

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

	<ul style="list-style-type: none">Solar PV: 51.3kW
	<ul style="list-style-type: none">Lithium-ion battery storage: 68kW / 137kWh
	<ul style="list-style-type: none">Birchip Cropping Group
	<ul style="list-style-type: none">SwitchDin EMS

Grid Interactions



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.



Figure 1 – Birchip Cropping Group solar installation.

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.



Figure 2 – Birchip Cropping Group research site.

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