nnecting solar business NORTH AMERICA

I SPECIAL EXHIBITS & PROGRAMS I PV PRODUCTION AND TECHNOLOGY STAGE IN NORTH HALL

Moscone Center, North Hall, booth 5483

Co-Organized by

TUESDAY, JULY 10

PV Manufacturing in the U.S. – A Vision for the Future

Session Moderator: Ned Harvey, Chief Operating Officer & Vice President of Finance, Rocky Mountain Institute, U.S.

10:30am Jeannine Sargent, President, Renewable Energy and LED Lighting, Flextronics, U.S.

10:50am Eric Peeters, Vice-President Clean Energy, Dow Corning, Belgium **11:10am** Andrew Beebe, Chief Commercial Officer, Suntech Power, U.S. **11:30am** Chase Weir, Chief Executive Officer, Distributed Sun, U.S.

11:50am Bettina Weiss, Vice-President, SEMI PV Group, U.S.

12:10pm Panel Discussion, Q & A 12:30pm Lunch Break

nternational Standards on PV Module Quality & Reliability

Session Moderator: James Amano SEML U.S.

1:00pm John Wohlgemuth, Principle Reliability Physicist, NREL, U.S. 1:15pm Masaaki Yamamichi, AIST, Japan

1:30pm Chris Flueckiger, Primary Engineer, Renewable Energy at Underwriters Laboratories III II S 1:45pm Dr. Michael Koehl, Fraunhofer Institute for Solar Energy

2:00pm Panel Discussion, Q & A

Systems, Germany

Business Benefits of Green Manufacturing in the PV Industry

Session Moderator: Sanjay Baliga, Sr. Project Manager, EHS, SEMI, U.S. 3:00pm Dr. Vasilis M. Fthenakis, Senior Research Engineer and

Scientist, Brookhaven National Labs, U.S. 3:15pm Alex Heard, Vice President, EHS, First Solar, U.S.

3:30pm Bruce Klafter, Sr. Director EHS, Applied Materials, U.S. 3:45pm Andy McIntyre, CIH, Managing Principle, Environmental Health, Safety and Sustainability Consulting, U.S.

1:00pm Panel Discussion, Q & A

WEDNESDAY, JULY 11

Scaling Thin Film PV Technology to Bankability -

Supply Chain and Manufacturing Challenges Session Moderator: Matt Feinstein, Senior Analyst, Lux Research Inc.

10:30am Greg Ashley, Vice President and COO, Solar Frontier, U.S. 10:50am Dr. Howard Lee, Chief Technical Officer, Stion, U.S. 11:10am Dr. Florian Holzapfel, Chief Executive Officer, Calyxo, U.S.

11:30am Chris Norris, Chief Executive Officer, Alta Devices, U.S. 11:50am Dr. Jason Corneille, Vice President Product Technology.

Miasole, U.S. 12:10pm Panel Discussion, Q & A

12:30pm Lunch Break

NASA Jet Propulsion Laboratory – Flat Plate Solar Array Project – **Bringing Solar Mainstream**

Session Moderator: Eric Romano, Strategic Marketing Manager, DuPont Photovoltaic Solutions, U.S.

1:30pm Dr. Ronald G. Ross NASA/JPL, Dr. Greg Davis NASA/JPL, Jet Propulsion Laboratory

DNESDAY, JULY 11

New Materials in PV Manufacturing

Dye Sensitized, Full Organic, Hybrid

Session Moderator: Mark Thirsk Managing Partner, Linx-Consulting, U.S. **3:00pm** Dr. Henning Richter, Director of Materials Synthesis

Research, Nano-C, U.S. 3:15pm Thomas R. Earnest Jr., Global Market Development Manager.

DuPont Photovoltaic Solutions, U.S. **3:30pm** Dr. Vishal Shrotriya, Vice President of Business Development,

Solarmer Energy, U.S. 3:45pm Dr. Martin Drees, OPV Device Team Manager, Polyera, U.S. **4:00pm** Thomas Kolbusch, Vice President, Coating Equipment, Coatema Coating Machinery GmbH, Germany

4:15pm Panel Discussion, Q & A

HURSDAY, JULY 12

PV R&D Research Consortia – Global Insights and Activities

Session Moderator: Brent Nelson, Group Manager, NREL, U.S.

10:30am Ross M. Goodman, Assistant Vice President for Clean Energy, CSNE, U.S.

10:50am Jef Poortmans, Program Director of PV R&D Program, IMEC, U.S. 11:10am Larry Kazmerski, Executive Director,

Science and Technology Partnerships NREL, U.S. 11:30am Masashi Nagura, Specialist, BOS, NEDO, Japan

11:50am Olivia Coldrey, Investment Director, Australian Solar Institute 12:10pm Panel Discussion, O & A

12:30pm Lunch Break

Advanced Photovoltaics – Ultra High Efficiency Technologies

Session Moderator: John Benner, Executive Director, Bay Area PV Consortium, U.S.

1:30pm Dr. Nasreen Chopra, Vice President, Co-Founder, Alta Devices, U.S. **1:50pm** T.S. Ravi, Chief Executive Officer, Crystal Solar Inc., U.S.

2:10pm Dr. Rajesh Rao, Director of Technology, Astrowatt, U.S. 2:30pm Dr. Vigit Sabnis, Vice President of Technology,

Co-Founder, Solar Junction, U.S. **2:50pm** Scott Burroughs, Vice President of Technology, Semprius, U.S.

3:10pm Panel Discussion, Q & A

uesday, July 10, 2012

PV Keynote: Mark Pinto, Executive Vice President and General Manager, Energy and Environmental

Solutions, Applied Materials ednesday, July 11, 2012

PV Keynote: James G. Brown, President of Global Business Development, First Solar

Special Exhibit: PV ENERGY WORLD

North Hall, booth 5135

The PV ENERGY WORLD special exhibit presents the latest Explore new, cool electric vehicle (EV) exhibits on the show presentations by industry experts and ensuing discussion! University presents a 100% solar powered racecar. Exhibits, displays and expert presentations at the forum afford insights into the latest developments and offer everyone the Intersolar Happy Hour opportunity for personal discussions with the players driving PV Production and Technology Hall, North Hall these developments.

technology and the solutions of the future.

Main Sponso

Contributing Sponsors









Special Exhibit: Solar & Sustainable Transportation North Hall, booths 5879, 5867, 5853

information on the evermore important developments in the floor in North Hall featuring clean and sustainable automotive field of energy storage and grid integration. The exhibit, technologies and energy storage: Arcimoto presents a vehicle speaker platform and information boards present the vision based on a unique new electric vehicle platform, CODA Energy of how PV energy will impact the U.S. energy portfolio in the designs and builds scalable energy storage solutions for a coming years. Voice your opinions: don't miss the stimulating range of applications, the Solar Car Project at Stanford

Wind down the second day of the show at the Intersolar North America Happy Hour! Mix and mingle with exhibitors and The PV ENERGY WORLD special exhibit at Intersolar North fellow attendees at this casual networking event held right in America showcases the latest developments and pioneering the PV Production and Technology Hall of Moscone North. solutions. The topic clusters of energy storage and grid Grab a drink and strikeup conversations with your suppliers, integration allow visitors to learn more about state-of-the-art customers, and colleagues! Drink tickets are available for prepurchase during registration for Intersolar North America

> Wednesday, July 11, 3:30pm-5:00pm Cost: Free to attend, cash bar

DON'T MISS OUT INTERSOLAR'S FREE EXHIBITION PROGRAMS AND SPECIAL EVENTS!

The Intersolar North America Exhibition is the place to brush PV ENERGY WORLD up on information regarding innovations and the state-of-the-art North Hall, booth 5135 technologies shaping the industry. Meet the international This special exhibit presents the latest information on the solar business community at Intersolar North America 2012, evermore important developments in the field of energy co-located with SEMICON West, and engage with more than storage and grid integration – a vision of how PV energy will 22,000 visitors and about 850 exhibitors presenting their impact the U.S. energy portfolio in the coming years. solutions to current solar trends. Attendees have full access

FREE PROGRAMS & WORKSHOPS

Innovation Exchange Stage

ON THE FOUR STAGES

Center, West and North Hall.

West Hall, Level 3, booth 9659

At the Innovation Exchange exhibitors and Intersolar AWARD and Esplanade Hall. 2012 nominees present their innovations through 30-minute presentations, offering visitors a compact and informative overview of the company's latest developments. Further special events to be highlighted are the Intersolar AWARD Ceremony at Tuesday July 10, 4:00pm and the 7th Joint Forces for Solar - Briefing and Networking Forum.

Practical Point Stage

West Hall, Level 3, alcove 2

Free workshops will be offered as part of a platform designed for industry insiders to exchange expertise and experiences. Topics include solar roofing best practices, starting and growing a solar business and exhibitor presentations.

to the FREE presentations on the exhibit floor in Moscone PV Production & Technology Stage North Hall, booth 5483 **Keynote Stage** Esplanade Hall

The PV Production & Technology hall, co-organized by SEMI PV Group, is dedicated to PV manufacturing suppliers and semi wpvGroup their technologies. The presentations delivered on the PV Production & Technology Stage will focus on the real, critical issues and current challenges for both today's PV manufacturing plants and tomorrow's technology advancements. Don't miss

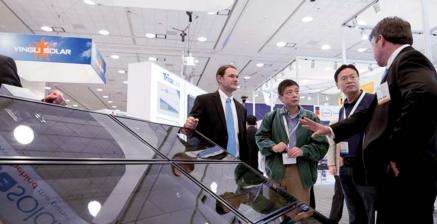
EXHIBITION PROGRAMS 2012



Organizers









I INNOVATION EXCHANGE STAGE

TUESDAY, JULY 10

Group, U.S.

Moscone Center, West Hall, Level 3, booth 9659

10:30am Remote Controlled High Efficiency Storage Systems

Guido Tonin, Executive Vice President, Santerno, Inc./Carraro

for Grid Connected PV Systems

Intersolar would like to thank ou Innovation Exchange Sponsor



Rafal Pabich, Product Manager, Carlo Gavazzi, Inc., U.S. 11:30am Draker PV Management Jefferson Goethals, Director of Product Development, Draker Laboratories, Inc., U.S. 2:00pm Utility Scale PV Power Optimization Using a Main Site Controller

1:00am Comprehensive Performance Monitoring of Photovoltaic System

Andy Fioramonti, Business Development Manager, TMEIC, U.S. **12:30pm** Cybolnverter – The World's First Solar Power Mini-Inverter Dr. George Cheng, CEO, CyboSoft/CyboEnergy, U.S.

sentations of Intersolar AWARD Nominees 'Solar Projects' :00pm The Dependable Companies' PV Installation

Isabelle Christensen, Marketing and PR Director, JinkoSolar, U.S. 15pm Solar Power Takes Off at the Thunder Bay International Airport Noah Eckert/Colin Parker, Director of Commercial and Utility Scale Markets/ VP Projects and Engineering, Canadian Solar Inc., U.S. **30pm** Riverside Renewable Energy Solar Project: Developing the

Largest Customer-Sited Rooftop PV System in North America Marc Gordon, Manager of National Accounts, North America Commercial, SunPower Corporation, U.S.

45pm US Air Force Academy and the Triple Bottom Line: Reducing Electricity Costs, Creating American Jobs and Improving Energy Security Kevin Prince, Project Development Manager, Federal Programs,

SunPower Corporation, U.S. **:00pm** Copper Crossing Solar Ranch – Overview of a Sustainable

Partnership: SRP, Iberdrola Renewables and SunPower Wayne Mays, Director, Technical Services, Iberdrola Renewables, U.S. 15pm Oxford Gardens Solar Project.

Canadas Largest Solar Heating and Cooling Installation Suni Ball, General Manager, Enerworks, Inc., Canada 2:30pm ESA Solar Project Benefits Local School and Community Jeffrey Burkett, President of ESA Renewables, LLC, U.S.

Intersolar Award Ceremony -Solar Projects in North America

10:30am Advanced Edge Sealants with Integrated Driers for Photovoltaic Modules Marco Amiotti, SAES Getters S.p.A., Italy

1:00am Special Event: Solar3.0 – A National Roadmap from Policy to Profitability Doug Payne, Co-founder, Executive Director, Solar Tech, U.S.

pm New Technologies of BYD TOP5 module Oscar Su, Business Development Manager, BYD Europe B.V., U.S.

:30pm Does a Tracker Still Make Sense? Doug King, Systems Integration Engineer, SolarWorld Americas, LLC., U.S.

:00pm Intelligent Solar Energy Through Parallel Solar Technology Gene Krzywinski, Co-Founder & CTO, elQ Energy, Inc., U.S.

DNESDAY, JULY 11

1:30pm Busch Introduces the Newest Model of the Busch DS Series COBRA DS Vacuum Pump Enhancements Dr. Paul Alers, Busch Global Product Manager, Busch, LLC., Switzerland

2:00pm Labeling to Article 690 of the National Electrical Code Routing and Protecting PV Cables Todd Fries, Marketing Manager ID Systems, HellermanTyton, U.S.

2:30pm Special Event

Joint Forces For Solar: 7th PV Briefing & Networking Forum

■ The Californian PV Market - Scenarios for 2012 and Beyond Panel Discussion: How to Ensure Sustainable Growth in California & the USA? ■ Industry Experts' Point of View: Looking at Latin American

PV Markets Networking

HURSDAY, JULY 12

10:30am Bonfiglioli PV Inverter Architecture Robert Lenke, Product Manager Photovoltaic Solutions, Bonfiglioli, Germany

1:00am Innovations in Process Flow – Proven Key to Cost Leadership Mark Willingham, Managing Director, Schiller, LLC., U.S.

11:20am Non-contact PV Substrate Handling Using Ultrasound Bearing Technology Dr. Josef Zimmermann, Managing Director,

Zimmermann & Schilp GmbH, Germany **11:40am** RENA Targets Equipment to Reduce Production Costs and Increase Cell Efficiency

Anne Chase, Technical Sales Manager, RENA GmbH, Germany 2:00pm Anti-Light Reflective Coating of Solar Glass — A Possibility to Increase the Power Output of a Solar Module

Sven Kramer, Senior Sales Engineer, Burkle North America, Inc., U.S. 12:20pm Production Methods for Large Area Flexible Electronics and OPV Thomas Kolbusch Vice President Coatema Coating Machinery GmbH, Germany

12:40pm Backsheet Selection Criteria Tailored — Solutions for All

John A. Anderson, Sales Manager Solar Materials, Krempel USA, U.S. Status and Tendencies in the Thin Film Photovoltaic Equipment Market Dr. Reinhard Fendler, CEO, FHR Anlagenbau GmbH, Germany

1:20pm EMD's Isishape ®Etching Concepts Boost Efficiency of Crystalline Solar Cells Robert S. Miller, Senior Business Manager LC and Emerging Technologies, EMD Chemicals, U.S.

:40pm Inkjet for Photovoltaics

Tim Luong, Sales Engineer, FUJIFILM Dimatix, U.S. FUJIFILM Dimatix, U.S. 2:00pm Photonic Curing as an Advanced Material Processing Method Stan Farnsworth, VP Marketing, NovaCentrix, U.S.

2:20pm Solution Processing Technologies for PV Manufacturing Dr. Robbie Charters, Chief Technology Officer, nTact, U.S.

:40pm Roll to Roll Manufacturing of Organic Solar Cells Vishal Shrotriya, Ph.D, Vice President of Business Development, Solarmer Energy, U.S.

PRACTICAL POINT STAGE

Moscone Center, West Hall, Level 3, alcove 2

Attend Intersolar's free training programs at the Practical Point the Practical Point is being introduced in 2012. Here, free need to address relevant aspects of the downstream sector, experiences.

Stage! To reflect the growing domestic demand for solar workshops will be held for industry insiders, practitioners, applications throughout the United States and the increasing installers, system integrators to exchange expertise and

12:15pm Workshop: NABCEP Company Accreditation -A New Standard of Excellence for Residential PV Installation

NARCEP II S 2:00pm Special Event: California Business Opportunities and State

Trade and Export Program – Exporting Made Easy Team California, U.S.

EDNESDAY, JULY 11

TUESDAY, JULY 10

10:30am Workshop: Tools and Techniques for Commissioning and O&M

> PV Instructors: Rebekah Hren, Brian Mehalic, Kristopher Sutton ISPO Certified PV Instructor NARCEP Certified PV Installer & Licensed Electrical Contractor, Solar Energy International, U.S.

:00pm Workshop: Starting a Successful Solar Business Jeff Spies, Business Development Manager, Quick Mount PV, U.S.

Exhibitor Presentations

3:30pm Revolutionizing Rooftops: SOLON SOLquick's Rooftop John Rethans, Director of Product Management, SOLON Corporation, U.S.

:00pm Lambda Light - Low-ballast, non-penetrating Flat Roof Mounting System Chris Schuring, Key Account Manager, Mounting Systems, Inc., U.S.

4:30pm A Racking System for Commercial Buildings that Tilts for Reroofing without Removing the Solar Array Tony Zante, President & CEO, ISA Corporation, U.S.

IURSDAY, JULY 12

10:30am Workshop: Solar Roofing Best Practices Johan Alfsen, Director of Training, Quick Mount PV, U.S. 12:15pm Workshop: PVsyst Modeling

PV Instructors: Rebekah Hren, Brian Mehali cISPO Certified PV Instructor, NABCEP Certified PV Installer & Licensed Flectrical Contractor Solar Energy International, U.S.

45nm Exhibitor Presentation

How to Plan Roof and Ground Mounted PV Systems With PV*SOL Expert Steffen Lindemann, Director of Software Development, Neala Mairhofer, Operations Manager – North America, Valentin Software, U.S.

Workshop Partners







Quick Mount PV RESPECT THE ROOF

SOLARSPIES

| SPECIAL EXHIBITS & PROGRAMS IN WEST HALL

Powered by Job & Career Forum

West Hall, Level 1, booth 7065

OBS The Job & Career Forum, taking place on level 1 of Moscone

Program Features

- Onsite exposure to major solar players
- Meet with companies across all industry segments ■ Free job search and printout via computer kiosks

Intersolar TV

West Hall, Level 2, lobby, L201

Intersolar TV reports the latest news on Intersolar North America Intersolar Global Pavilion every day. During the exhibition, up-to-date reports, background West Hall, Level 2, lobby, L200 information and statements from the event will be posted on We welcome you to Intersolar's Global Pavilion in the lobby of Intersolar's website. The TV broadcasts provide insight into Level 2, booth L200. Those interested in finding out more about the exhibition's main themes and report on highlights such as Intersolar's global presence can stop by and obtain detailed technological advancements being presented onsite, conference information on our global exhibitions. Intersolar's global events highlights and much more. Be sure to check out Intersolar TV at take place in Munich, San Francisco, Mumbai and Beijing. → www.intersolar.us or at Intersolar Global Pavilion (Level 2, L200).

job&career **←**

West, is the solar employment program point at Intersolar North America for qualified personnel. Whether you are looking to enter the solar industry or want to take your current solar career to the next level, you'll find exactly what you are looking for at the Job & Career Forum. Get on the path to achieving your professional goals!

Event Broadcast Booth

West Hall, Level 2, lobby, L201

■ Ability to upload résumé to Renewable EnergyWorld.com JOBS The event broadcast highlights exhibiting companies alongside the latest solar industry trends and hot-topic conversations between solar professionals at Intersolar North America 2012 and are produced on-site by RenewableEnergy World.com.







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