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THURSDAY, 21 OCTOBER 2021

“PORT AND SHIPYARD REQUIREMENTS FOR THE INSTALLATION OF FLOATING OFFSHORE WIND TURBINES”

by

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At 17:55 for 18:00 hours (duration approximately 1 hour)

As the floating offshore wind turbine industry continues to develop and grow, the capabilities of established port facilities need to be assessed as to their ability to support the expanding installation requirements. This presentation assesses current infrastructure requirements and projected changes to port facilities that may be required to support the floating offshore wind industry. Understanding the infrastructure needs of the floating offshore renewable industry will help to identify the port-related requirements.

The naval architecture aspects of port development include loadout ballasting and mooring, intact stability during floatout from a drydock and fit out of turbine components.

The capabilities of established port facilities to support floating wind farms are assessed by evaluation of size of substructures, height of wind turbine with regards to onshore cranes for fitting of blades, distance to offshore site and offshore vessel characteristics. In addition, large areas are required for laydown of mooring equipment, turbine blades and nacelles.

The floating offshore wind industries are in early stages of development and port facilities are required for substructure fabrication, turbine manufacture, turbine construction and maintenance support. The presentation discusses the potential floating wind substructures to provide a snapshot of the requirements at the present time, and potential technological developments required for commercial development. Scaling effects of demonstration-scale projects will be addressed. However, the primary focus will be on commercial-scale (30+ units) device floating wind energy farms.