Special Issue

Control and Protection of HVDC-Connected Offshore Wind Power Plants

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

Guest Editors

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Deadline for manuscript submissions

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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