# 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

Dr Georgios Konstantinou, Dr Branislav Hredzak, Professor John Fletcher

School of Electrical Engineering and Telecommunications

T: +61 (0) 2 9385 6007
E: john.fletcher@unsw.edu.au

UNSW Knowledge Exchange

knowledge.exchange@unsw.edu.au

www.capabilities.unsw.edu.au

+61 (2) 9385 5008