Coalition for Sensible Solar Regulation

Solar Canopies in CT: Environmental Benefits, Siting Potential, and Policies

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January 27, 2022, CT League of Conservation Voters Environmental Summit

PEW

Stateline

Locals Worry Wind and Solar Will Gobble Up Forests and Farms

STATELINE ARTICLE | April 30, 2021 | By: Alex Brown | Read time: 8 min

the ct mirror

New farmland harvest – solar energy – creating political sparks

ENVIRONMENT :: by JAN ELLEN SPIEGEL | FEBRUARY 21, 2017

CIVIL EATS

Can Land Conservation and Dual-Use Solar on Farms Coexist?

Massachusetts is one of the national leaders in renewable energy, but conservationists worry that a push to expand solar on farms will lead to cutting down forests and paving over cropland.

BY LISA HELD • JUNE 29, 2021

Image: Redevelopment of farmland to construct a ground mount solar array in Simsbury. Source: CT Mirror

What is different about solar canopies?

- Reduce the need to encroach upon natural resources
- Convert impervious surfaces into energy sources
- Support a decentralized & resilient grid

Overview & Benefits of Solar Canopies

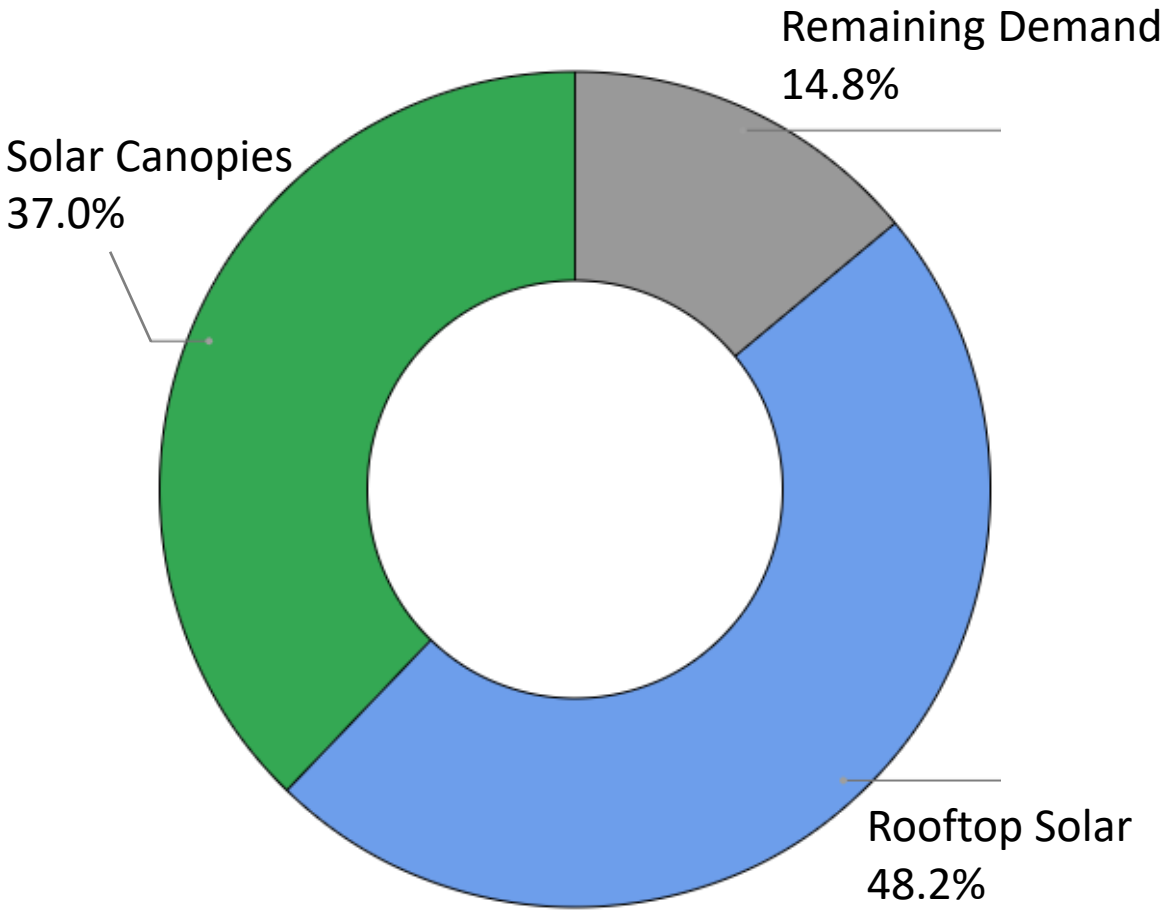
- Constructed over parking lots, landfills, other existing land uses
- Preserves farmland and forests
- Local, distributed energy generation
- Pairing with electric vehicle charging stations and battery storage
- Protection from the elements
- Reduce urban heat
- Potential to address environmental justice

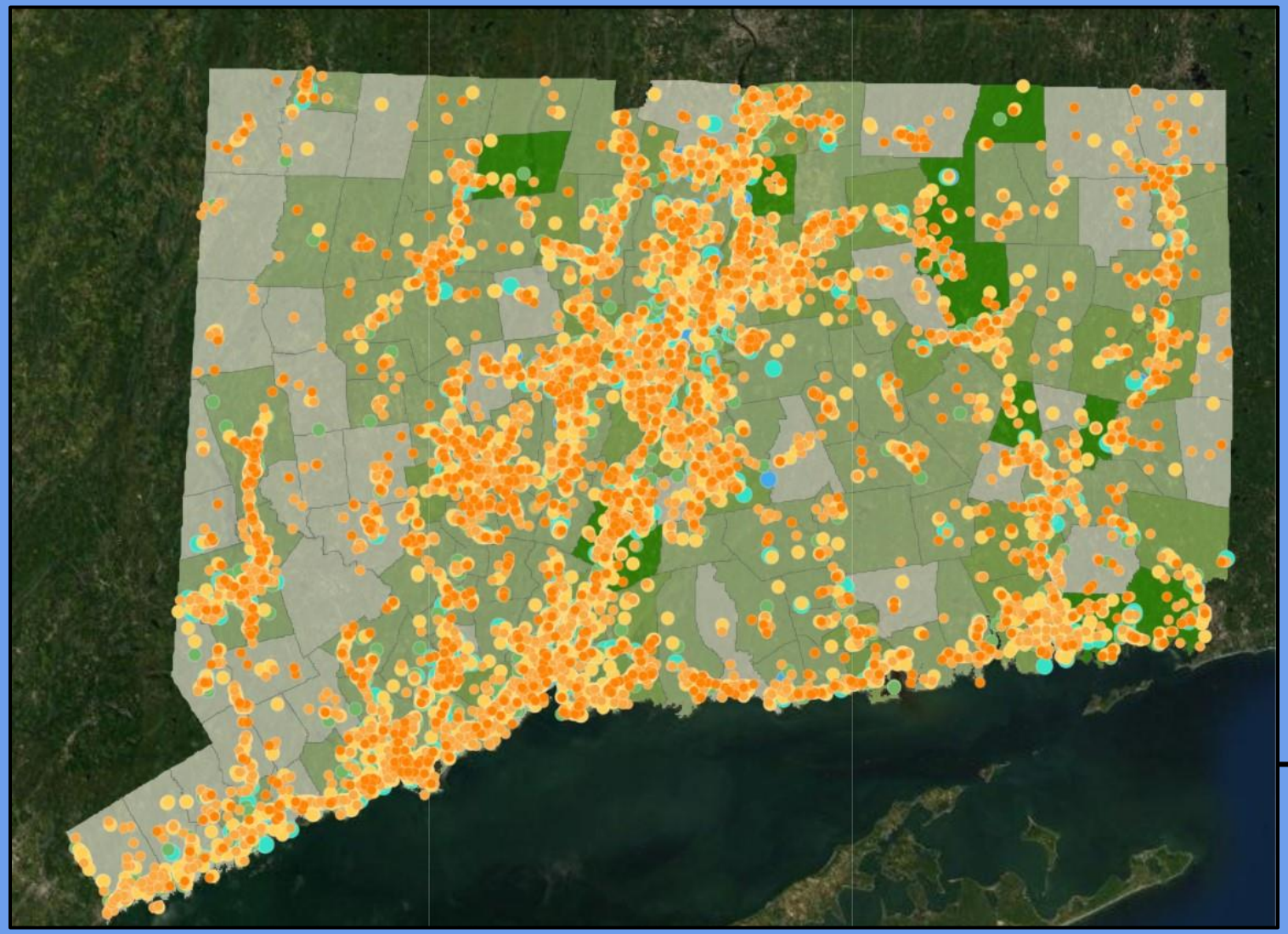
Images Source: Earthlight

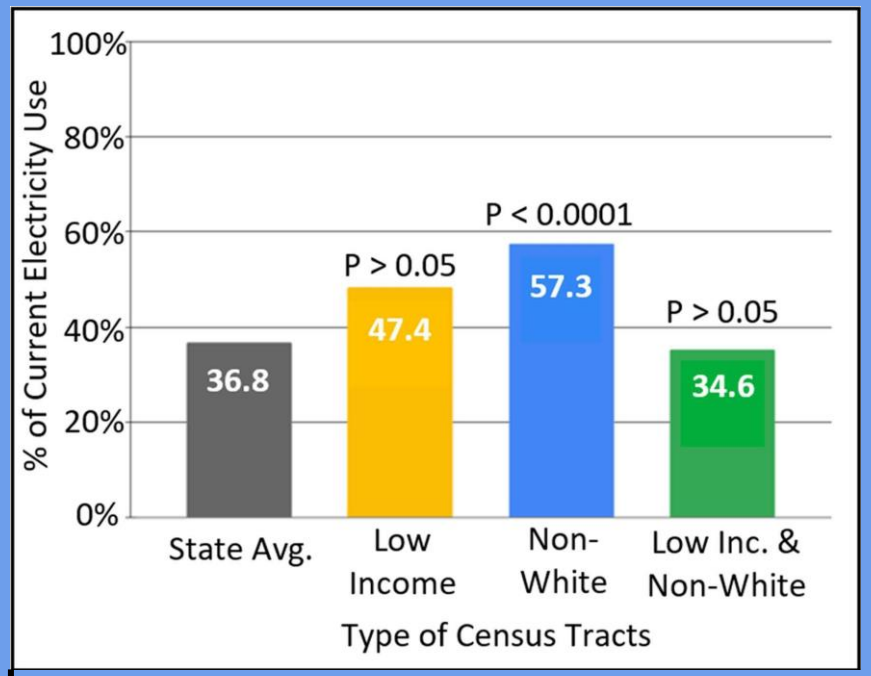
PACE Statewide Study

Analyzed large parking lots (with 100 parking spaces or more) across the CT to estimate solar canopy potential in every town.

- **8,416 sites** across the state
- **7,021 MW** of solar capacity
- **9,042 GWh** of annual energy production
- **37.0%** of current annual electricity consumption in CT
- Equivalent to the energy consumption of **870,000 homes**







Bar graph of census tracts showing solar canopy production as percentage of current electricity use

Map of all potential solar canopy sites in CT

Policy Recommendations

1. Create Adder Incentives for Solar Canopies and Related Infrastructure

Adder incentives can support specific types of renewable energy production such as solar canopies. This added incentive would offset costs and could encourage solar canopies, battery storage, or other types of systems. An adder of **$0.06 per kWh** produced would align CT with policies in MA and RI.

2. Expand or Remove Caps on Commercial Solar Development

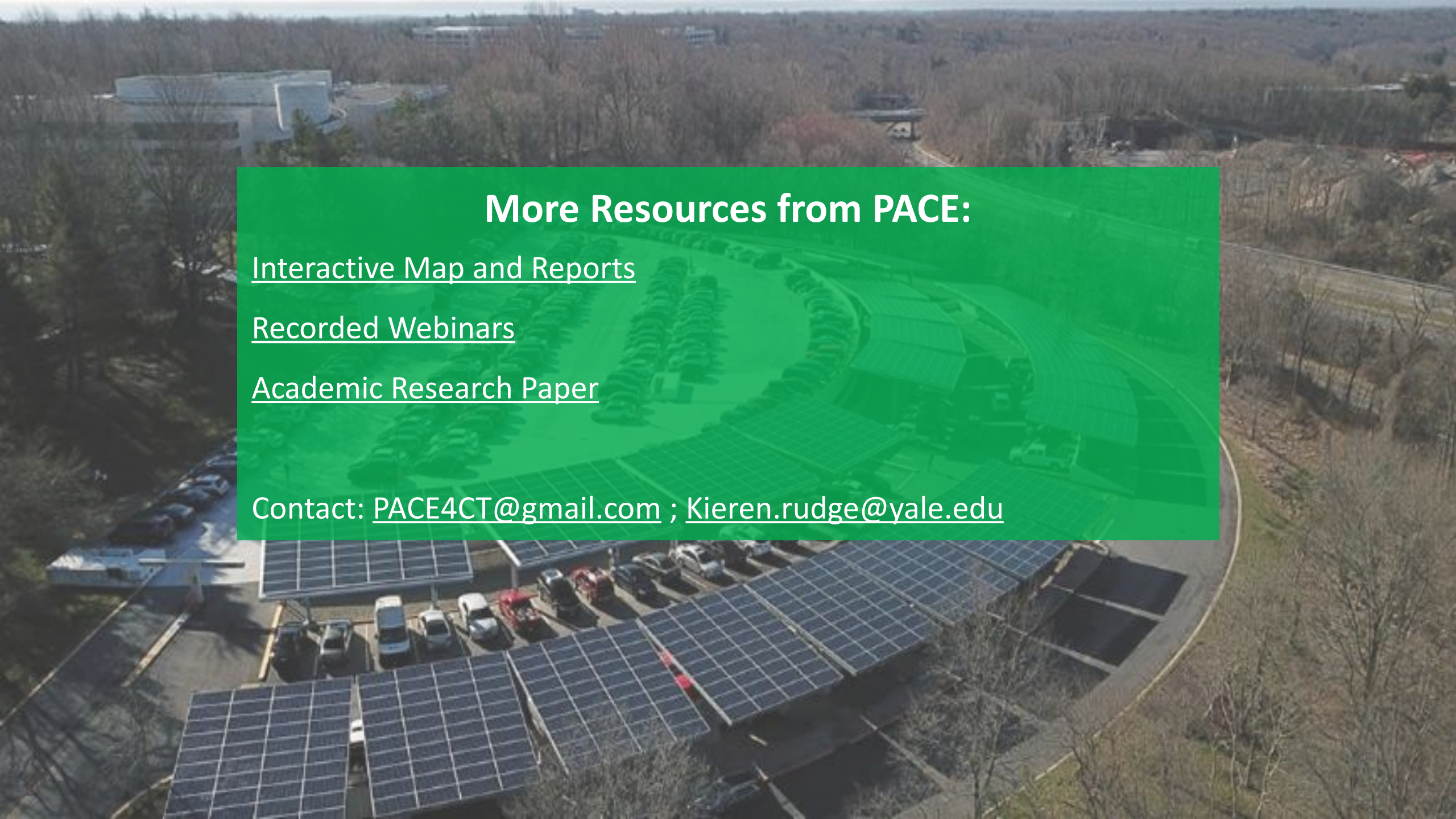
Incentives for current commercial projects are greatly limited both by the total capacity allocated across the state and the caps on individual project sizes. Changes should include **increasing the maximum Shared Clean Energy Facility (SCEF) Project Size to 5 MW.** Permitting larger SCEF projects would improve their financial viability, enable a larger number of subscribers to participate, particularly vulnerable populations, and facilitate widespread adoption of canopies.

3. Support Equitable and Modern Grid

Policies that support distributed energy systems (DERs), including solar canopies should be prioritized. These include decreasing the cost of interconnecting with the grid, facilitating connection of DERs, and incorporating solar canopies into regional plans.

4. Zoning and Local Ordinances

Explicitly defining and mentioning solar canopies in local ordinances and zoning codes increases the likelihood that they will be installed. Additionally, measures can be incorporated to enable solar canopies. Examples that have been implemented include allowing solar canopies to exceed height restrictions and making clear standards that differentiate requirements for rooftop solar versus solar canopies.



More Resources from PACE:

Interactive Map and Reports

Recorded Webinars

Academic Research Paper

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