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Control and Protection of HVDC-Connected Offshore Wind Power Plants

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Deadline for manuscript submissions:
closed (30 April 2020)

Message from the Guest Editors

Dear colleagues,

Novel control and design for the offshore HVDC network (e.g. OWPP design, HVDC converter technologies) would be adopted for the efficient deployment of offshore wind. The focus of this Special Issue includes (but is not limited to):

Control of HVDC-connected OWPPs:

- Parallel HVDC converters
- Cluster control of several OWPPs
- Grid forming OWPPs
- Stability and harmonic interactions

Protection of HVDC-based offshore networks:

- Symmetrical/asymmetrical offshore AC faults
- DC faults
- Protection schemes
- Field experiences

Long HVAC vs. HVDC transmission Interconnection of HVDC offshore:

- Multiterminal/meshed HVDC grids
- AC interconnections offshore

Novel HVDC connection technologies:

- Hybrid HVDC; e.g. VSC–LCC–DR (diode rectifier),
- MMCs (half bridge/full bridge/mixed arm/novel MMC)
- DC wind turbines/wind power plants

Grid services by HVDC-Connected OWPPs:

- Synthetic inertia and frequency support
- Black start
- Voltage/reactive power support

Grid code analysis and recommendations

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Message from the Editor-in-Chief

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