Optimal Control of Distributed Networked Energy Storage for Improved Small-Signal Stability

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- This poster presents a novel control system design using distributed energy storage to dampen inter-area modes.
- The ability to improve damping of inter-area oscillations is critical to maintaining safe and reliable grid operation.
- The control system uses real-time phasor measurement unit (PMU) signals for frequency feedback and energy storage systems for real power injection into the grid.
- The design can handle different energy storage sizes and asymmetrical network time delays.
- The poster concludes with simulation results and a discussion of the value proposition for this approach.
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