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Renewed energy for the world of solar

Intersolar Europe Restart 2021 looks set to be full of energy from October 6th to 8th. PES takes a look at what innovations, products and solutions you can expect to see.



If social life has been largely at a standstill since the beginning of the corona pandemic, this does not apply to the new energy world. This continued its rapid pace. The photovoltaic and storage markets are booming, electromobility and charging infrastructure are on the advance. From October 6th to 8th, the Intersolar Europe Restart 2021 will serve the solar industry's need for orientation and exchange. Numerous exhibitors will present their innovative projects and products. The exhibition takes place as part of the smarter E Europe Restart at Messe München, the focus is on cross-sector and intelligently integrated concepts and solutions for the efficient generation, storage, distribution and use of energy. There

is also a special reason to celebrate: Intersolar turns 30 this year.

Hardly any other industry has changed as much in the last 30 years as the solar industry. Intersolar, which is celebrating its 30th anniversary this year, has always been the generator and catalyst for the industry. According to the German Solar Industry Association, domestic demand for photovoltaics in Germany has grown by around 50 percent since the last Intersolar Europe in May 2019, and that of small-scale PV systems and battery storage systems has even more than doubled, despite Corona.

After more than two years of abstinence due to corona, Intersolar Europe invites you to Munich again this year, together with the three parallel exhibitions, it will take place under the umbrella of the smarter E Europe from October 6th to 8th, 2021 at Messe München. The smarter E Europe comprises the four parallel energy exhibitions and is therefore the innovation platform for the new energy world: Intersolar Europe focuses on photovoltaics (PV) and solutions for the integration of renewable energy. ees Europe is the industry platform for batteries and energy storage solutions. The focus of Power2Drive Europe is on the intelligent charging infrastructure for electromobility. EM-Power Europe focuses on the corresponding energy management and integrated energy solutions.

The current figures for the solar industry show the upswing

In 2020, despite the impact of the COVID-19 pandemic around the world, 138.2 gigawatts (GW) of PV capacity were newly installed, an increase of 18 percent compared to 2019. This marks another global annual record for the solar sector: The worldwide installed PV capacity is 773.2 GW. With this 22 percent increase, the PV sector exceeds the milestone of three quarters of a terawatt (TW) of installed capacity.

This growth is contributing to the fact that PV is expanding its status: 39 percent of the newly installed capacity of all power generation technologies last year came from PV. More than every third power plant unit installed in 2020 can be attributed to PV. At the same time, the share of solar energy in total electricity generation rose to around 3.1 percent. However, almost 70 percent still comes from fossil and nuclear fuels. It is time to further advance and accelerate the use of solar energy.

Despite various price increases along the solar value chain, SolarPower Europe is forecasting another excellent year of growth for 2021. The middle scenario assumes an increase in newly installed capacity of 18 percent to 163.2 GW. For 2025, SolarPower Europe is assuming almost 1.9 TW of globally installed capacity.

And the developments remain extremely dynamic. The increasing demand for

photovoltaics as well as technological innovations and falling costs make the manufacture of photovoltaic products in Europe attractive - as does the existing know-how in research and mechanical engineering. Even if the corona pandemic has not left the industry without leaving a mark, European companies such as Meyer Burger are rebuilding productions in Europe. At the same time, countless new products and services are coming onto the market, many of which will be presented in Munich.

Finally experience innovative products live on site again

This year's winners of the Intersolar AWARD will be presenting their innovative products on site in Munich: DuPont Teijin Films from Luxembourg will be showing the PV backsheets made from recycled material. Goldbeck Solar presents the PV construction system MarcS for the agricultural industry among others. LONGi Solar Technology, the world's largest manufacturer of monocrystalline silicon wafers and modules from China, is representing among other things the new Hi-MO5, a powerful bifacial module for large solar parks. The ees AWARD winners, SAX Power, Commeo and Enphase Energy will also present their future-oriented solutions and products for the storage industry on site.

The development in the module and cell area is also dynamic: Photovoltaic modules are becoming more and more powerful, while PV system costs continue to fall. The driver is the learning curve due to the expansion of production as well as technical optimizations such as the use of larger wafers, half-cell modules and the further development of PERC cell technology (Passivated Emitter Rear Cell). High-efficiency technologies such as silicon heterojunction technology (HTJ), integrated rear contacts or tandem technology will continue to gain importance in the coming years. When it comes to cell formats, there is a trend towards larger, but also thinner wafers, and thus larger and more powerful modules.

Pole position for electromobility

Photovoltaics is only one aspect of the energy transition and should not be viewed in isolation. Rather, it is about cross-sector, integrated and intelligently integrated solutions for the efficient generation, storage, distribution and use of energy. Electromobility and the interaction between e-cars and a sustainable and environmentally friendly energy supply play a decisive role here. For example, e-cars can serve as mobile storage for environmentally friendly energy e.g. generated by the solar carport, and thus make another important contribution to the energy transition. And e-mobility has proven that it is making the breakthrough: Both leading automobile manufacturers and users have been placing their trust in electric vehicles since 2020.

The development of charging technology is following this boom: the public charging infrastructure in Europe alone grew by 35 percent in 2020, and there is huge interest in private wallboxes in Germany. The number of providers and the variety of products are increasing accordingly. The new manufacturer-independent 'Market Overview Charging Systems' with around 110 products from Power2Drive Europe, the international exhibition for charging infrastructure and electromobility, in cooperation with cosmix: Europe's largest platform for charging infrastructure.

On the way to becoming a climate-neutral company

From IKEA to BMW and Google to medium-sized companies: more and more companies are realizing that by using efficient and renewable energy technologies, they can not only meet legal requirements and reduce energy costs. In this way, they also protect the climate and benefit from competitive advantages and the image boost in the eyes of the customers and investors. If companies are moving towards climate neutrality, there is no way around EM-Power Europe Restart 2021. It is the international exhibition for energy management and integrated energy solutions.

However, many companies do not know their CO₂ emissions. Knowing about emissions is the first fundamental step in a climate strategy and a prerequisite for calculating a carbon footprint. But which emissions are relevant for this? Only those of your own company or also those of the suppliers? How can they be calculated? The leading forum of EM-Power Europe Restart 2021 answers these and other questions in daily sessions on the topic of climate-neutral companies.

Green hydrogen: key element and driving force behind the energy transition

Green hydrogen is also driving the expansion of photovoltaics. According to the hydrogen strategy, the EU wants to invest at least 470 billion euros in hydrogen production,



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preferably renewable, over the next three decades, 340 billion euros of which in PV and wind power plants. Green hydrogen is a huge opportunity for an industry and society that is oriented towards climate protection, innovation and sustainability. The hydrogen generated with renewable energy is the focus of the innovation platform The smarter E Europe Restart 2021 and the ees Europe Restart 2021.

The innovation platform and the exhibition also dedicate a separate exhibition area to green hydrogen: in the 'Green Hydrogen Forum & Expo' in Hall B6 there are technologies, services and infrastructure solutions on the subjects of hydrogen, fuel cells and power-to-gas. The 'The smarter E - Green Hydrogen Forum' taking place during the exhibition is a showcase for industry representatives from the entire value chain. In addition to the advantages and disadvantages of the options for the transport and storage of hydrogen, experts shed light on the question of how hydrogen production can be promoted through the expansion of solar and wind energy, through network flexibility, sector coupling and

virtual power plants.

Experience the new energy world together

The signs in the entire new energy world are clearly pointing to growth. The weather extremes of the last few weeks have shown us once again: Consistent climate protection requires significantly accelerated solarization and the mobilization of all forces. The exhibitions, which take place together on the innovation platform The smarter E Europe, see themselves as door openers to the new energy world. They are important drivers, indispensable trading platforms and an impressive reflection of this success story.

There are only a few weeks left until the smarter E Europe Restart 2021 opens in Munich. Come to Munich and take the opportunity to find out about attractive new business opportunities, the latest trends and products and meet experts from all areas of the industry. You can find out which exhibitors are presenting their innovations in Munich and are looking forward to your visit in the exhibitor list:

📄 <https://www.thesmartere.de/exhibitorlist?lang=en>

Interested parties can already organize their visit to the exhibition: you can conveniently book your ticket in the online ticket shop: <https://www.intersolar.de/tickets?lang=en>. Secure the early bird price by October 5, 2021. The trade fair ticket is valid for all trade fairs as part of the smarter E Europe Restart 2021 (Intersolar Europe, ees Europe, Power2Drive Europe, EM-Power Europe).

You can find more information here:

<https://www.thesmartere.de/home>

<https://www.intersolar.de/home?lang=en>

<https://www.powertodrive.de/publications/market-overview-charging-systems?lang=en>

<https://www.thesmartere.de/for-exhibitors/green-hydrogen/info>



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