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GLOBAL OFFSHORE WIND GLOBAL OFFSHORE WIND *The Importance of California for US Floating Technology*

OFFSHOREWINDUS.ORG







BUSINESS NETWORK for OFFSHORE WIND



FUTURE-2050



Image credit: IRENA, Offshore innovation widens renewable energy options



GLOBAL OFFSHORE WIND PROJECT PIPELINE CAPACITY AT 272 GW





The global pipeline capacity grew by 42 GW in 2018 to reach 272 GW.

The increase in pipeline capacity is attributed to many new Asian projects that recently entered the planning phase.

Image/Info credit: US Department of Energy



GLOBAL FORECASTS PREDICT 154 TO 193 GW OF OFFSHORE WIND BY 2030



BNEF and 4C Offshore forecast China will deploy between 41 and 84 GW by 2030 which is likely to shift market dynamics.

Forecasts predict European developers will build projects at a similar rate relative to today, with Europe holding about 47% of the total installed global offshore wind capacity in 2030.

Image/Info credit: US Department of Energy



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EAST COAST

Vineyard Wind [800 MW] Block Island Wind Farm (Ørsted) [30 MW] Revolution Wind (Ørsted) [600 MW] South Fork (Ørsted) [90-130 MW] Equinor Mayflower (EDRP/Shell) Vineyard Wind Bay State Wind (Ørsted) Fairways North / South Hudson North / South Empire Wind (Equinor) Atlantic Shores (EDF/Shell) Ocean Wind (Ørsted) Garden State Offshore Energy (Ørsted) Skipjack Wind Farm (Ørsted) [120 MW] US Wind (MD) [248 MW] DMME Research Area Dominion Avangrid Renewables

WEST COAST

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Oregon State University Wave Energy Test Site Proposed Lease Area Humboldt Call Area Morro Bay Call Area Diablo Canyon Call Area Oahu North Call Area Oahu South Call Area





NATIONAL PERSPECTIVE: US WEST COAST & GULF OF MAINE



Gulf of Maine Map—Ed Roworth & Rich Signell, U.S. Geological Survey

















































SUPPLY CHAIN CONSIDERATIONS

Similar to Fixed Bottom Structures—Towers, Turbines and Blades Unique to Floating—





different designs and materials e.g. steel or concrete steel combination





MOORING LINES chain or synthetic

ANCHOR SYSTEMS





DYNAMIC SUBSEA CABLES array and export



SUPPLY CHAIN DRIVERS





PEOPLE trained and skilled







FUTURE DEMAND

CORPORATE PPAs IN 2018

will be spent on **EV Infrastructure** by **2025**, leading to the development of 230 GWs of charging capacity

> Energy demand could increase by as much as **85%** by **2050**

New Green Hydrogen Market

OFFSHORE WIND

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