BACK-UP PROTECTION

LONE PINE KOALA SANCTUARY

"Lone Pine's 'Koala BioBank' is a 1500-litre, ultra-low temperature, collaborative repository dedicated to the long-term archival storage of koala tissue samples. By powering the Biobank with Tesla Powerwall, it means that the integrity of these invaluable, biological samples is maintained even in the event of power failure."
Joanna Horsfall, Research Coordinator, Lone Pine Sanctuary

OPPORTUNITY

Lone Pine Koala Sanctuary in Brisbane, Queensland, is home to a state-of-the-art scientific research centre specifically designed to focus on genetic and environmental threats to koala populations. An integral part of this research facility is a series of repositories housing sensitive koala tissue samples. These tissue samples require uninterrupted exposure to ultra low temperatures for preservation. Prone to frequent grid outages, the facility can be left without power for extended periods of time. This poses a serious operational risk to the research centre, specifically its two tissue repositories. If the fridges are without power for too long, the tissue can be exposed to unregulated temperatures and begin to degrade, rendering them unusable for any future research.

SOLUTION

To mitigate these regular outages, Lone Pine paired a 92.6 kW solar array with 3 x 13.5 kWh Tesla Powerwalls. Each Powerwall was installed with a reserve of 50% specifically for back-up, while the other 50% helps off-set the research facilities power use through solar self-consumption. With back-up enabled, Powerwall is able to detect a power outage, disconnect from the grid, and seamlessly discharge power back to the research facility in under a fraction of a second. The quick and reliable back-up power means the facility equipment is completely uninterrupted by outages, keeping the repositories fully operational.

RESULTS

With solar and Powerwall, Lone Pine Koala Sanctuary's repositories are seamlessly powered during a grid outage. Even during periods of limited PV generation, the 50% reserve on each Powerwall can provide back-up to the Koala BioBanks for 24 hours, allowing Lone Pine's facilities and repositories to continue operating.

Customer
Lone Pine Koala Sanctuary

Location
Fig Tree Pocket, Brisbane

Solar size
92.6 kW

Powerwall size
3 x 13.5 kWh

Applications
Back-up
Solar Self Consumption

Commissioned
July 2018

TESLA POWERWALL CERTIFIED INSTALLER

NEON SOLAR SYSTEMS

Offices in Carrum Downs VIC & North Manly VIC
P:1300 899 256 W: www.neonsolar.com.au