

Smart anti-theft protection for PV plants

PES had a great interview with Oliver Strecke, CEO and Marco Thesing, CSO and business development manager at viamon. They have amazing security solutions, where trace and catch are strong deterrents. TRAPS came on to the market last year and is proving very successful. They have a bright outlook on the future, with many orders on their books. Are your solar installations secure? Read on to find out what's on offer.

PES: Welcome back to PES Solar/PV magazine. We have been following viamon for quite a few years now, so it's good to have the opportunity to talk with you. Would you like to begin with a company overview?

Oliver Strecke: viamon has been working on the question of how to develop intelligent systems to secure PV systems since 2009. The basis is a vibration sensor that we developed especially for the needs of the PV industry. It can be used to secure solar modules and additionally, determine their position worldwide via GPS if they are stolen. That was the beginning.

On this we systematically expanded our portfolio of sensors, e.g. with PIR sensors (passive infrared). On the one hand, we have always analysed the experience we have gained in the course of our projects and on the other hand, we have included the special knowledge of our security experts, who we now have on our team, in the development planning.

It soon became clear to us: we not only need powerful special sensors, but we also have to analyze the specific situation of the customer: What is the topography of the plant? What does the development with roads or paths look like? What are the climatic conditions? etc. Depending on this data, a tailor-made safety concept is then created, in which various sensors and technologies interact

specifically, in such a way that maximum safety for the PV plants can be achieved, with a minimum of technical effort.

This complete system, called TRAPS, was launched on the market last year with great success. Our customers find this completely new approach, with specially developed infrared and vibration sensors, which are intelligently linked with jamming detectors and, if necessary, with cameras, very interesting. Not only because of the high level of deterrence and security, but also because of the comparatively low costs.

We are the only ones who are able to insure not only perimeter protection and the protection of individual objects but also the worldwide tracking of stolen goods. This has a great deterrent effect: What thief wants to steal something that he has to fear that he and his stolen goods can be tracked and found exactly worldwide? And that the pursuit works, we have already proven several times in reality.

PES: Would you say the Solar/PV market is currently expanding?

Marco Thesing: We can clearly see in the market that there is a trend in our current target markets towards larger and more complex systems, where our system can be used particularly effectively and cost-

effectively. This is naturally very pleasing for us.

PES: We know you have been developing sensors since 2008, how have these evolved?

OS: Our classic property protection sensors have now proven themselves ten thousand times over and our demand is increasing. In the last 3 years, sensors based on this proven technology for inverters and wiring harnesses have been added. And with our new Passive Infrared (PIR) sensors, we can also monitor the environment around these objects, in a false alarm safe way.

All our sensors are networked and exchange information. So there is still no need for cables and the installation work is very fast. The false alarm rate is almost zero.

PES: We have heard about your TRAPS concept and would like to know more about it.

MT: TRAPS stands for ...

Theft: stolen goods and prosecution of the perpetrators

Recon: discovery and clarification of the security situation

Access

Protection: prevention of theft attempts through deterrence

System





The core idea of TRAPS is not to rely on a single or conventional technology, such as cameras, but to use a combination of object and perimeter protection tailored to the respective facility.

This minimizes construction and operating costs and at the same time increases the security level and deterrence potential. The system can already be used during the construction phase and can also be quickly installed in existing PV systems without any problems.

PES: We know you pride yourself on your individuality, please can you explain how and why this is so important?

OS: It's true, viamon does not sell off-the-shelf solutions. We are firmly convinced that we can only achieve optimal and at the same time cost-effective protection of PV plants, for our customers if we analyze and utilize the concrete, individual situation of the PV system on site.

This is the only way we can determine where which protection is necessary, or perhaps even superfluous. That is why each enquiry or project is considered individually and an optimal economic security solution is created. By the way, this is also widely accepted by insurance companies.

PES: We would be interested to know where your main markets are and if these have changed over the years and if there is a geographical area you would particularly like to break into?

MT: Currently we are active throughout Europe. At the moment we are focusing on Spain, the Netherlands and Great Britain. We are currently implementing very interesting projects in Sweden, Poland and France. Of course we are also active in Germany.

One of the next markets we want to develop is Italy, as the risk of theft has been particularly high there for years and most PV power plants are inadequately protected and older systems now have to be retrofitted or

repaired at great expense.

Here, however, we are still looking for a local partner to support us in developing the market.

PES: What makes viamon products stand out from the competition, what are the benefits to the end user?

MT: The benefits of TRAPS to the customer are obvious:

- Usually cheaper than conventional systems
- Hardly any complex construction measures are required as with conventional systems
- No additional cabling or earthworks are necessary
- The operation runs completely autonomously
- Frequently the costs for insurance and deductible can be reduced
- Our system is maintenance-free





- A high level of security and the number of false alarms and the associated costs are extremely low

In addition, the system alarms in case of attempts to disrupt communication (jamming detection). The danger of being prosecuted after the theft, with the stolen goods considerably increases the risk of detection for the offenders and high prevention through warning bars with jamming detector.

In case of a burglary, the alarm pursuers can be directed to the exact location of the burglary.

PES: Can you tell us about any projects you have in the pipeline?

OS: Our current pipeline for Q4 comprises approx. 250MW in 5 countries and we are optimistic that a few more projects will be added.

viamon will continue to develop both its technology and range of services in the near future.

In technological terms, the focus will be on

how to optimally integrate the use of drones into the overall system.

Here we see a great benefit for our customers, especially in large plants and/or difficult topographies. This is a very exciting topic.

We will also be massively expanding our own capacities for assembling the systems, so that we can offer our customers a comprehensive on-site assembly service from a single source. This will reduce the administrative effort for our customers and the disruption to the operation of the system to a minimum.

PES: How has the current coronavirus situation impacted on your business? How do you see this developing over the next 6-12 months?

OS: We are very happy that we had relatively few disadvantages due to the virus compared to other companies. The demand for TRAPS remains strong despite corona.

Since we are currently expanding our own assembly capacities, we are not so dependent on service providers, which is

now proving to be a great advantage. The PV systems are outdoors, which naturally improves the conditions for being able to work safely despite corona.

MT: What we regret most is that we have not been able to visit our customers in the last few months in the way we would have liked. When selling safety, personal contact and building a basis of trust with the customer is particularly important. This cannot always be easily replaced by a video conference. That's why we are glad that we can now gradually visit our customers again.

PES: What do you think will be the greatest opportunities and the greatest challenges, for solar/PV in general and viamon in particular, over the next few years, and where do you see yourselves in 5 years' time?

OS: I see the biggest challenge in the PV industry in the optimization of storage capacities and technologies as well as in the transport of energy generated with PV from the producer to the consumer. If these two problems are solved, and I am optimistic about this, PV will become the leading technology for energy production worldwide.

The biggest challenge for us is to offer theft protection for all PV components in projects outside Europe while maintaining the same quality and speed. After all, it is precisely in regions such as India, Africa, Iran, Brazil, etc. that the security risk is greater than in Europe, but so is the PV yield.

I have a very clear idea of where viamon will stand in five years: In five years, we want to have further expanded our position as the global technology leader in securing PV systems with sensors.

We will also have integrated autonomous drones into our system. We have set ourselves the goal that TRAPS will be used by our customers worldwide in five years as the better alternative to a classic security system.

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