

# 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

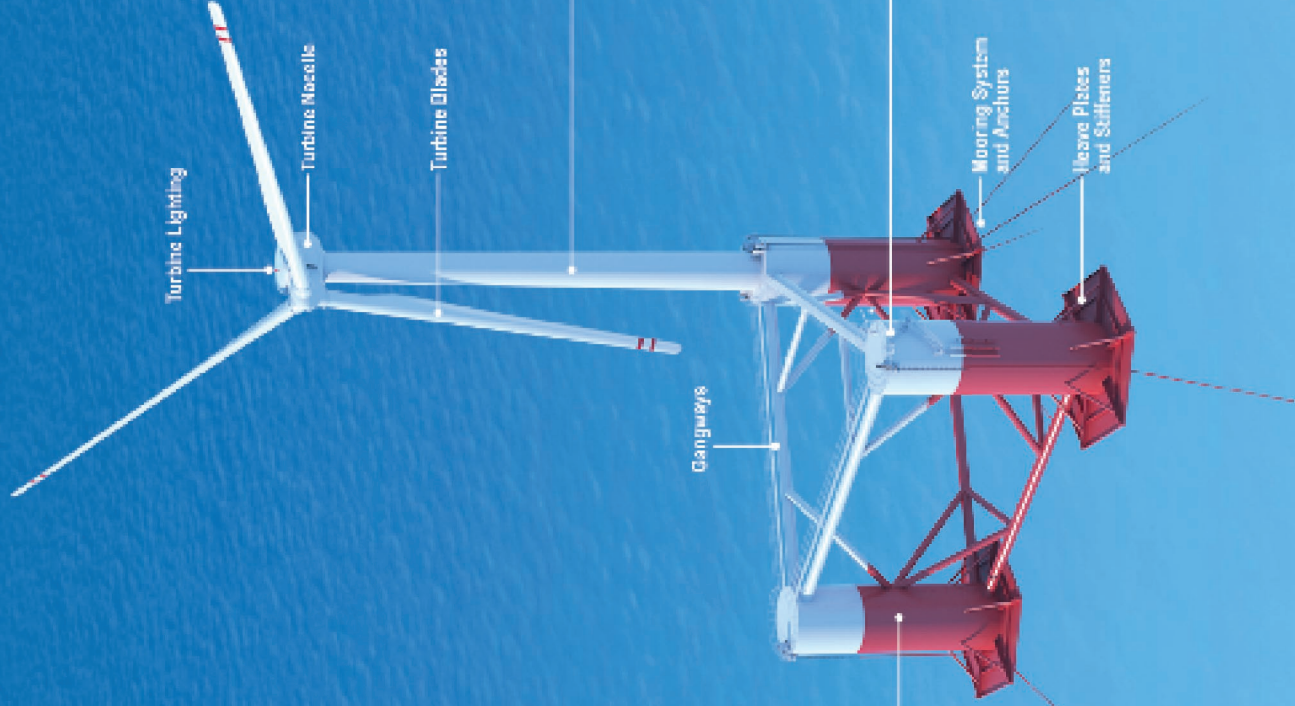
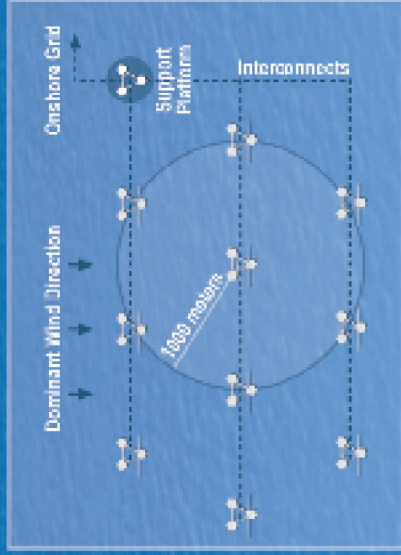
|                                  |  |
|----------------------------------|--|
| Power rating $\approx$ 5MW       | Displacement < 8000 ton                    |
| Rotor diameter $\approx$ 125 m   | Hull weight < 2500 ton                     |
| Turbine height $\approx$ 100 m   | Hull Draft $\approx$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



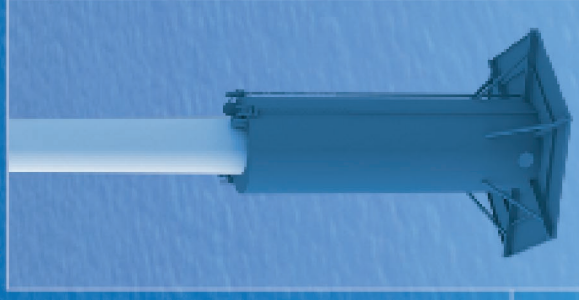
# PRINCIPLE

renewable energy delivered

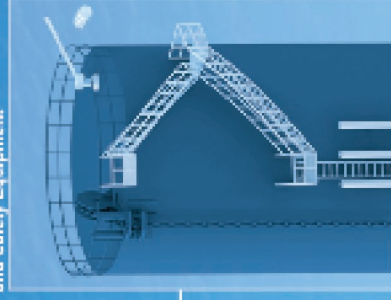
Wind Farm and Interconnect Layout



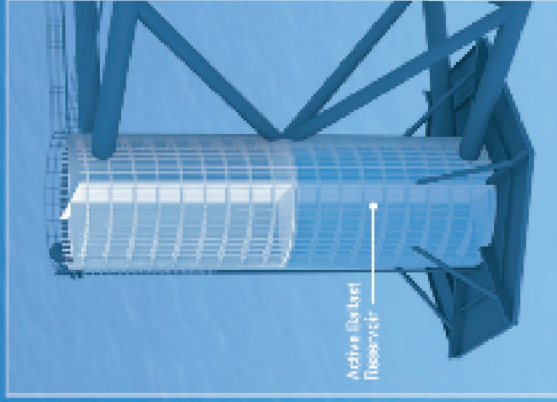
Integrated Column/Tower



Chair, Jacks, Boat Landing and Safety Equipment



Column Stabilization and Closed Loop Active Ballast System



Active Ballast Reservoir

