



Location:
Makinohara, Shizuoka, Japan



System Size:
76.16kW



Tigo Products:
254 TS4-R-O's, 18 TS4-R-M's,
4 Gateways, and 6 Cloud
Connect Advanced



Owner and Installer:
WQ Inc.



Modules:
272 REC Solar 280W



Inverter:
5 Delta 9.9kW



A view of the 76.16kW ground-mount system with 272 modules.

Summary

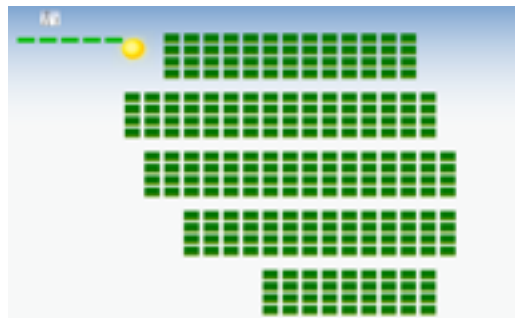
This commercial site is the first Tigo Cloud Connect Advanced (CCA) installation in Japan. WQ Inc., the installer and owner of this site, sells TS4 optimizers as a Tigo product dealer. When this ground-mount became available for a 76.16kW system, Tigo's CCA was chosen to help collect and transmit production data for real-time analysis. Like all Tigo's CCA is a brand-agnostic datalogger and can support almost all world-wide inverter- and module-types.

The Challenge

After the 272 Tigo TS4-R-O's were installed, WQ Inc. noticed specific modules suffering from consistent shading in the morning and early afternoon by nearby trees and an electrical pole. With only 272 modules ranked at 280W on a 76.16kW system, shading on even a dozen panels will have a significant impact on the entire system's power production.

The Solution

The solution to the shading threat was to replace the affected 18 modules with TS4-R-M's, the simpler monitoring version of Tigo's TS4 junction box covers. This downgrade will allow the remaining 254 TS4-R-O's to continue to enhance energy yield, maximize roof usage, and increase shade tolerance. Plus, with the use of 6 CCA's, WQ Inc. will enjoy a greater analysis of production data from their Tigo-customized system.



Tigo TS4-R-O and TS4-R-M optimizers were installed on the back of each module.



Shade from nearby trees and an electrical pole was mitigated with the addition of 18 TS4-R-M's