



## **Aligning Communities to Maximize Market Potential**

April 6-8, 2009, San Diego, CA

### **Final Agenda**

April 6, 2009

*Pre-Summit Workshop:*

**An Introduction to Building-Integrated PhotoVoltaics**

April 7, 2009

Main Summit

8-8:15 Chairman's Introduction

8:15-8:45 Keynote Address  
**Steven J. Strong**, *President*, Solar Design Associates

*Session I: BIPV MARKET: DRIVERS AND CHALLENGES*

8:45-9:30 *Presentation:*

**State of the Market, Drivers and Applications**

- *Market size, segmentation, trends, distribution channels*
- *"Building-Applied" vs Building-Integrated PV*
- *Drivers:*
  - *Current high profile projects for Green PR*
  - *Germany, Italy, France have BIPV bonuses on feed-in tariff*
  - *UK and CA requirements for new home builds over X number of units requiring solar pre-installed*
  - *Role of BIPV in state incentive programs*
  - *Utilities adoption for distributed generation programs*
- *Overview of technologies and innovation*
- *Applications and product types*
- *Market impact of ongoing technical innovations*

**Nadav Enbar**, *Research Manager*, Energy Insights

9:30-10:00 *Networking Break*

10:00-11:00 *Presentation:*

**Assessing Policy-level Drivers and Constraints for the Growth of the BIPV Market**

- Net metering
- Prospects for a federal feed-in tariff
- State and local Incentives
- Utility rate structures, time of use pricing, smart metering
- Prospects for BIPV-specific incentives

**Craig Silvertooth**, *Executive Director*, Center for Environmental Innovation in Roofing

*Session II: End-User Perspectives on BIPV*

11:00-11:45 *Presentation:*

**Perspectives on BIPV vs. Rack-Mount**

*For new construction, decisions to install BIPV over rack-mounted PV can come from either the real estate developer and/or the architect/designer of a new project. This presentation will provide insight into how developers and architects weigh the pros and cons of BIPV vs rack mounted solar for different situations:*

- *What does the customer decision tree look like?*
- *How they view the cost/benefit balance for competing BIPV products*
- *Financing BIPV: ownership vs. PPA – any differences from financing rack PV? How does the definition of the solar Investment Tax Credit apply to BIPV?*
- *Experience with performance of BIPV units and related issues such as liability and depreciation*
- *BIPV's impact on building energy budget and market valuation*
- *How BIPV fits into the design/build process*
- *Esthetics and green marketing considerations*

**Steve Heckerth**, *Director of BIPV*, Stellar Energy Solutions

11:45-1:15 **Group Luncheon**

1:15-2:30 *Panel Discussion:*

**Assessing BIPV Activity in the Home Builder Market**

*A newly released initiative from the California Energy Commission calls for all new homes to be “Net Zero Energy” by 2020. BIPV, more attractive, more versatile, and potentially cheaper than traditional polycrystalline modules, will undoubtedly play a key role in helping to meet this aggressive goal.*

- *How do corporate home-builders and home-building contractors envision the role BIPV will play in the future, and its track record in terms of installation, maintenance, and safety?*
- *What percentage of the home energy budget can it reliably offset?*
- *What are the performance/price points that would motivate home-builders to implement it more widely?*

Panelists:

**Mark Fischer**, CFO / Senior Vice President, Grupe Homes

**Mike Keesee**, Project Manager, Energy Efficiency Customer R&D,  
Sacramento Municipal Utility District

**Robert W. Hammon, Ph.D.**, Principal, ConSol; Team Leader, Building  
Industry Research Alliance

**Will Herndon**, VP Construction, American Solar Electric, Inc.

2:30-3:00      Networking Break

Session III: Aligning BIPV Stakeholder Communities

3:00-4:30      *Panel Discussion:*

**Transforming PV Materials into Disruptive Building Products**

*The roofing and building materials industry is facing a brave new world with the advent of products that seamlessly incorporate photovoltaic capacity and charge distribution. There are entirely new issues around materials behavior, standards, safety, and installation. New product developers will emerge from both the solar technology and the building materials side. This session will bring together both thin film and monocrystalline PV manufacturers and product developers.*

Moderator:

**Michael Gumm**, President, SolarPower Restoration Systems, Inc.

Panelists:

**Nolan Browne**, Managing Director, MIT-Fraunhofer Center for  
Sustainable Energy Systems

**Dr. Kevin Cunningham**, Global Product Manager, Applied Materials

**Mike Gering**, CEO, Global Solar Energy

**Dr. Ken Hackmeyer**, Chief Energy Scientist, ePGEN, Derbigum Energy  
Sciences Division

**Leonard J. May**, Managing Director, BIPV Products and Off Grid  
Products, Suntech Power Holdings Co., Ltd.

**Max Perilstein**, Vice President, Marketing, Arch Aluminum & Glass

4:30 –5:30      *Networking Reception*

*Summit, Day Two  
April 8, 2009*

8:30-8:45 Chairman's Remarks

8:45-9:30 *Day Two Keynote:*  
**Stanford R. Ovshinsky**, Chairman & CEO, Ovshinsky Innovation LLC

*Session V: Financing BIPV Projects and Investing in Future BIPV Technology and Products*

9:30-10:15 *Presentation:*

**Unique Financing Aspects with BIPV Projects**

- *Cost and valuation issues for BIPV in new construction: Case Study summaries for how BIPV contributes to the overall project economics and the valuation/resale of properties*
- *Retrofit financing: differences between BIPV and rack-mounted PV; differences between types of BIPV (mono-crystalline vs. thin film, tiles vs. flexible or glass laminates, etc.)*
- *Maintenance and degradation issues with BIPV including roof-integrated systems, thin-film and crystalline PV technologies*
- *Unique features with BIPV projects for either Direct Ownership vs. Power Purchase Agreement*

**Keith Rutledge**, Director of Finance, SolarNet

10:15-10:45 *Networking Break*

10:45-12:00 **Venture and Equity Investor Perspectives on BIPV**

*Even with the downturn, there is still enormous venture funding flowing into solar technologies and project development. The extension of the production tax credit for solar can hardly hurt, and the ability of utilities to get tax write-offs for solar is further priming the market. As BIPV evolves into its own unique sector and product families, will money for further R&D and product development come strictly from the Silicon Valley VCs, or will large building materials companies get into the action? Is there a role for private equity to assist in the expansion of technology startups and product developers with proven cash-flow? This closing panel will provide an investment perspective on BIPV prospects.*

*Moderator:*

**Todd Glass**, Partner, Wilson Sonsini Goodrich Rosati

*Panelists:*

**Langley Eide**, Vice President, Global Technology Equity Capital Markets, Morgan Stanley

**Neal M. Dikeman**, Partner, Jane Capital Partners LLC

**Mark Pyle**, *Principal*, Greenrock Capital  
**Eric Wesoff**, *Senior Analyst*, Greentech Media

12:00 Noon Summit Adjourns