

# Living Off-Grid

Riding The Trail To Sustainable Living

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# Welcome to Kambarang

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- Rural property 50 km from Bunbury and 20 km from Donnybrook
- House, Cabin and Bike workshop all powered by off grid systems (power, water and waste)
- Eco-tourism from mountain biking, bicycle mechanic training and cabin rental
- Unpowered bush block when purchased in 1993
- Kambarang is the Noongar word for the wildflower season of around October/November when the orchids are at their peak





# The Cabin

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# Establishment of Energy Supply

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- High cost of Headworks ~ 1.2 km from local network would have cost approx. \$80,000 plus significant trenching costs if underground
- Undergrounding very difficult on Darling Scarp (Note: Ausnet Victoria estimates approx. \$791,000 per km for undergrounding in Victoria)
- No desire to clear bushland and maintain corridor – high bushfire risk from Poles and Wires
- No desire to maintain powerlines on own property – even more so for neighbouring SPS sites with farming equipment (i.e. tractors)
- Remote Power Generation Scheme grant funding available for contribution to SPS



# Stand-Alone Systems

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- Small-scale system on House – 2.3 kW of PV and 49.2 kWh of Lead Acid batteries
- Very small-scale system on cabin
- No diesel generator backup on either
- Does not replicate Grid Supply in terms of instantaneous and ongoing capacity.....however we have only ever had 1 outage in 10 years!
- Behaviour change and passive solar house design become key





# Embracing Technology

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- No power bills – but no customer protections beyond Australian Consumer Law (i.e. if something breaks, we are on our own beyond normal warranties etc) and at some point an investment in new batteries will be required
- Inverter-connected monitoring system allows for understanding of power levels
- Reduced electricity use is a typical by-product of being on an SPS – naturally more “connected” to your supply when its decentralised
- Electric powered roof sprinklers – can switch on remotely via a mobile app
- AirBnB for Cabin rental – huge interest in EcoTourism and off-grid living holidays



# The House

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# Advice to Policy Makers

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- Off Grid living is now about taking customer energy supply into the future
- Greater connection to energy supply means people can change behaviour and save money (if they want to)
- Poles and Wires installed in the 1960s and 1970s now need to be replaced – customers in the bush want reliable supply, easier maintenance and lower bushfire risk
- State and Federal governments have lacked real leadership on Renewables
- Time to change the rules to deliver SPS to existing customers where cheaper than poles and wires replacement

# Come and stay in the Cabin!

<http://www.cycletrek.com.au/>

