

The Innovation Hub for New Energy Solutions MESSE MÜNCHEN, GERMANY



THE SMARTER E EUROPE NEWSPAPER | ISSUE 02 2020

Be Part of the Leading Energy Exhibitions and Conferences at The smarter E Europe









PAVING THE WAY TO THE NEW ENERGY WORLD

In view of the rapid pace of climate change, as well as technological developments and plummeting prices for energy from renewable sources, the energy transition is progressing ever more quickly. In talking about climate change, researchers refer to what are called tipping points. The Antarctic ice sheet is melting faster and the ocean is warming up more rapidly than previously forecast. Climate change is alarming and its effects disconcerting, providing us with a real motivation to take action. Society's resolve to decarbonize is palpable. The measures that we take between 2020 and 2030 are crucial for preventing further tipping points. This decade will decide whether or not we will be able to achieve the global target of net zero carbon dioxide emissions. While achieving a vision of a new energy world where electricity and heat are generated by 100 percent renewable sources and supplied safely and reliably around the clock without causing any damage to the environment or climate is more urgent than ever before – it is also within our reach. A quick look at The smarter E Europe, the continent's largest platform for the energy industry, shows that the optimal conditions for achieving this goal are already in place. The necessary technology has long been perfected. What's more, new developments in the industry are pushing this progress forward, with business models in energy storage, smart grids, and e-mobility boosting development even further. All that is missing is the full support of the politicians in charge of implementing the necessary change. Visit The smarter E Europe in Munich and discover innovative products and solutions for a sustainable energy industry!



www.TheSmarterE.de





SECTOR COUPLING ACCELERATES THE ENERGY TRANSITION

On December 13, 2015, leaders from 195 different nations gathered in Paris to sign an agreement on international climate policy targets. The Paris Agreement obliges all countries to take measures toward climate conservation and sets the target of keeping the global temperature increase caused by greenhouse gases below 2° Celsius. This target is already guiding decision-making at the economic and societal level. More and more companies are switching over to business models which focus on renewable energies, thus accelerating the energy transition. Find out just what actions they are taking at The smarter E Europe. The energy future has many facets, including a solar hydrogen fueling station designed by the solar electronics company Fronius. It couples the power, mobility, and heat sectors, and allows for the storage of large amounts of energy over a long period of time. With their new Sonnenbausteine, or "sun blocks", Munich's municipal utilities have begun offering residents who do not own their own house the opportunity to take part in photovoltaic projects via an online platform. And Next Kraftwerke connects renewable power generation systems with commercial and industrial electricity consumers and storage systems. All three companies have been honored with The smarter E AWARD for their achievements. They are all shining examples of how digitalization and sector coupling will shape the future of sustainable energy supply. Further informations are available at \rightarrow www.TheSmarterE-award.com

I ONE TICKET, FOUR CONFERENCES

Do you want to get to know the rules of the new energy world, meet the most important players in the energy industry, and learn more about the moves being made in the international markets? Then check out The smarter E Europe in Munich on June 16–17, 2020. With just one ticket, you can visit four conferences at the innovation hub, and learn about all the aspects of a renewable, decentralized and digital power supply.

At the Intersolar Europe Conference, ees Europe Conference, Power2Drive Europe Conference and EM-Power Europe Conference, you can find out everything there is to know about how renewable energies are changing supply structures. Your ticket grants you access to all four events for the energy world of the future. You won't find more expertise on decentralization, digitalization and sector coupling of energy supply in one place anywhere else.

The smarter E Europe shows you just how electricity, heat and transportation will be interconnected in the future and the role sector coupling will play in the energy supply of tomorrow. You also have the opportunity to make new business contacts in other sectors. The individual exhibitions explore the entire supply chain of the new energy world. The smarter E Europe is the platform for the cross-sector use of renewable energies for an intelligent and sustainable energy supply.

CHARGING SYSTEMS MARKET OVERVIEW

Greater charging power for the e-mobility sector

E-mobility in Europe is booming. According to current figures from EV-volumes, the European market for plug-in hybrids and battery electric vehicles grew by 44 percent in 2019 compared with the previous year. The German government's current stimulus package takes the expansion of charging infrastructure into account and should prove useful in promoting further growth in this area. The market's agility is also apparent in the current market overview for charging systems. This overview presents the e-mobility charging technology available on the European market and was published in coordination with the trade publication photovoltaik. Learn more and download your own copy of the study at: ightarrow www.PowerToDrive.de ightarrow News & Press







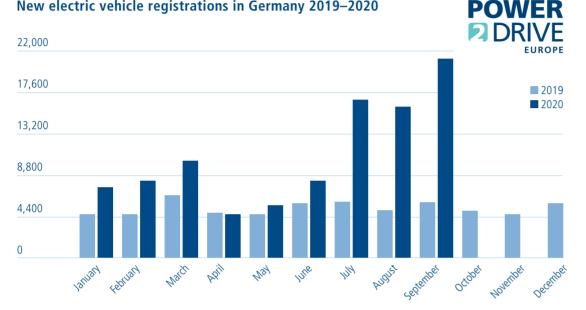
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ELECTRIC VEHICLES MAKE STRONG GAINS IN POPULARITY IN GERMANY

Across Europe, more and more electric cars are taking to the streets. Compared to last year, the number of newly registered electric passenger cars in the EU has gone up by more than half in the second guarter of 2020, achieving a market share of 7.2 percent of all new vehicle registrations. Together with France and the UK, Germany is among the leaders of this market trend. In September 2020 alone, a record 21,188 passenger cars with purely electric drives were registered in Germany -5,112 more than in August. Along with state premiums and the vehicle fleet carbon

emissions limit, the comfort of being able to charge e-vehicles at home using self-produced solar power is one of the main drivers of this development. Over a guarter of all individuals who have purchased photovoltaic systems in Germany already have or intend to purchase an electric car, according to EuPD Research. More and more private households are turning to larger PV installations to cover the additional electricity requirements associated with this transition. This led to a 153 percent increase in seven to ten-kilowatt systems over the first half of 2020.

New electric vehicle registrations in Germany 2019–2020



Source: Kraftfahrt-Bundesamt (KBA) | As of 09/2020 | Graphic: ©Solar Promotion GmbH

ENERGY TRANSITION AWARD



Utilities of the Energy Transition

As part of the energy transition, utility companies are faced with the immense challenge of transforming from classic energy businesses to sustainable solution providers. Until now, only very few utilities have succeeded in fully integrating this new energy world into their product and service portfolio.

That is why it is so important to present these pioneering companies who have already managed to enshrine energy transition technologies in their business models. In lieu of an official award ceremony at The smarter E in Munich, this year's award ceremony was held online for the first time. In addition to keynote presentations from Prof. Dr. Claudia Kemfert, Dr. Simone Peter and Katja Diehl, selected winners presented their solutions.

ENABLING CONTINUED OPERATION OF OLD PHOTOVOLTAIC INSTALLATIONS BY BOLSTERING ON-SITE CONSUMPTION

For 20 years now, Germany's Renewable Energy Sources Act (EEG) has successfully subsidized the use of green power. Today, more than 1.8 million photovoltaic installations with a combined capacity of around 52 gigawatts (GW) are in operation. The investment costs and thus the feed-in tariffs are only a fraction of what they were in the early years. Around 18,000 photovoltaic systems will no longer be funded by the EEG subsidies starting at the beginning of 2021. This figure is expected to rise to around 180,000 installations with a generation capacity of about 2,000 megawatts (MW) by the close of 2025.

In order to keep these chiefly small roof installations run by solar power pioneers in operation and to boost solar power self-sufficiency, pragmatic follow-up regulations must be included in the pending EEG amendment. Berlin think tank Agora Energiewende introduced its own recommendations in September 2020.

Prosumer standard load profile

On-site consumption of the energy produced by photovoltaic installations with an output of up to 7 kilowatts (kW) should be made as simple for prosumers as possible, regardless of whether the PV system is old or new. To make this possible, grid operators are working to develop a new prosumer standard load profile which includes on-site consumption of solar power. One measure involves dropping the requirement to retrofit an expensive smart meter, which would make smaller systems unprofitable rather quickly. If necessary, system

operators can purchase additional grid-supplied power. However, the market should step in to govern on-site consumption via a dynamic pricing system for larger solar installations and as soon as prosumers have a storage device, a heat pump or an electric vehicle. In such cases, smart meters should become the standard, as they measure power generation and consumption every quarter hour, enabling billing based on the measured values. This package would be rounded off by grid tariffs based on time of use. Agora also underscores the goal of utilizing all roofs for solar power generation.



Continued legal feed-in

In accordance with Agora's recommendation, old solar installations whose electrical energy is fully fed into the grid would automatically receive a feed-in tariff from the grid operator after 20 years, the amount of which would be based on the marketing revenue for the electricity provided. The remuneration should also ensure that the operating costs (insurance, maintenance) of plants which have been written off are covered. Modifications to the metering equipment would be excluded.



I INNOVATION PRIZES FOR THE NEW ENERGY WORLD

HALL A4 BOOTH A4.530

AWARD Ceremony Wednesday, June 9, 2021 at 4:30pm The renewable energies market is booming – and for good reason. Numerous innovations are propelling the modernization of our energy infrastructure worldwide. Companies that demonstrate particular esprit in their work to find advanced industry solutions have the opportunity to compete for one of the coveted industry innovation prizes from The smarter E: The smarter E AWARD, Intersolar AWARD and ees AWARD.

In the categories of Outstanding Projects and Smart Renewable Energy, The smarter E AWARD honors noteworthy achievements and innovations which intelligently interconnect electrical energy, heat and transportation using decentralized and renewable energies. The Intersolar AWARD and the ees AWARD pay tribute to pioneering technologies and promising solutions in solar technology and energy storage technology. The awards conferred as part of The smarter E Europe reflect international trends, and also indicate the direction in which the future development of the energy industry is headed.



Innovations can be entered in each of the categories for consideration until March 31, 2021. As clearly proven by the results of the previous year, it is worth taking part. Besides major industry players, the finalists once again included many forward-looking SMEs and start-ups – many of which went on to rank among the winners!

Apply now! → www.TheSmarterE-award.com

EM-POWER EUROPE EXPANDS ITS RANGE OF TOPICS



In 2021, smart grids and the integration of renewable energies, grid infrastructure and system services will be incorporated into the reorganized EM-Power Europe. Previous topics such as renewable and decentralized energy supply, smart building automation, energy management systems and sector coupling within microgrids, districts and buildings as well as commercial and industrial energy services will remain an important part of the exhibition. To complement the enhanced exhibition content, the program will include an accompanying EM-Power Europe Conference and EM-Power Forum.

Decentralization and digitalization are bringing lasting changes to the modern energy world. Starting in 2021, EM-Power Europe will broaden its focus, making it the international hub for those looking to take the next steps on the way to the new energy world. After all, working with all technologies and stakeholders to improve sector coupling is a necessary element of the future energy supply.

I THE SMARTER E EUROPE – 24/7, 365 DAYS A YEAR

The smarter E Europe, the continent's largest platform for the energy industry, unites four energy exhibitions under one roof. All the important topics concerning the energy transition, including the renewable energies, batteries and energy storage systems, e-mobility and the intelligent use of energy in industry and buildings, are on the agenda of the four exhibitions – Intersolar Europe, ees Europe, Power2Drive Europe and EM-Power Europe – and the accompanying conferences.

The vision is a new energy world, in which electricity and heat are generated from 100 percent renewable sources and supplied safely and reliably around the clock without causing any damage to the environment or climate. The smarter E covers the whole spectrum of the industry, offering visitors a comprehensive overview of trends, technologies and innovative concepts for the new energy world. As a platform for the new energy world, The smarter E concentrates on sharing information on energy industry topics



and providing a networking opportunity for global industry players – now with a number of additional digital formats. The innovative platform The smarter E Europe and its four energy exhibitions are not just an in-person event.

The wide range of The smarter E Europe topics is turning into a (live) digital experience. Gain insights into the latest industry trends, market data, research results and product information from Intersolar, ees, Power2Drive and EM-Power Europe and make valuable contacts.

Regular webinars with industry experts offer a deep understanding of market developments and the latest trends in the new energy world. The smarter E Podcast entertains and informs, giving a voice to the players of the new energy world. You can also participate in our digital conferences, seminars, Innovation Days and many other online events for sharing knowledge, presenting brand new market solutions and forging new contacts using interactive networking tools.

Find out more at: \rightarrow www.TheSmarterE.com

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