



THE NEW

Self⚡Powered Plus

The solution that offers the
highest availability in the market





We have reinvented the self-powered technology

With an upgraded solution to increase
the solar production availability while
reducing CAPEX and simplifying
installation.

We did it, again

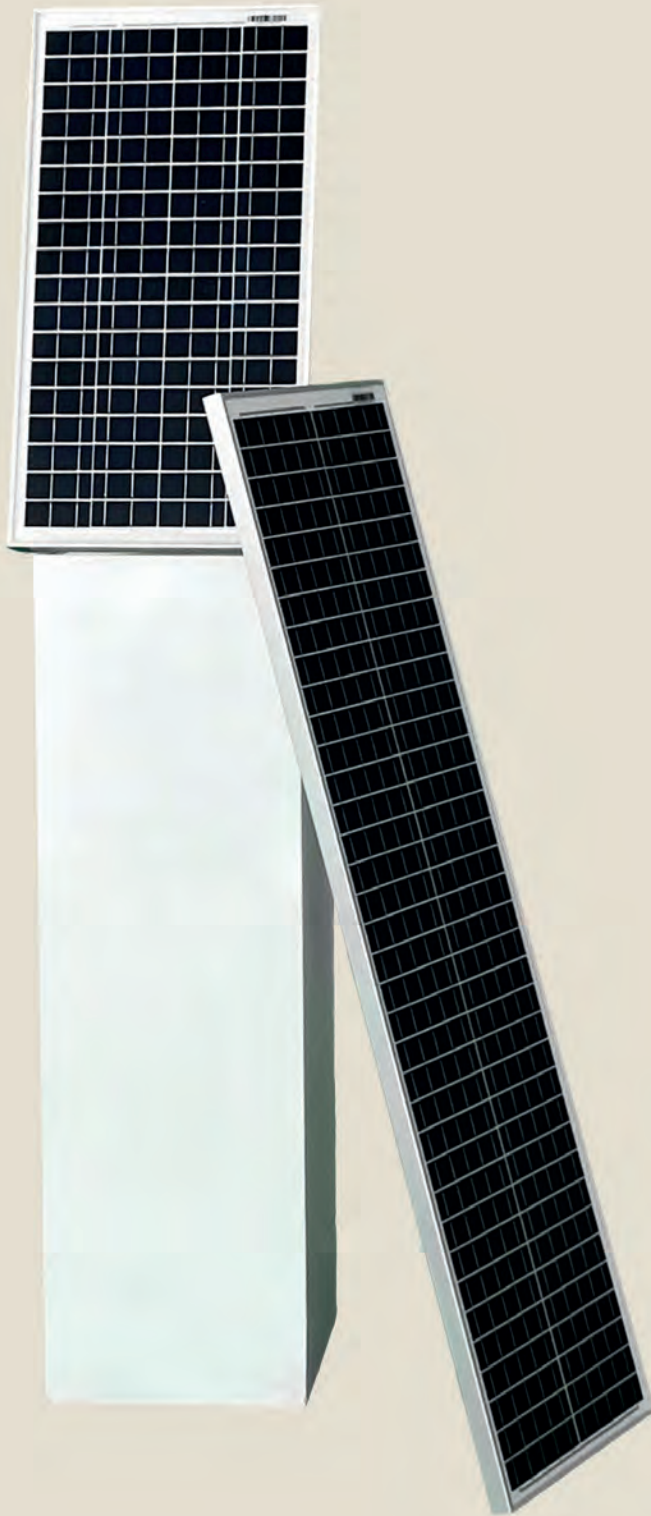
Discover the new family of breakthrough devices that will shake the Solar PV industry offering the **highest availability in the market.**

+innovation

+availability

-costs

-maintenance



Classic (& outdated) approach

Traditional solutions employ a small pony-panel to provide primary power and recharge the internal battery of the Tracker Control Unit (TCU).

This configuration requires the installation of an additional PV module, which increases assembly time in the field, and also uses valuable space on the tracker surface. But even more importantly, under low-irradiance conditions, this implementation can result in insufficient power availability to keep the battery properly charged throughout the day.

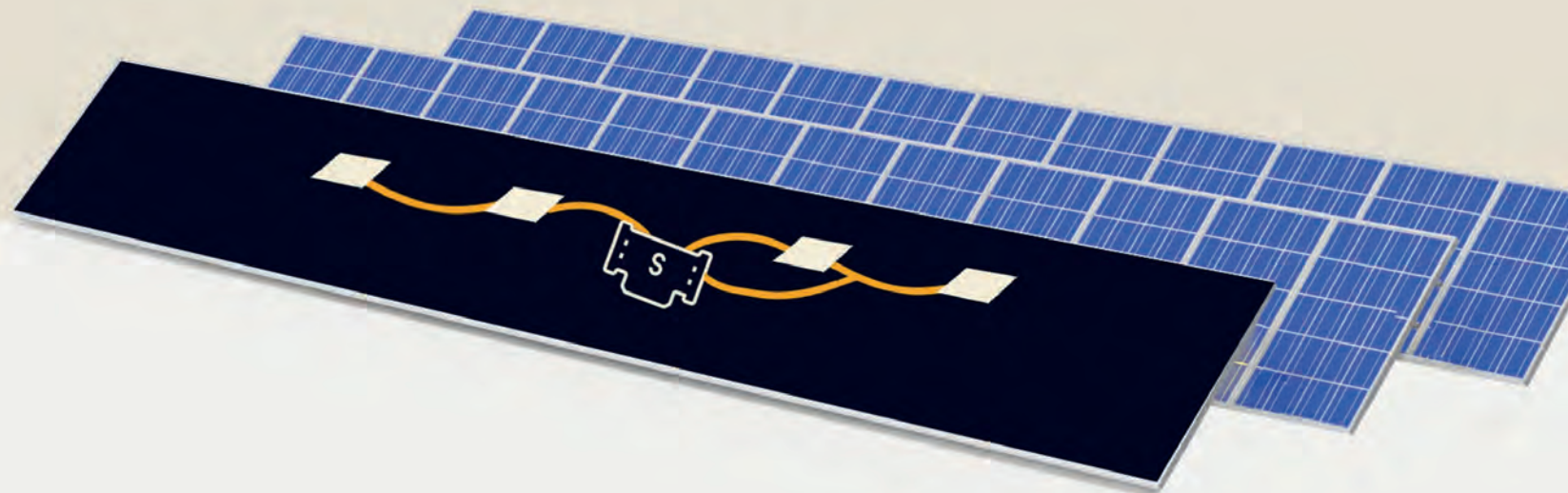
Self↔Powered Plus with smart power system

When the inverter is operating, the TCU obtains power from the string (with a negligible effect on inverter production). But when the string is open (due to inverter maintenance or fault, or even before the inverter has been commissioned), the TCU will seamlessly switch to obtain power from one PV module in the tracker.

Self-Powered Plus allows continuous power availability for the TCU, from the same day the PV modules are installed, while freeing up space on the tracker surface.

Furthermore, **when irradiance is very low, the TCU is still able to obtain the energy** needed to keep the system in optimal conditions, due to the much higher power available from the string or single PV module, when compared with traditional self-powered configurations with a pony panel.

And in the event of any failure, the TCU includes an internal fail-safe protection that will bypass its input, allowing uninterrupted inverter operation.



#ByeByePonyPanel👋



Avoid inverter input over-voltage lockouts

PV inverters can fail to start after a maintenance stop or disconnect, due to an input over-voltage condition, if the trackers are pointing at the Sun with very high irradiance and very low temperature.

When this happens, production is lost until the trackers are manually defocused and the inverter is then restarted.

By monitoring the string current, a **SPP tracker controller can detect if the inverter is off, and then defocus the tracker automatically** so that the string output is reduced below the over-voltage threshold.

Eventually, as soon as the inverter is rearmed, current will start flowing through the string, and the controller will immediately refocus the tracker to achieve peak production.



Repeat with us:
#ByeByePonyPanel 🙅

+ USEFUL SPACE + PRODUCTION

Self-Powered Plus frees up valuable space on the tracker surface for energy generation, as there is no need for a dedicated panel.





30W

Symbiosis for the perfect match

Self-Powered Plus and the inverter cooperate seamlessly

In the event of a string disconnection (due to inverter failure or maintenance), the TCU will not be affected, providing a significant advantage during plant operation — even during the commissioning phase, before the string has been wired.

The TCU consumption is negligible, with an intermittent power demand of up to 30W, resulting in a typical energy consumption of less than 0.02% of the tracker production throughout the year.



+ EASIER INSTALLATION
- LESS CAPEX & MAINTENANCE

An easier setup and cost-effective

Self-Powered Plus (SPP) uses the same footprint as the standard Self-Powered TCU but with a simplified setup - that reduces CAPEX - as a pony-panel is not required.

Additionally, maintenance costs decrease significantly, particularly during the cleaning process.

Availability on the darkest and
cloudiest days?

Yes.

The **Self-Powered Plus** solution obtains a **30W steady** power supply vs the theoretical **60W peak** available from the dedicated panel in traditional solutions.

This stable availability of power allows a notably **accelerated charging process** under conditions of **very low irradiance**, resulting in a fully-charged battery within a few hours, in contrast to the slow charging times (2-3 days) observed in alternative solutions.

More availability

The SPP (Self-Powered Plus) system will always be able to move the tracker and recharge the battery, avoiding stow periods due to critical battery alarms, therefore increasing overall energy production.



Self⚡Powered Plus



+ COMPETITIVE

**100% produced in the USA,
eliminating the need for importing the pony-panel**

Self-Powered Plus is the best and most reliable solution for the U.S. market as
it aligns with the requirements of the Inflation Reduction Act.

Self↔Powered Converter

BOOSTING THE AFTERMARKET

SPC is specifically developed as an **aftermarket solution** for plants with undersized traditional self-powered systems — panel and / or battery size too small for the irradiance conditions of the specific location.



Based on the same power system featured in the SPP controller, **this module can replace the dedicated PV panel**, increasing the primary power available for the TCU to move the tracker and recharge the battery in heavily cloudy days.

As a result the TCUs will not have their batteries drained during long overcast periods, increasing the overall availability of the trackers and consequently the production of the plant.



#ByeByePonyPanel 🙋



[SUNTRACK.P4Q.COM](https://suntrack.p4q.com)

Follow us
on LinkedIn!

