

Gawler Ranges National Park

ENERGY STORAGE CASE STUDIES

Installer

Hankins Electrical

Location

Gawler Ranges
National Park-
Paney Station, SA

Application

Off-Grid

Upgraded System Size

22.2kW Solar PV,
130kWh usable
battery storage
Single Phase

Battery storage

40 x ECO4840
48VDC Battery
Modules

Solar panels

60x 370W Suntech
Solar Modules

Inverters

2.x 7.5kW
Selectronic SP Pro
SPMC482-AU
Battery Inverters
in Powerchain

Providing reliable power for an historic, conservation and cultural SA National Park covering 1,633km².

Originally a Pastoral lease, Paney Station was sold to the South Australian Government in 2000, becoming today the Gawlers Ranges National Park. Given the size of the land with the closest town, Wudinna being about an 1hr away, an Off Grid system was installed at the time to power residences for rangers, a Parks Office and two sheds. A separate Off-Grid system also exists for a shearing shed and living quarters reserved for contractors when working on site.

About 20 years old, the original system consisting of 6kW of 80W BP Solar panels on 4 separate moving trackers, and a 10kW RAPS10-108-1 Power Solutions Australia inverter, Solar controller, 3kW Wind turbine and 54 2VA602/1700 Sonnenschien batteries (taking up a lot of space) was having troubles. With regular maintenance not being a viable option, Hankins Electrical was approached to upgrade the system, designing for around 60kWh daily usage, max 13kW peak power with 3 days autonomy and future proofing.

Current power needs include sheds drawing a significant amount to power, due to bait fridges storing reserves for feral animals and air cons in every building keeping working environments comfortable in a hot region.

A 40kW generator installed for back up, will rarely be used but with 3 days autonomy, the generator is designed to come on after 3 horrible cloudy days in a row during winter, or once a month with a programmed hourly run.



Photos and information courtesy of Hankins Electrical