



PV Serenity

PV fleet monitoring and alarming, reliable and low cost

The phenomenal development of solar energy has brought new challenges for photovoltaic fleet and system operators. This results from the wide diversity of types of assets, from very small to large in scale, and the diverse inverter technologies located in varied and often remote locations. PV serenity is a low-cost, reliable, plug-and-play alarming and monitoring solution designed to meet this challenge.

False alarms

Existing monitoring solutions for PV fleets often have functionality that may not be required, and are therefore expensive and often suffer from communication problems, such as power outages, coverage issues or network saturation. As a result, false alarms are generated, leading to unnecessary site interventions, with the actual production disruption going undetected.

PV Serenity, for peace of mind

PV Serenity offers a fleet monitoring platform allowing operators to visualise all the essential performance information from the different assets. It instantly detects production shutdowns or severe anomalies, immediately warning the operator over a secure and reliable communications system with a clear and distinctive alarm. And no more false alarms!



"We're entirely satisfied with PV Serenity. Since we installed it in 2016, we've avoided three long-term interruptions because it detected production stoppages instantly."

François LEBRETON
Area Manager, E&C CoverSolar

Benefits

Improved fleet management

✔ **Effective instantaneous alarms**
PV Serenity sends notifications via email or SMS whenever there is a disruption in production or severe performance anomaly.

✔ **Reduced operating costs**
Unnecessary travel to remote sites is completely avoided, with operating cost savings.

✔ **Fleet overview**
PV Serenity lets operators visualise the whole fleet at once. Accurate daily performance reporting is available through the OneBoard application.

Reliable communication

PV Serenity uses Sigfox, a dedicated Internet of Things (IoT) network, connecting devices using low bandwidth wireless communication. Performance data are updated every 15 minutes.

Plug & Play

PV Serenity is delivered ready to go, and is easy to install, regardless of the PV inverter used on-site.

Production stoppage or communication error, how can you tell? Is site intervention actually needed? Too many false alarms?



PV Serenity gives you the facts, securely and reliably. Clear overview of the PV plant. Take the appropriate action.



How it works

Installation

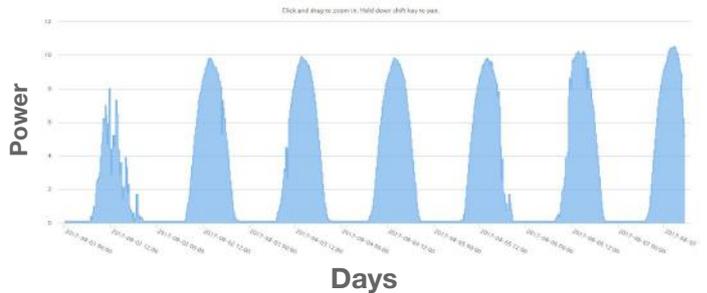
- ✔ You receive a "PV Serenity" pack containing the monitoring boxes, accessories and installation instructions.
- ✔ Once the boxes are installed on your fleet, access to OneBoard, the Laborelec cloud-based all-in-one dashboard, is instantaneous. Initial setup takes just minutes.

Alarming and monitoring

- ✔ When PV Serenity detects a production interruption or performance anomaly it is signalled on the operator dashboard, and the system sends an alarm via SMS or email.
- ✔ Unlike other monitoring systems which use standard ethernet or 3G networks, PV Serenity communicates alarm information reliably, eliminating false positives.
- ✔ Operators can react appropriately to problems, with no unnecessary interventions on site.

Your complete fleet at a glance

- ✔ In conjunction with Laborelec's OneBoard application, PV Serenity gives operators a single and simple interface with an overview of their complete fleet of PV plants, no matter which inverter brand is in use.
- ✔ Unlike other monitoring systems using regular ethernet or 3G networks, PV Serenity communicates alarm information reliably, eliminating false positives.



Also good to know

Fire and intrusion alarms

On demand, PV Serenity can integrate fire and intrusion detection, providing all-in-one, reliable, instantaneous alarming to cover these risks in addition to detecting faults.

Would you like to know more?

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Five reasons for you to choose Laborelec

- Wide-ranging technical expertise in electricity generation, grids, and end-use
- Customers enjoy enhanced profitability and sustainability of energy processes and assets
- Unique combination of contract research and operational assistance
- Independent advice based on certified laboratory and field analysis worldwide
- More than 50 years of experience