

**2nd European American Solar Deployment Conference:
PV Rollout**

**Omni Parker House Hotel, Boston, Massachusetts, USA
February 9 - 10, 2012**

www.pvrollout.us

Wednesday, February 8, 2012

Pre-Conference Workshop - PV Module Testing beyond IEC and UL

2:00 - 5:30 PM

Opening Remarks

Christian Hoepfner, Fraunhofer CSE, Cambridge, MA, USA

Certification Standards Development from the Research Perspective

John Wohlgemuth, NREL, Golden, CO, USA

Current Certification Requirements and Experiences from the North American Market

Brij Aggarwal, CSA, Cambridge, MA, USA

Coffee Break

Correlations between Accelerated Testing and Real World Reliability

Claudio Ferrara, Fraunhofer ISE, Freiburg, Germany

PVDI - A Durability Program Providing Bankability and Marketing Leverage

David Meakin, Fraunhofer CSE, Cambridge, MA, USA

Thursday, February 9, 2012

8:00 Registration and Continental Breakfast

Opening Session

Chair: Eicke Weber, Conference Chairman, Fraunhofer ISE, Freiburg, Germany

9:00 Opening Address

Gabriele Struthoff-Müller, OTTI, Regensburg, Germany

Eicke Weber, Conference Chairman, Fraunhofer ISE, Freiburg, Germany

Juris Kalejs, Conference Co-Chairman, American Capital Energy,
North Chelmsford, MA, USA

9:25 Welcome Speeches

Barbara Kates-Garnick, Executive Office of Energy and Environmental Affairs,
Commonwealth of Massachusetts, USA

Mathew Allen, German American Chamber of Commerce, Inc., New York, USA

Winfried Hoffmann, Vice President EPIA, Brussels, Belgium

9:40 Key Plenary Opening Talk: Sunshot Initiative USA

Ramamoorthy Ramesh, Department of Energy, Washington, DC, USA

PV Markets

Chair: Winfried Hoffmann, Vice President EPIA, Brussels, Belgium

10:00 Impact of a Rapidly Changing Global PV Market on the Global PV Manufacturing Supply Chain

Bettina Weiss, SEMI Global Headquarters, San José, CA, USA

10:15 Insights on the Topic of Grid Parity and its Implications

Daniela Schreiber, EuPD Research, Bonn, Germany

10:30 Forecasting Solar in an Era of Declining Subsidies

Matt Feinstein, LUX Research, Boston, MA, USA

10:45 SREC Impact on Utility-Scale PV in Massachusetts

Bill Fitzpatrick, American Capital Energy, North Chelmsford, MA, USA

11:00 Discussion

11:20 Coffee Break

Modules

Chairs: Tom Surek, Surek PV Consulting, Denver, CO, USA

Christian Hoepfner, Fraunhofer CSE, Cambridge, MA, USA

12:00 Closing the Gap between Laboratory Cells and Modules

Martha Symko-Davies, NREL, Golden, CO, USA

12:15 What Can We Learn from Testing and Certification?

Claudio Ferrara, Fraunhofer ISE, Freiburg, Germany

12:30 OEM-related Cost Reduction in PV Manufacturing

Dough Urban, Hanwha SolarOne, Ismaning, Germany

12:45 PV Durability Initiative - A New Program for Quantitative Assessment of PV Module Durability

Christian Hoepfner, Fraunhofer CSE, Boston, MA, USA

1:00 Reliability and Quality Assurance of PV Module - Japanese Experience and Activity

Michio Kondo, Research Center for Photovoltaic Technologies, AIST IST, Japan

1:15 Discussion

1:30 Lunch

Power Conditioning

Chairs: Charles Hanley, Sandia National Laboratories, Albuquerque, NM, USA

Olivier Stalter, Fraunhofer ISE, Freiburg, Germany

2:45 Overview on Module Integrated Electronics

Olivier Stalter, Fraunhofer ISE, Freiburg, Germany

3:00 Impact of Silicon Carbide Power Transistors on PV Inverters Today and in the Future

Jeffrey B. Casady, SemiSouth Laboratories, Inc, Starkville, MS, USA

3:15 Interfacing Grids and Renewables Through Power Electronics

Leo Casey, Satcon Technology Corporation, Boston, MA, USA

3:30 Achieving Smart Energy through a Smart Grid, Smart Premises and Smart Inverters

Steve Steffel, Pepco Holdings, Inc, Washington, DC, USA

3:45 Discussion

4:05 Coffee Break

Grid Integration

Chair: Juris Kalejs, American Capital Energy, North Chelmsford, MA, USA

4:45 Grid Integration of Distributed Photovoltaics (DPV)

Tom Key, The Electric Power Research Institute (EPRI), Knoxville, TN, USA

5:00 An Overview of Distribution Grid Integration PV Studies at NREL with Selected Results

Jason Bank, NREL, Golden, CO, USA

5:15 Integration of Photovoltaic Systems into Distribution Networks

Thomas Degner, Fraunhofer IWES, Kassel, Germany

5:30 Enel Green Power's North American experience focusing on the 1st Solar Geothermal Hybrid Plant in Nevada

Francisco Galleano, Enel Green Power North America, Inc., Andover, MA, USA

5:45 Ancillary Services of the Solar Inverter for More PV in the Grid

Bernd Engel, SMA Solar Technology AG, Niestetal, Germany

6:00 Grid Stability and Grid Control with PV Inverters: Grid Codes, Requirements and the Capability of Power Electronics

Sönke Rogalla, Fraunhofer ISE, Freiburg, Germany

6:15 Discussion

Poster Session

Chair: Martha Symko-Davies, NREL, USA

6:40 Comparative Analysis of the Spanish PV Market in the European Context

Felipe Diaz, Universidad de Las Palmas de Gran Canaria, Las Palmas de Gran Canaria, Spain

Description and Assessment of a Small Scale PV- Fuel Cell System

Fabian Deniz, Universidad de Las Palmas de Gran Canaria, Las Palmas de Gran Canaria, Spain

New Innovative Cable Driven Low Profile Solar Tracking System

Klaus Pless, TecnoSun Solar USA Inc., Toledo, Ohio, USA

Integrated PV Farm Design, Impact Studies, Commissioning and Operations

A. P. Meliopoulos and G. J. Cokkinides, Georgia Institute of Technology, GA, USA

7:00 Reception and Dinner

Friday, February 10, 2012

7:30 Continental Breakfast

PV Power Plants

Chairs: Tom Key, The Electric Power Research Institute (EPRI), Knoxville, TN, USA
Sönke Rogalla, Fraunhofer ISE, Freiburg, Germany

8:30 Quality Assurance of Large-Scale, Commercial PV Power Plants
Nils Reich, Fraunhofer ISE, Freiburg, Germany

8:45 Availability for PV Power Plants: Is It a Useful Metric?
Tassos Golnas, Sun Edison, Belmont, CA, USA

9:00 Calculation of PV-Power Plants' Electrical Characteristics According to Grid Code Compliance
Frederik Kalverkamp, Zertifizierungsstelle der FGH, Aachen, Germany

9:15 Advanced Utility-Scale PV Plant Control Systems for Effective Grid Integration
Mahesh Morjaria, First Solar, Tempe, AZ, USA

9:30 Discussion

9:50 Coffee Break

Concentrating Photovoltaics (CPV)

Chair: Vahan Garbushian, Amonix, Seal Beach, CA, USA

10:30 CPV Demonstration at the Solar Technology Acceleration Center: Background, Status and Developments
Nadav Enbar, EPRI, Boulder, CO, USA

10:45 Certification Testing of CPV Modules
Martin Plass, CFV Solar Test Laboratory, Inc., Albuquerque, NM, USA

11:00 CPV - Commercial Breakthrough
Clark Crawford, Soitec Solar, Inc., La Jolla, CA, USA

11:15 30 MW of Utility Scale CPV Installation in Colorado
Vahan Garboushian, Amonix, Seal Beach, CA, USA

11:30 Opportunities for PV, CPV and CSP in the Current Market Environment
Paula Mints, Navigant Consulting, Palo Alto, CA, USA

11:45 Discussion

12:10 Lunch

Risk Management, Yield Protection and Financing

Chair: David Williams, Clean Path Ventures, San Francisco, CA, USA

1:30 Risks and Opportunities in entering the North American Market: Lessons Learned
Christian Wentzel, KBRacking, Toronto, Canada

1:45 Sandia's Photovoltaics Reliability Performance Model (PV-RPM)
Jennifer Granata and Joshua Stein, Sandia, Albuquerque, NM, USA

2:00 Risk Management in PV Mounting System Design
John van Winkle, Schletter Inc., Tucson, AZ, USA

2:15 Review of Utility Solar Business Models
Nadav Enbar, EPRI, Boulder, CO, USA

2:30 Mounting System Impact on Risk Management of Solar PV Arrays on Commercial Buildings
Mark Gies, PanelClaw, Inc., North Andover, MA, USA

2:45 Differentiating PV Projects Through Risk
Jesse Jones, Clean Path Ventures, San Francisco, CA, USA

3:00 Discussion

3:30 Closing Remarks
Eicke Weber, Conference Chairman, Fraunhofer ISE, Freiburg, Germany
Juris Kalejs, Conference Co-Chairman, American Capital Energy, North Chelmsford, MA, USA

3:45 End of the Conference