



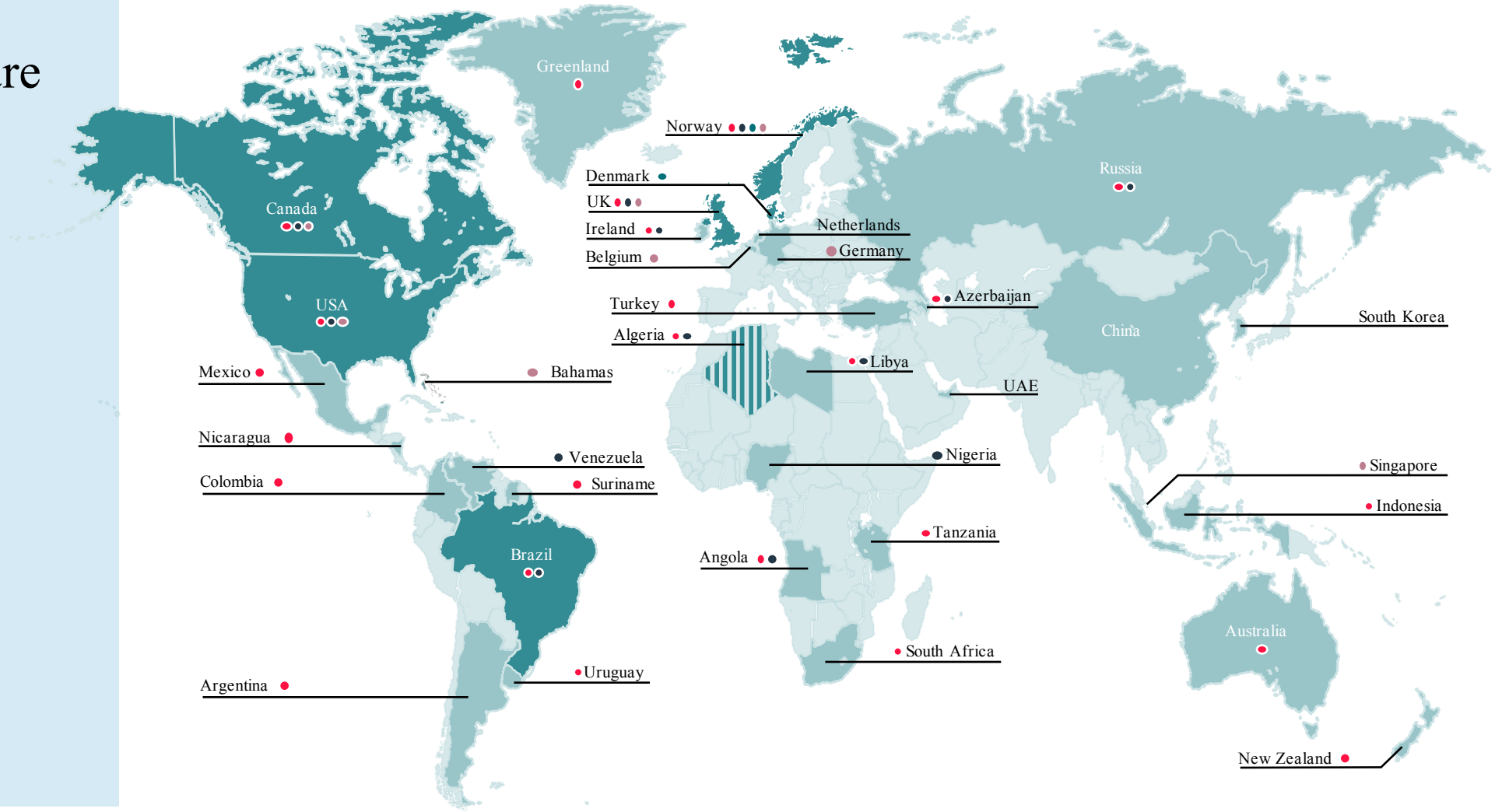
equinor

State of the Sector: Projects and Prospects

POET Offshore Renewable Energy Conference
September 19, 2018

Where we are

- Exploration
- Development and production
- Refining and processing
- Marketing and trading
- Operator of assets
- ▨ Joint venture
- Presence



Building on our oil and gas competence



Safety is our
first priority



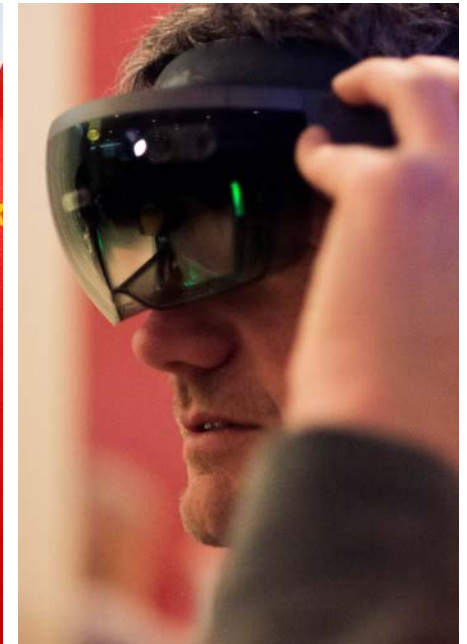
Large complex
projects



Marine operations
& maintenance



Leverage local
presence & corporate
capabilities

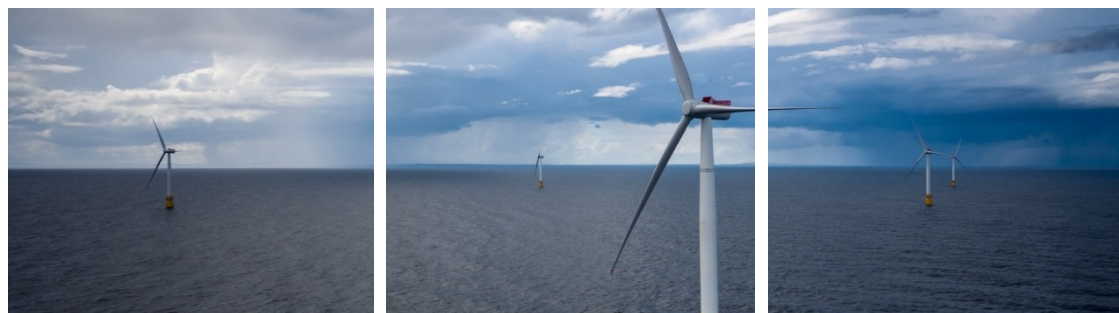


Technology &
innovation

Equinor's offshore wind portfolio

<p>Hywind demo In production</p> <p>2.3 MW</p>	<p>Hywind Scotland In production</p> <p>30 MW</p>	<p>Batwind In development</p> <p>1 MW</p>
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Floating



Bottom fixed

<p>Sheringham Shoal In production</p> <p>316 MW</p>	<p>Dudgeon In production</p> <p>402 MW</p>	<p>Arkona In development</p> <p>385 MW</p>
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Expanding our portfolio

Floating wind to oil and gas installations

Norway

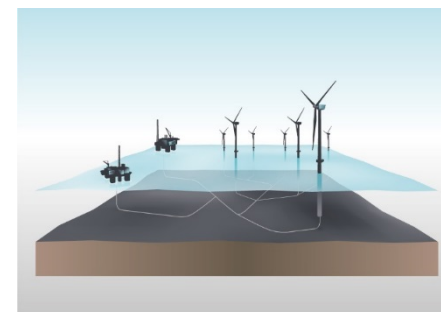
100 MW

Expanding global position

UK/Ireland, France,
US West Coast, Japan



Floating



Bottom fixed

Doggerbank
UK

3.6 GW

Empire Wind
USA

1-2 GW

Baltyk II & III
Poland

1.2 GW

President Trump's statements about wind energy . . .

- “Many countries are cutting back, big time, on ugly, industrial wind turbines. The energy is very inefficient” Twitter, April 13, 2012
- “Palm Springs, CA has been destroyed – absolutely destroyed – by the world’s ugliest wind farm at the Gateway on Interstate 10. Very very sad!” Twitter, April 16, 2012.
- “Bird killing windfarm that I oppose in Aberdeen got delayed by at least two years. @AlexSalmond forced the failing developers to delay!” Twitter, Dec. 13, 2013.
- “The wind kills all your birds. All your birds, killed. You know, the environmentalists never talk about that.” Pennsylvania rally, August 1, 2016.
- “If your house is staring at a windmill, not good. When you hear that noise going round and round and round, and you’re living with it, and then you go crazy after a couple of years, not good.” Evansville, Indiana rally, August 30, 2018.

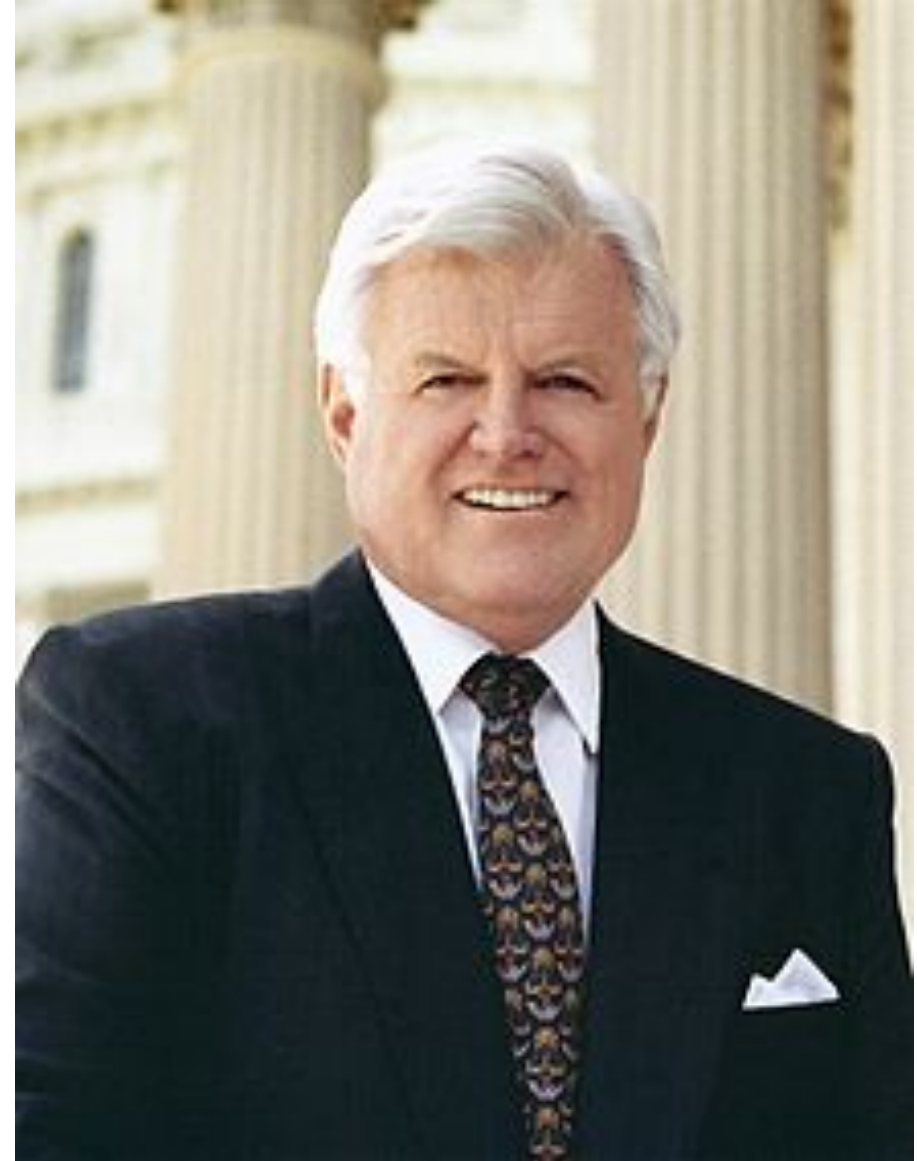
The View from Trump International Golf Links – Aberdeen, Scotland



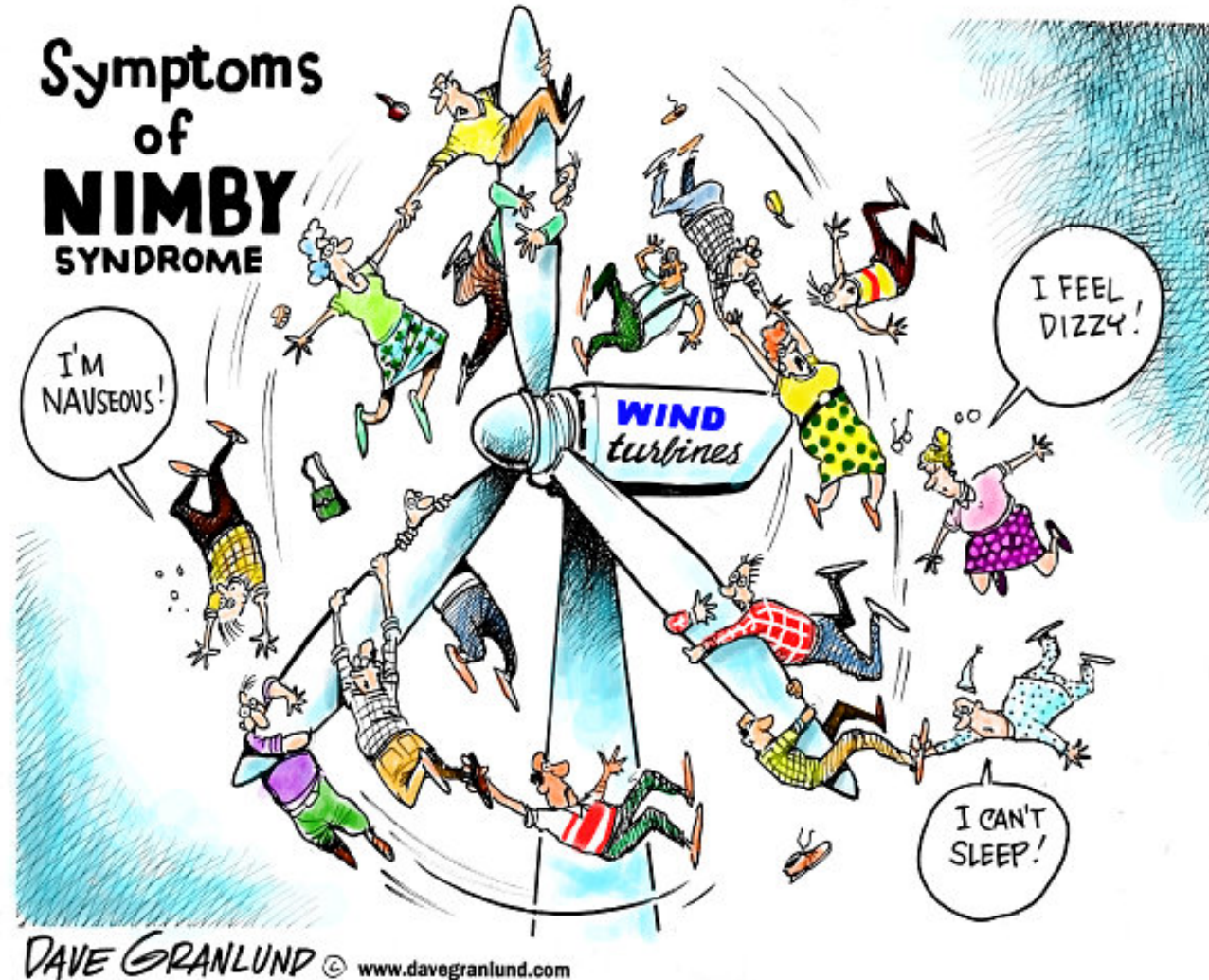
One more . . .

“But don’t you realize,
that’s where I sail.”

Senator Ted Kennedy (D-MA), as
quoted in *Cape Wind: Money,
Celebrity, Class, Politics, and the
Battle for Our Energy Future on
Nantucket Sound*.



“[T]he NIMBY view focuses on individual self-interest as the driving force of local offshore wind opposition.”



McAuliffe, Sharon, Rosenstein, Bass Connections Offshore Ocean Energy; Renewables Group, *The dynamics of offshore wind perception and acceptance across development models*.

The Administration's official position?

“When the president said energy dominance, it was made without reference to a type of energy. It was making sure as a country we are American energy first and that includes offshore wind. There is enormous opportunity . . . for wind. I am very bullish.”

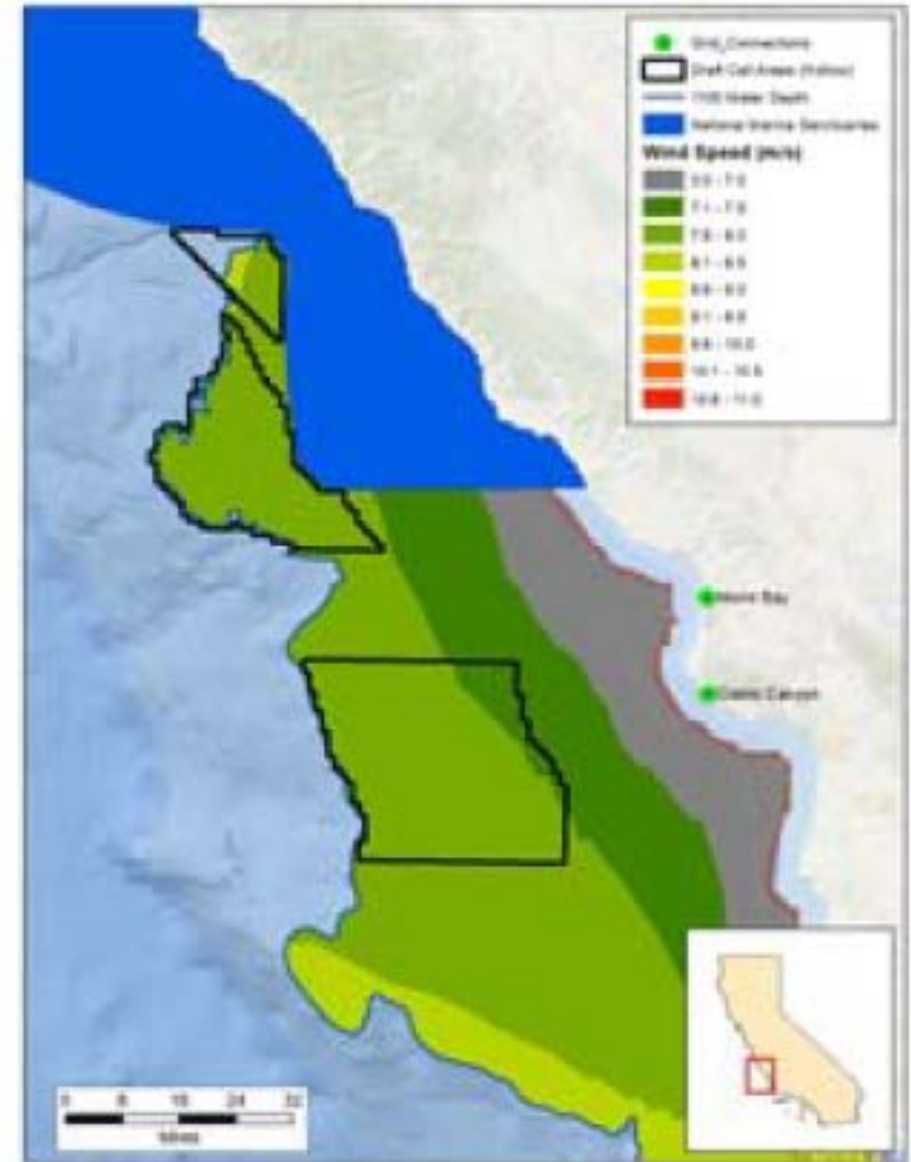


Secretary Ryan Zinke, April, 2018 Speech at Business Network for Offshore Wind International Partnering Forum

California Offshore Wind

- Central Coast Draft Call Areas
 - Morro Bay North
 - Morro Bay
 - Diablo Canyon
- Grid connections
 - Morro Bay
 - Diablo Canyon

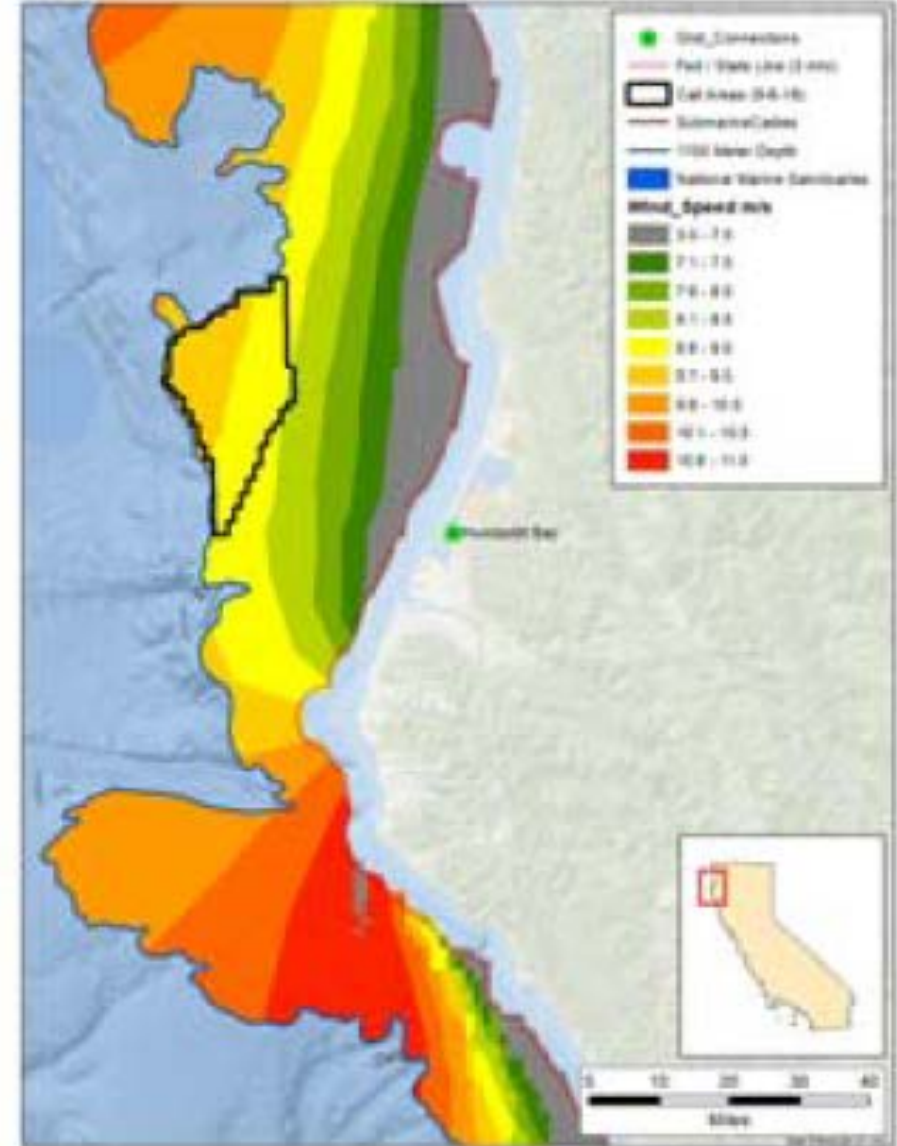
Source: BOEM



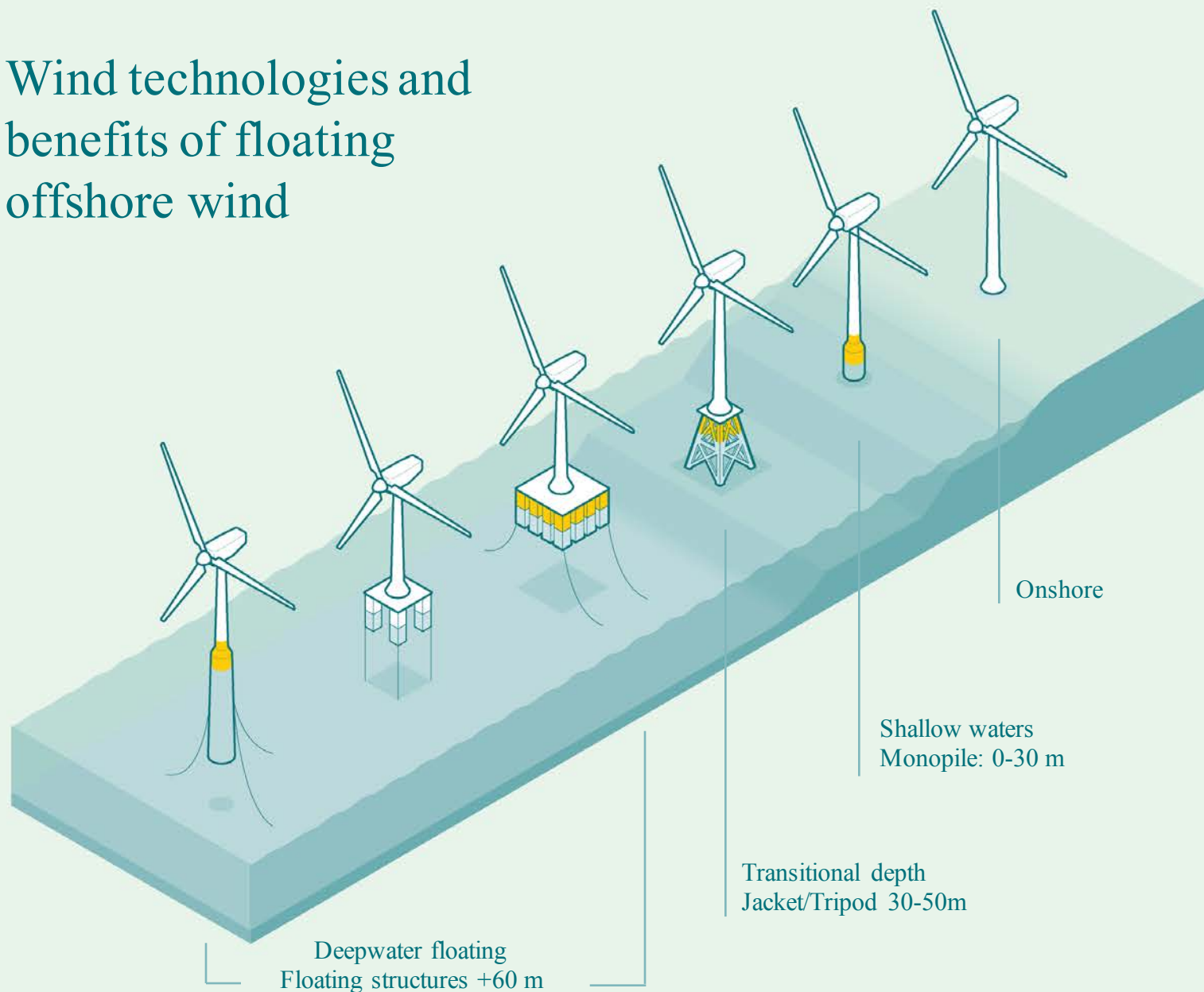
California Offshore Wind

- North Coast Draft Call Area
 - Humboldt
- Grid connections
 - Humboldt Bay

Source: BOEM



Wind technologies and benefits of floating offshore wind



Resources

Deeper, farther from shore
Site flexibility
Space availability

Jobs

Domestic and export industrial opportunities
Regional developments
Build on O&G

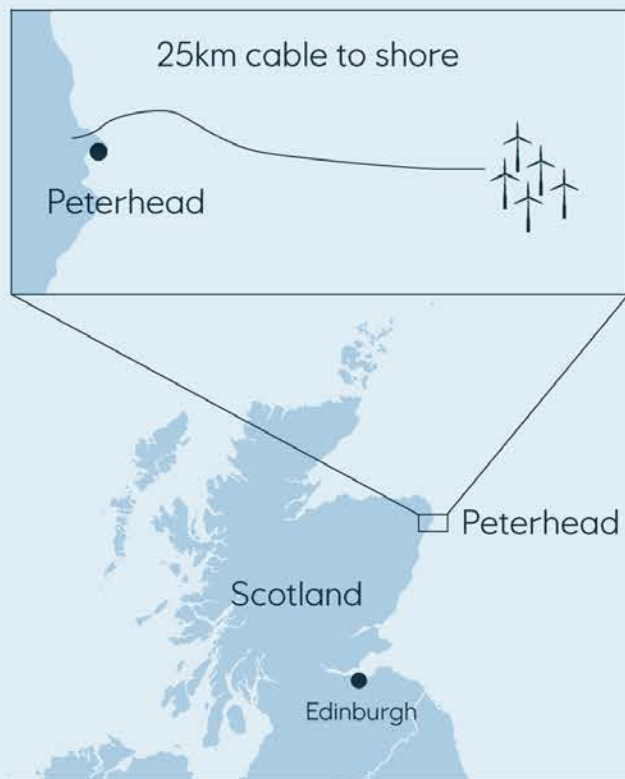
Economics

High capacity factor
Higher scalability?
Standardisation potential

New applications

Electricity to population centers
Power industry and O&G
Recycle marine spaces

Hywind Scotland – The World's first floating wind farm

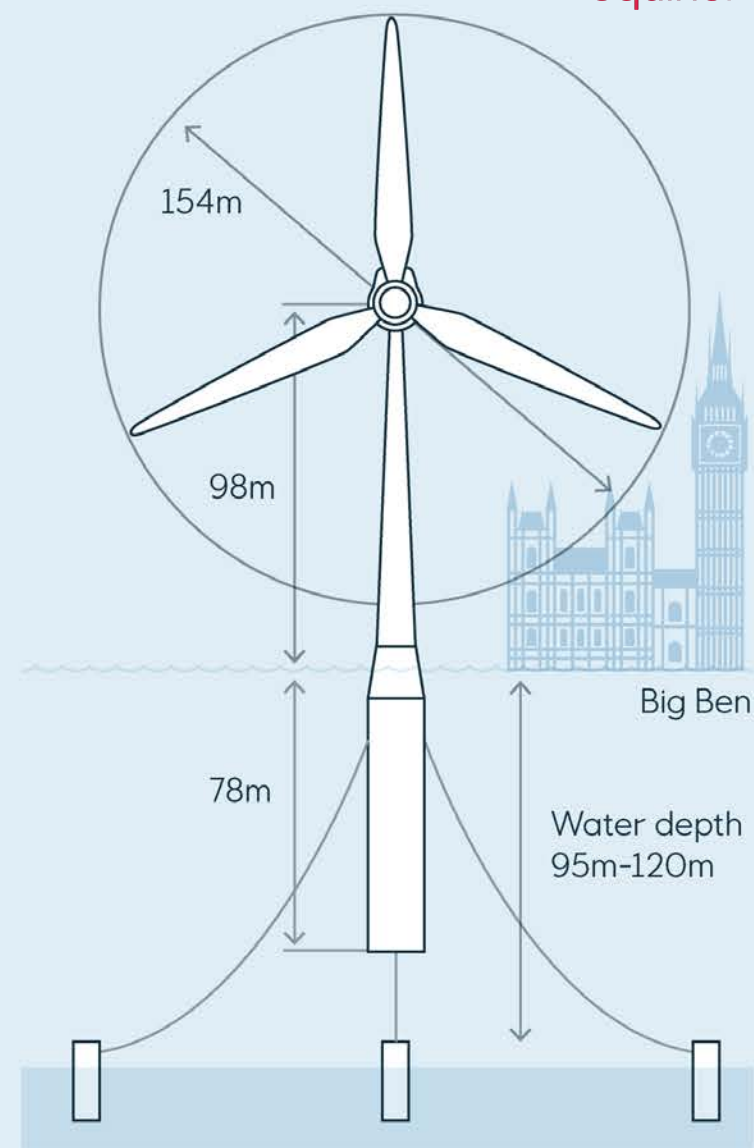
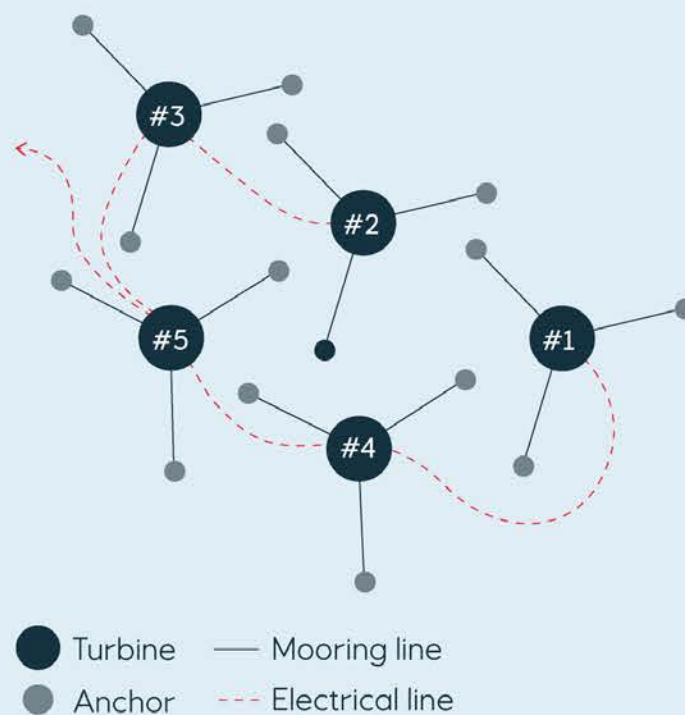


Installed capacity of park

30MW

Which is enough to power

20,000 homes





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Mike Olsen, Senior Director, Business Development, New Energy Solutions

Equinor

michol@equinor.com