

# Future of New York Commercial / Industrial & Community Distributed Generation Solar Markets

May 7, 2021

Technical Conference Day 2



Department  
of Public Service

NYSERDA

# Introduction

Presented by David Sandbank



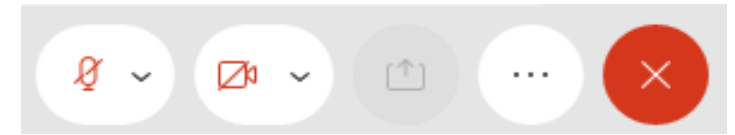
# Technical Conference State & Industry Representatives


Department of Public Service	NYSERDA
<b>Marco Padula</b> – Director, Markets and Innovation	<b>David Sandbank</b> – Vice President, DER
<b>Warren Myers</b> – Director, Regulatory Economics	<b>Carl Mas</b> – Director, Energy and Environmental Analysis
<b>Zeryai Hagos</b> – Deputy Director, Markets and Innovation	<b>Max Joel</b> – Program Manager, NY-Sun
<b>David Drexler</b> – Managing Attorney	<b>Luke Forster</b> – Senior Business Analyst, DER
<b>John Garvey</b> – Utility Supervisor	

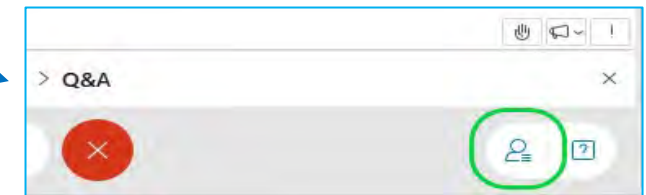
Industry Speakers	
<b>David Gahl</b> – Senior Director of State Policy (East), SEIA	<b>Stephen Wemple</b> – General Manager, Con Edison
<b>Shyam Mehta</b> – Executive Director, NYSEIA	<b>Toby Hyde</b> – Lead Analyst, National Grid
<b>Kaitlin Kelly O'Neill</b> – Northeast Regional Director, CCSA	
<b>Sam Jasinski</b> – Director of Policy & Business Development, Borrego Solar	

# Meeting Procedures

- > Participation for Members of the Public:
  - Members of the public will be muted upon entry.
  - Questions and comments may be submitted in writing through the Q&A feature at any time during the event. Questions will be answered at the end of the presentation.
- > If technical problems arise, please contact [Karen.Fusco@nyserda.ny.gov](mailto:Karen.Fusco@nyserda.ny.gov)
- > Today's presentation is being recorded. DPS/NYSERDA will send out a link to the slides and recording in several days



You'll see  when your microphone is muted



# Agenda

1. Summary of April 21 Technical Conference
2. Presentation by the NY Clean Energy Parties (SEIA, ACE NY, CCSA, NYSEIA, & Vote Solar)
  - Q&A for the NY Clean Energy Parties
3. Presentation by Borrego Solar
  - Q&A for Borrego Solar
4. Presentation by the Joint Utilities
  - Q&A for the Joint Utilities
5. Next Steps

# Summary of April 21 Technical Conference

Presented by David Sandbank

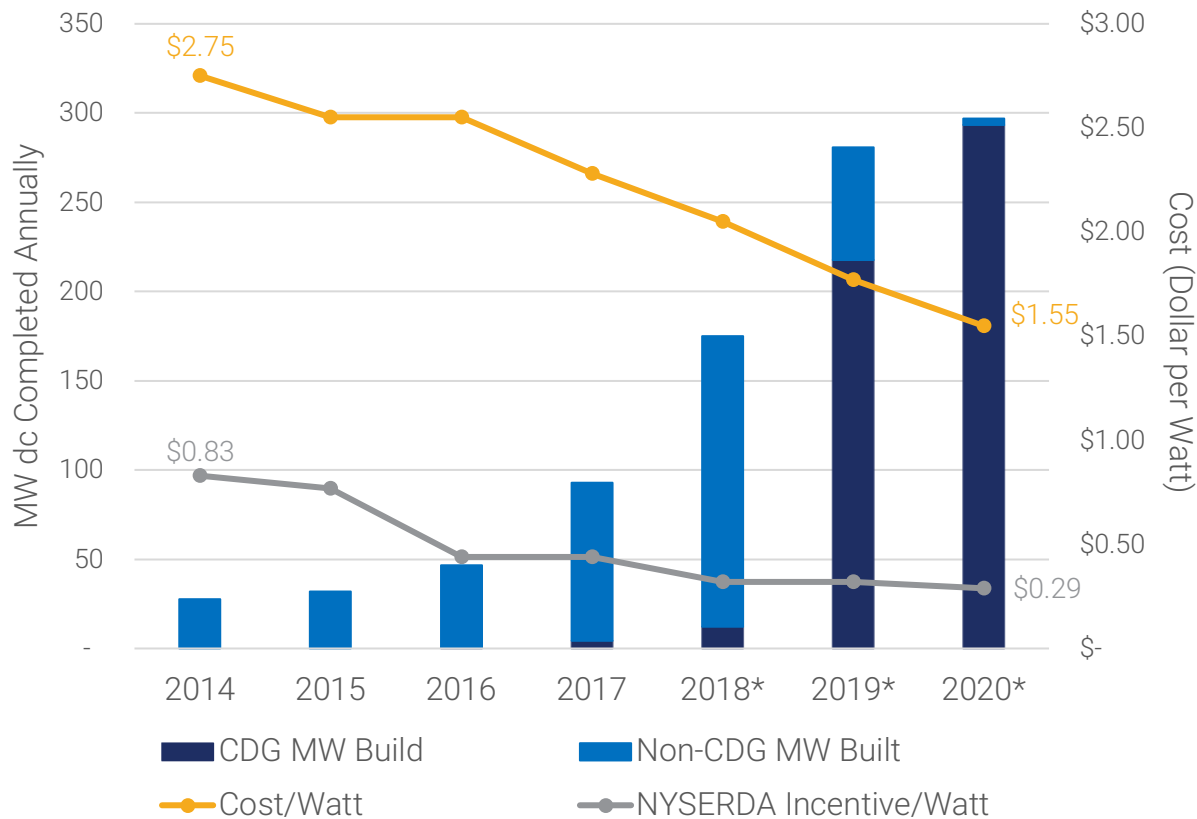


# Focus & Scope

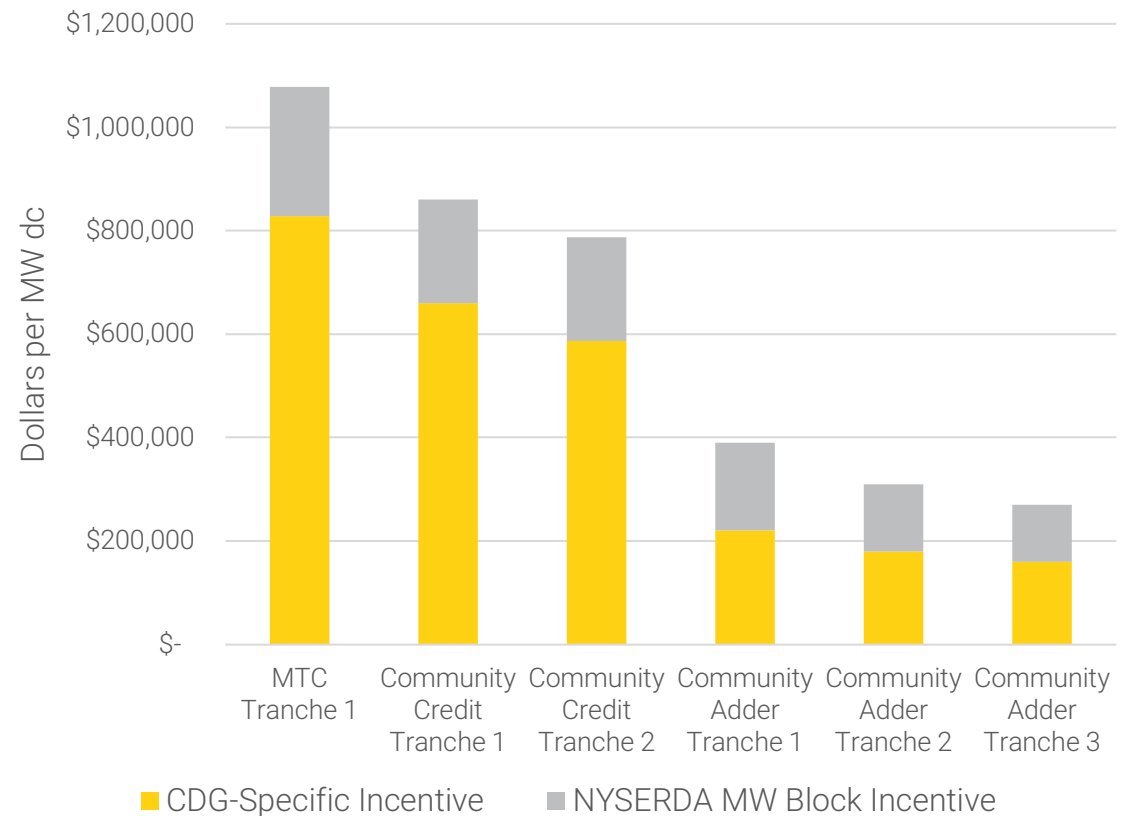
- > Focus & Scope: Conference will focus on the distributed solar Commercial / Industrial & CDG markets **beyond the 6 GW NY-Sun target.**
  - **We are well on track to achieve 6 GW of distributed PV on or before 2025**
  - **No additional NYSERDA incentive funding is needed or requested**

# Commercial / Industrial & CDG Solar Market Progress

### Annual C/I MW Installed, Cost, and Incentive



### Total Support for National Grid CDG Projects by Tranche

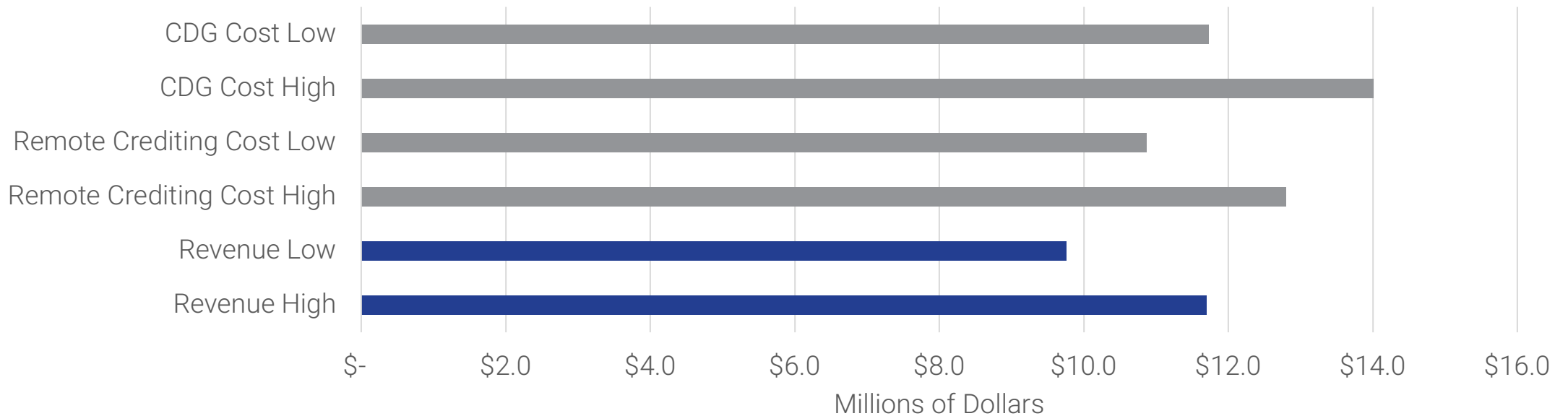


\*Note that 2018-2020 completions included new incentive adders for brownfield/landfill projects and those in strategic grid locations.



# Project Economics & Use Cases

## Revenue vs. Cost for Sample 5 MWac National Grid/NYSEG Project



- > High and Low revenue forecasts shown – Low is 3-year historic LBMP/Capacity with 2% growth; High is NYISO/CARIS LBMP forecast (zones A-F) and DPS BCA ICAP forecast
- > Revenue includes 26% ITC, **No NY-Sun incentive**, and NPV of Value Stack minus 10% customer savings; Makes no assumption about potential future federal funding; Cost savings from net crediting are included
- > Delta between Revenue and Costs is developer profit/loss

# Distributed Solar Benefits

- > **12,000+** New York State solar jobs contribute to the largest percent of renewable energy jobs in the state
- > Solar, especially community solar, allows for greater access to clean energy for all New Yorkers
- > The continuation of successful cost reduction trajectory will expand market adoption without incentives
- > Solar helps reach the Climate Act's goal (**70%** renewable electric grid by **2030**) sooner and reduces greenhouse gas emissions and improves air quality
- > Solar adds resource and geographic diversity to New York's renewable energy portfolio
- > Solar locates zero-emission electric generation closer to load where larger projects would be challenged

# Distributed Solar Future

## > Establishing a Value of Carbon

- **Monetary Cost of Damages** – A damaged-based approach where an administratively set externality value is equal to the Social Cost of Carbon
- **Marginal Abatement Cost** – A price that society would need to pay to achieve a specific distributed solar goal
  - **How to set the price**
    1. **Market approach:** Regular competitive solicitations, potentially integrated into the CES Program
    2. **Administrative approach:** based on modeling of supply curve (price vs quantity) that analyzes future project economics

# Presentation by NY Clean Energy Parties

Presented by Shyam Mehta, David  
Gahl, & Kaitlin Kelly O'Neill



VOTE SOLAR



# Stabilizing the Community Solar Market By Revisiting VDER E-Value

NY Clean Energy Parties

5/7/21 – Shyam Mehta, David  
Gahl, Kaitlin Kelly O’Neill



VOTE SOLAR



# Background & Context

# Who is the CEP

- The Clean Energy Parties (“CEP”) is a coalition of The Solar Energy Industries Association, the Alliance for Clean Energy New York, the Coalition for Community Solar Access, the New York Solar Energy Industries Association, and Vote Solar.
- The CEP are comprised of a substantial portion of the clean energy organizations in New York. Collectively, our associations represent hundreds of companies building solar and storage projects throughout the state.
- Our perspective is informed by on-the-ground experience developing community solar & other distributed energy projects.

# Context for Discussion

- The CEP appreciates NYSERDA & DPS efforts to work collaboratively toward a solution that supports the NY community distributed generation (“CDG”) market’s longevity.
- Based on a successful policy framework including the value stack tariff & NY Sun incentives, NY has become a leading state for solar deployment ranking 1st nationally in community solar installations in 2020.\*
- Despite falling solar component costs & corresponding incentive levels, the current CDG compensation structure results in **project costs still exceeding revenue**.
- But with the right approach, NYSERDA & DPS can achieve the previously established state policy goals of eliminating incentives and promoting CDG market development.
- Updates to the Value of Distributed Resources (“VDER”) tariff to better reflect the value that clean energy brings to the electric grid can boost revenue & ensure a stable revenue stream for future CDG projects.
- New York needs a new DG solar goal because it will need more than 6GW of DG solar to achieve its ultimate goal of a zero-emissions electricity sector by 2040.



# New York's State Policy Goals: Eliminating Incentives & Compensating DER Using Value

From April 2014 NY Sun Press Release:

“The MW Block approach provides certainty and transparency regarding incentive levels to the industry, accounts for regional market differences, provides a clear signal to industry that New York intends to eliminate cash incentives in a reasonable timeframe and allows for the elimination of those incentives sooner in regions where market conditions can support it, based on market penetration, demand and payback.

From March 2017 VDER Phase 1 Order:

“ This order achieves a major milestone in the Reforming the Energy Vision (REV) initiative by beginning the actual transition to a distributed, transactive, and integrated electric system....NEM in particular [is an] inaccurate mechanism of the past that operate[s] as [a] blunt instrument to obscure value and [is] incapable of taking into account locational, environmental, and temporal values of projects... (At 1 & 3)

From February 2018 Whitepaper Regarding Future Value Stack Compensation:

“ The Value Stack is a methodology that bases compensation on the actual, calculable benefits that the resources provide. Quantifying and compensating these benefits remains central to the Commission's over strategy to move to an energy system that is cleaner, more affordable and resilient.” (At 1-2)

# Solar Industry Needs Quick Resolution on Updating Compensation

- With community solar incentives allocated, solar companies are making investment decisions on projects that do not have an updated compensation structure in place.
- Without near-term confidence, firms cannot make those investments. This will impact the state's ability to hit its near-term & longer-term clean energy deployment goals.
- A long period without a strong directional signal from regulators will likely result in a project development slowdown during 2022 and installation slowdown thereafter.
- **However, a major structural overhaul isn't required.** We have the existing VDER structure & compensation methodology that can support projects. Adjustments to VDER will not require long, complex processes to design new compensation mechanisms.

# Solutions Must Promote Solar Market Continuity

- NY Sun CDG incentives have been fully allocated as of February 1, 2021 in National Grid, NYSEG & RG&E territories.
- Only ~24 MW of NY Sun CDG incentives remain in Central Hudson & Orange & Rockland's territories (as of May 5, 2021).
- NYC Community Credit is also dwindling, with 86% allocated as of April 1, 2021.
- There is no ongoing incentive to make up for the loss of these funds.

- To promote market continuity & prevent a gap in the CDG project pipeline, **compensation updates should be made available to projects that have made their 25% interconnection payments, or allow projects to "opt in" to any new compensation structure.**
- There is precedent for the DPS making compensation **updates available to projects retroactively.**
- In 2018, DPS staff recommended, and in April 2019 NYPSC authorized, projects could receive the updated DRV compensation if they had qualified after date of publication of the Draft DRV Whitepaper (July 2018).

# Without Quicker Action Company Pipelines Are in Jeopardy

- Firms are already experiencing slow-downs & are struggling with difficult investment decisions.
- We surveyed four leading community solar firms & asked them to estimate the impact of this regulatory uncertainty on their pipelines.
  - **491 megawatts in the pipeline, 106 projects, and roughly 2650 – 5,300 jobs**
- This survey was not exhaustive & is simply a snapshot on the effect on major companies.

# Two E-Value Compensation Adjustment Options

# E-Value Should Be Updated For Consistency

**“Updating the DPS calculations regarding the value of an avoided ton of carbon to be more consistent with the DEC’s approach would help more accurately reflect the benefits that solar projects bring to the electric system.”**

– Member of Assembly Steve Englebright & Senator Todd Kaminsky, Chairs of Environmental Conservation Committees.  
April 20, 2021 Letter to Interim Chair John Howard. (Appendix A).

# Determining the Value of Avoided CO2

- [NYS Department of Environmental Conservation “Establishing A Value of Carbon: Guidelines for State Agencies”](#) issued in December 2020, says:

“State agencies may find the damages-based value of carbon provided in this guidance useful for describing the global value of policies, programs, or projects or for estimating global damages in an assessment of benefits and costs. However, other values of carbon may be established by the Department or other State entities for other purposes. In particular, the marginal abatement cost approach has been used in some instances, including by New York State in the electric power sector, to aid in planning to meet discrete greenhouse gas reduction goals.” (At 5.)

- Therefore, regulators have two methods to be deployed at their discretion.

# Method 1. Social Cost of Carbon Approach

- Social Cost of Carbon ("SCC") is the net present value of the **damages expected to be caused by the emission of a ton of CO<sub>2</sub>**.
- Many states have used SCC estimates in cost benefit analysis & for other regulatory activities (CA, CO,IL,ME,MD,MN,NV,NJ & WA).
- This is the method currently used by DPS and is one option that **should be considered** by NYSERDA/DPS when updating e-value.
- If SCC is not pursued, we would ask regulators to provide clear reasons why.



# Method 1. NYS DEC SCC Calculations

- Uses [DEC values](#) & various discount rates contemplated by law & NYSERDA/RFF analysis.
- CEP simply plugged the DEC values into the DPS worksheet.
- Using the “central estimate” 2% discount rate, updates the e-value calculation & results in an increase of ~\$50/MWh, to ~\$80/MWh – (See also Appendix B.)
- A more complete updates would consist of revisions to: RGGI forecasts, marginal emissions rate, and utility WACCs.
- There are several recommended changes to the calculations that were included in the CEP 2018 petition on e-value.

## Constant 20 Year Payments

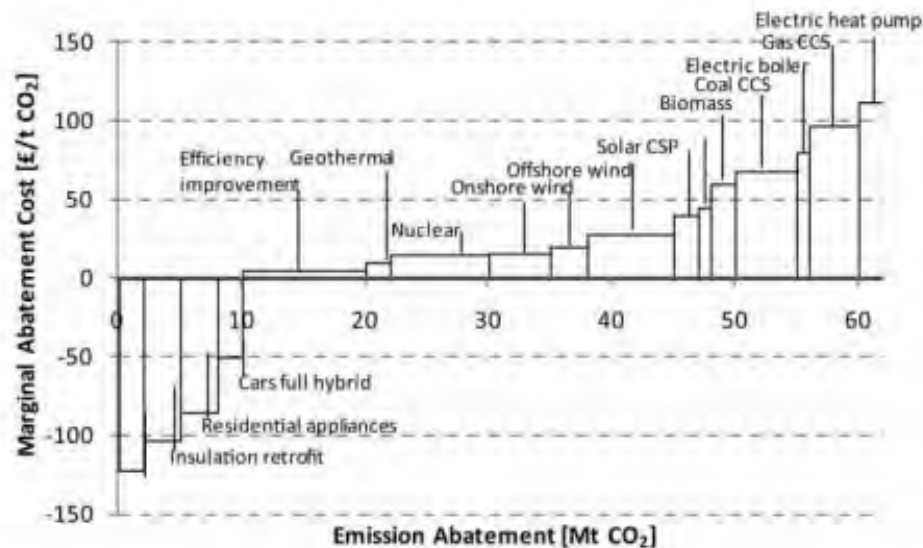
Discount Rate	Payments \$/kWh
3%	0.03
2%	0.08
1%	0.27
0%	1.31

**See also Appendix B**

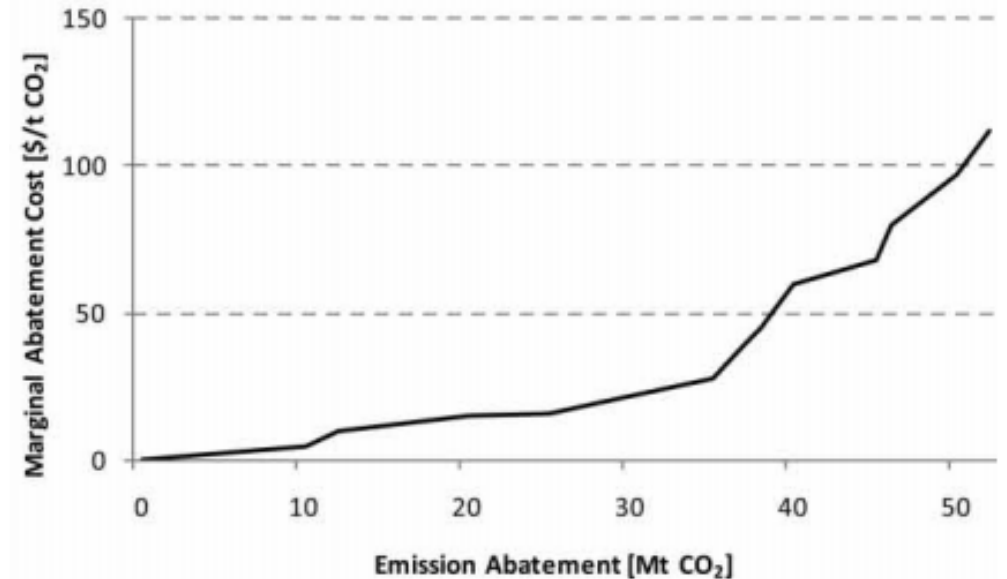
# Method 2. Marginal Abatement Cost

- The *marginal* abatement cost is the cost per ton of avoided CO<sub>2</sub> of the most expensive abatement measure required to meet a CO<sub>2</sub> reduction target.
- Abatement measures can be sorted from least-cost to highest-cost, creating an abatement cost curve per ton of CO<sub>2</sub>. Initially, the cost of abating a small quantity of CO<sub>2</sub> is very low, but the cost begins to rise as the quantity of emissions abatement increases.
- Marginal abatement cost curves are typically developed for a range of technologies to meet a carbon target, not for one technology.

Source: NYSERDA/RFF - Estimating the Value of Carbon: Two Approaches



Source: Reproduced from Kesicki and Elkins (2012).



## Method 2. Marginal Abatement Cost Analysis

- Not aware of current, specific MACC for NY electric system.
- [New England Avoided Energy Supply Costs](#) (AESC 2021) includes considerable analysis & discussion of marginal abatement costs.
- The AESC numbers **are not a substitute for NY analysis** but do provide insight into the likely range of values.
- However, a specific NY MACC analysis should be conducted for consistency with the DEC guidance, and if not we would ask regulators to justify this decision.

Comparison of GHG Costs Per Ton			
		AESC 2021	NYS DEC
<b>Global Marginal Abatement Cost</b>		92.00	N/A
<b>New England-based marginal abatement cost, derived from the electric sector*</b>			
		125.00	125.00
* AESC 2021\$ vs DEC 2020\$ & short vs metric			

# NYSERDA/DPS Proposal Is A Revenue Requirement Analysis Not an Abatement Price

- NYSERDA/DPS makes the leap that the Marginal Abatement cost is “A price that society would need to pay to meet a specific distributed solar goal” (NYSERDA 4/21 Technical Conference, Slide 30).
- Regardless of whether New York uses the administrative approach to set the price, or figures out a price through market discovery, NYSERDA/DPS is **not developing a marginal abatement cost analysis for reducing carbon across the electric system.**
- Therefore, the NYSERDA/DPS analytic framework is not consistent with the DEC guidance.

# Industry Concerns With Solicitation-Based Approach

- Abandons VDER's goal of compensating assets for what they are worth & instead seeks the rate of compensation (especially for environmental benefits) that keeps the market afloat, negating the dynamic and grid response nature of the VDER tariff.
- Procurements for distributed solar projects are untested in NY & undermine years of work to build confidence in the tariff by solar firms.
- **Adopting competitive process would take considerable time to design, implement and would yet again undermine confidence from lenders.**

# **A New NY DG Solar Goal**

# Ensuring CLCPA Goals Are Achieved

- New York's CLCPA has set an impressively high bar for decarbonizing the electricity sector:
  - 85% Reduction in GHG Emissions by 2050
  - 100% Zero-emission Electricity by 2040
  - 70% Renewable Energy by 2030
  - 9,000 MW of Offshore Wind by 2035
  - 3,000 MW of Energy Storage by 2030
  - **6,000 MW of Solar by 2025**
  - 22 Million Tons of Carbon Reduction through Energy Efficiency and Electrification
- However, NY will need **far more distributed solar than 6 GW** to reach the 100% zero emission goal & even 70 percent renewable energy goal by 2030.

Source: <https://climate.ny.gov/>

# Establishing A New DG Solar Goal

- Reaching 85% GHG reductions by 2050 will require dual action: building & vehicle electrification, and decarbonizing electricity generation.
- Based on these needs, studies like those done by the Brattle Group on the action required to reduce GHG by 80% by 2050 in New England support this assertion – they found “**between 3.5 GW and 6.6 GW of renewable capacity, including 2–5 GW of solar and 2–3 GW of wind, will need to be added each year on average [from 2019-2050]**” to meet the target.
- Put simply, we need much more distributed solar in NY to meet the CLCPA goals.



# New Tools to Set State Goals

- CCSA, Vote Solar, Vibrant Clean Energy & other members of Local Solar for All developed a new model that can be used in developing state-based DG goals.
- Advanced analytics to produce a more complete picture of the direct costs and benefits of local resources on the grid.
- Nationally, **scaling local solar & storage results in over 2 million local jobs** by 2050.
- The cost analysis accounted for is direct costs and benefits only, but local solar and storage brings additional societal benefits to communities such as jobs, increased economic development, increased resilience, and more equitable access to the benefits of renewables.
- A NY analysis is currently underway and will be shared shortly to help inform setting a new goal.

# Summary/Key Takeaways

- With community solar incentives allocated, solar companies are making investment decisions on projects that do not have an updated compensation structure in place.
- Without near-term confidence, firms cannot make those investments & that will impact the state's ability to hit the near-term & longer-term clean energy deployment goals.
- **CEP explained two options that should be considered** by NYSERDA/DPS when updating e-value to be consistent with DEC guidance, and are looking for regulators to fully explain why one path is chosen over another.
- The simplest path forward is **making adjustments to the VDER tariff on e-value**, not designing new complicated processes that will take considerable time to develop.



STEVEN ENGLEBRIGHT  
4<sup>th</sup> Assembly District  
Suffolk County

THE ASSEMBLY  
STATE OF NEW YORK  
ALBANY

CHAIRMAN  
Committee on Environmental Conservation  
COMMITTEES  
Energy  
Higher Education  
Rules  
Science and Technology

# Appendix A

See April 20 letter from Member of Assembly, Steven Englebright and Senator Todd Kaminsky.

April 20, 2021

Mr. John Howard, Interim Chair  
New York State Public Service Commission  
Agency Building 3  
Albany, NY 12223-1350

Re: Creating Community Solar Market Stability and Meeting New York's Climate Goals

Dear Mr. Howard:

The Climate Leadership and Community Protection Act ("CLCPA") has set New York State on a course to address climate issues while strengthening employment opportunities and growing a thriving community solar industry in the Empire State.

Today many community solar projects are underway in New York; projects that will help reach the CLCPA's greenhouse gas emission reduction goals as well as the six-gigawatt solar goal. We have been informed that, although the Public Service Commission approved an expanded pool of funding for NY-Sun incentives in May 2020, funding dedicated to projects in three utility service territories upstate is now already fully committed. Furthermore, funding in two utility service territories in the Hudson Valley is nearly fully allocated. Without additional resources solar projects in the utility interconnection queue may be in jeopardy, potentially compromising millions of dollars in investments and thousands of New York jobs.

While we are confident that the New York State Department of Public Service ("DPS") and NYSERDA are working to address this issue we suggest that DPS consider updating pricing to better reflect the value of an avoided ton of carbon consistent with recent guidance published by the New York Department of Environmental Conservation ("DEC"). The current calculations used by the DPS were developed prior to the passage of the CLCPA and publication of the DEC guidance released last year. Updating the DPS calculations regarding the value of an avoided ton of carbon to be more consistent with the DEC's approach would help more accurately reflect the benefits that solar projects bring to the electric system. It would also help to drive continued employment and solar development in New York.

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Mr. John Howard, Interim Chair  
April 20, 2021  
Page 2

Thank you in advance for your consideration. If you have any questions or would like to discuss this issue in more detail, please do not hesitate to contact us.

Sincerely,



Steve Englebright  
Member of Assembly



Todd Kaminsky  
Member of Senate

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# Appendix B

Using DEC Guidance  
Analysis for E-Value

Updated E-Value Calc Below									
				RGGI Forecast**					
				(\$Nominal/US Ton)					
				RGGI, Inc**	actuals				
SCC Feb 2021*				2017	\$5.51	\$3.42		SCC - RGGI	
2% DR DEC Values				2018	\$5.86	\$4.42		per ton	per MWH
\$2020/metric ton				2019	\$6.21	\$5.43		x 0.553	
		\$2020/US Ton	\$nominal/US ton	2020	\$6.56	\$6.41		\$106.84	\$59.08
2020	125	\$113.40	\$113.40	2021	\$6.98			\$110.66	\$61.19
2021	127	\$115.21	\$117.63	2022	\$7.39	1		\$114.48	\$63.31
2022	129	\$117.03	\$121.87	2023	\$7.81	2		\$117.59	\$65.03
2023	130	\$117.93	\$125.40	2024	\$8.45	3		\$121.55	\$67.22
2024	132	\$119.75	\$130.00	2025	\$9.09	4		\$125.65	\$69.49
2025	134	\$121.56	\$134.74	2026	\$9.73	5		\$128.87	\$71.26
2026	135	\$122.47	\$138.60	2027	\$10.35	6		\$133.26	\$73.69
2027	137	\$124.28	\$143.61	2028	\$10.96	7		\$137.80	\$76.20
2028	139	\$126.10	\$148.76	2029	\$11.58	8		\$142.49	\$78.80
2029	141	\$127.91	\$154.07	2030	\$12.32	9		\$146.10	\$80.79
2030	142	\$128.82	\$158.42	2031	\$13.11	10		\$150.92	\$83.46
2031	144	\$130.63	\$164.03	2032	\$13.94	11		\$155.86	\$86.19
2032	146	\$132.45	\$169.80	2033	\$14.83	12		\$159.72	\$88.32
2033	147	\$133.36	\$174.55	2034	\$15.78	13		\$164.86	\$91.17
2034	149	\$135.17	\$180.64	2035	\$16.79	14		\$170.12	\$94.08
2035	151	\$136.98	\$186.91	2036	\$17.86	15		\$175.50	\$97.05
2036	153	\$138.80	\$193.36	2037	\$19.00	16		\$179.71	\$99.38
2037	154	\$139.71	\$198.71	2038	\$20.21	17		\$185.31	\$102.48
2038	156	\$141.52	\$205.52	2039	\$21.50	18		\$191.02	\$105.64
2039	158	\$143.34	\$212.53	2040	\$22.88	19		\$196.86	\$108.86
2040	160	\$145.15	\$219.74	2041	\$24.34	20		\$202.82	\$112.16
2041	162	\$146.96	\$227.16	2042	\$25.89			NPV	\$862.82
2042	164	\$148.78	\$234.79	2043	\$27.54				
2043	166	\$150.59	\$242.64	2044	\$29.30				
2044	168	\$152.41	\$250.72	2045	\$31.17				
2045	170	\$154.22	\$259.04	2046	\$33.16				
2046	171	\$155.13	\$266.03	2047	\$35.28				
2047	173	\$156.94	\$274.80	2048	\$37.53				
2048	175	\$158.76	\$283.81	2049	\$39.93				
2049	176	\$159.66	\$291.43	2050	\$42.48				
2050	178	\$161.48	\$300.93						

Constant 20 year payment that yields same NPV **\$80.32**

# Q&A

**Please use the Q&A function in  
WebEx to ask questions**



# Presentation by Borrego Solar

Presented by Sam Jasinski



**borrego**

# NY CDG Successor Policy Options

NYSERDA/DPS Technical Conference

May 7, 2021





# Borrego is Part of the NY-Sun/VDER Success Story

## We saw the following market signals from the state

- The Administration's big DG solar goal signaled a large addressable market.
- NY-Sun's declining block structure created predictability and continuity, which drives down project development soft costs.
- NY-Sun's walk up structure provided state, local, and utility administrative efficiency.
- VDER created value, including when and where DG solar was needed most.

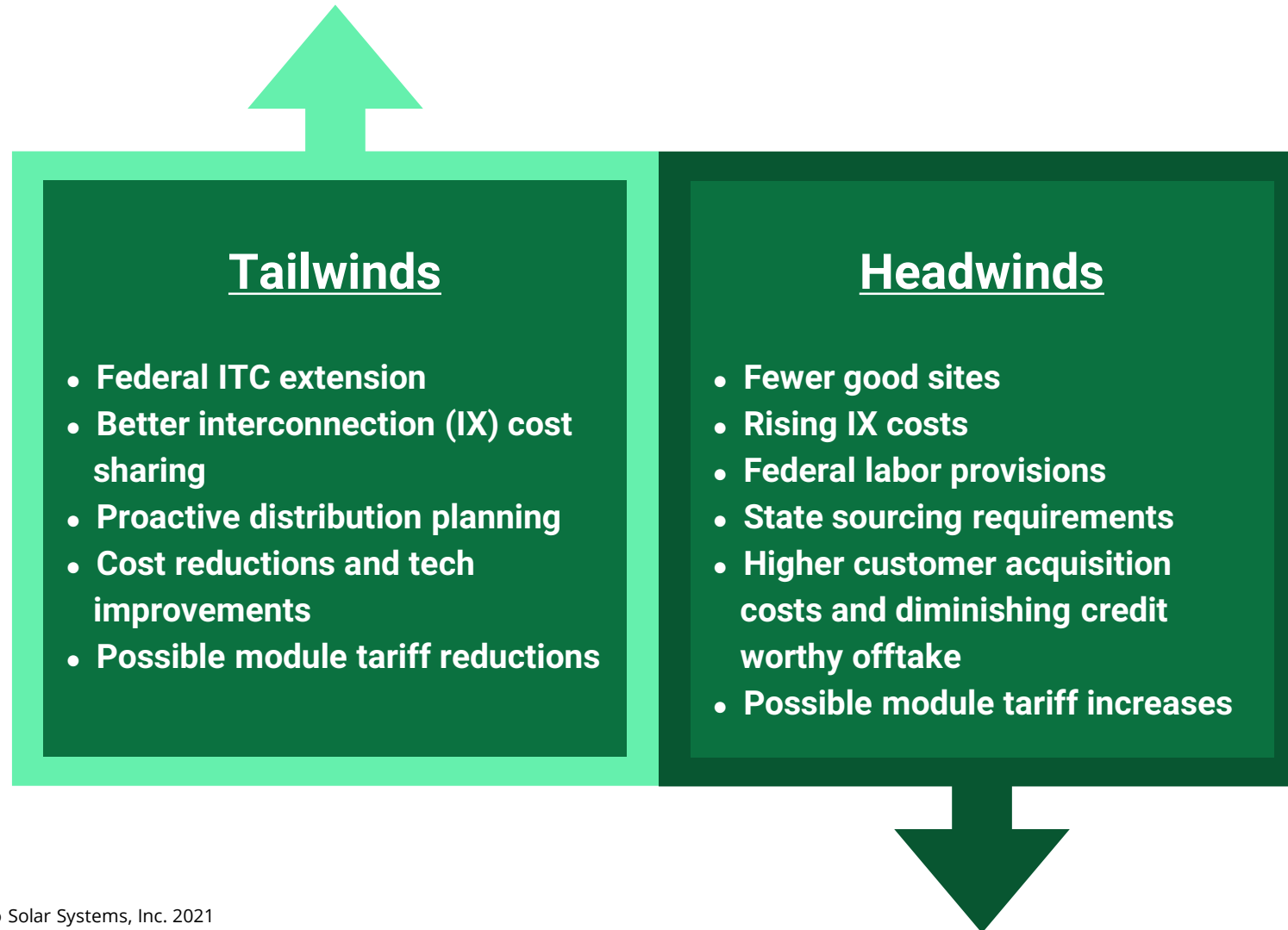
## How we responded

- We invested millions to develop 100's of MW of DG solar projects.
- We opened an office in Latham NY with 50 full-time employees.
- We've contracted with 100's of local professionals to develop and build our projects.
- We helped NY get closer to its climate goals.
- Now, roughly a third of our revenue comes from NY DG solar.

# The Future is Uncertain

- NYSERDA estimates less than 1GW of DG solar is needed to get to the current state goal, which is a small addressable market compared to the last several years' growth.
- NY-Sun incentives are fully or close to fully reserved and “no additional NYSERDA incentive funding needed or requested”.
- New and difficult-to-implement solicitations are headlining NYSERDA/DPS' options for the future.
- The Community Adder incentives largely closing in February created a policy gap that leaves many good projects with no path to financing.

# Other DG Solar Market Factors to Consider



# How Can We Build on Our Past Success?

- **Set a new state DG solar goal:** The state will need more than 6GW of DG solar to reach its 2040 zero emissions electricity sector goals.
- **Update the E-Value in the existing Value Stack:** Our perspective is that the solution set presented by the Clean Energy Parties' is how to get it right.
- **Make projects that fell through the cracks eligible:** To preserve the continuity that past NYSERDA/DPS policies have provided and are critical to a stable market, projects that missed out on the Community Adder or base MW block incentives should be eligible for the compensation structure resulting from this process.

# Contact Information

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# Q&A

**Please use the Q&A function in  
WebEx to ask questions**



# Presentation by the Joint Utilities

Presented by Stephen Wemple &  
Toby Hyde



**JOINT UTILITIES**  
OF NEW YORK



# JOINT UTILITIES OF NEW YORK

## Future Pathways for Commercial, Industrial, and Community Solar Development

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May 7, 2021



# Agenda

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1. Pathway to CLCPA goal 6000 + MW of distributed renewables
2. Community Distributed Generation (CDG) as a tool
3. Limitations to CDG solar development in New York
4. Opportunity to consider a holistic approach to accelerate clean energy
5. “Design Principles” for compensating distribution-connected renewable resources
6. Features of a potential solution
7. Proposed next steps

# Focus Today: Distribution-Connected Renewables

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## **Commercial & Industrial VDER**

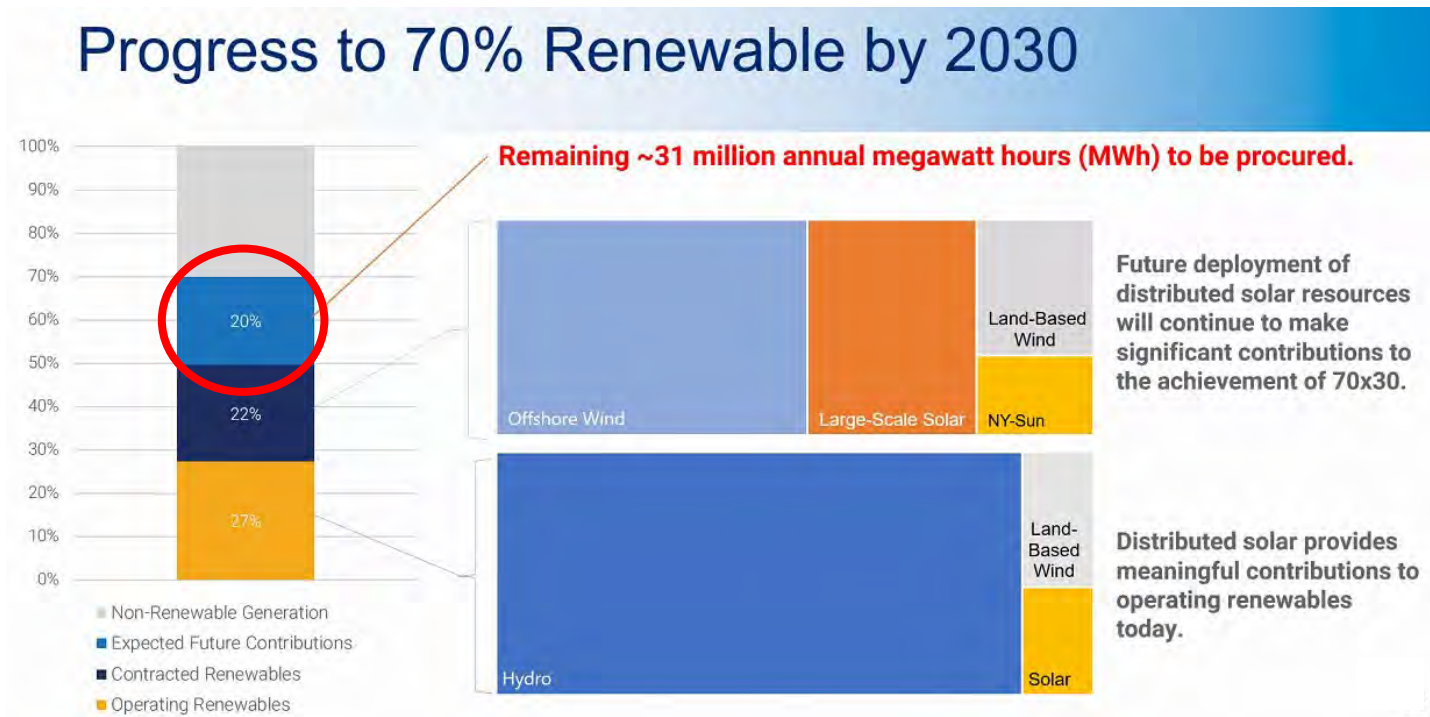
- Provides customer engagement
- Individual participation
- Greater compensation than selling directly to NYISO

## **Community Distributed Generation (CDG)**

- Customers without ready access can “adopt” renewables (*e.g.*, renters, those with unsuitable roofs, apartment dwellers)
- Has been a good tool and can play a continuing role:
  - Useful tool to engage interested subscribers with specific renewable projects

# CDG is One Element of the Solution Set

- CDG is only one tool to achieve CLCPA goals
- Distributed solar, including CDG, comprises a relatively small portion of the clean generation mix to meet the 70x30 target



Source: NYSERDA

# Natural limitations to CDG solar development

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- CDG cannot scale to meet all of the CLCPA goals
  - Lack of engaged customers to scale to thousands of MWs
  - Piecemeal evolution has resulted in a complex tool for developers, customers, and utilities
  - Variations and “enhancements” impede automation and efficient business processes
- Customer acquisition and relationship costs along with complexity of financing revenue streams can increase financing costs and lower customer credits
- Inefficient use of land – parcels lose capacity and are more expensive to develop when subdivided to meet the 5 MW threshold
- CDG compensation is greater than NYISO, results in artificial subsidies and revenue shifts to other customers that can last 25 years:
  - NY Sun / Community Adder
  - E value ~ \$10 over current REC
  - ICAP and other market mismatches

# A Holistic Approach Accelerates Clean Energy

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- Objective: reestablish a focus on the principal policy objectives REV / CLCPA is intended to support in cost-effective manner
  - Achievement of environmental mandates
  - Allow all customers to receive benefits from renewable projects consistent with equity provisions of the CLCPA for disadvantaged communities (“DAC”)
  - Support for the solar industry while developing the glidepath to an independent and sustainable (i.e., unsubsidized) business model
- Prevent Rube Goldberg end-state; desirable features include:
  - Stable framework that can adapt to market & technology advances
  - Compensation commensurate with value to customers
  - Financeable
  - Scalable

# “Design Principles” for Distributed Renewable Comp.

- The JU propose a set of Design Principles for distribution-connected renewable compensation that can be applied to all proposed mechanisms
- Each Design Principle is important; compensation model approaches should satisfy all agreed-upon Design Principles

## **1** *Acquire clean energy at lowest cost*

A compensation methodology should be designed to acquire RE at the lowest accessible price, leading to cost-effective achievement of CLCPA objectives

## **2** *Send Accurate Price Signals*

Mechanisms must ensure that compensation properly matches value to customers

## **3** *Transparent, technology-neutral*

Regulatory mechanisms should clearly identify rate-supported subsidies and must not pick technology “winners”

## **4** *Reduce Administrative & Regulatory Burden*

Policy mechanisms should direct resources to benefits, reduce or eliminate administrative hurdles and unnecessary regulatory processes that can raise costs for all stakeholders

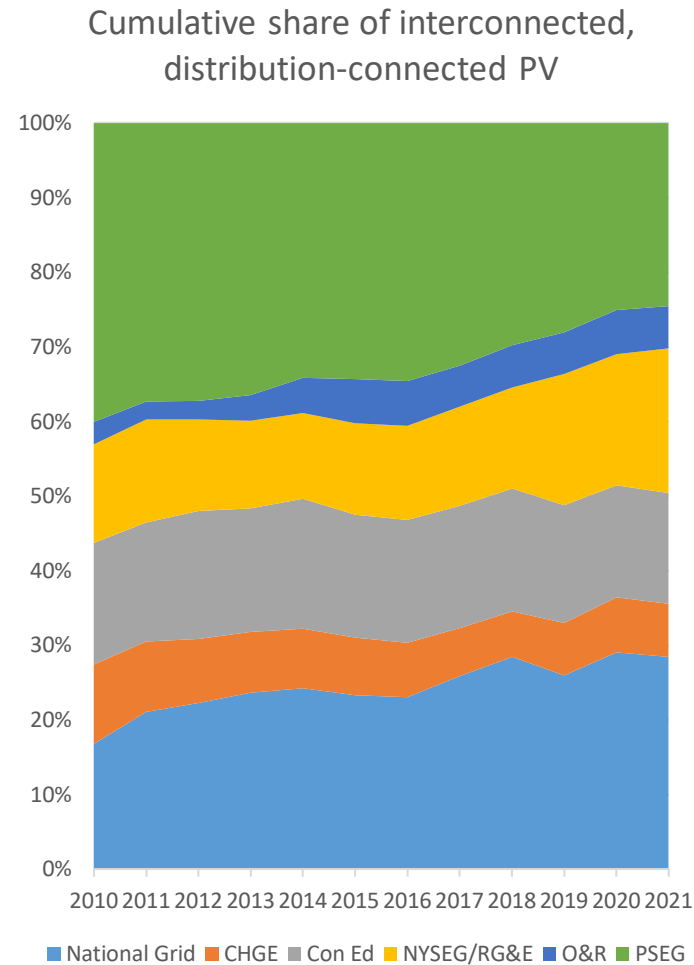
## **5** *Fairness & Equity*

Distributed Renewable compensation mechanisms must consider fairness among customer classes and accessibility to at-risk communities

# Features of a Potential Future Compensation Model

## 1 Compensation should be as accurate as possible

- Utility Customers should only pay for market-based values and demonstrated avoided costs
- If additional financial support is necessary for distributed generation, NYSERDA should provide it
- We are interested in hearing more from NYSERDA and other stakeholders regarding a preferred approach.
- For example, two options for NYSERDA to provide additional support:
  - A “standard offer” of a price for a certain quantity or temporal period
  - A competitively bid mechanism
- NYSERDA support would allocate costs fairly across utility customers rather than burdening customers of one company



Source: [NY Interconnection Queue Data \(March 2021\)](#)

# Features of a Potential Future Compensation Model

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## 2 Create a fair, non-CDG option to compensate resources

- Eliminate customer subscriptions
- All customers pay surcharges, so all customers should benefit from DG projects
- Utility, NYISO, or NYSERDA would directly compensate the project – at appropriate level
  - Energy and capacity based on wholesale clearing prices
  - E-value based on REC clearing price
  - D-value based on up-to-date avoidable costs
- To the extent out-of-market costs remain, they would be collected fairly from utility customers
- Utilities can fulfill CLPCA requirements with regard to benefits to disadvantaged communities by adjusting surcharge collection (e.g., by excluding LI customers)
  - NYSERDA support for projects can be higher for those projects that are located within disadvantaged communities



# Features of a Potential Future Compensation Model

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## 3 Establish regular, structured review

- Compensation and program success should be reviewed in structured fashion at regular intervals
- What is the right term for program review?
  - Annually
    - DLM programs are reviewed annually
  - Bi-annually
  - Other
    - The electric vehicle Make-Ready Program has a mid-term review commencing a little over two years from the Order which created the program with recommendations due to the Commission two and a half years after the beginning of the Make-Ready Program

# Features of a Potential Future Compensation Model

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## 4 CDG Can Remain an Option for Resources

- However, there should be no additional support from non-participating utility customers for projects that choose to pursue CDG
  - Creating another Market Transition Charge or Community Credit is unnecessary under solution Design Principles

# Proposed Next Steps

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- The JU do not have a fully-baked solution to offer, but would look forward to collaborating with Staff, the developer community, stakeholders
- The JU recommend a well-scoped process to consider *CDG Reformation*
- This Working Group is the appropriate venue
  - Opportunities to work with stakeholders in this working group
  - Offline collaboration, future Tech Conference(s) in which stakeholders can share ideas and insights

# Q&A

**Please use the Q&A function in  
WebEx to ask questions**



# Next Steps

Presented by David Sandbank



# Next Steps

- > This presentation will be posted to NY-Sun's [Resources for Contractors](#) page
- > Staff will release a Technical Conferences Proceedings document (targeting end of May)
- > Staff will release a Formal White Paper for SAPA comments (targeting Summer)
  - Stakeholders may file comments on the White Paper

# Final Q&A

Please use the Q&A function in WebEx to ask questions

