Multi-inverter control in the public sector

The Problem

As part of train station upgrade projects, the Public Transport Authority of Western Australia required the solar inverter fault code status and inverter/grid fault to be flagged to their on-site SCADA. The brief also called for reliable solar monitoring across three geographically separated sites. Off-the-shelf PV loggers could not handle multi-inverter coordination or speak to the required SCADA protocols.

Our Solution

ZECO engineers created a customised solution involving capture of inverter fault codes and flagging them to a potential-free contact across SCADA sensor. This further involved Marshall hardware, creating a local network and connecting MODBUS relay to the above network, to which inverters were also connected. With flagging of loss of grid connection to the inverters, a unique solution was developed involving three-phase, phase detection relay and associated parameters.

Outcome

Marshall was the only system which was able to deliver on the highest level requirements of the Transport Authority. The solution was delivered in full within other project targets to ensure no operational delays.