

Energy and Environmental Markets is a Centre devoted to studying the challenges and opportunities of clean energy transition within market-oriented electricity industries. Key aspects of this transition are the integration of large-scale renewable technologies and distributed energy technologies (generation, storage and 'smart' loads) into the electricity industry.

Competitive advantage

- The Centre for Energy and Environmental Markets (CEEM) is unique in that it brings together experts across engineering, business, social sciences and law
- One of Australia's leading research groups on restructured electricity industries with more than a decade's experience delivering expert solutions on market design, regulatory arrangements and related policy framework development
- Extensive expertise in electricity market and distributed energy modelling, data science applications to energy problems and the development of open source tools

Impact

 Increase the understanding of the role of storage in the transition of electricity systems and markets to integrating high penetration renewable energy, both centralised and distributed.

More Information

Dr Anna Bruce

Centre for Energy and Environmental Markets (CEEM)

School of Electrical Engineering and Telecommunications

T: +61 (0) 2 9385 5155 E: a.bruce@unsw.edu.au

Dr Rob Passey

School of Photovoltaic and Renewable Energy Engineering

T: +61 (0) 2 6688 4384 E: r.passey@unsw.edu.au

UNSW Knowledge Exchange knowledge.exchange@unsw.edu.au

www.capabilities.unsw.edu.au

+61(2)93855008

Successful applications

- Open source tools including market dispatch, tariff design and distributed energy sharing and aggregation models
- Interdisciplinary frameworks for policy, market and regulatory assessment and design
- Analysis of impacts and value of storage and demand response on networks and power systems, over a range of timeframes
- Assessment of the potential and value of storage and demand response for integration of variable renewable energy

Capabilities and facilities

- High performance computing
- Access to the National Computational Infrastructure, Canberra