



Towards a Seamless Integration of DER in Power Systems: Future Prospects, Challenges and Solutions

Guest Editors:

Prof. Dr. Filipe Soares

Institute for Systems and Computing Engineering, Technology and Science (INESC TEC), Campus da Faculdade de Engenharia da Universidade do Porto, 4200-465 Porto, Portugal

Prof. Dr. Carlos Moreira

Faculty of Engineering of University of Porto (FEUP)/Institute for Systems and Computer Engineering of Porto (INESC TEC), Porto, Portugal

Dr. André Madureira

Group Leader - Sustainable Energy Systems, Luxembourg Institute of Science and Technology (LIST), 4362 Esch-sur-Alzette, Luxembourg

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Message from the Guest Editors

Dear Colleagues,

We are looking for original research that proposes, tests and validates new methodologies for future power systems' operation, planning and addresses:

- Transmission/distribution network operation and planning, considering technology adoption rates and the spatiotemporal uncertainty of DER behavior;
- Joint operation and planning of distribution and transmission networks;
- Predictive management and control of distribution and transmission networks with high shares of renewable energy;
- Strategies to improve system resilience in the face of increasing variability from renewable generation and consumption;
- Methodologies to exploit synergies between different energy networks (electricity, gas, district heating/cooling, transportation);
- DER participation in future electricity markets under uncertainty;
- Design of policy incentives to reduce uncertainty and optimize the spatiotemporal impacts of DER in power systems' operation and planning;
- Methods to foster consumer participation in flexibility services and to reduce uncertainty;
- Aggregated modeling of active distribution grids;
- Autonomous operation of clusters of microgrids.



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Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

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MDPI, Grosspeteranlage 5
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