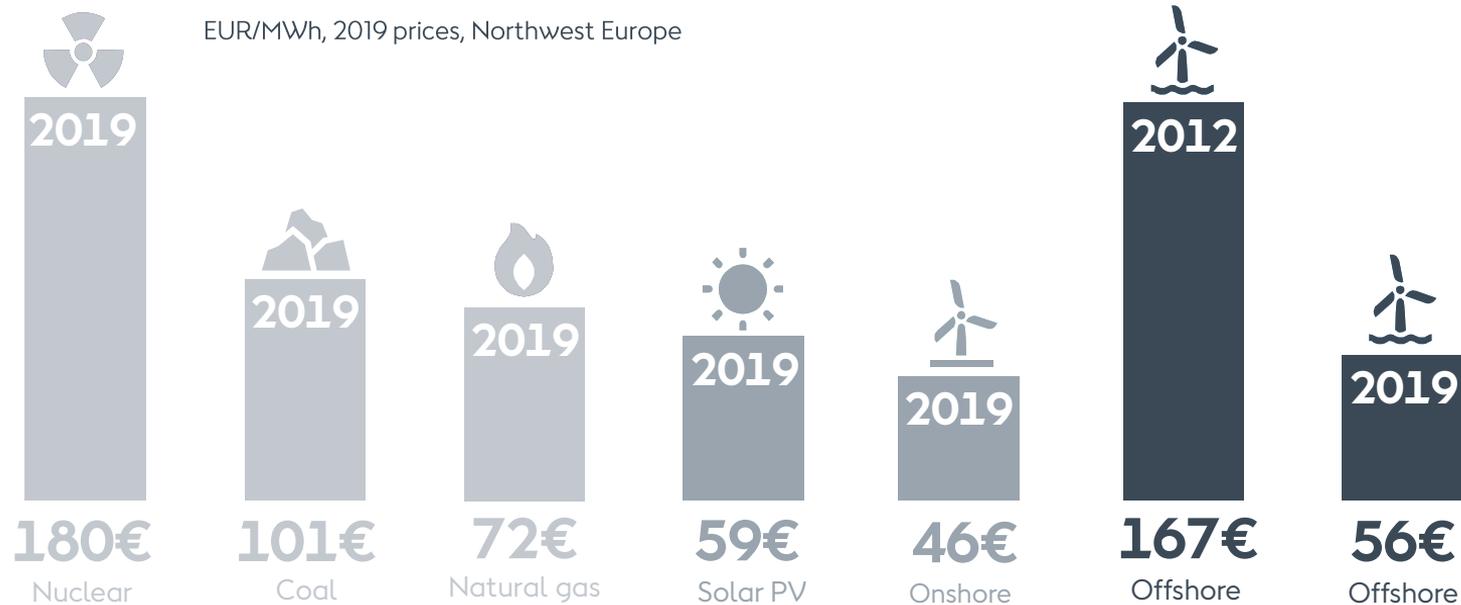


**Ocean Wind**

Year: 2024  
Diameter: 722 ft  
Tower Height: 502 ft  
Capacity: 12.00 MW\*

# Levelized cost of electricity for different technologies

The rapid cost reductions in the industry, have made offshore wind power competitive relative to conventional power generation based on fossil fuels



Source: BloombergNEF – 1H 2019 LCOE Update, current LCOE, and Ørsted Calculation.

Onshore wind: average of DE, NL and UK mid-scenarios. Solar PV, Gas: average of DE, UK mid-scenarios. Coal: DE mid-scenario. Nuclear: UK mid-scenario.

Offshore wind: 2012 generic offshore wind, Northwest Europe, FID 2012. In 2012 our goal was to reduce offshore wind costs to EUR 100 per MWh in 2020. 2019: Ørsted calculations

# Investing in the U.S. supply chain

## Array cable manufacturing\*

\$140 million factory, creating approximately 300 jobs

 \*Contingent on SJW02 bid

## Kiewit Offshore substation

First-ever American-made offshore wind substation, serving SFW, creating more than 350 jobs



## Nexans subsea cable manufacturing

Serving REV, SFW and SRW, creating close to 160 jobs



## EEW foundation facility

\$250 million investment in New Jersey, creating approximately 260 jobs



## Installation vessel

First charter partners for 472-ft, \$500 million U.S. built vessel, creating 1,000 jobs at peak construction, servicing REV and SRW.



## Service Operation Vessel (SOV)

First American-made SOV ever built, serving REV & SRW, creating more than 300 jobs



## Advanced Foundation Components (AFC)

Serving SRW & SJW1, creating approximately 230 jobs



\*For illustrative purposes only

# We are committed to our stakeholders

# Fisheries outreach resources



Fisheries Liaisons



Fisheries Representatives



Outreach – early and often



Input on project layout and design



Collaborative design



# Fisheries outreach philosophy



Promote the smart growth of the American offshore wind industry



Focus on maintaining access and navigation in and around our wind farms for all ocean users



Complete scientific research collaboratively with the fishing community



Be accessible and available



# Engagement across the spectrum of stakeholders



## Local community –

Engagement early and often in the local communities near the project location



## Government and NGOs –

Engage at the local, state, regional, and national level



## Fishing –

Commercial and recreational, plus shore-side supply chain



## Academic –

University, college, and other academic partners



## Research and Development –

National labs, research institutions, private entities



## Labor and Supply Chain –

Utilize union labor and local and domestic contractors

# Ørsted's three sustainability priorities

## A world that runs entirely on green energy

### Our priority

By pursuing a world that runs entirely on green energy, we address societal challenges for which Ørsted can provide market-scale solutions in a manner that creates value for society and our business at the same time.

## Enabling sustainable growth

### Our priority

Through 'Enabling sustainable growth' we address the social and environmental impacts of our operations and business relations to enable growth of our business in a sustainable manner.

## Business integrity

### Our priority

Through 'Business integrity' we seek to conduct our business with transparency and accountability, respecting labor and human rights.



# Thank you