SOLAR INVESTOR'S GUIDE

SIG 5/2025

Solarise parking lots

Charging infrastructure für C&I and municipalities

photo: Heiko Schwarzburger

pv Europe
solar technology and applications

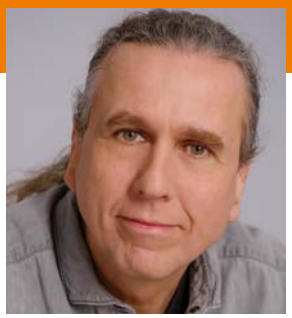

photo: MildredKlaus

Redefining supply with solarised parking and charging

The dominant era of petrol and diesel is coming to an end. Mobility is shifting to electric, bringing millions of private electric cars, company fleets and commercial vehicles that place new demands on the energy supply. In this changing landscape, filling stations, parking garages and parking lots offer significant opportunities for supplying EVs with solar power.

The key consideration in this overall picture is charging power, which varies by application, from eleven kilowatts to the megawatt range. To manage the costs of electricity supply and grid connection, large solar areas and high-capacity storage systems are increasingly the preferred approach.

In some countries, including France, solar carports are already mandatory for commercial and municipal parking areas, and today it is clear that solarising parking areas and parking garages is becoming standard practice. Solar technology and charging stations add measurable value and appeal to buildings and assets.

Across the sector, new business models are taking shape as bidirectional charging arrives for vehicles and properties. Vehicles can supply power to buildings when grid electricity is expensive, and charging infrastructure can capitalise on low electricity prices during periods of grid oversupply. Meanwhile, power storage acts as a buffer for energy and performance, helping operators avoid costly upgrades as demand grows.

In this edition of our Solar Investors Guide, we explore the opportunities presented by the electrification of vehicles and mobility. The electrification and solarisation of mobility is a defining force, and momentum is gathering pace. I wish you an informative and insightful read.

Heiko Schwarzburger
editor-in-chief
PV Europe & photovoltaik

E-PAPER SOLAR INVESTORS GUIDE

Mounting on trickier terrain

photo: O&L Nexentury

Roofs and flat open spaces aren't the only suitable locations for solar power. Applications that pose particular challenges for project planning and installation technology are increasingly coming into focus.

These include solar fields on pastureland and systems for the dual use of agricultural soil (agri-PV). Another application is floating solar fields on natural or artificial bodies of water.

▶ ***https://www.pveurope.eu/sig-2025-4-mounting***

PREVIEW SIG 6/2025

Minimizing risks in project business

Our next SIG will provide detailed insights into the project management of solar parks and large storage batteries supporting the grid. To limit risks, professional due diligence is es-sential. It will be published on **8 December 2025**.

photo: MaxSolar

Airy carport with green strip.

Solar carports add value to municipal finances

Solar canopies ■ Investments for parking areas can be significant, but some projects show the financial and practical value for municipalities.

by Sven Ullrich

Schönau is a place where the residents enjoy what others seek from their holidays. The northern shore of this idyllic lake in the north of Austria offers a striking panorama of towering mountains and crystal-clear water, making it a prime setting for day hikes or extended alpine tours.

Most tourists come by car

Many of the visitors arrive by car and leave their vehicles behind before setting off up the slopes. Fortunately, the municipality is well prepared for this influx. The main car park near the lake's northern shore provides an impressive 2,300 spaces, serving approximately 800,000 hikers each year.

This is a significant source of revenue for Schönau. Tourism remains the community's primary income stream, with parking fees further supplementing municipal finances. At the same time, the area's appeal depends on its unspoiled environment. The effects of climate change are already evident, and the municipality is taking action to help mitigate them.

Selling renewable electricity

To advance this goal, Schönau has partnered with neighbouring communities to establish Watzmann Natur Energie (WNE). "We began installing our own photovoltaic systems immediately after founding the company, with the

PRODUCTS ON VIDEO

Goodwe – carport with integrated solar system

Goodwe offers a prefabricated solar carport system that is lightweight and delivered on a single pallet. Once in place, the modules form a water-bearing surface. Barbara Terreni from Goodwe outlines the technical details.

▶ *https://www.pveurope.eu/videos/pv-guided-tours-2025*

photo: Vorsatz Media

photo: Roof Plus

Solar carports in urban area in Germany.

URBANROOF

Award-winning sustainable carport

Liechtenstein-based Iworks (Ruggell) and Frommelt Zimmerei (Schaan, Switzerland) have developed Urbanroof, a solar carport system based on timber truss construction. This design received this year's Smarter E-Award in the e-mobility category for its sustainable approach.

The truss structure enables long spans, allowing multiple parking spaces to be covered without intermediate supports. The design also supports extensive integration of solar modules, which are mounted on both the east and west sides of the carport roof.

photo: Urbanroof

A prefabricated, modular approach enables rapid assembly, straightforward dismantling and easy relocation. The system is anchored on screw foundations, minimising surface impact and avoiding the need for costly concrete bases. Distribution of the Urbanroof carport will be handled by Urbanpv in Sennwald, canton of St. Gallen; for Germany, Friedrich Ideenschmiede in Römerstein will take the lead.

▶ ***https://urbanpv.li/Urbanroof***

aim of boosting the share of locally generated renewable electricity," explains Anton Poettinger, managing director of WNE. "Photovoltaics is the most effective means to achieve this. At the same time, we entered the field of electromobility."

WNE now operates more than 100 charging points. At the end of last year, 62 new points were added, each with an output of 11 kilowatts, strategically placed at the main lakefront car park. Electric vehicle drivers can recharge directly with solar power generated on site: 273 parking spaces are now covered by a photovoltaic system. The installation provides 550 kilowatts of capacity across 4,700 square metres.

E-mobility drives economic performance

A portion of the generated electricity is supplied directly to the 62 charging points. "Smart load management allows the charging infrastructure to adapt to demand, so that around 80 percent of charging power is expected to come directly from the PV system," says Poettinger.

E-mobility is central to the business case for the solar carport. WNE invested €1.25 million in the system and a medium-voltage transformer. According to the business plan, the in-vestment will pay off within a few years.

The highest costs are incurred during the early years of operation. Calculations are based on an initial annual yield of just under 520,000 kilowatt hours. Planners at DKB Bank, which is financing the project, have factored in realistic annual degradation, with output expected to fall to just below 500,000 kilowatt hours within the first decade.

Rising returns following installation

During the same period, revenues from the solar installation are projected to increase as more of the electricity generated is used locally for e-mobility. This is the key to economic viability, as electricity sold for charging fetches a higher price than energy fed into the grid at the statutory tariff. DKB's analysts forecast that annual income will rise from just under €75,000 to almost €127,000 over the first ten years. Additional leverage comes from the greenhouse gas reduction quota (GHG) WNE receives for supplying electricity to electric vehicles. This generates further income alongside the sale

PRODUCTS ON VIDEO

IBC Solar – unlocking surfaces for solar expansion

PV Guided Tours: Industry and commerce are aiming to use every possible surface for solar power – from roofs to façades and car parks. IBC Solar is responding with stream-lined, easy-to-adapt mounting systems. Product Manager Sebastian Geier presents the latest solutions.

▶ ***https://www.pveurope.eu/videos/pv-guided-tours-2025***

photo: Vorsatz Media

AXPO/DISNEYLAND PARIS

Europe's largest solar parking canopy commissioned

Following more than three years' construction, Disneyland Paris and Axpo have equipped 11,200 parking spaces with solar panels. The solar parking canopy, currently the largest of its kind in Europe, will generate 36 gigawatt hours of green electricity a year.

In 2020, as part of its commitment to environmental sustainability, Disneyland Paris, in collaboration with Axpo subsidiary Urbasolar, commissioned the construction of Europe's largest solar parking canopy. The facility is now fully operational.

The unique project involved the installation of 82,000 solar modules, with a combined capacity of 36.1 megawatts, over more than 20 hectares of parking space. The facility will produce 36 gigawatt hours of climate-friendly electricity annually, enough to cover approximately 17 per cent of the theme park's current electricity consumption and equivalent to the needs of a city of 17,400 residents.

The modules not only generate sustainable electricity but also protect up to 11,200 cars, camper vans, and tour buses from sunlight, rain and snow.

The large-scale project is part of Disneyland Paris's broader environmental strategy, which aims to significantly reduce greenhouse gas emissions and decarbonise energy supply. The solar parking canopy will reduce CO_2 emissions by 890 tonnes of CO_2 a year in the Val d'Europe.

▶ ***https://www.disneylandparis.com/en-gb***

photo: Disney

photo: Disney

of solar power to EV drivers. "To achieve this, we implemented a metering system to precisely record the electricity generated and consumed on site," Poettinger explains.

Over time, the cost of borrowed capital also declines, as the utility invested €250,000 of its own funds in the project, with the remainder financed by loans. A further €300,000 was raised through citizen participation. Every resident had the oppor-tunity to invest between €500 and €5,000 in the project. "The allocation was fully sub-scribed within three days," recalls Hannes Rasp, mayor of Schönau am Königssee. WNE repays both bank and citizen loans on an annual basis. The participation scheme runs for ten years, with fixed annual repayments of the subordinated loan. As a result, annual interest payments decline steadily.

GREENYELLOW/CARREFOUR

350 solar car parks for French supermarket chain

photo: Greenyellow

The realisation of the projects is due to start this year. The food retailer Carrefour will primarily use the electricity itself in its stores throughout the country - and will thus fulfil the legal requirements.

The Paris-based solar project developer Greenyellow will build solar carports on 350 car parks belonging to the Carrefour food chain. This has been agreed by both companies. The projects will be built on car parks in front of Carrefour supermarkets and hypermarkets in the provinces of Normandy, Île-de-France, Hauts-de-France, Grand Est, Nouvelle-Aquitaine, Occitanie, and Provence-Alpes-Côte d'Azur. The realisation of the first project is scheduled to start in July of this year. The first plants should be ready by the beginning of 2025. Greenyellow plans to complete at least half of the planned projects by the end of 2026. "We are now entering the project phase, in which we are finalising the development, selecting technical partners and creating an ecosystem for project implementation," explains Mathieu Cambet, who is responsible for the implementation of photovoltaic projects at Greenyellow.

In total, the generators in Carrefour's car parks are expected to produce 450 gigawatt hours of clean electricity every year. Greenyellow will not only plan and build the systems, but also operate them. This also includes a contractual performance guarantee for the generators. In this way, 180,000 individual parking spaces in front of Carrefour's supermarkets and hypermarkets will not only be shaded. The food retailer can also use more self-generated solar power, for example for cooling products or air conditioning the individual stores. In this way, the company can significantly reduce its CO_2 footprint. With this ambitious project, the company is taking on a pioneering role in the solarisation of its own properties and the decarbonisation of its real estate, emphasise the project partners.

Carrefour is also fulfilling the legal requirements of the solar obligation for car parks, which applies in France for such areas with a size of over 1,500 square metres. However, the project also enables Carrefour to become less dependent on fluctuating prices on the electricity market through the self-consumption of solar power from the car parks.

After all, the solar installations on Carrefour's car parks will reduce grid consumption and help the company to switch the stores' energy supply completely to green electricity by 2030, as Romain Butte, Managing Director of Greenyellow, emphasises. In addition, the photovoltaics will provide shade and thus increase the attractiveness of the stores for customers by protecting them from the sun and rain.

▶ ***https://www.greenyellow.com/en/***

SOLAR INVESTORS GUIDE PODCAST

Cyber security – villains come via the Internet

photo: SolarPower Europe/ private

Cybersecurity is a burning issue for inverters and solar storage systems. Uri Sadot is Cybersecurity Program Director at SolarEdge and Chairman of Digitalization at the European industry association SolarPower Europe. In this talk, he explains risks and incidents and analyzes gaps in the security of systems and installations. He says: Those who take precautions avoid criminal access. Those who wait risk significant damage – from economic losses to system failure and grid disruptions. Duration of the podcast: 1:09 hours

▶ ***https://www.pveurope.eu/podcast***

PRODUCTS ON VIDEO

Huawei FusionSolar – storage with hybrid cooling

PV Guided Tours: The system supplies three-phase backup power and utilises an intelligent EMS. The focus is clearly on safety and efficiency – including for the new, hybrid-cooled Luna2000-215kWh battery storage system for C&I. It has been awarded the highest safety certificate by TÜV Rheinland.

▶ ***https://www.pveurope.eu/videos/pv-guided-tours-2025***

photo: Vorsatz Media

Despite rising costs for direct marketing of surplus solar power, insurance, technical management and metering, income from the installation continues to grow. Depreciation is another key factor. For tax purposes, the solar carport is designed for a 20-year operating life. With a total investment of €1.25 million, WNE can claim €62,500 per year in tax deductions. This structure ensures the investment is recouped within about 15 years.

After this time, the WNE shareholders will benefit directly from the solar carport. Profits increase more quickly after ten years, once the citizen loans have been fully repaid.

It is also important that the effort required for maintenance, repairs and replacement of components is manageable. Roughly estimated, this can be set at one to two percent of the investment.

FRANCE

New rules on mandatory solar for car parks

Solar canopies have been required on parking lots since 2023. New regulations now set out the specific requirements and penalties for non-compliance. The French government has issued a decree detailing the solar obligation for parking lots that has been in force since 2023, including the associated penalties. Under the regulations, all parking lots of 1,500 square metres or more must be at least 50 percent covered with solar panels.

photo: Gridparity

When calculating the area, not only the parking spaces themselves are counted, but also traffic routes and other sections of the lot. Green spaces, storage areas, and zones for logistics, loading and unloading are excluded. Areas used for parking vehicles carrying dangerous goods are also not considered parking spaces. If there are several parking spaces next to each other, the respective operators can agree that the joint parking area is counted as a whole. This means that at least half of this joint parking area must be covered by a solar roof and not each area individually.

The solar obligation does not apply if the technical or geological requirements are not met or if there are conservation reasons to the contrary. The solar obligation may also be waived if there is too much shade from trees or if the solar radiation is too low to operate a photovoltaic system economically. The parking lot operator must prove that the installation of a solar system is impossible or uneconomical. Parking lots exclusively used for vehicles with a total weight of more than 3.5 tons are also currently exempt. This regulation has been in force since 1 July 2023, with transitional periods for smaller parking lots. For example, lots of at least 10,000 square metres must be fitted with a solar system by 1 July 2026. For lots between 1,500 and 10,000 square metres, the deadline is 1 July 2028. However, departments can still set separate transitional periods.

Parking lot operators who fail to meet the solar obligation face steep penalties. Operators of parking lots up to 10,000 square metres may be fined up to 20,000 euros per year, while larger lots can incur fines of up to 40,000 euros annually until compliance is fulfilled.

The new decree also covers cases where a parking lot operator assigns the solar installation to a third party – for example through a tender – but the project is not carried out or is delayed. All specific provisions are outlined in Decree 2024-1023, available online in the Official Journal of the French Republic.

PRODUCTS ON VIDEO

Sigenergy – new app optimises energy management with AI

PV Guided Tours: The new Sigenergy app uses AI to optimise energy management, with new features that support the integration of DC optimisers, bidirectional charging and energy tradin – good news for cost-conscious users. The second-generation hybrid inverter, with battery packs and easy retrofit options, is now available.

▶ ***https://www.pveurope.eu/videos/pv-guided-tours-2025***

photo: Vorsatz Media

PRODUCTS ON VIDEO

photo: Vorsatz Media

Tesvolt – new outdoor storage container

PV Guided Tours: The new Tesvolt Forton battery system enables commercial enterprises to participate profitably in energy trading for the first time. Thanks to high-temperature cells with LFP technology, classic applications such as peak load capping and solar self-consumption are now more cost-effective. A 15-year performance guarantee with two full cycles per day ensures a secure investment.

▶ ***https://www.pveurope.eu/videos/pv-guided-tours-2025***

Solar installations at Tychy from the air.

photo: Quanta Energy

Solar power and batteries reduce energy costs

C&I ■ With 58 MW of photovoltaic power, European carmaker Stellantis aims to decarbonise vehicle production in Poland. The project combines open-space systems with a large carport. **by Manfred Gorgus**

The multinational automaker Stellantis was formed in 2021 through the merger of Fiat Chrysler Automobiles and the PSA Group (Peugeot Société Anonyme). Headquartered in Hoofddorp, Netherlands, the company brings together 14 well-known car brands, including Abarth, Alfa Romeo, Chrysler, Citroën, Dodge, DS Automobiles, Fiat, Jeep, Lancia, Maserati, Opel, Peugeot, Ram and Vauxhall. With operations in over 130 countries and production facilities in 30, Stellantis ranks among the world's largest automakers.

EV production discontinued in March 2025

Stellantis operates several production facilities in Poland, including the plant in Tychy. Production of the Leapmotor T03 electric subcompact, a collaboration with its Chinese partner Leapmotor began on the site in September 2024. However, the model was discontinued at the end of March 2025.

While the exact reasons for ending the partnership remain unclear, political tensions between China and the EU, including Poland's support for EU tariffs on Chinese EVs, may have played a role.

Sustainable production with PV

Despite these challenges, Stellantis continues to focus on sustainable initiatives in Poland. The company has commissioned Polish solar installer Quanta Energy S.A. to deliver 58 megawatts of photovoltaic capacity.

The project includes ground-mounted PV systems across four Stellantis production sites, along with what the company says will be the largest carports in Central Europe, providing nearly 7 MW of capacity. In total, around 54 hectares of land have been allocated for the solar installations.

Up to 56% energy efficient

The first photovoltaic system, with a capacity of 2 MW, was completed and commissioned three months ahead of schedule. Since the end of January, it has been supplying the Stellantis engine plant in Tychy with clean solar power. The next step will be the installation of a battery energy storage system (BESS), enabling the Stellantis plant in Tychy to achieve energy self-sufficiency of up to 56%.

photo: Quanta Energy

The factory covers a major share of its electricity demand from the sun.

Independent, safe and clean

Sławomir Czernecki, Director of the engine plant in Tychy, explains: "Thanks to this investment, Stellantis' Polish plants will not only become more energy independent, but also more environmentally friendly. The reduction of CO_2 emissions, increased energy security, and lower operating costs are tangible benefits. These advantages are invaluable in a constantly changing business environment and in the face of growing international competition."

Horsepower and solar power

In the future, the Stellantis car company will not only be a major player in the global automotive industry with a strong presence in Poland, but the company will also play an important role in sustainable energy projects.

▶ ***https://quantaenergy.solar/***

photo: Quanta Energy

Solar fields were combined with canopies for parking lots.

SOLAREDGE

Retailer reduces charging costs by 70 percent

BV-Comoffice specializes in the installation and maintenance of office and media technology equipment. The company invested in a 100-kilowatt solar rooftop system. It is powered by Solaredge inverters and power optimizers.

A 40.5-kilowatt-hour battery supplies the company's fleet via twelve charging stations. The energy management software for C&I enables the retailer to better manage its own solar power consumption.

At BV-Comoffice, the software is configured to prioritize self-generated solar energy to meet the building's energy needs. Excess solar power is stored in the battery for use later in the evening—precisely when grid electricity rates are highest.

The second priority is supplying the electric vehicle fleet. Since employees' charging needs vary, tiered charging modes allow priority users, such as sales staff, to access grid power when needed. Other non-priority vehicles are charged only when solar power is available.

Employees also have the option of charging their electric vehicles with grid power via an app, with costs billed similarly to public charging

photo: Solaredge

stations. "The Solaredge software upgrade has fully automated the distribution of solar energy to the building, battery, and EV chargers, reducing our charging costs by 70 percent," confirms Christoph Vogl, Managing Director of BV-Comoffice. "The personalized charging options for electric vehicles enable smooth operations for our team."

A key factor in the solution's efficiency is the C&I inverter's ability to achieve oversizing of up to 175 percent. This enables optimal use of excess solar energy for the electric fleet.

▶ ***https://www.solaredge.com/en***

Fenecon's booth at Munich fair last May showed a lot of new storage systems.

photo: Heiko Schwarzburger

„A storage system must do many different things"

Technology ■ The market for home storage is sluggish while C&I and large-scale storage are on the rise. To increase sales, the right strategy is essential. What factors determine success on the market? **Franz-Josef Feilmeier** from Fenecon explains.

an interview

Home storage market is difficult all over Europe. What are the reasons for this?
Franz-Josef Feilmeier: *After the energy crisis there were one and a half quite powerful years, but after these, the market did not proceed growing. Instead it went down, and especially the product itself changed. So it's not a PV battery anymore, just doing on consumption in the night. Meanwhile, a storage system must do much more, many different things. And that's why whoever was not prepared for this, manufacturer or installer, have problems. In our case, we're growing with our market share. We're quite happy in this market.*

You not only supply home storage systems, you offer C&I systems, too, and utility scale storage systems. What are the innovations this year?
We have quite some innovations in the hardware area. We have a new commercial system, 50 Kilowatt, backup ready, PV direct connection, and with stackable LFP battery modules, as the installers like to use them. Our commercial systems are now quite able for clustering, even more than one megawatt-hour in the standard systems, as the wholesalers and installers know it. And of course, for the large systems, which we built ourselves based on EV batteries, there we have different product types for different applications. Quite interesting market right now.

How many megawatt-hours can your biggest system store?
Our new and biggest product is Fenecon Industrial XL. It has a charging power of up to 1.5 megawatt and 4 megawatt-hours of capacity.

Which functions do you need for C&I and for grid-connected large scale storage?

The functions of a storage system are always based on the energy management system, which was always our priority to develop it. Our energy management system base on open source and on applications, which can change by time. That's what we learned is absolutely necessary. It's highly appreciated by the installers out there.

You're building giant storage systems with EV-Batteries, traction batteries from electric cars. Why do you do this?
In Germany we have two plants, and another one in America just ramping up. The large scale BS market was last year 1 gigawatt-hour. But at the same time, Germany threw away 5 gigawatt-hours of EV batteries, which finally didn't make it in the car. They are considered as waste, even if the batteries are new, very high quality, even much better than the LFP batteries, where, of course, the target is just to make them cheap.

What is the reason for this? Is it the high automotive standard for EVs?
Automotive quality is exactly where we are in. So we are acquiring these batteries from the leading OEMs and developing them into our four different industrial platforms. And then they can be used in commercial, industrial or solar park stand-alone applications.

You mentioned a new factory in Bavaria and another one in the United States. How important is production in Europe or even in the US for the American market?
We have a new trend, local for local. What we do in US, everything comes from US and is for US, and we do the same in Europe. It's a completely made in Germany product for the European market, based on the batteries which are already here. And I think that's quite important, first to use those batteries instead of throwing them away.

Interview by Heiko Schwarzburger
▶ ***https://fenecon.de/en***

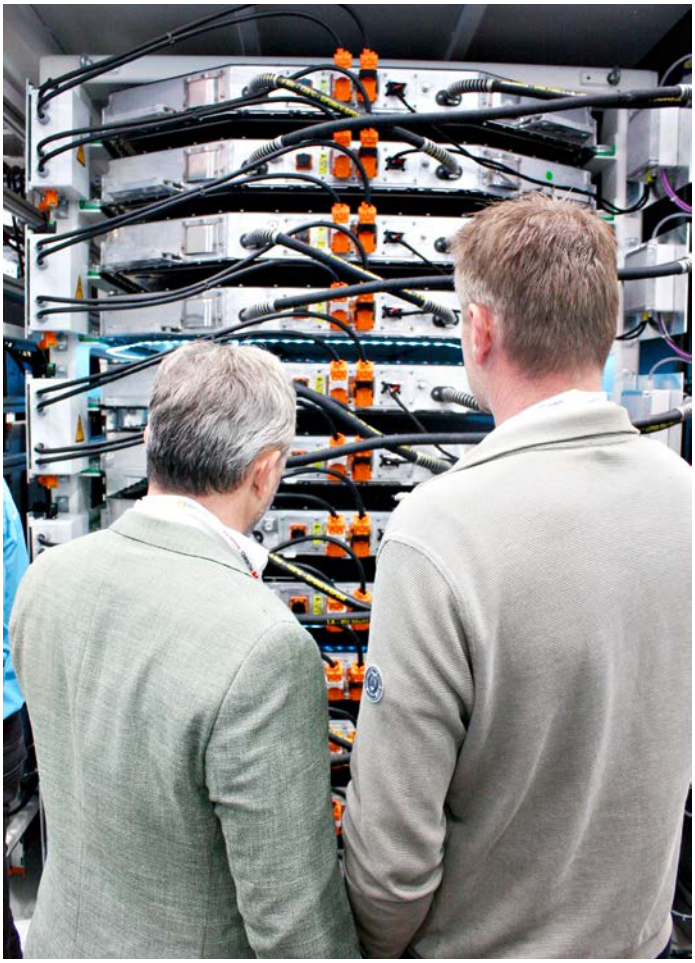

photo: Heiko Schwarzburger

The storage systems are stackable to grow with customer's wishes.

EXPERTS ON VIDEO

Fenecon: Innovations driving C&I storage

CEO Talk: The market for home storage is sluggish while C&I and large-scale storage are slowly on the rise. To increase sales, the right strategy is essential. The key question: What factors determine success on the market? Franz-Josef Feilmeier, CEO of Fenecon explains. Watch the video to find out.

▶ ***https://www.pveurope.eu/videos/pv-guided-tours-2025***

photo: Vorsatz Media

QSTAR/E-MOBILITY

400 kW charging hub for electric trucks

Soltech subsidiary E-Mobility has completed a new high-tech charging station for Qstar, comprising four 400 kW fast chargers, smart control, a transformer and monitoring services. The installation is part of Qstar's investment in electric charging for heavy traffic and the wider development of charging infrastructure in the region.

E-Mobility was responsible for the project's design, planning, transformer solutions, electrical engineering, installation and commissioning. "This is not just a charging station, but a complete energy hub. With 400 kW chargers, fast and efficient charging stops are possible," said Martin Götesson, CEO of E-Mobility.

In recent years, petrol station operator Qstar has intensified its sustainability efforts with the goal of reducing the climate impact of the transport sector. By investing in charging infrastructure for both passenger cars and heavy vehicles, the company aims to support the transition to fossil-free transport.

"We want to create sustainable solutions for the transport of the future and offer our customers access to powerful and reliable charging, regardless of vehicle type," said Ann-Sofi Karlsson, Business Developer at Qstar. The company operates a dense network of petrol stations in Sweden.

▶ ***https://qstar.se/***

This long-strechted car park building was upgraded with green and blue solar modules.

Park-and-Ride – and charge

High value properties ■ Parking garages and underground car parks are prime sites for public charging points. Major operators including Contipark have installed infrastructure at scale, although grid connection limitations are slowing further growth.

by Sven Ullrich

The expansion of publicly accessible charging infrastructure is considered a key driver for advancing electric mobility. In urban areas in particular, finding a suitable charging point remains a challenge for electric vehicle users. Parking garages are well suited to address this need, especially at park-and-ride sites on the outskirts of major cities. Equally, parking facilities at shopping centres or similar public locations offer promising opportunities for the installation and use of charging stations.

However, the path to implementation is more nuanced than it first appears. Dennis Keller, who oversees charging infrastructure, electric mobility, and energy management at Con-tipark, is well aware of these challenges.

photo: Heiko Schwarzbunger

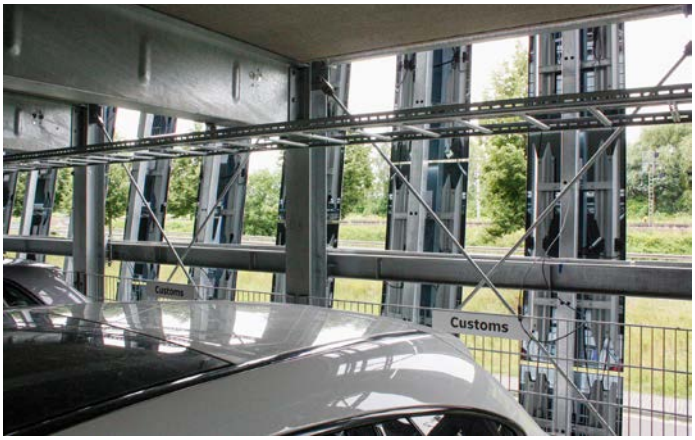

photo: Heiko Schwarzbunger

The solar facade protects the cars from rain, snow and storm.

photo: Heiko Schwarzbunger

The cables of the modules are fixed to the beams.

The Berlin-based group operates an extensive network of nearly 570 parking facilities across Germany, many of them multi-storey garag-es.

Roaming charging

"Wherever contractually possible, we are equipping our parking facilities with charging stations as quickly as we can, across both standard parking spaces and parking garages," explains Dennis Keller. "We are building this infra-structure entirely without subsidies, investing independently and refinancing through charging fees."

This approach remains a challenging business model. High upfront costs mean returns are only realised over prolonged timeframes. "At many loca-tions, we offer our own parking cards, but many customers still prefer the roaming model," Keller adds.

Roaming users enjoy flexible access, charging at multiple locations with a single card not tied to a specific provider.. "This limits our flexibility in prod-uct design, even though barrier-free charging is of course beneficial for the growth of electric mobility. It also means we are dependent on the pricing structures set by Mobility Service Providers or MSPs," Keller notes.

There are additional communication hurdles to be cleared. MSPs set their own tariffs, so "we cannot display the exact electricity cost to customers at the charging point," Keller emphasises. Nevertheless, Contipark continues to invest upfront. In some cases, opera-tors of parking garages or underground car parks also contribute, recognising the value of charging infrastructure in strengthening customer loyalty. This is particularly relevant for shopping centres, which operate their own parking facilities and can offer added value to customers.

The same applies to parking garages near railway stations managed by Contipark. "We also have a joint venture with Deutsche Bahn, DB Bahnpark. Here, too, all parties are ea-ger to provide charging infrastructure as quickly as possible," says Keller.

photo: Heiko Schwarzburger

The solar modules are fixed on a solid substructure made of steel.

Contipark has now installed over 2,000 charging points across its sites. "We operate be-tween 30 and 40 charging points per facility, across a total of around 60 locations for elec-tric vehicle drivers," Keller explains. The majority are 22-kilowatt AC charging points. "Electric car owners do not expect rapid charging in parking garages or underground car parks. Vehicles typically remain parked for more than ten or twenty minutes, so AC charging aligns well with user behaviour."

AC charging usually sufficient

Fast chargers, namely 150 kilowatts and above, are predominantly deployed in open-air parking lots, where installation is far simpler. The three domains Keller manages at Con-tipark – charging infrastructure, electric mobility and energy management – are closely interlinked. Energy management is a central pillar of charging infrastructure in parking garages, as grid connection capacities are always limited. "Even when we consider expanding grid connection capacities, planning horizons are typically one to two years," says Keller.

Grid connection as bottleneck

Challenges with distribution grid connections add further complexity. "Approval processes are complex and time-consuming. Sometimes, we only receive permits for five or six charging points, despite applying for 30 or 40. This makes installation complicated and unsatisfactory," adds Keller.

To improve resilience, Contipark has begun supporting its charging infrastructure with on-site photovoltaic systems, where feasible. Installations are

T-WERK

Standardised solar facade for parking garages

Mounting system specialist T-Werk, based in Bavaria, has developed a standardised, modular substructure for installing photovoltaics on parking garage facades. The system is compatible with any parking garage built using double-T girders.

Installation is tool-free and straightforward, using only clamping brackets. T-Werk remains committed to its modular component approach: the system builds on existing T-Werk sub-structures, using Zelos pitched roof profiles and Chronos clamps – components that will already be familiar to installers.

Utilising parking garage facades offers several advantages. On-site generated electricity can be used directly for electric mobility in combination with charging infrastructure. Sur-plus energy enables operators to reduce operating costs and bolster their sustainability credentials, benefiting both operators and municipalities. Vertically mounted photovoltaic systems also reliably generate electricity during periods of low sunlight, such as mornings, evenings, and winter months, as little snow accumulates and panels are better oriented towards the low sun than roof-mounted systems.

photo: T-Werk

▶ ***https://t-werk.eu/en/***


photo: Ansgar Schwarz/Contipark

Parking garages are ideal locations for the installation of charging points.

currently underway at sites in Bielefeld and Jena. The integration of storage systems is also planned, to buffer charging loads and prevent overloading limited grid connections.

Solar and storage provide support

Corresponding pilot projects are already in preparation. "However, rolling this out at scale remains a challenge," Keller admits. "We are working towards standardisation, not only in installing charging infrastructure, but also in combining it with photovoltaics and storage. Without scalability, economic viability becomes difficult."

Storage could resolve some issues, but even without it, the infrastructure is already robust. Contipark has implemented dynamic load management at every site, distributing total charging capacity among vehicles. "At present, demand has not reached the limits of our grid connections," Keller notes. "Fundamentally, the charging power at each point is determined by the vehicle's requirements."

Aligning charging power with demand

When a car with a low battery connects, the load management system detects this and allocates more power than to a vehicle that is already highly charged. "The system adapts charging power to the overall situation," Keller explains. "It's a combination of each vehi-cle's needs and our available capacity."

Vehicles have different charging curves, and power requirements decrease as the charge level rises. In this way, Contipark ensures sufficient, reliable charging power for every vehicle.

In the future, the value of real estate will be largely determined by the cost of operating it. Energy costs are crucial for profitability. Solar power increases revenue and reduces energy purchases.

▶ ***https://www.contipark.de/en/***

SMA

Wallbox protected against data theft

Since August 2025, SMA's new E-Charger with firmware version 2.05.x.R has met the cybersecurity requirements of the European Radio Equipment Directive (RED 2014/53/EU). The wallbox also complies with the ETSI EN 303 645 security standard. With ETSI certification, SMA goes beyond legal requirements, strengthening data protection and cybersecurity for homeowners and businesses.

Firmware version 2.05.x.R also allows users to monitor up to 20 E-Chargers via the SMA Data Manager using the Modbus TCP communication standard. This works in a similar manner to SMA's EV Charger Business solution for commercial electric vehicle fleets.


photo: SMA

The wallbox is delivered with a range of accessories. SMA supplies a type 2 mobile AC charging cable in lengths of five, 7.5 or ten metres, along with a cable holder. Charging can be initiated using RFID cards. For parking lot installations, customers can order a pedestal to turn the wallbox into a charging station. SMA offers pedestals for one or two wallboxes. The wallbox supports several charging modes and works with dynamic elec-tricity tariffs.

▶ ***https://www.sma-uk.com/***

WE TOWER

Charging electric cars in vertical space

WE Tower has developed an innovative and space-saving solution for urban parking: a multi-storey system that combines parking and charging for electric vehicles. In just 50 square metres, up to 30 electric cars can be both charged and efficiently stored.

The first WE Tower was inaugurated in Berlin's Spandau district, close to the Stresow S-Bahn station, offering space for ten electric vehicles. The project targets commuters who switch to public transport at this location.

Managing director Burhan Aykut has developed a patented, fully automated system for the facility. Drivers steer their vehicles onto a platform, each equipped with a 22-kilowatt charging station. Once connected, the platform is lifted and shifted sideways into a parking position. The lift then collects a free platform and lowers it for the next vehicle.

photo: Velka Botička

On return, the lift brings the driver's platform down. Just before reaching ground level, it rotates the platform 180 degrees, allowing the driver to exit forwards, regardless of how they entered.

The charging stations are powered primarily by rooftop and on-site solar arrays, with three stationary storage units ensuring a reliable and uninterrupted power supply without the need to upgrade the grid connection. These storage units also support additional DC fast charging stations installed outside the WE Tower.

▶ ***https://www.we-tower.com/en***

Power Magic is the AC coupled storage solution by Sofar.

photo: Heiko Schwarzburger

photo: Heiko Schwarzburger

PowerIn offers a smaller system, too, designed for minor commercial use.

„Our Customers have full flexibility"

C&I storage ■ Commercial storage is not only the hot trend in Germany. It is a trend all over Europe. **Kenneth Frey** from SofarSolar tells us more about the business. He says: It is crucial to have reliable suppliers and good service after the installation.

an interview

Which European markets are very interesting at the moment?
Kenneth Frey: *If you look to the C&I storage market, actually the Netherlands or the Benelux region in general is one of the key markets. They are even further along than Germany on that part. But we're seeing a fast development all over Europe, doesn't matter whether in Hungary, Poland or Czech Republic. Everywhere our partners are demanding storage solutions more and more, and the market is clearly moving in that direction.*

Everywhere commercial storage systems are coming up, like mushrooms plopping up. What is the main business model or the main functionality for C&I?
To be honest, we see a lot of different models, depending on the country. Peak shaving would be, of course, one of the models. But we're seeing also more and more energy trading, even with the C&I storage, which we saw before more strongly to the big container storage. So that's a development we have seen in the past 12 months. In general, just for companies, of course, to reduce their electricity costs effectively because battery prices have become attractive enough in the market.

At the Munich fair this year Sofar presented a new solution, the PowerIn. Compared to the bigger PowerMagic – what is the difference?
The key difference is the new solution is a bit smaller with 100 kilowatt-hours. It's more compact, more for smaller applications and demand. And another key point, it offers 1C instead of 0.5C offering more flexibility.

C means the rate of charging or discharging. So you're going to offer a higher power load and unload than the bigger one?
Customers have the full flexibility with both solutions now. That was our goal, as we see a lot of installations in the range of 100 kilowatt hour all over Europe in different countries.

Which are the hotspots at the moment for you?
For us as a company, we've always been very strong in Poland, but we have also been. Since many years it has been really one of our key markets with strong local presence. We are also quite focused on the German-speaking region, on Benelux,

photo: Heiko Schwarzburger

Marketing director Raoul Rotarius explains the big PowerIn of Sofar. It is a large DC coupled battery.

EXPERTS ON VIDEO

Sofar – new C&I storage systems

CEO Talk: Power storage for C&I applications is booming. Sofar is expanding its portfolio with the launch of the new PowerIn system this year, and is ramping up sales across Europe. What's the strategy behind this push? That's what we're about to explore.

▶ *https://www.pveurope.eu/videos/pv-guided-tours-2025*

photo: Vorsatz Media

France, Czech Republic, and Hungary. Those are our core markets where we are present with very strong local teams.

The business is not only selling solutions. It is installation and, of course, service during operation. How important is this?
If you're not going to have after-sales service, then it's going to be very difficult after half a year to convince installers to continue buying your product. Our focus goes clearly there that our technical director basically has more or less the majority of the manpower in his team.

What does this mean?
The split between pre-sales and after-sales shows a strong tendency to after-sales. Our concept is to make sure that the installer has the right support.

Interview by Heiko Schwarzburger
▶ *https://sofarsolar.eu/*

Bidirectional charging should not be a problem with DC fast chargers.

photo: Compleo

Grid compliance sets the benchmark

Bidirectional charging ■ Electric vehicles are poised to serve as decentralised energy storage for buildings and businesses. Realising this potential will rely on meeting advanced hardware and certification standards.

by Sven Ullrich

Connecting an electric car to a charging station and using its battery to power a building is an appealing concept. But is it already a practical reality? Several projects demonstrate that bidirectional charging can operate directly with the power grid. A few months ago, Munich-based charging infrastructure provider The Mobility House launched such a project in France together with Renault.

Volkswagen also initiated its own project in Sweden in 2023, enabling electric vehicles to supply electricity to residential buildings. In VW's approach, energy is transferred from the vehicle to the building via the E3DC home power station from Hager Energy. Technically, bidirectional charging is already possible using a charging box and interfaces between the vehicle and the charging point. "But that is not our objective," notes Stephan Hell, who leads Solution Management for bidirectional charging at Compleo Charging Solutions.

Great variety of devices

The focus is not on isolated or proprietary solutions. "Our aim is for all electric vehicles to work seamlessly with wallboxes from any manufacturer and with any electricity provider," says Stephan Hell. "If a household adds a second electric vehicle from a different manu-facturer, it needs to function just as reliably."

Once carmakers implement a common communication standard, the charging station be-comes central again. To supply electricity to the grid, the charging station – as with like any solar inverter – must comply with regula-

tions and standards for low-voltage grid con-nection. This also applies if the car is only indirectly connected to the building's grid con-nection point via the household electrical system.

Keeping costs in check

Several questions remain unresolved. There is still no clear process for certifying and testing systems to ensure they deliver grid-compliant electricity at the required quality. Guidelines for installer training are lacking and it remains uncertain whether grid operators across Europe will accept the technologies. "Manufacturers also want to offer their charging solutions outside of Germany," says Stephan Hell.

Cost control is also key, and it is not considered practical to install all power electronics inside the charging station. "There is ongoing discussion about making simple AC wall-boxes suitable for bidirectional use. Technically, this is possible, but the regulatory frame-work is not yet complete," says Stephan Hell.

Grid must remain stable

Wallboxes need to communicate with the vehicle and deliver grid-compliant alternating current, effectively acting as inverters. Technically, this is already well established. "What is still lacking is coordination in the background: Who is responsible for what? How is communication structured between vehicle owners, wallboxes, energy suppliers and ag-gregators? Many questions remain," says Stephan Hell. "Energy suppliers are rightly con-cerned about grid stability. Communication channels and responsibilities still need clear definition."

This highlights the need for standards that wallboxes and electric vehicles must meet to feed electricity bidirectionally into the grid. In Germany, the electrical industry and grid operators have already developed requirements for bidirectional charging.

Fulfilling technical requirements

According to European and national guidelines, the system consists of two distinct units: the electric vehicle and the wallbox. This means at least part of the system is mobile and can be replaced at any time. As a result, every vehicle that connects to the wallbox must meet the requirements of the grid code.

Grid-compliant capability must be verified at the wallbox. This component is permanently connected to the power grid and must be configured by the installer according to the tech-nical connection conditions set by the grid operator. Essentially, the authorities recom-mendation assigns grid connection protection to the wallbox, while the car manages fre-quency regulation, reactive power and other dynamic grid parameters. Stephan Hell says, "For us at Compleo, this is practical, as we develop both onboard chargers for vehicles and wallboxes within the Kostal Group."

Germany and Switzerland the frontrunners

These guidelines give manufacturers clarity on what needs to be certified to feed electricity into the grid in Germany. In Switzerland, bidirectional charging is only permitted if the combination of vehicle and charging station meets the "VSE Recommendation on Grid Connection for Energy Generation Systems (NA-EEA)" and relevant standards for electrical safety and electromagnetic compatibility. Once registered, the distribution network operator can approve the system.

At the European level, such regulations are still lacking. The harmonisation process has stalled. However, it is already clear that additional hardware will be needed in both vehi-cles and charging stations.

Electricity from the car to the storage system

Stephan Hell expects that next-generation vehicle charging systems will include inverter functionality. "The next step will be the software needed for bidirectional charging. This means not only communication between vehicle and wallbox, but also additional internal upgrades," he says. "Wallboxes will need to provide frequency and voltage measurement, among other features. They must be adapted to support the grid connection requirements in each country."

This also applies when the electric vehicle is integrated into a building's energy manage-ment system and used as a storage unit. However, due to inverter losses, this is not ener-gy efficient at typical building loads. In such cases, Stephan Hell advises charging the home storage system directly from the vehicle battery and supplying the building from there.

Vehicle feeds the house

Further complexity arises if the vehicle feeds electricity into the distribution grid via the household electrical system. It is necessary to measure exactly how much electricity the vehicle supplies to the building, how much is consumed locally and how much flows into the grid. These flows must be separated from photovoltaic generation and, above all, from grid imports. This is particularly challenging in multi-unit buildings or commercial settings, as the legal framework for taxation and energy regulation is still incomplete.

In addition, the Solar Peak Act explicitly excludes feed-in from vehicle batteries, while sta-tionary storage systems are allowed to supply the grid. If it can be demonstrated that the energy comes from a photovoltaic system, this is even counted as solar power. However, if electricity from vehicle batteries is stored and then fed into the grid, the legal classifica-tion remains unclear. Legislators still need to clarify whether this should be treated as grey electricity or categorised differently.

▶ ***https://www.compleo-charging.com/en/***

SUN2WHEEL

Bidirectional DC charging station

photo: Sun2Wheel

Swiss manufacturer Sun2Wheel has developed bidirectional DC charging stations that meet Switzerland's grid connection requirements. These can charge and discharge electric vehicles from Honda, Mitsubishi and Nissan. The wallboxes provide both charging and discharging at ten kilowatts and connect to the building with a standardised CEE plug. A new variant is a bidirectional DC wallbox with up to 22 kilowatts of charging power and up to 20 kilowatts for discharging.

The system converts building AC to DC for direct battery charging. When discharging, DC is converted back to grid-compliant three-phase AC and fed into the building grid. The charging solution meets DIN SPEC 70121 and ISO 15118-2 requirements for communication between vehicle and charging station, and is certified as a combined AC/DC interface for vehicle connectors under Plug IEC 62196-3.

Manufactured entirely in Switzerland, the wallboxes are available with either Chademo or CCS connectors. A V2X controller is also required for bidirectional operation. This soft-ware, which is pre-installed on every Sun2Wheel charging station and can be activated directly, enables homeowners or commercial operators to manage energy flows locally.

▶ ***https://sun2wheel.com***

SMA

New EV charger cuts charging time in half

photo: SMA/Heiko Meyer

Manufacturer SMA presents the E-Charger for solar-optimised charging of electric vehicles. It combines solar and grid power and charges electric vehicles up to 50 per cent faster than standard wallboxes.

The charger is operated via the Sunny Home Manager 2.0, with straightforward integration into SMA's Home Energy Solution. Installers also benefit from automatic updates that add new functions.

The flexible cable entry for wall or pillar installation is also suitable for outdoor locations (protection class IP54). Users can choose from various intelligent charging modes, including solar surplus charging, controlled via the Home Manager.

Automatic phase switching ensures optimal use of solar power, maximising self consumption even when availability is low. Fast charging mode saves time, and the charging destination setting via the SMA Energy app offers flexibility and convenience.

▶ *https://www.sma.de/en/*

LAPP

E-mobility charging portfolio expanded

Lapp Mobility is expanding its range of charging solutions for electric vehicles. New AC products include a self-recoiling cable and a compact adapter, now available Europe-wide via its B2B shop.

The highlight of the new portfolio is the Helix AC charging cable Mode 3 Type 2. Designed with shape memory, it recoils automatically after use, reducing trip hazards and simplifying storage. With charging capacities ranging from 3.7 to 22 kilowatts, it is compatible with both private wallboxes and public charging stations.

Also new in the online shop is the Mobility Dock – a Mode 2 adapter that enables charging of vehicles with a Type 2 connection via a household socket. The adapter is compact and lightweight, with integrated safety functions such as overcurrent and temperature monitoring. It received design and innovation awards prior to market launch. The manufacturer also offers the Ölflex AC charging cable Mode 3, which is suitable for operating modes 1, 2 and 3.

▶ *https://lappmobility.lappgroup.com/en*

photo: Lapp

MENNEKES

Amtron range extended with enhanced private charging

photo: Mennekes

Mennekes has introduced a new 22 kW version of its Amtron 4You 500 wallbox, adding solar integration and company car billing to its charging solution for private users.

Mennekes has expanded its product portfolio for private charging. The Amtron 4You 500 wallbox is now also available in a version with 22 kilowatts of charging power. The new variant complements the existing product family and targets users who require higher charging performance. As with the other models in the series, it offers smart functions such as app control, solar charging and an integrated billing function for company cars.

According to Mennekes, the product range now covers all common private charging scenarios, from simple charging to the intelligent use of solar power. The wallbox can also be supplied with an installation service via the company's certified partners, if desired.

▶ ***https://www.mennekes.de/***

FRONIUS

New wallbox optimized for photovoltaics

The Fronius Wattpilot Flex, available in Home and Pro versions, is a PV-optimised wallbox designed to efficiently charge electric vehicles using either excess solar power or grid electricity. It dynamically adjusts charging based on available solar energy, ensuring maximum self-consumption and cost-effective operation, while supporting integration with variable electricity tariffs.

The Pro version includes an MID-compliant electricity meter, enabling precise kilowatt-hour tracking for transparent billing and compatibility with the Fronius EMIL e-mobility software for efficient fleet management. Installation is simplified with flexible cabling options, a permanently integrated type 2 cable, and optional mounting accessories.

User management is streamlined through RFID technology and a dedicated app, offering convenient control and monitoring. The wallbox's advanced features are complemented by its award-winning design, combining functionality with elegance, and a discreet charge indicator for energy flow visibility.

▶ ***https://www.fronius.com/en-gb/uk/solar-energy/home-owners/products-and-solutions/e-mobility***

photo: Fronius International

REEV

AI-based fault recovery for EV charging

photo: Reev

The Munich-based charge point software provider has launched an AI-powered feature that automatically detects and resolves EV charger faults without manual intervention.

The new feature identifies faulty or offline charge points and restores them without human intervention. Fully integrated into the platform, Smart Recovery improves infrastructure availability, reduces operational workload and enhances the user experience in daily operation. Early data from Reev indicates that 30 percent of outages can already be resolved automatically.

GPT-4-based intelligence is used to recognise recurring error patterns and trigger recovery processes across the network. Smart Recovery is one of the first AI-powered troubleshooting tools embedded directly in an integrated energy and charging platform. The feature is already active for all customers in the initial rollout phase.

▶ ***https://reev.com/en/***

E3/DC

Bidirectional charging with Ford Explorer and Capri

photo: Ford

With the Edison V2H charging solution, storage manufacturer E3/DC is focussing on bidirectional DC charging as an extension of the home power station concept. The Ford Explorer and the new Capri now have the option of bidirectional charging.

'We consider this technology to be an important pillar of a sustainable energy supply,' explains Ford manager Oliver Adrian. Thanks to bidirectional charging, electric cars will also be able to fulfil an important function when parked in the future: As additional storage units, the electric cars will help to flexibly adapt on-site power generation to current demand.

In future, Ford models with a high-voltage battery with a capacity of 77 or 79 kilowatt hours will be able to use stored solar power to supply buildings. A minimum discharge limit of 20 per cent applies to the high-voltage battery in the vehicle to ensure that the electric car remains ready to drive at all times. The Edison V2H charging solution consists of the Edison Connect bidirectional DC charging station and the Edison Power DC/DC converter. In combination with a new S10 E Compact home power station, the V2H wallbox can be ordered from certified specialist partners.

▶ *https://www.e3dc.com/en/*

KONTRON SOLAR/E-SYSTEMS

Optimizing surplus charging

E-Systems and Kontron Solar have unveiled a new solution for optimised electric car charging using solar power. The system includes an intelligent wallbox and an inverter.

The new technology from E-Systems and Kontron Solar ensures continuous charging using solar power, precise monitoring, and easy integration with external energy management systems via standardised interfaces. The system is designed for optimal solar energy use, featuring up to four MPP trackers for maximum input power from Kontron Solar's Solbrid hybrid inverter. Additionally, the intelligent wallbox supports uninterrupted solar charging even in low sunlight, thanks to its implementation of the ISO 15118 standard.

The ISO 15118 standard allows small charging currents to be signaled per phase, enabling a minimum charging power of 1.4 kW without phase switching. This functionality depends on the electric car also supporting the ISO 15118 standard. If not, the Ghostone white-label wallbox provides integrated 3-1 phase switching as an alternative.

photo: eSystems

▶ *https://esystems.de*

SCHALTBAU

New DC contactor for megawatt charging

photo: Schaltbau

Manufacturer Schaltbau has introduced new DC contactors for Megawatt Charging Systems under the Eddicy brand, targeting infrastructure operators for electric commercial vehicles and buses.

The contactors feature a compact open-air insulation design and are built to operate reliably under extreme environmental conditions. A further key safety element is short-circuit resistance. According to the manufacturer, the C330 model can withstand a short-circuit current of 15,000 amperes for five milliseconds without contact welding, representing a relevant standard for high-performance DC systems.

Schaltbau is also launching the C303 and C803 models, designed for confined installation spaces in charging stations. Both models feature low contact resistance and a durable housing. According to the manufacturer, their long service life reduces replacement intervals and downtimes, resulting in long-term operating cost savings of up to 25 percent.

▶ *https://schaltbau.com/en/*

SONNEN

EV charger with three charging modes

Manufacturer Sonnen presents the Home Charger 2, a new charging solution for EVs. The new generation of chargers dynamically adapts its charging behaviour to the solar power generation and the needs of the household.

The Sonnen device offers three charging modes: Smart, Power and Eco. In Smart mode, the Charger 2 intelligently selects the charging time windows to charge the vehicle with as much solar power as possible by the desired departure time. In Power mode, the car charges with the maximum available power of up to eleven kilowatts.

Eco mode, on the other hand, enables purely solar charging regardless of the duration of the charging process. Thanks to integrated phase switching, the charger automatically switches between single-phase and three-phase charging depending on the available power.

A separate mounting plate and an installation cover on the front allow the wallbox to be installed quickly. The integrated DC residual current protection also reduces the installation effort.

▶ ***https://sonnenbatterie.co.uk/***

photo: Sonnen

NRGKICK

EV charging from any standard socket

Austrian company Dinitech is introducing a mobile charging unit for private users and company fleets. NRGkick enables fast EV charging at any standard socket without costly installation.

The mobile wallbox provides up to 22 kilowatts of AC charging power. Its safety plug system allows connection to a range of sockets, from Schuko to CEE. With the Type 2 plug, it can also be used at public charging points without requiring a separate cable.

photo: Dinitech

Using the NRGkick app, users can email charging reports at any time and adjust settings such as charging times, start and stop points and charge limits. An upgraded service tier adds options including solar-powered charging, OCPP integration and tailored fleet features such as the proprietary Charging4Fleets service.

▶ ***https://www.nrgkick.com/en/***

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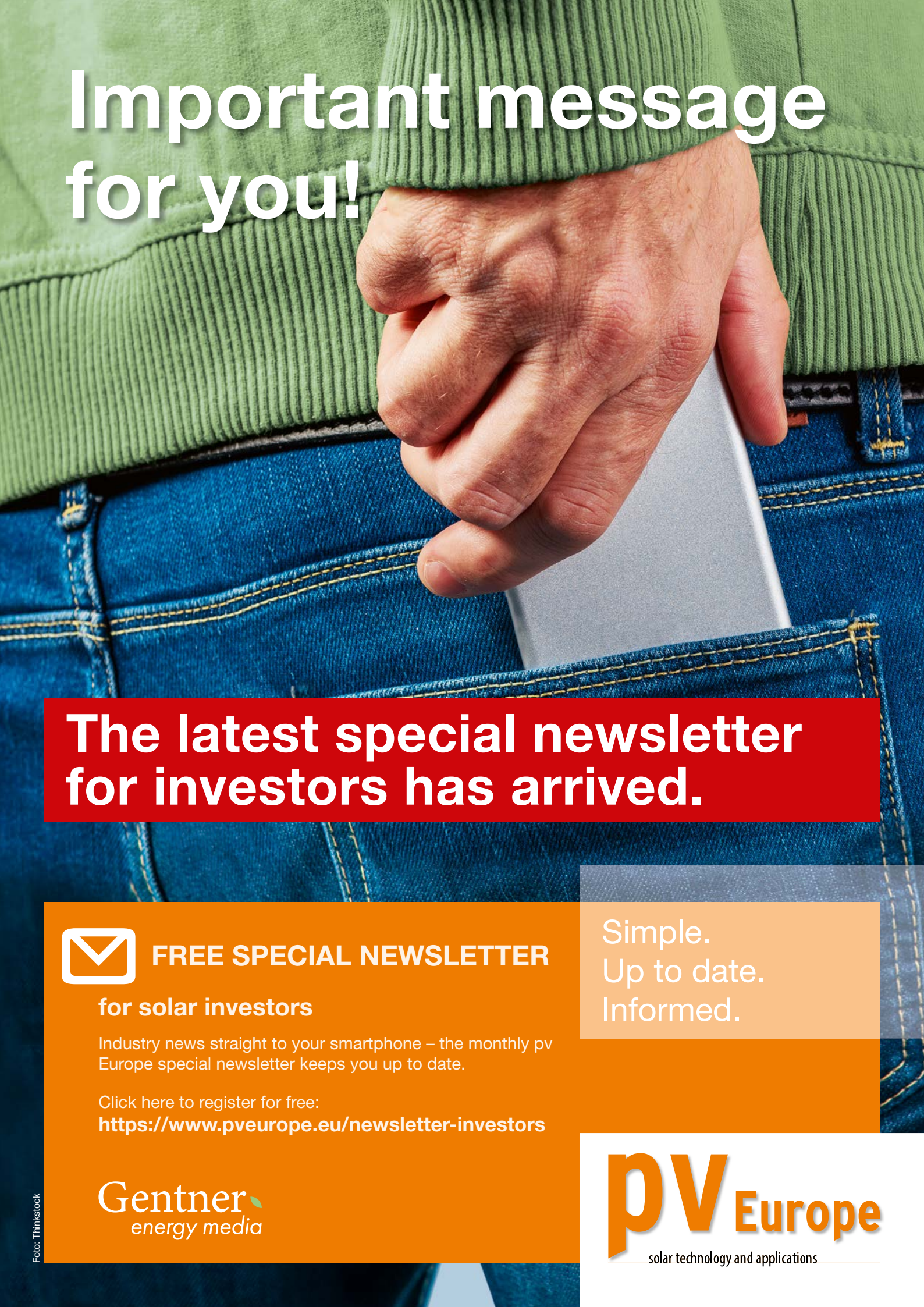

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