Trusted Solar Harvesting
Securing the Smart Energy Ecosystem

Innovation Protecting Investments

A Growing Market needing Security

Solar power is a specific growing sector of the smart energy market and is part of a new smart grid ecosystem based on the Internet of Things (IoT). 2 billion solar panels could be in service by 2020, rising to nearly 20 billion by 2050. However, researchers have started to uncover worrying security flaws within existing renewable systems which hackers can exploit for fraudulent or disruptive purposes.

Trusted Renewables Innovation

We have invented the smart solar panel. This contains an embedded smart chip and M2M communications circuits which link them to an IoT smart energy ecosystem.

Secure applications running on each chip allow energy trading using "smart contracts", and validate renewable energy payments with "certificates of origin".

Individual panels can be grouped into a "solar garden" where investors receive tradable rights to be rewarded for the renewable energy produced by "their" panels. Future electricity grids will contain many of these smart edge-of-network IoT objects running new, well-supported smart applications.

Providing Trust with MULTOS

The smart chip resists cyber-attacks and provides the IoT "trust anchor" needed to protect the solar panel devices and services. Trusted Renewables joined the MULTOS Consortium in 2017, and leverages the industry backed and highly secure MULTOS device technology. MULTOS has been at the heart of the smartcard industry for 20 years, and over 1 billion secure MULTOS smartcards and devices have been shipped. It is industry renowned as the premier standard of security and quality, and has obtained the highest band of security approval, the Common Criteria EAL7 certification.

MULTOS secure microcontrollers are now protecting connected and IoT devices, ensuring that their identity, data and services are secure.

MULTOS
IoT Trust Anchor

TRUSTED RENEWABLES

MULTOS