Microgrid Demonstration Initiative

SwitchDin – Birchip Cropping Group Microgrid Demonstration

The facts
Project name: Birchip Cropping Group Microgrid
Project lead: SwitchDin Pty Ltd
Project partners: Walnut Energy Systems, Birchip Cropping Group (BCG)
Project status: Complete

Project description
A microgrid based on solar photovoltaics (PV) and batteries has been installed at Birchip Cropping Group’s agricultural research facility.

The project provides a working demonstration of microgrid technology and its ability to lower energy costs and improve energy reliability for the region’s farmers.

Project Particulars

Grid Interactions

• Solar PV: 51.3kW
• Lithium-ion battery storage: 68kW / 137kWh
• Birchip Cropping Group
• SwitchDin EMS

Islanding capabilities
Electricity export to the grid

Project outcomes

► Demonstrate the ability of a microgrid to disconnect and reconnect to the main electricity network.
► Share knowledge with the local community on the performance of the system and potential for these technologies to be used for farming applications.
► Islanding capability during power outages, allowing BCG to continue serving its member base of > 400.

Sector benefits

► Significant replicability potential for other farms, facilities and businesses in rural areas.
► Demonstrates the viability of microgrid technologies for constrained edge of grid locations.
► Potential to provide local services to the Distribution Network Service Provider.

Contact

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For more information on the Microgrid Demonstration Initiative contact microgrid@delwp.vic.gov.au or visit energy.vic.gov.au/microgrids