

WindFloat



OVERVIEW

Principle Power targets the rapidly maturing offshore wind sector by eliminating current deep-water limitations with an innovative solution. WindFloat, conceived by Marine Innovation & Technology and exclusively licensed by Principle Power, is a floating foundation for offshore wind turbines with a simple, elegant and patented design. The innovative features of the WindFloat dampen wave and turbine motion, enabling wind turbines to be sited in previously inaccessible locations with superior wind resources. Multiple project proposals are being submitted for pilot and utility-scale development.

ADVANTAGES

There are three advantages to the WindFloat foundation: first, its stability provides negligible pitch and yaw; second, its design and size allow for onshore assembly; third, its shallow draft allows for site flexibility.

The WindFloat's semi-submersible offshore floating foundation is fitted with patented horizontal water entrapment heave plates at the base of each column. The plates reduce the structure's size and cost, while achieving excellent performance that is practically free from pitch and yaw in the offshore environment. In addition, WindFloat's superior stability is augmented by an active ballast system.

The design and size of the WindFloat enables the overall structure to be assembled onshore and towed to its final location, significantly reducing construction costs and providing improved site flexibility.

WINDFLOAT SPECIFICATIONS

Power rating \approx 5MW	Displacement < 8000 ton
Rotor diameter \approx 125 m	Hull weight < 2500 ton
Turbine height \approx 100 m	Hull Draft \approx 25 m
Turbine weight \approx 400 ton	Normal Operations Water depth > 50 m
Tower weight \approx 400 ton	Conventional mooring components – 60°/6 In



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