

# Automating fixed sprays to maximise solar energy utilisation

AGRICULTURE VICTORIA



## The Sustainable Irrigation Program (SIP) has recently run several irrigation demonstration projects to showcase innovative practices and technologies.

Wilandra farms automated 22ha of fixed irrigation sprays. The automation programming maximises the solar usage by matching available energy to spray operation, whilst also scheduling irrigation sections, all automatically.

### Key results:

- 22ha irrigated effectively with 95% solar power
- Increased pasture growth compared to previous system
- Zero labour requirement to irrigate.



The AEI "SmartBox" and variable speed drives that run Wilandra Farm's fixed spray irrigation



Wilco Droppert and Sandra Jefford with the solar array that runs their fixed spray irrigation

**'The system has a 'brain' constantly making clever decisions, ensuring our irrigation requirements are met while maximising solar usage.'**

**-Sandra Jefford**

### Other learnings:

- Maximising solar usage requires many smaller energy loads and some variable loads
- Current solar array would allow significant expansion of the fixed spray irrigation system.

**'It is a dream to use, it has been so effective we are already looking to expand the footprint of the spray system.'**

**-Wilco Droppert**

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