



# New Jersey Manufacturing Assessment and Offshore Wind Readiness Gap Analysis



The State of New Jersey is well positioned to support offshore wind (OSW) projects along the East Coast due to its central location as well as its significant investments in port and Supply Chain development. New Jersey's target for 11 GW of OSW and accompanying infrastructure investments by 2040 is projected to spur approximately 20,000 new jobs related to OSW, from both in-state and regional demand. New Jersey is home to over 10,000 manufacturing companies. Small-mid size minority, women, and veteran owned businesses (SMWVBEs) have a new opportunity to be a part of supply chain development in the early stages of the industry's growth.

To prepare for the emerging OSW industry, The New Jersey Manufacturing Extension Partnership (NJMEP) took the initiative in 2021 to understand the needs of the nascent supply chain and began the OSW Supplier Identification Project (OSW-SIP). This analyzed the 8,000 + components of an offshore wind turbine. These products are purchased by Original Equipment Manufacturers (OEMs) and their subcontractors to create the fully assembled, specialized product. It is within this segment of the supply chain that these tiered sub-components offer opportunities for SMWVBE's to get involved and supply products. NJMEP used the NAICS code system to link the known capabilities in the New Jersey market with the typical bill of materials for wind turbines. This process identified approximately 1,464 local firms that can supply parts for New Jersey's OSW projects.

To better understand the State's needs, Attentive Energy Two and NJMEP have partnered with support from MRV Group to build off of this 2021 project to conduct an in-depth 2023 New Jersey Manufacturing Assessment and Offshore Wind Readiness Gap Analysis. Through a series of interviews targeting business needs and challenges to growth, this assessment arrived at a clear picture of the Strengths, Weaknesses, Gaps, and Hurdles that NJ SMWVBEs are facing in their pursuit of offshore wind opportunities.

## Key Findings

- SMWVBEs have an unclear picture of whether their current production models align with the expected OSW manufacturing demand for goods and materials
- Buyers should engage and share requirements early rather than when an OSW contracting opportunity is imminent
- 61% of the interviewed SMWVBEs manufacture goods that are highly relevant to the OSW supply chain
- Estimated Range of Costs for Equipment Upgrades: **\$40k—\$150k**
- Estimated Range of Costs for Employee Training: **\$6k—\$31k**

## Organizations Involved

**NJMEP**  
*Report Lead*



**Attentive Energy Two**  
*Technical Advisor*



**MRV Group**  
*Subject Matter Expert/  
Gap Analysis*



## Interviewed New Jersey Manufacturers

[Bioneat Inc. | bioneat.com](http://bioneat.com)

[Brenner Metal Products | brennermetal.com](http://brennermetal.com)

[Brewster Washers | brewster-washers.com](http://brewster-washers.com)

[Custom Welding Inc. | customwelding.us](http://customwelding.us)

[ColeZar Flood Protection | floodguardian.us](http://floodguardian.us)

[GLS Painters LLC. | glspainters.com](http://glspainters.com)

[Innovative Resin Systems | rez-cure.com](http://rez-cure.com)

[Jalacontora Inc. | jalacontorainc.com](http://jalacontorainc.com)

[L-E-M Plastics | l-e-mplastics.com](http://l-e-mplastics.com)

[Marine Electric Systems | marineelectricsystems.com](http://marineelectricsystems.com)

[ModTek Converting | modtek.net](http://modtek.net)

[Patwin Plastics | patwin.com](http://patwin.com)

[PCS Crane Services | pcscrane.com](http://pcscrane.com)

[Portadam Inc. | portadam.com](http://portadam.com)

[Switlik Survival Products | switlik.com](http://switlik.com)

[Technik Products Inc. | technickproducts.com](http://technickproducts.com)

[Warfighter Oil | warfighteroil.com](http://warfighteroil.com)

[ZAGO Manufacturing | zago.co](http://zago.co)

## Strengths and Opportunities

- Manufacturers are excited to undergo upskilling and training to support of the emerging OSW Industry
- Grant funding will support SMWVBES in filling qualification gaps and accessing NJMEP training programs to improve their processes and obtain certifications
- New employment opportunities for New Jersey's underserved communities as manufacturers expand their businesses to support the OSW Industry

## Gaps and Hurdles

- Many of the interviewed SMWVBE's need equipment upgrades, new certifications, or updated trainings in order to meet production demands of offshore wind
- Delayed qualifications with buyers can result in missed opportunities for NJ manufacturers
- The Manufacturing industry in New Jersey needs help attracting the workforce of tomorrow, a large portion of the base will be retiring by 2030

Ultimately, supply chain development can only be achieved with an informed ecosystem. Wind turbine manufacturers and other Tier 1 suppliers in the offshore wind supply chain (e.g., foundations, substations) need to educate the market about their processes and keep vendors informed of incoming opportunities with enough time for them to prepare for those opportunities (e.g., qualification, certification, equipment upgrades, training). Vendors need to know where to go for support through advocates who can guide them through a new sector with an understanding of how to strategically position themselves to be competitive, whether that is by pivoting to new products or expanding their production capabilities.

New Jersey has a history of success in manufacturing and has provided a robust offering of goods to US industries such as onshore infrastructure and the Department of Defense. Opportunities will come for those same businesses in the blossoming offshore wind sector. Each contract won will be a new success story to show the best practices for navigating this vast ecosystem.

**"ZAGO is ready to serve offshore wind in New Jersey. ZAGO sealing fasteners are used in offshore wind projects in Europe and Canada. We are DFARS, REACH, RoHS compliant and ISO 9001: 2015 and WBE (Women Business Enterprise) certified,"** says Gail Friedberg Rottenstrich, Co-Founder & CEO, ZAGO. "Our sealing fasteners are Made in USA/Buy American Act compliant and manufactured at our headquarters in Newark, NJ."

## Methodology

NJMEP used a supply chain mapping process consisting of discovery sessions, written surveys, interviews, data mining and observations. Additionally, NJMEP used secondary sources like existing NJMEP databases and manufacturer data sheets to collect working data. The process identified current and future capabilities of the manufacturers surveyed.

The first step was to narrow down a list of 137 NAICS codes which NJMEP had identified in their previous assessment as offshore wind related goods and commodities. Attentive Energy Two acted as a technical advisor to provided industry feedback to identify the 13 NAICS codes which would be most relevant to the offshore wind supply chain and the focus of this analysis of localization opportunities.

**NAICS Codes :** The North American Industry Classification System (NAICS) is the standard used by Federal statistics agencies in classifying business establishments for the purpose of collection, analyzing, and publishing statistical data related to the U.S. business economy. – U.S. Census Bureau

## Questionnaire Topics

- ✓ Company Overview
- ✓ Certifications
- ✓ Specialized Tooling & Equipment
- ✓ Automation / Advanced Manufacturing Technologies Volume
- ✓ Production Volumes
- ✓ IT Infrastructure
- ✓ Environmental Health & Safety
- ✓ Supply Chain
- ✓ Areas of Risk
- ✓ Workforce Analysis

## NAICS Codes studied in this analysis

<u>Manufacturing Sector</u>	<u>NAICS</u>
Plastics material and resin manufacturing	325211
Iron and steel mills and ferroalloy manufacturing	331110
Iron and steel pipe and tube manufacturing from purchased steel	331210
Steel wire drawing	331222
Other aluminum rolling, drawing and extruding	331318
Copper rolling, drawing, extruding and alloying	331420
Nonferrous metal (except copper and aluminum) rolling, drawing, and extruding	331491
Iron and steel forging	332111
All other misc. Fabricated metal product manufacturing	332999
Turbine and turbine generator set units manufacturing	333611
Power, distribution and specialty transformer manufacturing	335311
Other communication and energy wire manufacturing	335929
Ship building and repair	336611ER

## See Trainings and Assessments offered by NJMEP:

### Operational Excellence

[www.njmep.org/our-services/operational-excellence/](http://www.njmep.org/our-services/operational-excellence/)

### Workforce Development

[www.njmep.org/our-services/workforce-development/](http://www.njmep.org/our-services/workforce-development/)

### Innovation & Growth

[www.njmep.org/our-services/innovation-growth/](http://www.njmep.org/our-services/innovation-growth/)