# AUSTRALIA SOLAR SCHOOLS - TBOX RTU's



# THE CHALLENGE

The Australian Government provided funding for schools to install solar panels, primarily for education purposes. The panels were connected to each schools' power supply, reducing emissions, but also connected to a cloud based monitoring system, to enable access to data for both students and the local community. TBox RTU's were approved as one of the data collection devices, and installed at 200 sites.

One of the most important steps that a government can take in ensuring a bright and successful future for our children is to educate them. In Australia, the federal government decided to include environmental responsibility as part of the education process, providing schools with grants for solar PV systems, solar hot water systems and rain-water storage so that students could be exposed to and educated on green activities.

Each solar system was connected to the school's main power grid to provide green power to the school and reduce the school's carbon footprint. In an audit by the Australian Auditor General, it was estimated that the project will deliver 300,000 tonnes of CO2 abatement over its lifetime.

### THE SOLUTION

TBox RTU's are designed with a high degree of flexibility so that they can collect data from multiple sources, and share that data with multiple recipients. In the Solar for Schools programme, the government, the students, the school and the community could all review published data, each with their own interest in what was provided:

- The government needed to track the emission reduction
- The school needed to monitor the continued safe operation of the equipment
- The students were engaged in learning how solar panels supplanted their energy needs, even on cloudy days, and offset the production of CO<sub>2</sub>
- The community were able to share in the learning experience as well as study the effectiveness of solar panels in their locality











## SUCCESS

Each user of the system has a different need for a different data set, and often needs the data presented in a different way. TBox RTU's are ideal for collating data from many sources, analysing the available information and reporting results to multiple sources in multiple formats, satisfying multiple parties concurrently. The TBox is a complete SCADA system in a single site controller.

#### KEY DELIVERIBLES

- Real Time monitoring and control of power generation
- Secure access to data by novice users
- Provided all stakeholders with the data they required
- Single device for all logging, comms, alarming I/O and local data presentation



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