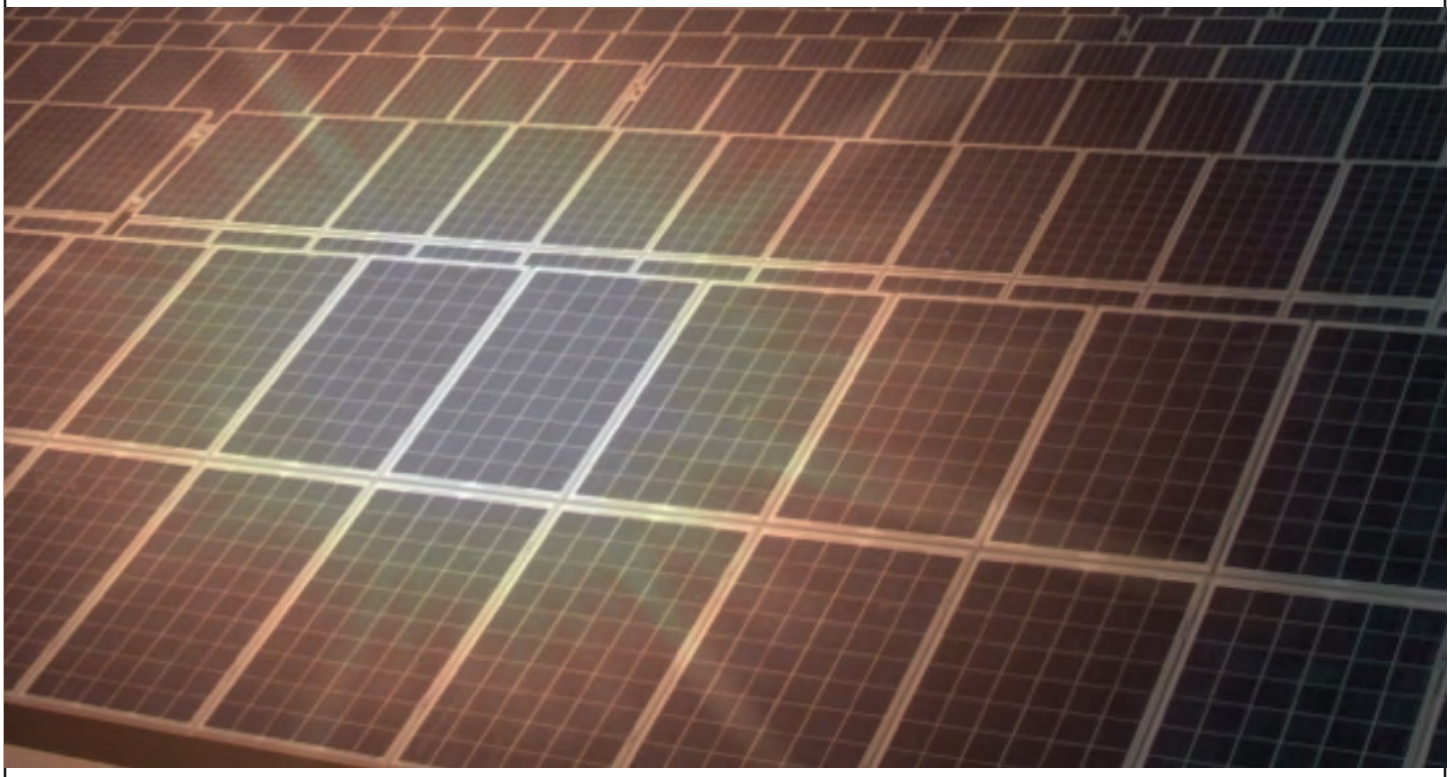
COMMUNITY-SHARED SOLAR

DIVERSE APPROACHES FOR A COMMON GOAL



Community-shared solar gives energy consumers who may not be able to or want to install on-site renewable generation the opportunity to enjoy the benefits of solar generation. These three short case studies are intended to offer a glimpse at three different utilities' approaches to offering community solar to their customers. We look at an investor-owned utility, a municipal utility and a cooperative utility to get a sense of the variety of ways to provide energy consumers the chance to participate in solar generation.

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Tucson Electric Power: Bright Tucson Community Solar Program

One of Bright Tucson's community solar arrays. Photo courtesy of TEP.

Program Summary

Program Type	Investor-owned utility
Program Location	Tucson, AZ
Program Size	Currently 4.13 MW
Participation	777 customers (as of July 2012)
Generation ownership	TEP and third-party developers
Eligible Participants	All customers except those currently enrolled in net metering
Participant Buy-in	Purchase 150-kWh monthly blocks for a surcharge of $3/block/month
Participation Term	20 years, though customers may choose to drop out earlier
Web Site	https://www.tep.com/Renewable/Home/Bright
Contact	Marc Romito, mromito@tep.com

Tucson Electric Power (TEP), an investor-owned utility in Arizona, offers community-shared solar power to their customers. Through TEP's Bright Tucson Community Solar program, customers can purchase output from a TEP- or third-party-owned solar facility in 150-kilowatt-hour (kWh) monthly blocks, each for a fixed $3 per month. In other words, each block purchased by a customer will add $3 to their monthly electric bill. However, program blocks are exempt from future rate increases on the energy portion of the bill and two surcharges applied to other electric usage, the Renewable Energy Standard Tariff (REST) and the Purchased Power and Fuel Adjustment Clause (PPFAC), so the actual cost impact on the customer may be lower.

Blocks of solar energy purchased through the program are associated with a specific TEP service address and cannot be transferred if the customer moves. If program blocks are still available, however, the customer can subscribe to the program again at their new TEP service address. Customers may stop participating at any time and not incur a penalty.

The TEP program was launched in March of 2011, with an initial goal to develop 1.6 megawatts (MW) of new TEP-owned solar generating capacity over the following three years. The program has been much more successful than originally planned. As of July 2012, the TEP Bright Tucson program included 777 customers, which were subscribed to a total of 4.13 MW in TEP- or third-party-owned solar installations. These Bright Tucson blocks produce a total of 619,950 kWh per month.

Colorado Springs Utilities: Community Solar Gardens Program

Program Summary

Program Type	Municipal utility
Program Location	Colorado Springs, CO
Program Size	2 MW (for pilot)
Participation	289 participants (as of October 2012)
Generation ownership	Third-party developers
Eligible Participants	All residential customers and educational facilities
Participant Buy-in	Panels may be leased or purchased at varying rates, depending on the project
Participation Term	20 years
Allocation of Benefits	By bill credit, fixed at $0.09/kWh
Web Site	www.csu.org/residential/customer/Pages/Community-Solar-Gardens.aspx
Contact	Rich Swope, 719-668-5760, rswope@csu.org

In 2010, the Colorado Springs, Colorado City Council voted to allow its municipal utility, Colorado Springs Utilities (Springs Utilities), to offer community solar gardens to utility customers. Currently, through the solar garden projects, Springs Utilities customers may lease panels from one of two community solar project developers, Sunshare (http://mysunshare.com) or Clean Energy Collective (www.easycleanenergy.com). A customer must have a minimum solar garden interest of 0.4 kW. Subscribing customers receive a fixed credit of $0.09/kWh on their electric bill for their share of the power generated by the panels they lease. In 2012, Springs Utilities is providing subscribers a one-time, $1.80 per watt incentive up to 30 percent of their solar garden investment. Incentives are paid on a first-come, first-served basis and subject to availability of funding.

As of October 2012, Springs Utilities had 288 residential customers and one educational customer already participating in its program (with 538 panels purchased). In addition, Springs Utilities has a number of applicants to the program awaiting review and approval, including 51 residential customers and three educational customers (one with 250 panels and two with 925 panels).

Existing Solar Garden Participation – Residential (October 2012)						
	Number of Panels					
	2 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60
Number of Customers	237	32	16	2	1	0
Weighted Average Number of Panels	4.1	15.6	24.4	35	48	0
Number of Customers (proposed)	41	7	1	1	0	1
Weighted Average Number of Panels (proposed)	4.2	17.1	28	32	0	55

Florida Keys Electric Cooperative: Simple Solar Program

Program Summary

Program Type	Cooperative utility
Program Location	Upper and Middle Florida Keys, FL
Program Size	117.6 kW (2 arrays)
Participation	10 members (as of November 2012)
Generation ownership	FKEC
Eligible Participants	All members
Participant Buy-in	Lease panels at $999/panel
Participation Term	25 years
Allocation of Benefits	By bill credit at full retail rate
Web Site	http://www.fkec.com/Green/simplesolar.cfm
Contact	TJ Patterson, 800-858-8845 x 127, tj.patterson@fkec.com

In 2008, the Florida Keys Electric Cooperative (FKEC) opened the Simple Solar community solar program to its members in the middle keys. The Simple Solar Program was designed for FKEC members who support alternative energy but do not want to undertake designing, permitting, building, maintaining and insuring their own residential solar arrays. FKEC members can lease panels in one of two FKEC PV community solar arrays—the 96.6-kW Marathon Array (552 panels) and the 21-kW Crawl Key Array (120 panels). In return for leasing one or more panels for $999 each, members receive monthly bill credits for the full retail value of the electricity generated by their leased panel(s) for 25 years. FKEC estimated that each 175-watt panel would generate approximately $36 in bill credits in the initial year. Assuming a three-percent annual increase in the retail price of electricity, the $999 investment per panel would return an estimated $1,280 in total credits.

FKEC currently has 10 participants leasing 11 panels through the Simple Solar program. The remaining electricity generated by the arrays is fed into the grid and supplements energy FKEC provides for its members. The two arrays jointly provide enough generation to power about 20-25 houses per year. FKEC retains ownership of the Renewable Energy Credits (RECs) produced by the system.

An interesting outcome of the program has been FKEC's rebate program that resulted from its Simple Solar program. In return for installing its community solar arrays, FKEC received a rebate from the state of Florida in the amount of $43,000. FKEC then turned around and used the entire state rebate to create an incentive program that is designed to spur residential energy improvements for its members. As of May 2012, FKEC members can receive a maximum rebate of $1,000 for energy improvements to their homes. The co-op has given out 162 energy improvement rebates as of November 2012.

FKEC's Marathon Array (left) and Crawl Key Array (above). Photos courtesy of FKEC.