

# Solar & Storage Finance USA

6<sup>th</sup> Edition

The only summit designed to raise capital for solar+storage projects in the US

**29-30 October**  
**New Yorker Hotel, NYC**  
<https://financeusa.solarenergyevents.com/>

## PARTICIPATING COMPANIES

NYSERDA  
ACORE  
BlackRock  
Investec  
Citi  
Sonnen  
Independent Power Producers of NY  
Sunlight General Capital  
Javelin Capital  
Aligned Intermediary  
Ascend Analytics  
Clean Choice Energy  
BlackRock  
Nautilus Solar Energy  
Fractal Energy Storage Consultants  
EDF  
NextEnergy Capital  
Onyx Renewable Partners  
EDF  
Mosaic  
Investec  
Wunder Capital  
RadiantREIT  
Aligned Climate Capital  
Arevon DC/Capital Dynamics  
Birdseye Energy  
NextEnergy Capital  
City  
Pason Power  
Greenbacker Group  
Indie Energy

## NEW FOR 2019

- Life after the ITC: how smart companies are preparing now for business without the ITC
- Large energy buyers' approach to the market and how deal were won with credible off-takers
- Community energy – see how the market for community energy is growing
- Hot locations to develop projects – find out where policy is driving new project opportunities
- Understand how to get the best PPA signed
- See how the market for storage in the USA is developing and how to overcome bottlenecks in 2019 & 2020
- See how LCOE for storage can be calculated and what affects the calculations
- Meet newer entrants to the market and see how oil and gas, or traditional energy companies are approaching renewables
- NEW – two forward-thinking streams will allow you to extend your learning and networking
- **FREE** passes for qualified developers and large energy buyers. Applicants should write to [Jo Wilkinson](#) to enquire.



# CONFIRMED SPEAKERS

- **Alicia Barton**, President & CEO, **NYSERDA**
- **Stacey Hughes**, Chief Financial Officer, **Sunlight General Capital**
- **Ani Backa**, US Director, Regulatory Strategy and Utility Initiatives, **Sonnen**
- **Ryan Hamilton**, Senior Advisor, **Javelin Capital**
- **Reid Capalino**, Principal, **Aligned Intermediary**
- **Shail Mehta**, Managing Director, Global Power & Alternative Energy, **Citi**
- **Peter Coleman**, Senior Vice President, Structured Finance, **Clean Choice Energy**
- **Dr. Gary Dorris**, CEO & Co-Founder, **Ascend Analytics**
- **Michael Panteloganis**, Co-Head of Power Infrastructure Finance, **Investec**
- **Enrico Ladendorf**, Managing Director and Co-Founder, **Pason Power**
- **David Giordano**, Head of Clean Investing, **Blackrock**
- **Laura Stern**, President, **Nautilus Solar Energy**
- **Daniel Crotzer**, President, **Fractal Energy Storage Consultants**
- **Ryan Donnelly**, Director, **EDF Renewable Energy**
- **Jon Powers**, Co-Founder & President, **Clean Capital**
- **Rohan Singh**, Managing Director, **NextEnergy Capital**
- **Matthew Hankey**, President, **New Energy Equity**
- **Paul Colatrella**, Managing Director, Head of Clean Energy Infrastructure Credit, **Capital Dynamics**
- **Paul Spencer**, CEO, **Clean Energy Collective**
- **Bryan Birsic**, CEO & Founder, **Wunder Capital**
- **David Sher**, CO-CEO, **Greenbacker Capital**
- **Jeff Just**, Co-Founder and CEO, **RadiantREIT**
- **Kyle Rogers**, Director of Business Development, **Birdseye Renewable Energy**
- **Erin Talbot**, General Manager, **Mosaic**
- **Daniel Lynch**, Counsel, **Akin Gump Strauss Hauer & Feld LLP**
- **Ja Kao**, President, **Onyx Renewable Partners, LP**
- **Robert Goldstein**, Chairman and CEO, **Unique Surety and Insurance Services LLC**

# AGENDA

## Day One: 29 October 2019

\*ALL SPEAKERS ARE INVITED UNLESS OTHERWISE SPECIFIED

### 08:30 REGISTRATION AND REFRESHMENTS

### 09:00 OPENING REMARKS FROM THE CHAIR

### 09:15 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)**

### 10:10 TRILLIONS AND TERAWATTS

*Trillions of dollars are needed if we are to hit our climate change mitigation goals. In addition to that, 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 from institutional investors 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

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

**David Giordano, Head of Clean Investing, Blackrock**

### 10:40 NETWORKING REFRESHMENT BREAK

## SOLAR & STORAGE FINANCE

### DEBT, EQUITY & TAX EQUITY: HOW TO ATTRACT IT INTO PROJECTS IN 2020

### 11:10 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?

**Ryan Hamilton, Senior Advisor, Javelin Capital**

**Michael Panteloganis, Co-Head of Power Infrastructure Finance, Investec**

## LARGE ENERGY BUYERS' FORUM

CLOSED DOOR, BY INVITATION ONLY 11:10 – 1:00

### 11:10 OPENING REMARKS FROM THE CHAIR

### 11:15 THE BIG DEBATE: SHOULD YOU INVEST IN STORAGE AND SOLAR PV NOW?

- Why install anything now if the costs are coming down?
- What are the possible revenue streams, 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?

### 11:45 INSIGHT FROM CORPORATES AT THE FOREFRONT OF THE ENERGY TRANSITION

- How do you develop a business case from your drivers?
- How should you vet projects and partners?
- What are the most successful deal structures?
- What are the price expectations – can the market meet them?
- What is the size of the corporate renewables market?
- What are the most successful financial models and what drives them?

## SECONDARY MARKETS AND M&A

### 12:10 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?

**Moderator: Shail Mehta**, MD, Global Power & Alternative Energy, **Citi**  
**Laura Stern**, President, **Nautilus Solar Energy**  
**Rohan Singh**, Managing Director, **NextEnergy Capital**

### 12:15 QUICK-FIRE CASE STUDIES

- PPA case study – sleeved versus virtual? Differences and benefits of each approach
- How to sell the deal internally – what do you need to do to convince your FD?
- Return on investment – what's the reality in terms of energy production, savings and can you sell surplus energy?
- Risk – what do you need to know now to get the installation right?
- How to select the right partners
- Funding options
- How to remove risk from your own balance sheet

## 1:00 LUNCH BREAK AND NETWORKING

## DEAL RADAR: UPDATE FROM DEVELOPERS ON 2020 PIPELINE

### 2:30 PROJECT CASE STUDIES

- How is an abundance of capital affecting developers?
- Locations emerging as hotspots
- Project design – focus on solar + 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?

**Ryan Donnelly**, Director, **EDF Renewable Energy**  
**Mike Grunow**, Executive Vice President, Energy Storage, **Arevon DC**

## 100% RENEWABLES: CAPTURING BUSINESS FROM CITIES AND CORPORATES

### 2:30 100% 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. We will host two short panel discussions where energy buyers will outline their challenges and concerns with renewables, then the audience will have the ability to break into two round tables of their choice and will be able to meet with both buyers and industry.*

- 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?

\*EY identified corporate buyers entered into over 6 GW of power purchase agreements (PPAs) in the USA in 2018

**Moderator: Stacey Hughes**, Chief Financial Officer, **Sunlight General Capital**  
**Ja Kao**, President, **Onyx Renewable Partners, LP**

## HOW TO GET THE BEST VALUE FROM YOUR PPAS

### 3:30 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?

**Luke Rogers**, Director of Business Development, **Birdseye Energy**  
**Evan Ture**, Sales and Marketing, **Indie Energy**

## 3:30 RESIDENTIAL STORAGE – AGGREGATION MODELS TO SCALE UP INVESTMENT OPPORTUNITIES

**Reid Capalino**, Principal, **Aligned Intermediary**

## MONETIZING STORAGE

### 4:10 MONETIZATION OF MERCHANT STORAGE REVENUE STREAMS

**Daniel Crotzer**, President, **Fractal Energy Storage Consultants**

## 4:00 REFRESHMENTS AND NETWORKING

## REGULATION AND POLICY

### 4:30 REGULATION AND POLICY

*This session will provide a deep dive into the policy landscape in the USA and provide insight into what panelists and the audience expect in 2020, how a Green Deal could play out, the impact that FERC Order 841 has had and how to prepare for a future without subsidies.*

- What could the New Green Deal mean for the industry
- FERC Order 841 – what have the results been for deployment of storage?
- Audience vote: where would they like policy to move in 2020?
- Post subsidy era – what mechanisms would be useful to the industry in the absence of subsidization?
- Is there a need for policies aimed at energy buyers?
- Dealing with the ITC phase out

**Ani Backa**, US Director, Regulatory Strategy and Utility Initiatives, **Sonnen**

**Erin Talbot**, General Manager, **Mosaic**

**Todd Foley**, Senior Vice President, **ACORE**

## MONETIZING CO-LOCATED SOLAR + STORAGE

### 4:30 MAXIMISING REVENUE FROM CO-LOCATED SOLAR & STORAGE

- What are the use cases for standalone storage, and how to define your area of focus
- How the economics work for merchant storage stand alone, and what revenues and returns are possible
- 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?

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

## NETWORKING ROUNDTABLES

### 5:15 ROUNDTABLES WITH BEER & WINE

*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:

- Locations for new development – where are people prospecting for business?
- The economics of solar + storage – when do attendees think they will work?
- Community projects – accessing one of the hottest markets in the USA
- 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?
- Is lithium-ion the best technology? How are longer-duration batteries maturing and what are their economics like?

### 6:00 CLOSING KEYNOTE, DRINKS AND NETWORKING

- The role that the private sector can play in expediting the move away from fossil fuels towards lower carbon power generation and storage
- The need for leadership throughout the industry, including afore mentioned private sector, state governments, cities, large energy buyers and the financial community supporting the growth in low carbon generation and the renewable energy industry
- “bigger picture” issues such as threat to the economy from climate change and opportunity to develop skilled employment in a new sector

### 7:30 CLOSE OF DAY ONE

## Day Two: 30 October 2019

### 08:30 RE-REGISTRATION & REFRESHMENTS

### 09:00 OPENING REMARKS FROM THE CHAIR

## SHARK TANK

### 09:15 SHARK TANK

*We are looking for innovative technologies to share ideas and pitch for funding. Inspired by the famous shark tank TV show, this session will allow companies with non-lithium technologies to pitch to a panel of investors. This insightful session will leave attendees with an understanding of how different technologies compare, and what investor appetite for each is like.*

- Cost comparison across different technologies and expected cost curve
- Capex and bottom line across different applications and project sizes
- Levelised cost of energy
- Expected lifespan and returns
- Retirement and recycling, and impact on the environment
- Supply chain for materials

### 08:30 RE-REGISTRATION & REFRESHMENTS

### 09:00 OPENING REMARKS FROM THE CHAIR

## HOW IS INSTITUTIONAL CAPITAL SCALING UP INVESTMENT?

### 09:15 INSTITUTIONAL INVESTOR PANEL

## LCOE FOR ENERGY STORAGE

### 10:15 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**

## IMPROVING PROJECT COSTS

### 10:15 COMPONENTS – COST AND IMPROVEMENTS

Find out how the supply chain can assist in reducing cost as well as how technologies are improving. This session will look at:

- What technologies are really driving solar forward and providing the most gains?
- Focus on: trackers and bi-facial panels – 2019's buzz-words, but what difference do they make?
- Innovation in IT – is this the next growth area for PV?
- How could the returns for a project built in 2019 differ from older projects?
- What is the audience genuinely excited about and which technologies might be "hot air"

## RISK MITIGATION

### 10:45 RISK ALLOCATION BEST PRACTICE

This session will help attendees understand which risks are to prioritize and what the best strategies to manage them are. Below is a selection of the risks that will be tackled:

- Accounting risk
- Counterparty risk
- Power price risk
- Regulatory and market risks
- Power consumption risk
- Project execution and operational risks

## 11:15 REFRESHMENTS AND NETWORKING

## COMMUNITY PROJECTS

### 11:45 COMMUNITY ENERGY: ACCESSING OPPORTUNITIES IN THE SPACE

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:

- 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?

**Peter Coleman**, Senior Vice President, Structured Finance, **Clean Choice Energy**  
**Matthew Hankey**, President, **New Energy Equity**

## GETTING READY FOR LIFE WITHOUT THE ITC

### 11:45 HOW ARE COMPANIES PREPARING FOR LIFE WITHOUT THE ITC?

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.

- 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?

## 12:45 LUNCH BREAK AND NETWORKING

### 1:45 SPEED NETWORKING

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?

- 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!

## TRANSMISSION & DISTRIBUTION DEEP DIVE

### 2:15 INSIGHT INTO TRANSMISSION PROJECTS, UPGRADES AND WORK TO ACCOMMODATE SOLAR & STORAGE

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.

- 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?

## GET YOUR ASSET MANAGEMENT RIGHT: AFTERNOON WORKSHOP

### 2:15 MAXIMISE YOUR RETURN ON INVESTMENT BY BUILDING A BEST-IN-CLASS ASSET MANAGEMENT PLAN

This session will look at what to do with assets once built or acquired. Using short case studies, we will look at how asset owners have nailed their asset management.

- In-house versus outsourcing – what's the best approach for your assets?
- Repowering case studies: what have companies learnt from repowering? How much of an ROI can you really demonstrate?
- How to get your asset manager on board – what's the most effective way of avoiding downtime through managing your asset manager or team effectively?
- Predictive maintenance – how to do this consistently
- Improving reaction times
- Field performance Vs estimates – how to close the gap between expectations and reality

**DEVELOPMENT & INVESTMENT OUTLOOK**  
**WHERE TO GO, WHAT TO DEVELOP AND WHY**

**3:15 STATE OF THE MARKET & 2020 OUTLOOK**

*As the market matures, this session will look at where opportunity in 2020 will lie. We will look at what's installed, where and where to look for new opportunity, paying attention to the different technologies available. This session will also consider the infrastructure in place to support development.*

- Review of geographical markets within North America with the right conditions for new project development
- Solar, solar + storage, solar/wind, wind + storage and EV network plans
- Power prices and demand forecasts
- Infrastructure development projects

**16:00 REFRESHMENTS AND NETWORKING**

**FLOATOVOLTAICS**

**16:30 FLOATING SOLAR: HOW TO AVOID THE PROBLEMS OFFSHORE WIND FACED?**

*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:*

- 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

**17:30 CLOSE OF CONFERENCE**