

GulfSolar

Commercialising solar power projects across the Middle East

Dubai, UAE • 6-7 May 2009



Gain insight from international solar experts:



Cédric Philibert
Senior Expert
International Energy Agency



Dr Olaf Goebel
Senior Project Manager
MASDAR, UAE



Michael Geyer
International Director
Abengoa, Spain



Reza Shaybani
Co-Founder & General Partner
Emirates Venture Capital, UAE



Gianni Operto
Investment Director
Good Energies, Switzerland



Hansjorg Lerchenmuller
Chief Executive Officer
Concentrix Solar, Germany

Plus industry analysis and case studies from:

- ▶ **Ziad Jibril Sabra**, Director, Renewable Energy, **Ministry of Energy**, Jordan
- ▶ **Dr Hakim Bederr**, Chief Executive Officer, **CSEM**, UAE
- ▶ **Kiomars Dabbagh**, Managing Director, **SCHOTT Middle East**, UAE
- ▶ **Robert Ziegler**, Partner, Vice President, **A.T. Kearney**, UAE
- ▶ **Abdulhadi Al-Mureeh**, Managing Director, **National Solar Systems**, Saudi Arabia
- ▶ **Eng. Amr A Mohsen**, Director, **Lotus Solar Technologies**, Egypt
- ▶ **Asif Ansari**, Chief Technical Officer, **eSolar**, USA
- ▶ **Pedro Banda**, General Director, **ISFOC – Institute of Concentrated Photovoltaic Systems**, Spain
- ▶ **Peter Ascenbrenner**, Vice President, Sales & Marketing, **SunPower**, USA
- ▶ **Nikola Borovac**, Solar Technology Manager, **VDM Environmental**, Australia

Gain an in depth understanding of the Gulf Solar markets:

- ✔ What is the current status and market potential for solar power in the Gulf region?
- ✔ Learn from practical experiences in CSP, CPV and BIPV deployments
- ✔ Understand the prospects for solar financing in the Middle East
- ✔ Network with leading international experts

PLUS

Pre-Conference Training Course:
Solar Technology and Markets
Introduction and Fundamentals
for Non-engineers

Part Of:

SolarGlobalSeries

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GulfSolar

As part of the highly successful Green Power Conferences **Solar Global Series**, we are now pleased to announce **Gulf Solar**. This exciting event brings together industry thought leaders and key stakeholders to explore the opportunities for future development of the solar power industry across the Middle East.

Solar Power Generation

Concentrated Solar Power and Concentrated Photovoltaics are two rapidly evolving technologies which provide cost effective routes to meeting the rising energy demand across the Gulf region. Senior experts from **Masdar, Abengoa, Lotus Solar, eSolar, ISFOC, Concentrix, SunPower** and others will present a series of case studies of CSP and CPV deployments, providing an understanding of the opportunities and benefits for each technology in the region.

Solar Investment

Delegates will have the opportunity to question our expert panel of investors, all of whom are active in the Gulf region, about the current market environment for solar finance and investment. What criteria are investors looking for? How can company's best position themselves to attract finance?

Solar Innovation

The event will also address the latest solar innovations including **Thin Film, BIPV** and **Solar Cooling** and examine which technologies are best suited to the harsh regional climate of salt, sand and thermal stress.

Feedback from delegates at Green Power Conferences' previous Solar events:

“ I learnt a lot from the conference in terms of the market drivers, new technologies and financing. ” **ABENGOA**

“ Informative, good overview. ” **VATTENFALL**

“ Very good presentations by banks and technology providers. ” **BP ALTERNATIVE ENERGY**

Sponsorship & Exhibition Opportunities

Sponsor **Gulf Solar** and benefit from:

- ▶ **1st class lead generation:** meet companies actively working in the solar industry
- ▶ **Enhanced brand profile:** pre-event promotional campaign plus extensive on site branding
- ▶ **Excellent publicity:** gain an incredible amount of presence from on site promotion
- ▶ **A cost effective marketing solution:** our development team will be happy to customise a package and develop a cost effective marketing channel to generate new sales leads

Sponsorship options for **Gulf Solar** offering varying levels of branding and exposure are available to suit budgets and marketing aims.

The number of exhibition spaces is strictly limited. Contact **Jassim Mohamed** now to reserve your place on +971 4 813 5211 or email: jassim.m@greenpowerconferences.com

Who Should Attend?

- ▶ Ministries, Regulators & Government
- ▶ Utilities, Gas & Power
- ▶ Engineering, Asset Management & Infrastructure Groups
- ▶ Banks, Venture Capital & Financiers
- ▶ Construction, Real Estate & Property Development Companies
- ▶ Architects, Building Technologists & Urban Planners
- ▶ Solar Technology Manufacturers, System Integrators & Project Developers
- ▶ Industry Analysts, Consultants & Industry Press

Companies who have attended the Solar Global Series include:

Abengoa • AdvanceSis • ARKchem • Bank of Ireland • BP • BSW-Solar • Cagayan Electric Power & Light Co. • CEN (European Standards) • CREST • CSOB • Cyprus Energy Regulatory Authority • Danfoss AS • Dresdner Kleinwort • Eclareon • ECOSTREAM • Edwards Vacuum • EllinasWind Project Holding • Elnett International • Environmental Technologies International Corporation • Ernst & Young • European Investment Bank • Evelop Netherlands BV • Evolvece • Foresight Group, Frost & Sullivan • GE Energy • GNA Communications • GraingerWest • Group IPS • Halcrow • Hammonds • Heren Energy • HilsonMoran Partnership • IDC • IDTechEx • iEnergies AS • IMPERIAL • Industrial Development Corporation of SA • Industrial Fuels & Power • Invest In Germany • Investec • ITW • JTC Corporation • Kai-Design • Macquarie • Magenta Partners • Mahindra & Mahindra • McKinsey • Merloni Progetti SPA • Nanosolar • NaREC • Neo Energia SL • NetCrystal • New Energy Finance • NextEnergy Capital • Nomura • Norconsult AS • Nuevas Energias de Occidente • Nuon Helianthos • Optic Technium • Optimus Patents • Platina Partners • Polysolar • Portuguese Trade & Investment Office • PSE AG • Qatar Petroleum • Q-Cells • Riomay • RustonWebb • Sasol ChemCity • Sertec Energy • SgurrEnergy • Sharp • Solaire Direct • SOLAR • Solar Century • Solar Ventures • Solimpeks • SUNTECH-POWER • Tech University of Denmark • Texas A&M University at Qatar • Total SA • Trina Solar • UK Trade & Investment • WISE India • XinAo • Yingli Green Energy Europe

Send Your Team

Benefit from our special group rates and send your team to the event. If you register 2 delegates for the event, you can send a 3rd colleague free of charge. Contact **victoria.adair@greenpowerconferences.com** for details.

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08.30 Registration & coffee

09.00 **Solar Energy in the Middle East: Challenges and Opportunities**

With only 4 GW of global installed capacity, solar power is still nascent relative to its market potential. As manufacturing ramps up across the globe, and ever efficient production techniques are imported from the semiconductor industry, the tipping point of grid parity is firmly in sight. The opening session will provide insight and analysis on the solar energy market in the Middle East. Leading international players will address the market drivers, potential and challenges to the uptake of solar power in the region.

Driving Market Growth around the World

- ▶ Effective regulation as a market driver – examples of pro solar legislation in California, Germany and Japan
 - ▶ Policies and incentives to ensure successful market growth
- Cédric Philibert, International Energy Agency**

Opportunities for Solar Energy in the Middle East

- ▶ An overview of the Middle East market for solar energy
- ▶ What are the barriers to solar energy uptake in the region?
- ▶ How can these barriers be overcome?

Robert Ziegler, Partner, Vice President, A.T. Kearney, UAE

Setting Effective Regulation

- ▶ Regional initiatives to increase solar uptake in the Gulf
- ▶ Effective regulation as a market driver
- ▶ Policies and incentives to ensure successful market growth
- ▶ Are we moving towards a grid connected solar system?

Ziad Jibril Sabra, Director, Renewable Energy, Ministry of Energy, Jordan

10.45 Networking break

11.15 **Solar Investment & Financing**

This session will examine the current market environment for solar finance and investment, providing an understanding of what investors look for when putting together solar deals.

Solar Financing: Prospects for the Middle East

Reza Shaybani, Co-Founder & General Partner, Emirates Venture Capital, UAE

Investment Panel:

- ▶ How can companies' best position themselves to attract finance?
- ▶ How can financiers, bankers and investors take advantage of the unique investment opportunities in this expanding global industry?

Reza Shaybani, Co-Founder & General Partner, Emirates Venture Capital, UAE

Gianni Operto, Investment Director, Good Energies, Switzerland

Shezan Amiji, Managing Director, EcoVentures, UAE

12.45 Networking lunch

14.00 **Technology Innovations**

With new solar technologies succeeding in delivering greater efficiencies at a lower cost and manufacturing increasing across the globe, the prospect of grid parity for solar energy is firmly in sight. This session will look at the latest innovations in PV, solar thermal and thin film to examine how they are suited to the harsh regional climates.

Which Technologies are Best Suited for Climates in the Gulf?

- ▶ CSP, CPV, PV
 - ▶ Maintaining high performance in harsh desert climates
- Yutaka Tamaura, Professor, Tokyo Institute of Technology, Japan**

Case Study: Ras Al Khaimah Solar Island

- ▶ Developing a solution for large scale solar power generation
- ▶ Understanding the concept
- ▶ What are the main challenges faced?

Dr Hakim Bederr, Chief Executive Officer, CSEM, UAE

Innovation in PV

- ▶ An overview of the market for PV
- Speaker to be announced*

15.30 Networking break

16.00 **Building Integrated Photovoltaics (BIPV)**

BIPV is one of the fastest growing areas of the photovoltaic industry. This session will look at the latest technological developments in the sector, examine innovative case studies of BIPV installations around the world and analyse the opportunities of this technology in the region.

Developments in Global Building Integrated PV

- ▶ Overview of the international market developments in BIPV
- ▶ Case study

Nikola Borovac, Solar Technology Manager, VDM Environmental, Australia

Advantages of Thin Film for Building Integrated Photovoltaics

Speaker to be announced

17.30 Close of day one & networking reception

Enhanced Delegate Networking

One of the fantastic new features of **Gulf Solar Expo** is the online networking system – all pre-registered delegates, speakers and guests can contact each other, organise meetings and network before, during and after the event using this easy to use, private networking system. For more information, please visit the website.

08.30 Registration & coffee

09.00 **CSP**

Desert climates are ideal locations for producing large volumes of concentrated solar power. This session will explore the recent developments in the global CSP market, examine the developments of pioneering projects in the Gulf region and look at which technologies are best suited to the regions climate. What are the key market drivers? What is the state of the technologies? What can be learnt from early commercial projects across the world?

Global Experiences with CSP

- ▶ An overview of the different CSP technologies
- ▶ Which technologies are best suited for the Gulf region?
- ▶ What can be learnt from commercial deployments abroad?

Michael Geyer, *International Director*, **Abengoa**, Spain

Case Study: Sham One, the First CSP Power Plant in the Middle East

- ▶ What is the current state of project development?
- ▶ Identifying the challenges faced during project development
- ▶ How barriers were overcome

Dr Olaf Goebel, *Senior Project Manager*, **MASDAR**, UAE

Case Study:

Kiomars Dabbagh, *Managing Director*, **SCHOTT Middle East**, UAE

10.45 Networking break

11.15 Case Study: El Nasr Solar Steam Plant

- ▶ What is the current state of project development?
- ▶ Identifying the challenges faced during project development
- ▶ How barriers were overcome

Eng. Amr A Mohsen, *Director*, **Lotus Solar Technologies**, Egypt

Scalable Concentrating Solar Thermal Power

- ▶ What are the benefits of scalable modular CSP plants?
- ▶ Overcoming traditional CSP project hurdles
- ▶ Reducing deployment costs
- ▶ Increasing speed project development
- ▶ Case Study

Asif Ansari, *Chief Technical Officer*, **eSolar**, USA

12.30 Networking lunch

13.45 **CPV & Large Scale PV**

CPV power plants are quick to roll out and provide utilities with an option to boost grid connected power supplies where they are most needed. CPV systems are designed to track the sun throughout the day in order to capture the maximum amount of sunlight. Both systems have excellent potential for large-scale solar power generation. This session will bring together market pioneers to share their experiences in commercial deployments of grid connected PV and concentrated PV plants.

Overview of the Global CPV Market

- ▶ Overview of the global CPV market
- ▶ Field experience of Concentrix CPV plants
- ▶ Assessing the challenges of rolling out CPV plants in the region

Hansjorg Lerchenmuller, *Chief Executive Officer*, **Concentrix Solar**, Germany

Case Study: Commercial Deployment of CPV Technology in Spain

- ▶ What is the current state of project development?
- ▶ Identifying the challenges faced during project development
- ▶ How barriers were overcome

Pedro Banda, *General Director*, **ISFOC – Institute of Concentrated Photovoltaic Systems**, Spain

15.00 Networking break

15.30 KAUST Project, First Grid-Connected PV Power Plant in Saudi Arabia

Abdulhadi Al-Mureeh, *Business Development Director*, **National Solar Systems**, Saudi Arabia

Case Study: Largest Solar Photovoltaic Power Plant in North America

- ▶ Experiences of large scale power plant development in desert climates

Peter Ascenbrenner, *Vice President, Sales & Marketing*, **SunPower**, USA

17.00 Close of conference

Agenda correct at time of design – please refer to the website for updates.

SolarGlobalSeries

This event is the 6th edition in the **Solar Global Series**. This series is an annual calendar of events covering the range of solar technologies and focusing on different sector developments such as solar power generation, solar architecture and solar investment.

The series provides an excellent platform to do business with solar industry leaders around the world and develop your business. These events have an excellent track record of attracting senior representatives from the whole solar value chain.

Pre-Conference Training Course Solar Technology and Markets

Introduction and Fundamentals for Non-engineers



A 1-day primer for non-engineers

5 May 2009 • Dubai

Course objectives

Whether you are new to the industry or simply want to refresh and update your knowledge, this one-day training course will ensure you are up-to-speed with the key, fundamental aspects of the Solar energy industry. You will learn about the different applications and technologies for harnessing the sun's energy, including both photovoltaics and solar thermal. These will be placed in their relevant business context both within the energy market as a whole and by considering the commercial, economic and regulatory factors affecting both demand and supply. You can use the course as a self-contained session or as an opportunity to gain an understanding and confidence which will help you gain most benefit from the Gulf Solar Expo taking place on the two days following.

AGENDA DETAILS

Key concepts in understanding Solar

- ▶ Jargon-buster: introducing some of the key terminology and concepts that you should know and which provide a basis for the following discussions.
- ▶ Fundamentals of Solar Radiation: quantifying and understanding limiting factors on the energy available.
- ▶ Solar energy usage today: applications in electricity, heating/cooling, light & water.
- ▶ Opportunities and challenges in providing on- vs. off-grid energy.

Photovoltaic (PV) Solar

- ▶ How solar cells work: the photovoltaic effect, PV materials, powers and efficiencies.
- ▶ PV cells, modules and systems, including BIPV and PV concentrators.
- ▶ Supply-side issues: silicon supply and technology, wafers vs. thin-films, new materials.
- ▶ Case studies and examples.

Solar Thermal

- ▶ Low vs. High-temperature solar thermal.
- ▶ Concentrating Solar Power (CSP): linear, dish and tower solar-driven engines.
- ▶ Thermal Energy Storage mechanisms: smoothing out supply to the grid.
- ▶ Other solar thermal technologies: solar chimneys and ocean thermal energy conversion (OTEC)
- ▶ Case studies and examples

The Solar Market: Factors and Futures

- ▶ Solar Market Drivers: the key competitive, regulatory and social factors influencing the markets for solar energy.
- ▶ Key market trends and indicators.
- ▶ Emerging opportunities and technologies: including thermovoltaics, photochemical and space solar.

Style

Please note that this course will be run in an informal manner which allows and encourages time for discussion and questions, ensuring that participants get the most out of the day.

Course Timetable:

08.30 Registration & Coffee

09.00 Start of Course

17.30 Close of Course

Forthcoming Events

**SolarInnovation
& Investment
ASIA**

Co-located with AsiaSolar - the most influential solar PV exhibition in Asia
Shanghai, China • 31 March-1 April 2009

ThinFilmSolar

Driving the thin film movement forward
San Francisco, USA • 28-29 April 2009

**SolarInnovation
& Investment**

The meeting place for technology and finance
London, UK • June 2009

Media Partners:



Green Power Conferences consistently work in strategic partnership with industry leading organisations and trade publications. Our international and targeted marketing campaigns ensure excellent marketing exposure for our partners.

If you would like to partner with us, please contact ryan.winchester@greenpowerconferences.com

**GreenPower™
conferences**

Green Power Conferences was established in 2003 by a team of professional, environmentally aware event experts and were the first to offer professionally organised events focusing on the sustainability sector. Over the last five years, we have welcomed over 8000 delegates from 82 countries and built a global database of 262,000+ contacts. Our expertise lies in producing high quality, interactive conferences that provide ample networking opportunities for delegates and partners alike. Green Power Conferences offsets the impacts of its commercial activities towards renewable energy projects.

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	EARLY BIRD 1 <i>Book Before 20 February 2009</i>	EARLY BIRD 2 <i>Book Before 20 March 2009</i>	STANDARD PRICE
Conference only	<input type="checkbox"/> US\$1599.00	<input type="checkbox"/> US\$1799.00	<input type="checkbox"/> US\$1999.00
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Conference and Training Course	<input type="checkbox"/> US\$2239.00	<input type="checkbox"/> US\$2519.00	<input type="checkbox"/> US\$2799.00
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Terms & Conditions

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Cancellations: If you cancel before 17 April 2009, you will receive a refund less US\$300 administration charge. We regret that no cancellations can be accepted after this date. Substitutions are welcome at any time.

Content: It may be necessary for reasons beyond the control of the organisers to alter the content and timing of the agenda or the identity of the speakers.

Data Protection: The personal information provided by you on this brochure will be held on a database. Sometimes your details may be made available to partner companies for marketing purposes. If you do not wish your details to be used for this purpose, please tick here

Venue

Venue to be confirmed

Registered delegates will be sent suggested accommodation details.