

Renewable Energy and Environmentally Sustainable Design Case Studies

Point Nepean National Park - RAPS

Site:

Fort Nepean, Mornington Peninsula, Victoria

Dates:

- System Design: March 2011
- System Installation: December 2011
- System Commissioned: January 2012

Client:

Parks Victoria

Project Goals:

Design, supply and install a Remote Area Power System (RAPS) for a public toilet block, a water pump, lighting in the old military tunnels, public address and background music system, and for future multi-media equipment.

Project Features:

- Roof-mounted photovoltaic array consisting of 12 x 235W Schott Polly Solar PV Panels.
- 24 x 2V 1700Ah Sonnenschien Batteries.
- SP Pro 4kW 48V Inverter.
- Complete system documentation including maintenance schedule and log sheets.
- System size: 2820 W
- Estimated Energy Output = 7kWh/day

System located in a coastal area so all components are marine grade, including stainless steel cabinets for the batteries and inverter. The area is heritage listed so special care had to be taken with the design and installation.

Project Team:

- Narayan Kafle, System Designer, Going Solar
- Duncan Macgregor, Lead Installer, Going Solar
- Mark Colwell, Installer, Going Solar
- Andy Savage, Installer, Going Solar
- Glenn Robertson, Electrical Contractor

Further Information:

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View from the Site



PV Panels on Roof



Earthing



Detail of Earthing

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Inverter Cabinet (outer door open)



Inverter Cabinet and Fuses



Detail of Shunts



Control Room – Battery Bank on left, Inverter Cabinet at right, Generator at the back



Battery Bank with battery cabinet lid open. Note the safety signage.