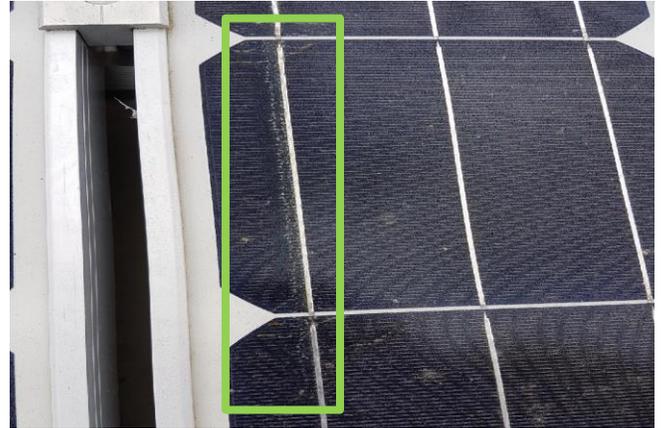




Case Study: Detecting Earth Faults with Module-level Monitoring

Customer found visible damage on a module after receiving a "String Shutdown Alert" from Tigo.

Tigo Products:	80 Tigo Smart Module JBoxes 2 Gateways 1 Maximizer Management Unit (MMU)* <i>*now known as Cloud Connect Advanced</i>
Modules:	80 Upsolar M250MT
Inverters:	Fronius IG Plus 150 V-3 Fronius IG Plus 100 V-3
Location:	Bandiana, Victoria, Australia
System Size:	20kW
Customer:	PSE Communication and Electrical



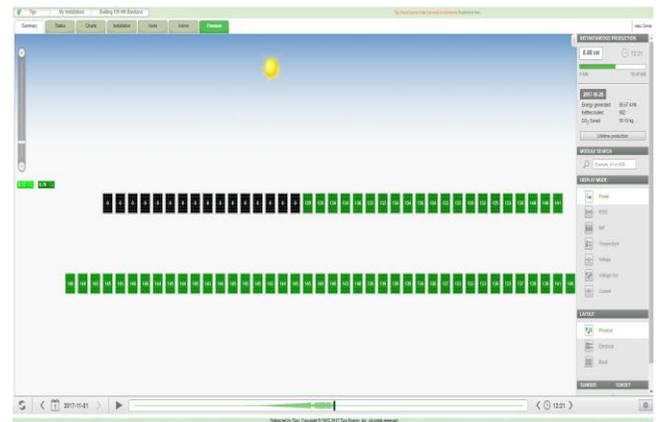
Visible cell damage on the module with an Earth Fault was easily detected with Tigo's module-level monitoring.

Summary

Brandiana's secure government building in Victoria, Australia requires full time monitoring to ensure constant energy production. The building's PV system uses Tigo's monitoring technology to track production data 24 hours a day.

The customer responsible for monitoring this system received an automatic "String Shutdown Alert" from Tigo's SMART website. With one simple check on the monitoring portal, he found the specific module where the Earth Fault had occurred.

Tigo's innovative monitoring technology is designed to reduce operational and maintenance costs by remotely detecting and diagnosing performance issues. This fleet management capability also allows technicians to fix problems in a single truck roll with the right person with the right skills, equipment, and tools to service the site.



Tigo's SMART website shows an immediate "String Shutdown Alert" affecting 16 modules.

The Challenge

Without module-level monitoring, PV system owners are often not aware when or where performance issues occur. Once the issue is eventually identified, technicians must test every individual module on every string until the faulty module is identified. Testing takes time, human resources, and O&M funds which is extra difficult when scheduling maintenance during restricted government hours.

The Solution

With the full deployment of Tigo's Smart Module JBoxes on each module, Victoria's secured government buildings can confidently maintain a constant power source. Now, replacing the faulty module will be simple. With Tigo, there is no problem operating a system of old and new modules because all the modules are integrated and can therefore compensate for the subtle voltage and current variances between the old and new modules.