

Interim Legislative Committee on Energy

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June 27, 2018



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Agenda Item III A (Energy)
Meeting Date: 06-27-18

Agenda



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1. Community solar overview
2. SB 392 Overview
3. Recommendations for future policy in Nevada



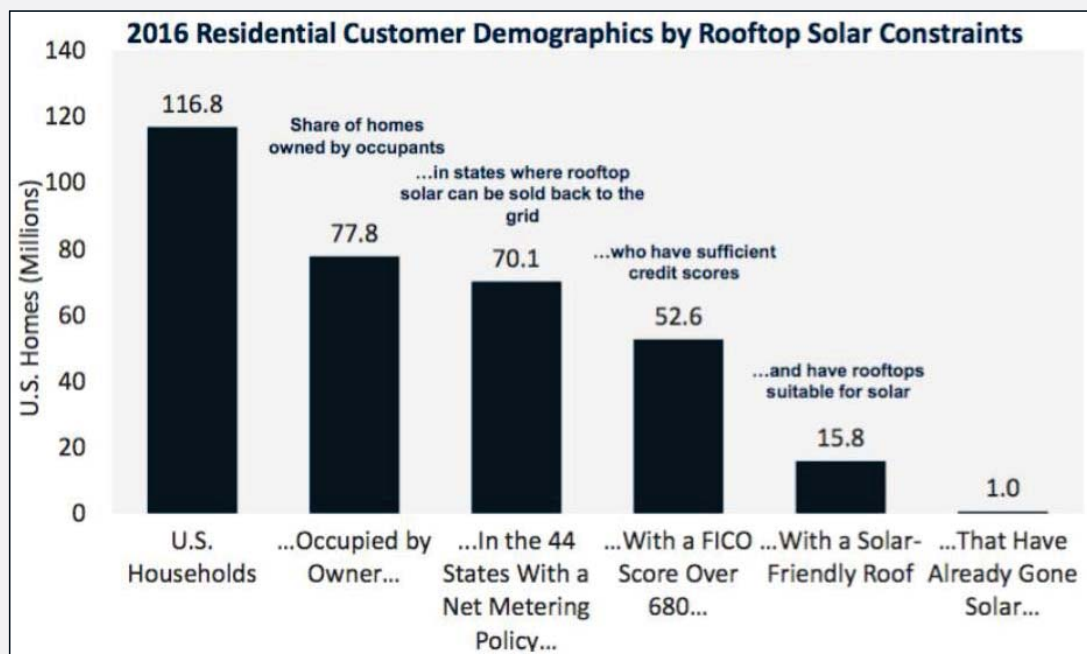
Customer Want Solar. Overwhelmingly.



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- » 89% of Americans favor expanding solar as an energy source (2018) [Pew Research Center](#)
- » Strong bipartisan support for increased use of solar
- » 71% of Americans support increasing reliance on renewable energy (2018) [Pew Research Center](#)

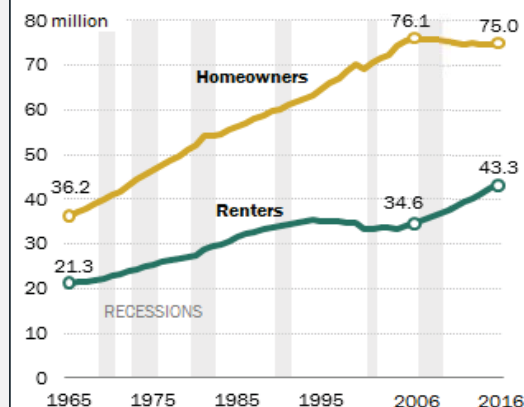
The Problem: 3 out of 4 homes cannot host solar due to tree shading, orientation or other factors



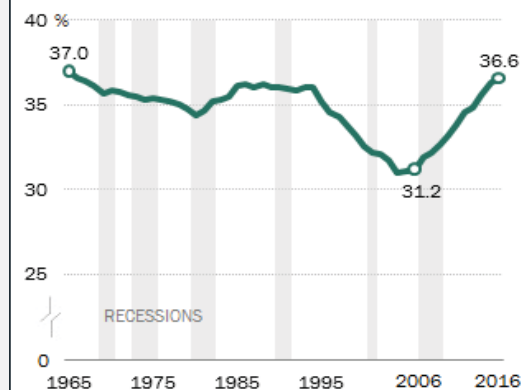
Source: Greentech Media U.S. Community Solar Market Outlook, Oct 2016

Significant growth in the number and share of households renting their home since 2006

Number of household heads, in millions



% of household heads who rent their home



Note: Data labels are for 1965, 2006 and 2016. Figures for 1979, 1981, 1989, 1993 and 2000-2016 reflect revised estimates. Source: Pew Research Center analysis of U.S. Census Bureau estimates of housing inventory.

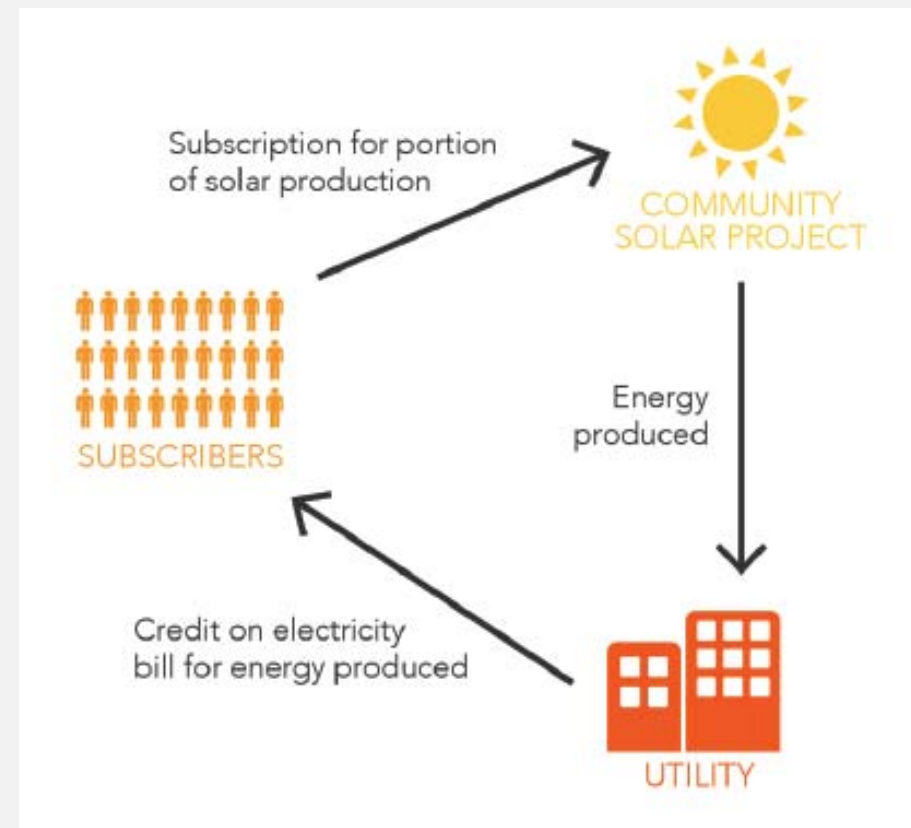
PEW RESEARCH CENTER



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The Solution: Community Solar

- > Expand solar access
 - > Overcome physical barriers
 - > Overcome financing barriers
 - > Promote equity and access by low-income households, renters
- » Community solar refers to local distribution-level solar facilities shared by multiple community members who receive credits on their electricity bills for their share of the energy produced.





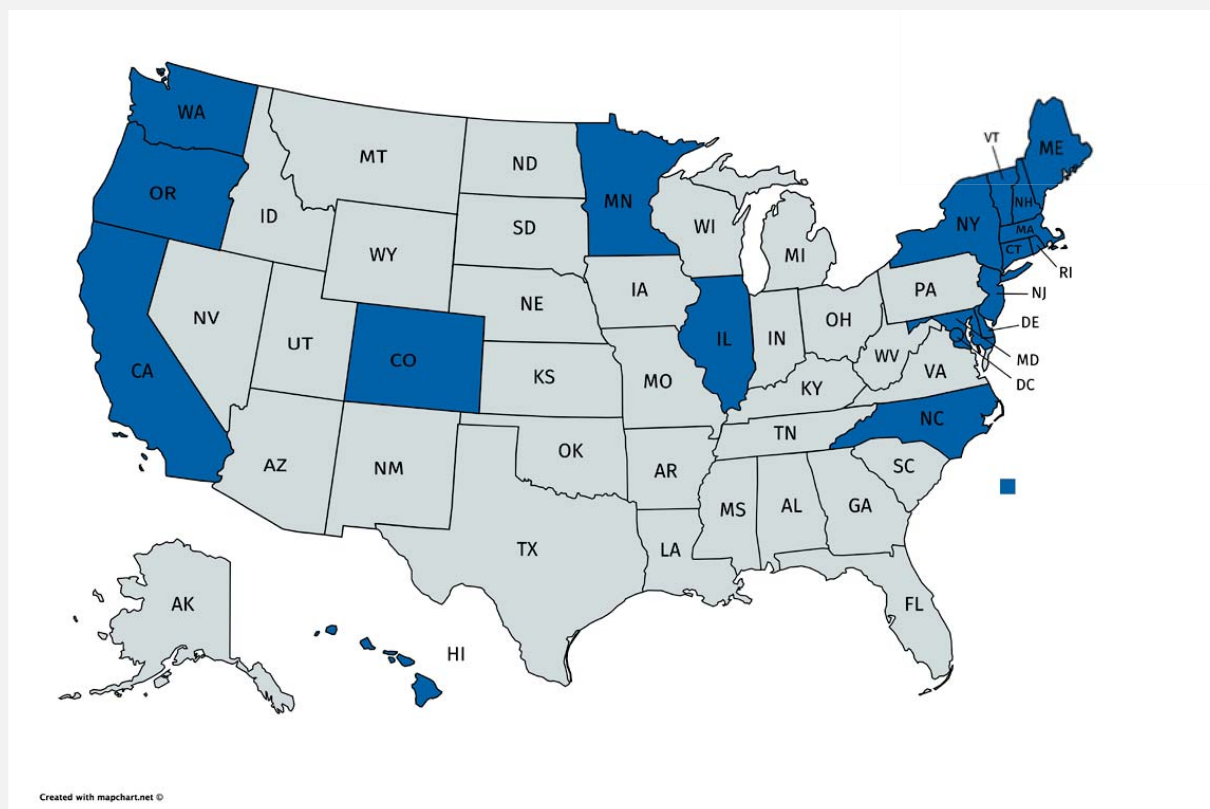
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Community solar differs from other customer-focused offerings such as community choice aggregation and green tariff programs

- » Green Tariff programs generally aggregate multiple solar facilities through a single utility controlled tariff that only offers participants Renewable Energy Credits or Portfolio Credits
 - > Community solar participation is linked to a specific facility through a subscription. Community solar can be provided by third parties and utilities.
- » Community choice aggregation is an alternative to the investor owned utility energy supply system
 - > Community solar subscribers stay with their existing utility

Statewide Community Solar Programs

18 States and the
District of Columbia
have enacted
statewide community
solar programs



As of December 2017, 734 megawatts (MW) of community solar has been installed, with half of that capacity installed in 2017.

(Source: SEPA Community Solar Program Design Models, April 2018)

Benefits of Community Solar

- » Community solar holds the potential to stabilize the customer-utility relationship
- » Expands access to local distributed solar energy, regardless of housing type or income level
- » Enables individuals at all income levels to access clean energy technology.
- » Provides the choice to go solar but doesn't require it.
- » Makes solar energy affordable, accessible and practical.
- » Leverages private investment to support local economic development.



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Massachusetts: 63 MW of community solar installed in 2016 resulted in over \$154,000,000 of private investment in the Commonwealth

Strong Support by Communities of Color



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- » Global Strategy Group conducted live telephone poll on Feb 28 - March 9, 2017
- » Poll included 550 Hispanic, African Americans, and Asian-American Pacific Islanders registered voters
- » 80 percent support for community solar gardens

SB392 In Brief



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- » Establishes a statewide community solar program with a goal of 200 MW by 2023
 - > PUCN to establish goals for this procurement
- » Directs the PUCN to develop rules for certain program elements
- » Authorizes a utility to recover reasonable administrative costs
- » Allows third parties and utilities to own community solar programs
- » Allows subscribers to enter into leases, sale-leaseback, and ownership arrangements with third parties
- » Establishes an on-bill crediting structure
- » Allows for multiple subscriptions to a single distribution-level solar facility

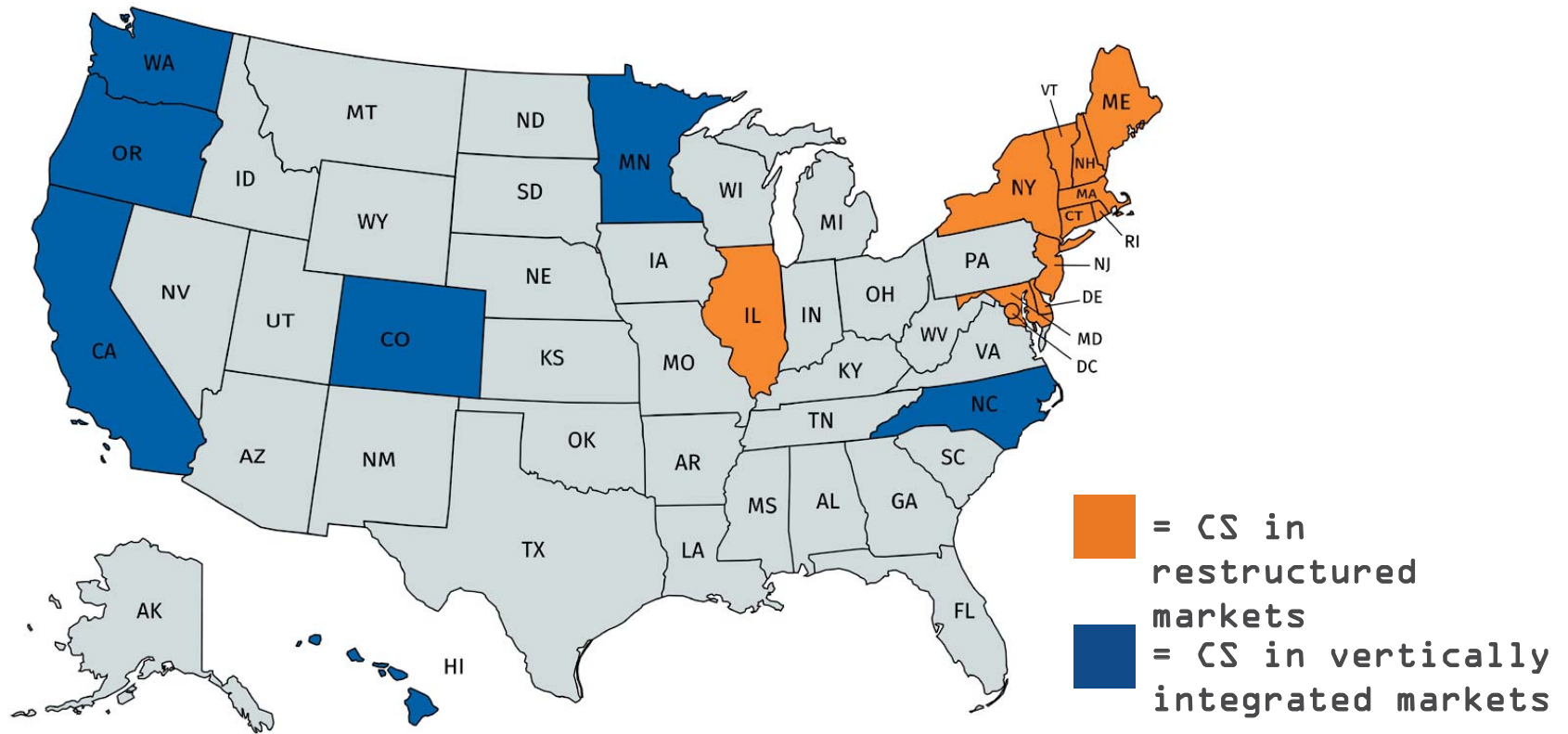


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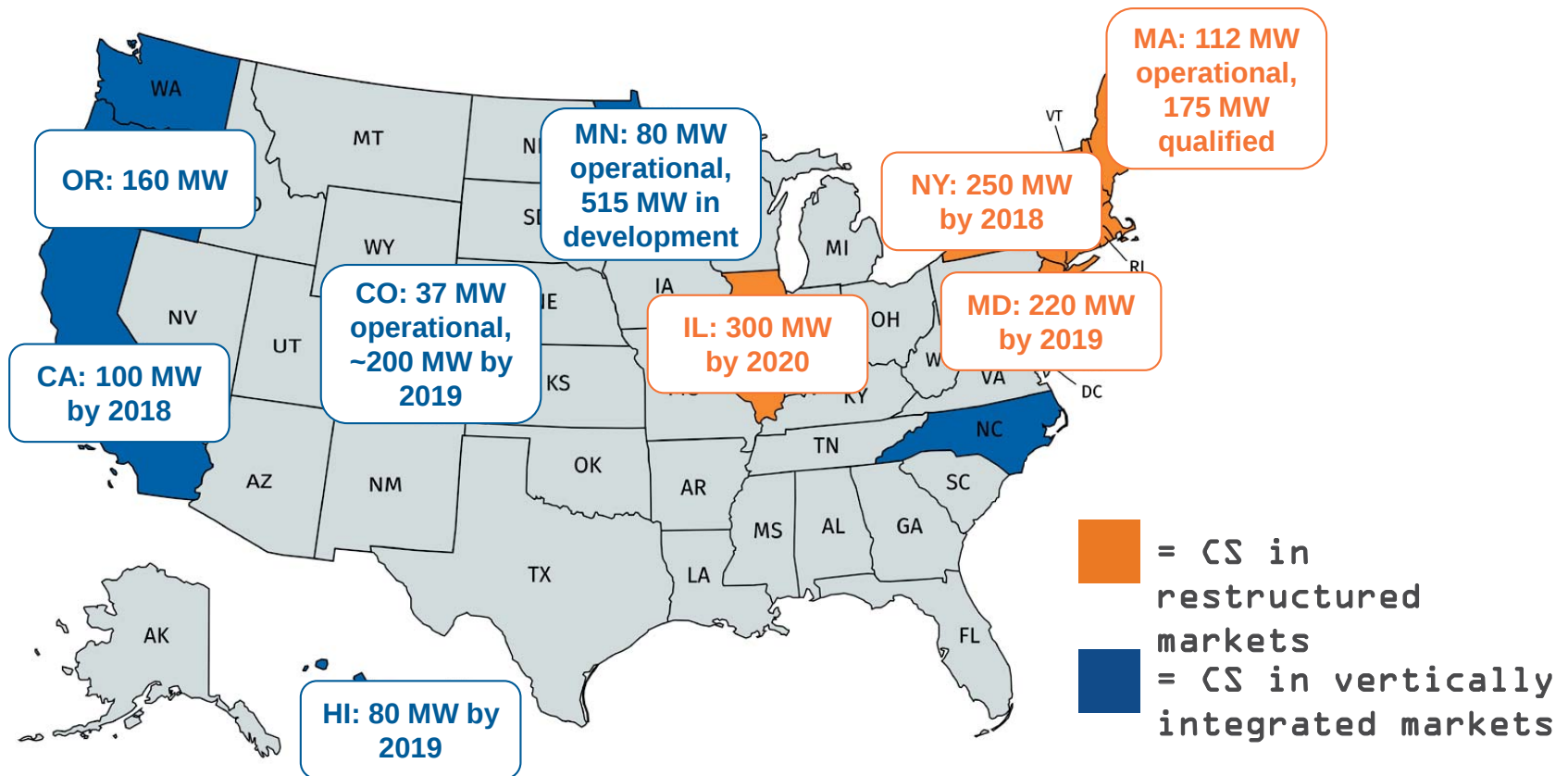
SB392 In Brief (cont'd)

- » Ensures each project has a diverse set of participants
 - > Minimum of 20 subscribers
 - > Individual subscriptions limited to 40%
 - > 40% of facility output to subscribers 25 kW or less
 - > Limits on co-location
- » 10% of the total capacity must be made available for low-income residential customers or by low-income service organizations
- » Dedicated funding to support low-income participation
- » Includes the appropriate consumer protections

Community Solar by Market Type



Community Solar by Market Type





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Community Solar in Restructured Markets

- » Community solar fits in all market types.
 - > 7 vertically integrated markets: CO, MN, HI, WA, OR, CA, and NC
 - > 12 restructured markets: MA, NY, MD, IL, RI, VT, NH, ME, CT, DE, NJ and DC
- » Maryland Register, Proposed Action on Regulations, published 4/29/2016:

E(1). Developers of solar facilities will benefit from the ability to construct and manage community solar energy generation systems. Retail suppliers of electricity will be unaffected by these regulations because a member of a Subscriber organization may continue as a retail customer.



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Low-Income Community Solar Policies

- » Colorado – initially 5% per project, now a specific programmatic carve-out for 100% low-to-moderate income projects
- » Connecticut – Pilot included 20% low-income participation
- » Hawaii – 9 MW of community solar projects with 50% low-to-moderate income participation
- » Illinois – Solar for all Program provides incentives
- » Massachusetts – low-income specific tariffs and incentives
- » Maryland – 30% program carveout for low-income projects
- » Oregon – 10% of total program capacity, 5% per project
- » Rhode Island – Incentives for low-income community solar projects

Typical Program Structure: Vertically Integrated v. Restructured Markets



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	Vertically Integrated	Restructured
Project Ownership	Utility and Third-Party	Third-Party and retail suppliers
Program Administration	Utility provides bill credit	Electric Distribution Company provides bill credit
Subscriber	Retail electric customer of a Utility	Retail electric customer of an Electric Distribution Company
Value of Unsubscribed Energy	Avoided Cost	Avoided Cost



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Key Recommendations

- » Create a statewide community solar program to provide all customer types the opportunity to access solar energy through off-site solar installations.
- » Allow for multiple subscribers to directly benefit from a single solar installation.
- » Enable subscribers to receive a bill credit for their share of production from an off-site facility.
- » Encourage competition to create low-cost community solar offerings and expand access to all customer types.
- » Create a program carveout for low-income households and low-income service organizations
- » Provide mechanisms to support low-income community solar projects
- » Include the appropriate consumer protections and disclosures

Thank you!

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Resources

- » Interstate Renewable Energy Council Shared Renewables Guiding Principles:
 - > <http://www.irecusa.org/publications/guiding-principles-for-shared-renewable-energy-programs/>
- » Low Income Solar Policy Guide – Community Solar
 - > <http://www.lowincomesolar.org/best-practices/community-solar/>
 - > Table that summarizes various state approaches to LI CS: [Click here for a summary of state approaches to low-income community solar by program, carveout, and incentive \(PDF.\)](#)
 - > In-depth policy considerations with some sample legislative/regulatory language: <http://www.lowincomesolar.org/wp-content/uploads/2018/05/Community-Solar-Policy-Guidelines-and-Sample-Language.pdf>
- » Coalition for Community Solar Access Resources:
 - > Policy Decision Matrix: <http://www.communitysolaraccess.org/wp-content/uploads/2017/12/Community-Solar-Policy-Decision-Matrix-2017.pdf>
 - > Model Legislation Vertically Integrated: <http://www.communitysolaraccess.org/wp-content/uploads/2017/12/CCSA-Model-Community-Solar-Legislation-Vertically-Integrated-December-2017.pdf>
 - > Model Legislation Restructured: <http://www.communitysolaraccess.org/wp-content/uploads/2017/12/CCSA-Model-Community-Solar-Legislation-Restructured-December-2017.pdf>
- » Smart Electric Power Alliance April 2018 Market Update
 - > <https://sepapower.org/resource/community-solar-program-designs-2018-version/>