

### Local Workforce Opportunities for Offshore Wind Energy

Jeremy Stefek Bridgeport Regional Energy Partnership January 11, 2024

## Wind Opportunities

1 Supply Chain

**2** Operations and Maintenance

#### **3** Considerations

#### **4** Local Assessments

Supplier jobs represent the largest opportunity space for offshore wind jobs

- Suppliers produce subassemblies, parts, and materials for Tier 1 original equipment manufactures
- Existing businesses would have to make significant investments in facilities, equipment, certifications, and/or workforce training to qualify as offshore wind energy suppliers

An offshore wind supply chain could create a vast number of jobs, with a higher market opportunity in the supporting supply chain than in major manufacturing facilities

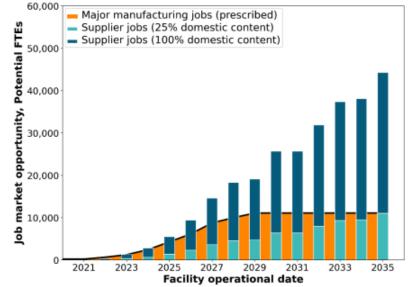


Figure ES5. Major manufacturing jobs and supplier jobs over time assuming a 25% and 100% domestic workforce based on the accelerated supply chain growth scenario.

\*Number of supplier jobs will depend on the level of domestic content achieved which may be tied to the opening of Tier 1 manufacturing facilities\* Opportunity across the country for jobs related to suppliers

 In this analysis
Connecticut does not have a Tier 1 OEM

• But Connecticut could support the supply chain

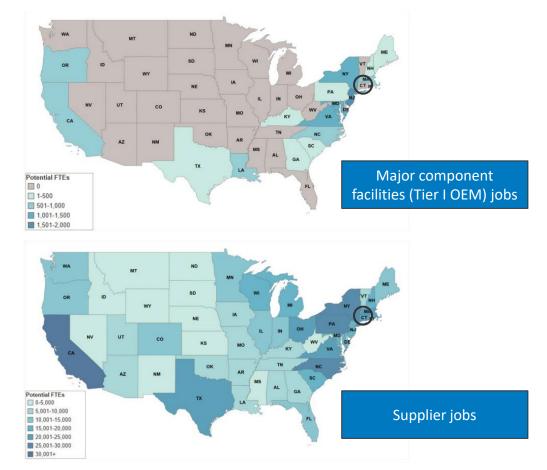
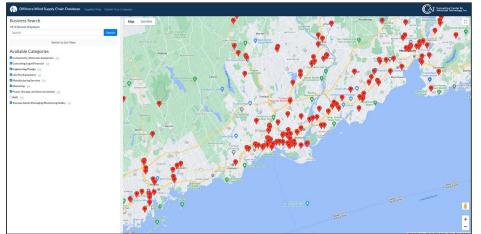


Figure 21. Job market opportunity for major manufacturing jobs (top) and the job market opportunity for major manufacturing and supplier jobs (bottom) for the domestic supply chain scenario by 2035, assuming 100% domestic content

# Supplier opportunity near Bridgeport

#### Many databases show businesses that could get involved with offshore wind energy.



Offshore Wind Supply Chain Database Connecticut Center for Advanced Technology, Inc. <u>https://offshorewind.ccat.us/</u>

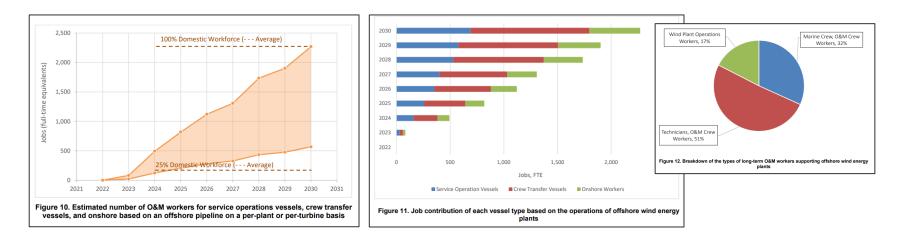
← → O ⋒ th a812898/mphost.com/tmi/webd/OSWSupplyChain.fm	sp12fscript - FindServices	
🕻 theSOURCE 📰 NWTC M2 🚯 NWTC SharePoint 📑 Jeremy - OneDrive 🚯 Je	reeny-Office 365 🗈 3151 🛕 NIEL Google Drive 🗈 Xoel 🗈 Counties 🗈 Manufacturing 🍃 HubSpeel (Contacts 🔮 Arel) 5 🗈 Miscellaneous 🔹 C	Coogle
SupplyChainConnect SERVICES	SERVICES PRODUCTS;MATTRIALS	
Click on the SERVICES or PRODUCTS/MATERIALS button above, then dick on a categor	ry below to see companies under that category.	
Pats	SURVICES	
Pat whattuckies & Facilities	132 companies	
Fort Agent	34 companies	
Building & Comitruction Works	SERVICES	
Wind Paver Plant (Turney Project, Design / Procurement / Construction / Instantion)	0 07 conserves	
Pier / Part Construction Works	e contanies	
Marine & Underground Cable Systems (Turnive/ Project: Design / Procurement / Cons	Inclus / Hilladoranies	
Pling / Boring	54 companies	
Tunneling Construction Warks	12 containes	
Read / Bridge Construction Works	52 companies	
General Buildings / Offices	24 companies	
Utility Construction Works	77 companies	
Embanisments / Earth Danks Construction Viorks	25 companies	
Ground Work / Leveling Works	24 contains	
Cable & Pipeline Trenches Construction Works	69 companies	
Steel Fabrication / Inspection	249 companies	
Reservoir Construction Works	9 companies	
Water & Sevage Pumping Stations	19 companies	
Other Building & Construction Works	60 companies	
Construction / Maintenance Dervices	SHOWER .	
WTO Fixed Foundation: Construction / Installation	140 companies	
WTG Floating Foundation: Construction / Installation	2 companies	
WTO Foundation Preasoembly	20 companies	
Installation / Maintenance of Carosion Design / Protection / Systems	22 companies	
Electrical Systems Installation / Maintenance	al company	
Fiber Cable System Installation / Maintenance	27 companies	
Installation / Maintenance of Heating / Ventilation / Air Conditioning Systems	17 companies	
Construction / Maintenance of Concrete Structures / Foundations	67 concession	
Prefating	6 companies	
Installation / Maintenance of Fire Fichting Equipment & Systems	10 contaction	
Road Works / Maintenance / Snow Clearing	10 companies	
Installation / Maintenance of Security Equipment & Systems	15 companies	
Installation / Maintenance or becamy Equipment & equipment	a companier	
Wood / Forest Clearing	3 companies	
Landscaping / Farthwarks	3 companies	
Demolition & Cleanance Works	33 companies	

#### Supply Chain Connect Oceanic Network

https://oceantic.org/supplychain/

#### **Operations and Maintenance**

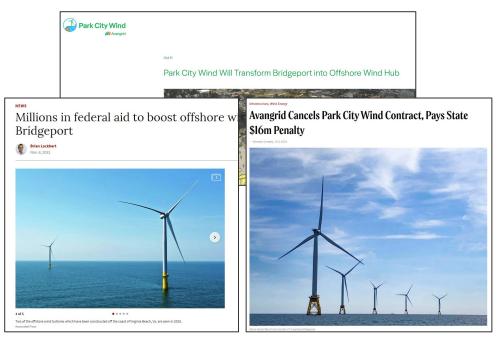
- 2,300 O&M workers could be needed by 2030 to reach 30GW offshore wind energy
- Includes marine crew for vessels (e.g., captains, mates, seaman), wind technicians, engineers, operations managers, professional services



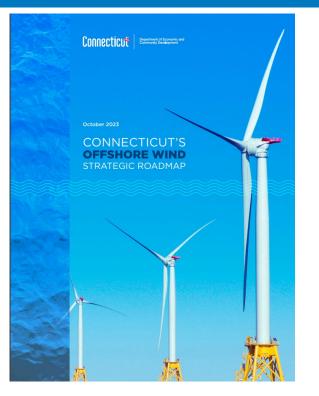
## **Operations and Maintenance**

- What actions can Bridgeport take to keep momentum going in uncertain conditions and develop a workforce that's ready when its needed?
- How can local training programs be developed to support these future jobs?

"Constructing an O&M Facility with a 25+ Year Lifetime: Vineyard Wind is also committed to making Bridgeport home to Park City Wind's operations and maintenance (O&M) hub for the life of the project. This will bring many long-term jobs to Bridgeport and generate direct expenditures worth several hundreds of millions of dollars."



# **Bridgeport Offshore Wind Considerations**



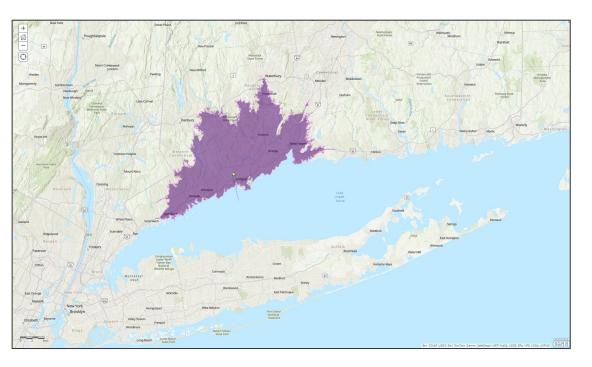
#### **Port of Bridgeport**

- Establish a company headquarters, as well as to redevelop privately owned waterfront industrial property.
- Support foundation piece steel fabrication and act as an outfitting and staging area.
- Transition to a long-term operations and maintenance hub for the life span of the Park City Wind project.

Source: https://portal.ct.gov/offshorewind/-/media/offshorewind/State-of-Connecticut-OSW-Strategic-Roadmap-2023.pdf

### Bridgeport Offshore Wind Considerations

- Commuting patterns can affect where workers are trained, live, and work
- Consider the economic benefits that flow in an out of Bridgeport from offshore wind development



#### Local Workforce Assessment Process



- Currently developing a methodology for FLoating Offshore Wind ReadINess (FLOWIN) Prize and SMARTPOWER Supply Chain Project.
- Assessment approach still under development and refinement.



2) Review of Location's Economic Development Goals, Existing Industry, and Workforce Development Initiatives

3) Education and Training Program Database

4) Evaluate Potential Labor Union Jurisdiction for Workforce Sourcing

5) Occupation and Certification Alignment

7) SWOT Analysis

6) Feasibility to Train

# Q&A

#### www.nrel.gov

Email <u>Jeremy.Stefek@nrel.gov</u> with any questions.

