



**UNSW**  
SYDNEY

## Fault Ride Through Testing Facility to Support Grid Stability

**A facility to test the ability of non-synchronous power plants to maintain continuous uninterrupted operation when a power system is subjected to a voltage disturbance. This is a fundamental requirement to maintain system security and prevent wider frequency collapse.**

### Competitive advantage

- Full suite of low voltage ride-through (LVRT) and high voltage ride-through (HVRT) testing services
- Ability to simulate different depths of voltage dips and rises, ranging from 0% to 140% with a step of 1% of the rated voltage, lasting from 1000 ms to 3000 ms
- Ability to simulate different grid faults, including line to line (L-L), double line to ground (LL-G), and line to line to line (L-L-L)
- Test generating plants up to 8 MVA in grids and up to 40 kV system
- Compliance with the IEC6400-21

### Impact

- Validate simulation model against onsite test in R2 test
- Demonstrate fault ride through performance on site
- Support grid stability and improve security of supply
- Full-scale field testing with no adverse impact on the network

### Successful outcomes

- Successfully commissioned 30 LVRT tests on 10 different wind turbines

### Our partners

- Goldwind
- DNV GL

### More Information

Dr Ke Meng

School of Electrical Engineering and Telecommunications

T: +61 (0) 2 9385 6649

E: [ke.meng@unsw.edu.au](mailto:ke.meng@unsw.edu.au)

Professor Joe Dong

School of Electrical Engineering and Telecommunications

T: +61 (0) 2 9385 4477

E: [joe.dong@unsw.edu.au](mailto:joe.dong@unsw.edu.au)

UNSW Knowledge Exchange

[knowledge.exchange@unsw.edu.au](mailto:knowledge.exchange@unsw.edu.au)

[www.capabilities.unsw.edu.au](http://www.capabilities.unsw.edu.au)

+61(2) 9385 5008