

OFFSHORE WIND FARM SUPPORT VESSELS

As the leading provider of classification services to the global offshore industry, ABS is in a unique position to support the new vessels serving the evolving fixed and floating offshore wind farm turbine market.

LEADING CLASS SERVICES PROVIDER FOR INNOVATIVE WIND FARM VESSELS

Offshore wind farm development is driving the need for support vessel innovation. Due to ever-increasing environmental regulations, owners of wind farm support vessels also need to consider alternative energy sources such as hybrid battery, LNG and green hydrogen. Regardless of a vessel's design or its fuel, ABS can provide classification services for a range of wind farm vessels that will help meet cabotage rules and safety requirements for initial certification and operational compliance. These vessels include:

- Wind Turbine Installation Vessel (WTIV) typically self-elevating jackup for shallow water, floating heavy lift construction vessel for deep water.
- Service Operation Vessel (SOV) flexible service operation vessels can be adapted to transport crews, serve as their offshore quarters, workshop, and as a mobile warehouse for supplies, equipment, and tools.
- **Cable Laying Vessel** lay cable from wind turbine to substation and transmit the power to shore.
- Crew Transfer Vessel (CTV) high speed craft to transfer crew and service technicians.

PROVIDING CLASSIFICATION SERVICES

The ABS Guide for Building and Classing Wind Farm Support Vessels published in 2018 specifies the classification requirements for vessels containing equipment for maintaining and repairing facilities in offshore wind farms, as well as transporting industrial personnel between a shore-based facility and offshore wind farms. Wind farm support vessels may also carry cargo as part of their normal operations.

During development, requirements applied to ABS classed offshore support vessels and high-speed

craft are considered and customized in view of the unique configurations and the typical service routines of wind farm support vessels. As a result, the hull scantlings for high-speed wind farm support craft are derived based on the anticipated en-route weather conditions.

ABS Rules for Building and Classing Marine Vessels Part 5D, Offshore Support Vessels for Specialized Services contain specific classification requirements for vessels intended for:

- Installation, maintenance and repair of wind turbines
- Heavy lift operation
- · Transportation of wind turbines and their components
- Installation, maintenance, and repair of underwater power transmission cables

ABS Rules for Building and Classing Mobile Offshore Units applies Part 8 Chapter 8 to mobile offshore units primarily intended for the installation, maintenance, and repair of offshore wind turbines. including pile driving, tower installation, and nacelle and blade installation. Units may include various equipment to perform or support functions such as pile driving, installation, maintenance and repair of jacket, tower, nacelle and/or blade.

For assistance with an Offshore Wind Vessel, please contact our team at GlobalOffshore@eagle.org





ABS classed *Seajacks Scylla*, the largest wind turbine installation vessel when delivered in 2015.

OFFSHORE WIND SUPPORT VESSELS IN THE U.S.

Demand for wind farm support vessels in the United States (U.S.) is expected to increase to support planned construction projects for both fixed and floating offshore wind farms in U.S. waters.

The Jones Act requires any vessel transporting cargo between U.S. ports to be built and flagged in the U.S. For the purposes of the Jones Act, a bottom founded (fixed) wind turbine foundation is considered a U.S. port.

The construction and maintenance of offshore wind projects calls for a combination of expertise that is comparatively new to the U.S. market and requires a variety of specialist support tonnage. As the leading provider of classification services to the global offshore industry, ABS is in a unique position to support the new vessels serving the evolving offshore wind farm turbine market in the U.S.



First Jones Act compliant Rock Installation Vessel will be built to ABS Class.



ABS classed the first Taiwan-built offshore installation vessel Green Jade.



First Jones Act compliant SOV will be built to ABS Class.



Windserve Odyssey is the first ABS-classed Jones Act CTV.



First Jones Act compliant WTIV, Dominion Energy's *Charybdis*, will be built to ABS Class.



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