

Issue 9 | April 2011

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#### Europe address:

IPVEA International Photovoltaic Equipment Association  
P.O. Box 1610, D-63406, Hanau, Germany

#### US address:

IPVEA International Photovoltaic Equipment Association  
P.O. Box 771507, Orlando, Florida 32877, USA  
Tel: +1 407 856 9100

Managing Director: Bryan Ekus. [ekus@ipvea.com](mailto:ekus@ipvea.com)

Registration Number: Court Hanau VR 31714

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### IPVEA MEMBER BENEFITS

## IPVEA & VLSI Research to provide, monthly worldwide PV market data

The International PV Equipment Association (IPVEA), an independent, non-profit organisation of manufacturers and suppliers of photovoltaic (PV) fabrication equipment and related raw materials, announces it will provide key information about PV manufacturing equipment worldwide.

Slated to launch this month, the program, which has been developed by VLSI Research, the leading provider of market research and economic analysis on the technical, business, and economic aspects within nanotechnology and related industries on behalf of IPVEA, will collect monthly sales and billings data on PV manufacturing equipment worldwide.

"The IPVEA Books to Bill program will be an essential source of information and analysis on the global equipment market. Having this new program in place will identify the key trends shaping and driving the global PV equipment marketplace."

Bryan Ekus, managing director of IPVEA

Continued on page 2 >>

## VLSIresearch

The equipment segments that will be covered include:

- Total PV-Related Revenues – includes service and support, and sales of third-party equipment.
- PV-Related Service and Support Revenues
- OEM Polysilicon Equipment
- OEM Wafering Equipment
- OEM c-Si Cell and Module Equipment
- OEM silicon thin film PV Equipment
- OEM non-silicon thin film PV Equipment (CIGS and CdTe)
- OEM Other PV Cell Technologies

### IPVEA MEMBER BENEFITS

## Save Money with IPVEA Affinity

The **IPVEA Affinity Program** is your member benefits program. IPVEA has partnered with industry leaders to provide you with value-added offers and significant savings on products and services you use on a daily basis. IPVEA

has recently partnered with **Freeman Decorating Services Inc.**, the US's leading **trade show services** logistics company, as well as **Hertz** and **Hyatt**.

Read full article on page 4 >>

IPVEA MEMBER BENEFITS

# Books to Bill

## from IPVEA & VLSI Research

< Continued from page 1

“The point has been reached where the PV equipment industry needs timely and accurate statistics that cover the global market.”

John West,  
Managing Director of  
VLSI Research Europe Ltd.

The information will be collected by an independent third party in a confidential manner and prepared on an aggregate basis in such a way that the data cannot be attributed to individual companies.

VLSI has conducted a similar Books to Bill program for the semiconductor industry.

John West commented, “Global Book to Bill statistics are essential for understanding the dynamics of capital equipment markets. Collecting and publishing this data for the PV equipment industry on a monthly basis will enable suppliers to be more responsive to changes in the magnitude and direction of the market.”

IPVEA members will receive a consolidated report, while survey respondents who are not IPVEA members will receive a summary of the results covering the period for which they participated. Additionally, general statistics will be made available to the industry through IPVEA press releases.

A full report with commentary and further analysis will be available through subscription to VLSI Research’s PV Manufacturing Equipment Database.

VLSI Research plans to represent the entire PV Manufacturing Equipment market, and will provide estimates for companies that do not respond.

By capturing this data monthly, the industry can track the performance of the market. Currently, the program covers eight segments throughout seven regions: China, Japan, Korea, Europe, North America, Taiwan and Rest of World (ROW).

Founded in 1976, VLSI Research Inc. is known for its unparalleled accuracy, innovation in market research, and its sharply focused insight into the rapidly changing landscape of the industries covered. Its databases on manufacturing are used throughout the industry, and by government.

**For more information about the IPVEA Books to Bill program, please contact John West. johnwest@vlsiresearch.com**

 IPVEA ONLINE @ IPVEA.ORG

### ‘DAILY ENERGY REPORT’ ON IPVEA WEBSITE

IPVEA has partnered with **DailyEnergyReport.com** to post its daily videos on IPVEA.org. To view the content, click on the video screen on the right side of IPVEA.org. The Daily Energy Report provides daily updates on energy news, energy efficiency, renewable energy, transportation, energy policy and energy security. The site was created to give viewers the opportunity to get the daily scoop on what’s going on in the world of energy. This show features segments about the day’s energy events, but also highlights the issues and people that are changing the way we look at the energy industry. It is likely that the energy industry will experience one of the most significant transformations over the next couple of decades.

For more information about the site email [ben.lack@dailyenergyreport.com](mailto:ben.lack@dailyenergyreport.com)





# 26th European Photovoltaic Solar Energy Conference and Exhibition

The most inspiring Platform for the global PV Solar Sector



CCH Congress Centre and International Fair Hamburg, Germany  
Conference 5 - 9 September 2011 • Exhibition 5 - 8 September 2011

[pv.conference@wip-munich.de](mailto:pv.conference@wip-munich.de) • [www.photovoltaic-conference.com](http://www.photovoltaic-conference.com)

INSIDE IPVEA

# IPVEA Welcomes New Members

IPVEA currently has many of the PV industry's leading companies as members. All benefit from the exchange of ideas, as well as ways to develop business opportunities and strategic partnerships. We would like to welcome three more companies to the association.



## Leybold Optics GmbH

As one of the world leaders in thin film technology, Leybold Optics is developing and manufacturing vacuum deposition equipment for a broad range of applications. The foundation for the company's present-day success was laid 160 years ago by inventors/founders Ernst Leybold and Wilhelm Carl Heraeus. Today, Leybold Optics is a globally active high-tech company, with main facilities in Dresden and Alzenau, Germany, and worldwide over 500 employees. Leybold Optics products are grouped into two divisions: Optics and Solar. The portfolio offered by the Solar Division includes vacuum systems for the photovoltaic industry.

[www.leyboldoptics.com](http://www.leyboldoptics.com)



## Grenzebach BSH GmbH

Grenzebach Maschinenbau GmbH was founded in Hammlar, Germany in 1960. Today, Grenzebach is a corporation with six plants in three continents, more than 1,500 employees and a global customer base. Grenzebach has established itself as reliable and competent partner through a machinery spectrum specializing in thin-film PV technology. Our technology on glass for production of PV modules created a new market segment for Grenzebach, whereby the company is benefiting from many years of experience in flat glass handling. The combination of processes such as feeding, washing, CVD, PVD, cutting, inspection, lamination, testing and stacking can all be carried out by Grenzebach.

[www.grenzebach.com](http://www.grenzebach.com)



## Smit Ovens B.V.

At Smit Ovens, we design and manufacture thermal process solutions for high-volume manufacturing. With thousands of installed systems in the glass, electronics, display and solar industries, our experience is growing fast and goes deep and wide in oven design, heat transfer methods and process atmospheres. We're constantly innovating. Today, we focus on solar applications, acting as an expert partner to manufacturers aiming for cost-effective mass production. On top of all this, we have extensive in-house know-how in the physics and chemistry of deposition and diffusion processes.

[www.smitovens.nl](http://www.smitovens.nl)



[WWW.IPVEA.ORG](http://WWW.IPVEA.ORG)

### Go online to see all member profiles

- 3S Swiss Solar Systems AG
- ABB Automation GmbH
- ACI Ecotec GmbH & Co. KG
- AEG Power Solutions GmbH
- AIS Automation Dresden GmbH
- AMB Apparate + Maschinenbau GmbH
- Applied Materials
- Bekaert Advanced Coatings N.V.
- Bosch Rexroth AG
- BTU International Inc.
- Centrotherm Photovoltaics AG
- DECKER Anlagenbau GmbH
- Dek International GmbH
- Diamond Materials Tech, Inc.
- Dr. Schenk
- dr. schwab
- E+H Metrology GmbH
- Ferrotec GmbH
- Gebr. Schmid GmbH + Co.
- GfE Matalle und Materialien GmbH
- Grenzebach BSH GmbH
- Heateflex Corporation
- Hennecke Systems GmbH
- Honeywell Analytics
- Innolas GmbH
- ISRA VISION
- Jonas & Redmann Photovoltaics Production Solutions GmbH
- KITEC microelectronic technologie GmbH
- Komax Holding AG
- KUKA Roboter GmbH
- KUKA Systems GmbH
- LayTec GmbH
- Leybold Optics GmbH
- LPKF SolarQuipment GmbH
- LSW Maschinenfabrik GmbH
- Lotus Systems GmbH
- M+W Group
- Manz Automation AG
- Meier Solar Solutions GmbH
- Meyer Burger AG
- Meyer Burger AG – Swiss Slicing Systems
- Meyer Burger Automation GmbH
- Newport Spectra Physics
- Oerlikon Leybold Vacuum
- Oerlikon Solar Ltd, Trubbach
- Oerlikon Systems
- Ortner c.l.s. GmbH
- OTB Solar Europe
- Otto- Chemie
- Pall GmbH
- Pasan SA
- Reis GmbH & Co. KG Maschinenfabrik
- RENA GmbH
- RICMAR Technology GmbH
- Robert Bürkle GmbH
- Rofin BAASEL Lasertechnik
- Roth & Rau AG
- SCHAEFFLER KG
- SCHILLER AUTOMATION GmbH & Co. KG
- Semilab Zrt.
- Sierra Therm
- SINGULUS TECHNOLOGIES AG
- SLS Solar Line Saxony GmbH
- Smit Ovens B.V.
- Soleras Ltd
- SOMONT GmbH
- Spire Solar
- STANGL Semiconductor Equipment AG
- STEIN Automation GmbH & Co. KG
- Synova SA
- Targray Technology International Inc.
- Team Technik Production Technology
- Tecnofimes S.r.l
- Tempress Systems B.V.
- TRUMPF Laser- und Systemtechnik GmbH + Co. KG
- Veeco Instruments GmbH
- VITRONIC Dr.-Ing. Stein
- VON ARDENNE Anlagentechnik GmbH

INSIDE IPVEA

**IPVEA Board of Directors**

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**Board Member**

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(ISRA Solar Vision)

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Bryan Ekus

**IPVEA Supervisory Board Members**

IPVEA's Articles of Association requires the organisation to have a separate supervisory board to oversee the Executive Board. The group meets once or twice a year typically during the time of a trade show. Current supervisory board members are:

**Dan Murray**

Targray Technology International

**Jan-Paul van Maaren**

BTU International

**Olga Bosch**

Jonas & Redmann Group GmbH

**Frank Tinnefeld**

Gebr. Schmid GmbH + Co

**Peter Kiemstedt**

KUKA Systems GmbH

**Ortrun Aßländer**

ACI-ecotec

**Helmut Schilling**

Singulus/Stangl Solar

**Antonio Schmidt**

Manz Automation

**Werner Bucholtz**

Meyer Burger Technology Ltd

IPVEA MEMBER BENEFITS

# Saving IPVEA members money

## with the IPVEA Member Affinity Program

The **IPVEA Affinity Program** is your member benefits program. IPVEA has partnered with industry leaders to provide you with value-added offers and significant savings on products and services you use on a daily basis. Currently, IPVEA membership brings additional benefits, such as worldwide discounts for car rentals with **Hertz** and hotel rooms at **Hyatt**. The latest company to join the IPVEA Affinity Program is from **Freeman Decorating Services Inc.**, the US's leading trade show services logistics company.

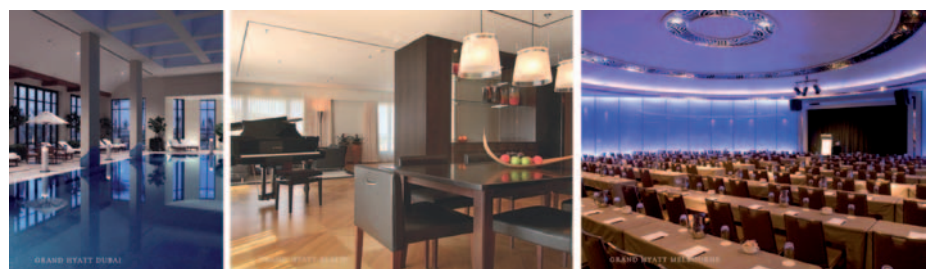
When you make your registrations with these companies be sure to mention IPVEA.



- Our discount number is **CDP#1911405**, providing great savings and member benefits, including Low Rates, Member Discounts, and earn Free Rental Days.
- Hertz often has special offers, so use the CDP# for additional savings. Check out the latest deals by clicking on the IPVEA.org link for Hertz and download the IPVEA Hertz CDP card.



- This program provides you access to 10% off the Hyatt Daily Rate at Park Hyatt, Andaz, Grand Hyatt, Hyatt Regency, Hyatt Place and Hyatt Summerfield Suites properties worldwide.
- You will also enjoy a special opportunity to receive a free night at Hyatt and added guest benefits when you enroll in the program through Hyatt Gold Passport, Hyatt's global frequent guest program. Additionally, to save you time in booking travel, the Hyatt Company Travel Program website features a one-click booking option to make fast and easy travel arrangements where you most often travel.
- Visit IPVEA.org and click on the Affinity Program to register for Hyatt's Company Travel Registration.



IPVEA MEMBER BENEFITS

# Exhibition Discount with Freeman

F R E E M A N



We all know how expensive it is to attend – and especially exhibit at – trade shows. In the latest example of how your trade association is working on your collective behalf, IPVEA has negotiated an agreement with **Freeman Decorating Services Inc.**, the US’s leading trade show services logistics company.

Subsequently, IPVEA members will receive significant discounts for exhibiting at North American events in the solar industry and other fields as well. The end result will be elevated service levels for a better event experience and maximized ROI.

Under the agreement, Freeman will provide the staff and resources necessary to facilitate the participation of IPVEA and its designated members at the events, expositions and trade shows they attend in the US and Canada. Discounts are available for both Freeman and non-Freeman shows.

With fast approaching **Intersolar North America/Semi West 2011**, July 12-14 at Moscone Center San Francisco, Freeman would like to invite all IPVEA members to submit their exhibit requirements for a no-pressure quotation of services.

The current IPVEA/Freeman agreement, runs through April 30, 2012 and covers discounts for essential services that easily mount up:

- Exhibit design
- Exhibit installation and dismantling
- A/V equipment and lighting
- A/V labor; floor plan design
- Carpet and pad rental
- Furnishings
- Graphic design and production
- Material handling; meeting room decoration
- Pre-show planning/site inspection
- Third-party services coordination
- Storage and warehouse labor and handling

Elke Simons-Tully, Freeman’s Sales Manager, Corporate Accounts is the primary contact for IPVEA members, and comments,

“We will be happy to assist with creative design development for modular or conventional construction, exhibit décor including flooring, walls, graphics and signage, furnishings and specialty items, Audio Visual rental, Installation & Dismantling Labor, as well as transportation services.”

Special IPVEA member discounts apply to Freeman custom proposal offers for all new scope of work that is not already covered under a Freeman contractual agreement.

“With the benefits offered through the IPVEA member program, Freeman aims to become your face to face marketing solutions provider of choice for all events,” Simons-Tully adds. “I look forward to speaking to each IPVEA member representative in person about your company’s particular exhibit requirements and your expectations.”

“Not only is Freeman the officially appointed general contractor for SEMICON West 2011 and INTERSOLAR NORTH AMERICA 2011 with exclusive access to many services including freight handling, we also offer unique suite of services and solutions that are not included in the show service manual.”

Elke Simons-Tully,  
Freeman’s Sales Manager,  
Corporate Accounts

elke.simonstully@freemanco.com  
Phone: +1 (407)816-7941  
Mobile: +1 (407) 947-2556  
To find out more about Freeman:  
www.freemanco.com



EVENTS - EUPVSEC

**PV Production Forum 2011  
Organized by 26th EU PVSEC and IPVEA**

The deadline for interested individuals to get in their topics to present at the IPVEA Production Forum co-located at the 26th EU PVSEC has passed.

IPVEA will keep members updated with news and information on the forum, via its website and other communications.

This forum addresses best practices and case studies that can assist PV production management, purchasing staff, and product managers how to increase throughput, efficiency, and save money in their production fabs.

Here are some PV Production Forum topics that may be of interest to attendees:

- Raw material
- Ingots & Wafers
- Si Cells
- Si Modules
- Thin Films Cell Production
- Integration and Automation
- Feedstock
- Consumables (paste, wires, etc.)
- Gases and Liquid Chemicals
- Solar Glass and Encapsulation



**showbuzz!**

The solar energy trade show grapevine is buzzing!

**Solar Power International (SPI)** next year (2012) will hold its annual US convention in Orlando, Florida at the Orange County Convention Center, 10-13 September, which **can present something of a conflict** for internationally minded, would-be attendees and exhibitors.

Year after year, the **European Photovoltaic Solar Energy Conference and Exhibition (EU PVSEC)** always takes place right around those dates. This year it's scheduled for 5-9 September 2011 at the CCH – Congress Centre and International Fair Hamburg in Germany and has expanded by the inclusion of another large exhibition hall (Hall B5).

EU PVSEC has yet to announce its 2012 dates and location, but if it stands, it will be very difficult for PV suppliers to attend and/or exhibit at both shows next year, given the logistics involved. Let's also don't forget that Solarpeq will also be around the same time.

Future SPI dates are: October 2013 (Chicago); October 2014 (Las Vegas); October 2015 (either Chicago or Las Vegas). SPI's regional event PV America will also be moving to San Jose in 2012.

Separately, **InterSolar Europe** is touting how it's added three more halls for the upcoming Munich convention this 8-10 June. Organisers are expecting more than 2,000 international exhibitors to fill the 165,000-square meter exhibition space. To accommodate this booming industry, the exhibition will now span a total of 15 exhibition halls, compared to last year's dozen.

As part of its strategy to expand, Intersolar has joined forces with **SEMI**, the global industry association serving the manufacturing supply chains for the microelectronic, display and photovoltaic industries. If the event continues to expand, can both associations retain their identities while achieving their objectives?

*ShowBuzz* has also learned that the postponed Intersolar China Show is back on for 7-11 December in Beijing.

**SNEC 2012** moves back to its May calendar position, but will be sharing the venue with an unrelated industry event. IPVEA members should contact Tom Qin (tom@snea.org Tel:+86-21-64380781) soon to book their booth space. Otherwise, you could be in a tent outside.

There are other regional alternative shows of interest, such as **RENEX**, which held a successful second event last December in Istanbul, Turkey, and the **5th Renewable Energy India 2011 Expo**, New Delhi, India. IPVEA is in discussions with both organisers to create member pavilions. More details to be shared soon.

IPVEA SUPPORTED EVENTS

# SNEC

## Trade Show Recap: Chinese Show Sets Asian Solar Attendance Record

The Fifth Annual **SNEC 5th International Photovoltaic Power Generation Conference & Exhibition** (SNEC 2011 PV POWER EXPO), came to a successful end on February 24, 2011, once again breaking the attendance record of PV exhibitions previously held in Asia.

The Shanghai event was approved by the Ministry of Science and Technology of the People's Republic of China and jointly organised by 15 international associations and organisations, including IPVEA.

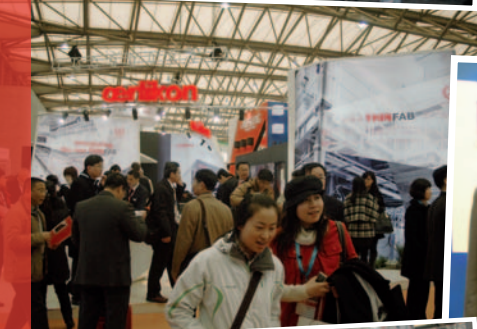
Photovoltaic companies from 90 countries were presented, including Germany, UK, France, USA, Canada, Japan, Austria, Hungary, Italy, Holland, Switzerland, Belgium, Spain, Singapore, South Korea, Russia, India and Taiwan.

The convention served 1,838 exhibitors covering 150,000 square meters of exhibition space, and was attended by more than 180,000 visitors.

As the economic center of China, the world's largest developing country, as well as a metropolis that has witnessed advanced technologies and market forces, Shanghai has naturally become a major business hub for PV-related aggregation, communication and expansion.

At SNEC 2011, industrial experts, scholars and entrepreneurs gathered here to discuss the evolving solar and PV market, industry development strategies, policy directions, and cutting-edge technologies.

Upon the success of the first five SNEC events, Shanghai New Energy Industry Association (SNEIA) has already scheduled next year's event, SNEC 6th (2012) International Photovoltaic Power Generation Conference & Exhibition [SNEC (2012) PV POWER EXPO] from May 7 to 9, 2012 at Shanghai New International Expo Center (SNIIEC), China.



*IPVEA members turned out in numbers for the SNEC show in Shanghai.*

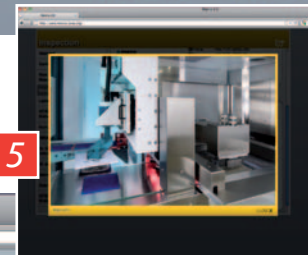
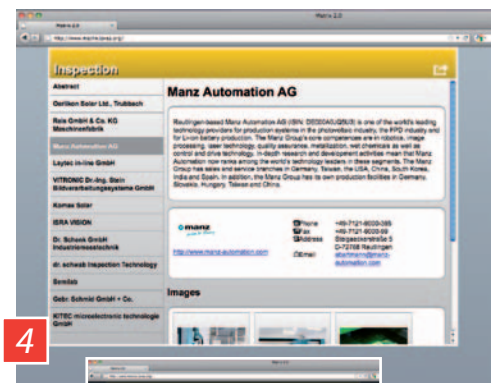
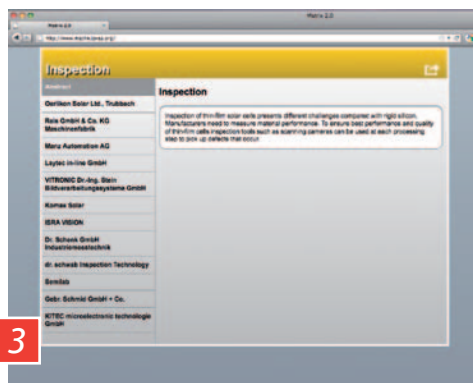
# Matrix 2.0:

## Members need to Update Company's Specialities

The still-evolving, second version of the IPVEA Matrix will soon be online at [www.matrix.ipvea.org](http://www.matrix.ipvea.org). This unique interactive tool will be the industry's central resource for information as to how PV is manufactured and how IPVEA members fit within the complete value chain of manufacturers, suppliers and users of PV equipment.

In order to better serve the entire PV value chain, and how it all fits together, we need members' help to provide more appropriate information, as opposed to general company background, about each company's particular specialties.

Designed to grow organically to reflect the evolving marketplace, the IPVEA Matrix 2.0, which we've dubbed "Wikipvea," allows participating companies to hyperlink to their web pages that address those exacting technologies.



Matrix 2.0 organizes solar technology into four main segments: silicon, organic, R&D, and installation & power generation. Each illustrated segment expands to show categories within that technology. For example, silicon expands to raw material to wafer, wafer to cell and cell to modules. From there, each subsection further breaks down. This is beneficial because it simplifies technology and allows visitors to find specific information and locate key suppliers, who can now more easily interact with each other companies.

While the Matrix remains at [www.matrix.ipvea.org](http://www.matrix.ipvea.org), it will be also soon accessible via an app for mobile devices, such as the iPhone, iPad, Android phone or a BlackBerry.

With your help we can link the complete PV Value Chain with more accurate and robust data to connect the entire solar industry.

For questions on how to update your entries with log-in names and passwords, please email Bryan Ekus at [ekus@ipvea.com](mailto:ekus@ipvea.com)



The easy to use navigation system (1, 2) ensures categories are easy to find (3) and highlights company profiles with images (4, 5). There is also a search facility for users to easily locate information (6).