



6TH ANNUAL

SOLAR & STORAGE FINANCE USA

29 - 30 October 2019 | New York City, USA

www.TerawattsAndTrillions.com

AGENDA

DAY ONE – 29 OCTOBER 2019

08:30 - 09:00 **REGISTRATION AND REFRESHMENTS**

09:00 **OPENING REMARKS FROM THE CHAIR**

Jon Powers, Co-Founder & President, **Clean Capital**

09:10 - 09:35 **PRESENTATION: WELCOME FROM NEW YORK STATE**

New York State is leading the charge in the move to transition its energy mix into a low carbon era. With the recent passage of the Climate Leadership and Community Protection Act, a 70% target for solar as a source of power generation, several successful RFPs, this session will look at why the State of New York is one of the best places to develop projects.

Alicia Barton, President & CEO, **New York State Energy Research and Development Authority (NYSERDA)**

09:35 - 10:25 **PANEL DISCUSSION: TERAWATTS AND TRILLIONS**

Trillions of dollars are needed if we are to hit our climate change mitigation goals and the power sector is undergoing a fundamental shift as generation becomes more decentralized, storage matures and comes down in cost and more technologies hit the sector. These factors create a huge opportunity for investors but the industry needs to provide comfort that the risks are low to attract more institutional funds. This session is designed to explore:

- Returns from solar and storage – an analysis of what to expect and how to keep them high
- Asset owners speak back: solar, solar+storage and storage as asset classes – how do they compare with other infrastructure investments?
- Thoughts about how the industry can attract long term capital to the market
- How to increase deal value and project size – examples from recent deals
- How effective has securitization been at attracting investors with low risk appetites?
- Macro issues affecting investor risk appetite: economics, politics and climate change
- The impact of oil and gas company acquisitions in the market: what might their next steps be?

MODERATOR: Jon Powers, Co-Founder & President, **Clean Capital**

Rael McNally, Director - Real Assets - Infrastructure - Renewable Power, **BlackRock Alternative Investments**

Mona E. Dajani, Global Head of Energy and Infrastructure, **Pillsbury Winthrop Shaw Pittman LLP**

Simms Duncan, Senior Director, Project Finance and M&A, **Lightsource BP**

10:25 - 11:00 **PRESENTATIONS: DISPATCHABLE SOLAR ON THE RISE - SOLAR & STORAGE OUTLOOK**

The future of solar and storage industries are intertwined, as dispatchable solar becomes a new normal. In 2018, the U.S. added nearly 10GW of solar and 300MW of storage. This year, almost 2GW of solar-plus-storage projects have been announced to be delivered over the next four years. Developers seek to deliver both technologies, and investors are trying to understand the risks involved. More than a trend restricted to sunny states with arbitrage opportunities, join to hear BloombergNEF's take on:

- U.S. solar market update: how new capacity and price declines will fare as tariffs distort supply
- How solar-plus-storage contracts are structured to value different services, and how these contracts are evolving
- With a new solar-plus-storage contract announced each month, who are the players to watch?
- The changing landscape of solar development – portfolio acquisitions, and new market entrants
- What are the drivers for the drop in energy storage costs?
- What is the technology evolution underlying the growth in energy storage?
- Why is there a dominance of lithium-ion, and will that change?

Tara Narayanan, North American Solar Analyst, **BLOOMBERG NEF**

Yayoi Sekine, Energy Storage Lead, **BLOOMBERG NEF**

11:00 - 11:30 **NETWORKING REFRESHMENT BREAK**

11:30-11:50 **PRESENTATION: ESTABLISHING BANKABILITY FOR STORAGE AND SOLAR+STORAGE PRODUCTS**

- Increasing confidence levels for bankers
- Finance structures for storage/solar+storage
- Providing transparent KPIs and operational metrics that deliver on the results financiers are modelling
- Risk scores which can analyse the risk characteristics of a storage project giving a quantitative metric for a specific project

Enrico Ladendorf, Managing Director and Co-Founder, **Pason Power**

11:50 – 12:10 **PRESENTATION: ENCOURAGING ADDITIONAL FINANCING INTO THE 200KW-10 MW SIZE PROJECTS FOR C&I AND URBAN ROOFTOP COMMUNITY SOLAR**

Robert Goldstein, Chairman and CEO, Unique Surety and Insurance Services LLC

STREAM ONE

12:10 - 13:00 **PANEL DISCUSSION: EVOLUTION IN CAPITAL: DEBT, EQUITY AND TAX EQUITY**

This session will look at how traditional capital providers to the sector are evolving their offerings to deal with increased complexity in project design. We will look at co-located solar and storage case studies to ask whether the economics are there yet and what project developers can do to work more effectively with partners.

- How to attract capital to a project – what do you need to do to work with providers in the future?
- How is the project finance market evolving and how are debt providers working on more complicated project designs?
- How does the cost of capital compare for solar, co-located solar and storage, and stand-alone storage?
- Are we in a lithium bubble or are capital providers ready for other storage technologies?
- How are lenders dealing with complicated capital stacks?

MODERATOR: Fleming Ray, Manager, Solar + Storage, DNV GL

Ryan Hamilton, Senior Advisor, Javelin Capital -

Benjamin Krause, Partner, 3i Group plc

Dan Cary, SVP, Green Investment Group

Jeff Just, Co-Founder & CEO, Radiant REIT

Jason Barrett, Vice President of Structured Finance & Investments, GAF

James Pool, Director of Finance, Adani

STREAM TWO

12:10 - 13:00 **PANEL DISCUSSION: 100% RENEWABLES: MOVING FROM TALK TO ACTION**

This afternoon session will feature a deep dive into how we can drive uptake for renewables at a state level, a city level and through corporate energy buying.

- The interplay between Federal policy-making and state-level policy-making in driving the market forward
 - Review of states with a 100% renewable target – is the infrastructure and the capital there to support it?
 - From cities to corporates – how can you work with large energy users?
 - Did we reach the 6.4 GW* highs from the corporate market predicted in 2018 – what can the industry do to improve this?
 - What new mechanisms are available to hedge risk? What is the relationship between generation, energy buyers and networks now?
 - What is the size of the corporate PPA market in 2020?
- MODERATOR: Stacey Hughes**, Co-Founder, SunLight General Capital
Christine Weydig, Director, Office of Environmental and Energy Programs, Port Authority of New York and New Jersey
Erick Ford, Executive Director, NJ Energy Coalition
Susanne DesRoches, Deputy Director, Infrastructure and Energy, New York City Mayor's Office of Resiliency
Upendra J. Chivukula, Commissioner, N.J. Board of Public Utilities

13:00 - 14:30 LUNCH BREAK AND NETWORKING

14:30 - 14:50 **PRESENTATION: LEVELISED COST OF ENERGY WITH ENERGY STORAGE**

- Comparison of project costs with traditional fuels
- Calculating the cost – what do you need to bear in mind?
- In terms of cost of energy; how long will it take to get the economics to work in different use cases?

Dr. Gary Dorris, CEO & Co-Founder, Ascend Analytics

14:50 - 15:15 **PANEL DISCUSSION: SHOULD LARGE ENERGY BUYERS INVEST IN STORAGE AND SOLAR PV NOW?**

- Installation Vs. procurement of energy
- Why install anything now if the costs are coming down?
- What are the possible revenue streams, expected generation and payback periods?
- Legal issues between tenants and landlords
- Matching with cities' plans for renewable energy and storage
- How should you value power moving forward?
- Which PPA structure should you go for: standard or synthetic?

Jessica Bailey, CEO & Co-founder, Greenworks Lending

Brendan Neagle, EVP Project Finance, Borrego Solar

15:15 - 16:00 **PANEL DISCUSSION: HOW TO GET THE BEST VALUE FROM YOUR PPAS**

This session will outline how the PPA market is evolving and how companies have negotiated the best value from their PPA.

- How to work with different offtakers coming to the market – understanding their needs and winning business
- How successful generators are changing their offerings and structuring deals
- Hedging merchant risk
- Allocating balancing risk in the right way between stakeholders
- Overview of strengths and weaknesses of different markets
- Can the market sustain lower cost PPAs?

MODERATOR: Daniel Lynch, Counsel, Akin Gump Strauss Hauer & Feld LLP

Luke Rogers, Director of Business Development, Birdseye Energy

Evan Ture, Sales and Marketing, Indie Energy

14:30 - 15:15 **QUICK FIRE PRESENTATIONS & Q&A: PROJECT CASE STUDIES**

- How is an abundance of capital affecting developers?
- And... what is the cost of this capital?
- How diverse are the sources of capital?
- Locations emerging as hotspots
- Project design – focus on solar + storage
- What's driving the buzz behind storage?
- How are developers dealing with complicated revenue options?
- Utility scale Vs. C&I Vs. large scale residential
- Success themes – what's driving success in 2019?

MODERATOR: Izzet Bensusan, Managing Partner & Founder, Captona Partners

Ryan Donnelly, Director, EDF Renewable Energy

Jacqueline DeRosa, Vice President - Battery Energy Storage Systems, Ameresco

Jean Trudel, Chief Investment and Development Officer, Innergex

15:15 - 16:30 **PANEL DISCUSSION: UNDER NEW OWNERSHIP?**

This panel will give the audience an update on assets changing hands, and the M&A landscape in the USA. We will look at where capital and buyers are coming from, how to win investment and how the trends 2019 has presented might continue. Discussion points include:

- Secondary markets – deal flow in 2019, are we trading on a project-to-project basis or portfolios and companies?
- How have successful deals been structured? What elements helped?
- What do asset owners need to do to get the best deal?
- How will traditional energy companies approach the market in the future? (utilities, oil and gas)
- Do investors see oil and gas companies as competitors, capital providers or partners?
- What are we seeing in terms of valuations?
- How are O&M and Technical Asset Managers supporting deal values?

<p>Holly Christie, General Counsel, Hecate Energy</p>	<p>MODERATOR: Mona E. Dajani, Global Head of Energy and Infrastructure, Pillsbury Winthrop Shaw Pittman LLP Laura Stern, co-CEO, Nautilus Solar Energy Rohan Singh, Managing Director, NextEnergy Capital Andrew Gilbert, Principal, Energy Capital Partners Shail Mehta, MD, Global Power & Alternative Energy, Citi Sripradha Ilango, Chief Financial Officer, Soltage Lance Jordan, Senior Vice President, Cubico Sustainable Investments</p>
<p>16:00 - 16:40 REFRESHMENTS AND NETWORKING</p> <p>16:40 - 17:30 PANEL DISCUSSION: RESIDENTIAL STORAGE – AGGREGATION MODELS TO SCALE UP INVESTMENT OPPORTUNITIES <i>This session will look at how residential storage is scaling to a size that larger investors could work with. We will feature a cross-section of speakers from different verticals to assess recent deals.</i> MODERATOR: Reid Capalino, Principal, Aligned Intermediary Jason Doling, Assistant Director of the Distributed Energy Resources Team, New York State Energy Research and Development Authority (NYSERDA) Joan Fang, Vice President - Infrastructure and Power, Ares Management Suleman Khan, CEO, Swell Energy</p>	<p>16:30 – 16:45 REFRESHMENTS AND NETWORKING</p>
<p>17:15 - 18:00 ROUNDTABLES WITH BEER & WINE <i>It works: great minds, great beer (or wine) and the chance to get your own questions answered: our ROUND TABLES WITH BEER are always a huge success. Suggested topics include:</i></p> <ul style="list-style-type: none"> ▪ Round Table One: Locations for new development – where are people prospecting for business? ▪ Round Table Two: The economics of solar + storage – when do attendees think they will work? ▪ Round Table Three: Community projects – accessing one of the hottest markets in the USA ▪ Round Table Four: Utilities’ role in the industry – how do we overcome the barrier of what utilities can own and what role can private companies play in building and leasing storage assets? ▪ Round Table Five: Is lithium-ion the best technology? How are longer-duration batteries maturing and what are their economics like? <p>ROUND TABLE HOSTS INCLUDE: Luke Forster, Business Analyst, DER, NABCEP-Certified PV Installation Professional, New York State Energy Research and Development Authority (NYSERDA) Lance Jordan, Senior Vice President, Cubico Sustainable Investments Lindsay Gorrill, Chief Executive Officer, KORE POWER Anadi Jauhari, Partner, Emerging Energy & Environment Investment Group LLC If you would like to moderate a round table, contact jwilkinson@solarmedia.co.uk indicating which topic(s) you are most interested in.</p> <p>18:00 - 19:30 DRINKS AND NETWORKING</p>	

DAY TWO – 30 OCTOBER 2019

<p>08:30 - 09:00 RE-REGISTRATION & REFRESHMENTS</p> <p>09:00 - 09:15 OPENING REMARKS FROM THE CHAIR</p> <p>09:15 - 10:15 PANEL DISCUSSION: COMMUNITY ENERGY: ACCESSING OPPORTUNITIES <i>2018 saw a flurry of excitement in community energy. Has 2019 met those expectations and what could 2020 hold? This session will show the audience:</i></p> <ul style="list-style-type: none"> ▪ Overview of deals in 2019 – project sizes, locations and mix of technologies ▪ Will we see growth in community energy projects in 2020? ▪ Availability of aggregation programs ▪ Who’s financing projects? ▪ How are stakeholders dealing with unrated counterparties? <p>MODERATOR: John Bellacicco, Principal, Progressive Solutions Peter Coleman, Senior Vice President, Structured Finance, Clean Choice Energy Matthew Hankey, President, New Energy Equity Adam Kuehne, Senior Vice President, Project Finance, Summit Ridge Energy</p>	<p>08:30 - 09:00 RE-REGISTRATION & REFRESHMENTS</p> <p>09:00 - 09:15 OPENING REMARKS FROM THE CHAIR</p> <p>09:15 - 10:15 PANEL DISCUSSION: MAXIMIZING REVENUE FROM CO-LOCATED SOLAR & STORAGE</p> <ul style="list-style-type: none"> ▪ What are the use cases for standalone storage, and how to define your area of focus ▪ Why solar+storage makes sense: the co-location value drivers ▪ What an optimal storage+solar configuration could look like: ratio of storage to solar to grid, battery duration etc. ▪ Risk and financing considerations ▪ Deal microscope – how have successful deals been structured? <p>MODERATOR: Enrico Ladendorf, Managing Director and Co-Founder, Pason Power Johannes Rittershausen, CEO, Convergent Energy + Power Adam Bernstein, Managing Director, North Sky Capital Daniel Crotzer, President, Fractal Energy Storage Consultants Rory Huntly, Director of Corporate Development, Ecoplexus, Inc. Lindsay Gorrill, Chief Executive Officer, KORE POWER</p>
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<p>Sangeeta Ranade, VP of Clean Energy Business, NY Power Authority Paul Spencer, CEO, Clean Energy Collective William Silva, CEO, United Renewable Energy</p> <p>10:15 - 10:45 PRESENTATION: REFINANCING UPDATE <i>This session will give the audience some insight into the scale of the refinancing market in 2019. What kind of level have we seen? Have there been any trends to watch for in 2020? Analysis of some of the bigger deals. Forecast for 2020.</i> John Sniffen, Senior Director, KWh Analytics</p>	<p>10:15 - 10:45 PANEL DISCUSSION: HOW ARE COMPANIES PREPARING FOR LIFE WITHOUT THE ITC? <i>This session will look at what developers are doing to prepare for the ITC phase-out. We will look at this at a company level in terms of business models, technology level in terms of project design and the uplift provided by novel technologies or improvements in tech. We will also look at cost of capital and how capital providers can assist.</i></p> <ul style="list-style-type: none"> ▪ Equipment, balance sheets and raising capital – what are companies doing to prepare? ▪ Are there lessons from European markets? What has been effective in the move towards parity? ▪ What part will technology play? How quickly will we enter a solar + storage market as the norm? What are the barriers? ▪ Improvements in technology – how do newer PV projects compare with older counterparts? ▪ Is the industry ready to embrace digitization, what ROI can it provide? ▪ Cost of capital 2019: what is it and is there any room for manoeuvre? ▪ Working with partners: how are developers working more effectively with their supply chains, lenders and investors? ▪ How will the ITC phase-out affect different parts of the PV industry: utility scale, C&I, resi and the nascent solar+storage sector? <p>MODERATOR: Dr. Finlay Colville, Head of Research, PV-Tech & Solar Media Ltd. Bryan Birsic, Co-Founder & CEO, Wunder Capital Buck Fletcher, CFO, Onyx Renewables Fred Petit, Power & Infrastructure Finance, Investec Holdings</p>
<p>10:45 - 11:15 REFRESHMENTS AND NETWORKING</p>	
<p>11:15 - 11:45 PRESENTATION: PV AND STORAGE COST CURVES UPDATE <i>This session will update the audience on NREL's findings around component costs with a focus on PV, and solar+storage. We will also look at the direction of travel with bifacial panels and likely growth of their use in 2020 and beyond.</i> David Feldman, Researcher IV-Economic/Financial Analysis, NREL</p> <p>11:45 - 12:15 PRESENTATION: A NEW WAY TO ASSES BANKABILITY OF MODULES <i>PV-Tech research set to reveal investment grades for global PV module suppliers and outline a new methodology for assessing bankability of modules.</i> Dr. Finlay Colville, Head of Research, PV-Tech & Solar Media Ltd.</p>	<p>11:15 - 12:15 PANEL DISCUSSION: RECRUITMENT, RETENTION STRATEGIES FOR A DIVERSE WORKPLACE <i>This session, held in partnership with WRISE, will look at how company leaders can plan for the future effectively and benefit from the strength that a diverse workforce offers, with a wider breadth of experience and expertise. We will look at practical steps you can take now to effect change in your organisation.</i></p> <p>MODERATOR: Lauren Glickman, Managing Partner, RenewComm Elizabeth Kaiga, Key Account Director, Renewable Energy, DNV GL, North America Darren Van't Hof, Managing Director, Environmental Community Capital, U.S. BANK Kristen Graf, Executive Director, WRISE</p>
<p>12:15 - 13:45 LUNCH BREAK AND NETWORKING</p>	
<p>13:45 - 14:15 SPEED NETWORKING <i>Like speed dating but with less awkward outcomes, this fast-paced session will help you meet more of the audience. So how does it work?</i></p> <ul style="list-style-type: none"> ▪ Participants will receive either a red or a blue card ▪ Red card participants are “hosts” and will remain where they are ▪ Blue card participants will move every 3-minutes when the bell rings ▪ Networking will take place at stand-up cocktail tables with six people to a table: three reds and three blues ▪ Bring lots of business cards and hone your elevator pitch! <p>14:15 - 15:00 PANEL DISCUSSION: INSIGHT INTO TRANSMISSION PROJECTS, UPGRADES AND WORK TO ACCOMMODATE SOLAR & STORAGE <i>This session will look at how transmission is evolving across the nation to accommodate solar and storage. We will look at both investments and upgrades as well as bottlenecks, helping attendees to better assess investment opportunities.</i></p> <ul style="list-style-type: none"> ▪ Overview of active projects and where power will move from/to ▪ What's stalling new transmission and how can projects be enabled to succeed? ▪ Who's willing to invest in new transmission? ▪ What role will transmission play in an increasingly decentralized market? <p>Angelina Galiteva, Vice Chair, California Independent System Operator John Lawhorn, Sr. Director of Policy Planning, Midcontinent Independent System Operator</p> <p>15:00 - 16:00 PANEL DISCUSSION: FLOATING SOLAR: HOW TO AVOID THE PROBLEMS OFFSHORE WIND FACED? <i>This session will look at how the floating solar market may pan out in the USA. Using case studies from built projects, we will look at:</i></p> <ul style="list-style-type: none"> ▪ The intricacies of funding floating solar: how have projects been funded? ▪ How does the design affect the due diligence process? 	

- What opportunities exist in North America?
- How can we scale-up from pilots to larger projects?
- Lessons from the USA offshore wind industry

MODERATOR: Eva Pauly-Bowles, Managing Director, **Ciel et Terre**

Jason Wert, National Market Leader, **Rettew**

Sam Choi, Manager for Emerging Technologies and Renewables, **Orlando Utilities Commission**

16:00 **REFRESHMENTS AND CLOSE OF CONFERENCE**