OFFSHORE WIND ENERGY: Planned Projects May Lead to Construction of New Vessels in the U.S., but Industry Has Made Few Decisions amid Uncertainties (GAO-21-153)

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Two Approaches to Offshore Wind Installation Vessels

- **U.S. port**
  - Turbines and components loaded onto wind turbine installation vessel

- **Jones Act-compliant wind turbine installation vessel**
  - Carries components from port to offshore wind farm, installs them, then goes back to port for more components and repeats.

- **Wind farm in United States waters**

Source: GAO | GAO-21-153
Two Approaches to Offshore Wind Installation Vessels

U.S. port
Turbines and components loaded onto Jones Act-compliant feeder vessels.

Jones Act-compliant feeder vessels
Transport turbines and components between U.S. port and wind farm.

Wind farm in United States waters

Foreign-flag wind turbine installation vessel
- Travels to wind farm from foreign port
- Becomes stationary at wind farm, where it uses its crane to lift turbines and components from feeder vessels and installs them.

Source: GAO | GAO-21-153
Opportunities for Other Vessels

- Pre-installation – Survey vessels
- Installation – Foundation installation vessels, cable laying vessels, scour protection vessels
- Operations and maintenance – Crew transfer vessels, service operations vessels
Potential Challenges for Vessels

- Shipyards – Opportunity for work building WTIVs and other vessels, but may be capacity challenges
- Ports – Infrastructure challenges may require port investments to allow ports to better service offshore wind vessels
- Workforce – Opportunities for crews and states and industry responding with training programs