METS IGNITED & QUANTUMTX PROGRAM CASE STUDY

Innovative Energy Solutions

We are specialists at increasing efficiency rates and power reliability for power critical infrastructure, mine production, commercial agriculture, and regional towns. The team at METS Ignited and Atomic Sky have helped with innovation solutions that add digital components to the solar panel cleaner, as well as introducing capital raising alternatives which resulted in a significant investment into the business." Dave Alexander, Managing Director

Innovative Energy Solutions (IES) are a proudly Australian owned and operated provider of industrial electrical contracting, manufacturing, and maintenance solutions and market leading industrial energy solution provider to the resources industry.

The IES Autonomous Solar Cleaner is in place at numerous sites, improving the power generation output and longevity of solar installations.

Since 2008, IES has provided a vast array of expert services to the mining, resources, construction, agriculture, and energy sectors and specialise in major energy infrastructure projects and electrical installations and services.

Innovative Energy SOLUTIONS

The QuantumTX METS Program

"Participating in the METS Ignited QuantumTX Program has led us to insights and introductions into other States and potential export markets and an understanding of the needs of other sectors, with industrial level solar installations in high soiling locations as well as how to tackle building an export plan and how to move forward internationally. From those introductions we have now entered a R&D partnership with a leading Australian University, site trials with several clients on the East Coast and raised capital for product innovation in sensing and AI.

In addition, QuantumTX provided help connecting our apprentice development program to industry networks and was instrumental in our success sourcing additional indigenous and female staff into the business."

IES's key services include:

- Industrial electrical construction, project management and maintenance.
- Control systems, industrial instrumentation, and digital communications; and
- Solar PV efficiency and autonomous cleaning robotics systems.

IES Autonomous Solar Cleaner

Mine environments are subject to high levels of panel soiling which causes 30-50% loss of energy generation. Soiling from wind and salt, proximity to dust intensive infrastructure such as trains, pits and crushers, and watermark staining from dried rainfall greatly decrease the effectiveness of solar generated power to sites, with a flow-on impact to autonomous vehicles using solar-powered comms infrastructure.

Maximizing output from solar panels through automated cleaning machines also removes the need for labor-intensive manual cleaning, which is logistically challenging, costly, and inefficient.

The IES Autonomous Solar Cleaning Robot is Australia's first automated solar panel cleaner and has been tried and tested at numerous production sites in the WA Pilbara.

The cleaner increases solar panel and battery longevity, reducing the need to replace panels/batteries and the waterless solution cleans the panels, removing the dirt, salt, rain-stains, and debris with no damage to the panel.

Features designed for remote sites include network or timed running options, an inbuilt battery, self-charging, dust monitoring, and the ability to activate digital reporting.

Innovative Energy Solutions has a deep pedigree supporting remote sites in the resources industry and the IES solar cleaning solutions have been designed for reliability in any large industrial operation that has solar generation at site.

A commitment to innovation and clean energy with the development of dedicated solutions, IES have improved their clients' energy returns, reduced their costs, and benefitted the environment.