

MEA Solar Task Force Support

October 11, 2023

Solar Task Force Analysis

- Customer segment potential
 - Incentives available
 - Ownership structure
- Policy best practices
- SREC pricing analysis
- Residential Solar Payback Analysis
- Questions/Discussion

Findings and Key Takeaways

- In terms of generation potential, population, and total area, most comparable states are Massachusetts and New Jersey
- Most similar states also located fully in the PJM interconnection are Pennsylvania and Virginia
- Maryland is one of the transparent states with funding availability, offerings, opportunities for all customer segment participation
- Performance-based incentives that pay customers based on their solar production may be more effective in low-income communities
- Higher SREC prices may lead to additional solar development
- Based on revised assumptions, a \$0.10 to \$0.50 per Watt increase in incentives would bring down payback from 13 to 12 years

Solar by Customer Segment in Maryland

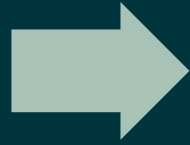
Customer Segment	Ownership	Available Incentives	Annual Solar Energy Potential (MWh/yr) *
Residential rooftop	Customer or third party	Net metering, SRECs, federal incentives, Maryland Residential Clean Energy Rebate Program, Low-Income Solar Grant Program	8,752,920
Commercial	Customer or third party	Net metering, SRECs, federal incentives, Maryland Commercial Clean Energy Rebate Program	17,628,780
Utility-scale	Utility/generation company	SRECs, federal incentives	448,303,270
Community solar	Subscriber organization	Net metering, SRECs, federal incentives, Community Solar LMI PPA Program	418 MW

*NREL SLOPE: <https://maps.nrel.gov/slope/>

Preliminary States for Review

Top 10 Overall Capacity

- Arizona
- California
- Florida
- Georgia
- Massachusetts
- Nevada
- New Jersey
- New York
- North Carolina
- Texas



Top 10 Normalized

- Arizona
- California
- **Massachusetts**
- Nevada
- New Jersey
- North Carolina
- Rhode Island
- Utah
- Vermont
- Virginia



PJM

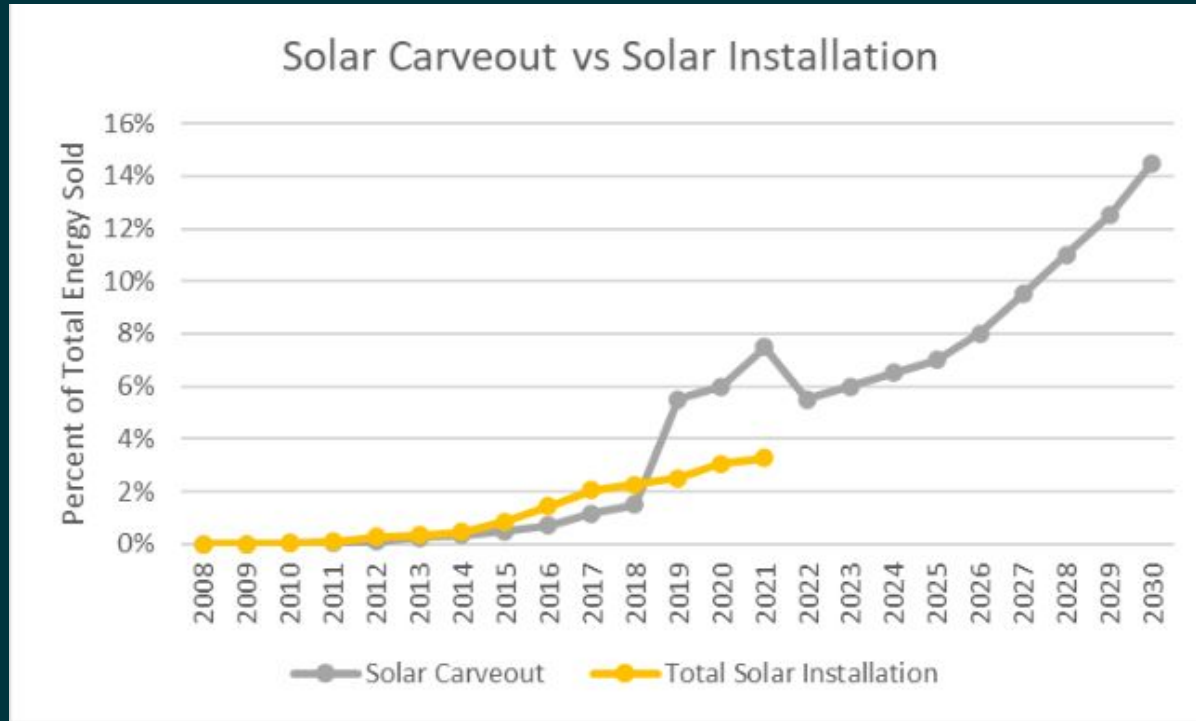
- Delaware
- **New Jersey**
- Ohio
- **Pennsylvania**
- **Virginia**
- West Virginia

Tax Policy Comparison

State	Income Tax Credit	Sales Tax Exemption	Property Tax Exemption
Arizona	✓	✓	
California		✓	✓
Florida		✓	✓
Maryland		✓	✓
New Jersey		✓	
New York		✓	
North Carolina			✓
Rhode Island		✓	✓
Virginia			✓

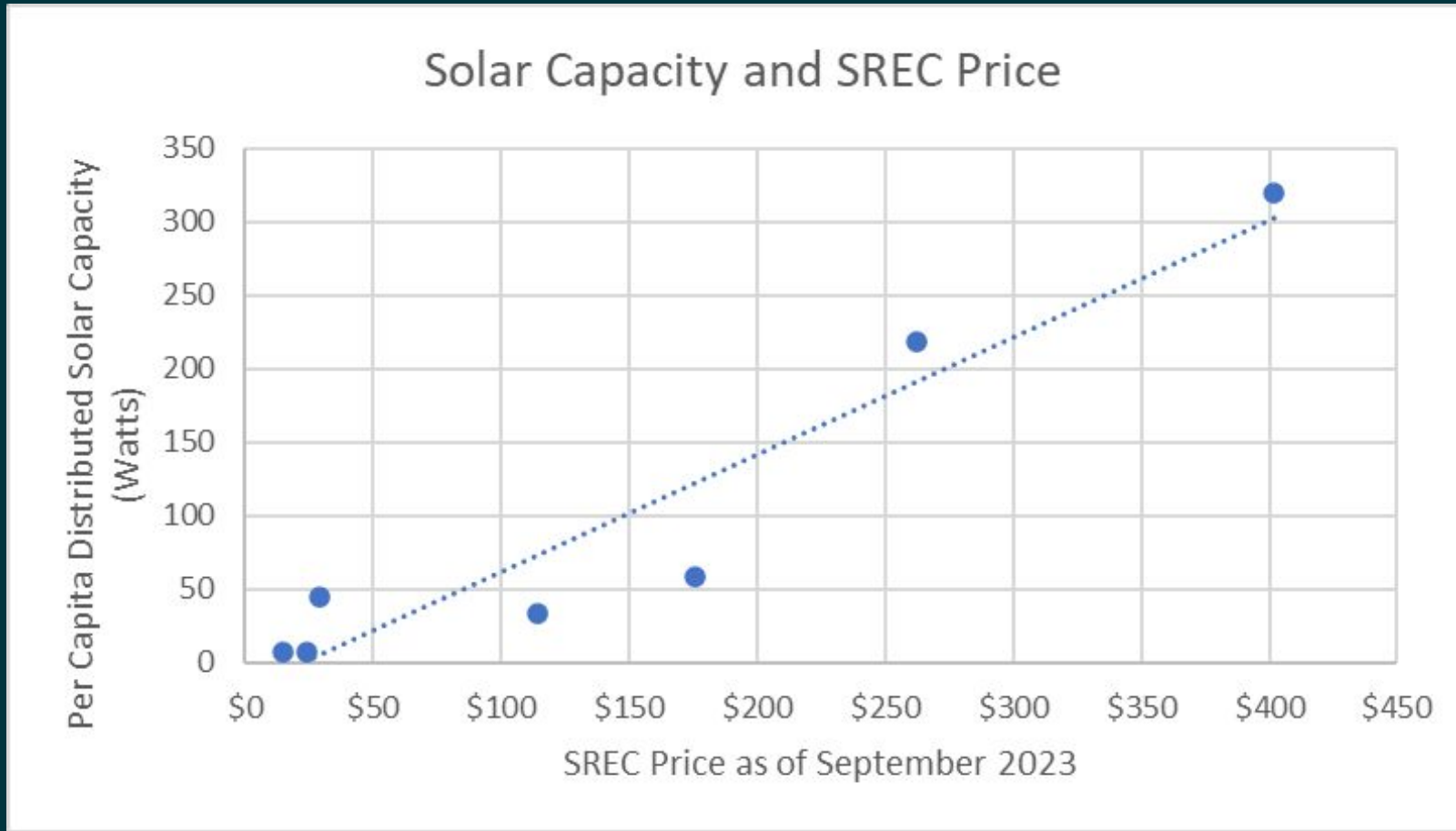
- Stanford study revealed that tax rebates for solar are ineffective for low-income residents in comparison to higher income residents.
- Lower income families do not pay as much in taxes as high-income families, thus benefiting less from tax breaks.
- Performance-based incentives that pay customers based on their solar production may be more effective in low-income communities.

SREC Pricing Analysis



Key finding: the solar installation in Maryland is projected to continue to be below the solar carveout, this implies that SREC price in Maryland is expected to be close to the ACP.

SREC Pricing Analysis – PJM States



Current SREC prices: <https://www.srectrade.com/>

Distributed solar capacity: <https://ilsr.org/the-states-of-distributed-solar/>

American Journal of Agricultural Economics: <https://onlinelibrary.wiley.com/doi/10.1111/ajae.12248>

Residential Solar Payback Analysis

Incentive Level	Original Analysis (Years)	Revised Analysis (Years)	Revised + O&M (Years)	Revised + O&M + Interest (Years)
Payback \$0.1/W Incentive	10	13	14	23
Payback \$0.5/W Incentive	8	12	12	19

Electricity rates and escalation are estimated based on the following EIA data: <https://www.eia.gov/electricity/data/eia861m/>.
System installation costs from LBNL: https://emp.lbl.gov/sites/default/files/5_tracking_the_sun_2023_report.pdf.

Q&A