



Ready, set, solar

Intersolar Europe 2022, the world's leading exhibition for the solar industry, will take place from May 11 to 13, 2022, at Messe München. Its focus on photovoltaics, solar thermal technologies and solar power plants couldn't come at a better time.

Under the motto 'connecting solar business', manufacturers, suppliers, distributors, service providers, project planners and developers and start-ups from around the world will meet in Munich to discuss the latest developments and trends, explore innovations first-hand and meet potential new customers.

The international exhibition focuses on photovoltaics, solar thermal technologies

and solar power plants.

After more than three decades of working towards a sustainable energy supply for the future, Intersolar celebrated its 30th anniversary in 2021. It all started more than 30 years ago with the local Solar '91 exhibition in Pforzheim, Germany, and the vision of a solar-powered future and a more environmentally friendly energy supply. Only five exhibitors took part in Solar '91.

Today, Intersolar Europe is the most important industry platform for the solar industry, where the industry's pioneers and innovators meet. Since 2018 the exhibition has been a part of Europe's largest platform for the energy industry, The smarter E Europe, and this year 920 exhibitors from all over the world are expected. With all of The smarter E Europe events together that totals 1,450 exhibitors.



Intersolar Europe comes just at the right time

PV production is currently experiencing a renaissance in Germany and throughout Europe. The political framework is changing, and new players, products and business models are taking over the market.

There is a great need for sharing knowledge, information and networking. The 12 exhibition halls of The smarter E Europe 2022 at Messe München are almost fully booked. Intersolar Europe comes just at the right time.

The world's leading exhibition for the solar industry presents solutions, companies and products which show up close how the new German government's plan for a solar acceleration package can be implemented in practice in Germany.

A lot needs to happen in the next few years if Germany is to continue to lead the PV market in Europe and reach an installed PV capacity of 200 gigawatts (GW) by 2030. Using new space for PV will be key. Companies such as Goldbeck Solar GmbH and IDEEMATEC GmbH will present their solutions in the area of agrivoltaics and BayWa r.e. AG and Intech GmbH & Co. KG in the area of floating PV.

Intersolar Europe will focus on technical innovations such as the use of artificial intelligence in the operational management of PV power plants, more efficient cell concepts, bifacial modules, higher efficiency levels and higher performance modules, e.g. the Trina module, 600 watts. For example, bifacial modules, which also exploit solar radiation on the backsheet and lead to even higher solar power yields.

When used in combination with single-axis tracking systems in large free-standing installations, bifacial modules have an especially high potential to lower electricity production costs.

Bifacial modules are also experiencing strong growth in applications for agrivoltaics and floating PV. The International Energy Agency (IEA) expects bifacial modules to reach a 50 percent market share by the end of 2023.

Dynamic development in agrivoltaics and floating PV

Agrivoltaics and floating PV are business models which use available space and in doing so drive the expansion of photovoltaics. One of the key advantages of agrivoltaics is that it prevents land usage conflicts with agriculture by increasing solar power production using ground mounted PV systems.

This can be seen in many European countries. Italy, for example, has already pledged EUR 1.1 billion to promote agrivoltaics, including installing 2 GW of agricultural PV capacity. Fruit farms and vineyards offer enormous potential for agrivoltaics. The land becomes dual purpose and, moreover, the solar modules help protect the crops against hail, heavy rainfall, sunburn and frost.

The modules can even replace existing structures such as hail protection systems and polytunnels. Innovation tenders will likely boost agrivoltaics development in Germany.

In April 2021 industry representatives from agriculture, the solar industry, research and certification bodies agreed on DIN SPEC 91434, which will serve as the basis for developing a full DIN standard. In October 2021, the German Federal Network Agency (BNetzA) used this specification to define the agrivoltaics requirements for its innovation tenders, scheduled for spring 2022. In its coalition agreement, Germany's new federal government announced that it plans to promote greater use of agrivoltaics as part of its 200 GW solar target.

Frequently hailed as the third pillar of the global solar market, floating PV plants are also gaining traction around the world. Local projects examining the potential of this technology are currently underway in more than a third of all nations around the globe, and estimates suggest there are around 400 plants already in operation in more than 40 countries, with a total capacity of more than 3 gigawatts (GW).

Over the next four years, experts predict that floating PV capacity will see an annual increase of more than 20 per cent worldwide, with two thirds of this growth expected in markets such as China, India, Indonesia, South Korea, Taiwan, Thailand and Vietnam.

Over the last five years, Europe too has seen a growing trend towards floating solar plants – a development that is hardly surprising given the enormous potential of this technology.

According to Dutch researchers, there is the potential to generate 25 GW of capacity using inland waterways and 45 GW out at sea. Moreover, the Fraunhofer Institute for Solar Energy Systems (ISE) in Freiburg, Germany, has calculated that the artificial lakes at former brown coal mines in Germany alone have the technical potential to generate up to 56 GW.

BIPV and PPAs at Intersolar Europe 2022

BIPV is another important area of application



that will be presented at Intersolar Europe. The German market is where the greatest technical potential lies. Cities generate 75 per cent of carbon emissions worldwide. The redesigning of cities and the building sector will therefore play an important role in the transformation to a climate-neutral society.

The building sector is responsible for as much as 40 per cent of all carbon emissions worldwide and for around 30 per cent in Germany. A range of measures are in place to reduce the carbon footprint of cities and buildings, use surface areas efficiently and strengthen sustainable development in urban areas.

The wider use of solar energy and particularly BIPV can also play a key part in achieving this. By integrating photovoltaics into roofs and façades, existing and newly-built surface areas can be used for multiple purposes. BIPV is incorporated into building envelopes and is an important driver of the transition to cleaner energy.

Solar parks are one of the most important drivers of the PV market. These are increasingly financed with partners from the industrial sector through multi-year power purchase agreements (PPAs). Under the new German Renewable Energy Sources Act (EEG), the marketing of PPAs and their applications are more important than ever before.

Financing through PPAs enables companies to hedge against rocketing electricity prices from fossil and nuclear power plants and take practical steps towards reaching their climate targets. Spain is by far the most important market for solar PPAs in Europe.

According to the current EU Market Outlook for SolarPower Europe, PV installations financed by PPAs with a capacity of almost 3



GW joined the grid in 2021, out of a total added capacity in new photovoltaic installations of 3.8 GW. Solar PPAs are also experiencing a strong upsurge in northern European countries such as Germany, Denmark, Sweden and Poland.

Thus, according to the current EU-Market Outlook from SolarPower Europe, PPAs have since become the third important pillar of PV growth in Germany alongside invitations to tender and self-consumption.

Intersolar Europe and the Intersolar Europe Conference put photovoltaics center stage

This year's Intersolar Europe will be held from

May 11 to 13, as part of The smarter E Europe 2022 at Messe München. Intersolar Europe in Halls A1 - A6 and B3 - B4 of Messe München and the accompanying Intersolar Europe Conference, both major sources of inspiration for the solar industry, will be dedicated to the exciting areas of floating PV, agrivoltaics, building-integrated PV (BIPV) and PPAs.

The Intersolar Europe Conference will start the day before the exhibition and will take place on May 10 and 11, 2022, in the ICM (International Congress Center Munich). Visitors can learn everything there is to know about markets, technologies and financing for PV projects.

This year, besides technological innovations, the main focus will be on market development in Europe and the top five markets, of which Germany is one. The presentation on the Global Market Outlook for Solar Power 2021-2025 by SolarPower Europe will also reveal various scenarios for the future of the international solar industry.

Awards ceremony at Intersolar Europe 2022

One of the biggest highlights of Intersolar Europe 2022 will take place on Tuesday May 10 at 6pm in the ICM Hall 1 of Messe München: To celebrate innovation in the industry, this year three awards will again be presented, Intersolar Award, ees Award and The smarter E Award, at The smarter E Europe. These will once again be presented to companies whose ideas and technologies are helping drive a smart, sustainable and affordable energy supply. PV-related projects competed for, among other things, the Intersolar Award.

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