



SPG USA'15

SOLAR POWER GENERATION USA CONGRESS

4 & 5 February 2015, San Diego, USA

Confirmed Speakers For 2015 Include

- **Raimund Grube**, Principal Renewable Energy Sector, **Equilibrium Capital**
- **Camilo Patrignani**, CEO, **Greenwood Energy**
- **Edgar Arvizu**, Head of Power Markets & Strategy, **Gestamp Solar**
- **Dora Nakafuji**, Director of Renewable Energy Planning, **Hawaiian Electric**
- **Rex Stepp**, Leader, Renewable Energy Programme, **Arizona Public Service**
- **Wayne Mays**, Director of Engineering, **Iberdrola Renewables**
- **JC Shore**, CEO, **Circular Energy**
- **Nick Addivinola**, Corporate Development & M&A, **SunEdison**
- **Nader Jandaghi**, Director C&I, **EDF Renewable Energy**
- **Kevin Christy**, General Manager, North America, **SunEdison**
- **Dan Bedell**, Executive Vice President, **Principal Solar Inc.**
- **Bryan Banke**, Managing Director, Asset Management, **Renewable Energy Capital Trust**
- **Noah Eckert**, Co-Managing Director, Solar, **Baywa Re**
- **Tony Dorazio**, CEO, **OCI Solar**
- **Martin Hermann**, CEO, **8minutenergy**
- **Stanley Chin**, CEO, **Clean Focus**
- **Micah Myers**, SVP, Corporate Developer, **Clean Power Finance & Board of Directors, Solar Electric Power Association (SEPA)**
- **Catherine Helleux**, VP Structured Finance, **Société Générale**
- **Christopher Pih**, VP Investment Banking, **Bank of America Merrill Lynch**
- **Tom Tansy**, President, **SunSpec Alliance**
- **Geoff Klise**, Senior Technical Staff, **Sandia National Laboratories**
- **Craig Lewis**, Executive Director, **Clean Coalition**
- **Eric Schmitt**, VP Operations, **California ISO**
- **Stephen Poniatowicz**, COO, **Marina Energy**
- **Matt Lehrman**, Senior Associate, **Rocky Mountain Institute**
- **Oleg Popovsky**, Director, **SunEdison**
- **Stephen Mullennix**, VP Asset Management, **SolarReserve**
- **Elliot Hinds**, Partner, **Akin Gump Strauss Haer & Feld**
- **Bart Rupert**, Chief Management Officer, **Clean Energy Collective**
- **Dirk Michels**, Partner, **K&L Gates**
- **Laura Stern**, President, **Nautilus Solar Energy LLC**
- **Scott Brown**, CEO, **New Energy Capital Partners**
- **Samir Dube**, MD Development & Financing, **Heliovaas**
- **Bhaswar Chatterjee**, Head - Infrastructure & Energy, Americas, **Deutsche Bank**

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- **Adam Nicolopoulos**, President, **ADN Capital Investments**
- **Chad Sachs**, CEO, **Radian Generation**
- **Andrew Griffiths**, Senior Director Asset Management, **Recurrent Energy**
- **Charlie Kuffner**, COO, **Clean Power Group**
- **Joe Kastner**, VP Operations, **Radian Generation**
- **Sandeep Arora**, Asst Vice President, **LS Power**

Agenda at a Glance

Wednesday, 4 February 2015	Thursday, 5 February 2015
Development opportunities in US solar	Women in solar breakfast
The Utility V2.0	Optimizing operational solar
CEO lunch	Advanced solar financing
Speed geeking	Yieldco masterclass
Industry dialogue	The future of the industry
Wine-tasting reception	Creating industry standards

SPG USA Day 1 | Wednesday, 4 February 2015

08.30	Registration & networking
09.00	Chair's opening remarks
09.10	<p>OPENING ADDRESS: To infinity and beyond: Extending the reach of solar beyond traditional power generation</p> <p style="text-align: center;">Raimund Grube, Principal Renewable Energy Sector, Equilibrium Capital</p>
DEVELOPMENT OPPORTUNITIES IN US SOLAR	
09.30	<p>PANEL DISCUSSION: Identifying 'new' solar markets that will integrate seamlessly into current operations and achieve growth in the portfolio</p> <p><i>During this discussion leading solar developers will be guiding the discussion and sharing their expertise on how they have developed opportunities in new solar states. Have your questions ready to participate in the discussion and capitalize on this unmissable opportunity!</i></p> <ul style="list-style-type: none"> - Partnering with companies already operating in new solar states to gain experience with minimum risk - Creating a clear picture of market opportunities by acquiring operating projects in those states - Making the business case for growing operations in states lacking RPS standards – is it possible to develop without subsidies? - What the numbers say about practical applications from existing pilot studies: Florida, Georgia, New Mexico <p><u>Panellists:</u> Camilo Patrignani, CEO, Greenwood Energy Olee Joel Olsen, President, O2 Energies, Inc. Edgar Arvizu, Head of Power Markets & Strategy, Gestamp Solar Dora Nakafuji, Director of Renewable Energy Planning, Hawaiian Electric</p>
10.10	<p>'The Utility' V2.0: Adapting a utility-scale business model to effectively incorporate C&I projects and maximise returns</p> <ul style="list-style-type: none"> - Vertical integrating a C&I developer to ensure a matching of business models - Buying a portfolio of existing distributed generation projects <ul style="list-style-type: none"> o Ensuring that you have developed the internal capabilities to manage this portfolio from the get-go o Adapting your O&M strategy to include high-volumes of project additions - Best practice for approaching net-metering <p><u>Panellists:</u> Rex Stepp, Leader, Renewable Energy Programme, Arizona Public Service Wayne Mays, Director of Engineering, Iberdrola Renewables JC Shore, CEO, Circular Energy</p>
10.50	Morning networking break
11.20	<p>Overcoming the key challenges that will affect a company's ability to operate a C&I portfolio to capitalise on this new project pipeline</p> <ul style="list-style-type: none"> - Assessing the resource capabilities required to operate a distributed portfolio - Identifying the risk appetite of your financial investors – what are they comfortable with? - Managing a portfolio with significant size variation for maximum output and minimum additional expenditure - Working with utilities to manage partnerships for mutual benefit in the C&I space - Evaluating whether your management system capabilities are able to handle economies of scale and the addition of high-volumes of smaller projects

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	<p><u>Moderator:</u> Nick Addivola, Corporate Development & M&A, SunEdison</p> <p><u>Panellists:</u> Nader Jandaghi, Director C&I Solar, EDF Renewable Energy Kevin Christy, General Manager, North America, SunEdison</p>	
12.00	<p>Performing watertight due diligence and verifying project specs to get the best deal in solar investment</p> <ul style="list-style-type: none"> - Ensuring that technical contracts have the required performance guarantees and execution clauses - Making sure that the financials are in order to match with cashflow and IRR expectations - Examination of debt ratios: Expenditure vs. yield - A consolidated view of the risk matrix between stakeholders to determine specific risk allocation between stakeholders - Flipping operational projects: Seeking out investor profiles that suit the variance of project returns <p><u>Panellists:</u> Dan Bedell, Executive Vice President, Principal Solar Inc. Bryan Banke, Managing Director, Asset Management, Renewable Energy Capital Trust Noah Eckert, Chief Commercial Officer, Baywa Re</p>	
12.30	Networking lunch	<p>CEO luncheon</p> <p><i>Exclusively available to industry CEOs, this luncheon provides an opportunity to host and network with solar innovators from leading market players from the USA.</i></p>
INDUSTRY DIALOGUE		
14.00	<p>Hold ‘em or fold ‘em: Choosing the best option when price fluctuations significantly lower returns without compromising company business objectives</p> <p>CEO DIALOGUE: <i>Panellists for this session are exclusively industry CEOs gathered together to brainstorm solutions and provide concrete feedback based on experience on best practice for dealing with price fluctuations. Take away best practice and key actions to incorporate into your ongoing business strategy.</i></p> <ul style="list-style-type: none"> - Actions following the newly announced import tariff to prevent a fatal impact on the bankability of projects already in the pipeline <ul style="list-style-type: none"> o Restructuring project finance to incorporate price rises o Determining whether additional equity is required - Working with your O&M service provider to structure a kW/hour price that fits your PPA price and project margins whilst still maintaining operational excellence - Uncovering the bankability of saturated solar markets and understanding what utilities can realistically deliver on PPA prices - Drawing a line in the sand: How low returns can get before margins are no longer feasible according to company mandated ROI <ul style="list-style-type: none"> o Flipping projects to investors that seek a lower ROI <p><u>Panellists:</u> Tony Dorazio, CEO, OCI Solar Martin Hermann, CEO, 8minutenergy Stanley Chin, CEO, Clean Focus</p>	
14.40	<p>What does the future hold? Assessing the key reasons why storage has not been integrated at an industry-wide level and strategies for overcoming these challenges</p> <ul style="list-style-type: none"> - Evaluating the economics of storage and where integration of hybrid systems make sense <ul style="list-style-type: none"> o Early lessons in integrating storage on a utility and commercial-scale 	

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	<ul style="list-style-type: none"> - The promises of the next generation of solar storage to improve efficiency of grid operations <p><u>Panellists:</u> Oleg Popovsky, Director, SunEdison Stephen Mullennix, VP Asset Management, SolarReserve Elliot Hinds, Partner, Akin Gump Strauss Haer & Feld</p>
15.20	Afternoon networking break
IS THERE LIFE WITHOUT ITC?	
16.20	<p>FIRESIDE CHAT: Addressing the elephant in the room: Ensuring the bankability of solar after subsidies falls away</p> <p><i>This session will take the form of a C-level address led by questions from an interviewer. This session will run without a presentation and will be a frank and open discussion about the future of financing in the industry without subsidies. This will give valuable insights to consider in developing business strategy.</i></p> <ul style="list-style-type: none"> - Making solar more competitive by reducing overall project cost per kW/hour to attract more debt investment from traditional market players <ul style="list-style-type: none"> o Vertically integrating subsidiaries to drive the cost of project development down and in turn increase ROI - Are the broader investment community comfortable with the asset base to the extent that tax equity will continue even with a greatly reduced tax credit? <ul style="list-style-type: none"> o Proactive measures to ensuring that solar development does not come to a stand-still after the ITC tax credit ends in 2016 - As the economy continues to grow, will rising interest rates have a catastrophic effect on the growth profile of the solar market? <p><u>Interviewer:</u> Shayle Kann, Senior Vice President, Research, Green Tech Media</p> <p><u>Interviewees:</u> Micah Myers, SVP, Corporate Developer, Clean Power Finance & Board of Directors, Solar Electric Power Association (SEPA) Catherine Helleux, VP Structured Finance, Société Générale Christopher Pih, VP Investment Banking, Bank of America Merrill Lynch</p>
17.00	<p>Chair's round-up highlighting the key action points</p> <ul style="list-style-type: none"> - Summary and presentation of the actions from each session, key lessons and emerging best practice - Emerging themes and points to note for future discussion
17.10	<p>SPG innovators wine-tasting & cocktail reception</p> <p><i>Join leading innovators in the industry who will showcase their latest ventures while enjoying a relaxing wind-down after the day's proceedings</i></p>

SPG USA Day 2 | Thursday, 5 February 2015

09.30	Chair's opening remarks	<p>09.30 – 10.40 Women in Solar Breakfast</p> <p><i>Join us for a breakfast networking event for the opportunity to meet women pioneers who are advancing the solar energy industry.</i></p>
OPTIMIZING OPERATIONAL SOLAR		
09.40	Building robust solar operations to ensure performance obligations are achieved, downtime is	

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	<p>minimized and costs are effectively managed</p> <ul style="list-style-type: none"> - Formulate effective preventative maintenance strategies to guarantee minimum operations disruption through efficient use of trend analysis <ul style="list-style-type: none"> o Best practice for early identification of this strategy to manage financier expectations: Costs vs. ROI - Creating a focus on real-time monitoring and efficient alert-response when establishing a comprehensive operations centre <ul style="list-style-type: none"> o What to do if vertical integration is not possible? - Best practice for overcoming supplier and contractor bankruptcy with minimum operations disruption and capital outlay <p>Joe Kastner, VP Operations, Radian Generation</p>
10.00	<p>PANEL DISCUSSION: Managing the complexities of a geographically dispersed solar portfolio to enable effective O&M execution</p> <p><i>PANEL DISCUSSION: The group of panellists are gathered together to brainstorm solutions and provide concrete feedback based on experience for management of a dispersed portfolio. Take away best practice and key actions to incorporate into your development strategy.</i></p> <ul style="list-style-type: none"> - Working with your business model to integrate regional operations with minimal expenditure <ul style="list-style-type: none"> o Partnering with companies active in the region to develop greenfields projects with a risk profile that is acceptable to project financiers o Cost-benefit analysis of vertically integrate regional operations into your existing business model o Capabilities needed to incorporating a management role in your existing profile to oversee regional operations with a sub-contracted service - Determine strategy to achieve operational efficiency with minimal downtime for failures according to cost, scale and location of the project <p><u>Panellists:</u> Chad Sachs, CEO, Radian Generation Andrew Griffiths, Senior Director Asset Management, Recurrent Energy Charlie Kuffner, COO, Clean Power Group</p>
10.40	Morning networking break
ADVANCED SOLAR FINANCING	
11.10	<p>INVESTOR PERSPECTIVES: Where will the capital come from? Delivering the ROI required by specific investor profiles to secure long-term financing</p> <ul style="list-style-type: none"> - Building a clear picture of the risk appetite of different profiles of investor - Understanding the current return expectations of different classes of investors - How the entrance of new market investors will ultimately shape the rapid development of the secondary market - Addressing concerns of the dominance of tax investment in the current solar market and the sustainability of this financing pool without subsidies <p><u>Moderator:</u> Laura Stern, President, Nautilus Solar Energy LLC</p> <p><u>Panellists:</u> Scott Brown, CEO, New Energy Capital Partners Samir Dube, MD Development & Financing, Heliovaas Bhaswar Chatterjee, Head - Infrastructure & Energy, Americas, Deutsche Bank Adam Nicolopoulos, President, ADN Capital Investments</p>

11.50	<p>THINK TANK: Solar securitization roadmap for developers: Understanding the requirements to get financing for small-utility scale projects</p> <p><i>Lead by an experienced industry thought-leader, this session will brainstorm solutions for addressing the problem at a practical level. The thought-leader will engage delegate discussion to reach a conclusion based on shared, collective knowledge.</i></p> <ul style="list-style-type: none"> - Integrating standardized contracts into developer business development to ensure that due diligence can be effectively executed to meet financier requirements <ul style="list-style-type: none"> o Allocating specific risk efficiently to allow investors to make investment decisions without delay - Evaluating project cash flow by formulating a credit rating for smaller project off-takers - Benefiting from a specification of technological risk as an industry standard and the effect that this will have on ensuring credit ratings <ul style="list-style-type: none"> o Pre-approving technology from specific suppliers to ensure financeability - Harmonizing securitization requirements with tax equity structures to ensure that cash flow requirements are met and equity investors get medium-term tax benefits (5 year guarantee) <p><u>Moderator: Dirk Michels, Partner, K&L Gates</u></p>	
12.20	<p>The Clean Energy Collective win-win: Incorporating community solar into a utility portfolio whilst minimizing capital expenditure and retaining control of distributed generation</p> <ul style="list-style-type: none"> - The business case for CEC community solar projects <ul style="list-style-type: none"> o Independent financing that does not rely on the subsidies or rebates ensuring the long-term bankability of the solar array o Developing a partnership with minimum obligations on the utility for the development and operation of the array o Guaranteeing minimal OPEX costs with a 50-year warranty period for the O&M of the array - The benefits of keeping community solar in front of the meter <ul style="list-style-type: none"> o Controlling community self-generation by owning the asset which ultimately minimizes competition through solar leases and typical behind-the-meter generation o Meeting customer demand for renewable energy and meeting RPS standards by incorporating community solar into an existing portfolio <p><u>Bart Rupert, Chief Management Officer, Clean Energy Collective</u></p>	
12.40	Networking lunch	<p>YIELDCO MASTERCLASS: Practical application of the pitfalls and opportunities from yieldcos for current and future projects</p> <ul style="list-style-type: none"> - Parallel application of best practice from other traditional energy markets ensuring that ROI and growth are sustainable - Assessing the ability of the solar industry to grow sufficiently to ensure continued increase in dividends required to increase the pool of investors and guarantee increased returns year-on-year - Typical ROI expected by investors and meeting expectations with ever decreasing margins - Vertical integration of yieldcos within existing market players to maximize benefit of capital access
THE FINAL HURDLES		
13.50	<p>Factors to consider in rate design to maximize value on both sides of the grid in the future of distributed generation portfolio</p> <ul style="list-style-type: none"> - Assessing the shortcomings of current rate design and how to incorporate distributed generation into a utility portfolio without compromising the value of solar - The push-and-pull between solar developers and environmental advocates: Delivering value for 	

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	<p>customers that captures benefits available to the grid as a whole</p> <ul style="list-style-type: none"> - Identifying the components which affect the delivery of rate design for both utility and customer <ul style="list-style-type: none"> o External factors which impact rates, including environmental and social attributes o The temporal continuum which accounts for when consumption occurs o Location-specific factors considering where consumption occurs in order to reduce congestion and provide additional value <p>Matt Lehrman, Senior Associate, Rocky Mountain Institute</p>
14.10	<p>Interconnection too fast, too furious – Securing grid connection for future projects to ensure sustainability of solar development when the grid cannot keep up</p> <ul style="list-style-type: none"> - Understanding why interconnection is everyone’s problem: how long-term viability of projects on an unstable grid will ultimate cost everyone money - The ISO plan to regulate the grid to keep up with distributed system connection and how this affects connection time and cost <ul style="list-style-type: none"> o The effect of regulation changes on project margins o Assessing the commercial potential of microgrids - ‘Shooting the duck’: proactive approach to grid stability by integrating storage solutions and encouraging wide-scale commercial use <p><u>Panellists:</u> Craig Lewis, Executive Director, Clean Coalition Eric Schmitt, VP Operations, California ISO Stephen Poniatowicz, COO, Marina Energy Sandeep Arora, Asst Vice President, LS Power</p>
STANDARDIZATION OF A MATURING MARKET	
14.50	<p>OUTCOME: Streamline processes and maximize output with a set of industry-wide standards which define O&M procedures and provide collective solutions to fault correction</p> <p><i>JOINT PRESENTATION: Session will be run as a panel debate exploring the depth of the suggested topic. Each speaker will begin with a short introductory statement proposing in favour of the outcome. After opening remarks, the moderator will ask the set of defined questions below. Throughout the debate, questions will be fielded from the audience at the moderator’s discretion. The debate will conclude with key action points from each speaker.</i></p> <ul style="list-style-type: none"> - What steps are required to reach consensus on the minimum standards required for useful implementation across the industry ultimately reducing OPEX across the board? - What level of accountability is required to ensure that these can be integrated within company-level processes and procedures? - How can the industry promoting an operations-focused culture which prioritizes cost reduction from the get-go? - Identifying the key-steps necessary to promote longevity in the market by providing a database of operational information enabling players to find solutions to key industry challenges? <ul style="list-style-type: none"> o Key points of consideration: OEM bankruptcy and spare part availability, preventative maintenance strategies and making sense of big data - In the absence of regulation, how can supplier and developer buy-in be guaranteed? <p>Tom Tansy, President, SunSpec Alliance Geoff Klise, Senior Technical Staff, Sandia National Laboratories</p>
15.20	<p>Conference round-up: The next wave of solar – 2015 and beyond!</p> <ul style="list-style-type: none"> - Summary and presentation of the actions from each session, key lessons and emerging best practice - Key action points for discussion: <ul style="list-style-type: none"> o Where will the focus be for development in 2015/6?

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	○ Show me the money: What is the next big market opportunity for solar players?
15.40	End of congress

Board of Advisors

SPG USA 2015 was created in collaboration with leading experts in the solar industry. It is our great pleasure to introduce you to our advisory board.

- **Laura Stern**, President, **Nautilus Solar**
- **Tony Dorazio**, CEO, **OCI Solar**
- **Craig Lewis**, Executive Director, **Clean Coalition**
- **Charlie Kuffner**, Principal, **Clean Energy Group**
- **Elliot Hinds**, Partner, **Akin Gump**
- **Oleg Popovsky**, Director, **SunEdison**
- **Lee Barken**, Chief Community Officer, **CollectiveSun**
- **Adam Nicolopoulos**, President, **ADN Capital Ventures**
- **Bryan Banke**, MD Asset Management, **Renewable Energy Capital Trust**

About SPG USA 2015

Gone are the days of utility scale solar! With the big project pipelines drying up, the pressure is on power producers to make solar viable for the foreseeable future. Developers need to rev up portfolios to see continued returns and sustainable growth in the industry moving forward.

This isn't going to be easy! Projects are scaling down and prices are going up, thriving in the US market depends on the tenacity to capture the new market opportunities. As if this isn't enough, PPA prices are at an all-time low making margins razor thin with little room for movement.

SPG USA takes a fresh look at the pressures of the US solar industry, giving you a real perspective of how to capture the BIG money-making opportunities.

Join strategic discussion on:

- Increasing revenue by diversifying your portfolio: Capturing the C&I market
- How to flip a project: Know what to look for when buying or selling an asset
- Building your project pipeline in new solar states
- Maximize margins by optimizing operations of your portfolio

In addition to focused strategic discussion, find out real applications around the industry buzz:

- The economics of integrating solar-storage hybrids
- Long-term sustainability of yieldcos
- Will an industry-wide set of standards ever truly happen?

SPG USA Exhibitors Include



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