

Coordinated converter-control and grid-protection for HVDC-connected offshore wind farms

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Extracted from:

<https://windeurope.org/newsroom/news/france-commits-to-40-gw-offshore-wind-by-2050/>

Recent years have witnessed the rapid growth of offshore wind power. However, integrating large-scale wind farms poses challenges due to the high-voltage direct current (HVDC) interconnection and the variability of wind power at both the individual wind farm and AC power collection grid. These challenges have significant impacts on the voltage and angle stability of the overall system, as well as its fault response behaviours. Moreover, the inverter-based offshore power system blurs the traditional distinction between control and protection. Our goal is to develop robust methodologies for integrating the grid protection and control of wind turbines and HVDC under diverse fault conditions.



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