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April 20-21, 2022 | San Antonio, TX

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SEIA Solar Energy Industries Association®

INL Idaho National Laboratory

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SEIA
Solar Energy Industries Association®
Welcome to the
SEIA Finance, Tax and Buyers Seminar
Day 2 | Ballroom C

Integrating ESG, Sustainability, and Clean Energy into Real Estate + Leased Spaces

8:30 AM - 9:30 AM

Monika Henn

Director

Urban Land Institute

Michael Daschle

Senior Vice President, Sustainability

Brookfield Properties

Tanner Hayes

Manager, Finance & Program Operations - Global Energy

Prologis

Eric Duchon

Managing Director

Blackstone

Brookfield
Properties

Real estate, reimagined

Brookfield Properties develops and operates real estate investments on behalf of Brookfield Asset Management — one of the largest alternative asset managers in the world. From office to retail, logistics to multifamily, and hospitality to development, we work across sectors to bring high-quality, sustainable real estate to life around the globe every day.

New York Portfolio

27
Properties

26.7M
Total SF

Manhattan West

New York, New York

Manhattan West is a seven-acre mixed-use development located in the heart of Manhattan's Hudson Yards district. The project exemplifies our multifaceted development capabilities: site assembly, master planning, development, leasing and operations. The site sits directly between the busiest train station in North America and New York City's first subway extension in decades.

Brookfield designed Manhattan West to include all the elements of a "placemaking" destination: seven million square feet of Class A office space, 844 luxury apartments, a boutique hotel, curated retail amenities and two acres of open space.

To unlock the potential of the site, a complex platform was constructed over active rail operations in 2014. In 2017, Brookfield completed the 60-story residential tower, The Eugene, as well as the state-of-the-art office redevelopment, Five Manhattan West, which is 100% leased. In 2018, Brookfield selected Pendry (Montage Hotels) as the operator of the ground-up, five-star hotel that will begin construction in early this year.

Brookfield's first of two ground-up office towers, One Manhattan West, which is 96% leased, opened doors to its first tenants in October 2019. Construction of the second ground-up office tower, Two Manhattan West, broke ground in mid-2019, and upon completion, will represent the final phase of the Manhattan West development.

Property highlights

- 7.2 million sq. ft. mixed-use complex
- 5.8 million sq. ft. office
- 844 residential units
- 200,000 sq. ft. retail
- 150 hotel rooms
- 2-acres open space

Sustainability + Recognition

- Targeting LEED® certification

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Ballroom C

Join at

slido.com

#SEIA

Quick Talk: Overcoming Real Estate Issues in Solar Energy Project Financing

9:30 AM - 10:00 AM

Brianne Szopinski

Associate

Hodgson Russ LLP

Michael Hecker

Partner

Hodgson Russ LLP

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Ballroom C

Join at

slido.com

#SEIA

The Bridge to Bankability: Project Financing Strategies and Tapping into DOE's LPO Funding

10:00 AM - 10:30 AM

Gizelle Wray

Senior Director of Regulatory Affairs and Counsel

Solar Energy Industries Association

Chris Creed

Senior Advisor

U.S. Department of Energy - Loan Programs Office

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Join at

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#SEIA

How Corporates Can Achieve Their Sustainability Goals

10:45 AM - 11:45 AM

Chris Diaz

Co-CEO

Seminole Financial Services

Craig Sundstrom

Sr Manager, Public Policy

Amazon Web Services

Supria Ranade

Head of Power Markets

SB Energy

Sebastian Hoyos

Director, Renewables Advisory

ENGIE Impact

George Strobel

Partner, Co-Founder & Co-CEO

Monarch Private Capital

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#SEIA

Challenges and Opportunities for Onsite Solar

11:45 AM - 12:45 PM

Dan Lynch

Partner

Akin Gump Strauss Hauer & Feld

Rachel Goldstein

Research Analyst

Wood Mackenzie

Tanner Hayes

Manager, Finance & Program Operations - Global Energy

Prologis

Kevin Purdy

Director of Business Development

PowerFlex

Rei Moya

COO

Beam Living

Commercial Solar Market Update

SEIA Finance, Tax, and Buyers Seminar 2022

Rachel Goldstein, Solar Analyst at Wood Mackenzie

Before we continue…

- We need to define commercial solar

- A commercial PV installation is defined as a project in which the offtaker of the power is a “non-residential” customer – neither a homeowner nor a utility. The spectrum of offtakers typically includes commercial, industrial, agricultural, school, government and nonprofit customers.

- While most commercial solar projects under this definition will be connected behind-the-meter on the customer’s property, there are clearly exceptions such as remotely net-metered projects with non-residential offtakers.

- **This panel covers:**
- **Onsite commercial solar installations**. Installing an onsite solar system directly on the purchaser’s property requires its own set of considerations. Charts in this slide deck also include remote net-metered and offsite projects. In this session, speakers will unpack new trends in onsite solar, new finance structures, and the challenges that can arise when adopting onsite solar.

Before we continue…

- We need to define commercial solar

- **This panel does <u>not</u> cover:**

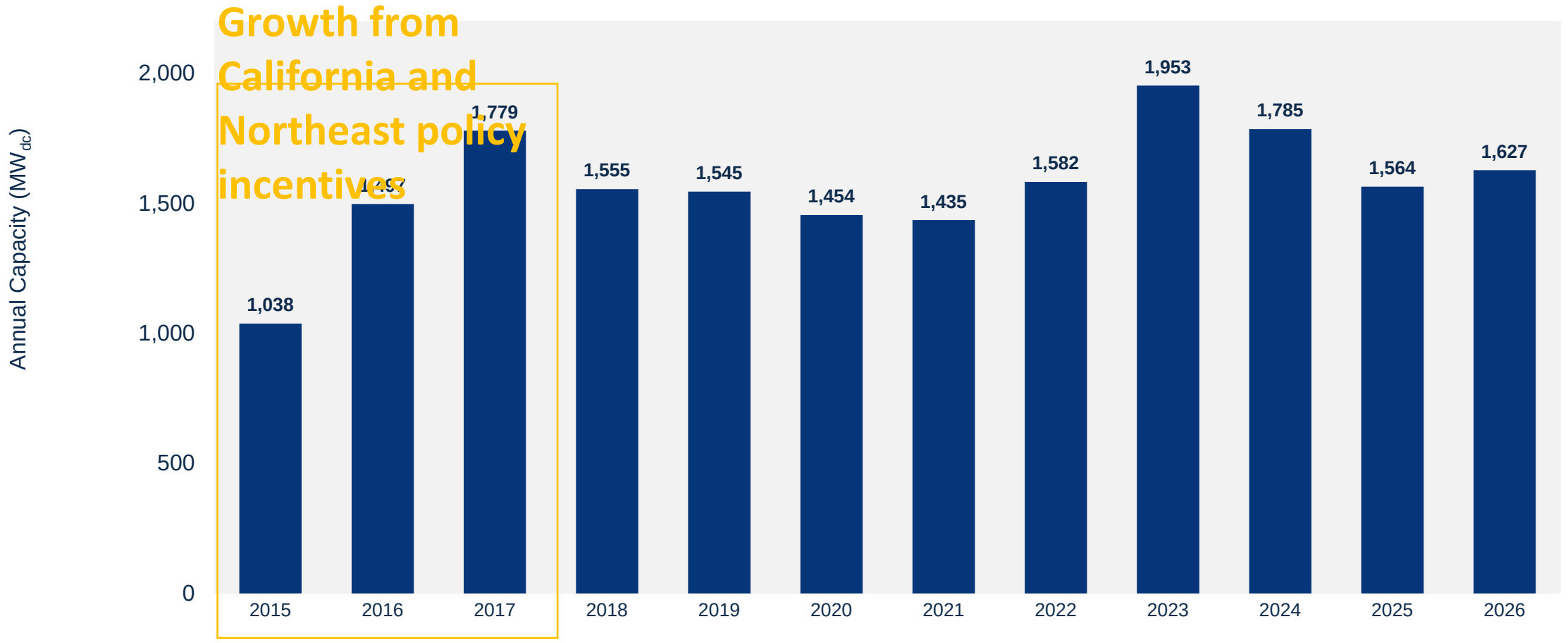
- **Utility-scale solar projects with corporate offtakers –** Projects with commercial/industrial entities as the power offtakers that are front-of-the-meter and connected to the transmission system are considered utility-scale solar. The business model for this type of project mimics that of a utility solar project with a virtual PPA rather than net metering. These projects are also referred to as “corporate offsite” projects.

- **Community solar –** Community solar projects are typically “anchored” by commercial customers and multiple customers can subscribe to power offtake from a project installed in their community and receive credits on their utility bills. But they are typically located offsite, outside the scope of today’s panel.

Commercial solar market overview

Commercial solar annual installations

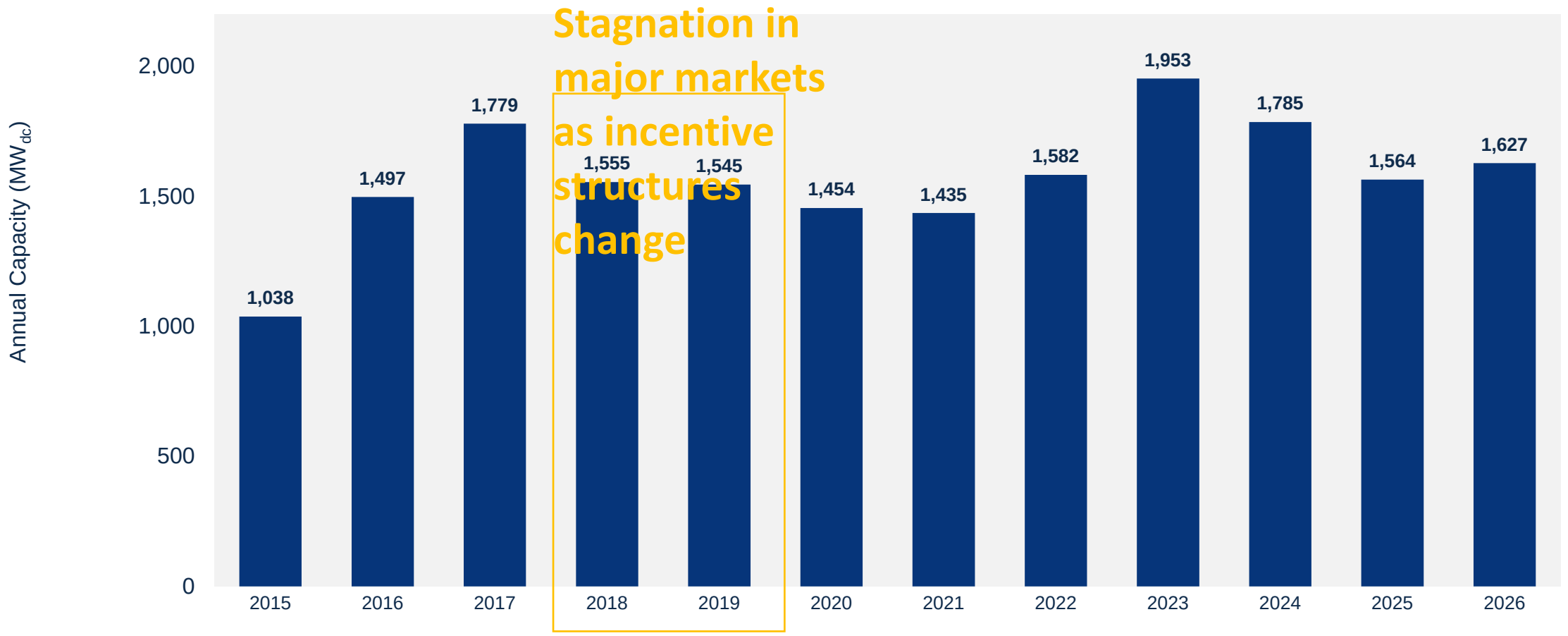
- The phases of policy-driven growth



Source: Wood Mackenzie

Commercial solar annual installations

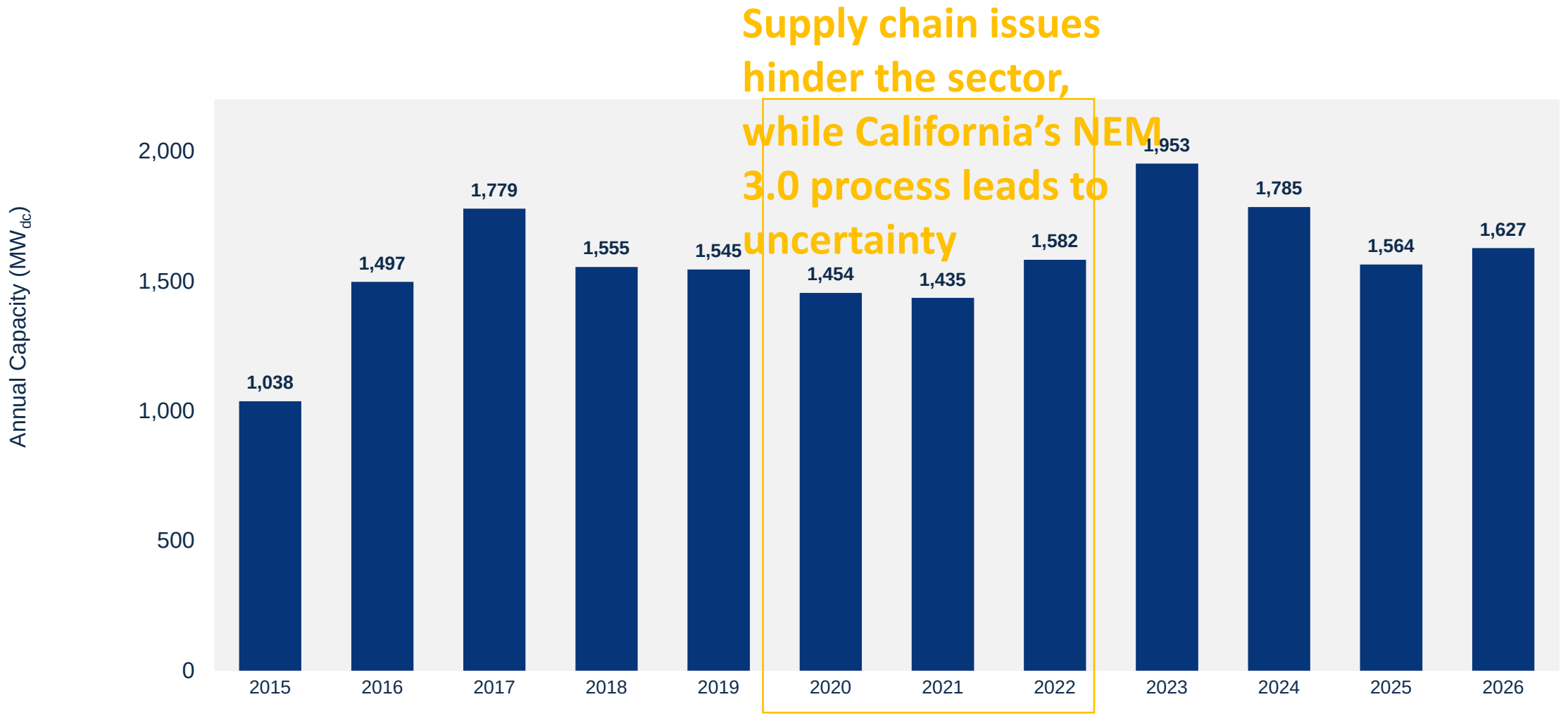
- The phases of policy-driven growth



Source: Wood Mackenzie

Commercial solar annual installations

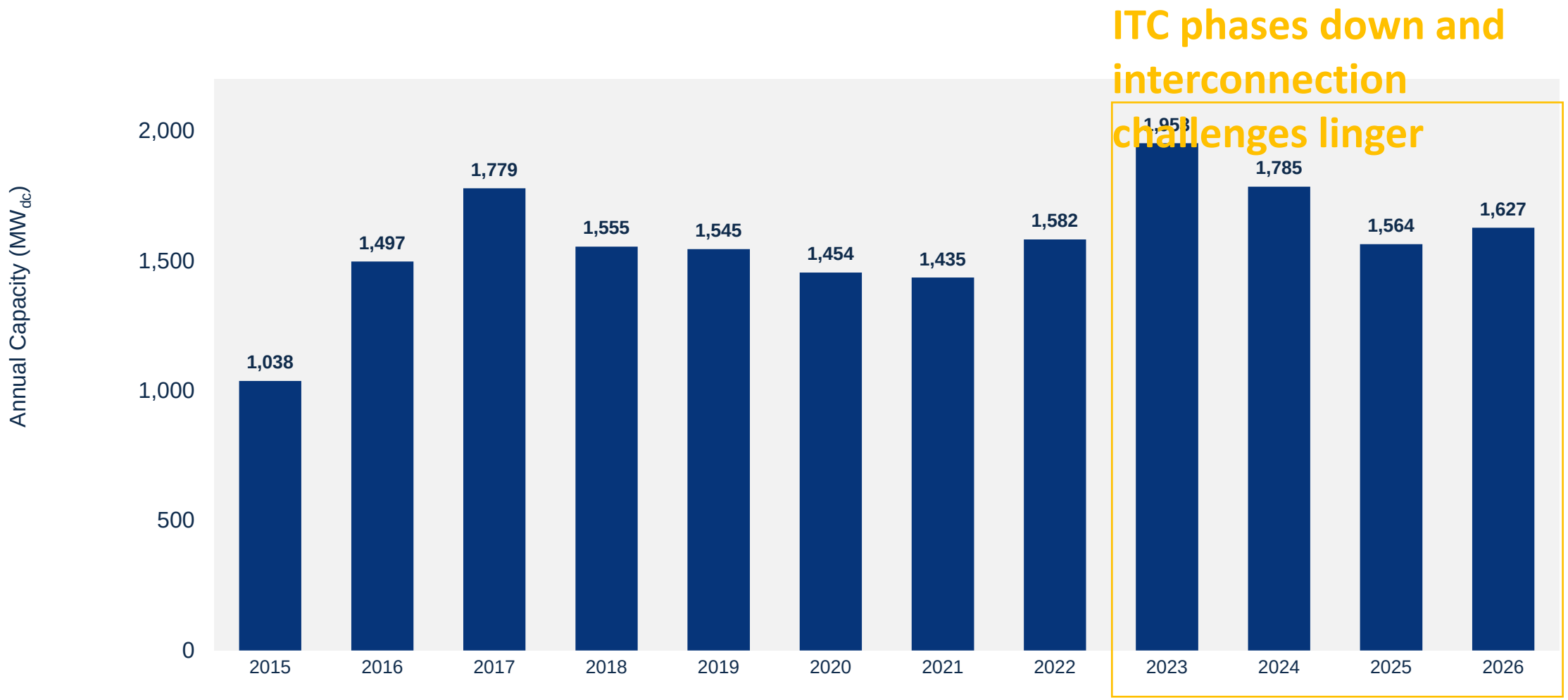
- The phases of policy-driven growth



Source: Wood Mackenzie

Commercial solar annual installations

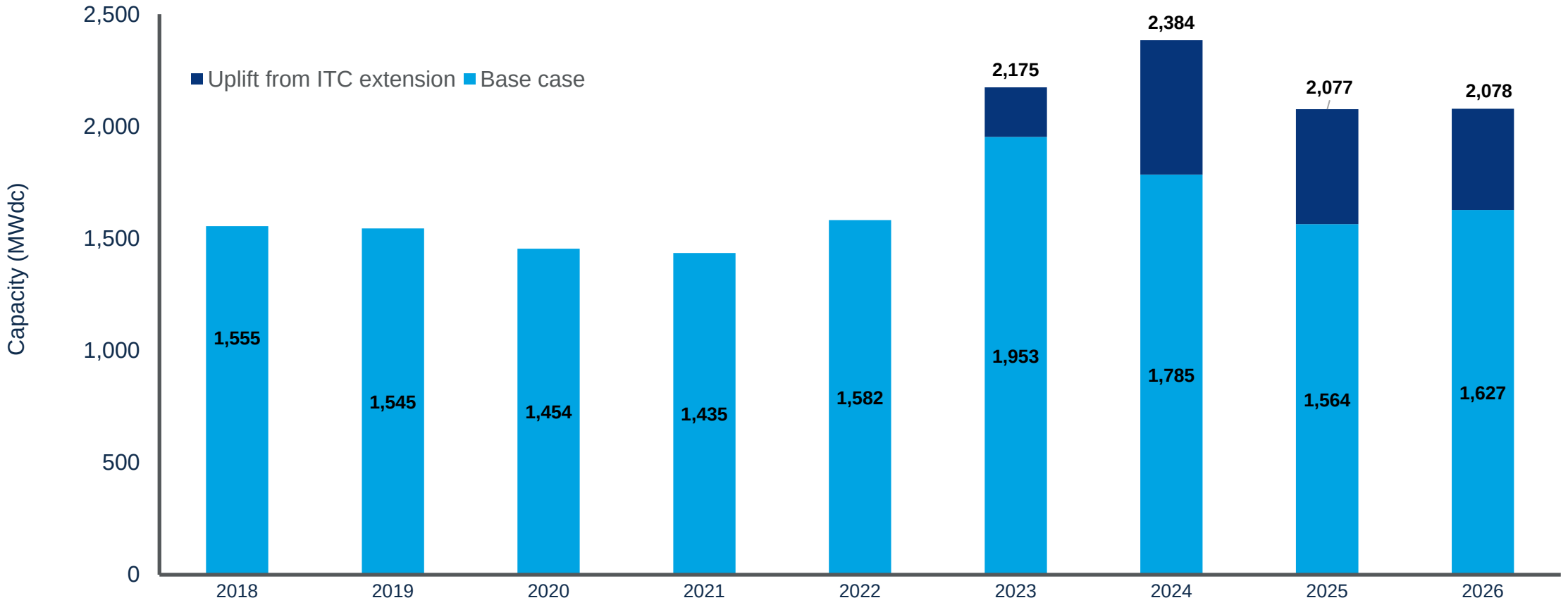
- The phases of policy-driven growth



Source: Wood Mackenzie

ITC extension and direct pay increase commercial solar by 21% through 2026

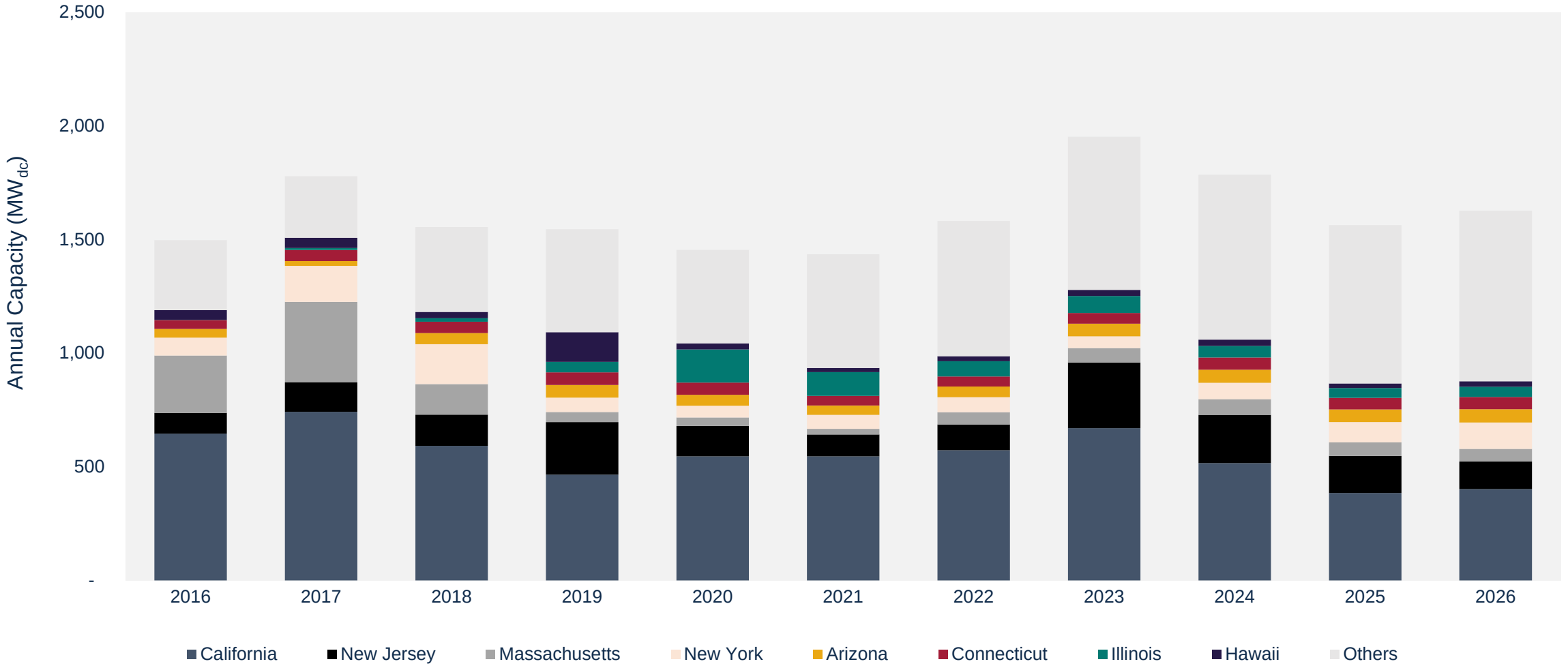
- Clean energy incentives would make more commercial projects economically viable.



Source: Wood Mackenzie

Commercial solar installations by state

- Markets will diversify, but top markets still make up over half the market by 2026



Source: Wood Mackenzie

Commercial solar competitive landscape is fragmented

- Commercial solar continues to consolidate for both development and asset ownership

National market share of top ten commercial solar installers

	2018	2019	2020	2021
Borrego	4.8%	5.3%	10.9%	10.4%
Standard Solar	0.0%	0.1%	3.1%	3.4%
PowerFlex	1.5%	2.1%	1.8%	3.3%
CS Energy	7.3%	10.0%	4.7%	2.7%
SunPower	3.8%	4.7%	4.0%	2.2%
NextEra Energy	3.2%	4.7%	2.5%	2.1%
Nexamp	0.5%	1.0%	2.9%	2.1%
ENGIE	2.2%	1.4%	2.0%	2.1%
Tesla Energy	5.4%	2.0%	1.7%	1.5%
REC Solar	0.8%	1.1%	0.8%	1.2%
Market Size (MW)	**2,196**	**2,184**	**2,347**	**2,392**
Combined market share	**29%**	**32%**	**34%**	**31%**

National market share of top commercial solar owners

	2018	2019	2020	2021
AES	1.7%	2.6%	3.3%	6.3%
Clearway Energy	1.6%	2.9%	1.2%	5.2%
Nexamp	1.3%	1.7%	6.7%	4.6%
NextEra Energy	6.2%	6.7%	3.8%	3.4%
Standard Solar	9.4%	3.7%	3.6%	3.4%
Madison Energy Investments	0.0%	0.5%	2.3%	2.6%
Market Size (MW)	**2,196**	**2,184**	**2,347**	**2,392**
Combined market share	20%	18%	21%	26%

* Source: WoodMackenzie; US PV Leaderboard Q1 2022

Challenges to onsite commercial solar

Financing and project development barriers

Building Ownership	A large portion of commercial businesses rent or lease their buildings, reducing the potential market.
Customer credit	Lack of standardization for creditworthiness leads to costly due diligence and expensive financing.
Customer relationships	Convincing commercial customers to “go solar” can take years of deep relationship building.
Tax equity availability	Tax equity providers favor larger transaction sizes and standardized project types.

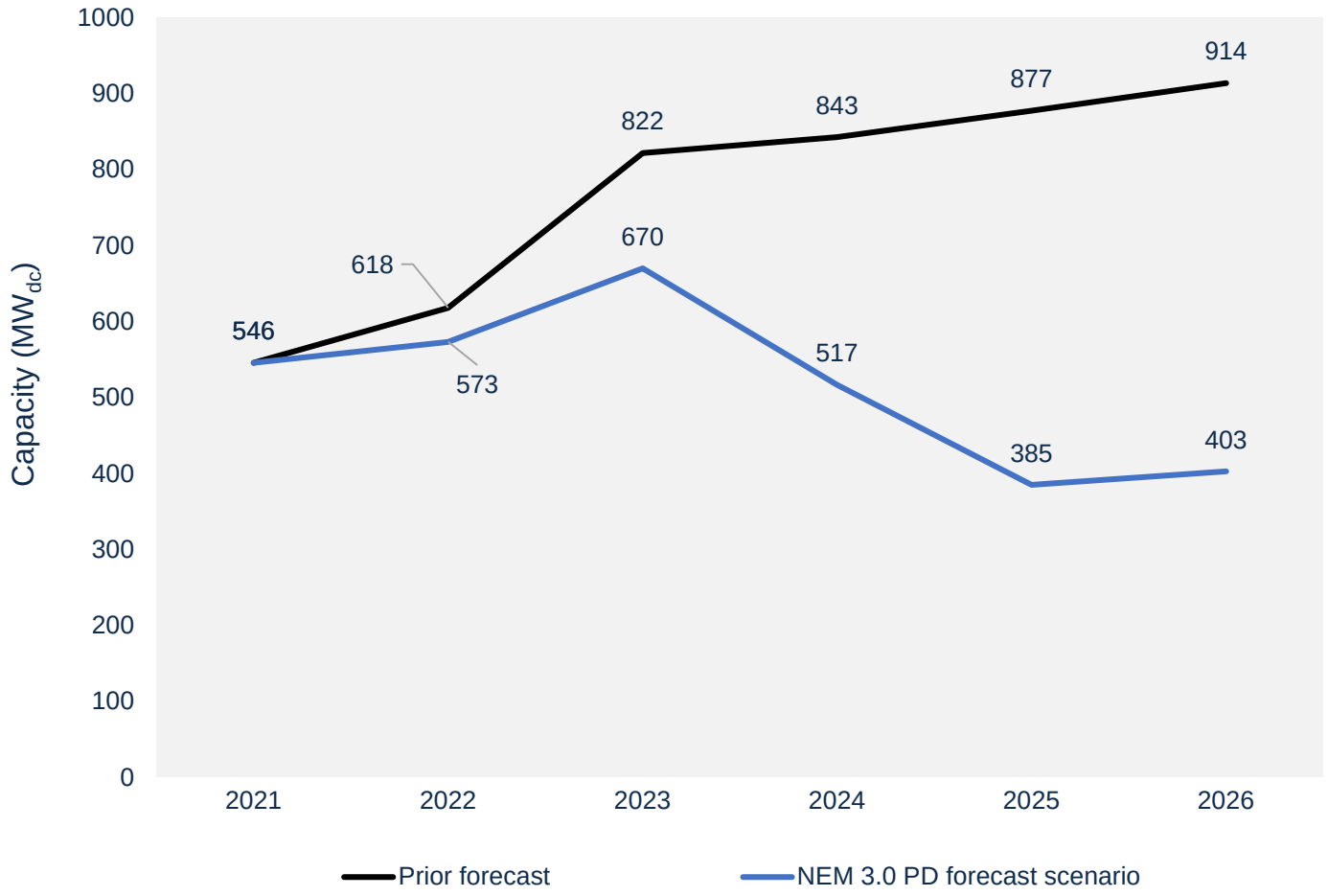
Policy and utility interconnection barriers facing top C&I solar states

Every state market is different and requires specialized policy knowledge

Massachusetts	Significant interconnection challenges as transmission cluster studies cause project delays.
New Jersey	Final ADI rates for the Solar Successor Incentive program (SuSI) lower than previous programs, dissuading some developers.
New York	Highly populated areas of New York face significant grid congestion – most demand is being met with offsite projects.
California	NEM 3.0 decisions are still in flux, but could have significant impacts on the commercial solar segment.

California's NEM 3.0 decisions will have big implications for commercial solar

- The proposed decision (PD) would reduce California commercial solar by 1,500 MW_{dc} from 2023-2026



Source: Wood Mackenzie

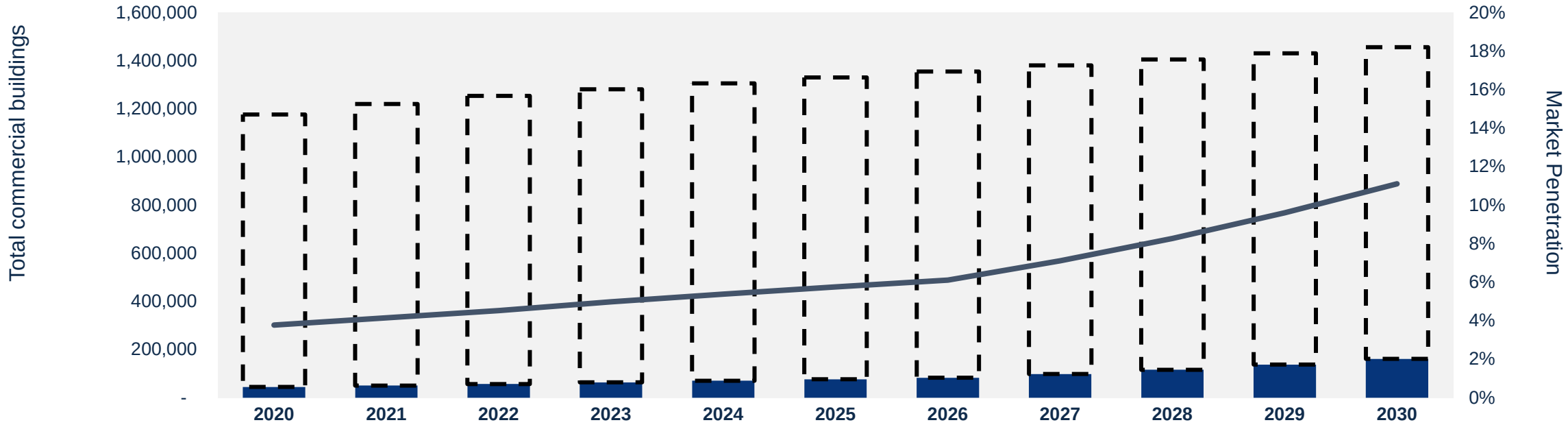
How does NEM 3.0 PD lead to unfavorable economics and financing uncertainty?

- New export rates would apply to commercial solar projects
  - However, non-residential customers aren't subject to the Grid Participation Charge
- Lengthened project payback periods
  - Developers incentivized to build smaller projects,

Market penetration and opportunities for growth

Overall, 70% of U.S. commercial buildings are “untapped”

- 4.1% of U.S. commercial buildings have solar, yet many commercial entities are interested in renewable energy

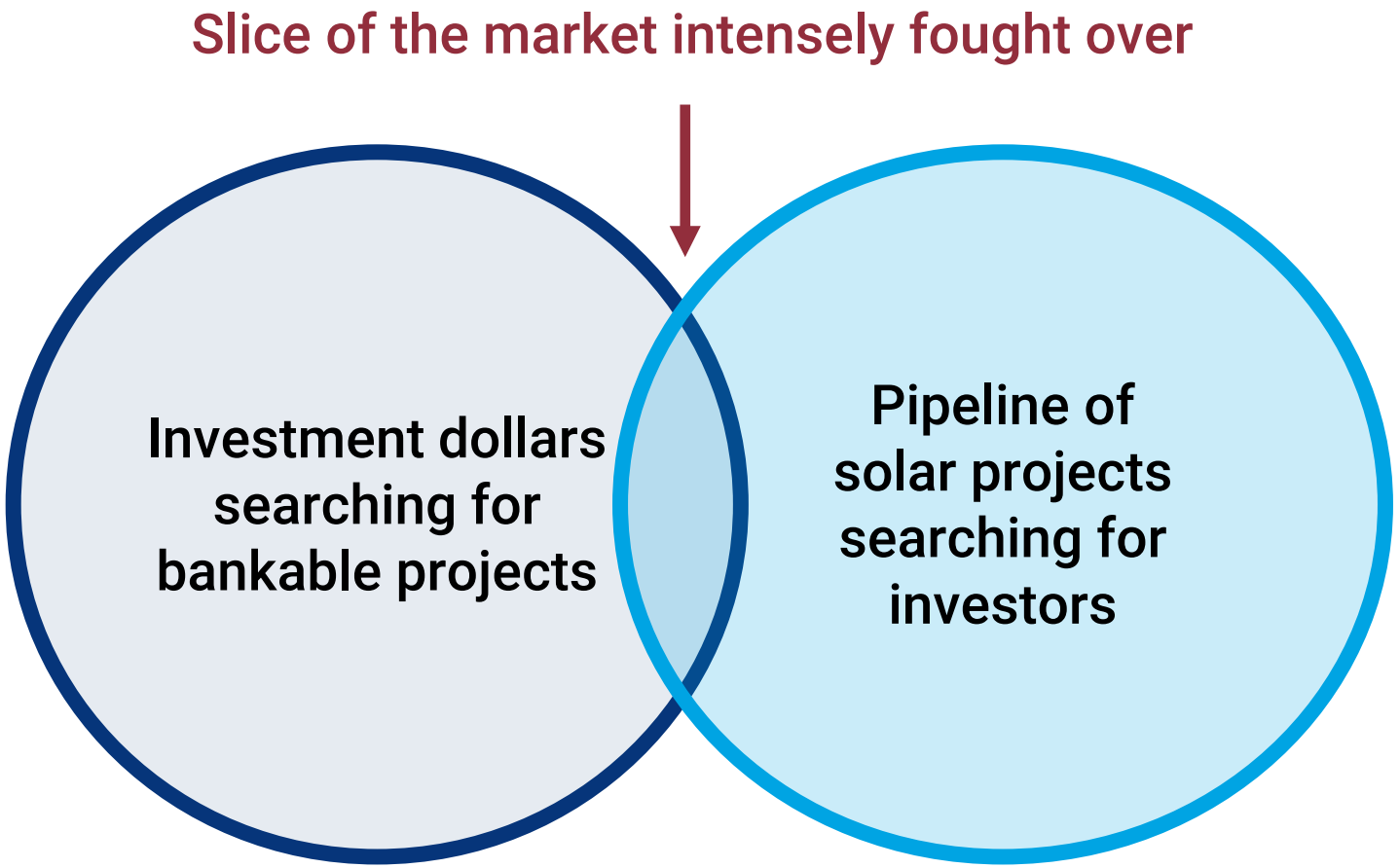


- Buildings with at least 10,000 square feet of rooftop space make up the addressable commercial solar market
- About 25% of these building sites are less viable. Sites are likely to not be viable if installing solar will not yield >10% electricity cost savings.
- Total market penetration of non-residential commercial solar in the US is 4.1%, but that could increase to 11% by 2030.

- Source: Wood Mackenzie, Station A

Reaching commercial solar's potential

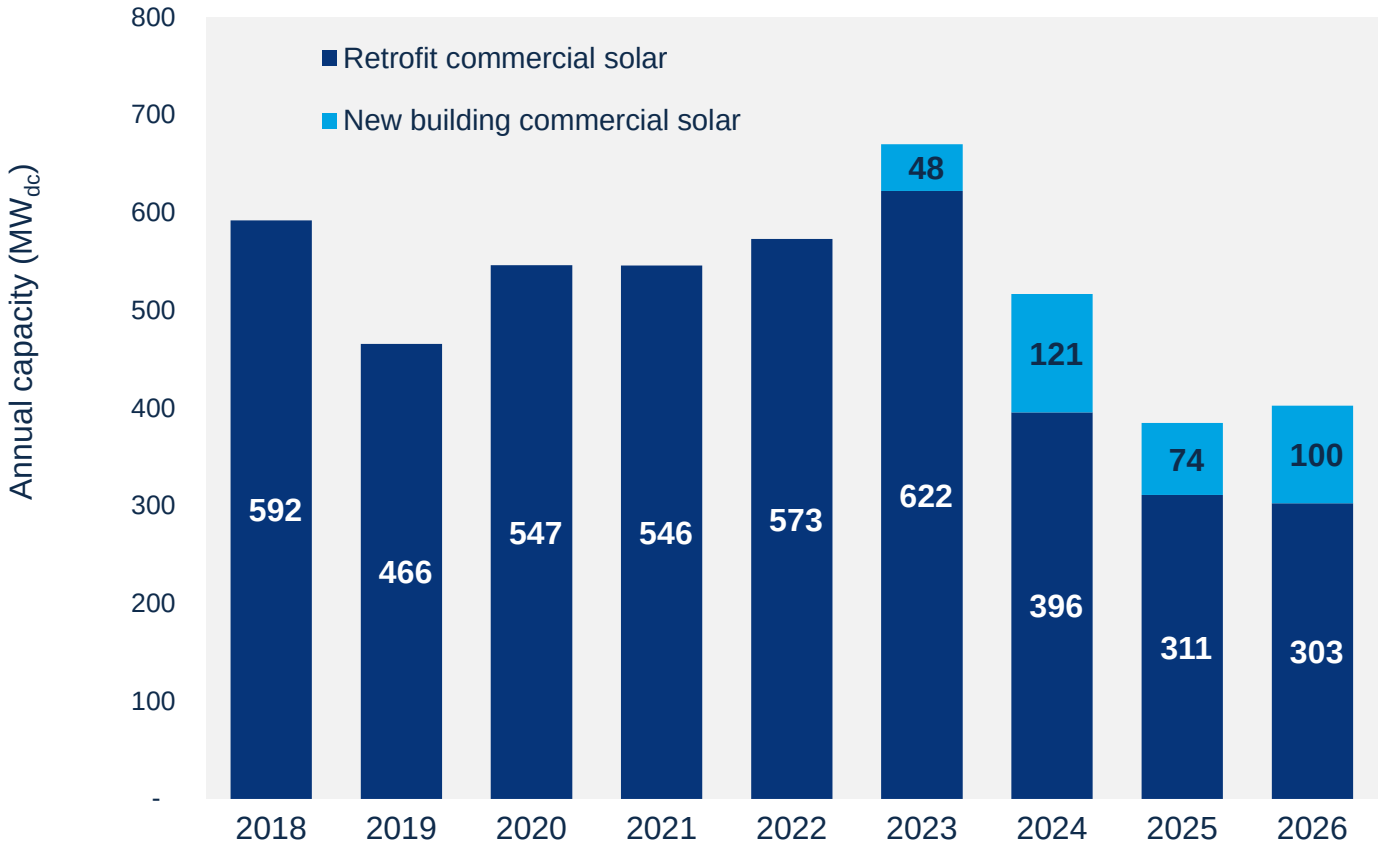
- Stakeholders from all sides need to expand the universe of bankable projects



California Energy Commission mandates solar and storage on new commercial buildings

- The rule goes into effect on January 1st, 2023 and increases capacity by 30% starting in 2023

Annual community commercial capacity in California



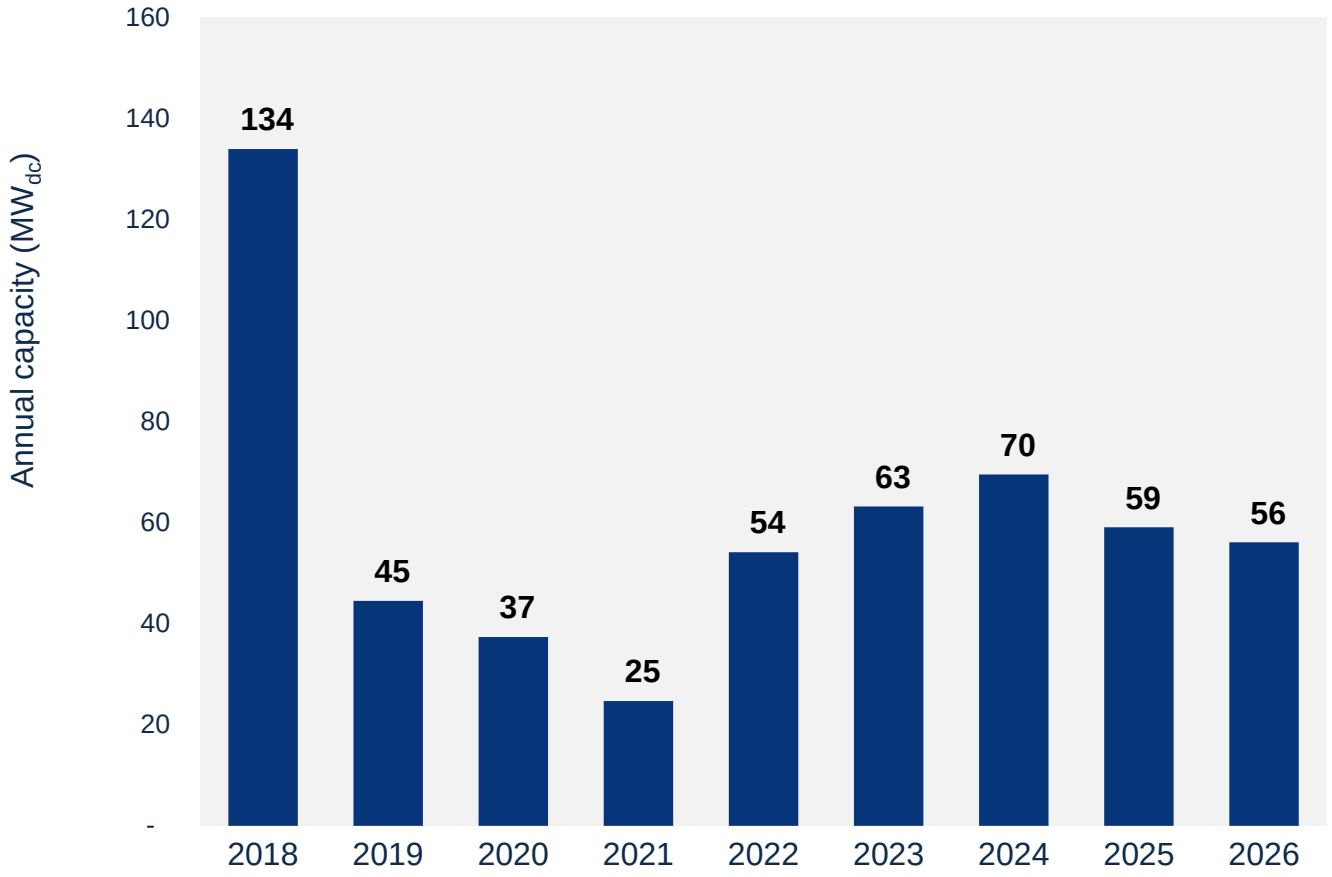
- New code requires most new commercial buildings to have solar PV and battery systems installed
- The CEC standards were approved last December. They go into effect in 2023
- Additional 200 MW_{dc} of onsite commercial solar to California's market starting in 2023, about a 30% increase over base case
- These new codes are expected to increase the total cost of new construction, so exemptions may be made

Source: Wood Mackenzie

New cost-allocation plans and SMART openings in Massachusetts

- Addressing interconnection challenges with new models for cost sharing

Annual commercial capacity in Massachusetts



- High interconnection costs threaten nearly a gigawatt of projects in Massachusetts
- DPU's new provisional program establishes new models for cost-sharing:
  - Rate base a portion of necessary grid upgrades through "Reconciling Charges" applied to customer bills. Project developers would be charged a "Capital Investment Project fee"
- New SMART capacity will give a boost to commercial solar sector in Massachusetts. However, buildout of commercial solar in the second round of SMART will be harder than the first round

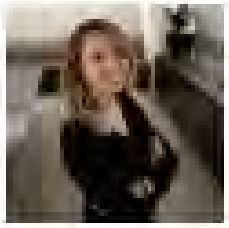
Source: Wood Mackenzie

How can we improve the economics for commercial solar?

- Opportunities can come from policy changes, thoughtful system design, and attracting capital to the sector
  - Portfolio transactions could attract more institutional capital or investment bank financing.
  - Getting creative with on-site system designs can help avoid the pitfalls and constrained economics sometimes associated with on-site solutions. Changes to policy and on-site consumption provide some optimism for continued development.
  - New building design practices that lower cost to reroof & repower, accelerating reroof expenses to facilitate solar economics.
  - Grouping smaller buyers together to purchase power from larger projects could address “middle market” customers.

Challenges and Opportunities for Onsite Solar

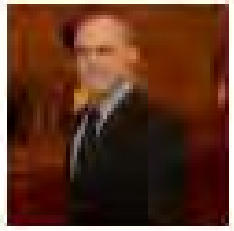
Dan Lynch
Partner
Akin Gump Strauss Hau...



Ms. Rachel Goldstein
Research Analyst
Wood Mackenzie

Mr. Tanner Hayes
Manager, Finance & Pro...
Prologis

Kevin Purdy
Director of Business De...
Powerflex



Mr. Rei Moya
COO
Beam Living

Rachel Goldstein

- Solar Analyst

- **Rachel Goldstein** is a Solar Analyst at Wood Mackenzie Power & Renewables. She focuses on community solar and solar-plus-storage within the distributed solar practice at Wood Mackenzie. Rachel also contributes to the quarterly publication of the U.S. Solar Market Insight report in collaboration with the Solar Energy Industries Association (SEIA).

- Prior to joining Wood Mackenzie, Rachel was a Solar and Storage Analyst at SEIA, where she conducted research for industry policy and regulatory topics and led database management and maintenance. She is an alumni of the Clean Energy Leadership Institute and holds a BA in Environmental Biology and Environmental Engineering from Washington University in St. Louis and an MS in Energy Policy and Climate Science from Johns Hopkins University. Rachel is based in Washington, DC.

- Connect with Rachel

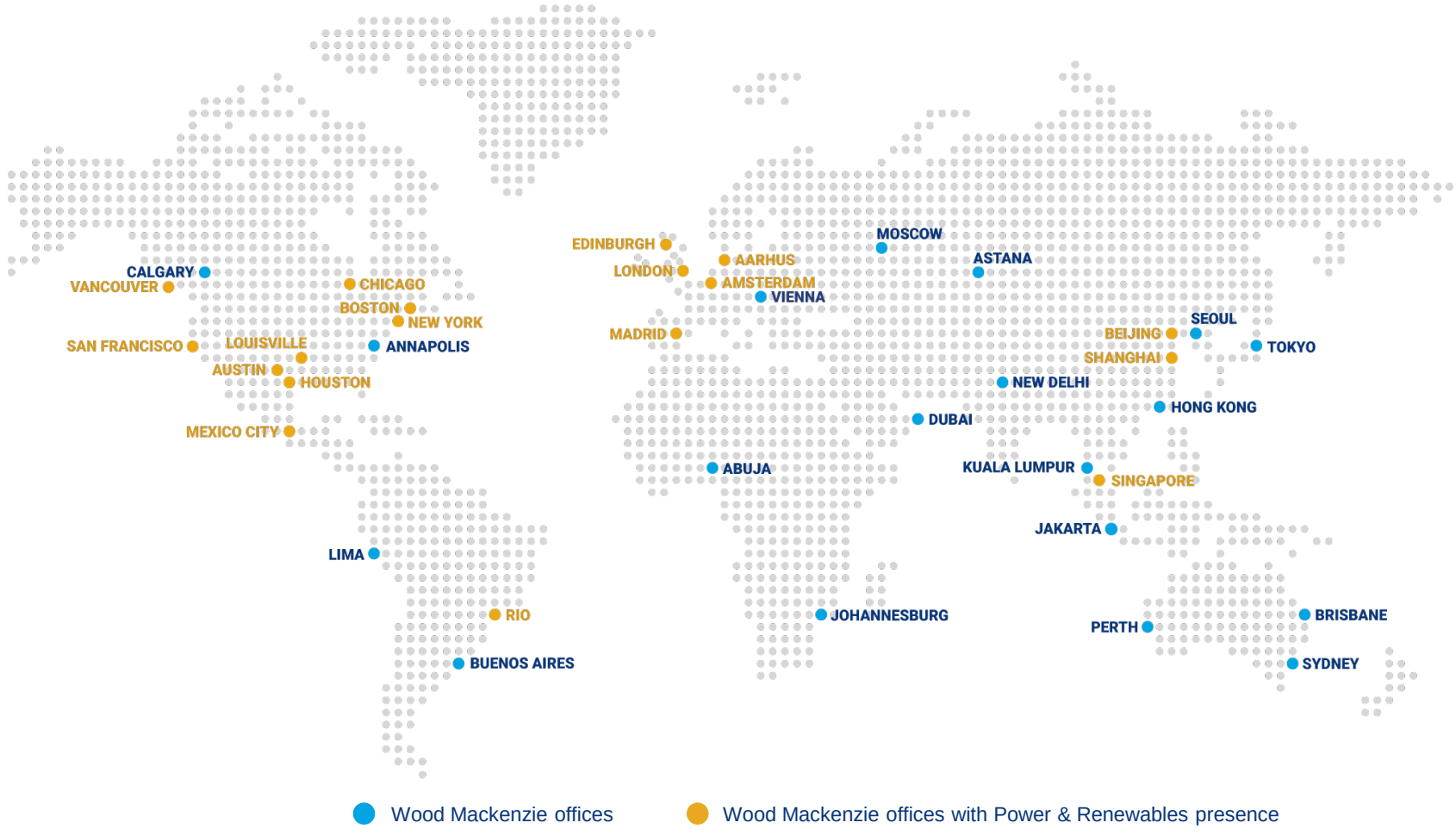
- Rachel.Goldstein@woodmac.com
- (973)-454-7304
- https://www.linkedin.com/in/rachelemmagoldstein
- @rg0lds

About Wood Mackenzie

We provide commercial insight and access to our experts leveraging our integrated proprietary metals, energy and renewables research platform.

Wood Mackenzie is ideally positioned to support consumers, producers and financers of the new energy economy.

- Acquired Genscape, MAKE and Greentech Media (GTM)
- Leaders in the energy transition and cross-commodities
- Over 600 sector-dedicated analysts and consultants globally
- Located close to customers and industry contacts



beam
LIVING

Solar at StuyTown & Peter Cooper Village

MAR 31, 2022 **SEIA Conference**


Blackstone

StuyTown Solar Statistics & Fun Facts

StuyTown and Peter Cooper Village's 9,671 solar panels represent the largest private multifamily solar array in the country.

- All rooftops painted white to help efficiency as part of the NYC Cool Roofs project prior to installation of solar panels.
- Nearly 22 acres of rooftop solar panels, the equivalent to over 16 football fields.
- System capacity of 3.8 megawatts.
- Offsets approximately 6% of the total electric load.
- Doubled the solar capacity in Manhattan at the time.
- The solar array was officially turned on in 2018 and has produced over 15 million kWh of electricity through December 2021.
- The reduction in greenhouse gas (GHG) emissions for this project is equal to the GHG emissions absorbed by a 13,277-acre forest or, the amount of clean energy produced by 2.3 full scale wind turbines in a year.

StuyTown Solar Panel Installation and Finished Product

Unrivaled scale where consumption is highest….

$215B
Assets under management

1.0 BSF
On four continents
19 countries

PLD
NYSE, S&P 500 member, #71

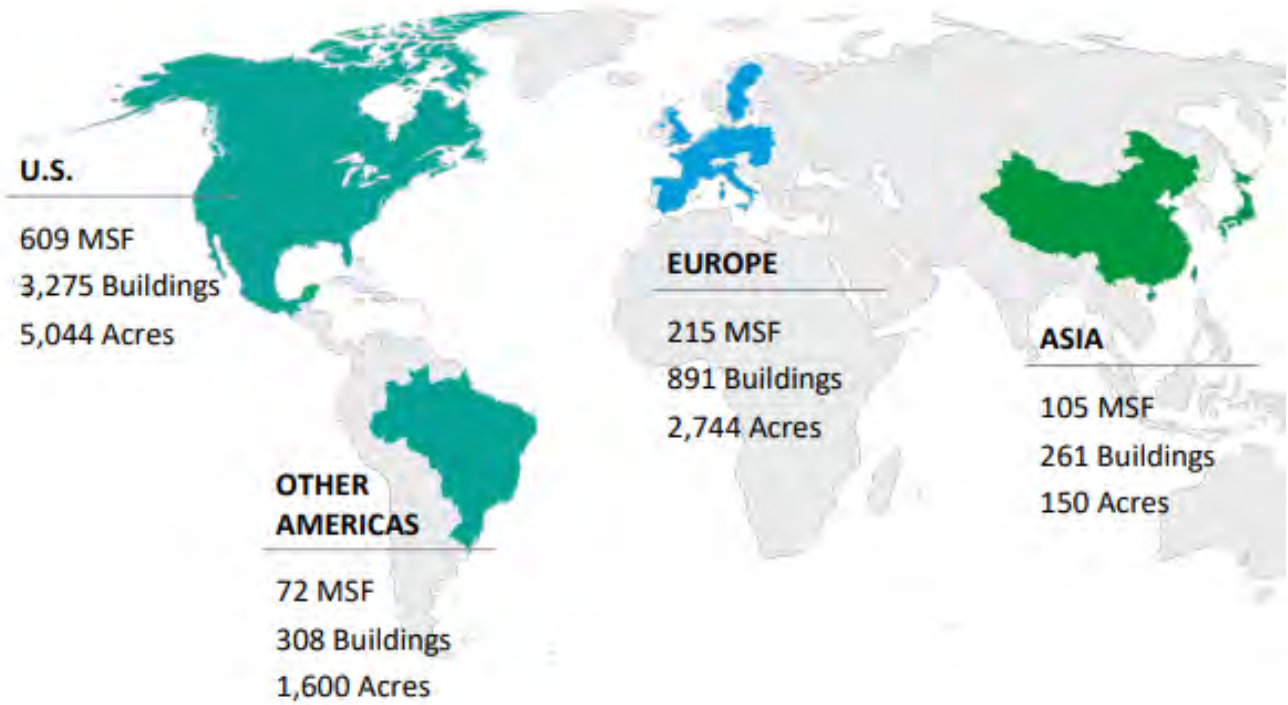
A3/A-
Credit rating

5,800
Customers

15%
Global goods consumption

1983
Founded

$26.4B
Build out of land bank (TEI)



Prologis Solar at a Glance

11
countries

285+
MWs of generating capacity

213
buildings

34.2+
MSF of rooftops

125+
customers

55,515
household equivalents powered

U.S.
151 MW
78 buildings

Europe
86 MW
98 buildings

Asia
43 MW
37 buildings

Also worth noting:

#3
in U.S. corporate onsite solar by SEIA (2018)

122
MWs of new solar developments globally (as of Nov. 2021)

60+
people dedicated to the Prologis Essentials and Global Energy Team

Global energy solutions

Turnkey advisory services to increase efficiency and enhance your facility

CORE ELEMENTS OF OUR PROGRAMS

Renewable
Sustainability targets

Prologis led
Turnkey installations, no maintenance

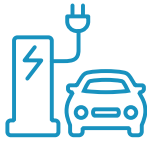
Easy
Coterminous agreements

EnergySmart

Join hundreds of Prologis customers who reach their sustainability targets through our streamlined onsite renewables with no upfront costs, our solutions are delivered turn-key with your real estate, including co-terminus financing.

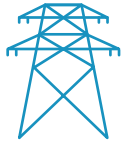
EnergyX

Prologis is one of the world's largest hosts of rooftop solar, leasing roofspace to third-party owners and developers. It's in-fill locations are ideally suited for distributed renewables, including community solar, feed-in-tariff and wholesale projects.



EV Charging

Electrify your workplace and fleet with EV charging. Our solution includes grid connection, charging equipment, onsite make-ready, and ongoing maintenance and service.



Advisory

Regardless of the utility, Prologis provides energy advisory services to navigate the complexities of deregulated and regulated electric utilities—from tariff guidance to renewable energy procurement – to support commercial & industrial customers.

Efficiency

The brightest lights bring the biggest savings. Improve productivity in a single motion, regardless of whether the building is owned by Prologis with LED lighting, or other energy efficiency improvements.

powerflex
EDF Renewables

PowerFlex Overview for SEIA

Opportunities and Challenges

Kevin Purdy – Director of Business Development

March 2022

PowerFlex - Multiple solutions, one point of contact

powerflex
EDF Renewables

PowerFlex is a national provider of renewable energy infrastructure with a comprehensive suite of flexible, turnkey solutions designed to transform any organization into a clean-energy facility.

PowerFlex - Most Corporate Focused in the Market

- Focus on **national footprint, Fortune 500 corporates** (e.g. big box retailers, real estate, manufacturing, & distribution)
- Serve **all facility types and locations** within customer portfolio
  - Installation ranging from 300kW - 10MW in size, including rooftops, ground mounts & carports
  - National track-record - worked across 18 states with expertise in states that yield maximum return for corporates (CA, NY, NJ and MA)
- Transition from transactional to relationship focus via **Solar Partnership Program**
  - 2+ systems built for ~75% of our clients
  - 60% of our pipeline is from Fortune 500 accounts

Example Corporate Clients

Nestlé, pepsi, TARGET, Signature FLIGHT SUPPORT, MEDLINE, PROLOGIS, BJ's, MATRIX, Lineage, Sysco

Vast potential to grow EV and Storage solutions into the existing corporate client base

Bloomberg, NY – 1.7MW

Lineage Logistics, CA – 2.7MW

Colonial Pipeline, NJ – 5MW

Regeneron Pharma, NY – 600kW

PowerFlex – Recognition with Large Opportunity Ahead

Wood Mackenzie POWER & RENEWABLES

PowerFlex was ranked third in the US for installation of non-residential solar. Competitors that have installed more than us focus on the community solar market, not the behind-the-meter C&I market

	National Market Share Est. - Annual				
	2017	2018	2019	2020	2021
1 Borrego	2.9%	4.8%	5.3%	10.9%	10.4%
2 Standard Solar	0.0%	0.0%	0.1%	3.1%	3.4%
3 PowerFlex	1.3%	1.5%	2.1%	1.8%	3.3%
4 CS Energy	0.1%	7.3%	10.0%	4.7%	2.7%
5 SunPower	5.6%	3.8%	4.7%	4.0%	2.2%
6 NextEra Energy	2.0%	3.2%	4.7%	2.5%	2.1%
7 Nexamp	1.3%	0.5%	1.0%	2.9%	2.1%
8 ENGIE	2.1%	2.2%	1.4%	2.0%	2.1%
9 Tesla Energy	6.4%	5.4%	2.0%	1.7%	1.5%
10 REC Solar (Duke Energy Renewables)	1.6%	0.8%	1.1%	0.8%	1.2%
11 New Energy Equity	0.1%	0.8%	0.0%	0.4%	1.2%
12 Greenskies (Clean Focus Renewables)	1.5%	2.3%	0.5%	0.0%	1.1%
13 American Renewables Construction	0.0%	0.0%	0.3%	0.3%	1.1%
14 Coldwell Solar	1.3%	1.0%	0.4%	0.9%	1.1%
15 Distributed Asset Solutions	0.0%	0.0%	1.7%	2.5%	1.0%
16 Nautilus Solar	0.0%	0.0%	0.4%	0.9%	1.0%
17 Conductive Power	0.0%	0.0%	0.0%	0.7%	1.0%
18 Solar Landscape	0.1%	0.1%	0.5%	0.4%	1.0%
19 Zero-Point Development	0.0%	0.0%	0.0%	1.0%	0.9%
20 Lodestar Energy	0.0%	0.0%	0.0%	0.0%	0.9%

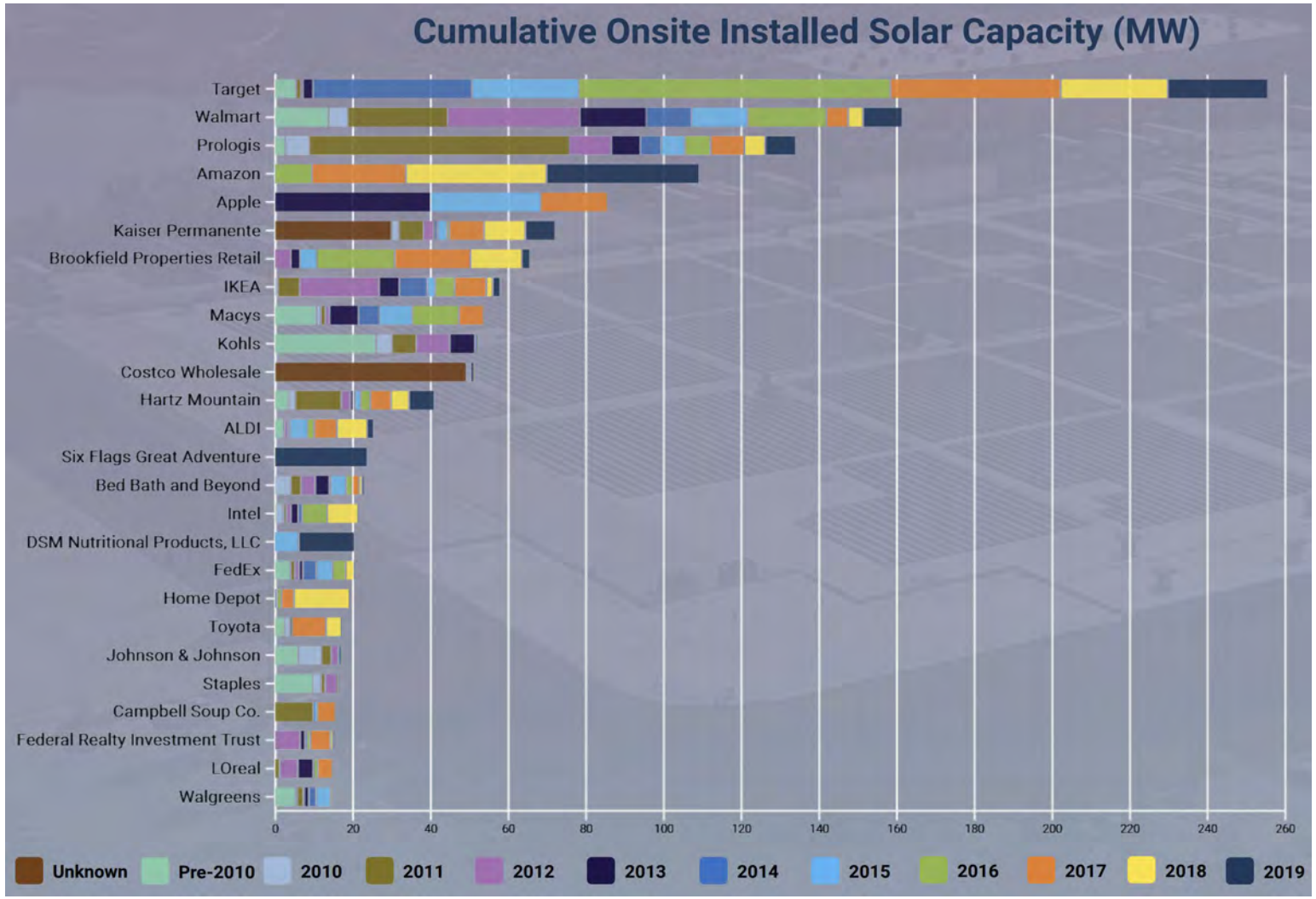
Large Potential Opportunity

US commercial buildings remain at only

- 3% penetration of onsite solar by # of locations
- 5% penetration by total MW potential

Corporate Solar Deployment is Growing

U.S. Corporate Onsite Solar Leader Board



- U.S. corporates have installed **over 7,000 MW** of solar across 35,000+ individual solar systems
- The top 25 companies with the greatest amount of onsite solar installed include **Amazon, Target, Walmart, Home Depot, Ikea, and Costco**
- **Aggressive ESG goals** and **accelerated GHG reduction strategies** are becoming the norm amongst leading U.S. companies

Source: 2018 Solar Means Business Report, Solar Energy Industries Association

Drivers of Corporate Onsite Solar Adoption

• Compelling Economics

- Solar = cheaper electricity | Flexible financing = capex & non-capex options

• Energy Price Hedge

- Control/fix energy costs
- Long-term utility rate volatility hedge

Investor ESG Focus

- Investors demand renewable energy commitments
- Generate renewable energy credits (“RECs”)

Customers

- Visible sustainability practices
- Strategic advantage for consumer-facing firms

Tax Planning

- Convert tax liability into a revenue generation
- Low risk investment opportunity

Climate Risk Mitigation

- Reduce GHG emissions
- Provide local climate impact

Employees

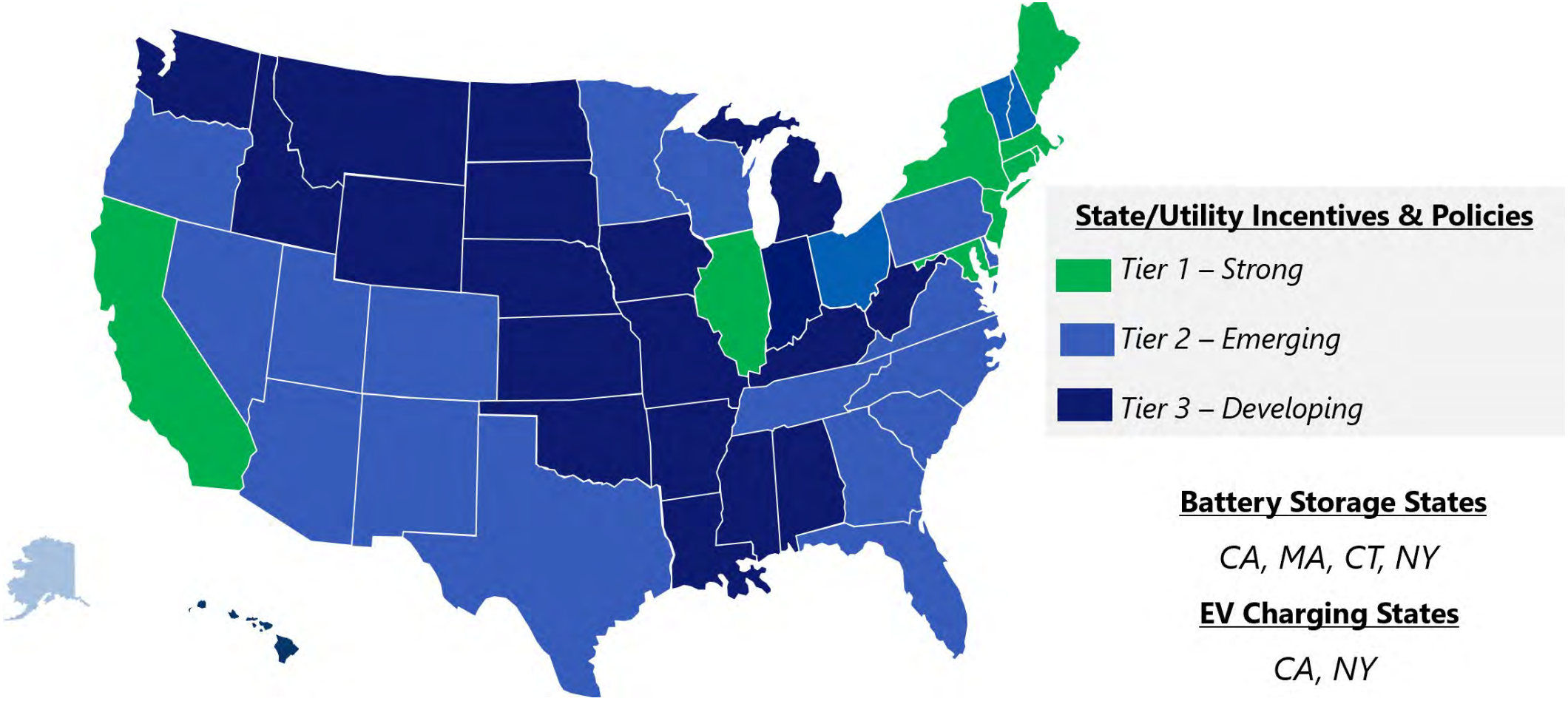
- Enhance employee recruitment, retention & engagement

Helping Corporates Meet Sustainability Goals

Some examples of companies making progress towards their renewable energy commitments

TARGET	**Target:** 100% Renewable Electricity goal by 2030	PowerFlex installed 55,000 kW DC across 60+ sites
amazon	**Amazon:** 100% Renewable Electricity goal by 2025 and Zero Carbon by 2040	PowerFlex installed 8,600 kW DC across 2 sites
PROLOGIS® Ahead of what's next	**Prologis:** Reduce total Scope 1 & 2 greenhouse gas (GHG) emissions by 21% by 2025	PowerFlex installed 80,000 kW DC across 70+ sites
PEPSICO	**PepsiCo:** 100% Renewable Electricity goal by 2020	PowerFlex's installation is featured in PepsiCo's campaign outreach
SWIRE | Coca-Cola SWIRE COCA-COLA	**Swire Coca-Cola:** 100% Renewable Electricity goal by 2026	PowerFlex installed their solar project in Yuma, AZ with future installations in the pipeline

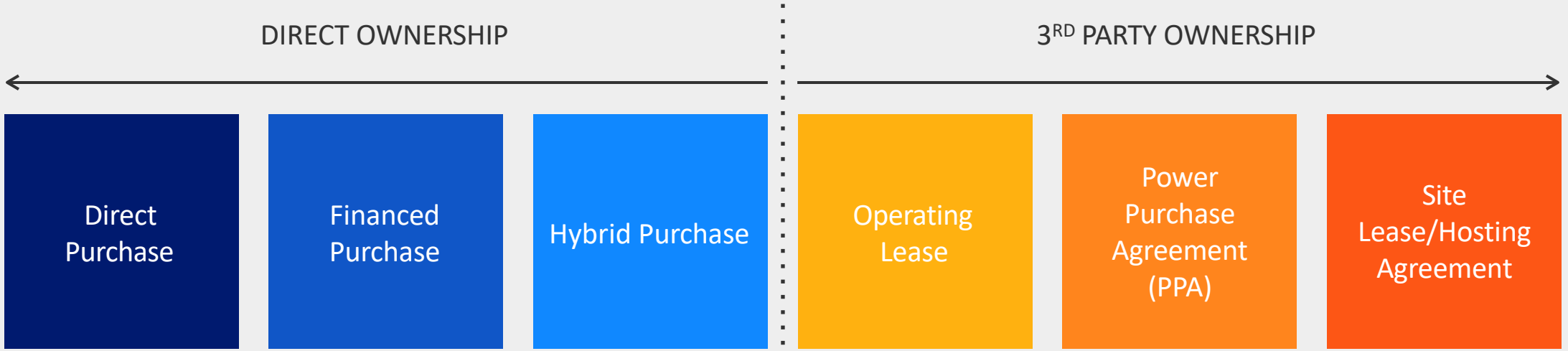
State of Solar in the U.S.



Companies are establishing internal cost of carbon which will add to financially strong locations

Project Structuring Options

There are a variety of project structuring options available that can deliver optimized financial results to corporations. The availability of the options are site specific.



Challenges and Opportunities

Tenant – Landlord	✓ Complex relationship that not all landlords can sort out; lease lengths, ability to consider tax
Roof and Structural	✓ Part of the development process; investors look for long warrantees
Supply Chain	✓ Unprecedented time in the industry
Customer Familiarity	✓ Hard to compare proposals; difficult to determine best value and avoid low cost/low quality
Utilities	✓ Utilities are not consistent and are often roadblocks
Changing Incentives	✓ State and local incentives change which impact solar economics up/down; Federal ITC
Utility Price Increases	✓ Makes Solar ROI stronger and amplifies the need for a hedge against future price increases
Proven Technology	✓ Technology is proven, efficient, and reliable
Financing Options	✓ Many financial paths for companies to go solar; not one size fits all
Predictable ROI	✓ If company has capital and tax appetite, ownership provides strongest and very predictable ROIs
Onsite vs Offsite	✓ Onsite solar provides best sustainability and economic impact
GHG in the Boardroom	✓ Companies are paying attention to their environmental footprint/making GHG reduction commitments

Thank You

Contact

Kevin Purdy

Director of Business Development

Phone: 631-624-4198

Email: kevin.purdy@powerflex.com

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Transactional Insurance: Bringing Certainty to Tax Equity

2:00 PM - 3:00 PM

Gary P. Blitz

Global Co-CEO M&A and Transaction Solutions

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Willette Elder

Senior Vice President, Transactional Liability - Tax

VALE Insurance Partners

Jennifer Wnek

Partner

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Partnering with Local Governments to Achieve Sustainability Goals

3:00 PM - 3:45 PM

Melinda Baglio
General Counsel & CIO
CleanCapital

Laura Tamjarv
Director of Acquisitions
CleanCapital

Julia Bell
Chief Commercial Officer
CleanCapital

Partnering with Local Governments to Achieve Sustainability Goals

CleanCapital

About CleanCapital

Acquisitions to date

>$800mm	>300	>200
Cumulative acquisitions	MW capacity acquired	Projects acquired

Core asset classes

Operating solar

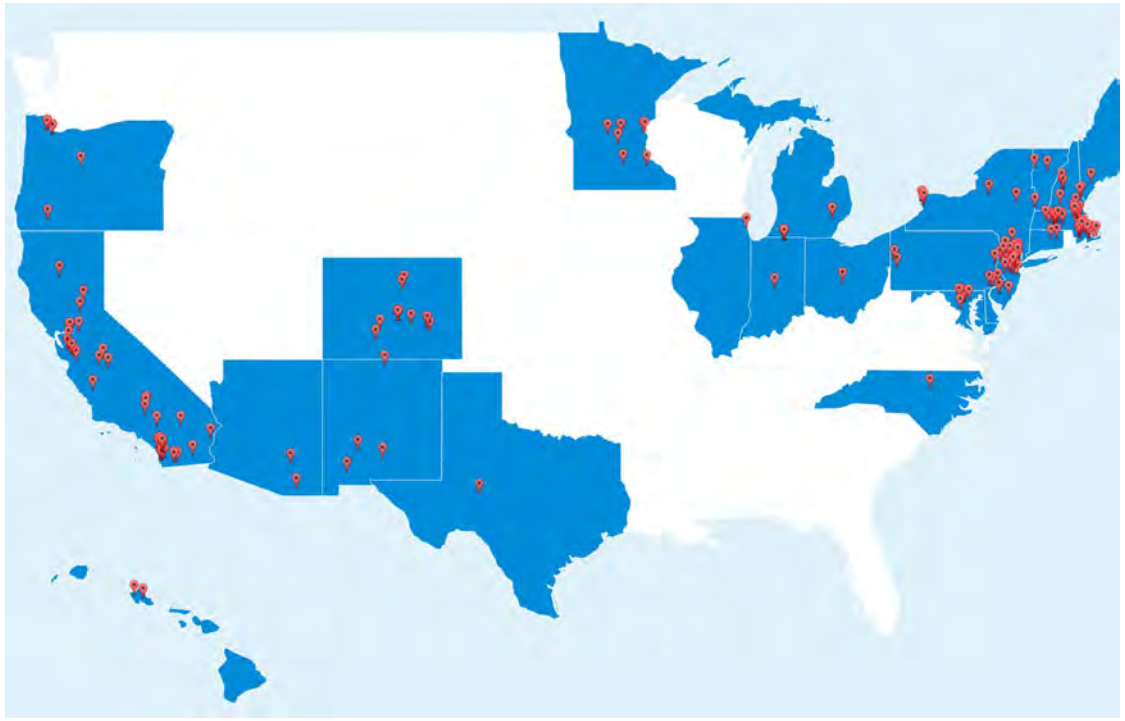
New build solar

Energy storage

DG project size range

<500 kW DC ——— >25 MW DC

>200 projects acquired in 24 states



Serving diverse energy off-takers

Corporate off-takers

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Government off-takers

HOWARD COUNTY MARYLAND

THE CITY OF COLUMBUS

INDIANAPOLIS INTERNATIONAL AIRPORT

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THE COUNTY OF SANTA CLARA 1850

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SOUTHERN CALIFORNIA EDISON

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Helping local governments meet sustainability goals

- While many cities and municipalities across the U.S. have published ambitious renewable energy and carbon reduction goals, only about 20% of those cities are on track to meet those goals*
- Municipal buildings—town halls, courthouses, fire stations, maintenance buildings, libraries, and the like—represent an attractive and under-invested segment of the total C&I market
- Helping cities reach their sustainability goals can present a great opportunity for solar developers, EPCs, and financiers

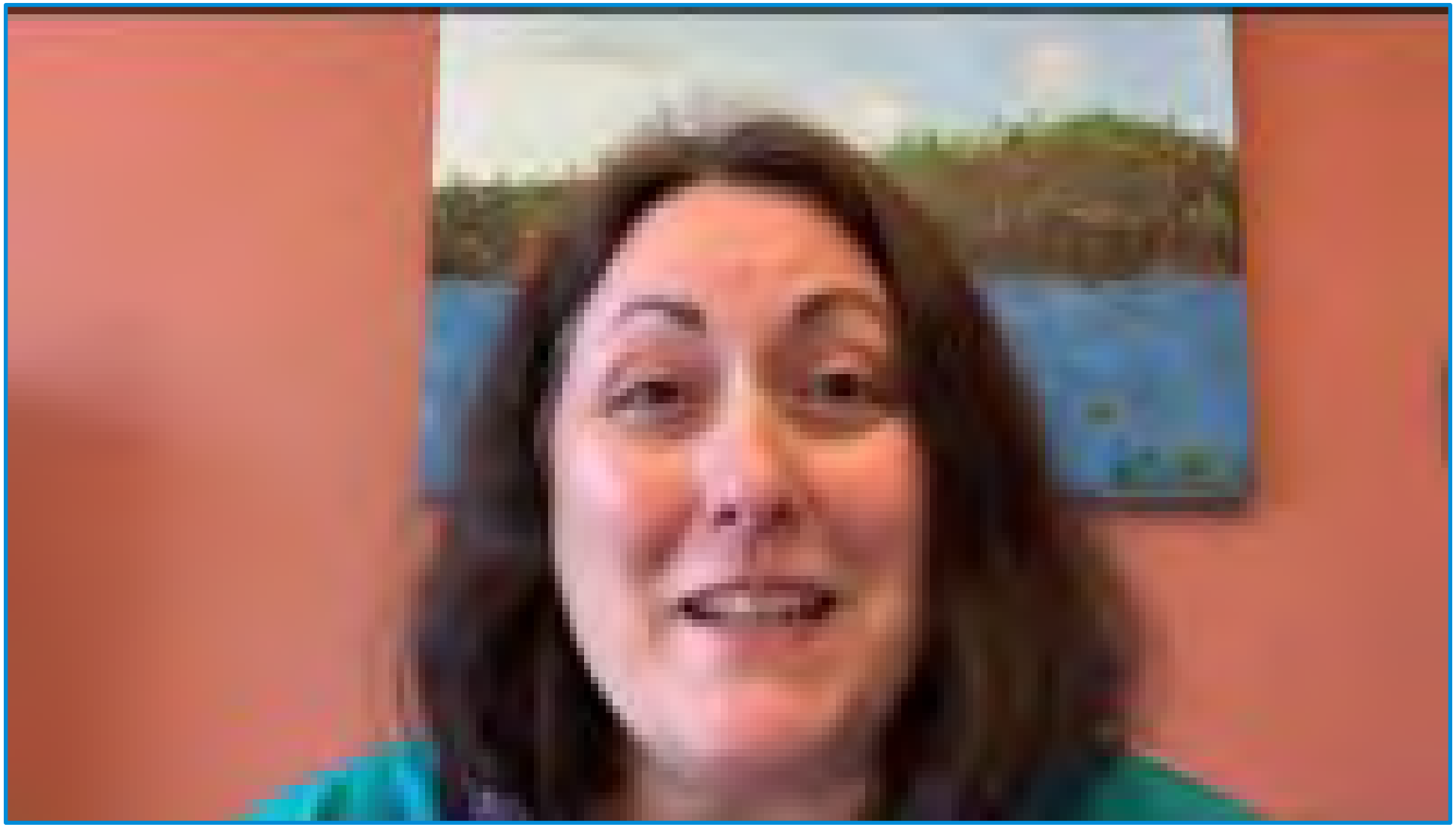
* City Clean Energy Scorecard from the American Council for an Energy-Efficient Economy, Jan. 2021

The Howard County process

- Howard County set a goal to reduce GHG emissions 45% below 2010 levels by 2030 and reach zero emissions by 2050, including a commitment to obtain 20% of the power needed for local government operations from renewable sources
- In order to meet these goals, Howard County issued an RFP in 2019
- CI Renewables, our development partner, responded to this RFP and—together with our EPC contractor, The Whiting-Turner Company, which is located in Howard County—won the deal
- We purchased this portfolio from CI Renewables when the first set of projects reached NTP. CI Renewables has stayed in the deal to manage development and construction of the projects

Howard County solar portfolio

- This portfolio is currently 10 sites and 25 MWs with room for expansion
- Portfolio includes 3 ground mounts on private land leased from local farmers; the remainder of the projects are rooftop, small groundmount, and carport installations on County buildings, including the courthouse, firehouse, library and senior center
- The projects are currently under construction with commercial operation dates starting next month through the end of 2023
- Once completed, the projects will supply approximately 30% of the County’s energy needs



Sustainability benefits beyond solar

- As part of the county's wider sustainability goals, Howard County requires other ancillary sustainability benefits to be built at the county-owned solar sites:
  - EV chargers at the carport sites
  - LED lighting fixtures
  - Pollinators
  - Sheep
  - LEED credits by the US Green Building Council
- MEA Public Facilities Solar Grant Program

Public off-take, private stakeholders

- In addition to meeting the county's sustainability and renewable energy goals, solar portfolios like these bring community benefits to the county constituencies
- Providing an alternative land use for the local landlords
- Long term fixed rate lease revenue in place of (or supplementing) dependency on agricultural output that is threatened by climate change and market

The construction process

Financing & tax equity

Managing a complex portfolio structure

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Add a Pinch of SALT: Baking State and Local Tax Issues into Your Solar Deals

3:45 PM - 4:25 PM

John Iannotti

Partner

CohnReznick LLP

Bryan Hoesly

Director

CohnReznick LLP

CohnReznick
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SEIA FINANCE, TAX & BUYERS SEMINAR– ADD A PINCH OF SALT - BAKING STATE AND LOCAL TAX ISSUES INTO YOUR SOLAR DEALS

March 31, 2022

CohnReznick LLP

AGENDA

- Sales/Use Tax
- Transfer Tax
- Property Tax

SALES AND USE TAX OVERVIEW

- Sales Tax: generally defined as a tax imposed by state and local jurisdictions on the retail sale, lease or rental of tangible personal property and certain services.
- Use Tax: generally defined as a tax imposed by state and local jurisdictions on consumers who do not pay sales tax at the time of purchase.
- Seller collects on behalf of the tax authority and files regular returns to report and remit the tax to the state.
- Measured by the amount of taxable gross receipts within the state or local jurisdiction, as defined by the respective tax code.
- Most local jurisdictions are governed under the state tax code; however, home-rule jurisdictions generally have their own tax code and are administered separate from the state (e.g., AL, CO, LA, etc.). Self-remitted by the consumer of the tangible personal property or taxable service.
- States offer exemptions depending on the nature of the buyer/seller (gov't, 501(c)(3), hospitals, etc.), the type of item sold (food, water, prescription drugs, etc.) or how the items is used (resale, mfg., pollution control, etc.).

SALES AND USE TAX – RENEWABLE ENERGY INDUSTRY IMPACT

The project lifecycle of a renewable energy project has a multitude of sales and use tax considerations and can greatly impact the economics of project if . These can vary from project to project and by state and local tax jurisdictions.

- Development
- Engineering Procurement and Construction (EPC)
- Operations and Maintenance (O&M)
- Sale of Power

SALES AND USE TAX - RENEWABLE ENERGY INDUSTRY IMPACT

Development Phase Considerations

- General consulting services.
- Do contracts include the transfer of any tangible personal property (TPP) (e.g. prints or manuals).
- Taxable measure.
- The “True Object Test.”
- To the extent that TPP is conveyed, it may trigger a taxable event since in many jurisdictions contractors are considered the consumers of TPP.

SALES AND USE TAX - RENEWABLE ENERGY INDUSTRY IMPACT

Engineering Procurement and Construction (EPC)

- Do the general rules relating to contractor's apply or are there rules specifically relating to Renewable energy?
- Do any local taxing jurisdictions honor the State rules or do they decouple?
- Is the contract a lump sum or time and materials contract?
- When is the remittance of tax due-progress billing or the end of the contract?
- Does the states characterize an installed system as TPP or real property?
- Are services subject to tax?
  - Construction
  - Design
  - Engineering
  - Procurement

SALES AND USE TAX - RENEWABLE ENERGY INDUSTRY IMPACT

Engineering Procurement and Construction (EPC), Continued

- Generally, an installed system retains its character as tangible personal property, though there are exceptions.
- Understanding what activities are considered real property improvements versus transfers of TPP is critical.
  - Real property improvements are generally not subject to tax; however, contractor pays tax on materials and passes the cost to its customer.
- Opportunities may exist to structure EPC contracts to reduce tax on installation labor depending on the state.
- Exemptions
  - Manufacturing exemptions.
  - Renewable energy exemptions.
  - Full or partial exemption (e.g. California).
  - Exemption certificates-very important and often overlooked.

SALES AND USE TAX - RENEWABLE ENERGY INDUSTRY IMPACT

State Specific Exemptions

- New York
  - Commercial solar energy system exemption (does not apply to local level taxes).
  - Production exemption (applies to state and local taxes but limited to electricity generating equipment).
  - Industrial Development Agreement (“IDA”) (very broad but must meet IDA program requirements).
- California
  - Partial sales/use tax exemption on qualifying equipment.
  - Exemption applies to state level tax.
  - Capped at $200M in purchases.
- Illinois
  - No renewable energy or manufacturing exemptions available.
  - Enterprise Zone benefits may be available on qualifying “building materials”.

SALES AND USE TAX - RENEWABLE ENERGY INDUSTRY IMPACT

Scope of Exemptions Vary by State

- Where does production begin and end?
- Do foundations and racking qualify as machinery/equipment?
- Does the exemption extend to transmission and distribution equipment?
- Is the electricity used or sold?

SALES AND USE TAX - RENEWABLE ENERGY INDUSTRY IMPACT

Operations and Maintenance (O&M)

- Operating agreements and agreements between entities
- True object test
- Administrative services
- Payroll
- Monitoring
- Repairs and maintenance
- Subcontractors
- Exemptions

SALES AND USE TAX - RENEWABLE ENERGY INDUSTRY IMPACT

Sale of Power

- Direct sales of electricity.
- Virtual PPAs
- CDG and net metering transactions.

Sale of Solar Renewable Energy Certificates (SREC's)

- Many states' laws, regulations, and administrative guidance are silent as to its sales & transfer tax treatment creating confusion regarding taxability throughout the industry
- Unlike the sale of electricity, SREC's are a separate transaction involving the sale of an intangible – see IRS PLR 201035003 (9/3/2010)

PROPERTY TAX BASICS

- What principle is the tax based on?
- Standard in most states is Fair Market Value (FMV), commonly defined as:
- **"Market value** means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:
  - 1. Buyer and seller are typically motivated;
  - 2. Both parties are well informed or well advised and acting in what they consider their own best interests;
  - 3. A reasonable time is allowed for exposure in the open market;
  - 4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
  - 5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale*."*

PROPERTY TAX BASICS

- Each State defines FMV either in its Constitution, statutes or case law
  - So, there are variations between States
- There are three methods to valuing both real property and personal property
  - Cost less depreciation
  - Income capitalization
  - Comparable sales
- What principle is the tax based on?
  - Value can be determined by measuring factors to include value in use and/or value in exchange
  - FMV in many jurisdictions cannot be value based on a forced or auction sale
  - FMV in many business personal property scenarios is determined based by taking cost times a depreciation factor to determine a depreciated cost
  - These calculations don't always equate to FMV

PROPERTY TAX – RENEWABLE ENERGY CONSIDERATIONS

Valuation Issues

- Treatment as business personal property (BPP) or real estate (RE)
- States that don't tax BPP (e.g.) New York (if not subject to exemption) tax components as real property
  - *Matter of Cornell Univ. v Board of Assessment Review* , 2020 NY Slip Op 04636 (August 20, 2020) Appellate Division, Fourth Department
- Assessment of machinery and equipment (M&E) vs. business valuation
  - Discounted cash flow (DCF) valuation
    - Now adopted by the New York State Energy Research and Development Authority (NYSERDA)
- Is the jurisdiction valuing the M&E or the enterprise including the PPA?
- Functional and economic obsolescence
  - Present for both wind and solar
- Assessor depreciation tables don't always fit the industry

PROPERTY TAX – RENEWABLE ENERGY CONSIDERATIONS

Valuation Issues, continued

- Is the facility being treated as a power generator?
- Central or local assessment
- Exemptions
- Statutory (NC, TX) vs negotiated
- File early and often
  - TIF (Tax Increment Financing) (GA)
  - PILOT/FILOT (MA, NY SC) (Payment in lieu of taxes, fee in lieu of taxes)

PROPERTY TAX – RENEWABLE ENERGY CONSIDERATIONS

Change of control issues

- Significant issue in California
- Change of control/ownership can trigger a revaluation and loss of the new construction exclusion (CA Revenue and Taxation Code §73)
- CA Revenue and Taxation Code §73 survived a proposition question in November 2020 that would have removed the exemption, making solar taxable prior to a change of control
- A careful analysis of the more than 50% of ownership (stock/capital and profits) must be made before any transaction to ensure that any revaluation trigger can be avoided
- Rules around certain aspects of Renewable Tax structure were codified in 2021. (More on this later)
- As noted previously, don't forget to consider transfer taxes and Controlling Interest Transfer Taxes in any purchase/sale

PROPERTY TAX – RENEWABLE ENERGY CONSIDERATIONS
STATE UPDATES OF INTEREST

California Codifies Partnership Flip Section 73 Exclusion

- On September 30, California Governor Gavin Newsom signed Senate Bill 267 (Bill) into law, preserving the property tax break (the solar exclusion) for partnership flips that own solar energy projects. Under the Bill, the solar exclusion will continue to apply after the investor's initial investment in the partnership and after subsequent changes in capital and profits interests that arise before or in connection with the flip.

Virginia Enacts Renewable Property Tax Incentives and Guidance

- For projects greater than 25 MW, the Virginia State Corporations Commission is responsible for the calculation and assessment of the personal property at their cost approach to value depreciation rates (tax rolls and collection administered locally). The tax rate is limited to the lower real estate tax rate in the host county. As personal property tax rate by municipality generally are significantly higher.

- Additionally, jurisdictions may elect by local ordinance alternatively tax personal property based on a revenue sharing formula of $1,400 per MW in addition to real estate taxes. More municipalities have been adopting this alternative revenue sharing methodology on tangible personal property.

PROPERTY TAX – RENEWABLE ENERGY CONSIDERATIONS
STATE UPDATES OF INTEREST

New York - NYSERDA Issues Property Tax Assessment Guidelines

- The 2021-2022 Enacted State Budget established a process for the New York State Department of Taxation and Finance to develop a standard appraisal methodology for solar and wind energy systems with a nameplate capacity equal to or greater than one megawatt.
- The Tax Department—in consultation with the New York State Energy Research and Development Authority (NYSERDA) and the New York State Assessors Association (NYSAA)—will annually develop an appraisal model using the discounted cash flow approach for solar and wind energy systems, and discount rates to be applied to the models.
- Beginning with 2022 assessment rolls, local assessors are required to use the model and discount rates to value and place assessments on affected solar and wind energy systems.
- Municipalities will continue to have the flexibility to negotiate payment in lieu of taxes (PILOT) agreements.

REAL ESTATE TRANSFER TAXES

Generally Defined: One-time fees imposed by state or local jurisdictions upon the transfer of property classified as real estate as defined by the administering tax code.

- Comes in many names and forms; specifics vary by drastically by jurisdiction.
  - Examples:
    - Deed Tax
    - Realty Transfer Tax
    - Real Property Transfer Tax
    - Recordation Tax
- Can be imposed and enforced by the state, local municipality or both.
- Typically levied automatically as part of the process of selling real estate (e.g. upon recordation at the County Clerk's office); however, situations apply where taxpayers are required to self report.

CONVEYANCES OF REAL PROPERTY

Imposition of real estate transfer taxes varies depending on how the respective municipal ad valorem tax code defines a “conveyance” of real property

- Examples of common conveyances:
  - Sale and purchase of real property for cash consideration from one party to another
  - Creation of a long-term lease of real estate
  - Transfer of a long-term lease of real estate
  - Transfer of controlling interest of owned real property or a long-term lease
- Some states imposing “both” a recordation and separate transfer tax may only impose a recordation tax on creation or transfers of leases
- Definition of “long-term” for transfer/recordation tax purposes can widely vary from state to state.
  - Maryland (7 years) vs. New Jersey (99 years)
- Creation vs. transfer of existing long-term real estate lease may have different consequences depending on the state

CONTROLLING INTEREST TRANSFER TAX (CITT)

Real Estate Transfer Taxes are most typically levied on the conveyance of the deed or title of real estate from one person or entity to another; however, certain states and municipalities may also impose the tax on transfers of ownership interest of a legal entity.

- Specific application of CITT is largely driven by the definition of a “conveyance” and the type of property that is defined as real property per ad valorem statute in the administering municipality.
- Applies when the respective tax code defines a transfer of controlling interest of a legal entity holding title real property as a “conveyance.”
- Imposition varies depending on how the respective tax code defines a transfer of controlling interest of a legal entity holding title real property or a long term real estate leasehold as a “conveyance.”
- May be administered using a different mechanism than transfer of real estate for cash sale of a deed or title from one party to another.

CONTROLLING INTEREST TRANSFER TAX (CITT) – CONT'D

States and municipalities have varying rules in terms of how their definition of CITT is met that would trigger a transfer and/or recordation tax liability.

- Percentage of the entity's equity interest transferred meeting the CITT definition can range from at least 50% or more of the entity's capital and profits interest (classes of shares of stock in the case of a corporation) and higher depending on the jurisdiction.
  - Certain cities & municipalities that impose their own RETT (include CITT) may have lower controlling interest thresholds than that at that state level – i.e. Pennsylvania (90%) vs. City of Philadelphia (75%).

- For multiple equity transfers, the transfers are aggregated over various statutory periods depending on the jurisdiction ranging from one to three years to determine if the CITT threshold is met on such transfers triggering the tax.

REAL ESTATE TRANSFER TAX – RENEWABLE ENERGY CONSIDERATIONS

Real estate transfer taxes can be a very significant factor when determining the upfront costs of installing a large-scale renewable energy system.

- Common considerations:
  - Can be imposed on land only or on all or part of the renewable energy equipment itself.
  - Ad valorem classifications of renewable energy generation equipment varies drastically across jurisdictions and can be driven by highly specific details which can vary even between similar types of technology.
    - e.g – solar equipment that is deemed as a permanent addition to real property as defined by statute may be classified as real property and subject to the tax, while similar equipment affixed differently may not.
  - Property classifications may also be driven by contractual nuances.
    - e.g. – lease length, contractual obligations to remove equipment, etc.
  - Certain common renewable energy financing structures may trigger the taxes (e.g Sale-Leaseback Arrangements, Partnership Flips, etc.). These need to be carefully examined and reconciled against local tax law to ensure exposure is mitigated when possible.

John Iannotti

Partner
CohnReznick LLP
Phone: (O) (703) 744-8516 / (C) (678) 640-3293
Email: john.iannotti@cohnreznick.com

Bryan Hoesly

Director
CohnReznick LLP
Phone: (646) 601-7746
Email: bryan.hoesly@cohnreznick.com

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