Creating added value through professional PV system monitoring for O&M

When service providers assume responsibility for the investments of others, they're certainly aware that they're taking on a great deal of responsibility for the success. That's why they carefully select the components and systems in order to not only achieve the desired result for the investors, but also create a cost-covering corporate structure in the long term that will enable them to continue growing. This is especially true when selecting a monitoring system or monitoring service.

No one monitors more PV systems worldwide than Solar-Log™, and no one has more experience than the inventor of professional PV monitoring. Project planning in the monitoring and grid connection field are just as integral to the Solar-Log™ service portfolio as direct marketing packages. Solar-Log™ customers benefit from the experience garnered from more than 330,000 monitoring systems installed worldwide. The advantages are obvious: relieving time pressure, securing returns and avoiding costly errors right from the initial design phase.

Online monitoring with Solar-Log WEB Enerest™ 4

The Solar-Log WEB Enerest™ 4 online platform enables operators and service providers worldwide to monitor their plants professionally and efficiently. Errors are recognised immediately and can be analysed in a targeted manner. If adjustments are necessary in the device settings for the plant monitoring, or in the device communication for the grid connection, these can be rectified remotely. This often avoids costly trips to the site and also saves considerable time. These possibilities also considerably expand the scope for providing operational management services.

The monitoring can be depicted graphically according to each user's individual requirements, so that the relevant data can always be grasped at a glance. The newly implemented Pinboard and Slideshow features display all relevant information for the technical operations manager on one screen. The link with the Slideshow feature ensures that the values from all preselected plants are displayed in the same view on a rolling basis.

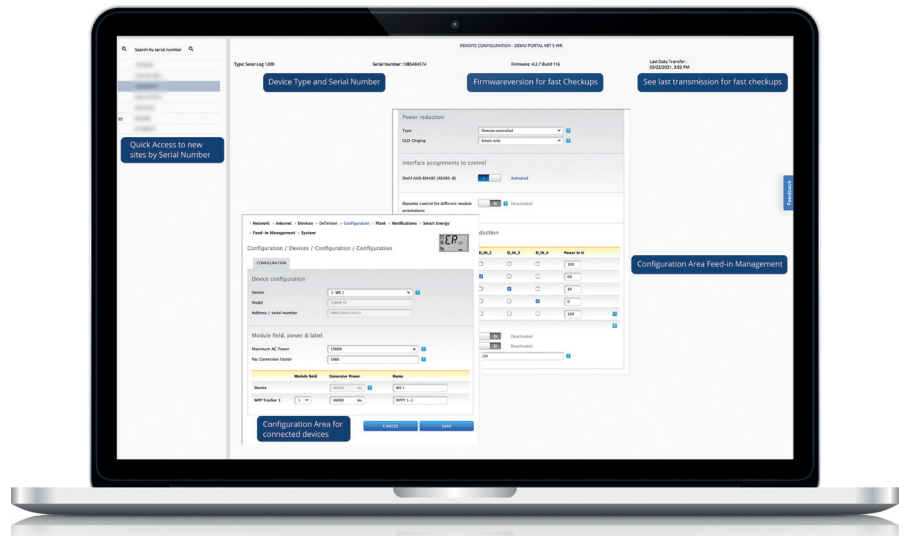Plant managers therefore have a continuous

Fig.1: Remote configuration screen

overview of all the plants in their portfolio without having to constantly call them up. The operations manager gains a general overview via the fleet overview with its status bar for the respective fleet and the error ticker. This displays newly detected error messages in the plants according to the error type. The operations manager can then go directly into the analysis to quickly get to the heart of the problem.

Plant data always accessible on the go

Apps, of course, provide an indispensable part of modern and flexible plant monitoring, providing you with all the PV plant data at your fingertips at all times and informing you directly should there be problems. Coupled to the Solar-Log WEB Enerest™ Portal, our app offers many monitoring options, interactive graphics and very easy handling.

After logging in, operators can see all the PV plants under their care at a glance. For a better overview, each plant can be provided with an individual picture. Individual views of one or more PV plants can be displayed with the pinboard. Daily and historical system data as well as connected components (e.g. heat pumps or heating rods) are therefore clearly depicted.

Users are always kept up to date via the News Center, with current status messages about their PV plant sent directly to them. The weather yield forecast can be used to depict the expected electricity production, taking into account the weather data.

Modular-based hardware

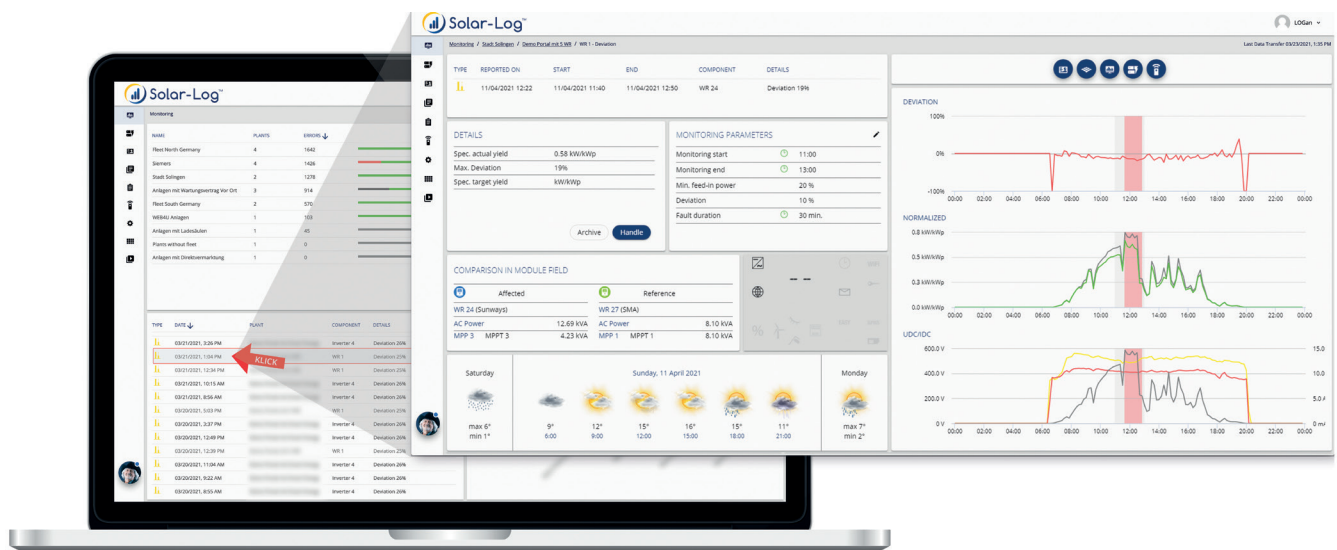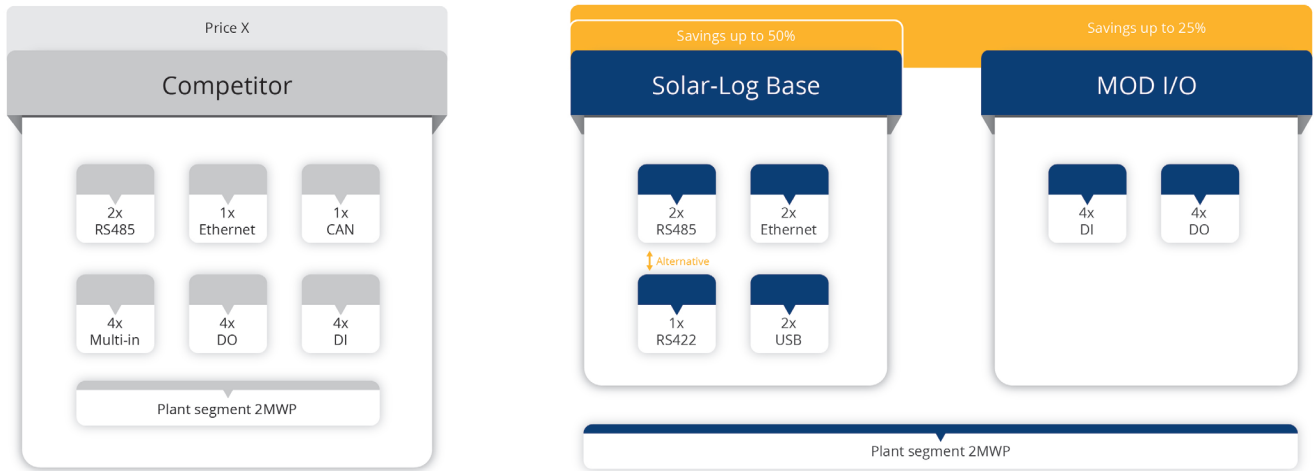The modular hardware for Solar-Log™ saves costs. The modular system means you only

Fig.2: Fleet view and analysis graphic

Competitor		
Price X		
2x RS485	1x Ethernet	1x CAN
4x Multi-in	4x DO	4x DI
Plant segment 2MWP		

Solar-Log Base		MOD I/O	
Savings up to 50%		Savings up to 25%	
2x RS485	2x Ethernet	4x DI	4x DO
↕ Alternative			
1x RS422	2x USB		

Plant segment 2MWP

have to pay for what you actually need. The basic system can easily be expanded if further requirements, such as direct marketing, need to be added in future. For this purpose, additional hardware modules for further interfaces and licences are available to expand the range of features.

Retain long-term customer loyalty with monitoring as a service

Professional monitoring as a service can also foster customer loyalty. This shouldn't be underestimated. Especially in the >30kWp plant segment, PV systems are often further expanded once they have been installed or are integrated more deeply into the property's energy management system as part of further renovations or new construction measures. This creates attractive potential over time. Many installers and service providers in the

operational management field have already recognised this and are focusing on customer-oriented services. Solar-Log™ offers an area here that expands this service for its customers.

Offering this service necessitates a certain initial investment, which also involves a risk. This is where the Solar-Log™ WEB-4U service comes in. The Solar-Log™ WEB-4U team combines expertise and a rapid response. For plant operators this provides certainty that any failures are detected promptly and faults are quickly rectified.

This creates security and frees up service providers for other tasks. The service providers nevertheless always remain the first point of contact for their customers for the technical operational management.

Data security is a top priority for all components.

There are many PV monitoring providers. As is so often the case, it's also worth taking a closer look here at the actual details hidden behind the performance promises. Very important in this context: Protecting user data!

When it comes to data security, there are major differences between the individual monitoring providers. Solar-Log™ attaches maximum importance to securing customer data and also regularly obtains advice from external experts in this area. Upon request, users will receive a complete evaluation of the data stored with Solar-Log WEB Enerest™ 4. Communication between the data logger, online platform and respective end devices must be strongly encrypted. This is achieved using encrypted protocols or a dedicated VPN communication. A VPN here is an end-to-end corridor that no other user can see into.

Rely on the professional

With the experience garnered from 330,000 data loggers installed worldwide, PV monitoring pioneer Solar-Log™ offers a professional and open-system monitoring and energy management system that features intuitive handling and clear presentation. It is compatible with components from more than 130 manufacturers.

Just in terms of inverters, more than 2300 models can currently be integrated. This ensures that users are prepared for all current and future challenges, and can offer their customers a solution that supports them in achieving their goals and monitors their investment. With a global network of service partners, we offer on-site assistance for every country should problems occur or during the design phase. This protects the plant operator's schedule and financial budget, and ensures a sustainable return on investment.

Fig. 3: WEB 4U monitoring service

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