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Democratizing Solar Power With Community Funding and Crowdsourcing



Solar for the other 75 percent

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December 12, 2013

New community and crowdsourced financing models for solar will expand the availability of cheap capital -- if regulatory risk can be cleared.

No more than 25 percent of U.S. rooftops are suitable for standard solar, GTM Senior Editor Stephen Lacey noted in introducing [the Democratizing Solar panel](#) at the GTM [Solar Market Insight conference](#). A huge pool of renters and low-income customers could be brought into the solar market through emerging smaller-investor models.

First-mover [Solar Mosaic's](#) business model is a relatively simple two-step process, explained CIO Greg Rosen. First, raise money and loan it to a Special Purpose Entity (SPE) created to build a solar project, and then offer shares to individual investors. His company has secured investments of over \$5.6 million and returned an average of 4.5 percent to 6.5 percent to its accredited and non-accredited investors.

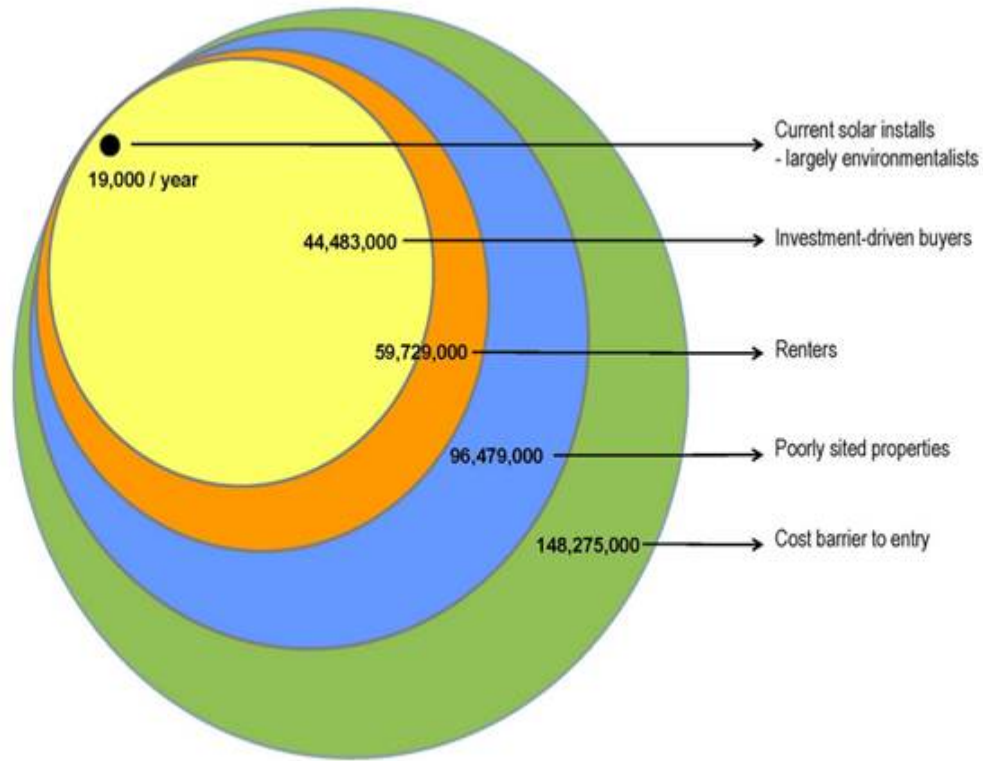
Indicative of the burdensome regulatory complexities, Rosen added, is that Solar Mosaic must use the term "crowdsourced" and avoid using the term "crowd-funded" to remain in compliance with federal and state securities law dictates.

Clean Energy Collective (CEC) also creates an SPE front fund, explained President Paul Spencer. Its utility-centric business model is funded by what regulatory dictates require it to call "customers." CEC begins with a power purchase agreement from a utility and ends with the customers owning and getting electricity bill credit for individual panels. It presently has 29 projects worth \$70 million in six states.

"The community solar space offers huge opportunities for securities lawyers," joked Village Power Finance CEO Ty Jagerson. Jagerson's company works with nonprofit organizations that want solar but cannot monetize tax credits. It creates an SPE for investors in rooftop systems for the nonprofits and then builds and manages those systems.

Community-based and shared solar business models fit the DOE SunShot goal of cutting solar costs and increasing the scale of deployment. The aim is to make solar subsidy-free by 2020, according to DOE Fellow Anna Brockway. DOE's recent workshop on the new models turned up three key needs: reducing regulatory uncertainty, improving utility collaboration, and educating regulators, utilities, and the general public

Rosen said California regulators have given Solar Mosaic the green light because his company has gone to great lengths to make its solar investments "look and smell like any other loan for solar," adding, "This is an early stage for community solar."



(from CEC)

CEC uniquely works with utilities, Spencer said, and doesn't use net metering. It is trying to buck the current trend "and keep utilities and solar from drowning each other."

"I don't challenge utilities; I'm too scarred," Jagerson said. "We try to get as far away from them as we can, but solar does need to work with utilities."

"We have found that the more utilities learn about the community solar model, the more they are interested," Brockway said. They will play "a crucial role [when] they accept it and figure out how to deal with it."

CEC is in 141 conversations with utilities across 39 states, Spencer said. Each one is different. "Some say 'Yes' and some say 'Leave now.' And some of those call back a year later."

"There is a danger in painting utilities into a corner," Rosen said. "The solar industry needs to listen to their needs and try to align the arrows of the different models."

Community-funded projects may not be as low-risk as investment-grade projects, Rosen pointed out, but the multiple sources of funding reduces risk because “you can find a new customer for one that defaults.”

Another key to minimizing risk, the three developers agreed, is having the right consultants and third-party underwriters. “If everything is buttoned up,” Jagerson said, “standardizing could lead to downstream securitization.”

Using truSolar’s method of standardizing non-residential solar projects, Rosen said, can also reduce investors’ perception of risk.

“A key part of our SPE structure is setting aside a trust fund for project O&M,” Spencer said, “to ensure the community will be taken care of and not lose their investment, no matter what happens to CEC.”

Asked what policy changes would move community solar ahead, Jagerson called for a carbon tax or “anything to move to a national commitment to support renewable energy.”

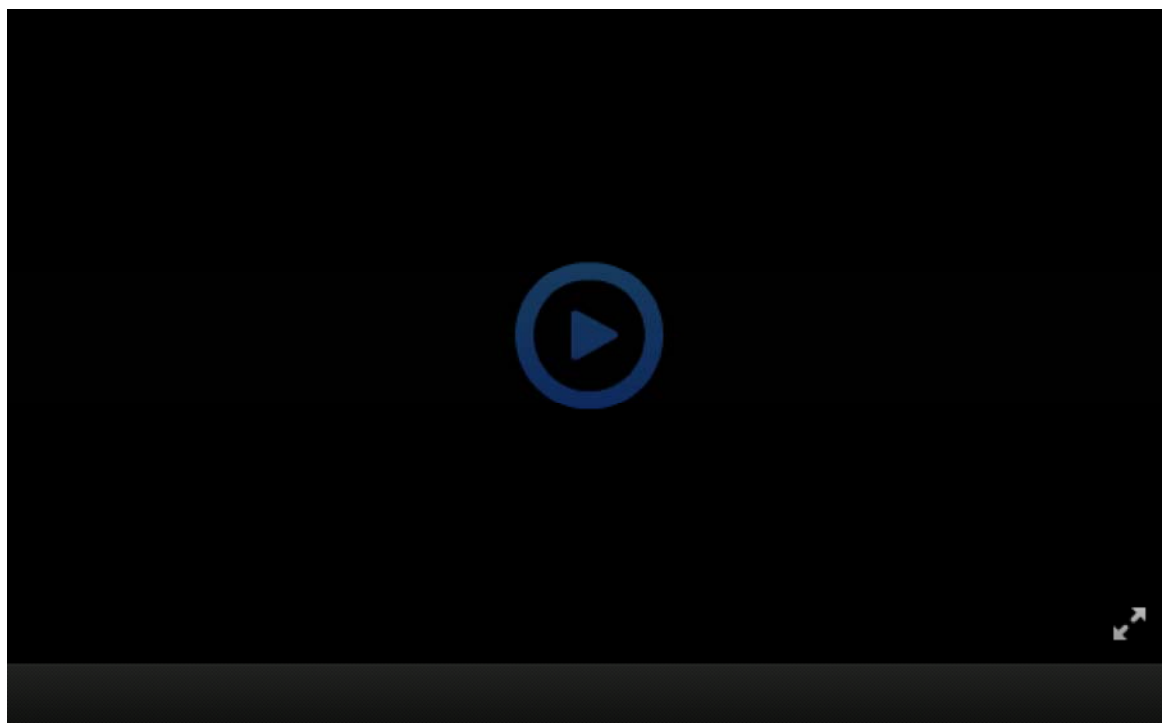
Spencer called for a different type of subsidy, contending that the tax credit is “woefully deficient” and allows “monetizing to dissipate to other parties.”

DOE has generally supported crowdfunding, Rosen said, but it needs to help figure out how SPEs can identify the good players in the space. “We don’t want to throw out the baby with the bath water,” he said, “but we’ve got to protect the individual investors despite a few bad actors.”

COMPARISON OF MODELS (from the DOE's *A Guide to Community Shared Solar...*)

	Utility	Special Purpose Entity	Nonprofit
Owned By	Utility or third party	SPE members	Nonprofit
Financed By	Utility, grants, ratepayer subscriptions	Member investments, grants, incentives	Memberships, donor contributions, grants
Hosted By	Utility or third party	Third party	Nonprofit
Subscriber Profile	Electric rate payers of the utility	Community investors	Donors, members
Subscriber Motive	Offset personal electricity use	Return on investment; offset personal electricity use	Return on investment; philanthropy
Long-term Strategy of Sponsor	Offer solar options; add solar generation (possibly for Renewable Portfolio Standard)	Sell system to host; retain for electricity production	Retain for electricity production for life of system
Examples	<ul style="list-style-type: none"> • Sacramento Municipal Utility District – SolarShares Program • Tucson Electric Power – Bright Tucson Program 	<ul style="list-style-type: none"> • University Park Community Solar, LLC • Clean Energy Collective, LLC • Island Community Solar, LLC 	<ul style="list-style-type: none"> • Winthrop Community Solar Project • Solar for Sakai

Watch "Democratizing Solar: Crowdfunding and Community Solar" from the U.S. Solar Market Insight Conference 2013:



[Video streaming by Ustream](#)

TAGS: [clean energy collective](#), [community funded](#), [crowd sourced](#), [financing models](#), [investment grade projects](#), [o&m](#), [regulators](#), [risk](#), [shared solar](#), [solar](#), [solar mosaic](#), [sunshot](#), [trusolar](#), [utilities](#), [village power finance](#)

