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**JUNE  
21-22  
2016**

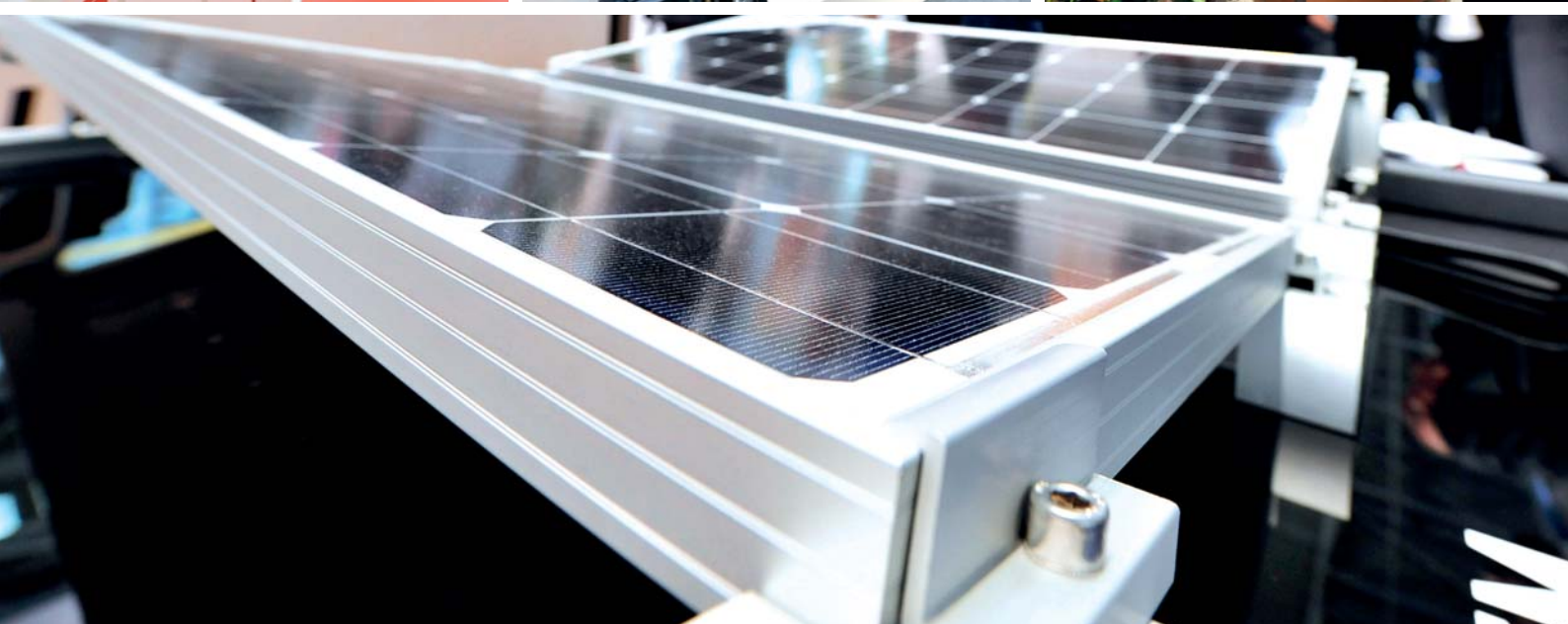
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**CONFERENCE PROGRAM**



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**Manfred Bächler**  
Energy Solutions PV,  
E.ON Energie Deutschland GmbH,  
Germany



**Jenny Chase**  
Manager Solar Insight,  
Bloomberg  
New Energy Finance, U.K.



**Bruce Douglas**  
Chief Operating Officer,  
SolarPower Europe, Belgium



**Uwe Ilgmann**  
Managing Director,  
invecco, Germany



**Gaëtan Masson**  
Director,  
Becquerel Institute, Belgium



**Jörg Mayer**  
Managing Director,  
German Solar Association  
(BSW-Solar), Germany

## | CONFERENCE BARBECUE

Join us on Tuesday, June 21 at 6:00pm in the ICM garden for the popular Conference Barbecue. Save your spot to meet with solar people while watching the UEFA 2016 match between Northern Ireland vs Germany. Places are limited.

Register on-site for €95



## INTER SOLAR EUROPE CONFERENCE

Tuesday, June 21, 2016

## EES EUROPE CONFERENCE (PLEASE TURN THE BROCHURE)

9:00am–10:00am	Conference Opening			ROOM 14B
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10:15am–11:15am	Global PV Market Outlook PAGE 10 ROOM 14A	PV Power Plants: Asset Management PAGE 12 ROOM 14C	Off-Grid: Business Models for Dissemination of Solar Systems PAGE 14 ROOM 13A	Policies, Markets and Emerging Opportunities PAGE 10 ROOM 14B
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11:45am–1:15pm	Global PV Markets: Europe – Leading the Future Transformation? PAGE 10 ROOM 14A	PV Power Plants: Operation & Maintenance PAGE 12 ROOM 14C	Off-Grid: Storage Systems PAGE 14 ROOM 13A	Battery Technologies: Evolutionary Improvements and Revolutionary Concepts PAGE 10 ROOM 14B
Lunch Break				
2:30pm–4:00pm	Global PV Markets: The Americas – The Future Annual Double-Digit GW Market? PAGE 11 ROOM 14A	PV Power Plants: The Rise of Drones & Robots PAGE 13 ROOM 14C	Off-Grid: Innovative Systems and Applications PAGE 15 ROOM 13A	Residential Storage Systems and Integration into Smart Home Concepts PAGE 11 ROOM 14B
Coffee Break				
4:30pm–6:00pm	Global PV Markets: Asia – The East is Bullish PAGE 11 ROOM 14A	Renewable Energy Hybrid Plants: Coming of Age PAGE 13 ROOM 14C	Off-Grid: Productive Use PAGE 15 ROOM 13A	Commercial PV Battery Systems: Self Consumption and Beyond PAGE 11 ROOM 14B
6:00pm	Conference Barbecue			

Wednesday, June 22, 2016

9:00am–10:30am	Europe's Today's and Tomorrow's PV Financing Landscape PAGE 16 ROOM 14A	Smart Renewable Energy: Residential/Commercial & Industrial Buildings PAGE 18 ROOM 14C		Insights and Experiences with Large-Scale Applications PAGE 12 ROOM 14B
Coffee Break				
11:00am–12:30pm	U.S. Solar Finance Update and Future Roadmap PAGE 16 ROOM 14A	Smart Renewable Energy: Districts and Cities PAGE 18 ROOM 14C		Safety and Reliability: Key Issues for Large-Scale Market Penetration PAGE 12 ROOM 14B
Lunch Break				
2:00pm–3:30pm	PV Financing Project: Changing Markets and Innovative Financial Schemes PAGE 17 ROOM 14A	Smart Renewable Energy: Digitalization of Energy PAGE 19 ROOM 14C		Technology Focus 2016: Advancements in Home Storage Systems PAGE 13 ROOM 14B
Coffee Break				
4:00pm–5:30pm	Improving the Bankability and Investability of Solar PAGE 17 ROOM 14A	Smart Renewable Energy: New Business Models PAGE 19 ROOM 14C		Panel: Storage Systems Entering the Mass Market – Ecological Footprint from Material to 2 <sup>nd</sup> Use PAGE 13 ROOM 14B

Thursday, June 23, 2016 (These side-events are not included in any ticket, on-site registration is required)

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11:30am–1:00pm	Mexican Energy Transition: New Opportunities for Solar Technology & Business PAGE 20 ROOM 14A		On-Grid Solar: Africa Investment Forum PAGE 20 ROOM 14B	
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2:00pm–4:00pm	The Middle East – Approaching its Solar Noon PAGE 20 ROOM 14A	Business and Investment Opportunities in India's New Solar Rooftop Market PAGE 20 ROOM 14C		

Subject to change

### CONFERENCE QUICK FACTS

Dates	June 21–23, 2016
Hours	9:00am–6:00pm
Venue	ICM – Internationales Congress Center München, Messe München 81823 Munich, Germany

### CONFERENCE TICKETS

Tickets	
Full Conference <sup>1</sup>	€1,025
Day Ticket <sup>2</sup>	€680
Off-Grid Ticket <sup>3</sup>	€390
Conference Barbecue	€95

<sup>1</sup> Includes all Intersolar Europe & ees Europe Conference sessions and the three day exhibition pass. Conference Barbecue, Side-Events and Workshops are not included.  
<sup>2</sup> Includes all Intersolar Europe & ees Europe Conference sessions of the respective day and the three day exhibition pass. Conference Barbecue, Side-Events and Workshops are not included.  
<sup>3</sup> Includes the conference opening, the off-grid sessions of Tuesday and the three day exhibition pass. Conference Barbecue, Side-Events and Workshops are not included.

TUESDAY, JUNE 21, 2016

Time 9:00am–10:10am

Room 14 B

**Summary**

SolarPower Europe's annual "Global Market Outlook 2016-2020" flagship publication, considered to be the most authoritative market analysis report for the global PV sector, will be launched at the Intersolar Europe. A five-year highly detailed market forecast, covering the various PV epicenters, and their relevance in the respective power markets. Agora Energiewende will present its assessment concerning the anticipated future role of electrical energy storage applications and the likely impact on the mature solar PV market in the near and mid-term. Furthermore, SMA, a leading global manufacturer, will share its view on possible future technological trends and how the global PV industry is expected to evolve in the coming years will be another key feature of the official opening session.

**CONFERENCE OPENING**

- 9:00am** Welcome Address  
Dr. Florian Wessendorf, Managing Director, Solar Promotion GmbH, Germany
- 9:05am** Conference Welcome  
Dr. Matthias Vetter, ees Europe Conference Committee Chairman, Fraunhofer Institute for Solar Energy Systems ISE, Germany
- 9:10am** Global Market Outlook  
Oliver Schäfer, President, SolarPower Europe, Belgium
- 9:30am** The Role and Interaction of Solar and Storage – Present Status and Future Prospects  
Dr. Patrick Graichen, Executive Director, Agora Energiewende, Germany
- 9:50am** Solar Energy – An Industry Perspective  
Pierre-Pascal Urbon, Chief Executive Officer, SMA Solar Technology AG, Germany



Dr. Florian Wessendorf



Dr. Matthias Vetter



Oliver Schäfer



Dr. Patrick Graichen



Pierre-Pascal Urbon





# SMART RENEWABLE ENERGY

PRODUCTS AND SOLUTIONS FOR  
THE CONNECTED ENERGY WORLD  
AT INTERSOLAR AND EES EUROPE

JUNE 22–24, 2016  
MESSE MÜNCHEN

- Renewable Energy ■ Grid Integration ■ Energy Storage
- Smart Energy Consumption ■ Energy Management



TUESDAY, JUNE 21, 2016

Time 10:15am–11:20am

Room 14 A

**Summary**

SolarPower Europe's annual "Global Market Outlook 2016–2020" flagship publication considered to be the most authoritative market analysis report for the global PV sector will again be launched at Intersolar Europe Conference. A five-year market forecast, covering winner and loser among anticipated growth markets, identifying key drivers and how markets can be secured in future. Additionally, an outlook on how the global PV power market is expected to evolve in the coming years, emerging technology trends among other vital insights will be highlighted in the course of this session.

## GLOBAL MARKET OUTLOOK

10:15am Welcome and Introduction

James Watson, Chief Executive Officer, SolarPower Europe, Belgium

10:20am Global Market Outlook

- Dr. Murray Cameron, Executive Board Member, SolarPower Europe, Belgium
- Gaëtan Masson, Director, Becquerel Institute, Belgium

James  
WatsonDr. Murray  
CameronGaëtan  
Masson

Partner



Time 11:45am–1:10pm

Room 14 A

**Summary**

The European PV Market is subject to a prolonged fundamental transformation. Although as a result of regulatory changes demand is decreasing, however especially these changes drive demand for new applications such as PV systems combined with electrical energy storage in both residential and commercial segments leading to the emergence of new business models. Against this background, recent market scenarios forecast a stable demand of approx. 7–8 GW annually across Europe in the foreseeable future. This session will shed light on how selected markets such as Germany, the UK and France are anticipated to evolve under their respective framework conditions.

## GLOBAL PV MARKETS: EUROPE – LEADING THE FUTURE TRANSFORMATION?

11:45am Welcome and Introduction

Gaëtan Masson, Director, Becquerel Institute, Belgium

11:50am European Market Overview

Alexandre Roesch, Policy Director, SolarPower Europe, Belgium

12:10pm Opportunities in the UK after the Boom

Saif Islam, Research Consultant, EuPD Research, Germany

12:30pm Solar PV in France – Status Quo and Outlook

Sven Rösner, Deputy Managing Director,  
French-German Office for Renewable Energy Sources (DFBEE), Germany

12:50pm Lessons and Prospects for German PV and Storage Development

David Wedepohl, Director Communications and Markets,  
German Solar Association (BSW-Solar), GermanyGaëtan  
MassonAlexandre  
RoeschSaif  
IslamSven  
RösnerDavid  
Wedepohl

**GLOBAL PV MARKETS: THE AMERICAS – THE FUTURE  
ANNUAL DOUBLE-DIGIT GW MARKET?**
**Time** 2:30pm–4:00pm  
**Room** 14 A

- 2:30pm** Welcome and Introduction  
Dr. Rodrigo Lopes Sauaia, Chief Executive Officer,  
Brazilian Photovoltaic Solar Energy Association – ABSOLAR, Brazil
- 2:35pm** Californian Market Development  
Aaron Thurlow, Secretary, California Solar Energy Industries Association (CALSEIA), U.S.
- 2:55pm** The Brazilian PV Market  
Camila Ramos, Managing Director, CELA – Clean Energy Latin America, Brazil
- 3:15pm** Mexico's Solar Market is Taking Shape  
Joscha Rosenbusch, Advisor, Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) mbH, Mexico
- 3:35pm** Solar Energy in Chile – The Boom Continues?  
Guillermo Soto Olea, Head of Public Solar Roofs Program, Ministry of Energy, Chile


 Dr. Rodrigo  
Lopes Sauaia

 Aaron  
Thurlow

 Camila  
Ramos

 Joscha  
Rosenbusch

 Guillermo  
Soto Olea

**Summary**

Combined, the Americas are bound to attract double-digit GW of annual installations in the coming years. Thanks to the ITC extension till 2019, the US market alone is expected to witness the deployment of up to 16 GW in 2016 and if successful will be the second largest globally. Central and South-American markets are anticipated to enjoy growing installation volumes as well. This session will shed light on how markets across "The Americas" under their respective framework conditions are forecasted to evolve. Markets such as the US, Mexico, Chile and Brazil will be highlighted.

**GLOBAL PV MARKETS: ASIA – THE EAST IS BULLISH**
**Time** 4:30pm–6:10pm  
**Room** 14 A

- 4:30pm** Welcome & China's Solar PV Ambitions  
Frank Haugwitz, Head of Intersolar Conference Development,  
Solar Promotion International GmbH, China
- 4:45pm** The Japanese PV Market Outlook after the Revision of the FIT Law  
Izumi Kaizuka, Manager, RTS Corporation, Japan
- 5:05pm** India's PV Market: Driving a New Momentum  
Dr. A.K. Tripathi, Head of Division, Ministry of New and Renewable Energy (MNRE), India
- 5:25pm** Pakistanian PV Market  
Nauman Khan, Chief Executive Officer, Grace Solar Pakistan, Pakistan
- 5:50pm** Iran Solar PV Market Opportunities  
Dr. Reza Shaybani, Chairman, British Photovoltaic Association, U.K.


 Frank  
Haugwitz

 Izumi  
Kaizuka

 Dr. A.K.  
Tripathi

 Nauman  
Khan

 Dr. Reza  
Shaybani

**Summary**

Asia is the global PV center of gravity for both production and installations today and in future. Last year Asia was responsible for roughly 60% of the total global demand. Key drivers for demand are e.g. surging power consumption, persistent high levels of air pollution and low PV system prices causing national governments to endorse incentive policies designed to create a favorable business environment for solar PV. Presentations will feature legislative landscapes, opportunities and a forecast in terms of market development in the foreseeable future.

TUESDAY, JUNE 21, 2016

Time 10:15am–11:35am

Room 14 C

**Summary**

How to optimize the plant profitability effectively? Via centralized O&M centres to remotely monitor the operation of PV plant, track performance, detect and diagnoses issues, schedule and manage on-site maintenance activities, all designed to optimize plant profitability. Beyond technical O&M plant performance issues, asset management on behalf of the asset owner includes e.g. communication with grid operators and regulators, thus ensuring compliance with corresponding legal frameworks. This session features the growing business of asset management service providers in the solar PV industry/market.

**PV POWER PLANTS: ASSET MANAGEMENT**

- 10:15am** Welcome and Introduction  
Achim Woyte, Innovation Projects, 3E sa, Belgium
- 10:20am** Benchmarking by an Independent O&M Provider  
Ingo Rehmann, Managing Director, greentech GmbH & Cie. KG, Germany
- 10:35am** The Golden Circle of PV Asset Management  
Dr. Andreas Leimbach, Managing Director and Managing Partner, SolarKapital GmbH, Germany
- 11:00am** Asset Management – An Important Part of the Success of Solar Energy Projects  
Abid Kazim, NextEnergy Solar Fund Limited; Managing Director, UK
- 11:15am** Trends in Portfolio Management of Solar Assets  
Edmée Kelsey, Chief Executive Officer, 3megawatt GmbH, Germany



Achim Woyte



Ingo Rehmann



Dr. Andreas Leimbach



Abid Kazim



Edmée Kelsey

Time 11:45am–1:00pm

Room 14 C

**Summary**

O&M business is getting more complex and sophisticated. Monitoring solutions and data analysis leads to cost-effective trouble shooting and pre-empting of failures. Contract management and warranty enforcement leads to innovative performance based pricing structures. The aim is to mitigate key maintenance challenges resulting in less downtime and maximized energy yields. This session will focus on the growing nature of the O&M business from a service provider perspective.

**PV POWER PLANTS: OPERATION & MAINTENANCE**

- 11:45am** Welcome and Introduction  
Manfred Bächler, Energy Solutions PV, E.ON Energie Deutschland GmbH, Germany
- 11:50am** Redefining Solar O&M – How Will Solar O&M Look Like in the Future  
Vassilis Papaeconomou, Managing Director, Alectris, Greece
- 12:05pm** Technology: Optimizing PV Plant Performance  
Stefan Degener, Senior Director O&M  
Europe/Middle East at First Solar, First Solar GmbH, Germany
- 12:20pm** Computerized Maintenance Management System – More Efficiency in O&M  
Uwe Ilgemann, Managing Director, invecco, Germany
- 12:35pm** Practical Knowledge and Experience of On-Site Investigation of PV Systems  
Michael Blödner, Head of Technology, E.ON Deutschland GmbH, Germany
- 12:50pm** Experience of PID in the Field:  
From Yield Issues and Cause Analysis through to Module Regeneration  
Sönke Jäger, Senior Manager Business Solutions, ADLER Solar Services GmbH, Germany



Manfred Bächler



Vassilis Papaeconomou



Stefan Degener



Uwe Ilgemann



Sönke Jäger

TUESDAY, JUNE 21, 2016

## PV POWER PLANTS: THE RISE OF DRONES &amp; ROBOTS

Time 2:30pm–4:00pm

Room 14 C

- 2:30pm** Welcome and Introduction  
Manfred Bächler, Energy Solutions PV, E.ON Energie Deutschland GmbH, Germany
- 2:35pm** A Smarter Cleaning Solution: How Ecoppia Revolutionized Utility PV Cleaning Using Autonomous & Water-Free Robotic Technology  
Eran Meller, Chief Executive Officer, Ecoppia, Israel
- 2:55pm** Analyzing the Trade-Offs of Panel Cleaning Methods: Frequency, Efficacy and Cost  
Kyle Cobb, Senior Product Manager, Power Plant Products, U.S.
- 3:15pm** Inspecting PV-Plants Using Infrared IR-Thermography Mounted at Unmanned Aerial Vehicles (UAV)  
Dr. Claudia Buerhop-Lutz, Senior Scientist Photovoltaic Systems, ZAE Bayern, Germany
- 3:35pm** State of the Art EL Imaging in the Field Using Drones and Automated Evaluation Software Tools for High Speed and High Precision Inspections
- Andreas Fladung, Chief Executive Officer, Fladung Solartechnik GmbH, Germany
  - Stefan Hück, Chief Executive Officer, Five Robots GmbH, Germany

Manfred  
BächlerEran  
MellerKyle  
CobbDr. Claudia  
Buerhop-LutzAndreas  
FladungStefan  
Hück**Summary**

Drones offer plenty of advantages to inspect and maintain solar PV power plants. One example “thermal diagnosis drones” can be particularly useful for inspecting photovoltaic systems at a significantly reduced time. At the same time, the deployment of autonomous cleaning robots offers to increase the power output at a reduced service cost. In the course of this session the versatility, benefits and future development of such devices will be demonstrated.

## RENEWABLE ENERGY HYBRID PLANTS: COMING OF AGE

Time 4:30pm–6:00pm

Room 14 C

- 4:30pm** Welcome and Introduction  
Prof. Dr. Christof Wittwer, Head of Department -Smart Grids- IES, Fraunhofer Institute for Solar Energy Systems ISE, Germany
- 4:35pm** Renewable Hybrid Systems: Energy Intermittency and Low Grid Integration Fuel Growth Across Emerging Markets  
Pritil Gunjan, Senior Industry Analyst, Frost & Sullivan, U.K.
- 4:55pm** The Future of Electricity Supply  
Jochen C. Treitel, Consultant, Parabel GmbH, Germany
- 5:15pm** Energy Storage Dispatch Strategies for Optimized Grid Operation with High Renewable Energy Penetration  
Volker Wachenfeld, Exexutive Vice President Business Unit Off-Grid & Storage, SMA Solar Technology AG, Germany
- 5:35pm** Hardware in the Loop lab to Develop Hybrid Energy Systems  
Prof. Dr. Christof Wittwer, Head of Department -Smart Grids- IES, Fraunhofer Institute for Solar Energy Systems ISE, Germany

Prof. Dr.  
Christof WittwerPritil  
GunjanVolker  
Wachenfeld**Summary**

An increasing number of projects around the world do no longer just deploy one single renewable energy technology, in order to generate power, but rather a combination of it. Such “Renewable Energy Hybrid Power Plants” are subject to this session and features this growing global trend. Challenges and benefits, local integration schemes and existing projects will be showcased during this session.

TUESDAY, JUNE 21, 2016

Time 10:15am–11:15am

Room 13 A

**Summary**

Solar PV is an economical viable technology to provide off-grid systems with clean energy. Especially in comparison with diesel generators high cost reductions can be achieved. Nevertheless the implementation of solar systems faces some challenges due to missing business models. Thus, it is important to research, improve and discuss various potential business models.

## OFF-GRID: OPENING ADDRESSES &amp; BUSINESS MODELS FOR DISSEMINATION OF SOLAR SYSTEMS

**10:15am** Opening Addresses

- Gabriele Struthoff-Müller, Conference Manager, Department Renewable Energies, Ostbayerisches Technologie-Transfer-Institut e.V. (OTTI), Germany
- Prof. Peter Adelmann, Professor, Ulm University of Applied Sciences, Germany
- Dr. Tania Rödiger-Vorwerk, Deputy Director General Directorate 31, Federal Ministry of Economic Cooperation and Development (BMZ), Germany

**10:40am** Start and Roll Out of an Decentral Electrification Company

Casper Sikkema, Managing Director, SolarWorks, South Africa

**10:50am** Solarkiosk: The Energy Gateway and Last Mile Distribution to the Base of the Pyramid

Lars Krückeberg, Founding Partner, SOLARKIOSK AG, Germany

**11:00am** Discussion

Gabriele Struthoff-Müller



Prof. Peter Adelmann



Dr. Tania Rödiger-Vorwerk



Casper Sikkema



Lars Krückeberg

Partner



Time 11:45am–1:15pm

Room 13 A

**Summary**

The implementation of fluctuating renewable energies into off-grid diesel grids requires certain storage technologies to increase the overall renewable share and to improve the system stability. Different technologies exist to fulfill these tasks by e.g. electrochemical or thermal storage application.

## OFF-GRID: STORAGE SYSTEMS

**11:45am** Welcome and Introduction

Norbert Pfanner, Fraunhofer Institute for Solar Energy Systems ISE, Germany

**11:50am** Field Performance of Modern Battery Systems

Dr. George Hanna, Managing Director, Qinous GmbH, Germany

**12:10pm** Adding LiFePO4 to Lead Acid Systems

Thomas Kündiger, Co-Founder, Balance of Storage Systems AG, Germany

**12:30pm** Non Electric Storage

Prof. Peter Adelmann, Professor, Ulm University of Applied Sciences, Germany

**12:50pm** Discussion

Norbert Pfanner



Dr. George Hanna



Thomas Kündiger



Prof. Peter Adelmann

Partner



## OFF-GRID: INNOVATIVE SYSTEMS AND APPLICATIONS

Time 2:30pm–4:00pm

Room **13 A**

- 2:30pm** Welcome and Introduction  
Dr. Philipp Blechinger, Reiner Lemoine Institut gGmbH, Germany
- 2:35pm** PV Solar Water Heater  
Daniel Ulrich Goldbach, Co-Founder, Peltier Application AG, Germany
- 2:55pm** Intelligent Money Collection for PV Solar Home Systems  
Mitra Ardron, Chief Executive Officer, Lumeter Networks, U.S.
- 3:15pm** Hybridsystems  
Caroline Nijland, Director Business Development,  
FRES (Foundation Rural Energy Services), Netherlands
- 3:35pm** Discussion

**Summary**

Hybrid off-grid systems and decentralized energy supply systems are complex systems requiring latest control and communication technologies. Thus, innovations for hard- and software continuously improve system performances and decrease costs.

Dr. Philipp  
BlechingerDaniel Ulrich  
GoldbachMitra  
ArdronCaroline  
Nijland

Partner



## OFF-GRID: PRODUCTIVE USE

Time 4:30pm–6:00pm

Room **13 A**

- 4:30pm** Welcome and Introduction  
Prof. Peter Adelman, Professor, Ulm University of Applied Sciences, Germany
- 4:35pm** Solar Powered Milling  
Stewart Craine, Chief Executive Officer, Village Infrastructure Angels, Port Vila, Vanuatu
- 4:55pm** Replacement of Dry Cell Batteries  
Catherine Adelman, Managing Director, fosera GmbH & Co.KgA, Germany
- 5:15pm** Production of Components and Systems in Eastern Africa  
Haijo Kuper, Founder & Chief Executive Officer, Solinc East Africa, Kenya
- 5:35pm** Discussion
- 5:50pm** Closing Remarks  
Prof. Peter Adelman, Professor, Ulm University of Applied Sciences, Germany

**Summary**

Rural electrification is one of the Sustainable Development Goals. The implementation is challenging due to e.g. low specific electricity consumption. The enhancement of productive users can improve both the financial viability of electrification projects and the local living conditions.

Prof. Peter  
AdelmanStewart  
CraineCatherine  
AdelmanHaijo  
Kuper

Partner



## WEDNESDAY, JUNE 22, 2016

Time 9:00am–10:30am

Room 14 A

**Summary**

What is the appetite and the targeted returns of investor strategies in an under-supplied European market today? Is e.g. the yieldco option – a good fit for Europe and if so, how good? What are the opportunities for financing residential/commercial rooftop projects? Does solar leasing have a chance in Europe in future? If so, are there any early movers? What might be examples of aggregating portfolios and refinancing them? This session will focus on the evolution of the European landscape for PV financing.

## EUROPE'S TODAY'S AND TOMORROW'S PV FINANCING LANDSCAPE

- 9:00am** Welcome and Introduction  
Pietro Radoia, Analyst, Bloomberg New Energy Finance, U.K.
- 9:05am** Latest Trends in the European PV Investor Landscape  
Pietro Radoia, Analyst, Bloomberg New Energy Finance, U.K.
- 9:25am** The Yieldco Option – How Good of a Fit for Europe?  
James Armstrong, Managing Partner, Bluefield Partners LLP, U.K.
- 9:45am** Strategies in the Commercial Segment – Opportunities?  
Barbara Flesche, Vice President, solarcentury, Germany
- 10:05am** Financing of PV Power Plants in a Changed Market Environment  
Markus Rist, Head of Transaction Management Infrastructure, KGAL Investment Management GmbH & Co. KG, Germany



Pietro Radoia



James Armstrong



Markus Rist

Partner

**Bloomberg**  
NEW ENERGY FINANCE

Time 11:00am–12:30pm

Room 14 A

**Summary**

This fast paced panel based session will cover a U.S. market overview, trends and changes to the competitive U.S. solar finance landscape, new business models such as community solar, different ownership models, new market entrants, securitization and the opportunity afforded by smart grid technologies. Industry expert panel discussions and presentations will engage to discuss the cost of capital, the changing role of local and national policy, the current U.S. ITC changes, the risk premium and cost for solar PV finance in today's U.S. PV market including residential, commercial, and utility scale.

## U.S. SOLAR FINANCE UPDATE AND FUTURE ROADMAP

- 11:00am** Welcome and Introduction  
Tom Tansy, Chairman, SunSpec Alliance, U.S.
- 11:05am** PV Financing Landscape in the US Executive Panel
- Dirk Michels, Partner, Ballard Spahr LLP., U.S.
  - Andrew de Pass, Chief Executive Officer, Conergy, U.S.
  - Haresh Patel, Chief Executive Officer, Mercatus, Inc., U.S.
  - Edmée Kelsey, Chief Executive Officer, 3megawatt, Germany



Tom Tansy



Dirk Michels



Andrew de Pass



Haresh Patel



Edmée Kelsey

Partner

**SUNSPEC**  
ALLIANCE



## PV FINANCING PROJECT: CHANGING MARKETS AND INNOVATIVE FINANCIAL SCHEMES

Time 2:00pm–3:30pm

Room 14 A

- 2:00pm** Overview of the Trend Business and Financial Models used in Europe  
Luz Alicia Aguilar, Project Coordinator, German Solar Association (BSW-Solar), Germany
- 2:10pm** Recent Developments and Outlook for the UK Solar Sector  
David Pickup, Business Analyst, Solar Trade Association, UK
- 2:35pm** Financial Mechanisms  
Peter Rambold, Project Finance EMEA, BayernLB, Germany
- 2:50pm** Crowdfinance – Renewable Energy Projects made Possible by the Crowd  
Harald Schottenloher, Chief Financial Officer & Sales Executive, bettervest GmbH, Germany
- 3:05pm** Solar Projects – Financing through Citizens' Participation: Key Success Factors and Best Practice  
Josef Baur, Managing Director, eueco GmbH, Germany
- 3:20pm** Discussion Round

Luz Alicia  
AguilarDavid  
PickupPeter  
RamboldHarald  
SchottenloherJosef  
Baur

Partner

**Summary**

The EU-funded project PV Financing analyzes the PV markets of 6 European countries and Turkey as well as innovative financial mechanisms for PV development. In this session a brief overview of the project results of the 7 countries will be provided. Additionally, detailed information about the current situation and the perspective of the PV market in UK will be discussed. Furthermore, the financial mechanisms used in Germany will be presented. These include the instruments of financial institutions and those including the participation of the people. The possible combination of these two will be debated.

## PV FINANCING: IMPROVING THE BANKABILITY AND INVESTABILITY OF SOLAR

Time 4:00pm–5:30pm

Room 14 A

- 4:00pm** Welcome and Introduction  
Burkhard Holder, Head of Division, Energy & Smart Technologies, VDE Testing and Certification Institute, Germany
- 4:05pm** Evolving Bankability and Investability Criteria from a Financier's Perspective  
Matthias Jäger, Head, Risk Advisory & Services, Allianz Climate Solutions GmbH, Germany
- 4:20pm** PV System Quality Challenges and Best Practices for Installation  
Igor Rauschen, Project Leader, Pohlen Solar GmbH, Germany
- 4:35pm** Panel Discussion on the Bankability and Investability of Solar
- William Chen, Chief Executive Officer, also solar GmbH, Germany
  - Burkhard Holder, Head of Division, Energy & Smart Technologies, VDE Testing and Certification Institute, Germany
  - Felix Holz, Vice President, Expert Team Greentech, Deutsche Bank AG, Germany
  - Klaus Kiefer, Head of Department, Quality Assurance for PV Modules and Power Plants, Fraunhofer Institute for Solar Energy Systems ISE, Germany
  - Dr. Max Köntopp, Director, R&D Analysis and Modelling, Hanwha Q CELLS GmbH, Germany
  - Torsten Schellscheidt, Senior Rating Analyst, Euler Hermes Rating GmbH, Germany
  - Christof Thannbichler, Head of Business Entity Solar Projects, Chief Executive Officer, BayWa r.e. renewable energy GmbH, Germany

Burkhard  
HolderMatthias  
JägerIgor  
RauschenFelix  
HolzKlaus  
KieferDr. Max  
KöntoppTorsten  
SchellscheidtChristof  
Thannbichler

Partner

**Summary**

As an increasing number of markets continue to open up to solar deployment, project developers must ensure that they implement the latest best practices to build up a high quality PV system with minimized risks. These cutting edge techniques are necessary to meet the criteria of lenders and investors, and therefore establish a project's 'bankability' and 'investability'. These considerations are not only important for the primary solar project market, but also the secondary market. This session will explore the experiences and evolving expectations of various project stakeholders for financing a project, especially in emerging solar markets with less experience. It will then present the latest best practices in project development, financial and technical risk management, quality assurance and solar asset management.

WEDNESDAY, JUNE 22, 2016

Time 9:00am–10:30am

Room 14 C

**Summary**

This session will feature the increasing role of smart technologies being deployed in residential, commercial and industrial buildings. All appliances of on-site generation, import, storage and consumption of energy will be connected by Internet of Things concepts and efficiently managed by smart control devices. App's will allow easy control and information by interfaces like TV, PC and smart phones and will enable the optimized use of PV systems, heat pumps, batteries and other Smart Home technologies like. Against this backdrop what are the market perspectives for such smart technologies, who are early movers, what are the business models and first market experiences?

## SMART RENEWABLE ENERGY: RESIDENTIAL, COMMERCIAL AND INDUSTRIAL BUILDINGS

- 9:00am** Welcome and Introduction  
Dr. Robert Kohrs, Head of Group Smart Grid Technology, Fraunhofer Institute for Solar Energy Systems ISE, Germany
- 9:05am** Smart Home: Internet Connected System Solutions based on Innovative Products  
Michael Ebel, Technical Sales Manager Product Group Residential & Commercial, SMA Solar Technologie AG, Germany
- 9:25am** Smart Home Solutions: ZigBee 3.0 in Home and Building Automation  
Dr. Arasch Honarbacht, Founder & Chief Executive Officer, ubisys technologies GmbH, Germany
- 9:45am** Smart Home Technology: Energy Management Systems as Key Driver for Rooftop PV Systems  
Dr. Moritz Borgmann, Partner, Apricum – The Cleantech Advisory, Germany
- 10:05am** Proof of Concept: Experiences with Smart Energy Buildings  
Bernd Bollmann, Head of Business Development, Viessmann Werke GmbH & Co. KG, Germany



Dr. Robert Kohrs



Michael Ebel



Dr. Arasch Honarbacht



Dr. Moritz Borgmann



Bernd Bollmann

Partner



Time 11:00am–12:30pm

Room 14 C

**Summary**

In future, energy systems will be optimized on district and city level, using synergy effects of local energy generation by PV and combined heat and power plants, integration of electrical and thermal storage capacities, efficient distribution e.g. by district heating systems, and efficient consumption by Smart Homes. This session will focus on design concepts and tools of energy systems in Smart Cities which are aiming for a high share of renewable energy supply. Solutions for optimized district energy management of electricity, heating, cooling, CHP, PV, solar thermal, heat pumps, etc. will be presented, including the integration of the increasing electric vehicle fleet. Finally the opportunities by using ICT solutions and technologies in smart cities will be discussed? This session will feature the emergence of smart districts and smart cities of the future.

## SMART RENEWABLE ENERGY: SMART DISTRICTS/SMART CITIES

- 11:00am** Welcome and Introduction  
Dr. Winfried Hoffmann, Consultant, Applied Solar Expertise, Germany
- 11:05am** ICT platforms for Smart Cities  
Dr. Norbert Koppenhagen, Vice President, Research & Innovation, SAP Innovation Center Network
- 11:25am** Energy-Efficient and Intelligent Street Lighting  
Marco Schreyer, Technical Manager, Schröder GmbH, Germany
- 11:45am** Smart Grid Solar Pilot Project Hof & Arzberg  
Dr. Jens Hauch, Division Head RE – Renewable Energies, ZAE Bayern – Bavarian Center for Applied Energy Research, Germany
- 12:05pm** Sustainable Energy Systems as Key Pillars for Smart Cities  
Gerhard Stryi-Hipp, Head of Energy Policy and Head of Group Thermal Processes and Low Temperature Solar Thermal Energy, Fraunhofer Institute for Solar Energy Systems ISE, Germany



Dr. Winfried Hoffmann



Dr. Norbert Koppenhagen



Gerhard Stryi-Hipp

Partner



## SMART RENEWABLE ENERGY: THE DIGITALIZATION OF ENERGY

Time 2:00pm–3:30pm

Room 14 C

- 2:00pm** Welcome and Introduction  
Gerhard Stryi-Hipp, Head of Energy Policy and Head of Group Thermal Processes and Low Temperature Solar Thermal Energy, Fraunhofer Institute for Solar Energy Systems ISE, Germany
- 2:05pm** Internet of Things – Testing Interoperability and Information Security in Smart Technologies  
Dr. Siegfried Pongratz, Project Manager Smart Home, VDE Testing and Certification Institute, Germany
- 2:25pm** New Business Models by Digitalization of the Energy Sector  
Prof. Dr. Dieter Hertweck, Head of Research Group Service Science, Herman Hollerith Research Centre/Faculty of Informatics, Reutlingen University, Germany
- 2:45pm** Challenges of Digitalization of the Energy System  
Dr. Robert Kohrs, Head of Group Smart Grid Technology, Fraunhofer Institute for Solar Energy Systems ISE, Germany
- 3:05pm** Discussion Round



Gerhard Stryi-Hipp



Dr. Siegfried Pongratz



Prof. Dr. Dieter Hertweck



Dr. Robert Kohrs

Partner

**Summary**

The way how we are using and controlling technical appliances is changing very fast by digitalization. This is also true for the equipment for generation, storage, distribution, consumption and management of energy. Driven by an accelerated use of Internet and Communication Technologies (ICT) and by entering the Internet of Things (IoT) age, big data technologies and the transfer, processing, handling and storing of relevant data will influence the design of sustainable energy systems dramatically. The digitalization of energy enables also new business opportunities and allows the creation of business models. This session will shed light on how digitalization is influencing the energy system and on the opportunities of a digitalized smart renewable energy world

## SMART RENEWABLE ENERGY: NEW BUSINESS MODELS

Time 4:00pm–5:30pm

Room 14 C

- 4:00pm** Welcome and Introduction  
Tobias Kurth, Managing Director, Energy Brainpool GmbH & Co. KG, Germany
- 4:05pm** Prices and Business Models in a Smart Renewable Energy Market  
Tobias Kurth, Managing Director, Energy Brainpool GmbH & Co. KG, Germany
- 4:25pm** Challenge of Trading Renewable Power  
Arved von Harpe, Head of Trading/Portfoliomanagement, Enerparc AG, Germany
- 4:45pm** Renewable Electricity for Tenants in Multi-Family Housing – Direct Electricity Supply with PV Roof Systems  
Ulf Rietmann, Product Manager, NATUSTROM AG, Germany
- 5:05pm** Blockchain in Decentral Energy Distribution  
Karl-Heinz Remmers, Chief Executive Officer, Solarpraxis AG, Germany



Tobias Kurth



Arved von Harpe



Karl-Heinz Remmers

Partner

**Summary**

The deregulation of the former traditional centralized power market offers room for new business models. In this context, during this session new approaches promoting e.g. the trading of renewable energies, the blockchain of decentralized energy distribution or decentralized energy supply as well anticipated potential price development and emergence of future business models will be presented.

## | CONFERENCE SIDE-EVENTS

THURSDAY, JUNE 23, 2016


**Brazil's PV Market: A 1GW – 2GW per Year Opportunity, and the Challenges Facing its Implementation**

Time 9:00am–11:00am  
 Venue ICM, first floor, room 14A  
 Participation Free of charge, registration required  
 Organizer CELA Clean Energy Latin America

**Turkey's Sun**

Time 1:30pm–4:00pm  
 Venue Messe München Hall A3, Room A31/A32 (first floor)  
 Participation Free of charge, registration required  
 Organizer GÜNDER


**Intersolar Study Program**

Time 9:00am–11:00am  
 Venue ICM, first floor, room 14C  
 Participation Free of charge, registration required – for students only.  
 Organizer Solar Promotion GmbH

**The Middle East – Approaching its Solar Noon**

Time 2:00pm–4:00pm  
 Venue ICM, first floor, room 14A  
 Participation Free of charge, registration required  
 Organizer Middle East Solar Industry Association (MESIA)


**On-Grid Solar: Africa Investment Forum**

Time 9:30am–5:45pm  
 Venue ICM, first floor, room 14B  
 Participation Free of charge, registration required  
 Organizer SolarPower Europe

**Business & Investment Opportunities in**
**India's New Solar Rooftop Market**

Time 2:00pm–5:30pm  
 Venue ICM, first floor, room 14C  
 Participation Free of charge, registration required  
 Organizer Indo-German Energy Forum Support Office


**Mexican Energy Transition: New Opportunities for Solar Technology & Business/Matchmaking**

Time 11:30am–1:00pm  
 Venue ICM, first floor, room 14A  
 Participation Free of charge, registration required  
 Organizers GIZ GmbH, German Solar Association



## | CONFERENCE MISSION

### **Our objective is to increase the share of solar power in the global energy supply**

Intersolar conferences provide the solar and energy industries with platforms for sharing information and strategies. In collaboration with speakers, participants and partners, we shape the energy supply of the future. International experts discuss technological trends and market developments, as well as new business models and financing solutions.

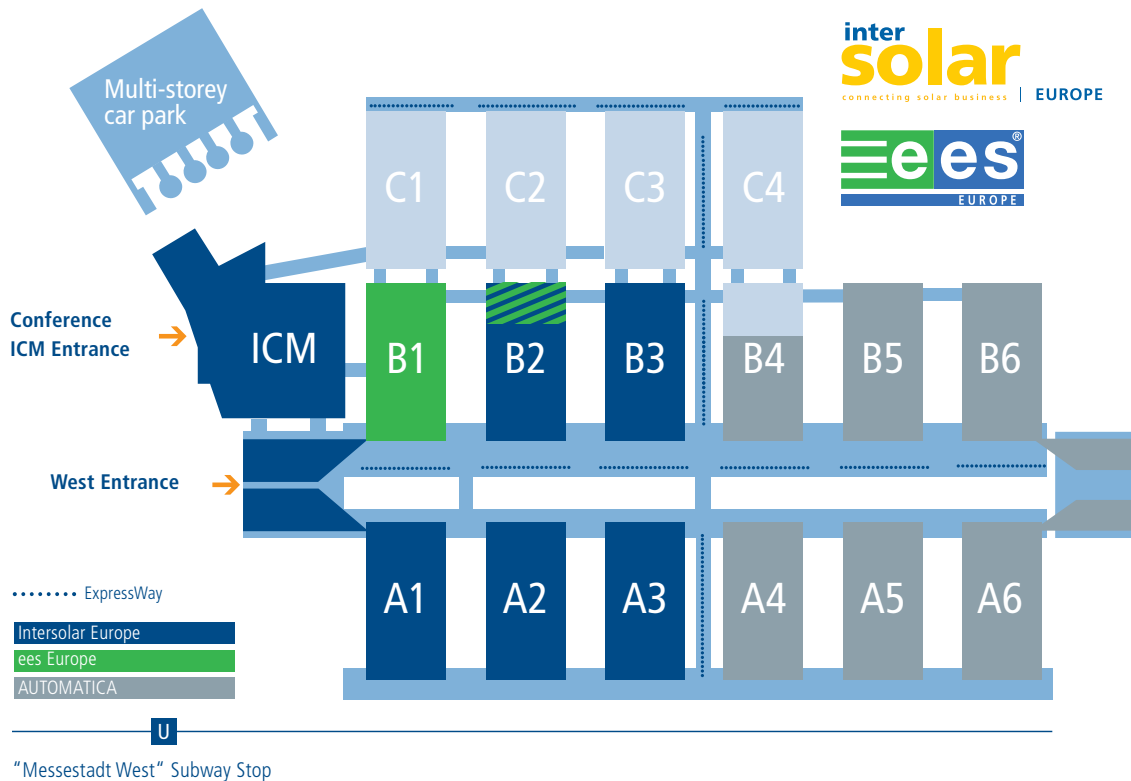
The Intersolar Europe conference focuses on the areas of photovoltaics, energy storage systems, smart energy technologies and solutions. We foster transnational knowledge transfer and best practice solutions while also bringing people together in accordance with our motto "Connecting Solar Business."

For the past 25 years, we have been connecting stakeholders from the most influential markets in the solar industry – project developers and planners, manufacturers, suppliers, distributors, investors, politicians and associations. We have a comprehensive global network of partners in industry, science, politics and associations, which guarantees a first-class presentation program that reflects current trends and developments.

Our international conferences are complemented by the Intersolar Summits, which take place in emerging and growing solar markets worldwide.



## VENUE



## EXHIBITION QUICK FACTS

Dates	June 22–24, 2016
Hours	Wednesday, June 22, 2016 9:00am–6:00pm
	Thursday, June 23, 2016 9:00am–6:00pm
	Friday, June 24, 2016 9:00am–5:00pm
Venue	Messe München 81823 Munich, Germany Halls A1–A3, B1–B3
Areas of Focus	Photovoltaics, Energy Storage, Renewable Heating, Products and Solutions for Smart Renewable Energy
Exhibitors	1,065
Visitors	40,000+ (expected)

### Organizers



Invitation to the  
Intersolar AWARD and  
ees AWARD 2016 Ceremony

Wednesday, June 22, 2016, 4:30pm  
Innovation and Application Forum  
Hall A2, Booth A2.530



Who is among the finalists 2016?  
Find out here!

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Intersolar North America | San Francisco | July 12–14, 2016  
Intersolar South America | São Paulo | August 23–25, 2016  
Intersolar Middle East | Dubai | September 19–21, 2016  
Intersolar India | Mumbai | October 19–21, 2016  
Intersolar Europe | Munich | May 31–June 2, 2017  
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