

SolarMax

The Customer Magazine of Sputnik Engineering AG

Globe



Felhauer's favorite

Vario green energy Concept GmbH prefers Sputnik as supplier

Perfectly integrated

Solarcentury installing its largest PV system in Italy with SolarMax inverters

Looking forward and back

Christoph von Bergen explains the plans of Sputnik Engineering AG

More flexibility

New feature for the SolarMax MT series

Milk, music and entering the market

Sputnik Engineering opens branch office in London

Spirit of solar research

EPFL building Switzerland's largest PV plant

Contents



4 solutions

With Swiss precision for the spirit of solar research

Switzerland's largest solar plant is being built using SolarMax inverters at the university campus of the EPFL in Lausanne

7 solutions

Fellhauers Favorit

Vario green energy Concept GmbH prefers Sputnik as supplier

8 market & trends

Milk, music and entering the market

Sputnik Engineering is opening a branch office in London and building Great Britain's largest private solar power plant

11 solutions

Perfectly integrated

Solarcentury is installing its largest PV system in Italy using SolarMax inverters

12 internal

Looking forward and back

Christoph von Bergen explains Sputnik Engineering AG's past achievements and plans for the future

19 technology

Greater flexibility for plant layouts

New feature for the SolarMax MT inverter series

Editorial



Sputnik is equipping itself for the future. Last year we made progress on the expansion of our administrative council. This year we plan to add to our staff especially in Development and Product Management. We are also growing internationally. To reinforce our presence in the expanding British photovoltaics market we opened a branch office in London this January. Two months earlier we had already supplied the inverters for Great Britain's largest privately operated solar power plant.

For Switzerland we are also expecting strong growth. Since the beginning of the year there are new feed remuneration rates in force which will mean an increase in installed output to at least 50 megawatts this year. At this time, in Lausanne, on the university campus of the EPFL, Switzerland's largest photovoltaic power plant is under construction, fitted with our inverters.

I am pleased about the new feed remuneration rates, but above all I am excited about the type of projects which we are now seeing in the Swiss market. They prove that Sputnik Engineering AG is well equipped for the consolidation taking place on the solar inverter market and its Swiss quality and outstanding customer service will continue to draw and hold customers in the future as well. Just recently our sustainable market strategies earned us the "Price Performance Value Leadership of the Year Award".

You can find more information regarding our current prices, projects, markets and staff members on the following pages of this customer magazine.

I hope you will find it to be an interesting and enjoyable read.

Christoph von Bergen
Managing Director of Sputnik Engineering AG

While I was driving down the macadam roads in Rokytnice and Spindleruv Mlyn together with my skiers in the Sudeten Mountains of the Czech Republic, Turkey increased its feed remuneration for solar power from six to ten cents. While I was eating roast pork with dumplings and pancakes Sputnik was opening a new branch office in Great Britain.

I was only away for a week. But even during the vacation period in early January there is something new in the solar industry every day. Even though I have been working in the industry since back in 1999 I am still repeatedly surprised by its dynamics.

Iris Krampitz
Press Relations Officer
Sputnik Engineering AG

With Swiss precision for the spirit of solar research



Switzerland's largest solar plant is being built at the university campus of the EPFL in Lausanne and will operate using SolarMax inverters

The world's greenest campus is in French speaking Switzerland. It belongs to the Federal Institute of Technology in Lausanne (EPFL). The winner of the 2009 "International Sustainable Campus Award" will continue to live up to its award-winning status. In 2012 it will add two megawatts of output to Switzerland's largest photovoltaic plant when it starts up the third and last phase.

Power suppliers want more energy from renewable sources

The energy provider Romande Energie from Morges is financing and supervising the project. In total, the country's fifth largest power supplier is investing 15 to 20 million Swiss francs (roughly 12 to 16 million euros). By making this commitment it is underscoring the mission of its Environment business unit

which was founded two years ago. Its goal is, no later than 2025, to produce a total of 250 to 300 million kilowatt hours, ten percent of the power supplied by Romande Energie, from renewable energy sources. Some thirty percent of the solar power produced on the campus is used by the university itself. The rest will sold by Romande Energie to its customers under the brand name "natur-made star".

Many Swiss citizens, public institutions and businesses have supported the project as partners by their contributions to the sponsorship campaign "moncarrésolaire" since August 2010. The sponsorship costs 6.50 (5,20 Euro)

Plant data PV Plant EPFL, 1st phase

Power output	634.08 kW
Modules	2626 monocrystalline solar modules by Jinko
Inverters	42 inverter of the SolarMax MT series (SolarMax 10MT, SolarMax 13MT and SolarMax 15MT)
Inclination and orientation	20°, South
Commissioning	December 2010



The Swiss company Solstis installed the solar plant on the university campus. The company was founded in 1996 and currently employs 40 people to install turn-key solar plants.

Swiss franks per square meter. Just in the first four months more than 600 persons have chosen a surface for their own solar power production at the internet site <http://www.moncarresolaire.ch/clients.php>.

Swiss quality federation

In the first phase of the plant, which has supplied solar power since late 2010, Romande Energie installed monocrystalline solar modules on flat roofs. For the following construction phases the company plans to integrate solar modules in car park and pavement roofs as well as on façades and corrugated metal roofs. They will be connected to

the mains in the autumn of 2011 and 2012 respectively. During the construction of the first phase of the plant the company decided to use 42 SolarMax inverters from the new MT series made by Sputnik Engineering—itsself a guarantor of Swiss brand quality.

“For us it was very important to cooperate with an experienced company that had convincingly proven itself in the outfitting of large-scale solar parks. We are highly satisfied with SolarMax inverters,” says Georges Locher, the head of the EPFL project at Romande Energie. Romande Energie is familiar with the Swiss devices. The EPFL plant is already the 17th solar power plant fit-

ted by Romande Energie with SolarMax inverters. Since 2006, the company has been exclusively installing inverters made by Sputnik Engineering AG in its solar parks. One example is the photovoltaic plant installed on the Migros headquarters in Ecublens which produces one million kilowatt hours of solar energy annually.

In sync with research and development

As is appropriate for its location, the solar park on the campus will keep pace with the latest scientific findings of the EPFL. A university committee whose members include the solar pioneer and

Remuneration sinks, limit rises

The new feed-in rates for solar power plants in Switzerland

The cost-covering feed remuneration for solar power plants in Switzerland fell in Switzerland by 18 percent on 1 January 2011. Because the higher price for solar power in comparison to the normal residential rate is thus less than 50 cents per kilowatt hour, photovoltaics maximum share of public funding has risen from five to ten percent. This is regulated in the Swiss Energy Act. From 2011, instead of the previous add-on output of currently 30 megawatts per year, the Act allows solar power plants with a total output of 50 to 70 megawatts to be built. The federal authorities in the Swiss confederation expect that the list of projects filed for the period to 2013 will be shortened.

Feed remuneration for solar power plants in Switzerland from 1 January 2011, incl. 8 % VAT

Plant category and output class	CHF per kWh	Euro per kWh
Free-standing ≤10 kW	0.427	0.341
≤ 30 kW	0.393	0.314
≤ 100 kW	0.343	0.274
≤ 1000 kW	0.305	0.243
> 1000 kW	0.289	0.231
Added ≤10 kW	0.483	0.385
≤ 30 kW	0.467	0.373
≤ 100 kW	0.422	0.337
≤ 1000 kW	0.378	0.302
> 1000 kW	0.361	0.288
Integrated ≤10 kW	0.592	0.472
≤ 30 kW	0.542	0.433
≤ 100 kW	0.459	0.366
≤ 1000 kW	0.415	0.331
> 1000 kW	0.391	0.312

Source: Federal Energy Office

EPFL professor Michael Grätzel supports Romande Energie with recommendations for research projects. This includes methods for storing energy and integrating solar modules into building architecture as well as developing new types of dye solar cells.

This technology, developed and patented by Grätzel, involves the conversion of sunlight into electrical energy by organic dyes in a chemical reaction. Their particular advantage is the low costs of production. In addition Grätzel type cells can use diffuse light better than crystalline solar cells. At present, the Grätzel team is attempting to increase the efficiency and long-term stability of the cells. In the next phases of construction they will also be used. ■



1| In the first phase of the plant Solstis installed monocrystalline modules on flat roofs. By fall 2012, building-integrated systems and dye cells will follow on the EPFL campus.

Felhauer's favourite

Vario green energy Concept GmbH prefers Sputnik as supplier

- 1| Solar Carport in Kirchdorf: The new 84 kilowatt plant of Vario green energy Concept GmbH.
- 2| Longer strings, lower losses Sputnik's new inverter series SolarMax MT.



The favourite devices of Axel Felhauer, head of Vario green energy Concept GmbH from the Schwabian town of Holzgerlingen are clearly those bearing the SolarMax brand. "We have been working together with Sputnik Engineering since 2008 and are very satisfied. In 2011 Sputnik will be our number one supplier." His company, founded in 2000, builds turn-key solar power plants at home and abroad. Besides services related to photovoltaics, it supply solar collectors and heat reservoirs. It's customers include investors and companies in the heating and photovoltaic industries. Branch offices in



Munich, Italy and Slovakia build solar parks and roof plants on location.

Sputnik devices obtain the best revenues

Sputnik's new SolarMax-MT series was installed by Vario green energy for the first time in a plant located in the Lower Bavarian town of Kirchdorf. Six inverters, each with an output of 13 kilowatts, convert the solar power of the 84 kilowatt plant into alternating current which conforms to grid param-

eters. The high input voltage of the inverters allow longer strings to be installed so that line losses are reduced.

The SolarMax-MT series inverters feature a multi-tracking concept and efficiency as high as 98 percent, allowing them to get the most out of any photovoltaic system (see also page 19). Felhauer expects the plant in Kirchdorf to have paid for itself after just twelve to thirteen years—thanks to the good irradiation conditions and the high-quality of the device. ■

Plant data PV Plant Kirchdorf

Power output	84.28 kW
Modules	392 polycrystalline solar modules by Jinko
Inverters	6 inverters SolarMax 13MT
Inclination and orientation	30°, South
Expected annual yield	approx. 85,000 kilowatt hours
Commissioning	31 December 2010



Milk, music and entering the market

Sputnik Engineering has had its inverters certified for the British market and has opened a new branch office in London. Among its reference projects on the British isles is a 200 kilowatt system on the roofs of Worthy Farm in Glastonbury. Since 1970, this has been the venue of Europe's largest open-air music festival.

75 year old Michael Eavis started the Glastonbury festival at his dairy farm in 1970 and last year celebrated its 40th anniversary by joining Stevie Wonder on stage to sing the American soul star's song "Happy Birthday." When the festival first started a ticket cost one British pound and included fresh milk from Worthy Farm. Today the festival is the largest open air music festival in Europe, hosts world stars such as Robbie Williams, Rod Stewart, Nick Cave and Lady

Gaga and attracts as many as 200,000 visitors to the small southern English town.

But music and dairy cows are not the only things that move Eavis. Environmental protection is also important to him. That is why his tractors run on plant oil. That is why the tents which he supplies at no charge to campers are biologically degradable. And that is why, at the end of 2010, he built a solar power plant on

the roofs of his cattle stalls. As early as 2008 Eavis had already been presented with the "Greener Festival Award" for his commitment.

Farmer builds England's largest private photovoltaic power plant

"We want to arrange the festival and layout the farm as ecologically as possible", says Eavis. "By putting in the solar plant we have taken a big step towards reach-



2|



Plant data Worthy Farm, Glastonbury

Power output	200.88 kWp
Modules	1116 polycrystalline Romag-Module
Inverters	SolarMax 80TS and SolarMax 100TS
Inclination and orientation	Inclination 5°, South
Expected annual yield	160,704 kWh
Commissioning	02 November 2010

Feed remuneration for solar power plants in Great Britain

	< 4 kW BIPV (new construction)		< 4 kW BIPV (existing buildings)		4 to 10 kW		10 to 100 kW		100 kW to 5 MW		Standalone	
Remuneration	GBP	euro	GBP	euro	GBP	euro	GBP	euro	GBP	euro	GBP	euro
April'10 to March'11	0.361	0.423	0.413	0.484	0.361	0.423	0.314	0.368	0.293	0.343	0.293	0.343
April'11 to March'12	0.361	0.423	0.413	0.484	0.361	0.423	0.314	0.368	0.293	0.343	0.293	0.343
April'12 to March'13	0.361	0.423	0.398	0.466	0.330	0.387	0.287	0.336	0.268	0.314	0.268	0.314

Source: EPIA
 1 Euro = 0.8539 GBP, status as of 29 December 2010
 BIPV: building integrated photovoltaics

ing this goal." With an output of 200 kilowatts his plant is Great Britain's largest private solar power plant. Two SolarMax TS series central inverters convert direct current from more than 1,100 solar modules into alternating current which conforms to mains parameters. The yield is enough to meet the energy needs of 40 households. In addition, the system saves some 100 tons of carbon dioxide annually.

The plant is operated by Solarsense UK Ltd. "Because of their high quality we have decided in favour of inverters made by Sputnik Engineering," declares Solarsense General Manager Kerry Burns. "In addition, we were convinced by the devices' price/performance ratio and the plant monitoring system." Solarsense installed the internet-based data logger MaxWeb xp which can send alarms to Burns and his staff via SMS in case of a malfunction.

Customised portfolio

"Our product range matches fantastically the individual market segments of the British photovoltaic market which is so

important to us. That is why we are so pleased that SolarMax inverters were used for this flagship project as well," says Daniel Freudiger, General Manager of Sputnik Engineering International AG and Head of Sales & Marketing at the company's Swiss headquarters in Biel. In September 2010, the Swiss manufacturer had its products certified for the British market and has been supplying Great Britain ever since.

The supply covers string inverter of the SolarMax S series (with rated outputs of 1.8 to 4.6 kilowatts) and SolarMax MT (in the output range of 10 to 15 kilowatts) as well as SolarMax TS series central inverters (with rated outputs of 50, 80, 100, 300 and 330 kilowatts). Inverters from these series all meet the British standards "Engineering Recommendation G83/1" and "G59/2" and have the parameters for Great Britain already integrated.

"The British solar market is in its early stages at the moment and we are among its most important players," adds Freudiger. The share of renewable energy remains far below the EU average, but Great Britain has ambitious goals and

1| Last year some 200,000 festival visitors celebrated the 40th anniversary of the Glastonbury Music Festival.

2| Dairy farmer, music lover and environmentalist: Festival founder Michael Eavis and his new solar plant.

intends to boost its contribution to 30 percent by 2020. Photovoltaics should play an important role in this development and a feed-in act with lucrative rates has been promoting power from solar plants since April 2010.

The amount of the remuneration depends on the size of the plant and the type of installation. While building-integrated systems with as much four kilowatts output receive 42.3 cents per kilowatt hour, systems between 100 kilowatts and five megawatts output are paid 34.3 cents per kilowatt hour (see table). Every two years there is a degression which is linked to inflation. So the remuneration can also rise.



Sputnik opens branch office

In addition to inverters for solar plants on farms Sputnik Engineering has already delivered many devices for individual family homes and industrial roofs in Britain. No matter whether the device is installed on the roof of a house, a cattle stall, industrial building or as part of a megawatt power plant—Sputnik Engineering has the optimum device in their product range for all applications in Great Britain.

To get closer to their customers and improve flexibility in the booming market the Swiss manufacturer founded a branch office in London in January, 2011. The person to contact there is the key account manager Neil Martin, who comes to the job with 16 years of career experience. “Sputnik Engineering is entering the market at just the right moment to establish itself early in the British market,” says Martin. “Since the introduction of the new remuneration rates the attractiveness of photovoltaic plants in Great Britain has increased enormously.” ■

“Photovoltaics gain importance in Great Britain”



In the interview Neil Martin, Sputnik's new key account manager, introduces himself.

Since early January Neil Martin is managing the branch office of Sputnik Engineering AG in London in his role as key account manager. The 40-year-old family father and Iron-man triathlete brings 16 years of professional experience in account management to his new post.

What makes the work at Sputnik so interesting?

I was looking for a company which values long-term customer relations and which believes that strong customer support makes a decisive difference.

What do you see as being especially challenging?

Sputnik Engineering is entering the British market at a time in which it is just beginning to grow—and I am there. I am pleased to be consolidating the SolarMax brand in these exciting times. In addition I am pleased to work in an industry which makes a direct contribution against global warming.

How do you see the British solar market developing going forward?

At present the British PV market is still in its infancy. Yet since the introduction of the new remuneration rates the attractive-

ness of photovoltaic plants in Great Britain has increased enormously.

What plans do you have for Sputnik?

I will be working together with our established customers. I will also be attracting new partners into the SolarMax family. Sputnik has the opportunity to become one of the most important suppliers on the British market. ■

New branch office in Great Britain

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Perfectly integrated

Solarcentury is installing its largest PV system in Italy with SolarMax inverters



The British company Solarcentury values aesthetics—even for large-scale plants. In November the company integrated a 1-megawatt freestanding system into the Apulian landscape. A stone wall surrounds the solar plant. Solarcentury bordered the grounds with olive trees. Located outside the port and university city of Bari in south-eastern Italy, the plant produces 1.4 gigawatt hours of energy and saves 900 tons of car-

bon dioxide. For each kilowatt hour the operator receives 38.4 eurocents.

Till now, Solarcentury in London was specialised in building-integrated systems. The company makes its own solar roof tiles and, in 2000, installed the world's largest photovoltaic façade at the headquarters of the Royal Institute of British Architects. Since its founding in 1998 the company has realised more

than 1,000 solar projects. Its activities in Italy started three years ago. The company is the official partner and supplier of Italy's largest energy supplier, Enel, and its network of solar installers. The list of reference projects also includes the Solar4Schools program in the framework of which Solarcentury fitted half of Milan's college preparatory secondary schools with photovoltaic power plants.

Aesthetics for roofs and meadows

For the free-standing system in Apulia the British opted for inverters made by Sputnik Engineering AG. Three SolarMax 330C-SV devices feed the current from the SolarMax power station directly into the Italian medium voltage grid. "The yields are very high. The inverters work extremely reliably and effectively," says Solarcentury staff member Jan Muller.

"What made Sputnik Engineering convincing to us was particularly its high quality products, its long-term experience with three-phase and transformerless inverters and its competitive prices." Solarcentury installed its first SolarMax inverter in 2009. In 2011, Muller wants to install devices made by Sputnik Engineering in all the markets where Solarcentury is active. This includes, besides Great Britain and Italy, France and Spain as well. ■

Data of the PV plant in Bari

Power output	982.4 kW
Modules	4,240 solar modules by Yingli
Inverters	SolarMax 330C-SV (3x) in a SolarMax power station
Inclination and orientation	25°, South
Expected annual yield	1.4 gigawatt hours
Commissioning	November 2010



Looking forward and back

In the interview Christoph von Bergen talks about Sputnik Engineering AG's past achievements and its plans for the future.

Christoph von Bergen, Managing Director of Sputnik Engineering AG was an early player in the growth industry of solar energy. Twenty years ago, together with Philipp Müller, the solar pioneer founded Sputnik Engineering AG to make solar energy commercially viable in an environmentally friendly way. Together, the two engineers developed their company within two decades from a young company to one of Europe's leading inverter manufacturers. Von Bergen lives together with his family in the Biel suburb of Port. Since 2003 he has had a solar power plant on his roof where he tests each of the latest Solar-Max string inverters. He heats with pellets and solar collectors and spends his free time flying his glider.

Mister von Bergen, what is the difference between today's photovoltaic market and the market 20 years ago?

Christoph von Bergen: At the outset, the photovoltaic market was easier to overview and more regionally oriented. At the time it was easier to set differentiate oneself from the competition with one's products. The technology was still in its infancy. The operators were all idealists. Since then customers have become more demanding and the competition from abroad has visibly grown. Today, the business environment in the markets changes extremely rapidly. The dynamics are extreme and markets are highly volatile. It's a continuous challenge to reposition oneself. It is very important to be able to be flexible.

How has the solar industry developed since then?

Christoph von Bergen: When we founded Sputnik Engineering AG in 1991 the funding programmes in Switzerland were way ahead of those in many other countries. Americans and Japanese came to us to see how to build a 30-kilowatt solar plant. At that time we made our first inverters in a small room. Our office was in a barrack.

Then the funding in this country was stopped. In 2000 there was the first spurt of growth in Germany. The second followed in 2004 with the passage of the Renewable Energy Act and improved feed remuneration rates. At that time we moved to the former Rolex building here in Biel. We expected an increase in our production output of 30 percent—in fact it turned out to be greater than 200 percent. It was clear to us that you had to be very quick to be able to supply the right quantity at the right time.

When there was a silicon shortage in 2005 growth fell off. Then, in 2007 and 2008, there was once again a solar boom in Spain. At that time we founded Sputnik Engineering Ibérica S.L.U. in Madrid. But the Spanish market quickly collapsed again. Then came the financial crisis. The financing of large-scale projects was put on ice. Because the module prices also plummeted the construction of solar power plants was extremely tentative in 2009. Then, in August 2009, for no apparent reason things improved again. In previous years all of us inverter manufacturers were also impacted by the shortage of components. The question which manufacturer could still deliver was always an issue.

How do you see the market developing going forward?

Christoph von Bergen: There will be an initial consolidation in this year since, in the meantime, there are too many suppliers on the solar inverter market. Especially since demand in Germany has clearly fallen off since October 2010. In France the law was changed nearly overnight, in the Czech Republic large-scale plants are no longer built. But we expect that the Italian solar market will do very well in the first half of 2011. In the second half of the year we also expect stronger growth in Germany.

What sort of growth do you expect in Switzerland?

Christoph von Bergen: I am pleased that construction on new photovoltaic power plants in Switzerland is expected to roughly double in 2011. Since the government lowered the funding for solar power by 18 percent starting this year the individual plant now requires less money from the very small share of public money set aside for photovoltaics. This means that overall more plants can be built. I assume that the installed output of some 30 megawatts in 2010 will rise this year to at least 50 megawatts. This is a big step in the right direction. It will finally be possible to reduce the long waiting periods—at the end of 2010 there were 7,000 plants on the waiting list.

How does Sputnik Engineering expect to assert itself in the increasingly stiff international competition?

Christoph von Bergen: We will continue to convince our customers with Swiss quality plus our outstanding customer service. Last year we made progress on the expansion of our administrative council. The new council provides important impulses for our work. In addition, we have shown our customers

very clearly that we are serious about long-term cooperation and not so interested in quick returns. When there was a shortage of components last year, the first customers to be supplied were the long-term customers. Thanks to our long-term customer partnerships and suppliers we will be able to stand out from new market suppliers in future as well.

In April 2010, you founded Sputnik Engineering International AG. Why?

Christoph von Bergen: To continue to increase our flexibility. The new subsidiary is responsible for sales, service and advising customers in countries where there has not been any Sputnik Engineering presence to date. Key account managers in Belgium in Great Britain and the Czech Republic look after our customers at local branch offices. We want to continue to expand our presence in existing markets. In addition we

want to enter new markets. This will allow us to absorb fluctuations in demand more easily.

What do you have planned for Sputnik Engineering AG?

Christoph von Bergen: In 2011, Sputnik Engineering plans produce inverters with an overall output of 1.2 gigawatts. That means a 60 percent increase over 2010. The issue of cost reduction will not go away. That is why we plan to add to our staff especially in Development and Product Management. This will allow us to lower our costs better with new products and keep our prices competitive. By early 2013 we want to increase our number of employees in Switzerland to 350. Our company headquarters will be moved to Längfeldweg in Biel. In future, a new building will bring together Development, Production and Administration under one roof. Until now these departments were at three separate locations Biel.

What is so special about the company?

Christoph von Bergen: Sputnik Engineering AG is owner-operated and self-financing. Highly motivated employees produce the SolarMax inverters exclusively in Switzerland—that will not change. The Biel location is ideal for continued expansion. This bilingual industrial city can point to a long tradition of know-how in electronics and machine design and construction, and, what's more, the city has outstanding infrastructure. We will remain in Biel and continue to grow from here. ■

Trade Fair Calendar 2011



Sputnik Engineering AG is presenting its products from March to December 2011 at the following trade fairs:

Event	Date	Location	Internet
26. Symposium Photovoltaic Solar Energy	02. - 04/03/2011	Bad Staffelstein, Germany	www.otti.de
Solarexpo	04. - 06/05/2011	Verona, Italy	www.solarexpo.com
Genera	11. - 13/05/2011	Madrid, Spain	www.genera.ifema.es
Intersolar	08. - 10/06/2011	Munich, Germany	www.intersolar.de
26th EU PV SEC	05. - 08/09/2011	Hamburg, Germany	www.pv-conference.com
PV Rome	14. - 16/09/2011	Rome, Italy	www.zeroemissionrome.eu
Energaia	07. - 10/12/2011	Montpellier, France	www.energaia-expo.com



- 1| Area Sales Manager in Biel:
Beat Stucki
- 2| Head of Technical Sales Support
in Biel: André Lüthi
- 3| Sales Field Service Germany
Dragan Jordanov
- 4| Head of Technical Sales Support
in Biel: left to right René Hechtl,
André Lüthi, Stephan Tschochohei,
Fabian Uhl, René Obrist
- 5| Sales Field Service Germany
Mario Bustani
- 6| Sales Engineer in Italy:
Alberto Zanet
- 7| Sales Engineer in Italy:
Luigi dell'Orto

New staff members in Biel, Neuhausen and Milan

Sputnik Engineering reinforces its sales and support departments

Beat Stucki is working as the new area sales manager at Sputnik's sales subsidiary Sputnik Engineering International AG in Biel. The enthusiastic hobby pilot brings many years of professional experience as an electronics engineer and product manager to his new post. Besides Sales Management the 49-year-old Swiss will also take over Key Account Management for Bulgaria, Greece, Austria, Switzerland and Slovenia. "The solar industry is booming, which for me is truly exciting," is how Beat Stucki describes his motivation for working at Sputnik. "It is similar to the beginnings of CB radio which I was also involved in from the very start. It is a lot of fun to work together with such enthusiastic customers."

In future, three new employees will support technical sales support. The team is led by the graduate in electronics installation André Lüthi. "I am proud to be a part of this internationally-oriented company. Besides, Sputnik offers every individual employee the possibility to grow and develop," says André Lüthi. Since October and January respectively his team includes the electrician René Obrist and the graduate in engineering Stephan Tschochohei. In future, sales field representatives in Germany will be supported by Dragan Jordanov and Mario Bustani. Alberto Zanet and Luigi dell'Orto are new sales engineers at Sputnik's Italian subsidiary Sputnik Engineering Italia S.r.l. ■

Frost & Sullivan presents award to Sputnik Engineering

Sputnik Engineering receives the
“Price Performance Value Leadership of the Year Award”



“Sputnik Engineering is pursuing sustainable market strategies to be able to offer its customers the best possible value at competitive prices.” This was the reason given by Nathan Halabrin of Frost & Sullivan as to why the internationally active corporate consultancy distinguished the Swiss manufacturer as price/performance leader and presented the company with the “Global Price Performance Value Leadership of the Year Award 2010”. By providing high quality and reliable solutions Sputnik is one of the few companies in the field of renewable energy sources that optimally meets the expectations of its customers.

Frost & Sullivan scrutinized the manufacturers in an extensive analysis of the solar inverter market. By presenting the award Frost & Sullivan has confirmed Sputnik’s successful corporate philosophy. It is based on an attractive price/performance ratio, long-term partnerships and a leadership roll in terms of quality and after sales service. In the analysis Frost & Sullivan considered five performance criteria:

Attractive price/performance ratio

The developers at Sputnik Engineering AG have given the SolarMax inverters an economical design. Long-term relations with suppliers, good negotiating talent and efficient

production and logistics enable Sputnik to carve out an outstanding position for itself on the solar inverter market. This is also supported by the high product quality, the efficient after sales service and the company’s overall lean structure.

First-class technology

The SolarMax inverters made by Sputnik Engineering AG are among the best which the industry has to offer its customers, whether due to their high efficiency or the intelligent cooling concept, their attractive, easily mounted casing or their user-friendly graphics display. Extension type and safety testing guaranty their stable and reliable operation throughout the whole life of the solar plant.

The best possible use and maintenance

The SolarMax inverters can be easily operated thanks to their intelligent construction and their comfortable interfaces. The wide input voltage range increases flexibility for connections to a wide variety of solar modules. This is why the analysts at Frost & Sullivan are convinced that inverters made by Sputnik Engineering can be better used and maintained than other devices.

Sustainable customer service

Highly qualified technicians advise SolarMax customers on the phone—and they can provide this service in five languages. The service team finds and corrects errors either by remote diagnosis or, if necessary, on site. The company is committed to on sustainable customer service and long-term customer relations.

The optimum product for the individual customer’s needs

Sputnik Engineering understands the needs of its customers and develops the optimum product for every application. Even when markets are highly volatile the Swiss manufacturer never compromises on quality. Because they meet the specific standards and guidelines in many European countries the SolarMax inverter can be easily integrated into their respective power grids. ■

Armed for continued growth



Sputnik Engineering expands its administrative council

“With our new three-member council we can direct, monitor and develop our company professionally even under conditions of strong growth and increasing internationalisation,” explains Sputnik’s chief executive and Administrative Council president Christoph von Bergen, when asked why Christoph Biedermann and Dr. Martin Zwysig will support him in future. The two new Council members bring with them many years of experience in management from international manufacturing companies.

Dr. Martin Zwysig worked for five years as the chief financial officer at Schaffner Holding AG in Luterbach. Since 2008, he has been responsible for the finances at Ascom Holding AG in Bern. At Sputnik Engineering the business executive will focus his work on finances and human resources. “Solar energy is unquestionably a subject important for our future, one which fascinates me very much. I am pleased to be able to set priorities in this industry,” explains the 46-year-old

Swiss. That Sputnik is an owner-operated company and the Administrative Council is being set up for the first time is something which he finds especially exciting.

Christoph Biedermann is a graduate in electronic engineering from the ETH and has an MBA degree from the INSEAD Business School in Fontainebleau (F). The 53-year-old Swiss is General Manager at ABM Greiffenberger GmbH in Augsburg. In addition he is a member of the administrative council at Syntegra Solar International AG in Oberwil (Zug). Previously he worked for four years at the corporate consultancy Mc-Kinsey and headed the power electronics unit of the ABB Group for 14 years. In his post at Sputnik he will promote the Swiss manufacturer’s international orientation. “What particularly excites me about this task is the challenge of accompanying a successful firm in an attractive industry on the road to success,” is how Biedermann describes his motivation. ■

1| left to right Christoph von Bergen, Christoph Biedermann, Dr. Martin Zwysig

Communications tool for end-customers and installers

Sputnik Engineering makes the new MaxTalk 2 software available to download for free



MaxTalk 2 allows measurable values of any number of solar plants fitted with SolarMax inverters to be recorded and administered. The new PC software is suitable both for end customers operating one or two inverters, without data loggers, as well as for installers who look after and configure medium- to large-size solar plants. Sputnik Engineering has made the new communications and service software available free of charge at www.solarmax.com. The configuration is no problem whatsoever as the procedure is supported by a wizard which guides the user step-by-step. The user interface is intuitive and allows a choice of five languages: German, English, French, Italian and Spanish.

Users can query the current status of their solar plant, operating data, statistics, error messages and device parameters. The output record, the voltages and currents can be displayed in a linear graph. The plant overview displays the current output, yields and the amount of the feed remuneration. Those measurable quantities of the PV power plant which a customer considers important can be compiled in the system's monitor. The query interval and the recording duration are freely selectable. The data recorded by a monitor can be saved in a CSV file. The computer is connected to the inverters via Ethernet or a serial (RS485-) interface.

Additional configuration options are provided by MaxTalk 2 pro. This enables registered installers, among others, also to set the release of reactive power, which prescribes the new medium-voltage guideline issued by Germany's Federal Association of Energy Suppliers and Water Utilities from April 2011 for solar plants built in Germany. ■

Greater flexibility for plant layouts

New feature for the SolarMax MT inverter series



In 2010 Sputnik Engineering launched the SolarMax MT series (MT stands for multi-tracking) with outputs of 10, 13 and 15 kilowatts. Its new type of multi-string concept allows plants to be installed on roofs with different surfaces and at different orientations and inclinations using only one inverter. Depending on the design, the devices have either two or three MPP trackers to which one can directly connect as many as two module strings. This enables each solar generator field to operate always at the optimum operating point. Prototypes of the new series have been operating since early summer 2010 in numerous field tests in Germany, Austria and Switzerland (see also Solar Max Globe 2/2010 and 3/2010).

At the start of sales of the 0 series the Swiss manufacturer then increased the maximum connection output per MPP tracker. This gives plant planners more flexibility when laying out the inverters because now the maximum generated output which can be connected per tracker is no longer six, but a maximum

of nine kilowatts generated output. Example: In future, installers wiring the 15 kilowatt SolarMax 15 MT inverter have the option of connecting either two modular strings, each with a DC output of nine kilowatts, or alternatively a symmetrical allocation of three-times-six kilowatts. In between those two just about any combination is possible as long as the voltage and current limits continued in the data sheet are followed.

“The utilisation of several MPP trackers makes the most sense if conditions at the solar generator vary (inclination, orientation, shading, etc.),” explains Sput-

nik product manager Olaf Geistlinger. In this case, similar generator strings can be bundled on individual trackers allowing the energy yields to be optimised even as the plant is being installed. However, if the environmental conditions are uniform, it makes sense to wire the generator to a small number of MPP trackers while creating the longest module strings possible. This increases the DC input voltage and, thus, the overall efficiency of the PV plant. At the end of February Sputnik Engineering integrated the new circuit feature into its MaxDesign layout program. ■

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