

# inter solar

connecting solar business

NORTH AMERICA

North America's Premier  
Exhibition and Conference  
for the Solar Industry,  
San Francisco

**JULY**  
**10-12**  
**2017**

[www.intersolar.us](http://www.intersolar.us)



co-located with



**SEMICON  
WEST**

**CONFERENCE PROGRAM**

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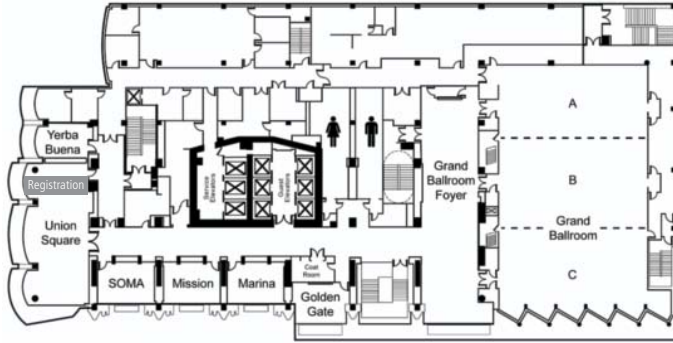
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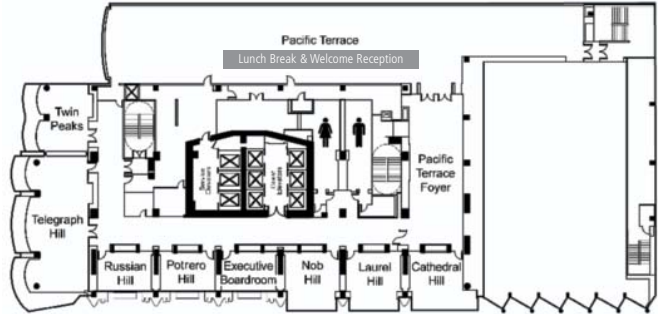
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## FLOOR PLANS INTERCONTINENTAL HOTEL

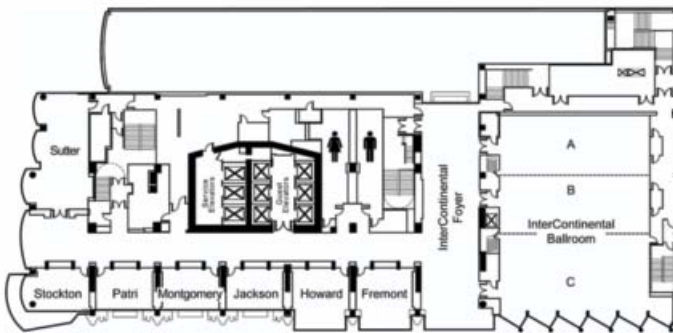
LEVEL 3



LEVEL 4



LEVEL 5



### Mobile App

The Intersolar and ees Mobile App is your on-the-go guide for Intersolar and ees North America 2017. Access detailed floor plans, exhibitor descriptions, and information on accompanying exhibition and conference programs straight from your mobile device. Download the Intersolar and ees App at → [www.intersolarglobal.com/App](http://www.intersolarglobal.com/App)



## CONFERENCE QUICK FACTS

Dates	July 10–12, 2017	Speakers	210+
Hours	Monday 9am–7pm Tuesday & Wednesday 9am–6pm	Attendees	1,500+
Venue	InterContinental Hotel 888 Howard Street, SF, CA 94103 Conference Area: Levels 3–5	Program	→ <a href="http://www.intersolar.us">www.intersolar.us</a> → Program
		Registration	→ <a href="http://www.intersolar.us">www.intersolar.us</a> → Registration

## ORGANIZERS



## CONFERENCE SPONSORS & PARTNERS

### CONFERENCE | WORKSHOP PARTNERS



### CONFERENCE SPONSORS



### PROGRAM ADVISORS



## INTERSOLAR NORTH AMERICA CONFERENCE

Location: InterContinental Hotel

### Monday July 10, 2017

9:00am–10:30am Coffee	Global PV Markets: Growth Stage and Emerging Markets Across Central and Latin America	Intersolar Finance Symposium I	SRE: Transformation to a 100% Renewable Energy Future	
11:00am–12:30pm Lunch	Asian Markets – Old and New Horizons	Intersolar Finance Symposium II	SRE: Renewable Cities Initiatives	
1:30pm–3:00pm Coffee	The Next Frontier: Pioneering Local Resiliency with Solar+Storage	Intersolar Finance Symposium III		
3:30pm–5:00pm	North America Market (Winners and Losers in 2016–2017)	Intersolar Finance Symposium IV		
5:30pm–7:00pm	Official Opening Ceremony			
7:00pm	Welcome Reception (Pacific Terrace)			

### Tuesday July 11, 2017

9:00am–10:45am Coffee	PV Cells: Which Cell Concepts will Secure the Future?	Intersolar Asset Management Summit I	Net Metering and the Potential Future Alternatives	
11:15am–1:00pm Lunch	PV Manufacturing: Pushing the Efficiency and Costs to New Levels	Intersolar Asset Management Summit II	Consumer Protection – Avoiding Backlash from our #1 Resource	The Establishment and the Disruptors
2:00pm–3:45pm Coffee	PV Plants: System Configuration	Intersolar Asset Management Summit III	Bridging the Storage Gap: Making Energy Storage Cost-Effective for Customers	Solsmart: Steps Toward Community Solar Designation
4:15pm–6:00pm	PV Plants Design & Monitoring – The Impact of Drones & Robots	Intersolar Asset Management Summit IV	The State of the States: National Shared Renewables Scorecard and Other Tools You Can Use	
5:00pm	Summerfest (AT&T Park)			

### Wednesday July 12, 2017

9:00am–10:45am Coffee	Addressing the Bankability and Investability of Solar	SRE: Buildings/ Energy Management	Grid Saturation – Improving Local Capacity Analysis to Host More Solar	
11:15am–1:00pm	The Future of PV – Executive Panel	Panels for Pot: Powering Greenhouses for Marijuana and other Indoor Crops	SRE: Digitalization/ Energy Clouds/Big Data	

■ Markets 
 ■ Finance 
 ■ Photovoltaic Technology 
 ■ Smart Renewable Energy

Subject to change

## PRICING INTERSOLAR NORTH AMERICA

Conference Packages	Price
Full Conference Package	\$1,095
Conference Day Ticket	\$575
Exhibition Ticket	\$200
Summerfest	\$150

The Full Conference Pass includes all Intersolar, ees sessions and the Summerfest ticket plus catering (coffee breaks/lunches) on all 3 conference days as well as the access to the expo halls. Day Tickets include the sessions (Intersolar & ees) only on the day selected plus catering (coffee breaks/lunches). Any conference registration grants you full access to the expo halls.

## WORKSHOPS AT INTERCONTINENTAL HOTEL

### Monday July 10, 2017

9:00am–5:00pm	National Electric Code PV	Field Applications of PV Operations and Maintenance	
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### Tuesday July 11, 2017

9:00am–1:00pm		Megawatt-scale PV: Design Considerations and Installation Case Studies	
2:00pm–6:00pm	Designing PV Systems with Energy Storage		

### Wednesday July 12, 2017

9:00am–1:00pm	The Post Net-Metered PV World: New Opportunities	Solar Codes and Safety Forum	Solar Heating & Cooling – Changing your Climate, not the Planet's
2:00pm–6:00pm	PV Technical Sales: The Business and Finance of Residential Solar		

### Thursday July 13, 2017

9:00am–5:00pm	Spanish: Prácticas Recomendadas de Instalaciones de Sistemas FV Conectados a la Red		
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Subject to change

## WORKSHOP PRICING

Workshop Tickets	Price
Full Day Workshop	\$575
Half Day Workshop	\$335
Solar Codes and Safety Forum	\$100
Solar Heating & Cooling – Changing your Climate, not the Planet's <sup>1</sup>	\$195
Combo Ticket: Solar Heating & Cooling – Changing your Climate, not the Planet's <sup>2</sup>	\$295

Your Workshop ticket includes catering (coffee breaks/lunches) and grants your full access to the expo halls.  
<sup>1</sup> includes Exhibition Ticket  
<sup>2</sup> includes Exhibition Ticket and Summerfest



## INTERSOLAR NORTH AMERICA CONFERENCE COMMITTEE

### CONFERENCE COMMITTEE CHAIRMAN



**Prof. Dr. Eicke R. Weber**  
Director, BEARS Program, UC Berkeley and National University Singapore

### ADVISORY BOARD



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Founder, Chief Market Research Analyst Solar PV Market Research



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Co-Chair, American Solar Energy Society



**Minh Le**  
Senior Renewable Energy Executive



**Dr. David Renné**  
President, International Solar Energy Society (ISES)



**Larry Sherwood**  
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**Tom Tansy**  
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 Interstate Renewable Energy Council  
 Trainer of the Year 2014

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 Meyer Burger



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 Holding, LLC, Founding Member,  
 Resilient Solar Alliance



**Dr. Richard Swanson**  
 Founder, SunPower



**Claudia Wentworth**  
 CEO and Co-Founder,  
 Quick Mount PV

Time 9:00am–10:30am

Room

**Grand Ballroom C,  
InterContinental Hotel****Summary**

In terms of annual installation volumes, Chile, Brazil, Argentina and Mexico are considered the most promising markets across South and Latin America. Sound economical growth, high retail electricity tariffs, favorable regulatory changes, etc. have made solar PV a financially attractive alternative compared to fossil-fuel based options. At the same time, markets across Central America witnessed a surprisingly strong demand the past two years as well. Countries like Costa Rica, Panama, Honduras, and Guatemala are such outstanding examples. This session will highlight the drivers, the demand, challenges and constraints faced in markets across this region

**GLOBAL PV MARKETS: GROWTH STAGE AND EMERGING  
MARKETS ACROSS CENTRAL AND LATIN AMERICA**

- 9:00am** Welcome and Introduction  
Manan Parikh, Senior Analyst, Global Solar Markets, GTM Research | Greentech Media, U.S.
- 9:05am** Costa Rica: A Solar Gem in Central America  
Jose Jove, Vice President Latin America & Caribbean, GCL System Integration Americas, U.S.
- 9:25am** PV in Mexico, an Investment Opportunity?  
Marco Calderón Agoitia, Partner – Leader of the Energy and Business Development Practice, Cosmo Consulting, Mexico
- 9:45am** Argentina – The Real Opportunities  
Josefin Berg, Senior Research Analyst, IHS Solar, U.S.
- 10:05am** Emerging Market Spotlights: Reviving Brazilian PV  
Manan Parikh, Senior Analyst, Global Solar Markets, GTM Research | Greentech Media, U.S.

Manan  
ParikhJose  
JoveMarco Calderón  
AgoitiaJosefin  
Berg

Time 11:00am–12:30pm

Room

**Grand Ballroom C,  
InterContinental Hotel****Summary**

Asia is the global PV center of gravity for both production and deployment today and in future. Last year, approximately 50 GW of solar PV power generation capacities were deployed in Asia. Surging power consumption, persistently high levels of air pollution and low PV system prices have led national governments across the region to endorse incentive policies designed to create a favorable business environment for solar PV. Today, Asia's main markets are China, India, Japan and the emerging markets of the Philippines and Vietnam. Presentations feature legislative landscapes, opportunities and a forecast of market developments.

**ASIAN MARKETS – OLD AND NEW HORIZONS**

- 11:00am** Welcome and Introduction  
Frank Haugwitz, Head of Intersolar Conference Development, Solar Promotion International GmbH, Germany
- 11:05am** The Indian Solar Industry has joined the Big Leagues  
Raj Prabhu, Chief Executive Officer, Mercom Capital Group, U.S.
- 11:25am** PV in Japan: Impact of Rule Change  
Izumi Kaizuka, Manager, RTS Corporation, Japan
- 11:45am** China Market Update – Vietnam An Emerging Market  
Frank Haugwitz, Head of Intersolar Conference Development, Solar Promotion International GmbH, Germany
- 12:05pm** PV + Storage in the Philippines: Previewing Our Baseload Solar Future  
Leandro L. Leviste, Founder, Philippine Solar Power Alliance, Philippines

Frank  
HaugwitzRaj  
PrabhuIzumi  
Kaizuka

## THE NEXT FRONTIER: PIONEERING LOCAL RESILIENCY WITH SOLAR + STORAGE

1:30pm

The Next Frontier: Pioneering Local Resiliency with Solar+Storage

Moderator: Sara Baldwin Auck, Director of IREC's Regulatory Program, Interstate Renewable Energy Council (IREC), U.S.

- Kate Bowman, Solar Project Coordinator, Utah Clean Energy, U.S.
- Seth Mullendore, Project Director, Clean Energy Group, U.S.
- Jessica Tse, Distributed Energy Resources Coordinator, San Francisco Department of Environment, U.S.



Sara  
Baldwin Auck



Kate  
Bowman



Seth  
Mullendore



Jessica  
Tse

Partner



Time 1:30pm–3:00pm

Room

**Grand Ballroom C,  
InterContinental Hotel**

### Summary

This panel will highlight solar + storage success stories and case studies for local resiliency and emergency planning from three key markets, San Francisco, New York City, and Salt Lake City. Drawing from these three diverse efforts, the panel will highlight new tools developed to overcome barriers to resiliency projects, as well as provide an opportunity for discussion around what's on the horizon and what's needed for solar + storage markets. The panel will also feature related successes from the US Department of Energy Solar Market Pathways Teams from across the country.

## NORTH AMERICA MARKET (WINNERS AND LOSERS IN 2016–2017)

3:30pm

Trends in the California Market

Dr. Kelly Knutsen, Senior Policy Advisor, California Solar Energy Industries Association (CALSEIA), U.S.

3:45pm

Mapping Solar Installations Across the U.S.

Aram Shumavon, Chief Executive Officer, Kevala Analytics, U.S.

4:00pm

Impacts of Rate Reforms on Solar Adoption

Galen L. Barbose, Research Scientist, Lawrence Berkeley National Laboratory, U.S.

4:15pm

Venture Capital Takes a Hard Look at Potential Energy Investments

Andrew Beebe, Managing Director, Obvious Ventures, U.S.

4:30pm

Legal Updates and Impact on Renewable Energy Investments

Elizabeth Sluder, Partner, Morrison Foerster, U.S.

4:45pm

A Boom in the Making – Utah and Other Emerging States

Sarah Wright, Executive Director, Utah Clean Energy, U.S.



Dr. Kelly  
Knutsen



Aram  
Shumavon



Galen L.  
Barbose



Andrew  
Beebe



Elizabeth  
Sluder



Sarah  
Wright

Partner



Time 3:30pm–5:00pm

Room

**Grand Ballroom C,  
InterContinental Hotel**

### Summary

It's the Solarcoaster. Which companies have been most successful in increasing market share? Which companies have gone belly up, and why? What market trends can we expect in the future?

Time 9:00am–10:30am

Room

**Grand Ballroom A,  
InterContinental Hotel****Summary**

Exploiting the synergies between solar and storage to establish the "Distributed Energy" market: A comprehensive solar + storage Distributed Energy solution has been shown to optimize individual customer costs, minimize payback time reduction while supporting distribution grid functions. This opening session will focus on how the solar + storage combination can unlock value and drive new growth backed up by concrete market data on the outlook for Distributed Energy in the Americas.

**INTERSOLAR FINANCE SYMPOSIUM I**

- 9:00am** Opening Welcome  
Tom Tansy, SEFA Board Member, Chairman, SunSpec Alliance, U.S.
- 9:15am** Distributed Energy Finance and Securitization Trends: 2017 Deals and Outlook  
Stephen Viscovich, Managing Director, Credit Suisse Securities LLC, Switzerland
- 9:45am** North American Distributed Energy Market, Channels and Trends 2017 Update  
Shayle Kann, Senior Vice President, Greentech Media & Head of GTM Research, GTM Research | Greentech Media, U.S.

Partner



Time 9:00am–10:30am

Room

**Grand Ballroom A,  
InterContinental Hotel****Summary**

Insights into the Distributed Energy market: Hear energy buyers unveil their purchasing preferences providing valuable perspective on the main barriers to adoption and compelling drivers for conversion. Hear from investors on the business case for funding in Distributed Energy including promising new revenue streams from grid support and ancillary services.

**INTERSOLAR FINANCE SYMPOSIUM II**

- 11:00am** Capital Market Trends in Distributed Energy
- Michael DeLucia, Vice President – Structured Finance, Alphabet, U.S.
  - Mark Perutz, Partner, DBL Partners, U.S.
  - Jesse Pichel, Managing Director, Roth Capital Partners, U.S.
  - Eric White, President and Co-Founder, Dividend Solar, U.S.
- 11:45am** Solar Investor Risk Round Table: What is Moving the Market and Keeping Investors up at Night?
- Gary Blitz, Senior Managing Director, Aon Risk Solutions, U.S.
  - Nathan Gabig, Managing Director – Securitization & Risk Consulting, KPMG Corporate Finance, LLC., U.S.
  - Benjamin Shih, Vice President, Moody's Ratings, U.S.
  - James Spano, Managing Partner, Spano Partners Holding, U.S.

Partner



### INTERSOLAR FINANCE SYMPOSIUM III

- 1:30pm** Commercial PACE and Green Banks: New, High-leverage Elements in the Solar Finance Stack Panel
- David Gabrielson, Chief Executive Officer, PACENation, U.S.
  - Bert Hunter, EVP & Chief Investment Officer, Connecticut Green Bank, U.S.
  - Kyle Kearney, Vice President of Sales, Borrego Solar, U.S.
  - Greg Saunders, Chief Executive Officer, CleanFund Commercial PACE Capital, U.S.

- 2:15pm** Orange Button: Attacking Costs and Increasing Transparency via (Portable) Finance Data Standards
- Sam Adeyemo, Chief Operating Officer, Aurora Solar, U.S.
  - Steven Eisenberg, Chief Executive Officer, SREC Trade, U.S.
  - Melanie Gnazzo, Partner, Chapman and Cutler LLP, U.S.
  - Jason Kaminsky, Chief Operating Officer, kWh Analytics, U.S.
  - Michelle Savage, Vice President of Communications, XBRL US, U.S.

Partner



Time 1:30pm–3:00pm

Room

**Grand Ballroom A,  
InterContinental Hotel**

#### Summary

Cracking the Distributed Energy market: This session will focus on case studies from industry leaders highlighting successful strategies on penetrating the market, innovative business models to drive profitability and powerful new solutions that are increasing residential customer conversions.

### INTERSOLAR FINANCE SYMPOSIUM IV

- 3:30pm** Securitization Round Table: Loans, Leases, and Mixed Portfolios – What's hot and What's not Panel
- Katya Baron, Managing Director, Capital Markets, Mosaic, U.S.
  - Gilbert Liu, Partner, Kramer Levin, U.S.
  - Cecil Smart, Senior Director, Kroll Bond Rating Agency, U.S.
  - Stephen Viscovich, Managing Director, Credit Suisse Securities LLC, Switzerland

- 4:15pm** Executive Roundtable: Reflections on the Opportunities Shaping the Market and How to Exploit them
- Etienne Lecompte, Chief Executive Officer, PowerHub, U.S.
  - Bates Marshall, Vice President Sales and General Manager, Huawei North America Smart PV Plant Solution, U.S.
  - Philip Myers, Research Assistant, Department of Chemical and Biomedical Engineering, Pace Avenue, U.S.
  - Raj Prabhu, Chief Executive Officer, Mercom Capital Group, U.S.
  - Jeff Weiss, Co-Chairman & Managing Director, Distributed Sun, U.S.

Partner



Time 3:30pm–5:00pm

Room

**Grand Ballroom A,  
InterContinental Hotel**

#### Summary

In the immediate horizon for Distributed Energy Resources: This session will highlight upcoming regulatory changes and business practices impacting the industry over the next six months. Hear industry executives reflect on the opportunities shaping the market and their take on how to exploit them. This session pulls together key take always with clear calls to action for making the most of the market.

Time 9:00am–10:30am

Room

**InterCon. Ballroom A,  
InterContinental Hotel**

**Summary**

This forum will consist of global experts who will discuss the technical, financial, policy challenges and opportunities to transform our end-use energy system into 100% renewables. Particular focus will be placed on the role of solar technologies in this transformation. Speakers will include experts who have developed models or documents on 100% renewables (e.g. Fraunhofer ISE, Uni-Berkeley, NREL, Greenpeace, WWF, etc.).

**SRE: TRANSFORMATION TO A 100% RENEWABLE ENERGY FUTURE**

- 9:00am Moderator:** Transformation to a 100% Renewable Energy Future  
 Dr. David Renné , President, International Solar Energy Society (ISES), U.S.
- Dr. Tom Hoff, Founder and President, Clean Power Research, U.S.
  - Prof. Dr. Mark Z. Jacobson, Professor of Civil and Environmental Engineering Director, Atmosphere/Energy Program; Senior Fellow of Woods Institute for the Environment, Stanford University, U.S.
  - Dr. Daniel Kammen, Professor of Energy, University of California, Berkeley, U.S.
  - Prof. Dr. Eicke R. Weber, Director, BEARS Program, Singapore



Dr. David Renné



Dr. Tom Hoff



Prof. Dr. Mark Z. Jacobson



Dr. Daniel Kammen



Prof. Dr. Eicke R. Weber

Partner



Time 11:00am–12:30pm

Room

**InterCon. Ballroom A,  
InterContinental Hotel**

**Summary**

This forum will consist of experts involved in the process of communicating to city managers around the world the opportunities to have their cities become 100% renewable cities. Currently about 120 cities world-wide have signed on to this goal. Expert representatives from organizations such as the Sierra Club, the 100% Renewables Policy Institute, Simon Fraser University, and a city representative who has signed on to this initiative will present the challenges and opportunities for cities to adopt this target, with specific emphasis on how this initiative can benefit growth of the solar industry.

**SRE: RENEWABLE CITIES INITIATIVES**

- 11:00am** Welcome and Introduction  
 Dr. Paulette Middleton, Co-Chair, American Solar Energy Society (ASES), U.S.
- 11:05am** East Hampton's 100% Renewable Energy Transition  
 Gordian Raacke, Executive Director, Renewable Energy Long Island, U.S.
- 11:25am** The RE100% Policy Institute  
 Diane Moss, Founding Director, Renewables 100 Policy Institute, U.S.
- 11:45am** The Sierra Club's Ready for 100 Campaign  
 Kassie Rohrbach, Assistant Director, Sierra Nevada Brewing Co., U.S.
- 12:05pm** 100% Scenarios  
 Dr. Harry Lehmann, General Director, Environmental Planning and Sustainability Strategies, Federal Environment Agency (UBA), Germany



Dr. Paulette Middleton



Gordian Raacke



Diane Moss



Kassie Rohrbach



Dr. Harry Lehmann

Partner



**WORKSHOP: 2017 NATIONAL ELECTRIC CODE PV**

**Summary** The 2017 NEC is here with PV on the cover. Bill Brooks and Sean White have been teaching NEC workshops together for years and this year is the perfect time to get up to date on the latest developments of the NEC. Bill was instrumental in putting together the 2017 NEC PV related changes and was on NEC Code-making Panel 4. Sean writes books and prepares people to pass NABCEP exams.

**9:00am** National Electric Code PV

- Bill Brooks, Principal Partner, Brooks Engineering, U.S.
- Dr. Sean White, Professor & IREC Certified Master Trainer, Diablo Valley College & White House Solar, U.S.



Bill  
Brooks



Dr. Sean  
White

**Time** 9:00am–5:00pm

**Room**

**Level 4, Laurel Hill InterContinental Hotel**

**Workshop**

**Single Ticket: \$575 (separate registration required)**

This workshop comes with a digital certificate and counts for NABCEP Credit. This workshop will be informative, fun and come with hard copies of the presentation.

**WORKSHOP: FIELD APPLICATIONS OF PV OPERATIONS AND MAINTENANCE**

**Summary** O&M is rapidly becoming a major sector of the PV industry, with interest coming from project developers, asset managers, financiers and utilities. We will discuss how preventive maintenance is much less expensive than reactive maintenance; how O&M helps maximize system production and availability; how it is essential to maintain equipment warranties; and setting up O&M procedures to help identify and provide solutions for potential problems. Whether you're a system owner or maintenance technician, in this course you will learn about typical PV system problems and how to remedy them, ensuring PV system safety and longevity, peak productivity, and predictable ROI.

**Topics include:**

- The importance of good PV system design – thus reducing reactive maintenance calls
- Preventative maintenance methods, tools, and techniques
- Troubleshooting procedures for ground faults and other common reactive maintenance issues

**9:00am** Field Applications of PV Operations and Maintenance  
Brian Mehalic, Instructor and Curriculum Developer, Solar Energy International (SEI), U.S.



Brian  
Mehalic

Partner



**Time** 9:00am–5:00pm

**Room**

**Level 4, Telegraph Hill InterContinental Hotel**

**Workshop**

**Single Ticket: \$575 (separate registration required)**

NABCEP CE hours: 6  
(Task Analysis: 6)

**Time** 5:30pm–7:00pm

**Room**

**Ballroom A–C,  
InterContinental Hotel**

**Summary**

The official opening of the Intersolar and ees North America Conference 2017 is comprised of welcome remarks and keynote speeches given by governmental officials and distinguished solar experts.

**OFFICIAL OPENING CEREMONY**

- 5:30pm** Welcome Remarks  
Bernadette Del Chiaro, Executive Director,  
California Solar Energy Industries Association (CALSEIA), U.S.
- 5:40pm** Welcome Remarks  
Prof. Dr. Eicke R. Weber, Director, BEARS Program, Singapore
- 5:50pm** Intersolar Champion of Change AWARD Ceremony – Laudatio  
Bernadette Del Chiaro, Executive Director, California Solar Energy  
Industries Association (CALSEIA), U.S.
- 6:10pm** Intersolar Champion of Change  
Richard Kauffmann, Chairman of Energy and Finance for New York,  
Office of New York Gov. Andrew Cuomo, U.S.
- 6:20pm** Keynote Speaker  
Jon Wellinghoff, Principal, Policy/DER Consulting, U.S.
- 6:30pm** Keynote Speaker  
Dr. Martin Keller, Director, National Renewable Energy Laboratory (NREL), U.S.
- 6:40pm** Keynote Speaker  
Elena Lucas, Chief Executive Officer & Co-Founder, UtilityAPI, U.S.



Bernadette Del Chiaro   Prof. Dr. Eicke R. Weber   Richard Kauffmann   Jon Wellinghoff   Dr. Martin Keller   Elena Lucas

**Time** 7:00pm–9:30pm

**Room**

**Level 4, Pacific Terrace  
InterContinental Hotel**

**WELCOME RECEPTION**

Join us directly after the Opening Ceremony to celebrate the 10<sup>th</sup> Intersolar event in San Francisco! With drinks and appetizers at the Pacific Terrace (Intercontinental Hotel, Level 4) all conference attendees, visitors and exhibitors are invited to kick off the first conference day in a perfect venue for networking.

Sponsor







MONDAY, JULY 10, 2017

Time 9:00am–10:45am

Room

**InterCon. Ballroom A,  
InterContinental Hotel**

**Summary**

Crystalline Si Technology has more than a 90% share of the expanding global PV market. Along with the continuously increasing efficiencies, cell concepts will change. In this session we will discuss the different cell type developments and their future potential. Due to these efforts, it has been possible to even accelerate the learning curve, with the decreasing cost now allowing the creation of solar electricity from one's own rooftop, at lower cost than traditionally supplied electricity.

**PV CELLS: WHICH CELL CONCEPTS WILL SECURE THE FUTURE?**

- 9:00am** Welcome and Introduction  
Bill Rever, Co-Founder and Chief Marketing & Sales Officer, Advanced Silicon Group, U.S.
- 9:05am** Black Silicon – Changing the Face of PV: A Review of the Status and Potential Impact of Nanotextured Silicon in Photovoltaics  
Bill Rever, Co-Founder and Chief Marketing & Sales Officer, Advanced Silicon Group, U.S.
- 9:30am** Pilot Production of High Efficient MCT textured DWS mc-Si Solar Cell and Nickel-copper Plated Front Contacts  
Konrad Vosteen, Director Regional Sales, RENA Technologies GmbH, Germany
- 9:55am** Manufacturing and Cost Challenges for Commercial Scaling of Silicon Perovskite Tandem Solar Cells  
Dr. Christopher Case, Chief Technology Officer, Oxford PV, UK
- 10:20am** Industrialization of the HJT Technology – Status, Field Performance, cost and Process Roadmap, Module Technologies Customized for HJT  
Tom Hengst, Head of Customer Relations Meyer Burger Global, Meyer Burger Switzerland AG, Switzerland



Bill Rever



Konrad Vosteen



Dr. Christopher Case



Tom Hengst

Partner



Time 11:15am–1:00pm

Room

**InterCon. Ballroom A,  
InterContinental Hotel**

**Summary**

The Paris COP 21 result requires a faster utilization of renewable energies. The learning curve for PV manufacturing continues. In this session we will discuss the different developments that support the progress in crystalline silicon PV production by identifying manufacturing and technology issues for each part of the value chain. Will PV power soon be able to compete with the lowest form of electricity generation?

**PV MANUFACTURING: PUSHING THE EFFICIENCY AND COSTS TO NEW LEVELS**

- 11:15am** Welcome and Introduction  
Dr. Jutta Trube, Managing Director Photovoltaic Equipment, German Engineering Federation, Germany
- 11:20am** The 8<sup>th</sup>-edition of the International Technology Roadmap for Photovoltaics (ITRPV) – Challenges in c-Si Technology for Suppliers and Manufacturers  
Dr. Jutta Trube, Managing Director Photovoltaic Equipment, German Engineering Federation, Germany
- 11:45am** Stringing Technology for Multi-Busbar and Half-Cell Modules – Solar Modules with Higher Power Output at Reduced Costs per Watt  
Sven Kramer, Vice President Sales Solar Technology, teamtechnik Maschinen und Anlagen GmbH, Germany
- 12:10pm** Evaluation of Factory Infrastructure for Next-generation PV Manufacturing  
Ankush Halbe, Director of Technology, M+W Group, Germany
- 12:35pm** Thin Film PV Technology Innovation  
Nick Strevel, Technical Manager, First Solar, Inc., U.S.



Dr. Jutta Trube



Sven Kramer



Ankush Halbe



Nick Strevel

Partner



## PV PLANTS: SYSTEM CONFIGURATION

- 2:00pm** Welcome and Introduction  
Chris Thompson, Grid Power Business Unit Manager, Eaton Corporation, U.S.
- 2:05pm** Using Standards, Open-source and Advances in Technology to Bring Down Soft Costs and Improve Data-driven Operations  
AJ Rossman, Sr. Director, Performance Solutions, Infiswift, U.S.
- 2:30pm** Dynamic Design Ushers In New Era  
Patrick Keelin, Director of Product Management, SunLink Corporation, U.S.
- 2:55pm** Utility-scale Solar: Comparing String and Central Inverters and Best Practices in System Design  
Chris Thompson, Grid Power Business Unit Manager, Eaton Corporation, U.S.
- 3:20pm** Have your Cake and Eat it too: Trackers with Lowest Cost of Ownership and Highest Reliability  
Bob Bellemare, Chief Executive Officer, Array Technologies, Inc., U.S.



Chris  
Thompson



AJ  
Rossman



Patrick  
Keelin



Bob  
Bellemare

Time 2:00pm–3:45pm

Room

**InterCon. Ballroom A,  
InterContinental Hotel**

### Summary

Deployment of large PV plants requires smart selection of all components and quality insurance measures, to decrease the investment risk. A perfect match of components ensures long-term yields of the highest level. Subsequently regular monitoring is needed to secure long-term performance.

## PV PLANTS DESIGN & MONITORING – THE IMPACT OF DRONES & ROBOTS

- 4:15pm** Welcome and Introduction  
Dr. Moritz Borgmann, Partner, Apricum – The Cleantech Advisory, Germany
- 4:20pm** Bridging the Gap Between the Commercial Drone & Solar Energy Industries  
Joshua Barnett, President and Co-founder, Drone Dispatch, U.S.
- 4:40pm** Aerial Infra-Red Inspection to Replace DC O&M Scope  
Dr. Rob Andrews, Chief Executive Officer, Heliolytics, U.S.
- 5:00pm** Key Techniques to Avoid Undetected Yield Loss  
Anthony Conklin, President, Solar-Log, U.S.
- 5:20pm** PV Cleaning: Choosing the Optimal Method and Frequency  
Dr. Moritz Borgmann, Partner, Apricum – The Cleantech Advisory, Germany
- 5:40pm** Supercharging O&M with Drones  
Swarup Mavanoor, Co-founder, SenseHawk, U.S.



Dr. Moritz  
Borgmann



Joshua  
Barnett



Dr. Rob  
Andrews



Anthony  
Conklin



Swarup  
Mavanoor

Time 4:15pm–6:00pm

Room

**InterCon. Ballroom A,  
InterContinental Hotel**

### Summary

Drones offer plenty of advantages to inspect and maintain solar PV power plants. One example is e.g. "a thermal diagnosis drone" which allows inspecting both ground-mounted and rooftop photovoltaic systems at a significantly reduced time. Equally time and cost saving are the deployment of autonomous cleaning robots resulting in an increase of generated power at a minimized service cost. In the course of this session the versatility, the beneficial impact and possible future involvement of such devices will be featured.

TUESDAY, JULY 11, 2017

Time 9:00am–10:45am

Room

**Grand Ballroom A,  
InterContinental Hotel****Summary**

Asset management for Distributed Energy is at an inflection point: Will it be a low value add cost center or a driver of profitability and revenue growth? This session will look at the evolution of asset management--where it came from and where it's going to--and provide valuable insights into how it can be used to unlock investment capital and optimize long-term profitability around the world.

**INTERSOLAR ASSET MANAGEMENT SUMMIT I**

- 9:00am** Welcome Address – Distributed Energy Meets Asset Management  
Tom Tansy, SEFA Board Member, Chairman, SunSpec Alliance, U.S.
- 9:15am** Managing Sustainable Energy Assets at Sierra Brewing Co. Transformation: From Cost Center to Revenue Generator  
Cheri Chastain, Corporate Sustainability, Sierra Nevada Brewing Co., U.S.
- 10:00am** By the Numbers: How M&A, Geographical Expansion, and Business Consolidation Moves the Market  
Cedric Brehaut, Chief Executive Officer, SoliChamba Consulting, U.S.

Tom  
TansyCheri  
ChastainCedric  
Brehaut

Partner



Time 11:15am–1:00pm

Room

**Grand Ballroom A,  
InterContinental Hotel****Summary**

Expert opinions from asset management buyers and sellers: What are the criteria that buyers use when evaluating asset management providers? How can sellers add maximum value to their customer's portfolios? Can the industry establish meeting of the minds to ensure that all participants get what they need?

**INTERSOLAR ASSET MANAGEMENT SUMMIT II**

- 11:15am** Perspective of the Asset Owner: Current Challenges in Asset Management  
Randal Corey, COO, S-Power – Sustainable Power Group, U.S.
- 11:45am** An Investment Life Cycle Perspective to Asset Management  
Haresh Patel, Chief Executive Officer, Mercatus™, U.S.
- 12:00pm** Asset Management Defined: Breaking Down the Job into its Component Parts  
Kent Williams, Vice President of Asset Management, VIVINT SOLAR, U.S.
- 12:20pm** Panel: Contrasting what Asset Owners say they want Versus what they need
- Edmée Kelsey, Chief Executive Officer, 3megawatt GmbH, Germany
  - Troy Lauterbach, Vice President of Global Operations and Management, First Solar, Inc., U.S.
  - Haresh Patel, Chief Executive Officer, Mercatus™, U.S.
  - Chad Sachs, Chief Executive Officer, Radian Generation, U.S.

Randal  
CoreyHaresh  
PatelEdmée  
KelseyTroy  
Lauterbach

Partner



### INTERSOLAR ASSET MANAGEMENT SUMMIT III

- 2:00pm** Case Study – Building Global Energy Portfolios of Solar, Storage, Wind, and Other Assets  
Etienne Lecompte, Chief Executive Officer, PowerHub, U.S.
- 2:30pm** Technology Drives Return on Solar Asset Management  
Dr. Rob Andrews, Chief Executive Officer, Heliolytics, U.S.
- 2:55pm** Managing for Peak Performance and Bottom-line Performance by Design  
Mark Liffmann, Vice President, Sales,  
Marketing and Business Development, Clean Power Research, U.S.
- 3:20pm** Streamline O&M from Design Through Construction and Operations with oSDX  
Joseph Cunningham, Director of Operations, Sunny Energy LLC, U.S.



Etienne  
Lecompte



Dr. Rob  
Andrews



Mark  
Liffmann



Joseph  
Cunningham

Partner



Time 2:00pm–3:45pm

Room

**Grand Ballroom A,  
InterContinental Hotel**

#### Summary

Case studies in North American Asset Management: What are the key issues confronting asset managers in north America today? How can supply chains be optimized to ensure operational continuity? What are the key factors and activities that drive profitability for asset owners and service providers? What are the challenges associated with managing portfolios of mixed asset types? These questions and others will be addressed in a series of case studies that illuminate the challenges asset managers confront in the field.

### INTERSOLAR ASSET MANAGEMENT SUMMIT IV

- 4:15pm** Best Practices that are Designed to Drive Value and Maximize Return on Investment  
Andy Walker Ph.D., Principal Engineer, National Renewable Energy Laboratory (NREL), U.S.
- 5:00pm** Experts Speak: Key Take – Aways and Plans for Making the Most of the North American Market
- Randal Corey, Chief Operating Officer, S-Power – Sustainable Power Group, U.S.
  - Etienne Lecompte, Chief Executive Officer, PowerHub, U.S.
  - Jon Previtali, Vice President Environmental Finance, Wells Fargo, U.S.
  - Marty Rogers, VP Asset Management, NEXTracker, U.S.
  - Tom Tansy, SEFA Board Member, Chairman, SunSpec Alliance, U.S.



Andy  
Walker Ph.D.



Randal  
Corey



Etienne  
Lecompte



Jon  
Previtali



Marty  
Rogers



Tom  
Tansy

Partner



Time 4:15pm–6:00pm

Room

**Grand Ballroom A,  
InterContinental Hotel**

#### Summary

How to build a better asset management industry: The first session will describe the best practices that, through years of experience, experimentation, and scientific research, have proven to yield the best financial results. During the second session, industry experts will take stock of where the asset management is today, identify and discuss gaps that are yet to be filled, and provide advice about how practitioners can build an even stronger and more enduring industry.

Time 9:00am–10:45am

Room

**Grand Ballroom C,  
InterContinental Hotel**

**Summary**

Net Energy Metering has been the foundation of the solar market, but it is under attack in states throughout the country. In Hawaii, it is the state's objective to continue growing the solar market under an alternative tariff. In New York, regulators are pushing hard for something new. NEM continues in California, but the next version is already under development. What can we learn from these states? How can storage and solar thrive together in a clean energy tariff?

**NET METERING AND THE POTENTIAL FUTURE ALTERNATIVES**

- 9:00am** Potential Costs of Net Metering in Perspective  
Galen L. Barbose, Research Scientist, Lawrence Berkeley National Laboratory, U.S.
- 9:15am** Making the Non-Export Tariff Work in Hawaii  
Rick Reed, President, Hawaii Solar Energy Association, Hawaii
- 9:30am** Development of NEM 3.0 in California  
Brad Heavner, Policy Director, California Solar Energy Industries Association (CALSEIA), U.S.
- 9:45am** Creating and Improving the New York Value Stack  
Katie Rever, Director, Legislative and Regulatory Affairs, IGS Energy, U.S.
- 10:05am** The Arizona Net Metering Merry Go Round  
Court Rich, Partner, Rose Law Group
- 10:25am** Pursuit of a Feed-In Tariff in Minnesota  
David Shaffer, Policy Director and Counsel, MnSEIA, U.S.



Galen L. Barbose



Rick Reed



Brad Heavner



Katie Rever



Court Rich



David Shaffer

Partner



Time 11:15am–1:00pm

Room

**Grand Ballroom C,  
InterContinental Hotel**

**Summary**

Consumer protection measures are needed to minimize bad apples in the marketplace. Customers deserve fair treatment, and when bad stories hit the press it hurts us all. We will explore the extent of the problem and what types of disclosures and complaint processes would help.

**CONSUMER PROTECTION – AVOIDING BACKLASH FROM OUR #1 RESOURCE**

- 11:15am** The Need for Common Sense Consumer Protection Rules  
Bernadette Del Chiaro, Executive Director, California Solar Energy Industries Association (CALSEIA), U.S.
- 11:35am** Policing Violations from Solar Contractors  
David Fogt, Registrar of Contractors, Contractors State Licensing Board, U.S.
- 11:55am** How to Deal with Bad Apples within the Solar Industry  
Ed Murray, Chief Executive Officer & President, Aztec Solar, U.S.
- 12:15pm** Lead Generation Vendors – Best Practices and Risks  
Ruben Ugarte, Director of Business Development, Horizon Solar Power, U.S.
- 12:35pm** Likely Regulations for Marketing PACE  
Joseph Livaich, Senior Director, Government Affairs, LIVAICH Community Engagement, U.S.



Bernadette Del Chiaro



David Fogt



Ed Murray



Ruben Ugarte



Joseph Livaich

Partner



**BRIDGING THE STORAGE GAP:  
MAKING ENERGY STORAGE COST-EFFECTIVE FOR CUSTOMERS**

- 2:00pm**     *Aligning Policies with Opportunities*  
Laura Gray, Energy Storage Policy Advisor, California Solar Energy Industries Association (CALSEIA), U.S.
- 2:15pm**     *Opportunities to Offer Savings to Commercial Storage Customers*  
Sean Kiernan, Vice President and General Manager, Solar Plus Storage, Green Charge Networks, U.S.
- 2:30pm**     *Conditions for Energy Storage to Be Economically Viable*  
Philip Fischer, Sales Director, NEC Energy Solutions, U.S.
- 2:45pm**     *Economic Indicators of the Emerging Solar-Plus-Storage Market*  
Joyce McLaren, Research Analyst, National Renewable Energy Laboratory (NREL), U.S.
- 3:05pm**     *Demand Response and Other Storage Value Streams*  
Andrew Hoffman, Sr. Director, Strategy and Market Development, CalCom Solar, U.S.
- 3:25pm**     *Energy Storage as a Pillar of the Energy System*  
Danny Kennedy, President, CalCharge, U.S.



Laura Gray



Sean Kiernan



Philip Fischer



Joyce McLaren



Andrew Hoffman



Danny Kennedy

Partner



Time 2:00pm–3:45pm  
Room

**Grand Ballroom C,  
InterContinental Hotel**

**Summary**

States with high solar penetrations have a desperate need for storage to become mainstream technology. How wide is the gap in cost-effectiveness for a mass market? How quickly can we expect prices to decline? What are the prospects for tariffs and programs that will work for customer-sited storage?

**THE STATE OF THE STATES:  
NATIONAL SHARED RENEWABLES SCORECARD AND OTHER TOOLS YOU CAN USE**

- 4:15pm**     *The State of the States: National Shared Renewables Scorecard and Other Tools You Can Use*
  - Sara Baldwin Auck, Director of IREC’s Regulatory Program, Interstate Renewable Energy Council (IREC), U.S.
  - Jeff Cramer, Executive Director, Coalition for Community Solar Access, U.S.
  - Erica S. McConnell, Special Counsel, Shute Mihaly & Weinberger, LLP, U.S.
  - Alexandra Patey, Associate Manager, Advisory Services Distributed Energy Resource Programs, Center for Sustainable Energy (CSE), U.S.



Sara Baldwin Auck



Jeff Cramer



Erica S. McConnell



Alexandra Patey

Partner



Time 4:15pm–6:00pm  
Room

**Grand Ballroom C,  
InterContinental Hotel**

**Summary**

This session will provide an in-depth overview of a new national shared renewable energy scorecard, developed by IREC, which provides a first-of-its kind assessment of state shared solar policies and key insights on what's working and what's not for community shared solar programs across the country. In addition, this session will feature other navigational tools and resources for community solar and multifamily solar policy decision-making and program design.

Time 11:15am–1:00pm

Room

**InterCon. Ballroom B,  
InterContinental Hotel**

**Summary**

When utilities hear 'the future of energy,' what do they see? What role do they play? When disruptive startups hear 'the future of energy' what do they mean and how are they shaping the future of energy? Get two very different perspectives on what the new energy economy looks like from the top down and the bottom up.

**THE ESTABLISHMENT AND THE DISRUPTORS**

**11:15am  
Moderator**

**The Establishment and The Disruptors**

- Emily Kirsch, Co-Founder and CEO, Powerhouse, U.S.
- John Anderson, Director of Energy Markets, OhmConnect, U.S.
- Mark Ellis, Chief of Corporate Strategy, Sempra Energy, U.S.
- John Higley, Vice President of Industry Engagement & CFO, ProsumerGrid, U.S.
- Daniel Roesler, Co-founder & CEO, UtilityAPI, U.S.



Emily Kirsch



John Anderson



Mark Ellis



John Higley



Daniel Roesler

Partner



Time 2:00pm–3:45pm

Room

**InterCon. Ballroom C,  
InterContinental Hotel**

**Summary**

SolSmart is a U.S. Department of Energy-funded community designation program designed to recognize municipalities and counties that have taken steps to make it faster, easier, and cheaper for businesses and residents to invest in solar energy. This session is meant to engage a diverse set of solar industry professionals in an interactive ideation session designed to (1) provide attendees with information on the SolSmart program and what designation means for a company's business prospects, and (2) offer attendees the opportunity to help shape the program itself by providing feedback aimed at improving the quality and impact of SolSmart criteria.

**SOLSMART: STEPS TOWARD COMMUNITY SOLAR DESIGNATION**

**2:00pm**

**SolSmart: Steps Toward Community Solar Designation**

- Blake Bell, Program Manager, The Solar Foundation, U.S.
- Zach Greene, Program Manager, The Solar Foundation, U.S.
- Philip Kreycik, Consultant, Meister Consultants Group, U.S.
- Chad Laurent, Vice President and General Counsel, Meister Consultants Group, U.S.
- James Schroll, Program Manager, The Solar Foundation, U.S.
- Kathryn Wright, Senior Consultant, Meister Consultants Group, U.S.



Blake Bell



Zach Greene



Philip Kreycik



Chad Laurent



James Schroll



Kathryn Wright

Partner







TUESDAY, JULY 11, 2017



Time 9:00am–6:00pm

Room

Level 4, Telegraph Hill,  
InterContinental Hotel**Workshop****Single Ticket: \$575**  
(separate registration  
required)NABCEP CE hours: 6  
(NEC: 2; Task Analysis: 4)**WORKSHOP: MEGAWATT-SCALE PV:  
DESIGN CONSIDERATIONS AND INSTALLATION CASE STUDIES****Summary**

This advanced course provides an in-depth look into the design process and considerations for grid-connected megawatt-scale PV systems, with an emphasis on ground-mounted systems. The first half of the course will discuss the design process from pre-project planning to best practices in installation, quality control, and commissioning. The second half of the course will use project case studies to highlight design considerations and choices for a variety of system configurations. This course will be taught by instructors with real project experience in developing, designing, installing, and commissioning megawatt-scale PV systems, so come take advantage!

**Topics include:**

- Pre-project planning and site analysis, system design and optimization, layout and racking choices, inverter and transformer selection, medium voltage design and interconnection
- Installation considerations for optimal long-term performance
- 2017 NEC requirements and large-scale PV
- Multiple project case studies (trackers and fixed-tilt, string and central inverters, interconnection configurations, auxiliary power, and more)

**9:00am****Megawatt-scale PV: Design Considerations and Installation Case Studies**

Rebekah Hren, Instructor and Curriculum Developer, Solar Energy International (SEI), U.S.

Rebekah  
Hren

Partner



Time 2:00pm–6:00pm

Room

Level 5, Ballroom B,  
InterContinental Hotel**Workshop****Single Ticket: \$335**  
(separate registration  
required)NABCEP CE – 3 hrs  
(Task Analysis: 3)**WORKSHOP: DESIGNING PV SYSTEMS WITH ENERGY STORAGE****Summary**

The energy storage market is growing rapidly, and solar integrators are looking to incorporate energy storage solutions into their offerings for their customers. Battery-based system design and installation is a complex task. Look no further! In this course you will size systems and select components for residential battery-based PV applications. We will explore different battery types and the shift towards various lithium-ion technologies, looking at the benefits and preferred applications of each. Finally, best design practices, tips, and strategies will be presented by instructors who have extensive experience designing, installing, and servicing PV systems with energy storage.

**Topics include:**

- Determining the best system architecture to meet the objectives of a customer
- Considerations for implementing battery storage in PV system design
- Specific design parameters for different battery technologies

**2:00pm****Designing PV Systems with Energy Storage**

Carol Weis, PV Instructor, Solar Energy International (SEI), U.S.

Carol  
Weis

Partner





TUESDAY, JULY 11, 2017

Time 9:00am–10:45am

Room

**Grand Ballroom C,  
InterContinental Hotel****Summary**

As established solar markets mature and new markets come into play, it is important to recognize the varied and evolving criteria for bankability and investability of solar projects and how these criteria can be fulfilled. This session will present the latest best practices and solutions for developing high quality, risk-mitigated solar projects. It will also explore financing trends, such as project ratings to enable fund raising through capital markets.

**ADDRESSING THE BANKABILITY AND INVESTABILITY OF SOLAR**

- 9:00am** Opening Remarks  
Brian Grenko, Principal Engineer, VDE Americas, U.S.
- 9:05am** A Standardized Approach to Technical Due Diligence  
Jon Previtali, Vice President Environmental Finance, Wells Fargo, U.S.
- 9:20am** Managing Technical Risk Through the Project Lifecycle  
Rhonda Bailey, Principal Owner's Engineer, NRG Energy, U.S.
- 9:35am** Managing Risks with Beyond the Meter Energy Storage  
Sean Kiernan, Vice President and General Manager, Solar Plus Storage, Green Charge Networks, U.S.
- 9:50am** Financing Solar Plus Storage: A Sponsor's Perspective  
Doug Stiegler, Project Finance Analyst, SunPower Corporation, U.S.
- 10:20am** Panel Discussion/Audience Questions
- Rhonda Bailey, Principal Owner's Engineer, NRG Energy, U.S.
  - Brian Grenko, Principal Engineer, VDE Americas, U.S.
  - Sean Kiernan, Vice President and General Manager, Solar Plus Storage, Green Charge Networks, U.S.
  - Jon Previtali, Vice President Environmental Finance, Wells Fargo, U.S.
  - Doug Stiegler, Project Finance Analyst, SunPower Corporation, U.S.

Brian  
GrenkoJon  
PrevitaliRhonda  
BaileySean  
KiernanDoug  
Stiegler

Partner

**VDE**  
RENEWABLES

Time 11:15am–1:00pm

Room

**Grand Ballroom C,  
InterContinental Hotel****Summary**

Distinguished speakers representing both up and downstream sectors of the global solar PV industry will share their opinions and assessments with the audience about technology trends, manufacturing and system cost reduction as well market demands. Given the new leadership in Washington, the future of the US PV market will be discussed in particular in terms of the likely impact of the new government and consequently what kind of business models will possibly emerge in the next five years.

**THE FUTURE OF PV – EXECUTIVE PANEL**

- 11:15am** Welcome and Introduction  
Prof. Dr. Eicke R. Weber, Director, BEARS Program, Singapore
- 11:20am** The Future of PV – Executive Panel
- Jeffrey Barnett, Americas President, GCL System Integration Americas, U.S.
  - Dr. Dirk Habermann, Chief Innovation Officer, Meyer Burger AG, Switzerland
  - Dr. Martin Keller, Director, National Renewable Energy Laboratory (NREL), U.S.
  - Danny Kennedy, President, CalCharge, U.S.

Prof. Dr. Eicke R.  
WeberJeffrey  
BarnettDr. Dirk  
HabermannDr. Martin  
KellerDanny  
Kennedy

## PANELS FOR POT: POWERING GREENHOUSES FOR MARIJUANA AND OTHER INDOOR CROPS

- 11:15am** Overview of Cannabis Production and Processing Industries  
Hezekiah Allen, Executive Director, California Growers Association, U.S.
- 11:25am** Energy Requirements for Indoor Cannabis Cultivation  
Jacob Policzer, President, Cannabis Conservancy, U.S.
- 11:35am** Best Practices for Energy for Cannabis Growers  
John Morris, VP Market Development, D+R International, U.S.
- 11:45am** Strategies for Offsetting Energy Use in the Cannabis Industry  
Kathleen Bryan, Senior Energy Efficiency Specialist, San Francisco Department of Environment, U.S.
- 12:00pm** Solar in the California Agricultural Sector  
Kevin Flanagan, CEO, ThinkWire Energy Services, U.S.



Hezekiah  
Allen



Jacob  
Policzer



John  
Morris



Kathleen  
Bryan



Kevin  
Flanagan

Partner



Time 11:15am–1:00pm

Room

**InterCon. Ballroom A  
InterContinental Hotel**

### Summary

The recent legalization of marijuana in states across the country presents a significant market opportunity for solar power, and greenhouses for other crops are also good candidates for solar. How many pot farms will there be, and where? Learn about the power needs of indoor growing and how to market to this unique sector.



inter  
**solar**  
connecting solar business | NORTH AMERICA

WEDNESDAY, JULY 12, 2017

Time 9:00am–10:45am

Room

**InterCon. Ballroom A  
InterContinental Hotel**

**Summary**

This session will feature the increasing role of smart technologies being deployed in residential, commercial and industrial buildings. App's allowing the control of applications in real-time, the wireless data transfer technologies using interfaces like TV, PC and smart phones manages the connecting and controlling of PV systems, the electricity import into the building, heat pumps, ees systems, etc. 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.

**SRE: BUILDINGS/ENERGY MANAGEMENT**

- 9:00am** Welcome and Introduction  
Sharmila Ravula, CCO, VP – Business Development, Bosch Building Grid Technologies, U.S.
- 9:05am** Residential Solar and Smart Thermostats as Answers to New Rate Designs  
Will Greene, Product Manager, Energy Services, Nest Labs, U.S.
- 9:30am** From Roof to Wall – Swiss Plus Energy Buildings  
Guido Honegger, Architect, dipl. arch. ETH-SIA/Associate Prof. FEZ/  
Member of Executive Board VGAG, FEZ, Forum Energie Zurich, Switzerland
- 9:55am** Synchronizing Distributed Energy Resources using Direct Current (DC) Energy  
Sharmila Ravula, CCO, VP – Business Development, Bosch Building Grid Technologies, U.S.



Sharmila Ravula



Will Greene



Guido Honegger

Time 9:00am–10:45am

Room

**Grand Ballroom A,  
InterContinental Hotel**

**Summary**

This session will highlight an important and quickly evolving issue that has cropped up in the several state Grid Modernization Proceedings, as well as interconnection discussions (including those happening in New York, California, Massachusetts, and Minnesota). Two years since the beginning of the first grid modernization proceedings were initiated, we are seeing more states tackle this issue from numerous vantage points. Learn from experts in the trenches about early successes, pitfalls, and key lessons learned that states and industry representatives should be aware of. We'll discuss the current state of play and explore some possible pathways for next steps. This panel will feature experts working on Grid Modernization in the policy and regulatory arenas in key states.

**GRID SATURATION – IMPROVING LOCAL CAPACITY ANALYSIS TO HOST MORE SOLAR**

- 9:00am** Costs and Benefits of Automating Interconnection  
Tom Roberts, Senior Engineer, Office of Ratepayer Advocates, U.S.
- 9:15am** Dueling Methods for Measuring Grid Hosting Capacity  
Jeff Smith, Program Manager, Electric Power Research Institute (EPRI), U.S.
- 9:30am** Lessons Other States Can Learn from California and New York  
Sky Stanfield, Senior Special Counsel, Shute Mihaly & Weinberger, LLP, U.S.
- 9:45am** Growing Pains for Solar-Intensive Utilities  
Tom Russell, Senior Engineer, Integrated Grid Planning, Pacific Gas and Electric Company (PG&E), U.S.
- 10:00am** Avoiding Another Hawaii  
John Berdner, VP, Regulatory Compliance, HiQ Solar, U.S.



Tom Roberts



Jeff Smith



Sky Stanfield

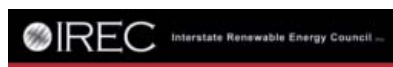


Tom Russell



John Berdner

Partners



**SRE: DIGITALIZATION/ENERGY CLOUDS/BIG DATA**

- 11:15am** Welcome and Introduction  
Keith Rose, Vice President, HiQ Solar, U.S.
- 11:20am** Protecting the Future of the DER Market: Energy Data Security and Privacy  
Daniel Roesler, Co-founder & CEO, UtilityAPI, U.S.
- 11:45am** Cybersecurity Perspectives, Issues and Concerns for DERs  
Keith Rose, Vice President, HiQ Solar, U.S.
- 12:10pm** Cloud Controlled Energy for a Smart Renewable World  
Eric Clifton, Founder and CEO, Orison

Keith  
RoseDaniel  
RoeslerEric  
Clifton

Time 11:15am–1:30pm

Room

**Grand Ballroom A,  
InterContinental Hotel****Summary**

A power system home to millions of decentralised renewable energy plants, security of supply will depend on the smart alignment of supply and demand at any given moment. Against this background, digitalisation will be key! This session will feature the opportunities provided by digitalisation, and tackle important questions of data management, access and security. Questions include: How could such a digitalised system look and what are the challenges in its realisation? How to secure timely data-access for the different market-parties, while respecting the consumer's right to control their own data? This session will shed light on an increasing digitalized smart renewable energy world.

**WORKSHOP: THE POST NET-METERED PV WORLD: NEW OPPORTUNITIES**

**Summary** This half-day class will focus on the changing PV landscape as the era of net-metering begins to fade, and other rate structures such as time-of-use, higher fixed fees, and demand charges become more prevalent. New tariff structures and how these will affect system design, cost, and ROI will be discussed. In addition the basics of storage technologies and integrated systems management, and design considerations for systems when there is no net-metering will be covered. This class will be based on residential-scale PV systems with and without energy storage.

**Topics include:**

- Implementing battery storage in PV system design so there will be no (zero-sell), or limited, energy delivered to the grid
- Considerations for load shifting and shaving
- A case study of a system in Hawaii (HECO territory) where net-metering has been discontinued, replaced with new tariffs of "self-supply" and "grid-supply"
- California's revised Rule 21 and how it impacts PV system integrators
- Smart inverters and how they can help grid stability, through features such as frequency and voltage regulation control

**9:00am** The Post Net-Metered PV World: New Opportunities

- Christopher Freitas, PV Instructor, Solar Energy International (SEI), U.S.
- Carol Weis, PV Instructor, Solar Energy International (SEI), U.S.

Christopher  
FreitasCarol  
Weis

Partner



Time 9:00am–1:00pm

Room

**Level 5, Ballroom C,  
InterContinental Hotel****Workshop**

**Single Ticket: \$335**  
**(separate registration required)**

NABCEP CE hours: 3  
(Task Analysis: 3)

Time 9:00am–1:00pm

Room

Level 5, Ballroom B,  
InterContinental Hotel**Workshop**Single ticket: \$100  
(separate registration  
required)**WORKSHOPS: SOLAR CODES AND SAFETY FORUM****Summary**

Join national solar code and technical experts to discuss the most recent solar code updates and impact on those tasked with enforcement. Topics will include changes to NEC (2017) and I-code (2018 cycle) solar requirements and adoption considerations, including rapid shutdown, grounding, energy storage and structural requirements, such as roof venting, roof load and mounting systems. Other solar code enforcement considerations, including permitting and first responder safety, will be discussed.

**Learning Objectives:**

After attending this session, session participants will be able to:

- Identify three or more solar code updates
- Explain the impact of one or more solar code changes
- Navigate to solar code resources, including best practices for permitting

CEUs available from the International Code Council's Solar Rating & Certification Corporation, International Association of Electrical Inspectors and North American Board of Certified Energy Practitioners.

**9:00am****IREC Workshop: Solar Codes and Safety Forum**

- Jerry Henderson, Consultant, SolarIntegrity, U.S.
- Shawn Martin, Director of Technical Services, Solar Rating and Certification Corporation (ICC-SRCC), U.S.
- Pete Jackson, Chief Electrical Inspector, City of Bakersfield, U.S.
- Larry Sherwood, President & Chief Executive Officer, Interstate Renewable Energy Council (IREC), U.S.

Jerry  
HendersonShawn  
MartinPete  
JacksonLarry  
Sherwood

Partner



Time 10:00am–1:00pm

Room

Level 4, Telegraph Hill,  
InterContinental Hotel**Workshop**Price: \$195 (members  
receive a 10% discount)  
Combo Ticket with  
Summerfest: \$295  
(members receive a  
10% discount)**WORKSHOPS: SOLAR HEATING & COOLING –  
CHANGING YOUR CLIMATE, NOT THE PLANET'S****Summary**

While the solar industry focuses mainly on electrical generation, nearly half of U.S. energy is used for thermal applications – space heating, cooling, ventilation, water heating and industrial processes. Solar heating and cooling (SHC) technologies meet these heating/cooling needs directly using reliable, time-tested equipment and proven designs with documented success worldwide. The SHC Alliance, a division of Solar Energy Industries Association, invites SHC stakeholders to attend this session to gain strategic information about the latest:

- What's the latest in California's SHC market?
- District heating – U.S. poised for breakthrough?
- SHC – a new profit center for solar businesses?

Partner





**WORKSHOP: PV TECHNICAL SALES: THE BUSINESS AND FINANCE OF RESIDENTIAL SOLAR**

**Summary:** The business and sales segment of the residential solar industry is constantly evolving, and it's a side of the industry with lots of opportunity. In this class we'll review the basics of residential solar sales including: the important items to identify when qualifying the customer; some of the tools available that aid in conducting a remote site survey and how they tie into modeling system performance; utility rate structures and how they affect the financial performance of a PV system; the financing options available for residential PV systems; and the economic indicators most commonly used when comparing PV systems proposals from different vendors - and to other common types of financial investments.

**Topics include:**

- What questions to ask a potential customer during the initial call
- Free and subscription-based tools used for remote site surveys and system design
- Different utility rates and how they affect system economic benefits
- Financing options like loans, leases, and PPAs
- Economic indicators like ROI, IRR, cash flow, and simple payback

**2:00pm**

**PV Technical Sales: The Business and Finance of Residential Solar**  
Will White, PV Curriculum Developer, Solar Energy International (SEI), U.S.



Will  
White

Partner



Time 2:00pm–6:00pm

Room

**Level 4, Twin Peaks,  
InterContinental Hotel**

**Workshop**

**Single ticket: \$335  
(separate registration  
required)**

NABCEP CE hours: 3  
(Task Analysis: 3)

**WORKSHOP: SPANISH: PRÁCTICAS RECOMENDADAS DE INSTALACIONES DE SISTEMAS FV CONECTADOS A LA RED**

**Summary:** ¿Quiere entrar en el mercado Solar Fotovoltaico (FV)? ¡Este es su punto de partida! En un día intensivo y lleno de información práctica y aplicada, usted aprenderá sobre: los componentes y configuraciones de distintos tipos de sistemas FV; qué observar durante visitas de campo para lograr un excelente diseño; qué buscar y qué preguntarle a los fabricantes sobre sus productos; cómo dimensionar un sistema FV para que cubra las necesidades del usuario. Además, se estudiará contenido técnico fundamental, como propiedades eléctricas de configurar módulos FV en serie o en paralelo, qué factores afectan la producción, y cómo sus decisiones pueden mejorar el rendimiento. El curso y todo su contenido es preparado por veteranos en la industria, y se presentará completamente en Español. Este entrenamiento está diseñado para empresarios, diseñadores e ingenieros, instaladores y personal de ventas que buscan convertirse en profesionales en energía FV, ofreciendo análisis, diseño e instalación de sistemas FV que cumplan con los más altos estándares de calidad.

**Temas incluidos:**

Componentes y Tipos de Sistemas; Módulos FV; Serie y Paralelo;  
Análisis de Sitio y Montaje; Inversores; Estimaciones de Producción.

NABCEP Advanced educational hours for the Certification exams: 6

**9:00am**

**Spanish: Prácticas Recomendadas de Instalaciones de Sistemas FV Conectados a la Red**  
Karolina Fernández, PV Instructor, Solar Energy International (SEI), U.S.



Karolina  
Fernández

Partner



Time 9:00am–5:00pm

Room

**Level 4, Telegraph Hill,  
InterContinental Hotel**

**Workshop**

**Single ticket: \$335  
(separate registration  
required)**

NABCEP CE hours: 3  
(Task Analysis: 3)

## SPECIAL EVENTS & TOURS AND RECEPTIONS

SUNDAY, JULY 9, 2017

### SF Bay Area Sailing Tour

Time 1:00pm–4:00pm

Meeting Point Pier 39, at 12:30pm

Sail with your solar peers and experience the beauty of San Francisco from the water! We will see some of the Bay's most popular attractions up close and personal as we sail past Alcatraz Island, under the Golden Gate Bridge, and along the city's famed skyline. Catch a glimpse of marine wildlife including pelicans, sea lions, and dolphins. Last year we saw pods of breaching Humpback whales! Maybe this year we will get lucky

again. Food and drinks are included in the price. The catamaran is spacious, incredibly stable, and has a large covered cabin. Whether you're looking for solar networking or sightseeing, your sail on the catamaran is sure to be a memorable highlight!

All proceeds generated from this tour help support NorCal Solar's local, nonprofit, consumer education efforts in Northern California.

Partner



MONDAY, JULY 10, 2017

### Alcatraz Tour

Time 11:45am–4:45pm

Meeting Point Lobby InterContinental Hotel at 11:30am

Visit one of the largest solar microgrids in the United States and learn about how the photovoltaics, diesel generators, and battery storage work together to provide power for this infamous Federal Penitentiary turned National Park. Participants will go behind the scenes to see the various system components and talk to

National Park Service staff about the origins of the project and how it has been performing. We will provide snacks on the bus ride to the Alcatraz ferry terminal, and you may purchase additional lunch items in the café on the ferry boat.

Partner



## TUESDAY, JULY 11, 2017

### Intersolar Study Program

**Time** 11:15am–1:00pm  
**Location** InterContinental Hotel, Level 4, Twin Peaks

Gain access to current industry knowledge free of charge! High-profile speakers give presentations about recent developments in the solar and storage industries, and are available for questions afterwards. This event is for students only.

- 11:15am** Welcome by the Organizer  
 Prof. Dr. Eicke R. Weber, Director, BEARS Program, Singapore
- 11:20am** Job Security in the Solar Industry by Understanding Solar Photovoltaic Basics  
 Dr. Sean White, Professor & IREC Certified Master Trainer, Diablo Valley College & White House Solar, U.S.
- 11:50am** Discussion
- 12:05pm** Vanadium Flow Batteries – The (Old) New Contender for the Energy Storage Crown  
 Brian Ballek, Product Manager, Avalon Battery Corporation, U.S.
- 12:30pm** Discussion

### Tesla Factory Tour – Sponsored by NorCal Solar

**Tour I:**  
**Time** 9:30am–1:45pm  
**Meeting Point** Lobby InterContinental Hotel at 9:15am

**Tour II:**  
**Time** 11:30am–3:45pm  
**Meeting Point** Lobby InterContinental Hotel at 11:15am

**Tour III:**  
**Time** 1:30pm–6:15pm  
**Meeting Point** Lobby InterContinental Hotel at 1:15pm

NorCal Solar is coordinating nine tours of the Tesla factory in Fremont – all are the same; please sign up for just one. Your registration fee covers transportation to/from the Tesla factory, snacks, and beverages (the tour itself is free). Come experience firsthand the manufacturing of this world-famous company's unique electric cars. Tesla will use an electric tram to transport you around the facilities, as they show you the individual manufacturing steps as well as the overall assembly process. Hundreds of employees work side-by-side with robots to create a distinctive working atmosphere. Seating is limited – sign up soon!

Partner



## SPECIAL EVENTS & TOURS AND RECEPTIONS

### WEDNESDAY, JULY 12, 2017

#### Tesla Factory Tour – Sponsored by NorCal Solar

Tour IV:  
 Time 9:30am–1:45pm  
 Meeting Point Lobby InterContinental Hotel at 9:15am

Tour V:  
 Time 11:30am–3:45pm  
 Meeting Point Lobby InterContinental Hotel at 11:15am

Tour VI:  
 Time 1:30pm–6:15pm  
 Meeting Point Lobby InterContinental Hotel at 1:15pm

NorCal Solar is coordinating nine tours of the Tesla factory in Fremont – all are the same; please sign up for just one. Your registration fee covers transportation to/from the Tesla factory, snacks, and beverages (the tour itself is free). Come experience firsthand the manufacturing of this world-famous company's unique electric cars. Tesla will use an electric tram to transport you around the facilities, as they show you the individual manufacturing steps as well as the overall assembly process. Hundreds of employees work side-by-side with robots to create a distinctive working atmosphere. Seating is limited – sign up soon!

Partner



### THURSDAY, JULY 13, 2017

#### Tesla Factory Tour – Sponsored by NorCal Solar

Tour VII:  
 Time 9:30am–1:45pm  
 Meeting Point Lobby InterContinental Hotel at 9:15am

Tour VIII:  
 Time 11:30am–3:45pm  
 Meeting Point Lobby InterContinental Hotel at 11:15am

Tour IX:  
 Time 1:30pm–6:15pm  
 Meeting Point Lobby InterContinental Hotel at 1:15pm

NorCal Solar is coordinating nine tours of the Tesla factory in Fremont – all are the same; please sign up for just one. Your registration fee covers transportation to/from the Tesla factory, snacks, and beverages (the tour itself is free). Come experience firsthand the manufacturing of this world-famous company's unique electric cars. Tesla will use an electric tram to transport you around the facilities, as they show you the individual manufacturing steps as well as the overall assembly process. Hundreds of employees work side-by-side with robots to create a distinctive working atmosphere. Seating is limited – sign up soon!

Partner



### FRIDAY, JULY 14, 2017

#### Solar Winery and Microgrid Tour

Time 9:00am–4:00pm  
 Meeting Point Lobby InterContinental Hotel at 8:45am

This all-day tour – happening the Friday after Intersolar closes – will offer a unique opportunity to see truly cutting-edge solar, hydrogen, microturbine, microgrid, battery, and electronic controls technology AND sample some Napa area wines! First we will stop at Far Niente Winery to tour their beautiful floating solar array and taste delicious wine. In 2008, Far Niente went solar in a revolutionary way with a Floatovoltaic™ system, becoming the

first in the world to float a significant, grid-connected solar installation. Then we will continue to Stone Edge Farm for lunch, wine-tasting, and a tour of their jaw-dropping microgrid project. Stone Edge and its team of engineers from around the world are researching how to be self-sufficient in energy supply for all their needs, including making wine. To get a glimpse of the incredibly important work Stone Edge Farm is doing, check out their "Prezi" presentation: [https://prezi.com/rvuw6efggdfd/sef-microgrid-project-qr/?utm\\_campaign=share&utm\\_medium=copy](https://prezi.com/rvuw6efggdfd/sef-microgrid-project-qr/?utm_campaign=share&utm_medium=copy). Join us for a unique, educational, and relaxing way to end the conference week. This is a tour you won't want to miss!

Partner



## | SIDE EVENTS

### TUESDAY, JULY 11, 2017

#### SUMMERFEST – 2017 CHAMPIONS OF SOLAR

This year's event will be at AT&T Park, home of our world champion San Francisco baseball team! With over 2,000 solar professionals expected to attend, this is the perfect venue to unwind from the day or continue business discussions. Summerfest will take place on the same night as the MLB All-Star Game which will be broadcasted live on the jumbotron for all to enjoy. We'll be offering company sponsored tours of AT&T park, special use of the batting cages, custom photo booth baseball trading cards, hosted food and drink stations, and much more!

#### Benefiting CALSEIA's Work for the Solar Industry

All event proceeds go towards supporting CALSEIA. The California Solar Energy Industries Association (CALSEIA) is a non-profit organization with the mission to expand the use of all solar technologies in California and establish a sustainable industry for a clean energy future.

Organizer



**Date** Tuesday, July 11, 5:00pm–10:00pm  
**Location** AT&T Park, 24 Willie Mays Plaza, San Francisco, CA

### WEDNESDAY, JULY 12, 2017

Organizer



#### German-American Green Business Breakfast

**Time** 9:00am–11:00am  
**Location** Palace Hotel, Ralston, 2 New Montgomery Street, San Francisco, CA 94105

**Organizer** Freiburg Management and Marketing International  
 Invitation only – for more information please contact Moritz Schmitz at [moritz.schmitz@fwtm.de](mailto:moritz.schmitz@fwtm.de)

With the breakfast Freiburg Management and Marketing International, organizer of Intersolar and Cluster Green City Freiburg, and European Environment Foundation would like to offer a networking-platform in a casual atmosphere for the German-American exchange between companies, urban and regional administrations, associations and institutions working in the fields of solar industries, environmental management and economic development.

#### Powerhouse Circle

**Time** 2:30pm–7:00pm  
**Location** InterContinental Hotel, Ballroom B/C  
**Organizer** Powerhouse

Organizer



Last year, a select group of the country's leading founders and CEO's of solar software and finance startups met one on one with the nation's top solar executives and investors in a facilitated, speed dating format organized by Powerhouse. Attendees included senior executives from SunPower, SolarCity and SunRun as well as VCs such as Obvious Ventures, Prelude Ventures and DBL Investors. Powerhouse Circle has become one of Powerhouse's most sought after events.

Organizer



#### Solar Battle of the Bands (SBOB)

**Time** After Intersolar North America  
**Location** Mezzanine, 444 Jessie St. Mint Plaza, San Francisco  
**Organizer** California Solar Energy Industries Association (CALSEIA)

→ [www.solarbattleofthebands.com](http://www.solarbattleofthebands.com)

## INTER SOLAR AND EES EXHIBITIONS

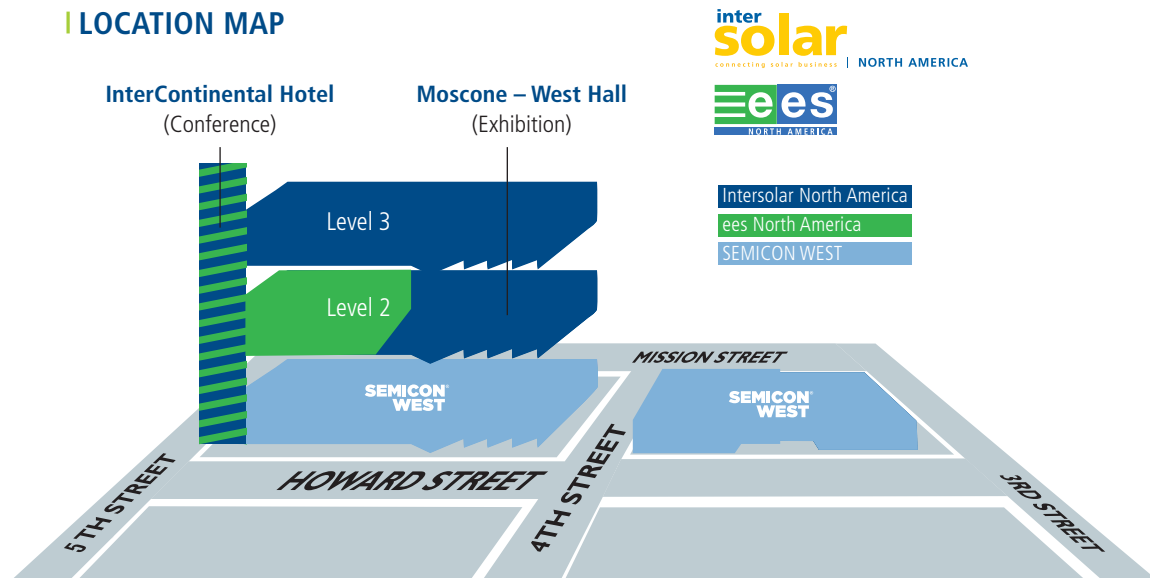
Interested in connecting with established solar and storage companies? Round off your conference experience with a visit to the exhibitions next door! Your conference registration grants you full access to Intersolar North America and ees North America in West Hall as well as the co-located SEMICON West (North & West Hall). Engage with more than 18,000 professionals and 500 solar & storage exhibitors and take an in-depth look at the industry's hottest topics at our free presentations and events on the show floor!

Price Expo Halls: \$200  
(free of charge for conference attendees)

## SPECIAL PAVILIONS

CALSEIA's California Pavilion:	Level 3, booth 9744 and 9745
Powerhouse Pavilion:	Level 3, booth 9031
China Pavilion:	Level 2, booth 8241, 8151, 8533, 8633 and Level 3, booth 9341, 9439 and 9441
German Pavilion:	Level 3, booth 9011 and 9111
Taiwan Pavilion:	Level 2, booth 8611
NY Energy Pavilion (by NY-Best):	Level 2, booth 8051
Korea Pavilion (by KBIA):	Level 2, booth 8331

## LOCATION MAP



### Moscone – West Hall

- Level 2** PV Cells, Modules & Systems  
PV Manufacturing Equipment,  
Materials and Components  
VIP Lounge



ees North America: Batteries, Energy Storage Systems, Charging Technologies  
ees Stage

- Level 3** Balance of Systems  
Mounting & Tracking Systems, Components  
Solar Heating & Cooling Technologies  
Innovation & Application Stage  
Workshop Rooms  
Press Center

### InterContinental Hotel San Francisco

- Level 3-5** Intersolar and ees North America Conference

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## NABCEP INSTALLATION WORKSHOPS

### Tuesday, July 11, 2017

	Workshop Room I (9030)	Workshop Room II (3012)
10:00am–5:00pm		CALSEIA's Contractor Day
5:00pm	Summerfest (AT&T Park)	

### Wednesday, July 12, 2017

	Track 1: Roof Top	Track 2: Energy Storage, Inverter & Matchmaking Software
10:15am–12:15pm	Quick Mount PV	eGauge Systems
12:45pm–2:45pm	Roof Tech Inc. *1 hour training*	Magnum Energy/A Product Brand of Sensata Technologies
3:00pm–5:00pm	SolarEdge Technologies	Trojan Battery Company

### Thursday, July 13, 2017

	Track 1: Roof Top	Track 2: Energy Storage, Inverter & Matchmaking Software
10:15am–12:15pm	SolarRoofHook	APsystems
12:45pm–2:45pm		Sofdesk Inc.

Subject to change



## WORKSHOP QUICK FACTS

- Presenter** Exhibiting companies with NABCEP certification
- Location** Moscone West, Level 3, Workshop Rooms I and II
- Price**
  - \$95 per Installation Workshop Package (access to all NABCEP Installation Workshops, exhibition)
  - \$375 per Installer Advantage Package (access to all NABCEP Installation Workshops, CALSEIA Contractor Day, Summerfest at AT&T Park, exhibition)
  - Workshop participants get 2 CEUs for each two-hour workshop and 1 NABCEP CEU for each one-hour workshop (max. 10).

More information:

→ [www.intersolar.us](http://www.intersolar.us) → Program → Exhibition Programs → Installation Workshops

NABCEP, Intersolar and ees selected 9 exhibiting companies to offer in-depth technical training workshops and hands-on product workshops. Attendees will earn 2 NABCEP CEUs for each two-hour workshop and 1 NABCEP CEU for each one-hour workshop. These workshops keep you up to speed on the latest technologies and best practices for the design, installation, and maintenance of code-compliant PV and storage systems.



## INNOVATION &amp; APPLICATION STAGE



TUESDAY, JULY 11, 2017

LEVEL 3, ALCOVE 1

## SPECIAL EVENT

**10:30am** White Paper Release:  
Solar-Plus-Storage: Architectures, Use Cases and  
Case Studies on the Grid by GTM Research

## PRESENTATIONS OF THE INTERSOLAR AWARD FINALISTS

**11:00am** Array Technologies' DuraTrack HZ v3 Solar Tracker:  
Robust, Reliable, Innovative  
Thomas Conroy, President, Array Technologies, Inc., U.S.

**11:15am** Smart Energy Management with StorEdge,  
Backup, and Device Control  
Lior Handelsman, VP Marketing and Product Strategy, Founder, Solar Edge, Israel

**11:30am** The Shifting and Changing Dynamics of US Residential Solar:  
Leasing to Owning; Commodity to High efficiency;  
Market Share from Large Installers to Regional Installers  
Suvi Sharma, Chief Executive Officer, Solaria Corporation, U.S.

**11:45am** Floating PV the Alternative to Traditional Solar  
Eva Pauly-Bowles, Sales Director, Ciel & Terre International, U.S.



## EXHIBITOR PRESENTATIONS

**12:00pm** Washington Clean Energy Testbeds: Accelerating the Path from  
Research to Industry Innovation  
Devin MacKenzie, Professor, Technical Director, University of Washington  
– Washington Clean Energy Testbeds, U.S.

**12:30pm** Single Line Generator  
Jason Hardwick, Chief Executive Officer, Ryion, U.S.

**1:00pm** Scaling Solar PV through Customer Referrals  
Mark Bachman, Chief Executive Officer, & Co-founder, SolarAI, U.S.

**1:30pm** Accelerating Residential Solar Sales  
Lennie Moreno, Chief Executive Officer, & Founder, Sofdesk Inc., U.S.

**2:00pm** Advanced Multi-Resource Microgrid Project Delivers Real Value on  
Both Sides of the Utility Meter in Brooklyn  
Jeff Damron, Vice President of Sales, Enel, U.S.

**2:30pm** Trojan Power Solar Microgrid in Colombia  
Ganesh Balasubramanian, Director of New Market Development,  
Trojan Battery Co., LLC, U.S.

## SPECIAL EVENT

**3:00pm** IREC 3iAwards Ceremony –  
Innovation. Ingenuity. Inspiration



WEDNESDAY, JULY 12, 2017

LEVEL 3, ALCOVE 1

## SPECIAL EVENT

**11:30am** Smart Green City Innovations

- Barry Hooper, Green Built Environment Sr. Coordinator,  
San Francisco Department of the Environment, U.S.
- Klaus Mindrup, Member of German Bundestag, Germany
- Otto Neideck, First Mayor, City of Freiburg, Germany
- Johann Saathoff, Member of German Bundestag, Germany
- Michael Geißler, Chief Executive Officer, Berliner Energieagentur GmbH  
(Berlin Energy Agency), Germany
- Gregor Reddemann, Chief Executive Officer, M10 Industries AG, Freiburg, Germany



## EXHIBITOR PRESENTATIONS

**1:00pm** How does the Osprey PowerPlatform save \$100,000 on Labor  
Costs Alone (2MW Ground Mount)?  
Brian C. Bogue, Chief Executive Officer, Nuance Energy Group, Inc., U.S.

**1:30pm** SunDrum(r) Solar Photovoltaic/Thermal (PVT) Redefining the Rules of Solar  
Michael Intrieri, Chief Executive Officer, SunDrum Solar, U.S.

## SPECIAL EVENTS

**2:00pm** Orange Button Software Developer's Program Launch,  
Sponsored by U.S. Department of Energy

- Tom Tansy, Chairman of SunSpec Alliance, U.S.
- Sam Adeyemo, Chief Operating Officer, Aurora Solar, U.S.
- Skip Dize, Director of Product Management, Clean Power Research, U.S.
- Richard Matsui, Chief Executive Officer, kWh Analytics, U.S.

**3:00pm**

Virtual Central Inverters: Designing Solar PV Systems  
with the Benefits of String and Central  
Allan Gregg, Chief Technology Officer, Sungrow North America, U.S.

THURSDAY, JULY 13, 2017

LEVEL 3, ALCOVE 1

## SPECIAL EVENT

**11:00am** Joint Forces for Solar –  
16<sup>th</sup> PV Briefing & Networking Forum USA

- The Next Stage of Solar: Market Dynamics & Trends on the U.S. West Coast
- Utility Scale Solar Assessment: Potentials for PV Power Plants in the U.S.
- Executive Roundtable Discussion: Emerging Technological Advancements that  
Foster Sustainable Solar Deployment
- Fireside Chat: Different Perspectives of Fair Solar Trade within the U.S.



## EXHIBITOR PRESENTATIONS

**1:00pm** Innovations in Inverters to Reduce Costs and Increase Reliability  
Sham Ramnarain, Solution Manager, Senior Electrical Engineer, North America  
Smart PV Plants Solutions, Huawei Technologies USA, Inc, U.S.

**1:30pm** The Value of Smart Aerial Inspection during the Lifecycle of PV Plants  
Lance Li, Chief Executive Officer, Aerospec Technologies LLC, U.S.





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| NORTH AMERICA

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**JULY**  
**10-12**  
**2018**

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