

# Community Solar Made Better

**Jill K. Cliburn, CSVP Program Manager  
For NRRI Webinar**

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**Community  
Solar Value  
Project**

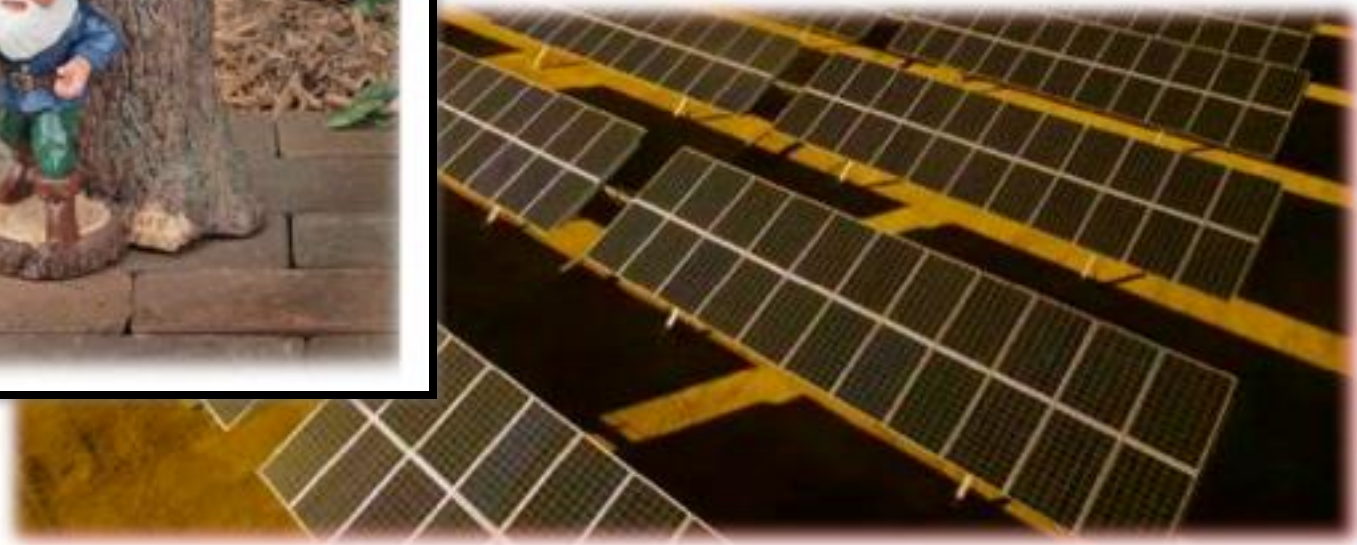
[CommunitySolarValueProject.com](http://CommunitySolarValueProject.com)



What is “high-value” community solar? Utility-driven leadership in better solar siting and design, procurement, target marketing, and companion measures (storage, DR) that address solar integration needs at lower cost.



**From gardens...  
To grid resources**



# Relevant History



- Green power marketing: wind to solar as value-added
- Renewables as a fuel-risk hedge
- Community solar in public power communities
- Changing the NEM conversation
- CSVP: Community solar as a market-based laboratory for increasing DERs and flexible grid solutions

# Community Solar is a Possible Win-Win For Utilities and Their Customers

88% of utility execs ranked distributed energy resources as their greatest opportunity, but 63% weren't sure how to build a good business around it\*

\* Utility Dive, 2014 Annual Survey

# What It Looks Like: CSVP Strawman Model

## Competitive Product with Voluntary Companion Measures



- Participants' rate based on wholesale solar cost + admin + wires costs

- Keyed to solar capacity "share"

- **Plus credits for adding integration value via DR / EE/ storage**

## Solar Project/s with Strategic Design

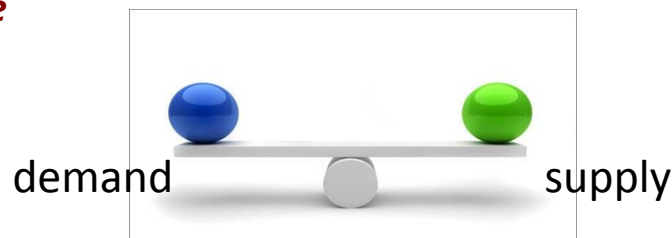


- Siting/design for value-added wholesale solar


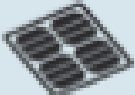






- Utility pays price set by competitive PPA; spec for added value; likely buyout

- Fleet expansion expected, with technical and pricing adjustments

Utility



# Some Project Designs Add First-Cost But Increase Long-term Value

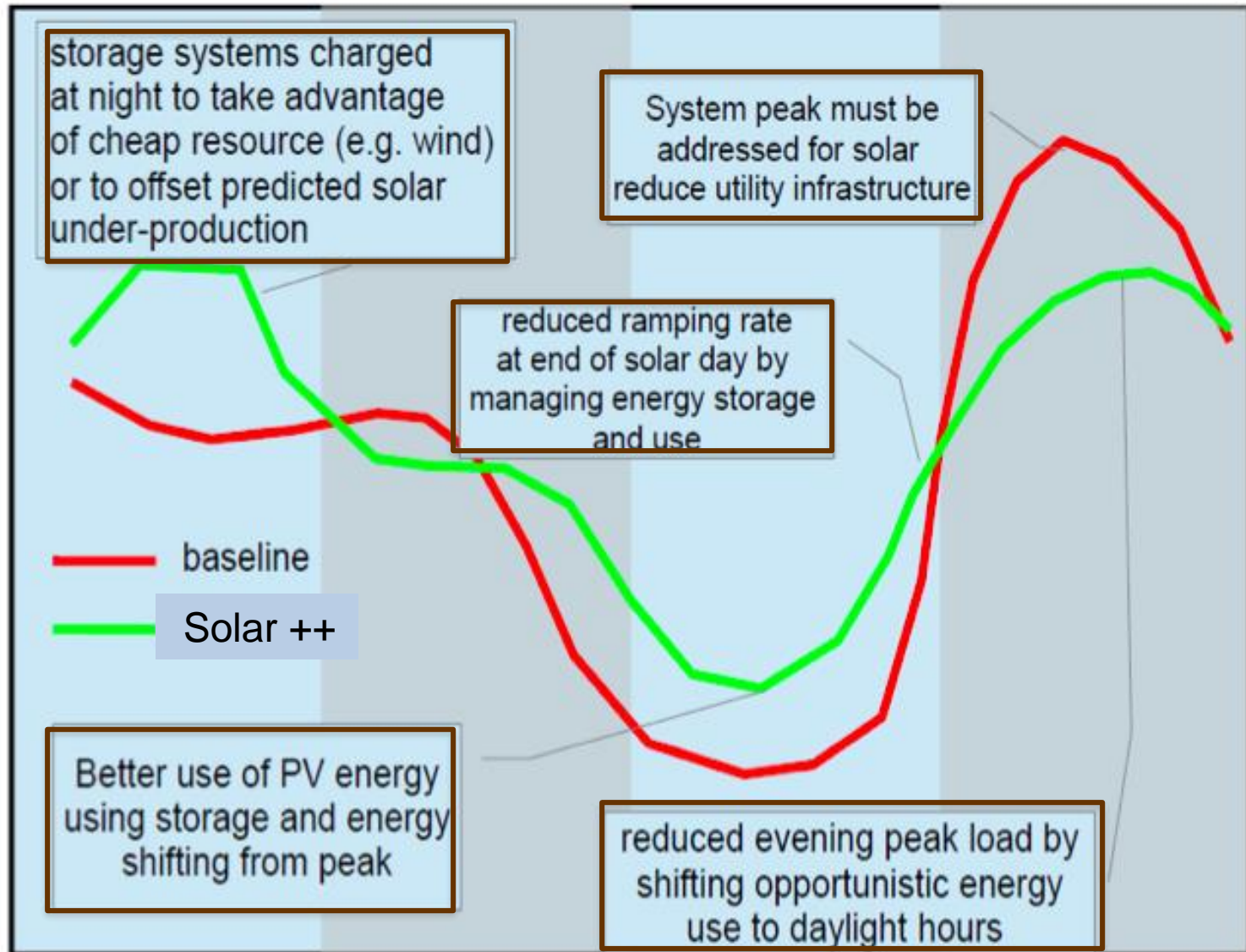
	PV Only	<u>Baseline</u>
	PV + Configuration	<u>Affects LCOE; improves value</u>
 	PV + Tracking	<u>Practically \$0 added cost; improves LCOE and value</u>
 	PV + Battery (Energy)	<u>High added cost; falling</u>
 	PV + Battery (Power)	<u>Moderate added cost; falling</u>



PV + Demand Response

We use **Demand Response as a “battery”** (with with or without storage capability) – Low-cost/high-value, and may enhance true battery value.

# Addressing daily, seasonal issues w/ Solar ++



# Strategic Benefits of High-Value CSS

- Customer choice: Many prefer community solar
- Optimal solar project location, orientation, and design
- Flexible operations
- Fleet strategy addresses pricing risk, adds diversity
- Customer acquisition and retention benefits from “solar-plus” service-bundling
- Clean electrification options: EVs, storage water heat, etc.
- Collaboration with customers and third-party innovators for emerging grid-interactive utility models



# Regulatory and Policy Challenges

- Be cautious in comparing NEM- and utility-based programs
- Promote innovation in market-based laboratories: consider voluntary participation, evaluation
- Consider strategic as well as quantitative arguments; mindful of the dynamic nature of technologies, markets
- Emphasize silo-busting
- Encourage collaboration to improve CSS value
- Make it simple, but significant

# ***The Presenter and the Project***

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***The Community Solar Value Project*** is focused on improving community-solar program value, through solar + storage + demand-response and other strategies, at electric utilities in Sacramento and beyond. Led by Extensible Energy, LLC, and draws on expertise from three energy consulting firms. Contact John Powers, [john@extensibleenergy.com](mailto:john@extensibleenergy.com)

**For more information on SunShot Solar Market Pathways, see**



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