THE smarter E EUROPE

CONFERENCE PROGRAM

MAY 10–11 2022

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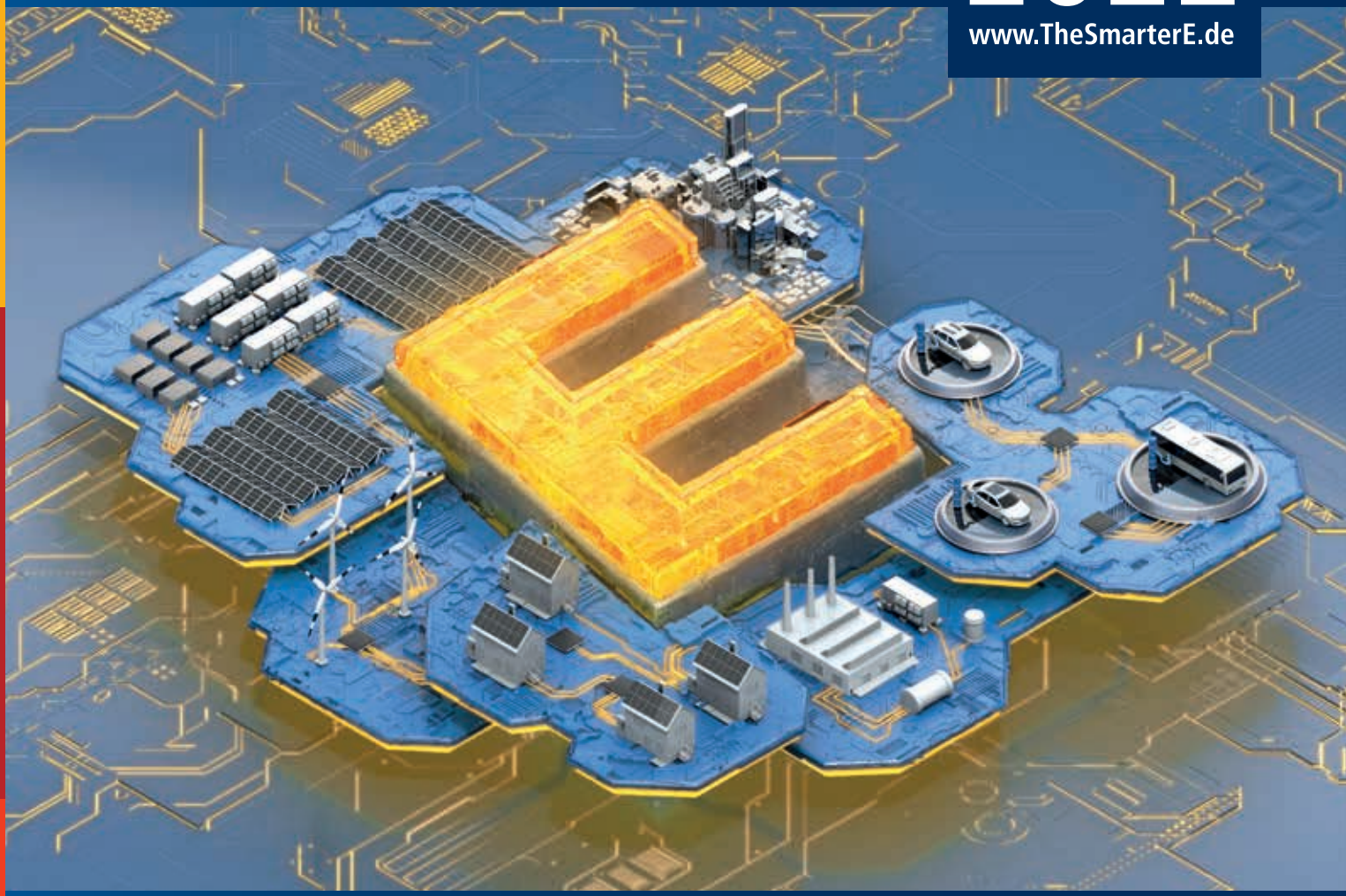

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CONFERENCE PROCEEDINGS

All presentations of The smarter E Europe conferences for which we have obtained the respective permission from the speakers will be made available online.

You will receive a link via email during or shortly after the conference that grants access to the presentations included in your ticket.

CONFERENCE QUICK FACTS

Dates	May 10–11, 2022
Hours	9:00am–6:00pm
Venue	ICM – Internationales Congress Center München, 81823 Munich, Germany
Program	→ www.thesmartere.de/conference-program
Contact	Ms Roswitha Laupheimer laupheimer@conexio-pse.de Tel.: +49 (0) 7231 58598-183
Registration	→ www.thesmartere.de/tickets

PARTNERS

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THE SMARTER E EUROPE CONFERENCE – OVERVIEW 2022

INTERSOLAR EUROPE CONFERENCE

	ROOM 14 A	ROOM 14 C	ROOM 12
CONFERENCE PROGRAM – TUESDAY, MAY 10, 2022			
9:30am–11:00am	TSEE Conference Opening – ROOM 14 B		
Coffee Break			
11:30am–1:00pm	Global Growth Prospects & A Solar Deal for Europe: The Role of Solar Power in Decarbonization Strategies & Trends	Utility-Scale Solar 1: The Power of New Technologies to Optimize Design, Reduce Cost and Improve Yield	Building-Integrated Photovoltaics (BIPV): Beautiful, Multifunctional, and Compelling - The Long-Awaited Rise of Solar as Building Material Is in Sight
Lunch Break			
2:30pm–4:00pm	European PV Markets 1: Everything Investors Need to Know About Europe's Largest Solar Markets	Utility-Scale Solar 2: Total Control – How Big Data Improves O&M and Asset Management	Agri-PV 1 : How to Benefit most from Solar & Farming
Coffee Break			
4:30pm–6:00pm	European PV Markets 2: A Close Look into Europe's Emerging Solar Stars	Utility-Scale Solar 3: Keeping a Close Eye on Regulatory Topics – from Environmental, Social, Sustainability Requirements to Permitting	Agri-PV 2: Understanding the Versatility of Combining Solar Power with the Agribusiness
6:00pm–7:00pm	The smarter E AWARD Ceremony ICM Room 1		
7:00pm–9:00pm	Conference BBQ		
CONFERENCE PROGRAM – WEDNESDAY, MAY 11, 2022			
9:00am–10:30am	European Solar Manufacturing 1: Learning from the Success of Europe's Balance of Systems (BOS) Manufacturers	Floating Solar 1: Catching the Latest Solar Wave – Why Floating Solar is an Important Piece in the Energy Transition	Off-Grid – Best Practices on Rural Electrification
Coffee Break			
11:00am–12:30pm	European Solar Manufacturing 2: Establishing a Silicon Supply Chain in Europe	Floating Solar 2: Solid Foundations – What's Needed for Developing and Building Successful Floating Solar Projects	Off-Grid Innovation – Digital, Control & Monitoring Solutions, Batteries
Lunch Break			
2:00pm–3:30pm	High Level Industry Forum: The European Solar Strategy – Discussing Europe's PV Sector Plans from a Business and Geo-Political Perspective	Floating Solar 3: Staying Afloat? Lessons Learned from the First FPV Projects for Small to GW-Size Systems On- and Off-Shore	On-Grid Goes Off-Grid

EES EUROPE CONFERENCE	POWER2DRIVE EUROPE CONFERENCE	EM-POWER EUROPE CONFERENCE
ROOM 13 B	ROOM 13 A	ROOM 11

CONFERENCE PROGRAM – TUESDAY, MAY 10, 2022

Conference Opening – ROOM 14 B		
The Next Big Thing? C&I Electricity Storage Systems	Connected Charging Infrastructure Technologies & Interoperability	Residential Solar & Storage Aggregation for Grid Services → Joint Session with Intersolar & ees
Quo Vadis: Electrical Energy Storage for Residential PV Systems → Joint Session with Intersolar	Leading by Example: Best Practices for Charging Infrastructure	Utility-Scale Solar & Storage and Grid Integration → Joint Session with Intersolar & ees
Overcoming the Investment Conundrum: Innovative Storage Financing Solutions	Paradigm Shift: Promoting Mobility-as-a-Service	Electric Vehicle Integration into Powergrids → Joint Session with P2D
The smarter E AWARD Ceremony ICM Room 1		
Conference BBQ		

CONFERENCE PROGRAM – WEDNESDAY, MAY 11, 2022

Europe's Main Market Driver, Reloaded? Utility-Scale Standalone Storage	Integrating E-Mobility: Smart Charging and Vehicle-to-X Models → Joint Session with EM-Power	Active Consumers for System Efficiency
A Troublesome Marriage in Europe? Utility-Scale Renewables-Plus-Storage → Joint Session with Intersolar	Further Ahead: Extended Mobility Services as a Business Model	Digital Evolution of the Grid
Potential Gamechangers: Innovation in Battery Technologies	Joining the Dots: Sector Coupling and Vehicle-Integrated Generation	Flexibility Markets & Balancing

INTERSOLAR EUROPE CONFERENCE

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Executive Advisor, SolarPower Europe / Managing Director, MISCHCO, Belgium

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Managing Director International Affairs, BSW-Solar Bundesverband Solarwirtschaft e.V., Germany

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Designated Professor on Smart Energy Systems, University of Applied Sciences, Kempten; Deputy Head of Chair for EES, TUM, Germany

Dr. Matthias Vetter
Head of Department Electrical Energy Storage ELS, Fraunhofer ISE, Germany

Dr. George Hilton
Senior Analyst, Energy Storage, IHS Markit, UK

RENEWED AMBITION: MANAGING GROWTH

The European Commission has proposed to increase the share of renewables to 40% by 2030 in order to achieve legally binding targets for reducing net emissions in the EU by 55% by 2030 compared to 1990 levels and eliminating them by 2050. The new German government has also significantly increased the targets for the energy transition and presented an emergency package of energy measures to the public in April 2022, stating that the expansion of renewable energy is in the overriding public interest and has become a matter of national security. By 2030, 80 percent of Germany's electricity supply is to come from renewables, and by 2035 almost all of it.

These lofty goals will require a collective effort from all sectors of the economy and present significant challenges, especially for key actors in the energy industry. As the global economy wrestles to restore supply chains disturbed by the pandemic and with skills shortages still impairing many sectors, how can we supercharge the energy transition? The rising costs of energy and raw materials further complicate matters, while regulatory and political hurdles still stand in the way of a rapid expansion of renewable energy generation, storage systems and associated infrastructure.

By outlining the prevalent issues and challenges, this opening session will underscore the need for an integrated, holistic approach. Expert speakers from various fields will demonstrate the need for all sectors, from energy generation and storage to electromobility and systems manufacturing, to play their part in managing the growth and achieving the vital energy transition

OPENING SPEAKER

Markus Elsässer
Chief Executive Officer, Solar Promotion GmbH, Germany

Aurelie Alemany
Chief Executive Officer, Senec GmbH, Germany

Ditlev Engel
Chief Executive Officer, Energy Systems at DNV, Norway

Simon Löffler
Chief Commercial Officer, Volkswagen Group Charging GmbH, Germany

Matthias Taft
Chief Executive Officer, BayWa r.e. AG, Germany


WELCOME TO THE
CONFERENCES

TUESDAY, MAY 10, 2022

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POWER 2 DRIVE

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TUESDAY, MAY 10, 2022

Time 11:30am–01:00pm
Room 14 A

GLOBAL GROWTH PROSPECTS & A SOLAR DEAL FOR EUROPE: THE ROLE OF SOLAR POWER IN DECARBONIZATION STRATEGIES & TRENDS

While solar continues its upwards trend around the world, the EU wants Europe to be the first Continent to be carbon neutral by 2050. On this path, the European Commission has proposed to increase the renewables share to 40% by 2030. Although there are very different views on the role of solar in Europe's energy transition, history tells us that it will be very likely much bigger than most experts think.

This session will discuss:
- Global Market Outlook 2022-2026 (Report launch)
- Solar's role in Europe's energy transition
- Strategies to deploy massive solar volumes in Europe

11:30am Welcome and Introduction
Michael Schmela, Executive Advisor, SolarPower Europe, Belgium

11:35am Global Market Outlook with focus on Latin America
- Walburga Hemetsberger, Chief Executive Officer, SolarPower Europe, Belgium
- Dr. Rodrigo Lopes Sauaia, Chief Executive Officer, ABSOLAR - Associação Brasileira de Energia Solar Fotovoltaica, Brazil

11:50am Solar's Role in a 100% Renewable Europe
Jenny Chase, Manager Solar Insight, Bloomberg, Switzerland

12:05pm Corporate Strategies to Deploy Massive Solar Volumes by 2030
Speaker to be announced, Lightsource bp, UK

12:20pm Why Rooftops are Key for Europe's Solar Targets
Prof. Dr. Christof Wittwer, Head of Department -Smart Grids- IES, Fraunhofer ISE, Germany

12:35pm Panel: Solar's Role in Decarbonization and Energy Independence of the European Union


Michael Schmela


Walburga Hemetsberger


Dr. Rodrigo Lopes Sauaia


Jenny Chase


Prof. Dr. Christof Wittwer

Time 02:30–04:00pm
Room 14 A

EUROPEAN PV MARKETS 1: EVERYTHING INVESTORS NEED TO KNOW ABOUT EUROPE'S LARGEST SOLAR MARKETS

The European solar market grew considerably in 2021 despite Covid-19 and material supply shortages. This strong growth trend is expected to continue in 2022 and beyond, which is quantified by market data from SolarPower Europe's newly released Global Market Outlook 2022-2026, a project in cooperation with Intersolar Europe. The backbone of solar demand in Europe has been a handful of countries, which were responsible for more than half of the continent's installations last year.

This session will discuss:
- The big picture of solar demand in Europe today
- Updated European 5-year solar installation forecast
- Detailed pictures for Europe's major solar markets

02:30pm Welcome and Introduction
David Wedepohl, Managing Director International Affairs, German Solar Association (BSW-Solar), Germany

02:35pm European Solar Market Outlook - How Europe Could Reach the Solar TW-level by 2030
Raffaele Rossi, Head of Market Intelligence, SolarPower Europe, Belgium

02:50pm Germany's Path to 200 GW Solar by 2030
David Wedepohl, Managing Director International Affairs, German Solar Association (BSW-Solar), Germany

03:05pm Poland - Plans to Transition from Net Metering/FITs to Subsidy Free Solar?
Speaker to be announced, Jagellonian Institute, Poland

03:20pm Spain - Strategies to Address Gigantic Demand for Solar in Spain
José Donoso, General Director, Unión Española Fotovoltaica (UNEF), Spain

03:35pm France - Preparing for the New 100 GW Target
Xavier Daval, CEO-President, kiloWattsol SAS, France

03:50pm Q&A Round


David Wedepohl


Raffaele Rossi


José Donoso


Xavier Daval

TUESDAY, MAY 10, 2022

EUROPEAN PV MARKETS 2: A CLOSE LOOK INTO EUROPE'S EMERGING SOLAR STARS

Time 04:30–06:05pm
Room 14 A

04:30pm Welcome and Introduction
Artem Semenyshyn, CEO, Solar Energy Association of Ukraine, Ukraine

04:35pm Solar Drivers in Emerging European Solar Markets
Saif Islam, Research Consultant, EuPD Research, Germany

04:50pm Towards GW Level Solar Demand in Italy
Paolo Viscontini, Electrical Engineer, Italia Solare, Italy

05:05pm Solar 2.0 - How the UK PV Market is Gaining Steam Again
Chris Hewett, Chief Executive, Solar Energy, UK

05:20pm Solar in the Nordics - The Overlooked Growth Opportunity?
Vegard Vollset, VP- Head of EMEA Renewable, Rystad Energy, Norway

05:35pm Portugal - Lessons Learned from Record Low Solar Auctions
Susan Serôdio, Head of Policy, Apren, Portugal

05:50pm Solar Investment Opportunities in the Balkan region
Nikola Gazdov, Board Member, Bulgarian Association for Production, Bulgaria


Artem Semenyshyn


Saif Islam


Paolo Viscontini


Chris Hewett


Vegard Vollset


Susan Serôdio


Nikola Gazdov

Besides its established major solar demand centers, Europe is showing solar growth across the board. Most of the continent's countries installed more solar power in 2021 than the year before. The diversification of the European solar landscape continues, while the market drivers considerably differ, resulting sometimes in unexpected emerging solar stars.

This session will discuss:
- Mapping of the most promising emerging solar markets in Europe
- Drivers and challenges for market growth
- Long-term outlook

TUESDAY, MAY 10, 2022

Time 11:30am–01:00pm
Room 14 C

UTILITY-SCALE SOLAR 1. THE POWER OF NEW TECHNOLOGIES TO OPTIMIZE DESIGN, REDUCE COST AND IMPROVE YIELD

Following the implementation of bifacial PV, the sudden appearance of very high-power solar modules has challenged balance-of-system producers to adapt their products quickly and EPCs to cope with higher currents and larger module form factors. This comes at a time when product prices hike while the pressure for further cost reduction remains for utility-scale solar competing in auctions and the subsidy-free corporate power sourcing market.

This session will discuss:

- A roundup of technology innovations - including modules, inverters, mounting/ trackers, system design
- Impact of technology changes on yield and cost
- Business model implications by technology innovations in utility-scale solar

11:30am Welcome and Introduction
Fabian Wany, Director EPC Sales, Greentech, Germany

11:35am Global PV Project Development – Lessons Learned and How to Deal with Current Challenges
Anika Giller, Director of Business, ENGIE Deutschland, Germany

11:50am How the Latest Module and BOS Product Developments have Changed Design & Cost for Large-scale Solar Power Plants
George Toulapas, Senior Director of Technology and Quality, Clean Energy Associates, Greece

12:05pm Utility-scale Solar Development in Unchartered Waters: Rolling Terrain
Marco García, Co-founder and Chief Commercial Officer, Nextracker, U.S.

12:20pm PV System Design Optimization – Beyond LCOE
Johannes Linder, Head of System Design & Innovation, BELECTRIC Holding GmbH, Germany

12:35pm Trust PV - Performance and Reliability of Solar Power Plants
Dr. David Moser, Coordinator of Research Group Photovoltaic Energy Systems, EUREC, Italy

12:50pm Q&A Round


Fabian Wany


Anika Giller


George Toulapas


Marco García


Johannes Linder


Dr. David Moser

Time 02:30–04:00pm
Room 14 C

UTILITY-SCALE SOLAR 2: TOTAL CONTROL – HOW BIG DATA IMPROVES O&M AND ASSET MANAGEMENT & POTENTIAL OF RE-POWERING

Big data and artificial intelligence are big buzzwords also in solar power plant O&M and Asset Management, promising superior and predictive analytics of system losses and reliability enabling improved system design and maintenance, saving on labor and cost. But what's real, what's fiction?

This session will discuss:

- State of the art and best practice in O&M and Asset Management
- Actual cost of O&M and Asset Management
- Potential and limits of digitalization in O&M and Asset Management

02:30pm Welcome and Introduction
Adele Ara, Head of Global Business Operations, Lightsource bp, UK

02:35pm O&M and Asset Management Best Practice Overview
Adele Ara, Head of Global Business Operations, Lightsource bp, UK

02:50pm Project Development with O&M in Mind
Jörn Carstensen, Managing Director, Greentech, Germany

03:05pm Improving PV Plant Operation through Advanced Data Analysis
Daniel Barandalla, Solar Advisory Lead EMEALA (UL LLC), Spain

03:20pm Taking Control of Risk in Solar Investments
Boris Farnung, Global Head of Division Power Plants and Systems, VDE Renewables, Germany

03:35pm Day-ahead Solar PV Forecasting using AI
Yoojin Lee, Systems Engineer / Data Analyst Engineering, Enerparc AG, Germany

03:55pm Q&A Round


Adele Ara


Jörn Carstensen


Daniel Barandalla


Boris Farnung


Yoojin Lee

TUESDAY, MAY 10, 2022

UTILITY-SCALE SOLAR 3: KEEPING A CLOSE EYE ON REGULATORY TOPICS – FROM ENVIRONMENTAL SOCIAL SUSTAINABILITY REQUIEREMENTS TO PERMITTING

Time 04:30–06:00pm
Room 14 C

04:30pm Welcome and Introduction
Dr. Benedikt Ortmann, Head of Business Entity Solar Projects / Managing Director, BayWa r.e. / BayWa r.e. Solar Projects GmbH, Germany

04:35pm Overview on Key Regulatory Challenges for Rapid Utility Scale Solar Developments in Europe
Pablo Collado, Northern & Central Europe CEO for Renewables, Iberdrola, Spain

04:50pm Obstacles and Progress for Solar Supply Chain Transparency in Europe
Frédéric Dross, Vice President, Strategic Development, STS, France

05:05pm A Company-wide ESG Strategy for Developing any Solar Power Plants
Emilien Simonot, Head of Renewables Innovation Center, Galp, Spain

05:20pm Community Engagement is Meaningless without Community Commitment - How Talayuela Solar became a Benchmark in Sustainability and PV Co-living
José Miguel Ferrer, Country Manager and VP Wind&Solar, Statkraft, Spain

05:35pm Panel Discussion + Q&A


Dr. Benedikt Ortmann


Pablo Collado


Frédéric Dross


Emilien Simonot


José Miguel Ferrer

If the EU wants to stay on a Paris compliant decarbonization path, its member states have to install around 1 TW of PV by 2030, with a large share of this volume being ground-mounted power plants. And this is only the first phase - the EU will have to deploy many solar terawatts by 2050. This will only be possible with proper regulatory frameworks; but already today permitting is the main barrier for utility-scale solar. On top, there are requirements for ESG (Environmental Social Governance) sustainability and transparent supply chains that will only become stricter as Europe's PV power generation portfolio grows.

This session will discuss:
- Main regulatory issues slowing the growth of utility-scale power plants
- Transparency supply chains
- Sustainability requirements for ground-mounted solar today and tomorrow

TUESDAY, MAY 10, 2022

Time 11:30am–01:00pm
Room 12

BUILDING-INTEGRATED PHOTOVOLTAICS (BIPV): EAUTIFUL, MULTIFUNCTIONAL AND COMPELLING – THE LONG AWAITED RISE OF SOLAR AS BUILDING MATERIAL IS IN SIGHT

Hailed as the perfect solution for solar in the building environment for many years, only a very limited number of building-integrated systems have been installed for various reasons. With the first cities, states and countries having passed laws for mandatory solar inclusion for new houses and leading global module manufacturers launching first BIPV products, it looks like the time has come for this to change.

This session will discuss:
- New technical BIPV solutions
- Drivers and barriers for integrating solar into building skins
- Perspectives and value propositions for the construction sector
- Examples for attractive BIPV projects

11:30am Welcome and Introduction
Prof. Christophe Ballif, Vice-President, CSEM & Director Sustainable Energy Center, Switzerland

11:35am What's New in BIPV – The Latest Technology Updates for Integrating PV in Built Environment
Prof. Christophe Ballif, Vice-President, CSEM & Director Sustainable Energy Center, Switzerland

11:50am Easibility Study of Building Integrated Photovoltaic (BIPV) as a Building Envelope Material in Europe
Hassan Gholami, Consultant – Solar, Smart Grid and Storage, Multiconsult AS & Adjunct Associate Professor, City and Regional Planning Group, University of Stavanger, Sweden

12:05pm Boundary Conditions for Integrating Solar in Buildings
Christoph Erban, Head of Research and Development, Sunovation, Germany

12:20pm Service Development and Experience in Qualification of BIPV Products
Theodoros Makris, Project Manager, TÜV Rheinland, Germany

12:35pm Panel: Has the Big Time for BIPV Finally Arrived?


Prof. Christophe Ballif


Hassan Gholami


Christoph Erban


Theodoros Makris

Time 02:30–04:00pm
Room 12

AGRI-PV 1: HOW TO BENEFIT MOST FROM SOLAR & FARMING

A massive expansion of solar in Europe will also need to make use of the large areas of moor and agricultural land. The magic word is agrivoltaics (or Agri-PV), which enables co-location of energy generation with agricultural activities optimizing space and creating multiple revenue streams. The German Ministries of Economy, Environment and Agriculture, for example, recently published a strategy paper identifying a large number of additional PV to be installed in the country through agrivoltaics alone.

This session will discuss:
- Concepts, realistic potential of Agri-PV
- Latest market developments
- Product overview and innovations
- System economics

02:30pm Welcome and Introduction
Eva Vandest, Group Head of Public Affairs, Amarenco, Ireland

02:35pm How to Tap the 'Real' Agri-PV Potential in Europe
Speaker to be announced, Fraunhofer ISE, Germany

02:50pm Technological Needs & Product Developments for Agri-PV Power Plants
Stefan Schindele, Product Manager Agrar-PV, BayWa, Germany

03:05pm Cost Competitiveness of Agri-PV
Prof. Dr. Ulrich Bodmer, Professor for Business Administration in the study programme „Management erneuerbarer Energien", University Weihenstephan, Germany

03:20pm Agrienergy Around the World: Learnings from 15 Years of Activity in Solar & Agriculture
Alexandre Courcambeck, Business Development Director, Akuo Energy, Belgium

03:35pm Panel: Agri-PV – The Big Promise and Reality


Eva Vandest


Stefan Schindele


Prof. Dr. Ulrich Bodmer


Alexandre Courcambeck

TUESDAY, MAY 10, 2022

AGRI-PV 2: UNDERSTANDING THE VERSATILITY OF COMBINING SOLAR POWER WITH THE AGRIBUSINESS

Time 04:30–06:00pm
Room 12

04:30pm Welcome and Introduction

04:35pm First Results from Demo Programme on Multipurpose Land-use of Solar and Agriculture
Miriam di Blasi, Head of Environment and Impacts Mitigation - Innovation, Enel, Italy

04:50pm Best Practices of Agri-PV implemented in Austria
Alfred Weinberger, Chief Executive Officer, Amarenco, Austria

05:05pm Sunboise AgriPV Project in The Netherlands - First Test Results of 5 Different AgriPV Systems
Wilma Eerenstein, Owner, Renergize Consultancy, Netherlands

05:20pm Potential and Benefits of Agri-PV in the Middle East
Dr. Nabih Cherradi, Chief Technology Officer, Desert Technologies, UAE

05:35pm Green Power Tariffs for Vertical/urban Farming using Renewables
Speaker to be announced, Octopus Energy, UK

05:50pm Q&A Round


Miriam di Blasi


Alfred Weinberger


Wilma Eerenstein


Dr. Nabih Cherradi

The combined use of solar and agriculture not only saves on space, it offers the promise of improving the efficiency of food production as well. The PV panels protect and provide shade for crops, fruits or animals, resulting in more efficient water consumption and higher production output. This may also become true for urban areas, where the concept of vertical farming strives to secure food supplies close to consumption in the cities.

This session will discuss:
- Range of Agri-PV applications
- How solar goes together with urban farming
- Benefits and challenges for farmers & developers
- Case studies with lessons learned

TUESDAY, MAY 10, 2022

Time 11:30am–01:00pm
Room 13 B

THE NEXT BIG THING? C&I ELECTRICITY STORAGE SYSTEMS

Utility-scale and residential energy storage systems have made waves with impressive market growth - yet C&I storage continues to lag behind. The reasons are on the economic side: Revenue from use cases are still too low compared with the necessary investments, to realize an acceptable RoI. Decreasing storage prices in combination with multi-use cases open up new opportunities for this segment. In this session, speakers will discuss the latest developments in C&I systems, showcase a series of novel business models, and examine key drivers of storage technologies and markets.

11:30am Energy Storage – An Indispensable Ingredient of Europe's Energy Future
Florian Mayr, Partner, Apricum - The Cleantech Advisory, Germany

11:40am Welcome and Introduction
Dr. Holger Hesse, Designated Professor on Smart Energy Systems, University of Applied Sciences, Kempten Deputy Head of Chair for Electrical Energy Storage Technology, EES, TUM - Technical University Munich, Germany

11:45am An International Comparison of C&I Business Cases – How to Uncover the Value of Storage!
Lars Stephan, Policy and Market Development Manager, Fluence, Germany

11:55am Success Factors in C&I Storage
Franz-Josef Feilmeier, CEO, FENECON GmbH, Germany

12:05pm Flexibility- and Large Scale Storage Solutions – Use Cases and Experiences
Matthias Jakob, Leiter Vertrieb B2B und Lösungsentwicklung, Bayernwerk, Germany

12:15pm Increasing the Profitability of EES by Managing the Aging Impact
Dr. Stephan Rohr, Founder & Co-CEO, TWAICE, Germany

12:25pm A Technical Feasibility and Field Trial Analysis of C&I Storage systems
Johannes Wüllner, Head of Group Applied Storage Systems, Fraunhofer Institute for Solar Energy Systems ISE, Germany

12:35pm Panel Discussion + Q&A


Florian Mayr


Dr. Holger Hesse


Lars Stephan


Franz-Josef Feilmeier


Matthias Jakob


Dr. Stephan Rohr


Johannes Wüllner

Time 02:30–04:00pm
Room 13 B

Joint Session with Intersolar
QUO VADIS: ELECTRICAL ENERGY STORAGE FOR RESIDENTIAL PV SYSTEMS

Home storage has emerged over the past decade as an important element of future energy systems. This session will examine the major drivers and key trends in the increasingly mature home storage market. By examining specific regions and countries, the presentations will explore the current state of development and deployment along with future prospects for residential generation and storage set-ups. Speakers will look at the market's development to date and highlight a number of promising home energy storage innovations..

This session is jointly organized by Intersolar and ees Europe.

02:30pm Welcome and Introduction
Martin Rothert, Senior Expert Standards & Committee Work, SMA Solar Technology AG, Germany

02:35pm How the Current Energy Crisis May Change Use Cases for Home Batteries
Matthias Dilthey, Senior Vice President Energy & Flexibility Trading, sonnen GmbH, Germany

02:50pm A Year-Round Electricity Storage System for Buildings
Zeyad Abul-Ella, General Manager, Home Power Solutions, Germany

03:05pm The Evolution of the Global Residential Energy Storage Market
Sam Wilkinson, Director – Clean Energy Technology, IHS Markit, UK

03:20pm V2X and Storage Team up to Boost the Energy Transition
Mark Helfter, Innovation Director, Hager Electro SAS, France

03:35pm Panel Discussion + Q&A


Martin Rothert


Matthias Dilthey


Zeyad Abul-Ella


Sam Wilkinson


Mark Helfter

TUESDAY, MAY 10, 2022

OVERCOMING THE INVESTMENT CONUNDRUM: INNOVATIVE STORAGE FINANCING SOLUTIONS

Time 04:30–06:00pm
Room 13 B

04:30pm Welcome and Introduction
Frank Beckers, Partner, Apricum - The Cleantech Advisory, United Arab Emirates

04:35pm Panel Discussion: Overcoming the Investment Conundrum: Innovative Storage Financing Solutions

- Sidd Bahd, Senior Vice President Structured Finance, Jefferies, UK
- Magdalena Markiewicz, CFO, Eelpower, UK
- James Mills, Managing Director, ADAPTOGEN CAPITAL, UK
- Karim Nassif, Director Project Finance & Infrastructure, KBRA, Ireland


Frank Beckers


Sidd Bahd


Magdalena Markiewicz


James Mills


Karim Nassif

Energy and electricity infrastructure projects often represent attractive investments, yet securing debt finance still proves difficult for certain asset classes. While the established IPP model attracts competitively priced long-term debt financing through contracted revenues, energy storage projects often include significant merchant risk. Investors and developers of storage projects therefore struggle to attract lender appetite. This session will shed light on new financing solutions and products, discuss how best to apportion the risks of energy storage investment, and explore how new models are turning conventional project financing on its head.

TUESDAY, MAY 10, 2022

Time 11:30am–01:00pm
Room 13 A

CONNECTED CHARGING INFRASTRUCTURE TECHNOLOGIES & INTEROPERABILITY

The interoperability of connected charging infrastructure is an essential part of efforts to promote the market penetration and public acceptance of e-mobility solutions. With the product landscape growing at pace, smart charging and vehicle-grid integration are among the new use cases under development. However, solutions must be compatible with the existing connected charging and energy ecosystem as well as various backend systems. This session will underscore the importance of interoperability, highlight key energy and charging systems for integration, and present novel application scenarios.

11:30am Welcome and Introduction
Zackes Brustik, Moderator-Coach-Creator, Germany

11:35am Importance of Interoperability for Reliability and Performance of Connected Charging Infrastructure
Lukas Schriewer, Principal, Team Lead Charging Technology, P3 automotive GmbH, Germany

11:50am From Patchwork to Seamless: Why Interoperability is Key to the Energy Transition
Nicolas Gehring, Account Executive Team Lead, gridX GmbH, Germany

12:05pm Maximizing Use of Renewables and Grid Integration Through Smart Charging
Dr. Niklas Schirmer, Vice President Strategy, Elli – A Brand of the Volkswagen Group, Germany

12:20pm Engineering Excellence for Global Public Charging Networks
Dr. Anke Freitag, Global Mobility Engineering Process and Insights Manager, Shell Mobility, Germany

12:35pm Q&A


Zackes Brustik


Lukas Schriewer


Nicolas Gehring


Dr. Niklas Schirmer


Dr. Anke Freitag

Time 02:30–04:00pm
Room 13 A

LEADING BY EXAMPLE: BEST PRACTICES FOR CHARGING INFRASTRUCTURE

Government support is crucial to guide economy into the New Energy World. This also means to bring forward the rapid expansion of charging infrastructure. In Germany and across Europe, regulatory frameworks and public funding are increasingly adapting to accommodate these infrastructure requirements. The German E-Alpine Road is a prime example, of how charging stations can be set up with funding to promote sustainable tourism. Speakers in this session will share success stories of effective funding programs, will compare case studies from Europe and will highlight where regulatory hurdles still remain.

02:30pm Welcome and Introduction
Jenny Herden, Manager Funding and Finance, Nationale Leitstelle Ladeinfrastruktur c/o NOW GmbH, Germany

02:35pm Federal Activities for Easy Charging in Germany
Conrad Hammer, Head of Team Networking and Head Team Funding (acting), Nationale Leitstelle Ladeinfrastruktur c/o NOW GmbH, Germany

02:55pm Regulatory Environment for Developing Charging Infrastructure in Germany and Europe
Christian Mayer, Lawyer, Noerr Partnerschaftsgesellschaft mbB, Germany

03:15pm The German „E-Alpenstraße" – A Funding Programme Success Story
Simone Lang, Projectmanager Electromobility, Competence Center Electromobility Bavaria, Germany

03:35pm Grid Relief Through Stationary Storage When Setting up Fast Charging Infrastructure – Practical Experience
- Uwe Augustat, Vice President for Grid Connect & Systems (emobility), Siemens AG Smart Infrastructure, Germany
- Marcus Bücken, Head of Sales eCar Charging Germany, Siemens AG Smart Infrastructure, Germany

03:55pm Q&A


Jenny Herden


Conrad Hammer


Christian Mayer


Simone Lang


Uwe Augustat


Marcus Bücken

TUESDAY, MAY 10, 2022

PARADIGM SHIFT: PROMOTING MOBILITY AS A SERVICE

Time 04:30–06:00pm
Room 13 A

04:30pm Welcome and Introduction
Dr. Mara Cole, Lead Connected Mobility, Bayern Innovativ, Germany

04:35pm Electric Motor Scooter Sharing: The Potential of ESS for Sustainable Mobility and Urban Development – Learnings from an Empirical User Study
Dr. Jessica Le Bris, Head Strategy | Public Space & Mobility, GC Experience GmbH, Germany

04:50pm Munichs Mobility as a Service Solution for Electric Vehicle Charging
Lisa Obrecht, Product Owner M-Ladelösung, Stadtwerke München GmbH, Germany

05:05pm Charging Infrastructure for Electric and Multimodal Mobility
Björn Niggl, Head of Product Management, GP-Joule Connect, Germany

05:20pm Leveraging Shared Mobility with Mobility Hubs – The Case of eHubs
Nicolai Harnisch, Project Manager Connected Mobility, Bayern Innovativ, Germany

05:35pm Q&A

All too often, media depictions of future mobility focus on private vehicles – yet the manifold possibilities of MaaS go far beyond electric cars by integrating public transport, fleet sharing, bicycles and more in a single system. Yet, many questions remain unanswered, from how to structure efficient charging infrastructure to the conditions for sustainable, profitable MaaS models. In this session, speakers will discuss how digital solutions can support seamless intermodal mobility, underscore the importance of reliable charging infrastructure, and show how mobility hubs can exploit shared mobility solutions.


Dr. Mara Cole


Dr. Jessica Le Bris


Lisa Obrecht


Björn Niggl


Nicolai Harnisch

TUESDAY, MAY 10, 2022 | CONFERENCE BARBECUE

Time 7:00pm–10:00pm
ICM Munich, Garden

Would you like a leisurely evening program after a long day at the conference? How about a barbecue? Intersolar Europe, ees Europe, Power2Drive Europe and EM-Power Europe are organizing the 5th edition of the Conference Barbecue on Tuesday 10th of May 2022. This will be the official warm-up of The smarter E Europe, giving you a chance to meet and greet with over 350 industry stakeholders in a relaxed atmosphere. Kick-off the exhibition and celebrate the beginning of the summer with drinks, food and many more surprises!

TUESDAY, MAY 10, 2022

Time 11:30am–01:00pm
Room 11

Joint Session with Intersolar & ees
RESIDENTIAL SOLAR & STORAGE AGGREGATION FOR GRID SERVICES

The rapid growth of residential energy storage is outpacing expectations. Lower battery costs, regulatory support and advanced technologies have resulted in an increasing adoption of solar & storage. As more customers invest in behind the meter residential energy-storage systems, utilities will gain another potential lever for balancing energy demand and supply. This session will focus on how to better integrate distributed solar & storage and to better value its flexibility potential throughout all phases of grid planning. Practical use cases will be evaluated and provide insights into what is required from customers, aggregators, utilities, regulators, battery providers and other actors in order to make it work.

This session is jointly organized by Intersolar, eesEurope and EM-Power Europe.

11:30am Welcome and Introduction
Patrick Clerens, Secretary General, EASE - The European Association for Storage of Energy, Belgium

11:35am The Potential of Customer-Sited Solar Plus Storage
Nelson Nsitem, Decentralized Energy Analyst, BloombergNEF, UK

11:50am Innovation for Distributed Energy Storage Solutions
Luigi Lanuzza, Head of B2C & B2B Innovation Factory, Enel X, Italy

12:05pm Battery Storage and PV Integration into the Virtual Power Plant
Improving Service for Both the Customers and the Grid
Julian Kretz, Project Manager Business Development, Next Kraftwerke GmbH, Germany

12:20pm To Be Announced

12:35pm Panel Discussion


Patrick Clerens


Nelson Nsitem


Luigi Lanuzza


Julian Kretz

Time 02:30–04:00pm
Room 11

Joint Session with Intersolar & ees
UTILITY-SCALE SOLAR & STORAGE AND GRID INTEGRATION

Utilities are investing heavily in utility-scale energy-storage solutions, putting big batteries next to power plants and transmission lines and in substations to reduce costs and improve reliability. Renewables, combined with storage are becoming a key part of the modern grid and are indispensable for the prevention of bi-directional flows. The use of battery storage has also been facilitated by advances in the digital technologies harnessed by companies to provide ancillary services which benefit utilities and grid operators. This session will focus on how solar & storage will add the most value to the grid, and how grid operators are successfully using energy storage to build grid flexibility.

This session is jointly organized by Intersolar, eesEurope and EM-Power Europe.

02:30pm Welcome and Introduction
Carlos Alberto Pacheco, Chief Operations Officer & Director of Grid Integration, GreenPowerMonitor, Spain

02:35pm RTE's Innovative Approach of Using Digitally Controlled Energy Storage
- Michael Lippert, Director Innovation and Solutions for Energy, SAFT, France
- Claire Lajoie-Mazenc, Senior Scientific Advisor, RTE, France

02:50pm A Milestone Project in Thailand Combining PV & (Hydro) Storage
Klemens Wegehaupt, Solution Architect, Siemens AG, Germany

03:05pm How Battery Storage Is Supporting the Energy Transition in Italy
Panagiotis Stamoulis, Market Director Southern EU, Fluence Energy, Germany

03:20pm Advanced Solar & Storage Providing Multiple Services to Keep the Grid Stable
Jaideep Sandhu, Chief Technology Officer, Renewables Global Business Unit, ENGIE SA, France

03:35pm The Solar and Storage Dilemma: What Does It Take to Make the Co-Location Business Case Successful?
Nadina Baghina, Battery Storage Strategy and Development, Eneco, Netherlands

03:50pm Panel Discussion


Carlos Alberto Pacheco


Michael Lippert


Claire Lajoie-Mazenc


Klemens Wegehaupt


Panagiotis Stamoulis


Jaideep Sandhu


Nadina Baghina

TUESDAY, MAY 10, 2022

Joint Session with P2D
ELECTRIC VEHICLE INTEGRATION INTO POWERGRIDS

Time 04:30–06:00pm
Room 11

04:30pm Welcome and Introduction
Carmen Gimeno, Secretary General, GEODE, Belgium

04:35pm Power Sector Accelerating E-Mobility: Can Utilities Turn EVs into a Grid Asset?
Bruce Douglas, Director Business Development & Communications, Eurelectric, Belgium

04:50pm Using EVs to Balance the Network
Len Wismeyer, Business Developer Digital & Flex, TenneT TSO B.V., Netherlands

05:05pm The Impact of Home Charging of EVs on the Low Voltage Grid
- Alf Inge Tunheim, Project Manager Research & Development, Elvia AS, Norway
- Line Nyegaard, Project Manager Research & Development, Elvia AS, Norway

05:20pm E-Mobility: DSO Challenges, Answers and the Relevance of Flexibility
Markus Wunsch, Head of E-Mobility Power System Integration Netze BW GmbH, Germany

05:35pm Panel Discussion


Carmen Gimeno


Bruce Douglas


Len Wismeyer


Alf Inge Tunheim


Line Nyegaard


Markus Wunsch

System operators and market facilitators can play a vital role in supporting optimal vehicle-grid integration and taking advantage of the flexibility services they provide. Although electric chargers are connected to the distribution grid, the tremendously expected increase of electric vehicles will affect the transmission grid as well. Grid modernization strategies need to take into account not only renewables integration but also electric vehicle penetration. This session will provide you with insights in how charging management can benefit the utilities, how the increasing adoption of electric vehicles is impacting the grid and what is needed to enable the successful deployment of electric vehicle technology.

This session is jointly organized by Power2Drive and EM-Power Europe.

THE smarter E GLOBAL

WHO WILL BE THE AWARD WINNERS 2022?

The smarter E AWARD, Intersolar AWARD and ees AWARD honor the most innovative products and projects in the areas of solar, storage, energy management. Be part of the AWARD Ceremony at The smarter E Europe in Munich, celebrate the winners and take advantage of the unique networking opportunities with the most future-oriented companies of the industry.

AWARD CEREMONY

on Tuesday May 10, 2022, 6:00–7:00pm
ICM ROOM 1

THE smarter E award 2022 | ees AWARD 2022 | inter solar award 2022

WEDNESDAY, MAY 11, 2022

inter solar
connecting solar business

ees
electrical energy storage

POWER 2 DRIVE

EMPOWER

WEDNESDAY, MAY 11, 2022

Time 09:00–10:30am
Room 14 A

EUROPEAN SOLAR MANUFACTURING 1: LEARNING FROM THE SUCCESS OF EUROPE'S BALANCE OF SYSTEMS (BOS) MANUFACTURES

The modern era of on-grid solar started with the feed-in tariff in Germany in 2000, and a large share of the devices used for grid-connection of solar modules in Europe has been designed and made in Europe. Several of these balance of system (BOS) manufacturers - inverter and mounting/ tracker systems companies are leaders in their field, and producers of inverters, the brain of a solar system, employ more people than any other EU solar manufacturing segment.

This session will discuss:
- Status of European manufacturing
- Technology update on European balance of systems
- Advantages and challenges of BOS Made in Europe
- Prospects of further cost reduction.

09:00am Welcome and Introduction
Ulrike Jahn, Senior Project Manager, VDE Renewables GmbH, Germany

09:05am Overview in European BOS Manufacturing
Cormac Gilligan, Director at S&P Global, IHS Markit, UK

09:20am Technology Update on European Made BOS
Leonhard Peboeck, High-Tech Combined with Sustainable Product Design, Fronius, Austria

09:35am Sustainable Production of a European Manufacturer
Matthias Haag, Head of R&D & Technologies, Siemens–KACO, Germany

09:50am Why Local Manufacturing of Solar Mounting Systems Pays Off
Marc Daldrup, Director Business Development, Esdec, Netherlands

10:05am Panel: Advantages and Challenges using BOS Made in Europe


Ulrike Jahn


Cormac Gilligan


Leonhard Peboeck


Matthias Haag


Marc Daldrup

Time 11:00am–12:30pm
Room 14 A

EUROPEAN SOLAR MANUFACTURING 2: ESTABLISHING A SILICON SUPPLY CHAIN IN EUROPE

Encouraged by solid solar market demand in Europe, recently, the first new cell/module factories started production in Germany and some of the existing module facilities expanded. But there are many more entrepreneurs looking into investments in new solar manufacturing facilities along the solar silicon supply chain. Is this the beginning of a sustainable renaissance of solar manufacturing in Europe?

This session will discuss:
- Overview of local manufacturing of solar silicon supply chain in Europe
- European solar technology 'leadership' in a global comparison
- Cost competitiveness of local production
- Overview of regulatory and financial support schemes for establishing PV production factories.

11:00am Welcome and Introduction
Dr. Jutta Trube, Managing Director Photovoltaic Equipment, VDMA German Engineering Federation, Germany

11:05am Mapping the Solar Silicon Supply Chain in Europe
Dr. Jutta Trube, Managing Director Photovoltaic Equipment, VDMA German Engineering Federation, Germany

11:20am How to Manufacture Wafers, Cells and Modules Competitively in Europe
Dr. Peter Fath, Chief Executive Officer, RCT Solutions GmbH, Germany

11:35am Attractive Solar Cell/Module Technologies from & for Europe
Dr. Radovan Kopecek, Co-founder & Director, ISC Konstanz, Germany

11:50am Overview Regulatory and Financial Support Frameworks for Establishing PV Manufacturing in the EU
Naomi Chevillard, Head of Regulatory Affairs, SolarPower Europe, Belgium

12:05pm From Silicon to Renewably Hydrogen - Establishing the Full Value Chain at Large Volumes to Reach Record Low LCOE
Hongbin Fang, Director of Product Marketing, Longi, U.S.

12:20pm Q&A Round


Dr. Jutta Trube


Dr. Peter Fath


Dr. Radovan Kopecek


Naomi Chevillard


Hongbin Fang

WEDNESDAY, MAY 11, 2022

HIGH LEVEL INDUSTRY FORUM: THE EUROPEAN SOLAR STRATEGY – DISCUSSING EUROPE'S PV-SECTOR PLANS FROM A BUSINESS AND GEO-POLITICAL PERSPECTIVE

Time 02:00–03:30pm
Room 14 A

02:00pm Welcome and Introduction
Walburga Hemetsberger, Chief Executive Officer, SolarPower Europe, Belgium

02:05pm High Level Industry Forum
Among others:

- Michael Bloss, Member of the European Parliament, European Parliament, Belgium
- Dr. Tobias Brandis, President WACKER POLYSILICON, Wacker Chemie AG, Germany
- Dr. Gunter Erfurt, Chief Executive Officer, Meyer Burger, Germany
- Matthias Taft, Chief Executive Officer, BayWa r.e. AG, Germany


Walburga Hemetsberger


Michael Bloss


Dr. Tobias Brandis


Dr. Gunter Erfurt


Matthias Taft

The solar sector's Europe Solar Initiative (ESI) has been advocating politics and finance to support establishing a meaningful solar silicon supply chain that enables the European Union to rely on secure domestic supply sources for everything needed to manufacture solar modules. The 5th High Level Industry Forum with executives of the European solar industry and politics will take place at a time the European Commission is preparing its first Solar Strategy to be published later this year.

The session is jointly organized by Intersolar Europe and the continent's solar sector association SolarPower Europe.

SolarPower Europe

WEDNESDAY, MAY 11, 2022

Time 09:00–10:30am
Room 14 C

FLOATING SOLAR 1: CATCHING THE LATEST SOLAR WAVE – WHY FLOATING SOLAR IS AN IMPORTANT PIECE IN THE ENERGY TRANSITION

The benefits of installing solar on water surfaces are manifold - and so is the interest around the world. Floating solar (FPV) projects are being developed in a quickly growing number of countries setting the groundwork for an energy transition that is often largely based on solar, while looking for technical solutions that help overcome land availability constraints in regions where land is a scarce resource.

This session will discuss:
- Status & potential of FPV
- Applications on different water bodies – from lakes to sea
- Cost competitiveness
- Major challenges

09:00am Welcome and Introduction
Guido Agostinelli, Senior Industry Specialist, International Finance Corporation, U.S.

09:05am Status & Potential of FPV
Josefin Berg, Senior Research Analyst, IHS, U.S.

09:25am Overview on FPV System Applications on Different Water Bodies
Alison Wilshaw, Principal Consultant, RINA, U.K.

09:45am Challenges and Outlook for Floating Solar
Dr. Thomas Reindl, Deputy CEO, Solar Energy Research Institute of Singapore (SERIS), National University of Singapore (NUS) Cluster Director, Solar Energy Systems, Singapore

10:05am Economics, Cost Competitiveness and Convenience of Floating Solar Solutions
Roman Karbowy, Business Development Manager, Scatec, Norway

10:25am Q&A Round


Guido Agostinelli


Josefin Berg


Alison Wilshaw


Dr. Thomas Reindl


Roman Karbowy

Time 11:00am–12:30pm
Room 14 C

FLOATING SOLAR 2: SOLID FOUNDATIONS – WHAT'S NEEDED FOR DEVELOPING AND BUILDING SUCCESSFUL FLOATING SOLAR PROJECTS

Solar project development on water presents specific challenges. The constant contact with water requires not only additional but also different products, materials and system design that account for moving parts, water level changes, severe weather events, and can endure this novel environment for decades. All this has consequences for floating solar systems - regarding reliability and testing, O&M and asset management.

This session will discuss:
- Commercial system components and materials
- Different system designs
- Reliability & quality testing
- Recommended FPV Practices and Standards

11:00am Welcome and Introduction
Jörg Althaus, Segment Manager, TÜV Rheinland Solar GmbH, Germany

11:05am Facts and Fairytales of Floating Solar Solutions
Arnoud van Druten, Director, Floating Energy Solutions/ Sunprojects, Netherlands

11:20am FPV Moving from Recommended Practices to FPV Standards
Michele Tagliapietra, Solar Consultant, DNV Italy srl, Italy

11:35am Technology Evolution in FPV
Olivier Philippart, Product Division co-Director, Ciel & Terre International, France

11:50pm Reliablity of Moring Solutions in Severe Weather Conditions
Charles Gery, Project Manager Floating PV, Seaflex, Sweden

12:05pm Panel Discussion: What's Needed For Developing and Building Successful FPV Projects?


Jörg Althaus


Arnoud van Druten


Michele Tagliapietra


Olivier Philippart


Charles Gery

WEDNESDAY, MAY 11, 2022

FLOATING SOLAR 3: STAYING AFLOAT? LESSONS LEARNED FROM THE FIRST FPV PROJECTS FOR SMALL TO GW-SIZE SYSTEMS ON- AND OFF-SHORE

Time 02:00–03:30pm
Room 14 C

02:00pm Welcome and Introduction
Alison Wilshaw, Principal Consultant, RINA, U.K.

02:05pm Failure Modes of Floating Solar Systems
Magnus Johanessen, Engineer, Environmental Loading & Response Energy Systems, DNV AS, Norway

02:25pm How a Space Constraint Country like The Netherlands Looks at FPV
Dr. Wiep Folkerts, Programm & Market Manager, TNO, Netherlands

02:40pm Gemany's Largest FPV – A Solar Case Study for Transition of Coal Mining Areas
Eik Leppin, Project Manager Wind & PV, LEAG AG and EP New Energy GmbH, Germany

02:55pm Lessons Learned from Manufacturing and Supplying over 1 GW of Floating Solar Projects Worldwide
Jie Lyu, Regional Manager Overseas, Sungrow FPV, China

03:10pm How to Develop a 2.2 GW Offshore Floating Solar Power Plant in Indonesia
Speaker to be announced

03:25pm Q&A Round


Alison Wilshaw


Magnus Johanessen


Dr. Wiep Folkerts


Eik Leppin


Jie Lyu

With around 2 GW installed worldwide over the last few years, FPV stakeholders have already learned a lot about how to bring and maintain solar systems generating power on water bodies. Encouraged by these positive experiences, increasingly larger systems have been built and are under development - with the latest installations reaching several hundred MWs and plans for single systems announced that are about as large as today's total FPV capacity.

This session will discuss:
- Lessons learned from developing and operating systems on the water
- Case studies for very large FPV developments
- FPV business models today and tomorrow
- Digitalization & other innovations to optimize costs

WEDNESDAY, MAY 11, 2022

Time 09:00–10:30am
Room 12

OFF-GRID – BEST PRACTICES ON RURAL ELECTRIFICATION

For more than 10 years, the UN has made "rural electrification" a global goal for human development. Now would be time to review different approaches on how to electrify people. In this session, sustainable examples of successful projects will be presented. The projects started more than 5 years ago and are still going strong. Together we will take a look at the success factors and the replication potential.

09:00am Welcome and Introduction
Peter Adelmann, Professor, Ulm University of Applied Science, Germany

09:10am Key Factors for the Promotion of Decentralized Energy Access Solutions in Sub-Saharan Africa
Bärbel Höhn, BMZ Special Representative fo Energy in Afica, Federal Ministry for Economic Cooperation and Development, Germany

09:25am ENGIE Minigrids - Best Practices and Evolutions
- Benjamin Dumond, Head of Operations & Technical Minigrids, ENGIE Energy Access, France
- Morgan Gauthier, Operation and Technical Officer, Engie Power Corner, Belgium

09:40am Long Lasting Weak-/ and Offgrid Battery Systems – a Pre-Sales View
Tobias Badelt, Sales Battery Storage Systems, Rolls Royce Solutions GmbH, Germany

09:55am Zambian Case Study
Kerii Tjitendero, Head of Sales, Fosera Solarsystems GmbH & Co. KGaA, Germany

10:05am Q&A


Peter Adelmann


Bärbel Höhn


Benjamin Dumond


Morgan Gauthier


Tobias Badelt


Kerii Tjitendero

Time 11:00am–12:30pm
Room 12

OFF-GRID INNOVATION – DIGITAL, CONTROL & MONITORING SOLUTIONS, BATTERIES

Digitalization, both for financing and for system monitoring, as well as new types of batteries and other storage possibilities are becoming more and more innovation drivers in the off-grid solar sector. We present some of the latest key innovations.

11:00am Welcome and Introduction
David Wedepohl, Managing Director International Affairs, German Solar Association/BSW-Solar, Germany

11:05am Advanced Battery Analytics for Commercial & Industrial Applications
Svet Bajlekov, CEO & Co-Founder, AMMP, Netherlands

11:15am Innovative Planning Tools for Hybrid Off-Grid Systems
Dr.-Ing. Saeed Sayadi, Chair of Energy Engineering and Environmental Protection & Research Associate, Technische Universität Berlin, Germany

11:25am NiZn Battery: Developments and Potential for Off-Grid Applications
Dr. Sylvain Brimaud, Doctor, ZSW/Centre for Solar Energy and Hydrogen Research, Germany

11:35am Remote Monitoring for Off-Grid Solar and Water Pumping Systems
Maximilian Spannagel, COO, EcoPhi Renewables Engineering GmbH, Germany

11:45am To Be Announced
Speaker to be announced, NXT Grid, The Netherlands

11:55am Innovating Integration of Efficient Power Electronics, Monitoring & Control
Bob Hopman, Sales Manager, Victron Energy B.V., Netherlands

12:05pm Q&A


David Wedepohl


Svet Bajlekov


Dr.-Ing. Saeed Sayadi


Dr. Sylvain Brimaud


Maximilian Spannagel


Bob Hopman

WEDNESDAY, MAY 11, 2022

ON-GRID GOES OFF-GRID

Time 02:00–03:30pm
Room 12

02:00pm Welcome and Introduction
Dr. rer. nat. Catherina Cader, Head of Unit Off-Grid Systems, Reiner Lemoine Institut GmbH, Germany

02:05pm To Be Announced
Dr. rer. nat. Catherina Cader, Head of Unit Off-Grid Systems, Reiner Lemoine Institut GmbH, Germany

02:20pm Hot Water - Cost-Effective and Decentralized Through Photovoltaic Boilers
Manuel Masenko, CEO, fothermo System AG, Germany

02:35pm Lux Battery - Swap From Home to Mobile
Benjamin Seckinger, CEO, BOS AG, Germany

02:50pm Strategies for Improving Access to Electricity in Semi-Urban Areas via Interconnected Mini Grids
Muhammad Imran, RE Consultant and Project Manager, INTEGRATION environment & energy GmbH, Germany

03:05pm Q&A


Dr. rer. nat. Catherina Cader


Manuel Masenko


Benjamin Seckinger


Muhammad Imran

Photovoltaics is developing very quickly. Efficiency is increasing and costs are decreasing. Many potential applications are becoming competitive with the grid and other forms of power. While in the past off-grid users sought to be connected to the grid, the opposite may now be true. A gray area of products is emerging that belong in both the off-grid and grid-connected worlds. In addition, electrification strategies and perspectives are being adapted to show the potential of interconnected off-grid systems. This session will present examples of such products and systems, as well as innovative electrification approaches.

WEDNESDAY, MAY 11, 2022

Time 09:00–10:30am
Room 13 B

EUROPEAN'S MAIN MARKET DRIVER RELOADED? UTILITY SCALE STANDALONE STORAGE

The vast majority of operational utility-scale storage projects in Europe to date have targeted ancillary services - a market that is increasingly saturated and difficult to finance. Yet, "merchant stacking" through switching between individual markets and enabled by AI-based precision bidding has proven to optimize revenue streams and achieve attractive returns. In this session, we have a look at the current standalone storage landscape, understand use cases, prerequisites and markets addressed as well as provide an outlook on this application's suitability to drive European utility scale installations also in the future.

09:00am Welcome and Introduction
Anna Darmani, Lead Analyst, Energy Storage Europe, Wood Mackenzie, Germany

09:05am Panel Discussion: Europe's Main Market Driver, Reloaded?
Utility-Scale Standalone Storage

- Julian Jansen, Market Applications Director, Fluence, UK
- Chris Matson, Partner | LCP's Energy Analytics Team, Lane Clark & Peacock, UK
- Jacob Monroe, Chief Commercial Officer, Arenko Group, UK
- Dr. Marise Westbroek, Project Leader, Aurora Energy Research, Germany


Anna Darmani


Julian Jansen


Chris Matson


Jacob Monroe


Dr. Marise Westbroek

Time 11:00am–12:30pm
Room 13 B

Joint Session with Intersolar
A TROUBLESOME MARRIAGE IN EUROPE? UTILITY SCALE RENEWABLES PLUS STORAGE

In Europe, "renewables-plus-storage projects" for which the targeted use case requires a physical co-location are far less common than stand-alone projects so far. But why is it this way? What are the differences to booming renewables-plus-storage markets such as the US where GW scale storage is installed next to PV parks at very competitive PPAs? What has to change (or is already changing) to allow for a similar development and what are the chances that this will happen? This session will explore existing projects, market structures, pricing and regulations to provide the answers.

The session is jointly organized by Intersolar Europe and ees Europe.

11:00am Welcome and Introduction
Florian Mayr, Partner, Apricum - The Cleantech Advisory, Germany

11:05am Panel Discussion: A Troublesome Marriage in Europe?
Utility-Scale Renewables-plus-Storage

- Arie Bal, Principal Electrical Engineer, Shell New Energies, Netherlands
- Till Brüggemann, Business Lead Project and Market Development, Vattenfall BU Solar & Batteries, Germany
- Patrick Clerens, Secretary General, EASE, Belgium
- Dr. Heike Pfistner, Head of Strategic Marketing and Product Management, Energy Storage, BASF New Business GmbH, Germany


Florian Mayr


Arie Bal


Till Brüggemann


Patrick Clerens


Dr. Heike Pfistner

WEDNESDAY, MAY 11, 2022

POTENCIAL GAMECHANGERS: INNOVATION IN BATTERY TECHNOLOGIES

Time 02:00–03:30pm
Room 13 B

The technology for battery storage systems is constantly evolving. Not only is lithium-ion technology the subject of almost weekly news reports, but progress is also being observed in other battery chemistries. Technologies around the battery are developing rapidly, so new monitoring methods help to better understand the condition of batteries. Furthermore, in power electronics there have been enormous technological leaps. Look forward to get a first-hand insight into the current state-of-the-art.

02:00pm Welcome and Introduction
Dr. Alexander Hirnet, Technical Director, sonnen GmbH, Germany

02:05pm The Sodium-Ion Battery Energy Landscape
Ruth Sayers, Director of Technology and Operations, Faradion Limited, UK

02:20pm Renewable Made Reliable: A Unique Long-Duration Energy Storage Solution
Dr. Ralf Wiesenberg, VP Business Development, Azelio, Sweden

02:35pm Using High Voltages for a Grid-Tied Battery System: Project "kV-Batt"
- Vanessa Steinkötter, Research Associate, Fachhochschule Dortmund, Germany
- Prof. Dr.-Ing. Stefan Kempen, Prof. Dr.-Ing. for Electrical Power Engineering, Fachhochschule Dortmund, Germany

02:50pm Second-Life Batteries: How Can Digital Twins Identify Which to Reuse and Make Them Last
Jørgen Erdal, Co-Founder & CEO, Evyon, Norway

03:05pm A New Advanced Battery Inverter – the Game-Changer for Commercial and Industrial Storage Systems
Nam Truong, Co-Founder & Co-CEO, STABL Energy GmbH, Germany

03:20pm Q&A


Dr. Alexander Hirnet


Ruth Sayers


Dr. Ralf Wiesenberg


Vanessa Steinkötter


Prof. Dr. Ing. Stefan Kempen


Jørgen Erdal


Nam Truong

WEDNESDAY, MAY 11, 2022

Time 09:00–10:30am
Room 13 A

Joint Session with EM-Power
INTEGRATING E-MOBILITY: SMART CHARGING AND VEHICLE-TO-X MODELS

A key element of the energy transition is the need for an integrative approach, with all sectors pulling in the same direction. Given the ubiquity and high energy consumption of transport, from private cars to buses and trucks, EVs are set to become an integral part of overall energy systems. Novel approaches such as bi-directional charging and Vehicle-to-X models could be leveraged to support grid operation and stability. This session will examine novel charging technologies, showcase examples of best-practice projects, and discuss how inventive charging models could support the energy systems of the future.

The session is jointly organized by EM-Power and Power2Drive.

09:00am Welcome and Introduction
Philippe Vangeel, Secretary-General, AVERE - The European Association for Electromobility, Belgium

09:05am Charging Solutions of the Future
Thomas Gereke, Global Senior e-Mobilty Consultant, Siemens AG, Germany

09:20am Why AC-Bidirectionality is the Key to a Widescale V2G Deployment
Dennis Schulmeyer, CEO, LADE GmbH, Germany

09:35am Bidirectional Charging is the Future - AC or DC is the Question?!
Christian Adolph, Product Manager Charging, Webasto Group, Germany

09:50am CHAdeMO: Enabler of V2G Application for Grid Stability
Tomoko Blech, Secretary General, CHAdeMO Association, France

10:05am V2X - How to Save 500 EUR Today and1.000 Tomorrow
Veronika Brandmeier, Head of Energy Supply and VGI Projects,The Mobility House AG, Germany

10:20am Q&A


Philippe Vangeel


Thomas Gereke


Dennis Schulmeyer


Christian Adolph


Tomoko Blech


Veronika Brandmeier

Time 11:00am–12:30pm
Room 13 A

FURTHER AHEAD:
EXTENDED MOBILITY SERVICES AS A BUSINESS MODEL

Extending the service life of transport solutions, preserving resources and reducing energy consumption are all key tenets of the mobility transition. Far-sighted lifecycle management will become even more important as EVs increase our dependency on battery solutions. However, major questions remain in respect of cost efficiency and regulatory frameworks, with innovative technical and commercial solutions needed. In this session, speakers will examine trends and state-of-the-art for e-mobility charging technologies, present best-practice examples of mobile charging solutions, and discuss the link between e-mobility and reduction of the carbon footprint of economy.

11:00am Welcome and Introduction
Frank Müller, Leiter Hauptstadtbüro, BEM/Bundesverband eMobilität e.V., Germany

11:05am Intelligent Lifecycle Management of EV Batteries: Digital Twins and Artificial Intelligence for a Second Life
Patrick Peter, CEO & Founder, Circunomics, Germany

11:20am Accelerating EV Adoption with Wireless Charging
Peter Wambsganss, Director of Business Development, WiTricity, Germany

11:35am Mobile Urban EV Charging – Off Grid & On Demand
Andreas Nelskamp, Country Manager Germany, E-GAP Srl, Italy

11:50am Economic Sizing and Impact of PV Forecast Inaccuracies on Charging Infrastructure Depending on its Use Case
Anna Sina Starosta, Research Assistant, Karlsruhe Institute of Technology, Institute of Electrical Engineering, Germany

12:05pm Q&A


Frank Müller


Patrick Peter


Peter Wambsganss


Andreas Nelskamp


Anna Sina Starosta

WEDNESDAY, MAY 11, 2022

JOINING THE DOTS: SECTOR COUPLING AND VEHICLE – INTEGRATED GENERATION

Time 02:00–03:30pm
Room 13 A

02:00pm Welcome and Introduction
Dr. Oliver Mayer, Head of Energy Department, Bayern Innovativ GmbH, Germany

02:05pm Residential Demand Response and V2G Empowered by Home Energy Management
Dr. Alexander Schuller, Product Management Smart Charging, Greencom Networks, Germany

02:20pm From Charging Management to Sector Coupling: Holistic Building Concepts
Andreas Schimanski, Director Business & Technology, ecocoach AG, Germany

02:35pm Digitalized Photovoltaic-Energy-Carport for Large-scale Parking Areas
Peer Samuel, Research Asisstant, Solar-Institute Jülich - FH Aachen, Germany

02:50pm TO BE ANNOUNCED
Baudrit Mathieu, Group Lead Technology, Sono Motors, Germany

03:05pm Q&A


Dr. Oliver Mayer


Dr. Alexander Schuller


Andreas Schimanski


Peer Samuel


Baudrit Mathieu

Sector coupling should be considered a key pillar in Europe's strategy for the energy transition. From vehicles themselves to the associated infrastructure and buildings, an electrified, efficiently integrated transport sector could play a vital role in securing future energy supplies. Current proposals range from coating vehicles, roads and car parks in PV modules to developing mobile buffer storage solutions. Speakers in this session will present innovative models, examine the potential of vehicle-integrated PV (ViPV) systems, and discuss ways to overcome issues of cost efficiency, resource availability and compatibility.

WEDNESDAY, MAY 11, 2022

Time 09:00–10:30am
Room 11

ACTIVE CONSUMERS FOR SYSTEM EFFICIENCY

New technologies and market-based solutions are emerging to allow customers to also become active players in the market. The best potential outcome from smart grid technologies largely relies on the customers' readiness and adoption. This session provides you with insights into "What is needed in order to encourage customers to become more active" and "How does consumer engagement help utilities to address energy market challenges in an increasingly digital landscape as more distributed energy resources are integrated?" illustrated by case studies with innovative approaches, successful experiences and lessons learned.

09:00am Welcome and Introduction
Michael Villa, Executive Director, Smart Energy Europe, Belgium

09:05am Enabling Energy Saving & Efficiency Advise in Banking App Using Smart Meter Data AI
- Petra Eussen, Product Innovation Manager at Rabobank – Sustainable Living, Rabobank, Netherlands
- Bram van der Wal, Director of Product, Net2Grid, Netherlands

09:20am Successful Coordination between DSOs and Flexibility Providers through Local Markets: The Experience from Spanish CoordiNet Pilot
Cristina Corchero Garcia, CTO, Bamboo Energy S.L., Spain

09:35am Introducing Smart Local Energy Systems
Simon Briggs, Practice Manager Business Models, Energy Systems Catapult, UK

09:50am Industrial Process Transformation and Hybridization of Energy Supply, Key Enablers for Demand-Side Flexibility and Industry Decarbonization
Jean-Pierre Cleirec, CEO Western Europe, Energy Pool, France

10:05am Panel Discussion


Michael Villa


Petra Eussen


Bram van der Wal


Cristina Corchero Garcia


Simon Briggs


Jean-Pierre Cleirec

Time 11:00am–12:30pm
Room 11

DIGITAL EVOLUTION OF THE GRID

In order to accommodate an increase in renewables, power grids will need the ability to integrate new technologies more quickly. Digitalization is a key to integrate renewables in electricity systems, to improve reliability and leverage data to get sustainable energy where it needs to be. In this session, leading solution providers and utility managers that are on top of the digital revolution will share their views and experiences in dealing with the challenges of digitalization. Learn how they are embracing digital technologies to integrate renewables, respond to new models of consumption and aid the provision of flexibility solutions for electricity grids.

11:00am Welcome and Introduction
Kevin O'Donovan, Technology Evangelist, A Bit of This and That, France

11:05am Introduction
Jesus Rodriguez Gonzales, Partner, McKinsey & Company, Spain

11:15am Embracing the Ecological Transition: Let's Get Digital
Jean Philippe Poirrier, Head of Department, Smart Grid Solutions, Enedis, France

11:30am Completely New Concepts and Solutions in Digitalization While IT and OT Converge
Dr. Michael Schwan, Head of Power Technologies International, Siemens AG, Germany

11:45am Using AI/ML to Optimise the Asset Replacement Strategy
- Frank Jacobs, Principal Asset Management, Grid Operations & IT/OT integration, DNV Energy Systems, Netherlands
- Tobias Zeh, Product Owner for Advanced Analytics in Asset Management, Netze BW, Germany

12:00pm Panel Discussion


Kevin O'Donovan


Jean Philippe Poirrier


Dr. Michael Schwan


Frank Jacobs


Tobias Zeh

WEDNESDAY, MAY 11, 2022

FLEXIBILITY MARKETS & BALANCING

Time 02:00–03:30pm
Room 11

02:00pm Welcome and Introduction
Gregorio Ogliaro, Managing Dirctor, Global Utility T&D Lead, Accenture, Italy

02:05pm DSO Role in Building a More Flexible, Decentralized and Digital Energy System
Torsten Knop, European Regulation, E.ON SE, Germany

02:20pm Balancing the Grid with Local Flexibility
Rune Hogga, CEO, Agder Energi Group, Norway

02:35pm Achieving Flexibility with Aggregators' Participation in the TSOs Balancing Markets
Pasi Norrbacka, Senior Advisor Reserves & Flexibility, Statnett SF, Norway

02:50pm Digital Services for Demand-Side Flexibility Market
Ciro Lanzetta, Chief Technical Officer, I-EM, Italy

03:05pm Panel Discussion
Additional panelist: Richard Sarti, CEO, NODES, Norway


Gregorio Ogliaro


Torsten Knop


Rune Hogga


Pasi Norrbacka


Ciro Lanzetta


Richard Sarti

There is a growing need for flexibility to balance the grid when the larger part of the production is coming from renewable sources. The balancing of supply and demand in a system based on intermittent renewables is at the crux of the digital revolution. A number of platforms are being developed across Europe to meet the needs of distribution and transmission networks. This session focuses on what is needed to establish well-functioning retail markets and how efficient technological and new market solutions for active consumers and energy communities' participation in the energy transition will form the basis to achieve this.

SIDE-EVENTS THURSDAY, MAY 12, 2022

Time 09:30am–02:45pm
Room 13 B

Participation:
€390 €

GRÜNE PPA – CHANCEN UND HERAUSFORDERUNGEN FÜR INDUSTRIE UND ENERGIEBRANCHE

By Conexio-PSE GmbH.

→ www.forum-neue-energiewelt.de/gruene-ppa/ppa-tagung-intersolar-europe/tickets-ppa-tagung

Organizers

conexio pse

Time 01:00pm–18:30pm
Room 11

Participation:
€90

BACK CONTACT WORKSHOP (BACK CONTACT SOLAR CELL AND MODULE TECHNOLOGY)

By International Solar Energy Research Center Konstanz e.V.

→ www.backcontact-workshop.elmia.de/registration/

Organizers

ISC research for a sunny future

Time 02:00pm–4:00pm
Room 22

Participation:
Exhibition Ticket required

INDO-GERMAN ENERGY DIALOGUE – LATEST DEVELOPMENTS IN INDIA'S SOLAR ENERGY MARKET

By Indo-German Energy Forum (IGEF) Support Office.

Organizers

iggf Indo-German Energy Forum Support Office

Time 2:00pm–4:00pm
Room 02

Participation:
Exhibition Ticket required

THE SMARTER E SOUTH AMERICA – BRAZIL MARKET OPPORTUNITIES

By Solar Promotion International GmbH – The smarter E South America.

→ www.intersolar.de/accompanying-program/discover-new-opportunities-for-the-growing-pv-market-in-brazil?lang=en

Organizers

SOLAR PROMOTION INTERNATIONAL

Time 10:30am–8:00pm
Room 13 A

Participation:
Exhibition Ticket required

WOMEN ENERGIZE WOMEN CONFERENCE

By Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

→ www.womenenergize.org/

Organizers

giz

ABOUT THE SMARTER E EUROPE EXHIBITION

„Creating a new energy world" – This is the goal of The smarter E Europe, Europe's largest platform for the energy industry. The focus is on renewable energies, decentralization and digitalization of the energy industry as well as cross-sector solutions from the electricity, heat and transport sectors for a smart and sustainable energy supply.

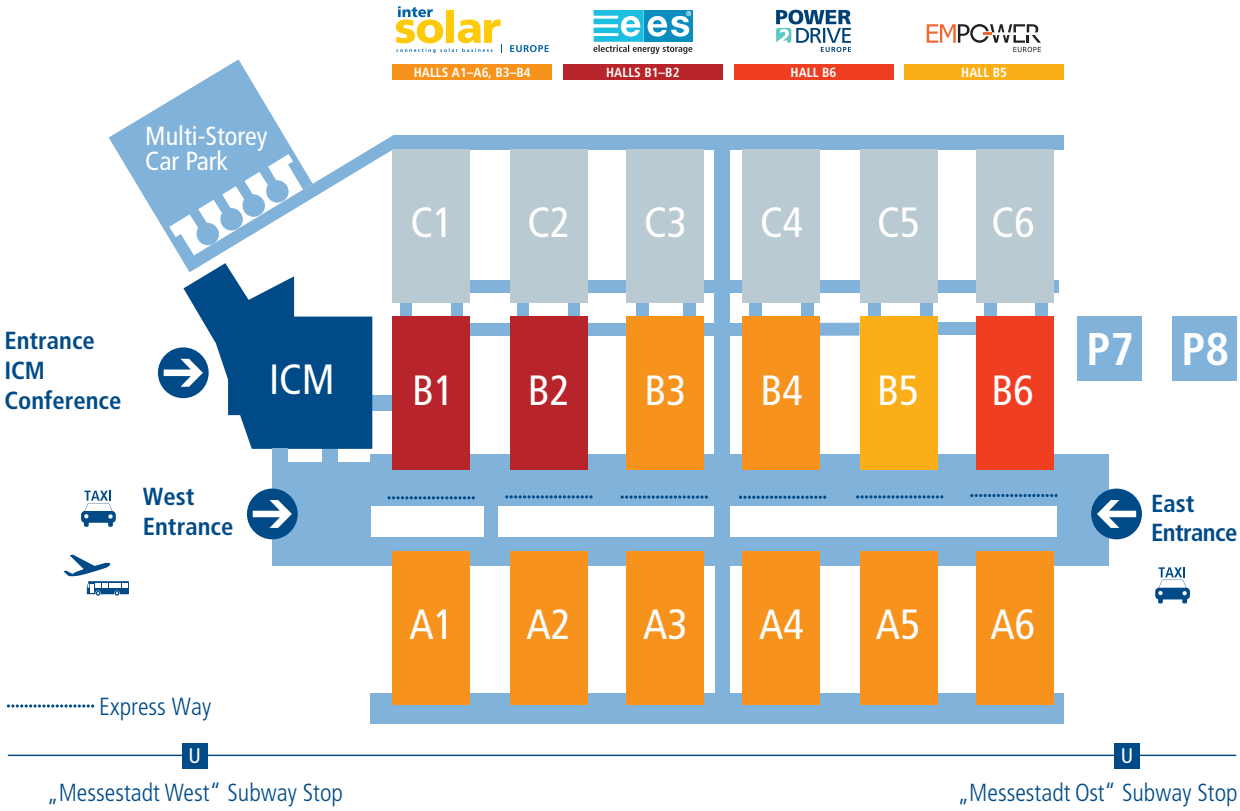
The smarter E Europe brings together a total of four exhibitions to give energy industry players from around the world a comprehensive overview of the latest developments and trends. All of the events will take place from May 11–13, 2022, at Messe München, Germany:

- Intersolar Europe – The world's leading exhibition for the solar industry
- ees Europe – The continent's largest and most international exhibition for batteries and energy storage systems
- Power2Drive Europe – The international exhibition for charging infrastructure and e-mobility
- EM-Power Europe – The international exhibition for energy management and integrated energy solutions

EXHIBITION QUICK FACTS

Dates	May 11–13, 2022
Hours	9:00am–6:00pm | Wednesday 9:00am–6:00pm | Thursday 9:00am–5:00pm | Friday
Venue	A1–A6, B1–B6 Messe München 81823 Munich, Germany
Exhibitors	1,300 + at The smarter E Europe
Exhibition Space	132,000 sqm at The smarter E Europe
Visitors	50,000 at The smarter E Europe

I EXHIBITION SITE PLAN OF THE SMARTER E EUROPE 2022



A1 Intersolar Europe
- PV Cell and Module Manufacturers

A2 Intersolar Europe
- PV Cell and Module Manufacturers

A3 Intersolar Europe
- PV Cell and Module Manufacturers
- PV Production Technologies, Materials, Components and Accessories

A4 Intersolar Europe
- PV System Providers, PV Distributors, PV Products, Services, Solar Thermal Technologies

A5 Intersolar Europe
- PV System Providers, PV Distributors, PV Products, Services, Solar Thermal Technologies
- Off-Grid Power
- PV Mounting Systems
- PV Tracking Systems

A6 Intersolar Europe
- PV Mounting Systems
- PV Tracking Systems

B1 ees Europe
- Stationary Battery and Energy Storage Systems
- Battery Manufacturing Technologies, Materials, Components and Accessories
- Battery Testing/Research

B2 ees Europe
- Stationary Battery and Energy Storage Systems
- Power-to-Gas, Hydrogen, Fuel Cells

B3 Intersolar Europe
- PV Inverters
- PV Monitoring, Measurement & Control Technologies

B4 Intersolar Europe
- PV Inverters
- PV Monitoring, Measurement & Control Technologies

B5 EM-Power Europe
- Smart & Microgrids/Smart Metering
- Monitoring/Yield Forecasts & Integration of Renewable Energies
- Virtual Power Plants/Flexibility Management
- Energy Management & Building Automation
- Decentralized & Renewable Energy Supply
- Energy Services/CO_2 Auditing
- Start-Up Area The smarter E Europe

B6 Power2Drive Europe
- Charging Technology and Infrastructure
- Electric Mobility
- Mobility Services
- Solar Carports and Bikeports

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