Building a National Network of Offshore Wind Ports

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Example project: New Jersey Wind Port

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Building a National Network of Offshore Wind Ports
A $36B Plan for Domestic Clean Energy Infrastructure

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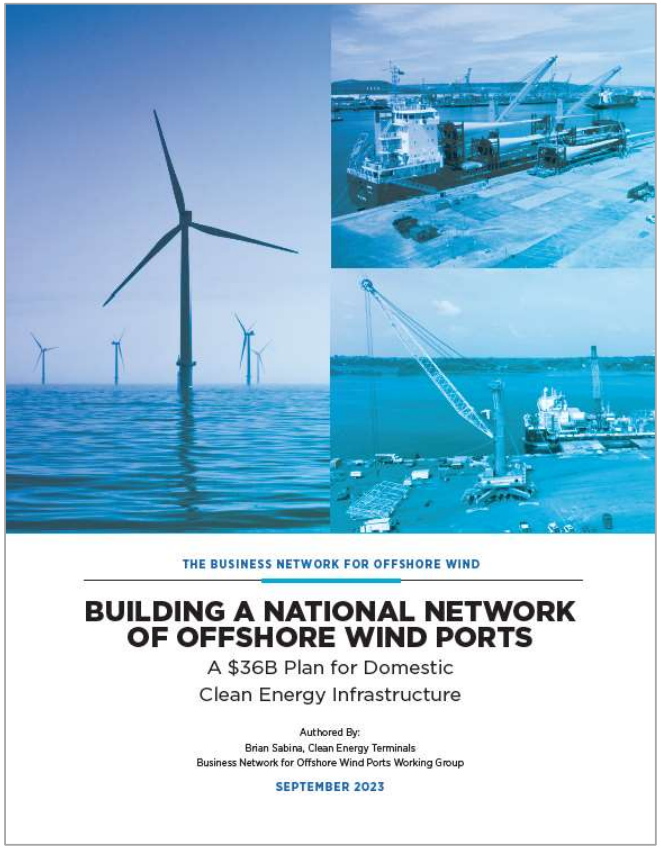

- Developed in partnership with the **Oceantic Network's** Ports Working Group and **published in September 2023**
- Objectives:
  - **New baseline for the amount of funding required**
  - **Realistic timeline for when that funding is needed**
  - **Set of state and federal solutions** that accelerate both **public *and* private sector investment**
- Scope:
  - **East, West, and Gulf Coast**
  - Anchored in 30GW by 2030, but… **charting a pathway to 110 GW by 2050**

Offshore wind port types

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	Port project type	Foundation type served	Lease length	Weight bearing requirement	Acreage requirement	Illustrative cost ($2023)
1	Marshaling	Fixed-bottom	Project-by-project	Very heavy	Large	$500 M
2	Staging & Integration *(and Floating Foundation Assembly)*	Floating	Project-by-project	Very heavy	Very large	$800 M
3	Flexible Laydown	Both	Project-by-project	Moderate	Moderate	$40 M
4	Manufacturing – Large	Both	Long-term	Very heavy	Large	$350 M
5	Manufacturing – Medium	Both	Long-term	Moderate	Moderate	$75 M
6	Operations & Maintenance – Crew Transfer Vessels (CTVs)	Both	Long-term	Light	Small	$60 M
7	Operations & Maintenance – Service Operations Vessels (SOVs)	Both	Long-term	Light-to-moderate	Small	$200 M

Marshalling / Staging & Integration ports (examples)

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New Jersey Wind Port
(Salem, NJ)

Pier Wind Rendering
(Long Beach, CA)

SOURCE: Images from NJEDA and Port of Long Beach Press Releases

Flexible laydown ports (example)

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Cable laydown facility (Velsen-Noord, Netherlands)

SOURCE: Images from WIND Storage press release

Manufacturing ports (examples)

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EEW AOS Monopile Factory - Large
(Paulsboro, NJ)

Nexans Export Cable Factory - Medium
(Charleston, SC)

SOURCE: Images from EEW AOS and Nexans Press Releases

Operations and Maintenance ports (examples)

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CTV facility
(Ocean City, MD)

CTV+ Service Operation Vessel (SOV) facility
(Grimsby, UK)

SOURCE: Images from Orsted Press Releases

How many ports will be needed for each port project type in each U.S. regional market / component type?

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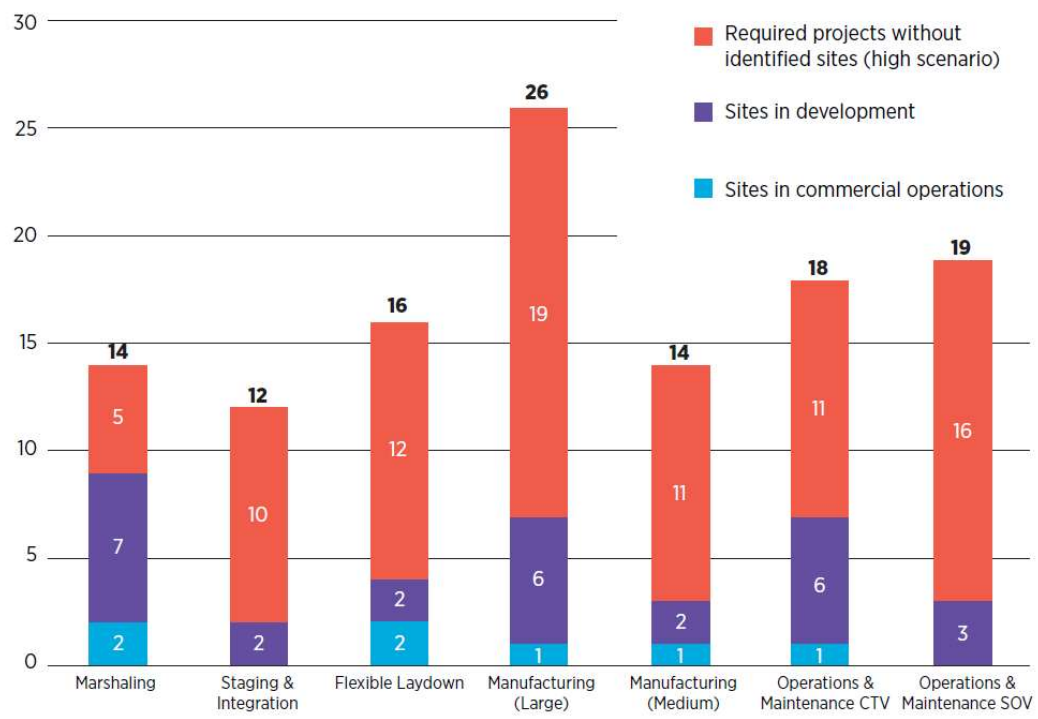
Graphic 1: *Offshore wind port infrastructure requirements by port type and project status*



- U.S. needs 99 to 119 port sites
- 35+ offshore wind port projects in operations or under development, mostly in the Northeast and Mid-Atlantic
- The vast majority of projects under development have material funding gaps ($50-150 M, but can be much higher)
- Offshore port infrastructure gap of 64 to 84 projects
- We estimate the Pacific Northwest Port Needs 10+ port facilities:
  - 3 S&I facilities
  - 2 Flexible laydown yards
  - 2 CTV O&M Ports
  - 3 SOV O&M Ports
  - #? Manufacturing sites

Put into context, investing in offshore wind infrastructure is a common-sense policy approach to unlocking clean energy and jobs

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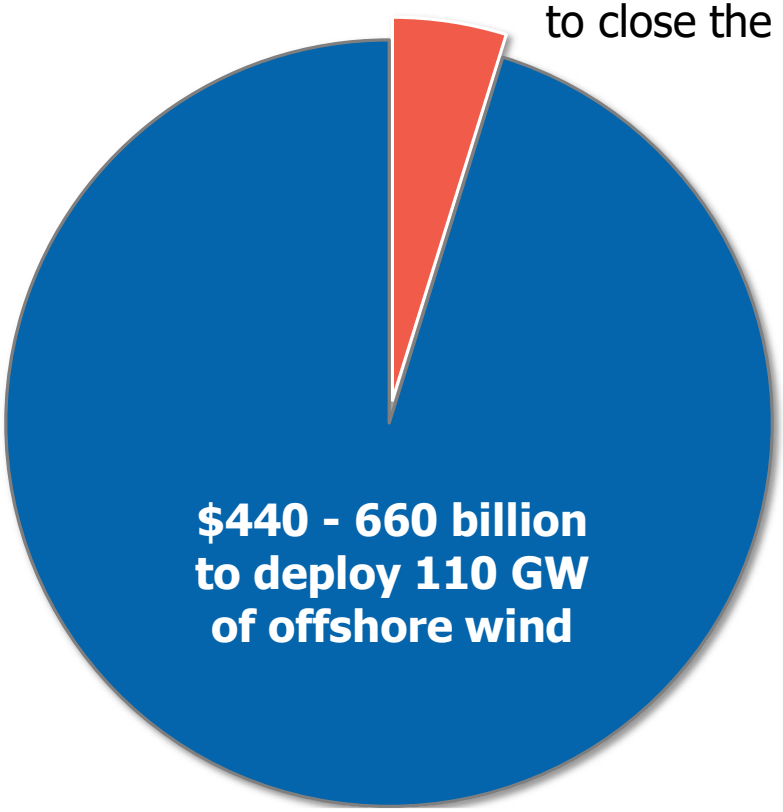
27.2 billion (4-6%)
to close the offshore wind port infrastructure gap



16-29x
Amount of investment in clean energy generation unlocked by closing the offshore wind infrastructure gap

Understanding when offshore wind funding needs to be committed and used is very important

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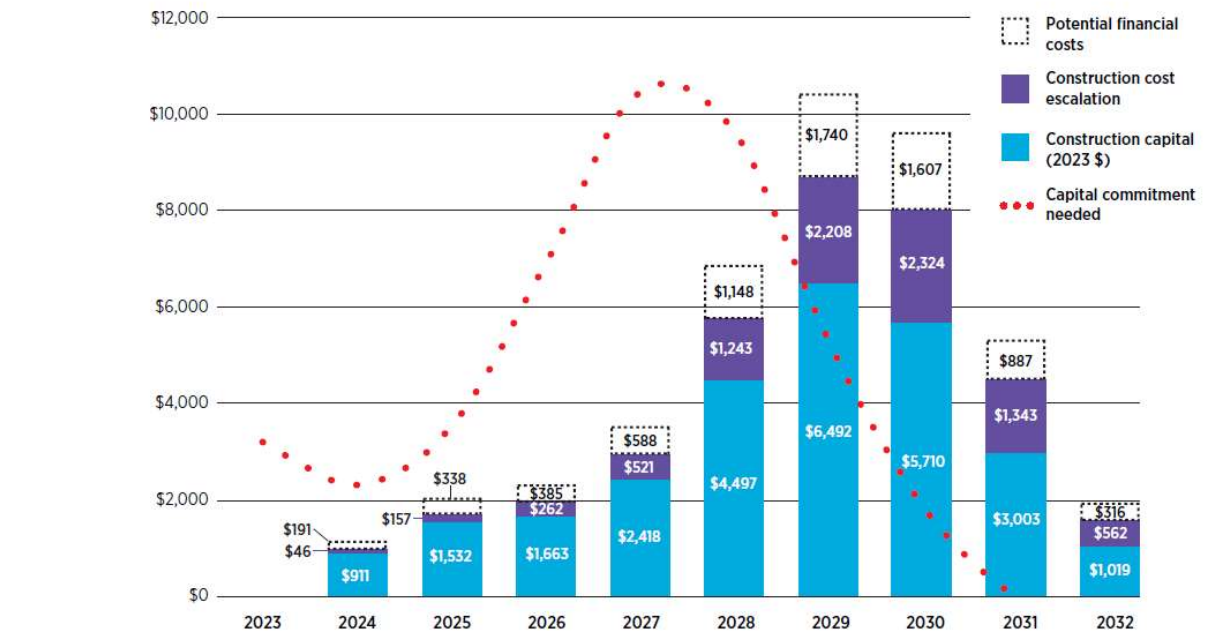
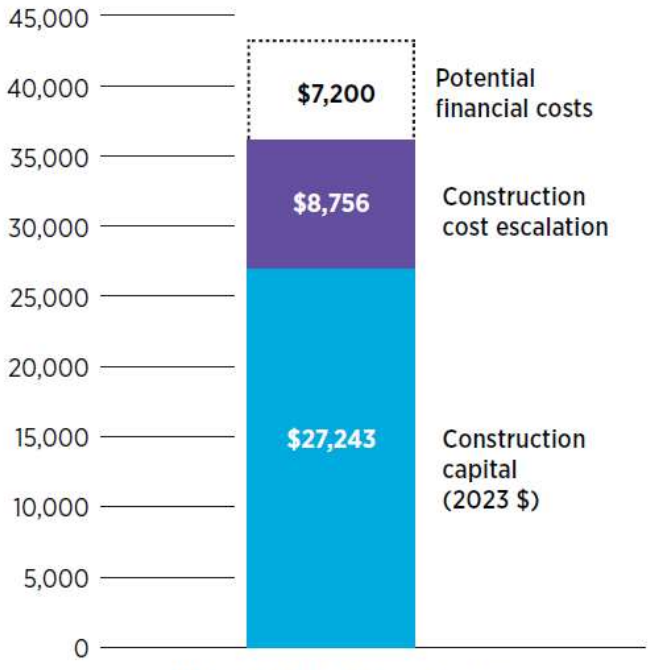
Graphic 3: *Escalated offshore wind port development capital needed ($ M, YoE)*



	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total used ($M, YoE)	-	$1,148	$2,026	$2,310	$3,526	$6,888	$10,439	$9,641	$5,323	$1,896
Total committed ($M, YoE)	$3,174	$2,310	$3,526	$6,888	$10,439	$9,641	$5,323	$1,896	-	-

Graphic 2: *Total capital needed to address the offshore wind infrastructure gap ($ M, YoE)*