

Equinor Renewables Americas – US Ports

Panel Five MRS 2023

Equinor's Global Offshore Wind Portfolio

US WEST COAST

Lease Area OCS-P 0563

US EAST COAST (JV with bp)

Empire Wind 1 816 MW	Beacon Wind 1 1230 MW
Empire Wind 2 1260 MW	Beacon Wind 2 ~1200 MW

BALTIC SEA

Baltyk I,II,III, Poland (with Polenergia) ~2.5 GW	Arkona, Germany (with RWE) 385 MW
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SOUTH KOREA

Donghae – Floating (with KNOC, EWP) ~200 MW	Firefly ~800 MW
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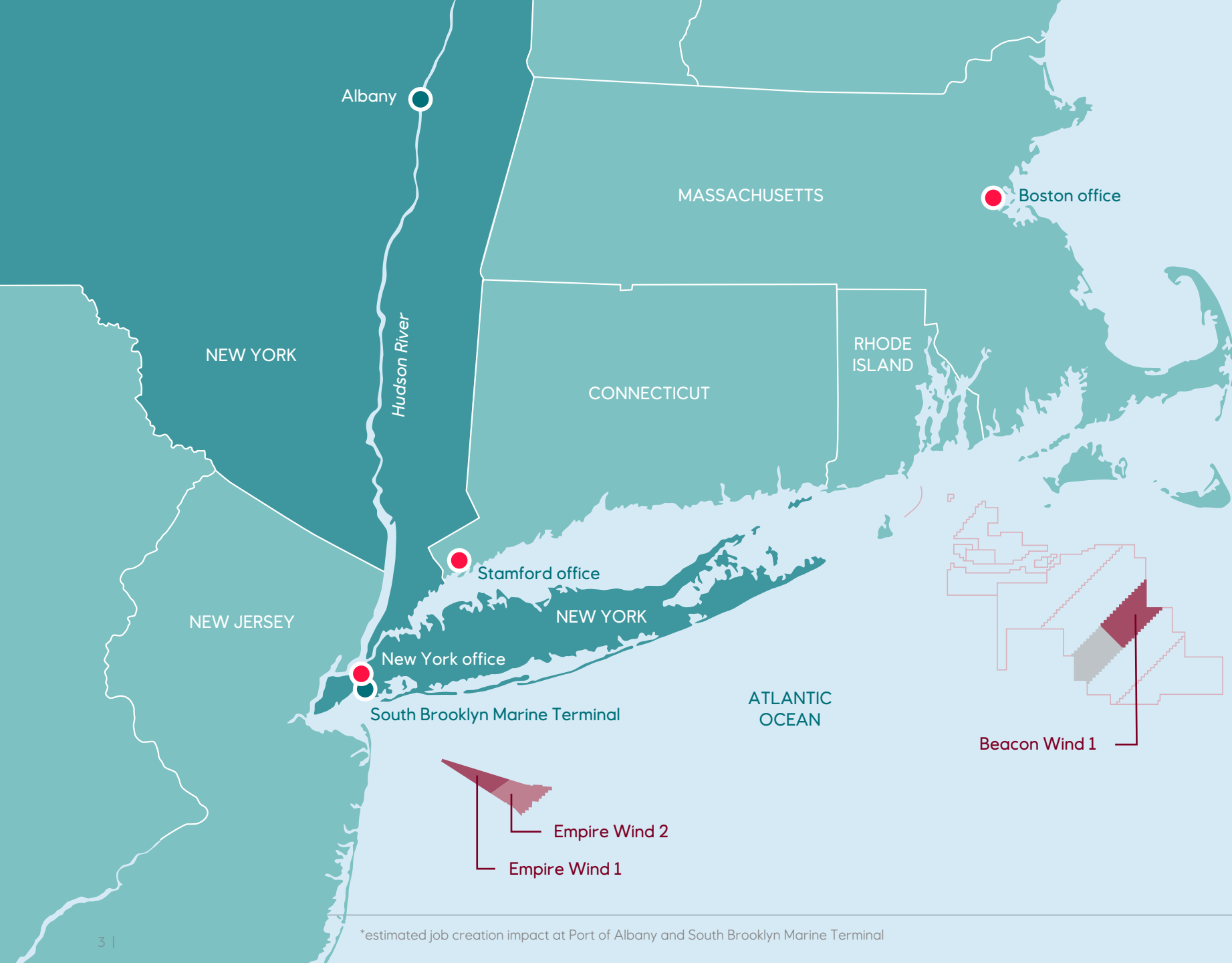
NORTH SEA

Dogger Bank (with SSE, Eni) 3.6 GW	Sheringham Shoal (with UKGI, Equitix) 317 MW
Hywind Tampen – Floating (with OMV, Idemitsu, etc.) 88 MW	Dudgeon (with Masdar, CR Power) 402 MW
UK Extensions 720 MW	Hywind Scotland – Floating (with Masdar) 30 MW

Asia: Future growth
China, Japan, Vietnam

Brazil: Future growth

- Offshore wind clusters based on existing assets
- Pipeline
- In construction
- Producing



Bringing renewable energy—and so much more

The Empire Wind and Beacon Wind projects will deliver:

- **3.3 GW** of renewable energy
- power for **~2 m homes**
- **\$3 bn** in economic development commitments to NY
- **\$52 m** for community benefits
- **\$25 m** for environmental research
- **73-acre OSW port facility** at South Brooklyn Marine Terminal
- **500 long-term jobs***
- **1,500 short-term jobs***

*estimated job creation impact at Port of Albany and South Brooklyn Marine Terminal

What do OSW Developers look for in a Port?



Land

No matter how much you have, it's never enough

- ~40 or more acres ideal
- 3000 psf upland bearing capacity
- 6000 psf quayside crane pad ideal



Marine Feasibility

Optimize throughput, minimize standby

- Ideally two berths accessible from a single crane
- Ability to berth CCV and two feeder barge/tugs (or jackup) simultaneously



Availability

First Power is paramount, time is money

- Alignment with business case assumptions
- Flexibility critical – permitting, supply chain dynamics



Cost

**LCOE picture is complex
Different drivers for Staging vs O&M**



Location

Competing priorities

- Economic Development usually offtake award criteria
- Distance to the field is time and money

South Brooklyn Marine Terminal: Planned Transformation



Artist Impression
Not Final Design

Staging Port Overview

- Almost **70 acres** total upland area
- 3000 psf upland bearing capacity
- 6000 psf quayside crane pad
- Three berths
 - Two deepwater, reachable from **single crane**
 - One shallow water – tug & barge
- Temporary offices & warehousing (not shown)



O&M Base Overview

- Docking facilities utilize **shore power** for Hybrid Vessel to prevent idling at port
- Office Space and **Operations Control Room**
- Facilities to support offshore maintenance
- Warehouse for operational spares utilizing **electric forklifts**
- **Electric vehicle charging** onsite
- Designed for future sea level rise and flood protection
- LEED Certified Building & WEDG Certified Port Site



SBMT Transformation – Anticipated Timeline

