



CALL FOR PAPERS

Journal of Modern Power Systems and Clean Energy

Special Section on Battery Energy Storage Systems for Net-zero Power Systems and Markets

Battery energy storage systems (BESSs) are becoming widespread worldwide thanks to fast technology progress and decreasing cost. Considering the development of new technologies for different power-to-energy ratios and engineering applications, BESSs could play a strategic role towards a net-zero energy future. In this regard, different opportunities are emerging for BESSs to participate in different markets and provide grid services, which allows development of new business cases, including in behind-the-meter applications and hybrid plants co-located with renewables.

This Special Section aims to address technical, economic, commercial, regulatory, and environmental aspects of the most recent developments in BESSs. Articles that deal with real-world applications and have industry co-authors are particularly welcome.

Topics of interest include:

- Different types of battery technology and their system-level impact on the grid and energy markets
- Technical and commercial performance of utility-scale and behind-the-meter batteries
- Role of utility-scale and behind-the-meter batteries for system decarbonization
- Modelling of and real-world experience with BESSs equipped with grid forming/grid following inverters, virtual synchronous machines, etc.
- BESS-based virtual power plants, “cloud” energy storage, and innovative storage aggregation and sharing models
- Community and neighbourhood batteries
- Role of batteries in microgrids
- Comparison of batteries with other forms of storage
- Techno-economic value of batteries in future markets: system services, capacity markets, etc.
- Role of BESSs in providing security, reliability and resilience
- Business models and real-world business cases
- Energy policy and regulatory aspects to unlock battery value

Submission Guidelines

The manuscripts could be submitted on <https://mc03.manuscriptcentral.com/mpce>

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