



UNSW
SYDNEY



Virtual Power Plant Assessment

Assessing Virtual Power Plant (VPP) hardware and online optimisation strategies, and the potential that these systems can play in the energy transition and subsequent electrification of energy use.

Competitive advantage

- Leading expertise in hardware-in-the-loop testing and assessment of virtual power plant systems
- Skills in assessing performance improvements in both technical and economic terms
- Rapid modelling and simulation capability

Impact

- Comparison of peak loads with and without VPP control
- De-risk investments and threats to assets from VPP aggregation
- Avoidance of large-scale disruption to VPP based on inverter performances

Successful applications

- Sungrow: control and power hardware-in-the-loop

Capabilities and facilities

- Access to state-of-the-art experimental facilities including:
- 10kVA experimental DC microgrid with diverse set of loads and generators
- 18-rack RTDS capable of modelling distribution and transmission networks
- OPAL-RT real-time simulator

Our partners

- Sungrow
- Hi-Vis Group
- A. W. Tyree Foundation

More Information

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