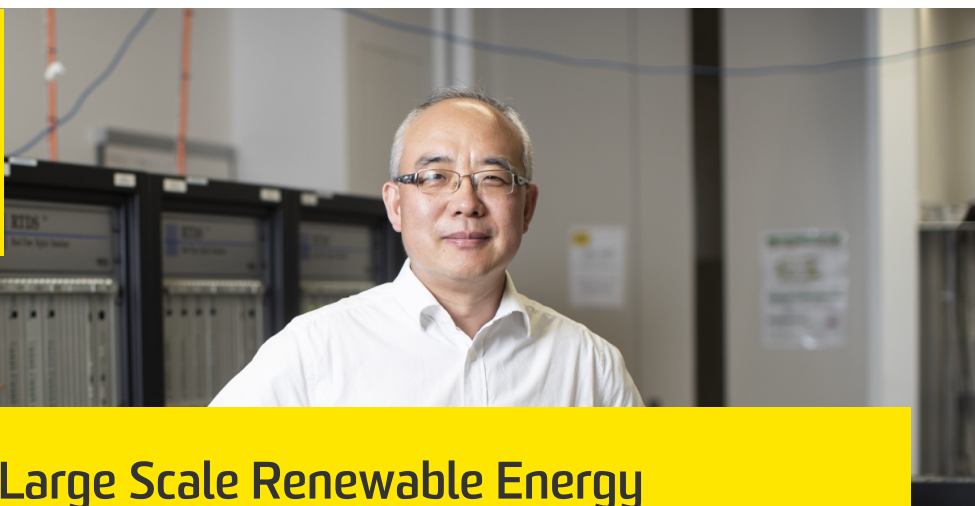




UNSW
SYDNEY



Battery Storage for Large Scale Renewable Energy Integration

Battery storage provides significant advantages for integrating intermittent renewable energy systems into the electricity grid. Battery storage has the potential to become standard in new renewable energy installations, increasing their competitiveness and greater deployment of renewables.

Competitive advantage

- Expertise in grid-integration of battery storage and renewable energy systems
- Experience in mitigating the stability impacts of intermittent renewable generation using battery storage—ensuring stable and reliable power is delivered to consumers, overcoming issues such as network congestion and potentially deferring network capital upgrades

Impact

- More reliable electricity networks with lower carbon emissions

Successful applications

- The Future Grid Research Program—a \$13 million research collaboration between CSIRO and four leading Australian universities that aims to develop Australia's capacity to plan and design an efficient and low emission electricity grid
- Grid planning and co-optimisation of electricity and gas networks
- Improved understanding of impacts of different loads, generation sources and energy storage on electricity system security

Capabilities and facilities

- Cross-platform modelling tools for grid studies of the impacts of loads, generation sources and energy storage on system security
- Energy and power research group with industrial standard software
- Grid planning and co-optimisation of electricity and gas networks
- Hardwa

More Information

Professor Joe Dong

School of Electrical Engineering and Telecommunications

T: +61 (0) 2 9385 4477

E: joe.dong@unsw.edu.au

UNSW Knowledge Exchange

knowledge.exchange@unsw.edu.au

www.capabilities.unsw.edu.au

+61(2) 9385 5008