Microgrid Inverter Technologies

The development of innovative inverter control techniques that improve the overall response of microgrids during both normal operation and grid disturbances.

Competitive advantage

- Pioneering inverter control schemes that enhance the reliability and resilience of microgrids, and are suitable for a wide range of load types

Impact

- Microgrids can support the utilisation of existing renewable resources, as well as the integration of distributed generation. Keeping them available helps improve the reliability of supply and reduces both cost and risk
- Being suitable to use with small-scale microgrids and portable, mobile systems, makes these technologies suitable for use in disaster relief and other rapid deployment needs

Successful outcomes

- The inverter control technology is currently under review by LECO, the electrical distribution operator in Colombo, Sri Lanka

Capabilities and facilities

- A state-of-the-art inverter and microgrid test platform that can be used to experimentally verify inverter control techniques including grid simulators, load emulation, feeder impedances, rotational generation and loads

Our partners

- The A. W. Tyree Foundation
- Australian Research Council
- AEMO
- ARENA
- Empower
- Sungrow

More Information

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