



Buy/Lease/PPA – Comparing Models of Rooftop Solar Participation

June 24, 2022

Agenda

- 1. Housekeeping and Introductions**
- 2. IPA Solar Incentive Programs: An Overview**
- 3. Solar Participation Models: Leasing Vs. Buying Vs. Power Purchase Agreements**
- 4. Financing Trends in Illinois**
- 5. National Trends**
- 6. What Lies Ahead!**
- 7. Q&A**

- **Introduction and Scope**
- **Power Hour is a series of educational and informative presentations on a wide range of clean energy topics and emerging issues**
- **Today's Power Hour:**
 - **During this webinar, the speakers will provide an overview on different solar financing models, discuss solar financing trends in Illinois, and observe policy trends nationally.**
 - **This webinar is intended for general education only. We will not be answering questions about the 2022 Long-Term Plan or proposals the Agency made in that Plan, as it is currently before the ICC for approval.**
- **Future IPA Power Hour Webinars will cover other topics related to the clean energy economy in Illinois**

Upcoming Webinar

IPA Power Hour 6: *Understanding Power Procurement for Residential and Small Commercial Customers of Illinois Electric Utilities*

Date: Friday, July 29, 2022

Time: 12 p.m. -1 p.m. CDT

Registration:

<https://www2.illinois.gov/sites/ipa/Pages/Events.aspx>

- **Independent State Agency created in 2007**
- **Agency duties include**
 - **Development and implementation of procurement plans for electricity supply for utility customers**
 - **Development and implementation of other renewable energy programs**
 - **Implementation of the Renewable Portfolio Standard**
 - Development of Long-Term Renewable Resources Procurement Plan
 - Conduct competitive procurements for utility-scale projects
 - Manage programs for community solar and solar for homes and businesses

IPA Solar Incentive Programs: An Overview

Illinois Solar Programs



- **Adjustable Block Program**
 - **Market-based program to support distributed generation and community solar projects**
 - www.illinoisabp.com
 - www.illinoisshines.com
- **Illinois Solar for All**
 - **Targeted program for low-income households and communities**
 - www.illinoissfa.com
- **Previous Power Hours provide more information on the details of these programs**
 - <https://www2.illinois.gov/sites/ipa/Pages/Events.aspx>

Illinois Solar Programs, cont.

- **Programs incent solar installations by creating opportunity for the sale of the Renewable Energy Credits generated by projects**
 - **Payments based on 15 years of REC deliveries for distributed generation**
 - **Payments front-loaded with subsequent delivery obligations**
- **Approved Vendors are the applicants into the program and the recipients of payments for the RECs**
- **Approved Vendors can choose how to use the value of RECs**
 - **Payments to customers**
 - **Reduction in costs**
- **Customers reduce bills through net metering**

Program Categories and Groups

- **Six project categories for Adjustable Block Program**
 - Small Distributed Generation (up to 25 kW, previously up to 10 kW)
 - Large Distributed Generation (up to 5 MW, previously up to 2 MW)
 - Traditional Community Solar
 - Community-Driven Community Solar
 - Public Schools
 - Projects from Equity Eligible Contractors
- **Four sub-programs for Illinois Solar for All**
 - 1-4 unit Distributed Generation
 - 5+ unit Distributed Generation
 - Low-income community solar
 - Projects for Non-profits and public facilities
- **State Divided into two groups**
 - Group A: Projects located in Ameren, MidAmerican, and rural co-ops and municipal utilities in MISO
 - Group B: Projects located in ComEd, and rural co-ops and municipal utilities in PJM

Solar Programs Currently Being Updated



- **The Agency's Long-Term Renewable Resources Procurement Plan expected to be approved by the Illinois Commerce Commission on July 14**
 - **Will include programmatic changes from Public Act 102-0662 (the Climate and Equitable Jobs Act or CEJA)**
 - **Renewable Energy Credit prices will be updated**
 - **Codification of consumer protection requirements**
- **New Program Administrator for the Adjustable Block Program starting July 1**

Disclosure Forms

- **Each Distributed Generation project requires a standard Disclosure Form be provided to, and signed by the customer prior to project application being submitted**
 - **Key consumer protection requirement**
- **Separate Disclosure Forms based on financing structure**
 - **Purchase**
 - **Lease**
 - **Power Purchase Agreement**
- **Provides customers with a standardized format to see key information about the financing terms for their proposed project**

Community Solar

- **To date offers have been subscription models based on paying a monthly fee to the community solar provider**
 - **Typically, a volumetric fee that results in a 10-20% savings compared to the value of net metering**
- **Other community solar subscription models exist including direct ownership of a portion of the community solar project**
 - **New energy sovereignty provisions for Illinois Solar for All could result in new financing models**
- **Community Solar subscriptions also require a disclosure form**

Utility-Scale Procurements and PPAs



- **Separate process to incent utility-scale wind, solar, and brownfield site solar projects**
 - **Competitive procurement events**
 - **Contracts are for Renewable Energy Credits**
 - **Selected projects free to decide how to sell the energy.**
 - May choose to do so through Power Purchase Agreements, these are different from the PPAs being discussed for distributed generation projects
- **Note, in 2010 the IPA conducted a procurement that was for both RECs and Energy and was called the 2010 Long-Term Power Purchase Agreements**

Solar Participation Models: Leasing Vs Buying Vs Power Purchase Agreements

The Basics: Buy vs Lease vs PPA

- **Buy:** You pay up-front for the solar system (potentially with a loan)
- **Lease:** Like a car lease → you pay a pre-agreed amount each month over a number of years
- **PPA:** Like a solar lease, but how much you pay each month depends on the amount of energy the solar system generates



Power Purchase Agreement

The Not-So Basic: Buy vs Lease vs PPA

| Buy | Lease | PPA |
|-----|-------|-----|
| | | |

Note: these characteristics are generalizations and may or may not be true for any individual contract.

The Not-So Basic: Buy vs Lease vs PPA

| Buy | Lease | PPA |
|----------------|-------------------|-------------------|
| Up-front costs | No up-front costs | No up-front costs |

Note: these characteristics are generalizations and may or may not be true for any individual contract.

The Not-So Basic: Buy vs Lease vs PPA

| Buy | Lease | PPA |
|--|--|--|
| Up-front costs No long-term costs | No up-front costs Long-term costs – agreed amount | No up-front costs Long-term costs – agreed amount per unit of power generated |

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| Customer owns | Company owns | Company owns |

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The Not-So Basic: Buy vs Lease vs PPA

| Buy | Lease | PPA |
|--|--|--|
| <p>Up-front costs</p> <p>No long-term costs</p> <p>Customer owns</p> <p>Customer gets tax credits*/incentives (*must owe taxes to benefit)</p> | <p>No up-front costs</p> <p>Long-term costs – agreed amount</p> <p>Company owns</p> <p>Company gets tax credits/incentives</p> | <p>No up-front costs</p> <p>Long-term costs – agreed amount per unit of power generated</p> <p>Company owns</p> <p>Company gets tax credits/incentives</p> |

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| Home buyer also buys solar in move | Home buyer assumes lease in move | Home buyer assumes PPA in move |

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Common claim online: “Generally speaking, a solar lease or solar PPA is the best option only when the homeowner does not qualify for financing or does not have cash.” -- <https://bakerhomeenergy.com/blog/2018-05-17/what-difference-between-ppa-and-lease/>

PPAs Eligible for Net Metering and Distributed Generation Rebate

From the Final Order in Illinois Commerce Commission Docket 19-0995

It is clear that ... an end-use customer that has financed a distributed generation installation through a PPA is an eligible customer. It is also clear that the definition of “eligible customer” includes no limitations regarding the financing arrangements of installed generation. **How a customer finances installed generation is immaterial** to whether the customer “owns or operates” the generating facility for the purpose of offsetting the customer’s electrical requirements.

Moreover, Ameren and ComEd have not provided a compelling distinction between a lease and a PPA. ... To the Commission, these two arrangements appear to be functionally equivalent.

...the Commission finds that it is appropriate to maintain the status quo and allow PPAs.

<https://www.icc.illinois.gov/docket/P2019-0995/documents/296416/files/516880.pdf>

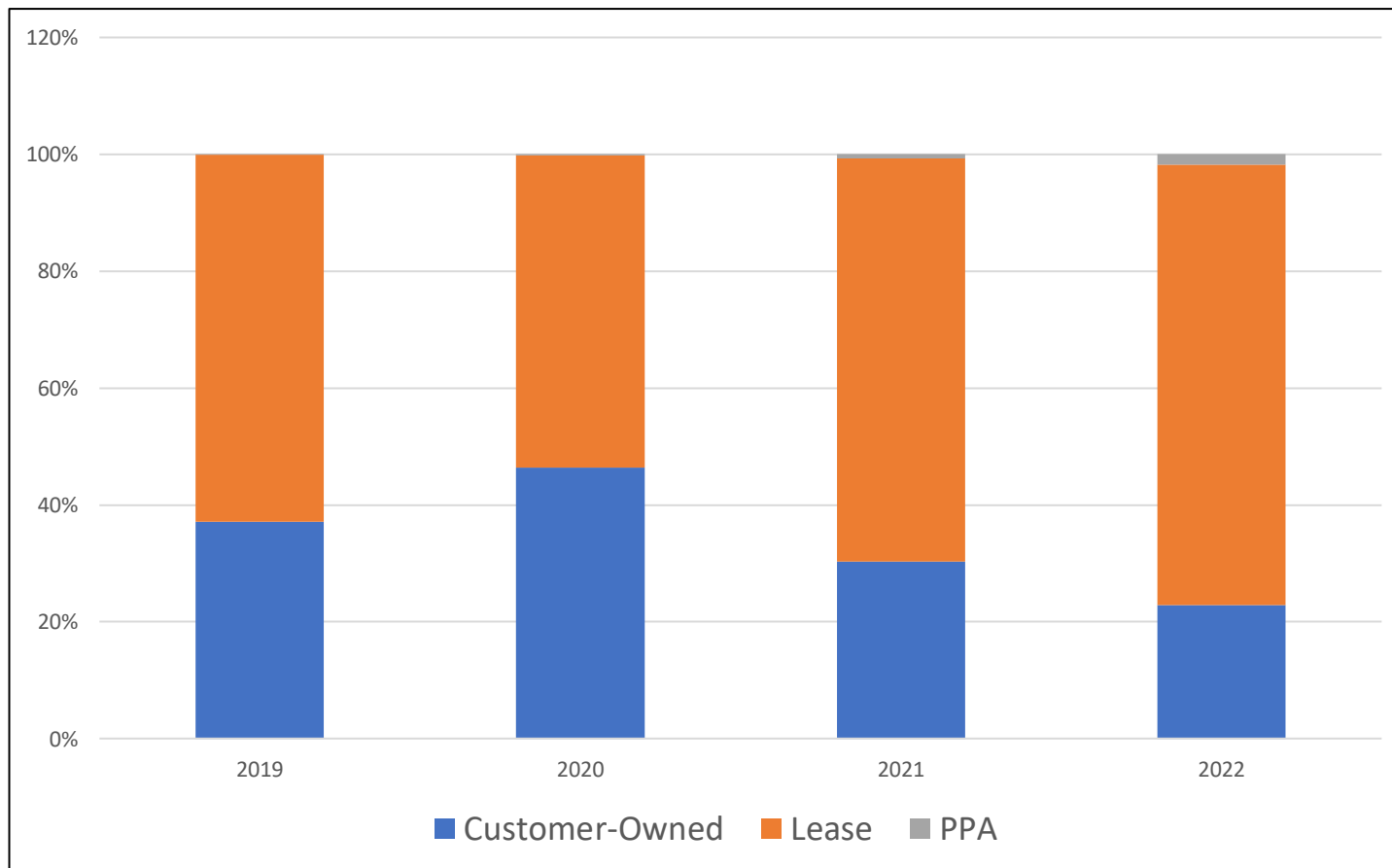
Financing Trends in Illinois

Financing Trends

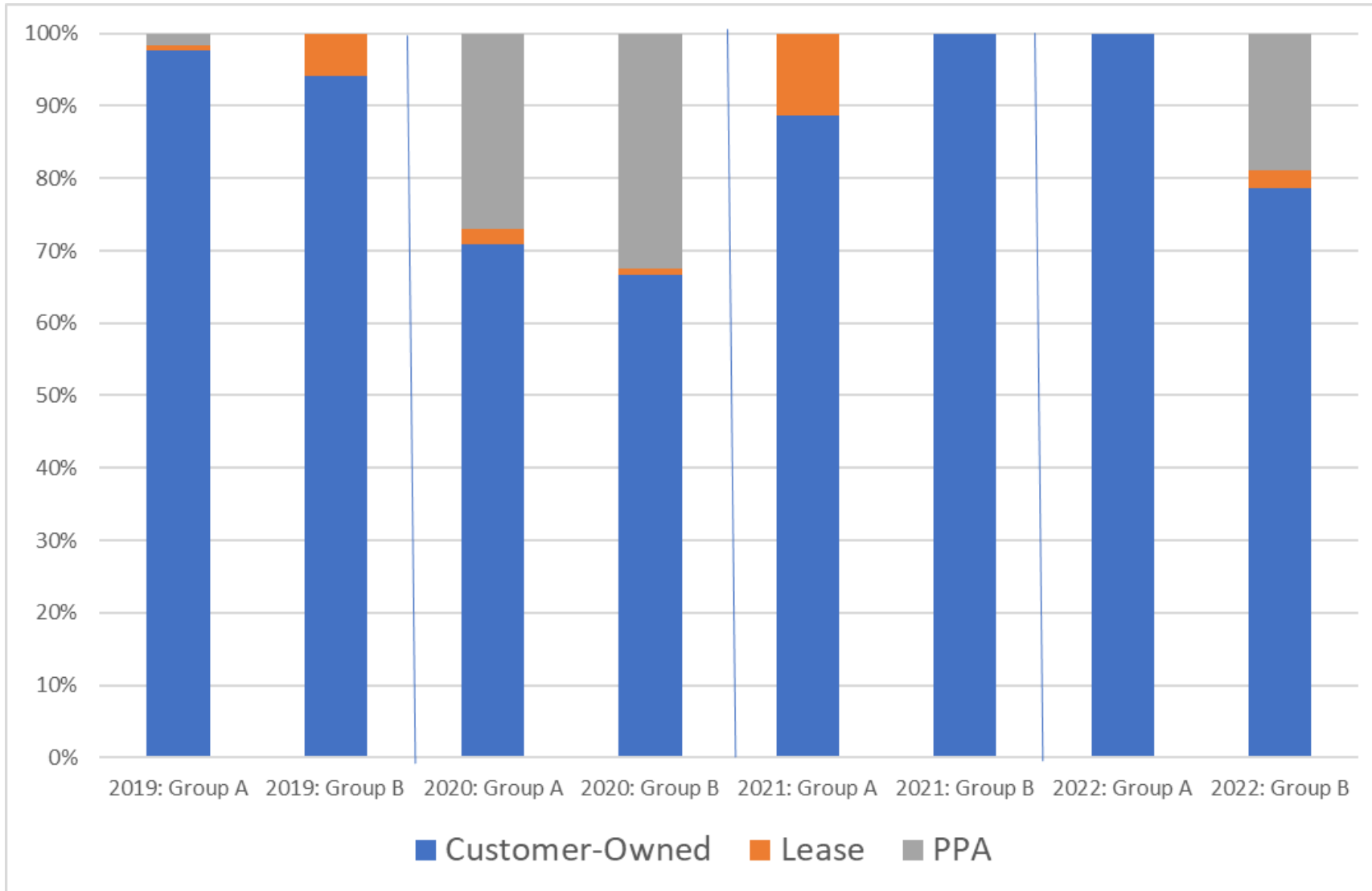
- **Financing structure adoption varies by customer type**
- **Residential financing structure adoption varies by Group**
- **Government and Non-profits utilize PPAs far more than other customers types**
- **ILSFA residential projects**
 - **Requirement for no upfront costs**
 - Many offers structured as no-cost leases or PPAs

ABP Residential Financing

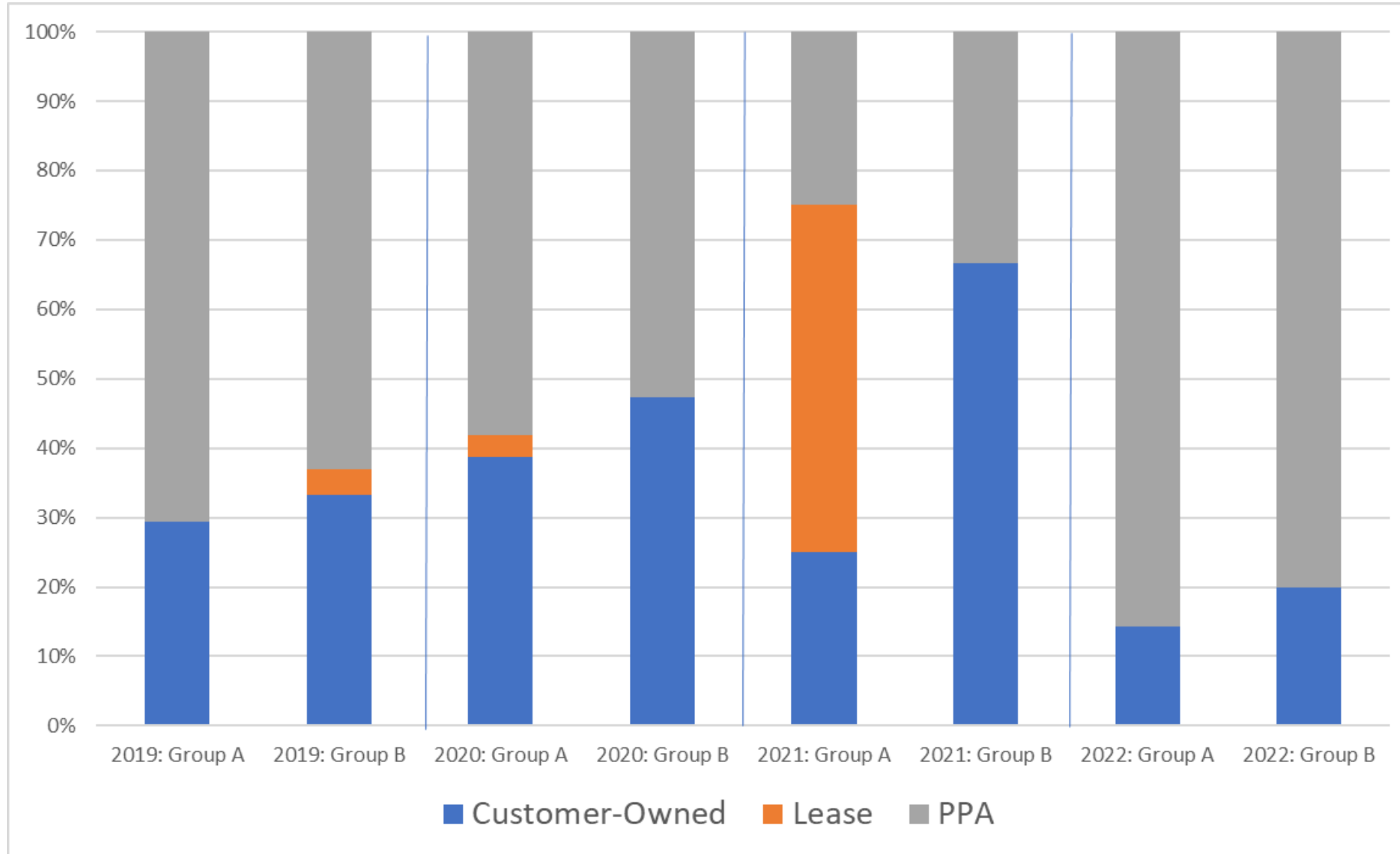
- **Group A: 98% Owned, 2% Leased**
- **Group B**



ABP Commercial Financing

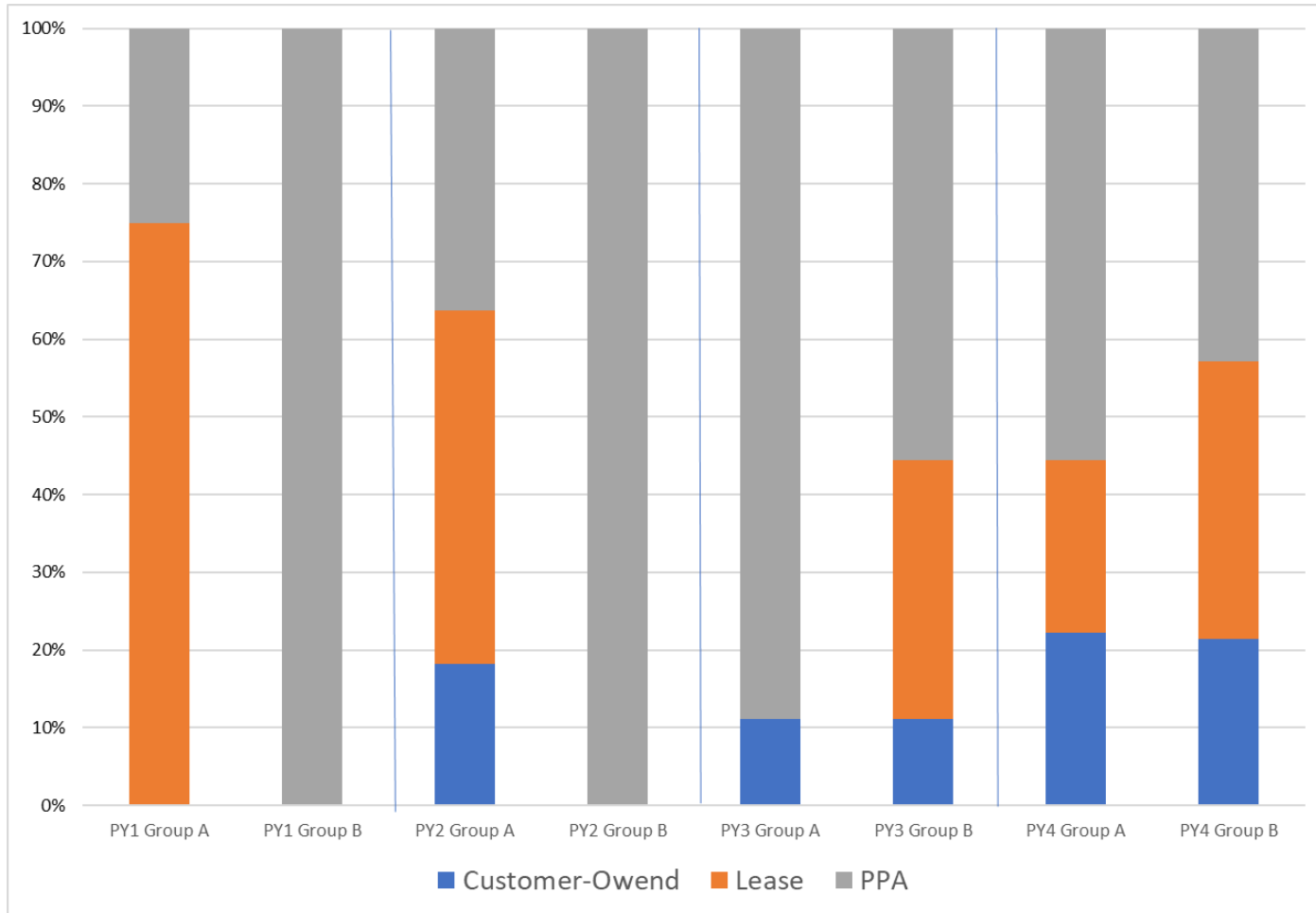


ABP Government and Non-Profit Financing



Illinois Solar for All Financing

- **Non-Profits and Public Facilities**



National Trends

Buy/Lease/PPA – Comparing Models of Rooftop Solar Participation

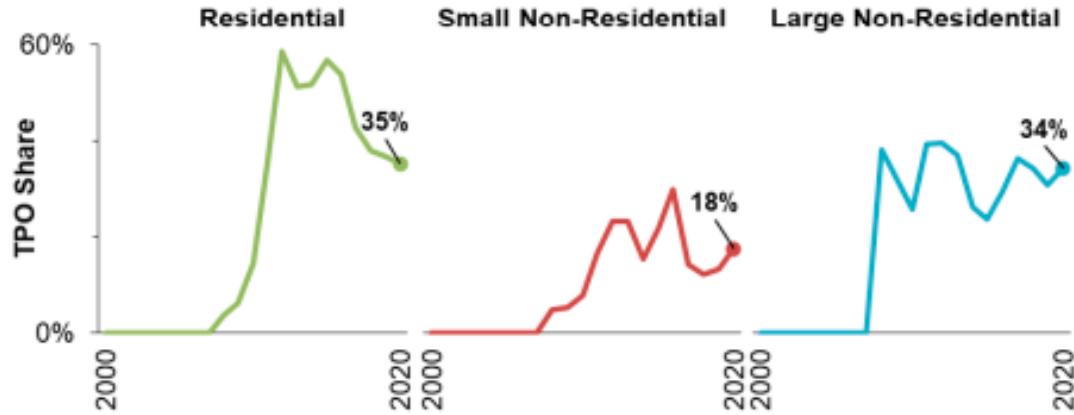
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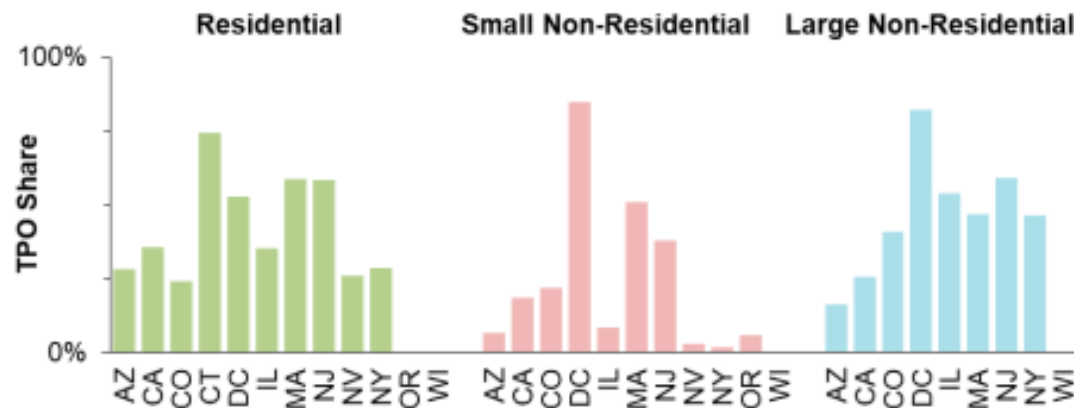
National Perspective

Third-Party Ownership Trends

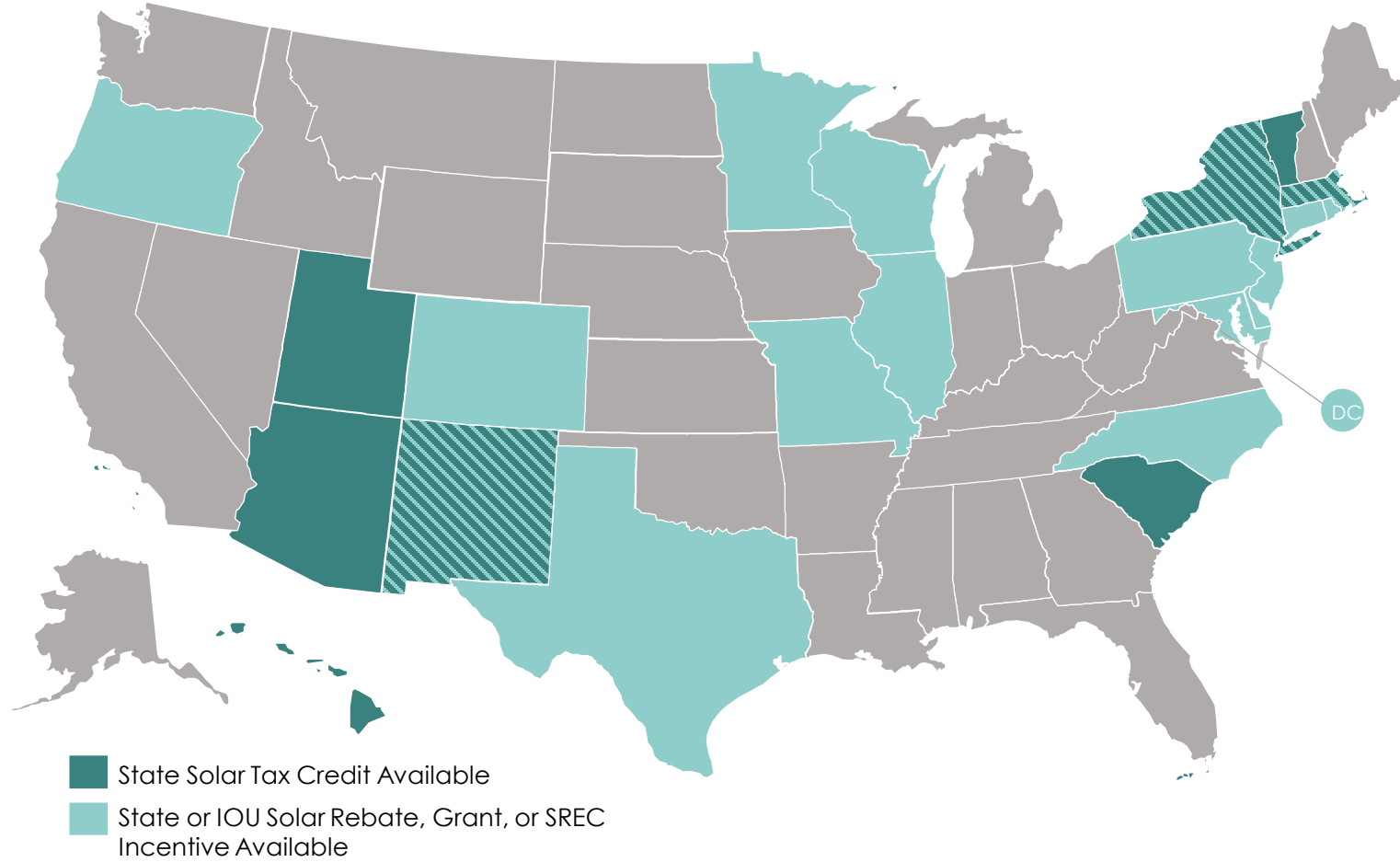


- Residential TPO has declined
- Commercial TPO has remained relatively steady
- TPO levels vary from state to state

Third-Party Ownership by State (2020)

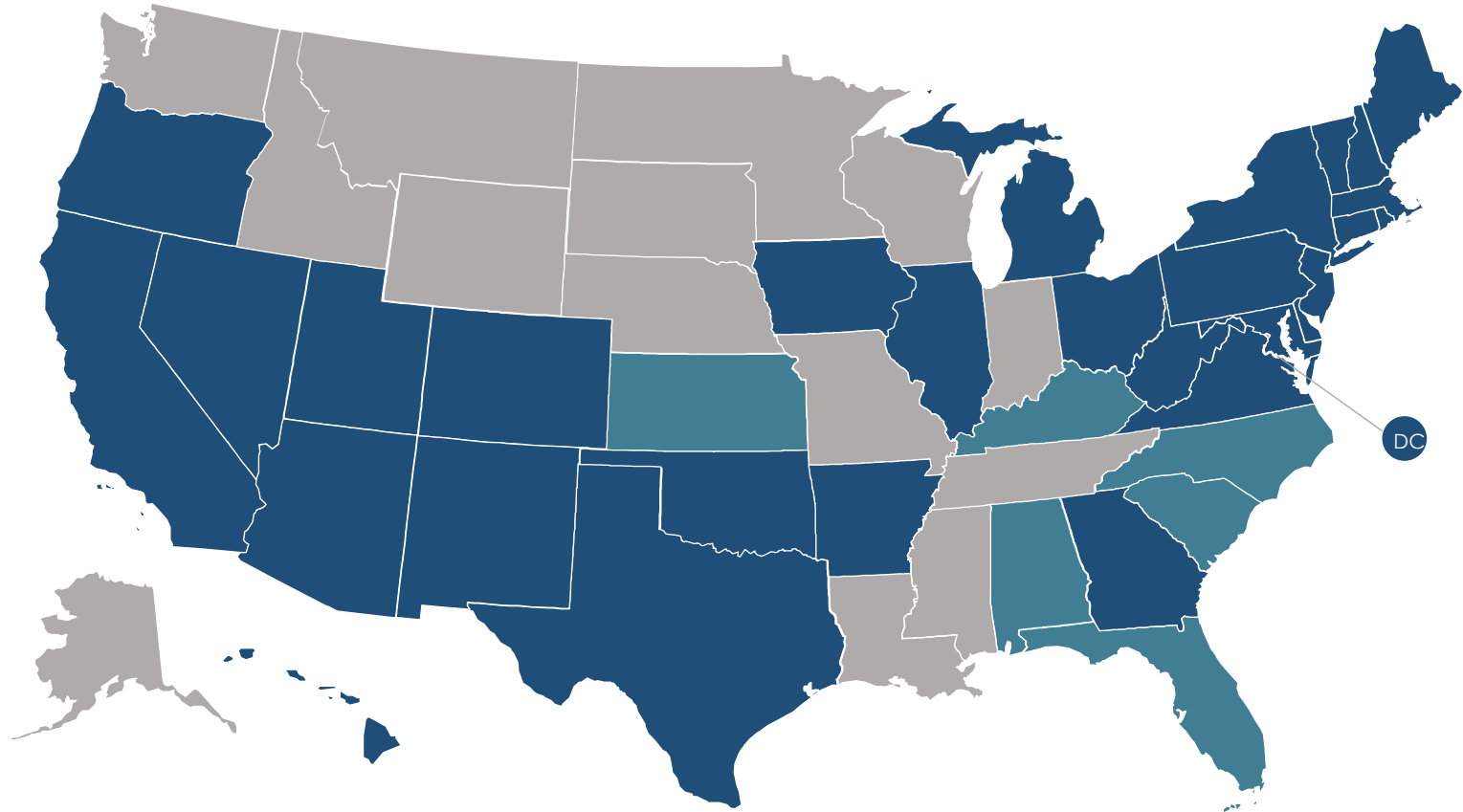


State & IOU Solar Incentive Availability



Third-Party Solar PPA Legality

www.dsireusa.org / June 2022



- Apparently disallowed by state or otherwise restricted by legal barriers
- Authorized by state or otherwise currently in use, at least in certain jurisdictions
- Status unclear or unknown

National Perspective

- Most states that allow third-party PPAs or leases have authorized this through legislation
- PUC or court decisions in some states
 - Florida – residential leasing
 - Iowa, Oklahoma
- Some states allow leasing only
 - FL, LA, MS, NC, SC

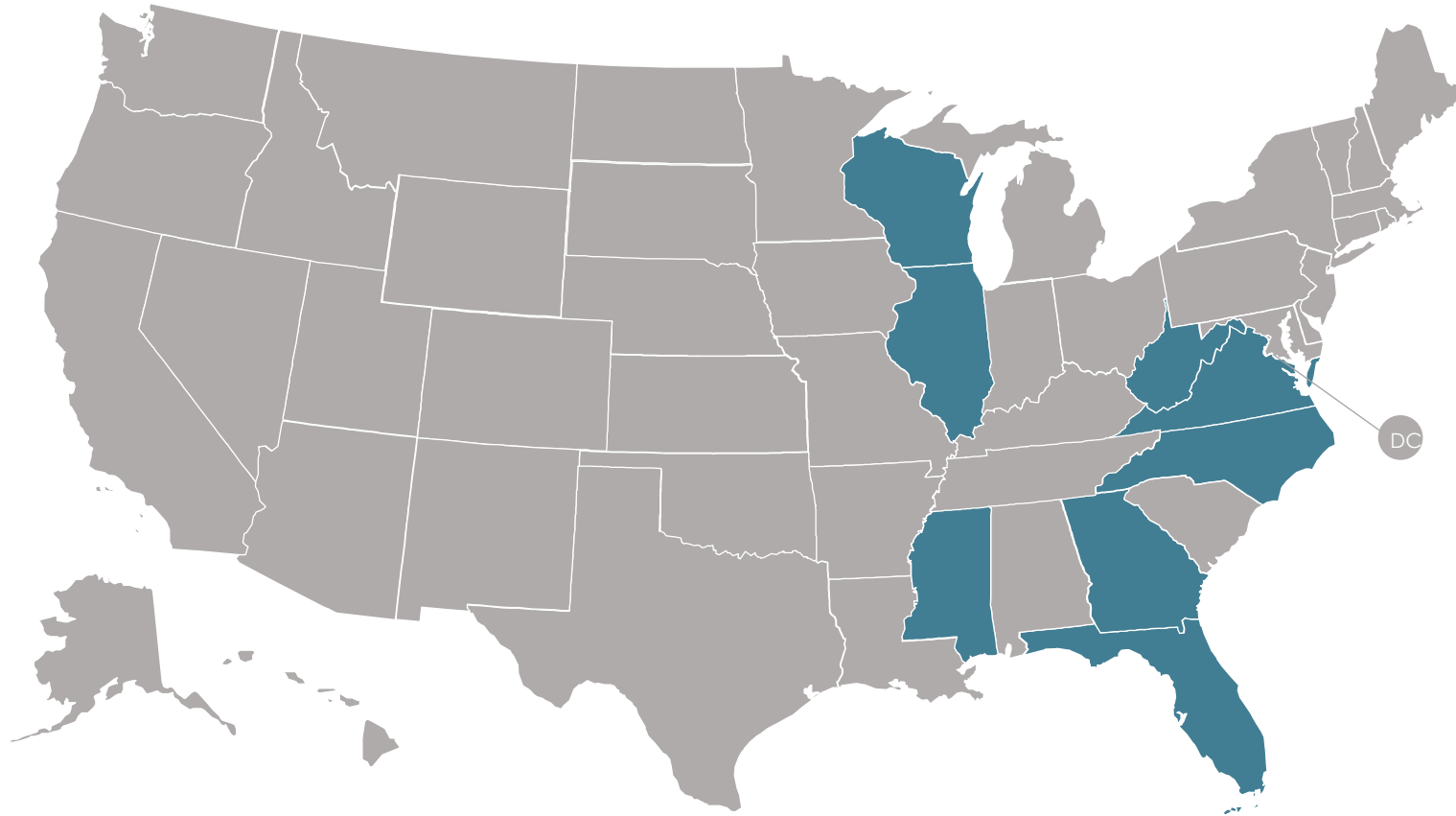
National Perspective

- Size limits or requirements to serve on-site load
 - Often, size limits are aligned with net metering rules
 - Ex. CO, NM, TX
- Limits based on customer type
 - Ex. AZ, AR, VA
- Aggregate capacity limits
 - Ex. NC, VA

National Perspective

- Ability for utilities to offer solar leases or PPAs
 - Ex. NC
- Consumer protection rules specific to lease or PPA providers
 - Ex. AR, NC

Q1 2022 Activity on Solar Third-Party Ownership



■ Q1 2022 action
■ No recent action

8 States considered legislative or regulatory proposals related to third-party ownership legality during Q1 2022

Source: NC Clean Energy Technology Center, 50 States of Solar Q1 2022 Report

National Perspective: Recent Actions

- **Mississippi**
 - Third-party PPAs for schools under consideration as part of revised net metering rules
- **North Carolina**
 - Request for declaratory ruling pending regarding energy services agreement for Fort Bragg
- **Virginia**
 - HB 266 enacted, expands ability for co-ops to allow third-party PPAs without Commission approval

National Perspective: Recent Actions

- **Wisconsin**
 - PSC case regarding denial of an interconnection request for a solar services agreement project
 - Midwest Renewable Energy Association lawsuit challenging PSC guidance treating third-party PPA providers as electric utilities
 - Vote Solar petition for declaratory ruling on third-party financed solar
 - Proposed legislation clarifying issue did not pass

What Lies Ahead!

Looking Forward

- General trend toward states providing more opportunities for third-party ownership
- Growing focus on accessibility for low-income customers
- Build Back Better bill provisions
 - Uncertain future
 - ITC extension & changes
 - Direct Pay option



Q&A

Contact Us!



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Thank you for your participation!

For more information, visit the IPA Website

www2.illinois.gov/sites/ipa/Pages/default.aspx