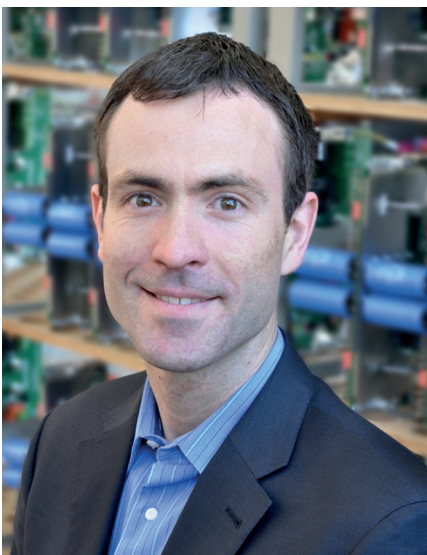
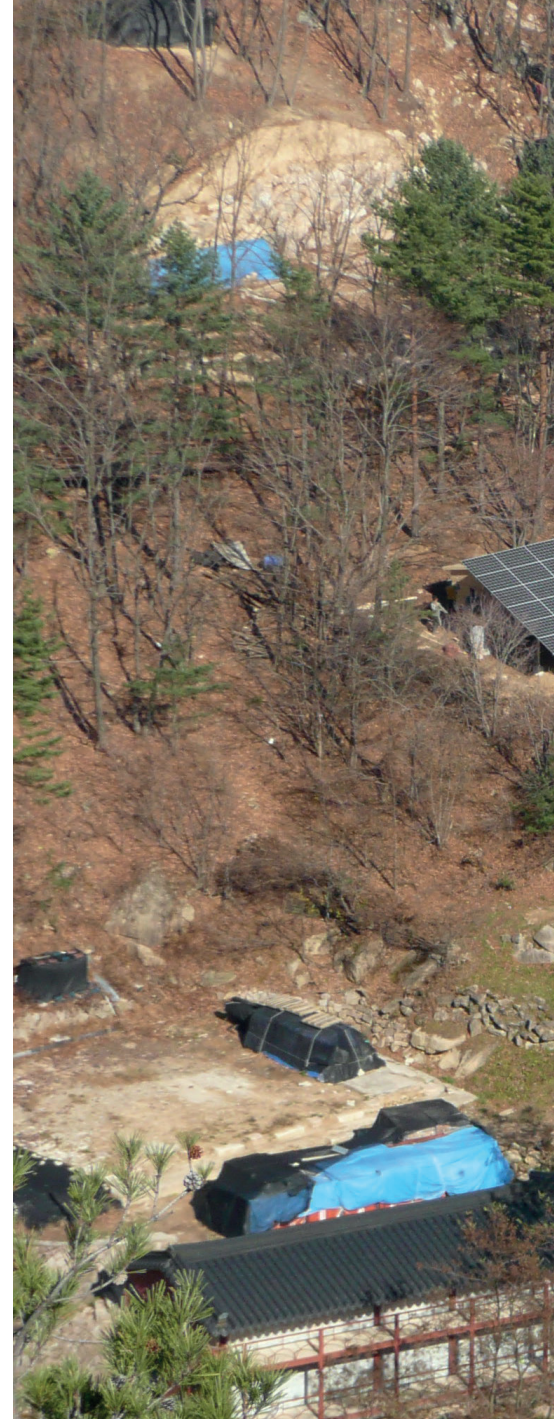


# Robust and durable off-grid

There is a change at the top at Studer Innotec and PES met up with the new managing director, Matthew Anderson to get his vision of the future from his office in Switzerland.



Matthew Anderson

**PES:** Welcome to PES Solar/PV magazine. Thanks for talking with us. Would you like to begin by explaining a little about the background of your organisation and how you currently serve the solar/PV industry?

**Matthew Anderson:** Studer Innotec was founded in 1987 by Mr Roland Studer in Valais, Switzerland. Mr Studer recognised a need for high-quality power electronics for off-grid power applications and began by supplying solutions for off-grid residences in the Alps. The products quickly gained a reputation for their reliability and robustness, and Studer Innotec began exporting internationally and to a wide range of markets including grid back up, mobile, telecom and industrial applications.

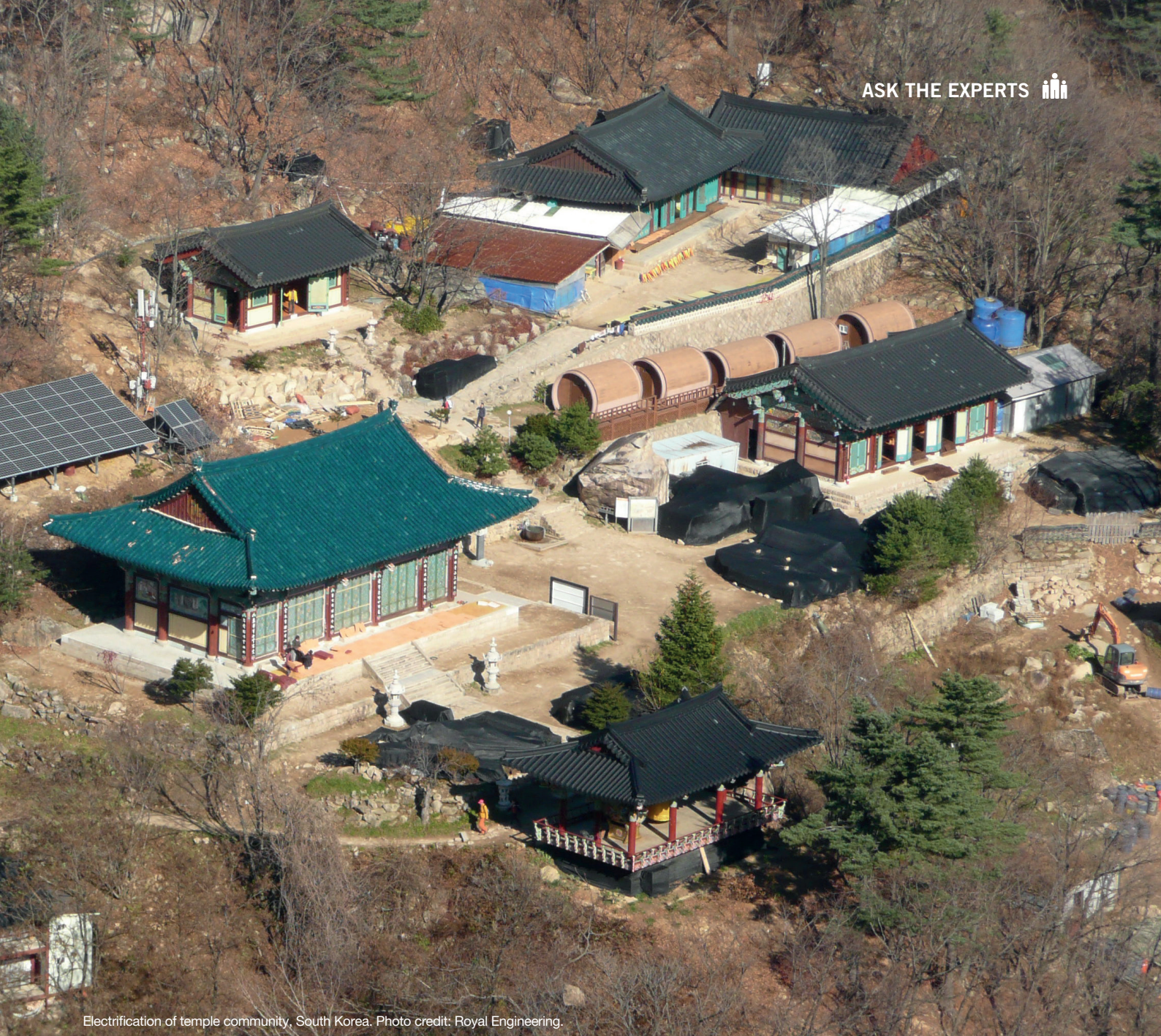
As the PV industry grew, and grid-connected PV became the largest market at the start of the century, Studer Innotec

intentionally focused on the applications it knows best: battery based systems. Now, as battery storage increases in grid connected applications, our products are seeing a huge increase in applications.

Over the coming decade, we expect the products supplied for off-grid, poor grid, and grid-connected applications to continue to merge. There are many companies that arose from grid-connected applications. It is a steep learning curve to get the intricacies of controlling a battery right. Our 30 years of experience help us to be ahead of the competition.

**PES:** You are the new Managing Director of Studer Innotec as of May 1<sup>st</sup> 2017, taking over the day-to-day management of the company from Roland Studer who is retiring. Congratulations.

**MA:** Thank you. I am excited to have been given this opportunity and am looking



Electrification of temple community, South Korea. Photo credit: Royal Engineering.

forward to leading the company in the years to come. I have had a smooth transition period, gradually taking on my new responsibilities over the last months as I was already working within the company as a Sales Engineer.

I am pleased to say that Mr Studer will remain with the company; both as a member of our board and as the company owner.

**PES:** You provide your systems to several industry sectors, which is the most important market for Studer Innotec? Where and how does solar fit into the mix?

**MA:** We export 90% of our products outside of Switzerland. Globally, 70% of our products are used in solar applications. Given the dramatic drop in PV module prices over the past decade, increasingly PV is used for back-up and mobile

applications where it may not have been in the past.

**PES:** Can you tell us more about your solutions for off-grid applications?

**MA:** In nearly all cases, off-grid means off the beaten path. It is therefore imperative that an off-grid installation is designed to be as robust and durable as possible as any service required is time consuming and expensive.

Our solutions for off-grid applications include products for Solar Home Systems ranging in size from a few hundred watts to a few kilowatts and hybrid Systems up to about 100 kilowatts.

The battery is the most expensive component in the system. Our products are designed to protect the battery, ensure quality power supply and be as efficient as possible, thereby reducing the

size of the battery and PV array needed, and reducing the CAPEX and OPEX costs of the installation.

For example, the Battery Lifetime Optimiser function (BLO) helps end users learn to use the energy available in their system while preventing the battery from excessive damage. This algorithm makes a big difference in the performance of the system.

Studer Innotec's 30 years of experience focused on off-grid applications allows us to have attention to these details.

**PES:** Are you able to give us more details on any current projects and/or developments that Studer is currently involved with?

**MA:** Over 20% of Studer's operating budget is allocated to Research & Development. We are continually improving our existing product lines by adding more



Centralised solar street lighting installation, Egypt. Photo credit: Hammer Electric S.A.E.

features and accessories. For example, this spring we are releasing new features for enhanced solar priority with lithium batteries, and a software tool to simplify commissioning of hybrid systems.

**PES:** We understand that you provide tailor made solutions, how does this work and are there cost implications to the customer?

**MA:** Something that differentiates Studer from other manufacturing companies in our markets is our proximity to our clients. If a client has a question for Studer, they speak to their primary contact. There is no hotline to call, no automated voice asking you to press 3 for tech support. Our sales engineers are open to discussing technical issues, and we can create special versions of our products to meet specific needs. To reduce the added cost of special versions, we incorporate them into our product portfolio for use by other clients. This is a fundamental part of our R&D process to ensure our products meet market requirements.

**PES:** What about back-up storage, how key a topic is this to your company currently? And why?

**MA:** Many of the regions where we see the largest growth are in emerging markets that have chronic grid shortages. In these regions, many of which have an excellent solar resource, a back-up system from Studer Innotec with PV reduces the reliance on the grid. In India, for example, Studer products are certified for net-metering

agreements with local grid operators, allowing the back-up system to reduce electricity costs without having to cycle the battery at night.

**PES:** What makes your products stand out amidst the competition and how do you intend to stay one step ahead?

**MA:** Studer Innotec is relatively small compared to some other competitors. We do not try to do everything. Instead, our vision is to excel in the markets in which we are present, providing robust and cost-effective solutions for the long-term. Our proximity to our clients, as already mentioned, allows us to stay in tune with market requirements and continue to provide innovative solutions.

**PES:** We are intrigued by your opportunities for product training. To whom do you offer training, when, and where?

**MA:** Studer offers product and after sales service training at our headquarters and factory in Switzerland, as well as abroad at our partners' facilities and training centres around the world. We have à la carte training opportunities ranging from half a day, to multiple days. Those who can travel to our factory in Switzerland enjoy the opportunity to have a full tour of our R&D and production facilities, as well as the chance to meet more of the Studer team.

**PES:** Speaking from a global standpoint, which geographical regions do you anticipate being key for Studer Innotec as we move into 2017?

**MA:** We see growth around the world, but varying geographically by market segment. In Europe, the self-consumption market continues to grow. For mini-grid and back-up solutions, we see strong growth in all the developing world: South America, Africa, and Asia.

**PES:** There have been significant changes in the political landscape, with BREXIT and Donald Trump in the Whitehouse, how do you think these will affect the current trade agreements?

**MA:** If there is a tendency of increasing protectionism globally, that is not good for international trade in general. However, not being part of the European Union, Switzerland has experience establishing bi-lateral trade agreements around the world. So, if new trade deals are needed, I believe the Swiss government will be able to move quickly to ensure we are able to effectively get our products where they are needed.

Looking on the bright side of things, it seems the growing momentum for political action to fight climate change has reached a turning point such that success is not hinging upon a global consensus. Those countries that choose to avoid greening their economy now, will be left behind in the future.

Studer Innotec is committed to promoting sustainable and universal energy access all over the world with products manufactured with 100% renewable energy and conceived to exceed expectations.

[www.studer-innotec.com/en/](http://www.studer-innotec.com/en/)