



# CONCENTRATING SOLAR THERMAL POWER 2009

*Two-day conference preceded by Photovoltaics Summit 2009,  
featuring the latest developments and challenges in the CSP market*

**Attendees will receive strategic insights from:**

Abengoa Solar  
APS  
Ausra  
BrightSource Energy  
California Public Utilities Commission  
Chadbourne & Parke LLP  
Ceert  
Emerging Energy Research  
Ernst & Young  
Los Angeles Department of Water and Power  
Milbank, Tweed, Hadley & McCloy LLP

Navigant  
NV Energy  
Orrick  
Sandia National Laboratories  
Skyfuel  
Solar Millenium  
SolarReserve  
Starpoint Solar  
Stirling Energy Systems  
Terrafore Inc  
US Renewables Group

**early bird registration offer**

**Book before April 15, 2009 and  
save 20% off the conference fee!**

**Online:** [www.cstpower-conference.com](http://www.cstpower-conference.com)

**Tel:** +1 207 781 9618

**Email:** [brian.santos@pira-international.com](mailto:brian.santos@pira-international.com)

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**terrafore**

- Get updated on the latest market developments within the concentrating solar thermal power sector
- Hear from leading renewable power purchasers, including **APS** and **NV Energy**, on current and future CSP projects, challenges, expectations and perspectives of concentrating solar technologies
- Obtain expert insight from leading financiers and advisors on strategies for financing CSP projects and ventures
- Receive updates and insight from leading concentrating solar power developers, including **SolarReserve**, **AUSRA**, **Abengoa Solar** and **BrightSource Energy**
- Determine solutions for CSP site planning challenges
- Understand the latest technical developments with presentations from **Stirling Energy Systems**, **Sandia National Laboratories**, **Solar Millennium**, **Skyfuel** and **Terrafore**
- Build valuable relationships and network with key players in the industry

## PHOTOVOLTAICS SUMMIT 2009

June 1 – 3, 2009, Hotel Kabuki, San Francisco, CA, US

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



Building on the success of the 2008 edition, IntertechPira is pleased to announce the 4<sup>th</sup> annual **Photovoltaics Summit**.

Co-Chaired by Dr Jean Posbic, Director of Projects of **BP Solar**

and Dr Tom Surek, PV Consultant and former PV Program Manager of **NREL**, this year's program will provide a versatile examination of the current PV market and offer viable solutions from industry leaders. Derived from real case studies, conference sessions will focus on the latest government initiatives including policy changes and the role of utilities, global market and economic trends, technology updates within the manufacturing and materials sectors, overviews of current solar thermal and concentrated solar power applications and thin film and organic PV technical challenges and end-user perspectives. The 2009 program will also feature a complete analysis for venture capitalist investment and financing opportunities. With alternative energy on the rise, this conference provides an exclusive platform for anyone interested in learning how the US market is ready to move forward with the times.

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

## PHOTOVOLTAICS SUMMIT EUROPE 2009

30 June – 2 July 2009, Crowne Plaza Rome St Peter's Hotel, Rome, Italy



Following the success of previous photovoltaics events in the US, IntertechPira is now bringing you the first **Photovoltaics Summit Europe** as June 2009 becomes PV Month across our conference

event platform. Taking place in the beautiful, historical city of Rome on 30 June – 2 July 2009, this event will take stock of recent changes in PV markets across Europe, evaluate markets with in-depth expert analysis, and consider present and future investment trends. With a unique blend of market and technology focussed content, the summit will also look at key technological developments across silicon, thin film, and organic PV. The Italian setting will provide a great opportunity to meet key players from the rapidly expanding Italian solar energy market as well as other European companies. **Photovoltaics Summit Europe 2009** will follow our proven event formula and bring a fresh event to a new audience in Europe.

For more information, please visit [www.pvsummiteu.com](http://www.pvsummiteu.com).

**Booking for multiple events gives you a significant discount and registrations are transferable to team members. Contact Brian Santos at +1 207 781 9618 or [brian.santos@pira-international.com](mailto:brian.santos@pira-international.com) for complete promotional details.**

## about the conference

The concentrating solar power sector is set for tremendous growth. Primary forces that are establishing concentrating solar thermal power as an attractive renewable energy resource include 70% growth of total energy demand by 2025, high state renewable portfolio standards and goals, which require that a portion of total energy generated be derived from renewable resources such as hydro, solar, and wind, and requirements among states and electric utilities for cost-effective and efficient renewable energy resources. While many concentrating solar thermal technologies have been proven and available for years, escalating prices of oil and gas-derived energy resources are making concentrating solar thermal power cost competitive. Although concentrating solar power is approaching price parity with traditional energy sources, there are many technical, financial, and regulatory challenges that are limiting growth, especially issues pertaining to transmission, site planning and acquisition, funding and investment, energy storage, and other technical challenges. **Concentrating Solar Thermal Power 2009** is your opportunity to hear from industry experts on challenges facing the sector and practical strategies for moving forward.

As organizer of the highly attended 4<sup>th</sup> annual **Photovoltaics Summit** conference and exhibition, IntertechPira presents the 1<sup>st</sup> annual **Concentrating Solar Thermal Power 2009** conference, which offers an exciting line up of presentations from companies actively involved with CSP projects. Sessions include market trends and developments, financing and funding, updates and insights from CSP developers and technical and systems developments. With over 25 presentations and numerous networking functions, this technical and business conference is a must attend event for anyone involved in the concentrating solar thermal sector. **Check out the agenda on the following pages and register today!**

### Who should attend?

- Presidents, CEOs and CTOs
- Utility executives
- Materials suppliers
- Researchers
- Designers
- Project managers
- System integrators and installers
- Component and equipment manufacturers
- Commercial end users
- Venture capitalists and investment bankers
- Business development directors
- Sales and marketing executives

### Your event organizer

IntertechPira provides events, training, online information and publications across a wide range of contemporary issues and disruptive technologies affecting industry. Our 100% independent products are provided globally 24/7 and delivered by teams of independent experts at sites in Portland, ME, US and London, UK through 20 specialized industrial platforms. Our core competencies are information on: research and product development, globalization and new markets; production methods; regulatory and compliance.

### Exhibition and sponsorship opportunities

IntertechPira's 1<sup>st</sup> annual **Concentrated Solar Thermal Power Summit** offers a unique opportunity to showcase your products and services all while accessing the leaders in this industry. Depending on your goals and the level of sponsorship, a benefits package can be designed to target a narrow audience or a broad group and may include event recognition as well as publicity, marketing, promotional opportunities and complimentary event passes. For more information on our many exhibition opportunities that meet your business goals, please contact Brian Santos at: [brian.santos@pira-international.com](mailto:brian.santos@pira-international.com) or +1 207 781 9618.



## conference agenda

### Day one – Thursday, June 4, 2009

#### Market trends and developments

- 7:00** Registration and refreshments
- 8:00** Welcome and opening remarks from the Co-Chairs  
**Rainer Aringhoff, President**  
**SOLAR MILLENIUM**  
**Fred Morse, Senior Advisor, US Operations**  
**ABENGOA SOLAR**
- 8:15** **A view along the CSP value chain**  
• Competitive positioning along the value chain  
• Evolving business strategies  
• Forecasting the CSP market, winners and losers  
**Reese Tisdale, Research Director**  
**EMERGING ENERGY RESEARCH**
- 8:45** **Turning the sun into the solution**  
• The importance of dispatchable power  
• Are we addressing CO2 emissions or we just fulfilling the RPS  
• Concentrated solar power technology comparisons  
**Terry Murphy, President**  
**SOLARRESERVE**
- 9:15** **Cost comparisons for renewables: Where does concentrating solar stand?**  
**Don Murray, President and Chief Technology Officer**  
**STARPOINT SOLAR**
- 9:40** **California's renewable energy portfolio**  
**Paul Douglas, Supervisor, Renewable Procurement and Resource Planning**  
**CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)**
- 10:15** Morning refreshments and networking break
- 10:45** **Power purchaser panel**  
PANEL PRESENTATION  
• Current projects  
• CSP expectations for renewable portfolio  
• Role in financing capital improvements with 20% renewable mandates  
• Technology perspectives  
• Update on power purchase agreements (PPAs)  
**Antonia Bouchard, Renewable Energy Advisor**  
**APS, US**  
**Thomas Fair, Vice President, Renewable Energy**  
**NV ENERGY**  
**Mohammed Beshir**  
**LOS ANGELES DEPARTMENT OF WATER AND POWER**
- 12:00** Roundtable luncheon
- 1:00** **Legal and regulatory issues affecting renewable energy projects**  
• Recent developments in federal incentives, including tax credits, grants and loan guarantees  
• State law programs, including GHG legislation, transmission and RPS and power purchase terms  
**Edwin F Feo, Partner**  
**MILBANK, TWEED, HADLEY & MCCLOY LLP**

- 1:30** **Renewable energy transmission in California**  
**Rich Ferguson, RETI Coordinator**  
**CEERT**
- 2:00** **Lessons learned from Texas' wind power success: policy, markets and transmission**  
• Texas wind power provides valuable insights relevant to the future growth of CSP in markets worldwide  
• During the past 10 years, Texas wind power capacity grew 200-fold to 8,000 MW and, with proactive transmission planning through the landmark Competitive Renewable Energy Zone (CREZ) process, is expected to approach 20,000 MW by 2013  
• A similar pathway awaits CSP if thoughtful policies and favorable economics coexist  
**Mike Sloan, Founder and President**  
**VIRTUS ENERGY**
- 2:30** **Solar siting species spats**  
• Solar projects use significant acreage and use it intensively  
• Wildlife agencies are concerned, conservative, and inconsistent  
• Public land rights take time to obtain, while private land is subdivided so as to make land assemblage difficult  
• It will take a village of alphabet soup agencies, solar developers, and national environmental groups to make sense of our crazy quilt of regulation so that solar energy can be a growing source of our nation's energy  
**Peter H Weiner, Partner**  
**PAUL, HASTINGS, JANOFKY & WALKER LLP**
- 3:00** Afternoon refreshments and networking break

#### Financing and funding: Federal and state initiatives, seed capital and project finance

- 3:30** **Financing strategies for solar projects**  
• Effect of tax subsidies on the capital costs of solar projects  
• The tax equity market: Is it robust?  
• What has changed since the February economic stimulus bill?  
• New strategies post-stimulus and in the face of a weak market  
**Keith Martin, Partner**  
**CHADBOURNE & PARKE LLP**
- 4:00** **Impact of financial incentives on CSP plant economics**  
• Review of key current CSP financial incentives and their stability going forward  
• Demonstration/case study of how incentives impact a CSP plant's levelized cost of electricity (LCOE)  
**Jay Paidipati, Managing Consultant**  
**NAVIGANT**
- 4:30** **Investing in CSP: Clean tech investing and project finance**  
PANEL PRESENTATION  
• Startup funding  
• Effect of February stimulus bill  
• Investment tax credit update  
• Finance of energy assets and tax equity investments  
• Roles of banks in financing and investment in transmission  
**Stephen Mullenix, Managing Director**  
**US RENEWABLES GROUP**  
**Michael Bernier, Manager**  
**ERNST & YOUNG**  
**Thomas Glascock, Partner**  
**ORRICK**

- 5:15** **Networking reception**  
All speakers and delegates are invited to this relaxed and informal reception to network and discuss the day's proceedings

### Day two – Friday, June 5, 2009

- 7:00** Continental breakfast
- 8:00** Opening remarks from the Co-Chairs  
**Rainer Aringhoff, President**  
**SOLAR MILLENIUM**  
**Fred Morse, Senior Advisor, US Operations**  
**ABENGOA SOLAR**

#### Updates and insights from CSP developers

- 8:15** **Bob Fishman, President, CEO and Chairman**  
**AUSRA**  
KEYNOTE
- 8:45** **Developments at Abengoa Solar**  
**Fred Morse, Senior Advisor, US Operations**  
**ABENGOA SOLAR**
- 9:15** **Developments at Brightsource Energy**  
**Charlie Ricker, SVP of Business Development**  
**BRIGHTSOURCE ENERGY**
- 9:45** **Developments at eSolar**  
**Bill Gross, CEO**  
**ESOLAR**

#### Technical and systems developments

- 10:15** Morning refreshments and networking break
- 10:45** **Development experience with parabolic trough technologies**  
• Pricing  
• Permitting  
• Transmission  
• Parabolic trough and development  
**Rainer Aringhoff, President**  
**SOLAR MILLENIUM**
- 11:15** **State of the art and technical characteristics of power towers**  
• The state of the art in power tower technology  
• Design innovations since Solar Two  
• Load shifting, load boosting and load following  
• Are power towers financeable?  
**William Gould, Chief Technical Officer**  
**SOLARRESERVE**
- 11:45** **Providing grid scale solutions using the SES SunCatcher technology**  
• Recent systems and product improvements  
• Deployable at scale for grid-scale applications  
**Steve Cowman, Chief Executive Officer**  
**STIRLING ENERGY SYSTEMS**
- 12:15** Roundtable luncheon
- 1:15** **Thermal storage for CSP systems**  
• Characteristics of thermal storage  
• Molten salt systems  
• Alternative approaches  
• Emerging research and development on thermal storage  
**Thomas Mancini, Program Manager,**  
**Concentrating Solar Power**  
**SANDIA NATIONAL LABORATORIES**
- 1:45** **Developments with concentrating collectors**  
• Dramatic cost reductions in technology through new materials and design  
**Arnold Leitner, CEO**  
**SKYFUEL**

- 2:15** **Latent heat thermal energy storage for concentrating solar power**  
• Latent heat storage: Improves the LCOE by over 6% because of reduced size and improved thermodynamic efficiency over sensible heat storage systems  
• Developments update: Solve the heat discharge from TES to make latent heat storage in molten salt mixtures a promising choice for large and small CSPs  
• Terrafore Inc developments of PCM storage systems for CSP applications  
**Anoop Marthur, CTO**  
**TERRAFORE INC**
- 2:45** Closing remarks from the Co-Chairs
- 3:00** End of conference

### supporting association spotlight



**Photonics Online** is the leading online community serving the information needs of professionals in the optics and photonics industry as a one-stop site covering news, technical articles and updates on optics and photonics products. Visit [www.photonicsonline.com](http://www.photonicsonline.com) to join their community and discover where the future of photonics is found.



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# Concentrating Solar Thermal Power 2009

Thursday June 4 – Friday June 5, 2009  
Hotel Kabuki, San Francisco, CA, US  
www.cstpower-conference.com

## Venue

Hotel Kabuki is a premier Japanese-style hotel in San Francisco with a Western touch. With its prime Japantown location and unique blend of Eastern and Western influences, Hotel Kabuki offers a calm and serene ambiance with numerous amenities throughout the hotel. Recently renovated in 2007, the new décor elegantly balances the refined beauty of the East and West. Guests will experience a sense of place that reflects both historic and worldly Japantown as well as the pulse of San Francisco. For the business traveler, various meeting rooms with full business support, including high-speed internet is available.

## Accommodation

Speakers and delegates are responsible for booking their own travel and accommodation. A limited number of rooms have been reserved for speakers and delegates wishing to stay at the **Hotel Kabuki** at a special rate of **\$159** plus taxes. Rooms must be reserved no later than **May 10, 2009** to take advantage of this special rate. To book your accommodation, please contact the hotel directly at **+1 800 533 4567**. Please state that you're attending the IntertechPira **Concentrating Solar Thermal** conference to receive the preferential rate. Your conference registration confirmation will include a web link to facilitate your hotel reservation.



### Venue details:

Hotel Kabuki  
1625 Post Street  
San Francisco, CA US 94115  
Tel: +1 800 533 4567, Fax: +1 415 614 5498  
http://www.jdvhotels.com/hotels/kabuki/

## Conference fees

The conference fee includes entry to the conference sessions and the exhibition, conference proceedings CD, luncheons, receptions and refreshments. However, fees do not include delegate travel and accommodation. All credit card orders are processed at that day's E/E/\$ exchange rate at the time the transaction goes through. **PLEASE NOTE:** Credit card details will be necessary if your booking is made less than 10 days prior to the start of the conference, or if your invoice remains unpaid at the start of the event. Please see step 3 for further details. Where funds have not been received in advance, delegates will be required to supply credit card details at registration in order to gain entry to the conference. This credit card will be charged on-site and current exchange rates and bank charges will apply.

## Cancellations

Cancellations will be accepted and fees will be refunded (less 20% handling charge) only if made in writing and received ten working days before the event. Bookings cannot be cancelled or fees refunded thereafter. Substitutions may be made at any time, please notify Brian Santos at brian.santos@pira-international.com or +1 207 781 9618.

## Note

IntertechPira does not accept liability for any loss of or damage to the personal effects of delegates attending the conference. IntertechPira reserves the right to cancel, defer or modify the event proceedings without prior notice. If you have sent a booking to us and have not received confirmation, please contact Khaney Muyderman at khaney.muyderman@pira-international.com or +1 207 781 9614.

## Visas

Delegates requiring visas should request a visa invitation letter from IntertechPira at the time of registering for the event, ensuring sufficient time is left for applications to be completed. Delegates are then responsible for contacting the relevant/appropriate embassy themselves. IntertechPira can do nothing further to assist in this process.

Register now!

Book through **April 15, 2009** and save 20% on your registration!

- Phone the team: +1 207 781 9618
- Fax us the form: +1 207 781 2150
- Email us: brian.santos@pira-international.com
- Mail us: IntertechPira, 19 Northbrook Dr, Portland, ME US 04105
- Visit us online: www.cstpower-conference.com

# Concentrating Solar Thermal Power 2009 Conference Registration

## 1 Your details

Title:.....First Name:.....Last Name:.....

Organization:.....Position:.....

Company business:.....

Address:.....

.....

.....ZIP:.....

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## 2 Event options and fees

### Choose your conference booking option

34% off through March 20	20% off March 21 – April 15	15% off April 16 – May 15	Regular May 15 – June 4
\$989	\$1199	\$1279	\$1499

Group Discount <sup>1</sup>	contact us
Academic/Government <sup>2</sup>	\$349 <input type="checkbox"/>
Conference Proceedings (For those who cannot attend)	\$999 <input type="checkbox"/>
Tier 1 Exhibit Table (Exhibit table + delegate registration <sup>3</sup> )	\$2500 <input type="checkbox"/>
Tier 2 Exhibit Table (Exhibit table only <sup>3</sup> )	\$1500 <input type="checkbox"/>

1. Sign up 3 or more colleagues and SAVE \$200 on each registration. Contact Brian Santos at +1 207 781 9618 or brian.santos@pira-international.com

2. Academic rate for full-time students and teaching staff at universities only. Early bird offer does not apply. Government officials please provide ID.

3. For more information on our many exhibition and sponsorship opportunities that meet your business goals, please contact Brian Santos at +1 207 781 9618 or brian.santos@pira-international.com. **DISCOUNTS CANNOT BE USED IN COMBINATION**

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Cardholder name & address:.....

.....

Email address for credit card receipt:.....

Check/banker's draft (made payable to IntertechPira) ☐ Please invoice my company ☐

**Invoices cannot be issued without receipt of a purchase order number at the time of booking.**

### Banker's information for credit transfer payments

US Dollar A/C: CitiBank N.A.  
Swift Code: CITIUS33

Account No: 40710066  
ABA No: 021000089

Signature:.....Date:.....

## 4 How to book

**US:** IntertechPira, 19 Northbrook Drive, Portland, ME 04105, US

Tel: +1 207 781 9618 / Fax: +1 207 781 2150 / www.intertechpira.com

**Europe:** IntertechPira, Cleeve Road, Leatherhead, Surrey KT22 7RU, UK

Tel: +44 (0)1372 802262 / Fax: +44 (0)1372 802243 / www.intertechpira.com

### For further information on the conference please contact:

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