

Background

This 59 kW ground mount system was installed in 2016 but was experiencing energy production loss due to mismatch and shade from nearby trees. There is a forest to the southeast of the system, and in the morning its shadow casts on the modules, reducing the output of the whole array.

These ground mount systems are common in Japan where the energy generated by the array is sold to the power company under a Feed In Tariff. The Feed In Tariff makes every kilowatt hour produced very valuable.

The solution:

In 2020, the owner decided to retrofit the modules with Tigo TS4-A-O optimizers in order to mitigate the impact of shade on the array. Tigo TS4's



Module level data seen via Tigo monitoring.

could be added to the existing site, and worked with the modules and inverters that were already on the site. The site used Astronergy CHSM6610P-260 (260W) modules and 4 Omron KP44M and 5 Omron KP55M inverters.

Since installing the Tigo optimizers, site energy production has increased substantially. The increased performance can be viewed in Tigo Energy Intelligence

monitoring, which shows module level performance as well as Reclaimed Energy for each module.

Summary

Site capacity: 59 kW

Modules: Astronergy CHSM6610P-260 (260W)

4 Omron KP44M and 5 Omron KP55M inverters

Tigo TS4-A-O optimizers

CUSTOMER TYPE

Commercial ground mount

LOCATION
Saitama, Japan



FEATURES

Optimization Monitoring Safety (rapid shutdown)



TIGO EQUIPMENT

Tigo TS4-A-O

Cloud Connect Advanced

Tigo Access Point

