

The Value of Going Local

**CSVP Webinar Series
September 29, 2016**

**Joe Bourg, Millennium Energy
Norm Weaver, City of Fort Collins Utilities
Jill Cliburn, Cliburn and Associates**



**Community
Solar Value
Project**

CommunitySolarValueProject.com



The Community Solar Value Project

- Led by Extensible Energy, with expertise of 3 additional firms
- Funded by U.S. Department of Energy SunShot Initiative
- Utility-led community solar programs, using a variety of project ownership options and program innovations.



www.communitysolarvalueproject.com



Next Up

- Smarter Procurement for Community Solar Programs Webinar, Thursday December 1
- **See our archive and watch for the 2017 line-up**
- Chicago Cubs Win • October
- Peak Load Management Alliance • November
- Renewable Energy World • December



And watch for resources postings on
www.communitysolarvalueproject.com

Utility DIVE

Generation T&D Solar



FEATURE

Keep it simple, state Community solar complex regulation

solarmarketpathways.org/toolkit/community-solar/



PROJECT

Community Solar



sections

- ABOUT THE TOOLKIT
- FUNDAMENTALS OF COMMUNITY SOLAR
- POLICY
- PROGRAM DESIGN & IMPLEMENTATION
- FINANCE
- CONSUMER & COMMUNITY ENGAGEMENT

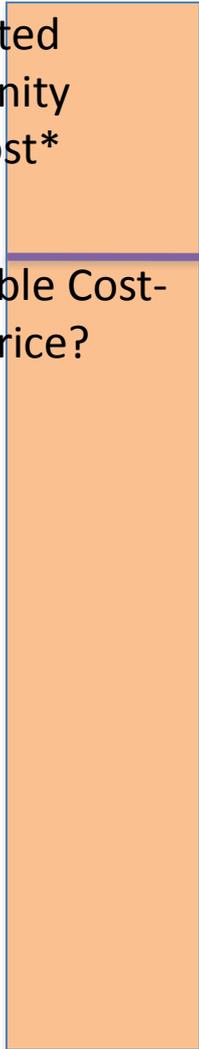
**News, resources, and solutions
most relevant to utility-led programs**
www.communitysolarvalueproject.com

Today: Closing the GAP

Utility

Distributed
Community
Solar Cost*

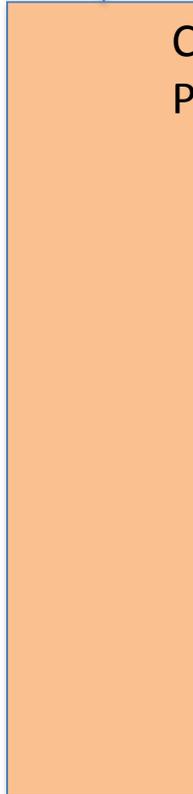
Achievable Cost-
Based Price?



Cost Gap



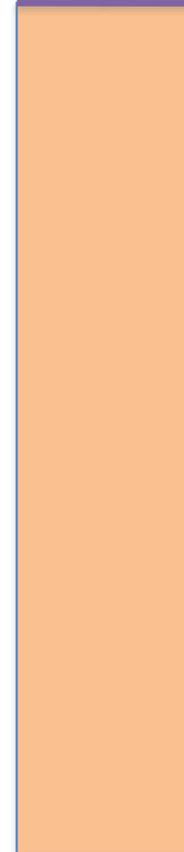
Centralized
PV Resource Cost*



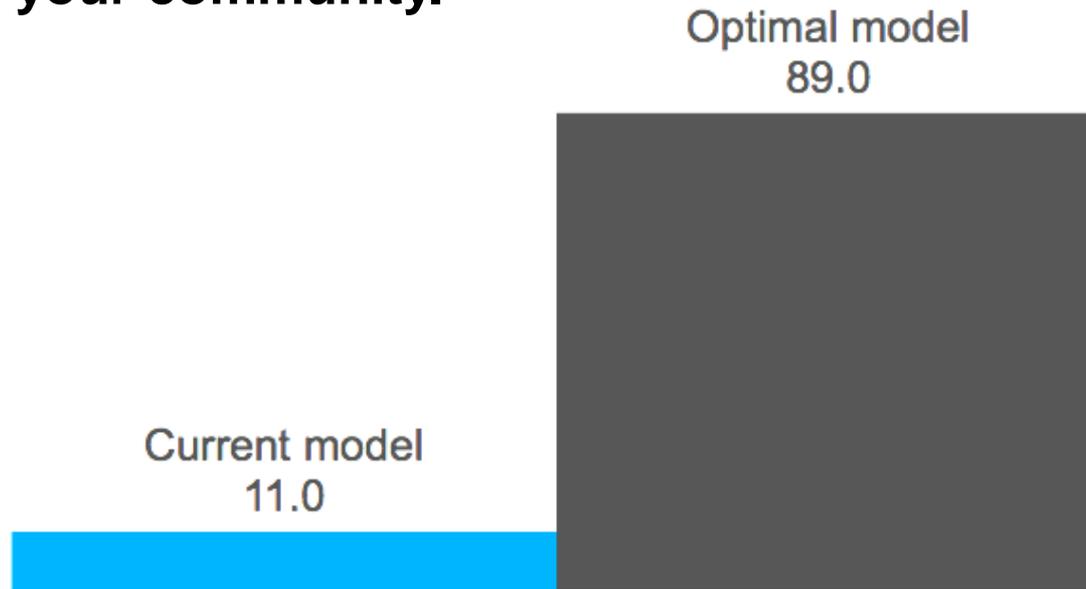
Customer Facing
Offer: Price Gap
vs. NEM-based
Offer

3rd-Party
Price
w/out
NEM

Price w/
NEM



An example: One of several result screens from Shelton Group (2016) for SEPA. Here, showing how improving a community **solar tariff-based program** on 5 metrics affects customer preference. One of these improvements: **Local projects, in your community.**



	Program sponsor	Subscription block price	Sign-up fee	Location	Product information
Current model	Solar company w/ utility partnership	\$0.03/kWh premium	\$100 non-refundable fee	60 minutes from home	No power production info
Optimal model	Local utility company	\$0.01/kWh premium	No sign-up fee	In your community	Info via website portal

n=515

Source: Shelton Group presentation for SEPA Community Solar Workshop, 4/2016

Address the Utility's Strategic Challenges

- Optimal siting and design (for production, grid integration)
- Local siting benefits relative to transmission-sited systems
- Economic development; community partnership
- Customer acquisition for TOU or other rate options
- Customer acquisition and retention from “solar-plus” service-bundling strategies (to meet DR, EE goals)
- Clean electrification options
- Benefits from leveraging participants as ambassadors for emerging grid-interactive utility models; appeals to a new generation of customers
- Facilitates both customer retention and choice

GAP: A Simple Process for Making Local Community Solar Work

- 1) Start with a story—a *realistic hypothetical*.
- 2) Create a program narrative that would address the utility's *strategic challenges* and produce desirable results, such as specific aspects of
 - Clean economic development – electrification
 - Service to a new generation of customers
 - Preparation for widespread DER integration
 - Management of numerous risks
- 3) Use assumptions, costs, and values similar to those you would expect, but *think in ranges* rather than set numbers.
- 4) To solve the economics, work back from a competitive pricing target. Identify the GAP, and fill it.

Hypothetical Narratives: Two Perspectives

- **General retail CSS**
 - Must support a highly scalable program
 - May start on a pilot basis, but market-focused
 - Market-based laboratory for a new, sustainable utility, including DER
- **L/M income specific CSS**
 - Scalable for this market; not a token
 - May start on a pilot basis, but market-focused
 - Creative options and partnerships to create solutions

Our Speakers Today

Norman Weaver, Fort Collins Utilities Sr. Energy Services Engineer, a registered professional engineer and energy efficiency technology specialist with over 30 years in the building science and renewables field. Oversees Fort Collins' PV net-metering and solar incentives programs.

Joe Bourg, Millennium Energy A 25-year veteran in the utility- and renewable-energy industries, providing program design, evaluation and procurement support services across the nation. An innovator in community solar, brownfield conversion, and integrated DER strategies. Hails from the University of California at Berkeley.

Jill Cliburn, Cliburn and Associates, LLC Serving as Principal Investigator for CSVP. Long-time utility-industry consultant, researcher, policy facilitator, and DER roustabout. Has provided community solar and green-tariff guidance to NRECA, APPA, and utilities nationwide.