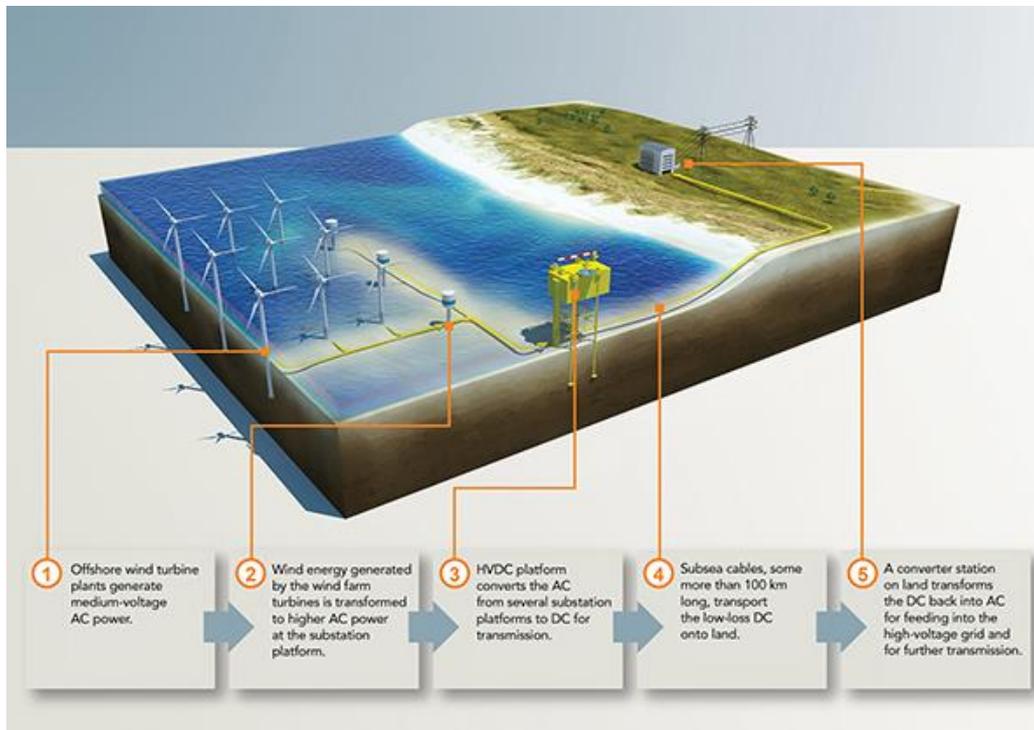


# Control strategy for HVDC connected Wind Power Plants for providing fast inertial response

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Extracted from:

<https://www.tdworld.com/renewables/article/20965023/germany-increases-role-of-offshore-wind>

Offshore wind power plants connected to the onshore grids via High Voltage Direct Current (HVDC) links have received widespread attention across the world. Typical arrangement of such a facility is shown in the figure. These installations offer numerous benefits in extracting green energy from wind. However, the loss of inertial response conventionally offered by large synchronous generators, is one of the drawbacks associated with these facilities that rely on power electronic converters for grid integration. Our goal is to design control strategies to provide grid inertial support by the HVDC connected offshore wind farms by combining and optimizing the energy stored in the HVDC dc-link, wind turbine rotor and energy storage systems.