

HALL B3
BOOTH B3.570

AWARD Ceremony
Wednesday, May 15, 2019
5:00pm



PRIZES FOR THE BEST

They are awarded to companies displaying particular esprit in developing advanced industry solutions. Companies that are a step ahead of the rest also stand a good chance of winning, as do business partnerships with extraordinary ideas already shaping the energy supply of tomorrow today. We are talking about The smarter E AWARD, Intersolar AWARD and ees AWARD innovation prizes.

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 honor pioneering technologies and promising solutions in solar technology and energy storage technology. The awards reflect international trends, and also indicate the direction the future development of the energy industry is headed in.

Beyond that, the awards represent a special appreciation of the winners' work. The Australian company Unlimited Energy is a case in point, having received The smarter E AWARD last year for its off-grid project in the Outback. "We have always seen the innovation prize as the greatest form of acknowledgement in our industry. So we are honored that the international panel of judges has valued our efforts so greatly," says the company's CEO George Zsolt Zombori. Who does the panel of judges have its eye on this year? Join us on May 15, 2019 at the AWARD Ceremony at The smarter E Forum to find out who will take home the prize.

→ www.TheSmarterE-award.com

POWER2DRIVE AND ASSOCIATIONS CALL FOR THE TRANSPORTATION TRANSITION



A number of associations have released a manifesto demanding close linkage of e-mobility and renewable sources of energy. The signatories are urging politicians to establish clear parameters for efficient sector coupling so that the expansion of e-mobility, charging infrastructure and renewable energies can be deployed more rapidly and more comprehensively than before.

The alliance was formed by the organizers of Power2Drive Europe which, like EM-Power, takes place as part of the innovation hub The smarter E Europe. Some of the first signatories include the German Federal Association for eMobility (BEM), the German Association of Energy Market Innovators (bne), the German Association for Solar Mobility (BSM), the German Solar Association (BSW-Solar), the German Wind Energy Association (BWE), the German Solar Energy Society (DGS) and the International Battery & Energy Storage Alliance (IBESA).

They have formulated seven propositions for sustainable mobility. These argue that investment in renewable sources of energy is necessary to cope with the worsening effects of climate change, and that it would be unacceptable for the additional demand for electrical energy to be used in powering electric vehicles to be met using conventional energy sources.

→ www.PowerToDrive.de → News & Press → Press Releases

SMART CITY: EXPERIENCE THE NEW ENERGY WORLD

Renewable energies will make our living environment sustainable. The smarter E Europe is the right place for anyone looking to experience the city of the future! With its focus on the utilization of energy, there is something for everyone at EM-Power; particularly for urban planners. Power2Drive Europe offers a wealth of information on mobility solutions, and you can find out everything you need to know about solar energy generation and storage at Intersolar Europe and ees Europe.

Decentralization, digitalization and sector coupling are transforming the energy industry. The falling cost of renewable energies around the world is driving markets forward. The sectors of mobility, electricity and heat are growing ever closer. A variety of neighborhood projects based on renewable energies and energy storage are already being put into action, often integrating e-mobility solutions and related charging infrastructure.

E-mobility is picking up speed. According to a study conducted by the Technical University of Munich, the number of electric vehicles on the road in Germany could climb from the current figure of roughly 130,000 to approximately eight million by 2030. The study also forecasts around 4.7 million charging stations by then, including 200,000 high-speed charging stations. By way of comparison, the charging point register from the German Association of Energy and Water Industries (BDEW) recorded 6,700 entries at the start of the year.

Renewable energies are more than just a cornerstone of sustainable mobility. They also make it possible to set up microgrids and virtual power plants for an affordable power supply. Thousands of decentralized renewable energy plants, heat/power generation units, storage systems and industrial electrical devices are already networked in Europe. For example, home owners can work together via digital platforms and jointly sell the electricity they have generated from solar energy.

To reconcile sustainability, supply security and economic viability, these decentralized systems need to be intelligently controlled. Energy management systems help to enhance efficiency and save energy, to raise the self-consumption of self-generated energy, and to ease the burden on the power grids. Find out how exactly this works and how renewable energies are shaping the cities of the future at The smarter E Europe.

→ www.TheSmarterE.de



The Exhibition for Intelligent Energy Use in Industry and Buildings
MESSE MÜNCHEN, GERMANY

MAY
15-17
2019

www.EM-Power.eu

EM-POWER NEWSPAPER 2019

SUSTAINABLE CONCEPTS FOR DECENTRALIZED ENERGY SUPPLY

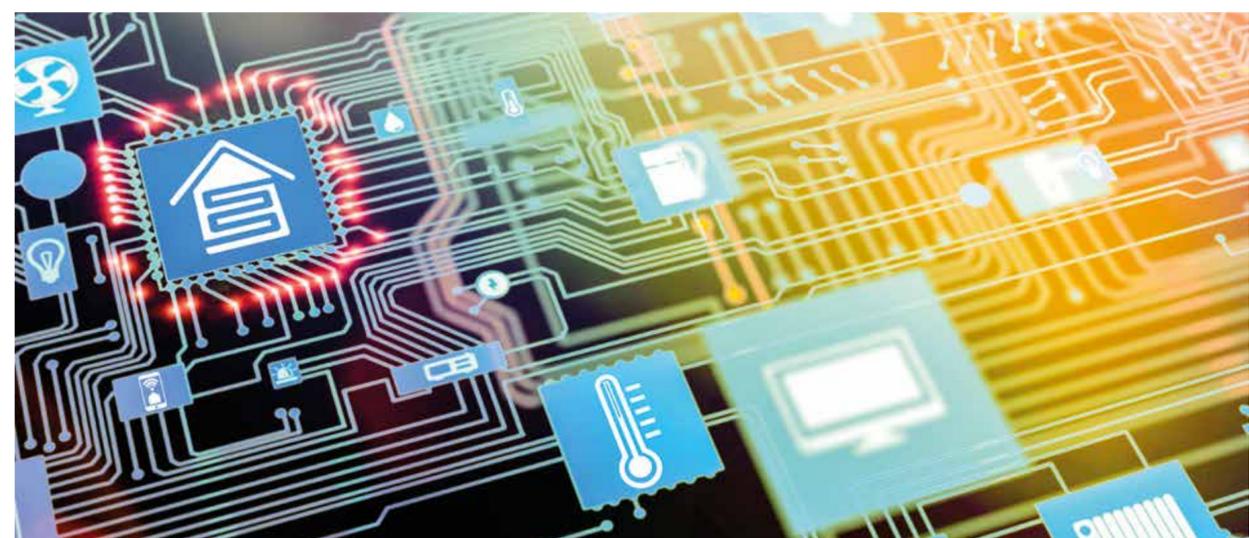
Part of
THE smarter
| EUROPE

EFFICIENCY BEHIND THE METER

Digital, decentralized, renewable and, above all, efficient. These four buzzwords characterize our modern energy supply. Energy is increasingly being generated right where it is needed, from industrial enterprises and single properties to large residential buildings and neighborhoods. Smart solutions are needed to bring electricity and heat from decentralized plants directly to the consumer. Generation, storage,

distribution and consumption must be interlinked and coordinated with each other as closely as possible. Alongside new technologies, new business models and energy services are also cropping up on the market, blurring the line between energy producers and customers. These developments have brought about an enormous need for information and knowledge-sharing. And this need is met by EM-Power, the first

exhibition in Germany where professional energy customers, with their demand for efficient energy technologies, smart building automation systems and energy management, take center stage. EM-Power is aimed at energy managers, planners and consultants from industry, the real estate sector and local authorities who are looking for sustainable solutions for their buildings, installations and real estate.



VISITORS 50,000



COUNTRIES 160

THE SMARTER E EUROPE – A THOROUGHLY INTERNATIONAL EVENT

From 1,172 exhibitors to 1,300 within a year – The smarter E Europe is enjoying impressive growth in 2019. With ten halls and a total area of more than 100,000 sqm, The smarter E Europe is going a step further this year with two additional exhibition halls, reflecting the innovative power of the industry.

Established companies as well as new businesses and start-ups are behind this impressive expansion. They represent the whole spectrum of products, services and solutions for the new energy world and offer an opportunity to gain new perspectives and fresh inspiration – from the latest trends to technologies and innovative concepts.

The smarter E Europe, held every year, is an unmissable international meeting point for the energy industry. The innovative platform brings together four exhibitions: Intersolar Europe, the world's leading exhibition for the solar industry; ees Europe, Europe's largest exhibition for batteries and energy storage systems; Power2Drive Europe, the international exhibition for charging infrastructure and electromobility; and EM-Power, the exhibition for intelligent energy use in industry and buildings. It is the platform for discussing visions and pioneering concepts surrounding the modern energy industry. From utility companies to investors to planners, around 50,000 visitors are expected in 2019; 3,000 more than attended last year's event. One reason for this growth is the dynamic state of the industry, with renewable energies taking off worldwide and sector coupling and digitalization becoming increasingly established.

THE ENERGY TRANSITION ON A SMALL-SCALE – MAKING CARBON-NEUTRAL NEIGHBORHOODS A REALITY

Neighborhoods and larger mixed-use properties and real estate will play a significant role in the energy transition. When it comes to energy efficiency, the focus is increasingly moving away from individual buildings and toward building complexes. Thanks to renewable energies, cogeneration systems, energy storage, energy management systems and smart building automation, it is now possible for the energy supply to entire districts to be carbon-neutral. On a neighborhood level, smart and efficient interactions between individual technologies in one system also offer great potential for saving energy,

reducing carbon emissions and significantly expanding renewable energies locally. This is particularly important for the many new construction locations, neighborhoods and districts that are currently being planned and due to be built in numerous municipalities. Urban planning is responsible for making the decisions today that determine which energy sources will supply thousands of apartments and entire buildings for the next 40 to 50 years, and which emissions are produced in the process. Solutions for smart energy supply concepts for neighborhoods will be presented at EM-Power and The smarter E Europe.



COMPACT ENERGY FORUM AT EM-POWER



The Compact Energy Forum is aimed at professional energy customers – operators of residential and commercial buildings, municipal properties, neighborhoods and production facilities, as well as energy, building and facility managers, planners and consultants working in industry and real estate. Here, they will find practical solutions and examples of best practice to assist them in developing a smart energy supply for their buildings and systems. Over three exhibition days, there will be sessions covering the areas of smart metering/energy management, energy services and contracting, sector coupling in the fields of electricity, heating/cooling and traffic as well as neighborhood concepts. Exhibitors will also be presenting innovative products and projects.

Dates May 15–17, 2019
Place Hall C4, Booth C4.550
Participation Requires exhibition ticket

BROADENING KNOWLEDGE

The new energy world is smart: Solar facades and solar roofs are transforming buildings into small power plants. Intelligent measuring and control systems ensure that volatile renewable energies can be used efficiently without overloading distribution grids. Prosumers who generate more electricity than they need are trading it within their own neighborhoods while virtual power plants balance out the supply and demand.

At the Smart Renewable Systems Conference, the spotlight is on intelligent energy systems – smart homes, smart grids, smart markets. Digital technologies and new business models are transforming the relationship between energy suppliers and consumers. Experts are set to examine topics such as the energy market of the future. On the first day of the conference, they will present examples and trends, such as how private, commercial and industry customers can optimize local resources. The second day has presentations in store on developments and business opportunities for linking decentralized energy resources with the power grid.

Alongside the Smart Renewable Systems Conference, the Intersolar Europe Conference, the ees Europe Conference and the Power2Drive Europe Conference are held as part of the innovative platform The smarter E Europe. With just a single ticket, visitors are welcome to explore all four conferences and speak to experts in person. The conferences are taking place at the Internationales Congress Center München (ICM) from May 14–15, 2019.

→ www.smart-renewable-systems.de



THE FUTURIUM: HOME TO THE ENERGY TECHNOLOGY OF THE FUTURE



A stage, museum, laboratory and forum of the future: The name says it all for the Futurium, located in the government district in the heart of Berlin. The exhibition and event building, set to open officially in September, is dedicated to the question of how we want to live in the future. In line with its focus, the building itself is also innovative, as it complies with the standard required for a low-energy building and is supplied exclusively by renewable energy. For this, the roof surface is almost entirely covered with collector panels for photovoltaic and solar thermal systems. The energy concept also provides for the temporary storage of heat and cooling power. The planners and companies involved have broken new ground in developing a latent storage system with a total volume of 50,000 liters using the phase change material (PCM) paraffin. The HeatSel technology used was provided by the Eisenberg-based company Axiotherm – an exhibitor at EM-Power. Thermal cooling energy that cannot be used directly is held in the five PCM storage units until it can be used later for the air conditioning system, thereby balancing peak loads. Unlike ice storage systems, the PCM storage unit has a constant charging and discharging temperature of 12° Celsius. This allows for highly efficient operation even with small temperature differences between cooling generation and energy consumption. The Futurium is one of the Best Practice examples introduced by EM-Power in its monthly newsletter for professional energy customers.

ELECTRICITY AND DATA FLOW SAFELY WITH A SMART METER

At the end of 2018, the German Federal Office for Information Security certified the first smart meter gateway after a nearly two-year delay. As soon as two more certified devices are on the market, the mandatory rollout in accordance with the German Act on the Operation of Metering Points (MsbG) can get underway. In its 2017 Monitoring Report, Germany's Federal Network Agency estimated that around 4.5 million meter points for final consumers need to be installed with a smart meter, that is, a digital power meter with a communication unit. This requirement affects consumers who require more than 6,000 kWh per year and customers who have agreed on a reduced grid charge for controllable appliances, e.g. a heat pump. 800,000 meter points for generation systems with an installed capacity over 7 kW will also have to be installed.

Saving energy and costs

Smart meters aim to achieve a secure and standardized form of communication within energy systems and also to support the digitalization of the energy transition. They are a precondition for efficient energy monitoring and a key element of energy management in industrial enterprises, singular properties, building complexes and neighborhoods. Many companies are already using smart meters to visualize and analyze their electricity consumption. This makes it possible, for example, to detect anomalies due to defective devices at an early stage and identify devices with a high consumption. Load profiles reveal long-term consumption patterns, which help to optimize time-of-use electricity tariffs or correctly size battery storage systems and generation installations.

Smart meters for future-oriented grids

The significance of smart meters extends far beyond the visualization and transfer of electricity consumption data. As the interface between smart buildings and smart grids, they are used in building services engineering and supply grid infrastructure – no longer just for electricity, but also for gas, heating, cooling, etc. The ongoing digitalization of the new energy world is opening up great potential for smart metering and energy controlling applications.

Smart Metering joint booth

A joint booth at the EM-Power exhibition will serve to keep visitors abreast of the rapid development and significance of smart metering and energy controlling. In this exclusive environment, companies will present their solutions for smart metering, the operation of metering points, energy monitoring and energy controlling as well as energy management systems.

→ www.EM-Power.eu → For Exhibitors → Joint Booth

