



UNSW
SYDNEY



Hardware Assessment of Virtual Power Plant Equipment

Using real-time simulation and testing expertise to assess the potential for maloperation of Virtual Power Plant (VPP) hardware, including inverter disconnections, communication system failures and energy swings between competing VPP operators.

Competitive advantage

- Unique database of inverter behaviours and disturbance reactions
- Innovative models verified through experimental assessment
- Leading expertise in hardware-in-the-loop testing and assessment of virtual power plants
- Rapid modelling and simulation capability

Impact

- De-risk VPP investments and optimise VPP performance
- Proof of concept hardware and software assessment

Successful outcomes

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

Capabilities and facilities

- Access to state-of-the-art experimental facilities including:
- A fleet of current inverter makes and models
- 18-rack RTDS capable of modelling VPP systems
- OPAL-RT real-time simulator for high-resolution simulations

Our partners

- Sungrow
- A. W. Tyree Foundation

More Information

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