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Environmentally Rugged Solar-Electric Power Supply

New technology delivering the highest environmental survivability to photovoltaic (PV) power systems by reducing the impact of wind loads and heat stress.

Competitive advantage

- PV platforms provide silent sustained energy to support the power-intensive electronics of modern equipment in isolated locations
- The energy yield of tracking PV technology is 40% higher per unit area than ideally orientated fixed PV systems. Off-the-shelf concentrating-PV (c-PV) modules (using multi-junction technology) outperform the highest efficiency PV modules by 50% when facing the sun
- The environmental survivability of the rugged c-PV system is enhanced by Double-Layer Orthogonal Offset Platform (DLOOP) technology which sheds up to 30% of the wind load on platforms and thermal stress from PV modules
- Development of DLOOP platforms integrating c-PV modules promise twice the power per unit area of the best fixed single silicon modules while compatible with field deployment requirements: featuring unfolding hinged sections with elevation control from a road tractable trailer mount
- Patented DLOOP technology

Impact

- Supply chain facilitated by autonomous electric power to outposts delivered by the sun
- A rugged PV power system with maximised environmental survivability

Capabilities and facilities

- Modern prototype machine workshop managed by PEMS.
- Central warehousing and integration facility of 600m² located in Queanbeyan, NSW

More Information

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