

Community-Shared Solar: Success Stories



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SunShot

U.S. Department of Energy

Speakers

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About the SunShot Solar Outreach Partnership



The SunShot Solar Outreach Partnership (SolarOPs) is a U.S. Department of Energy (DOE) program designed to increase the use and integration of solar energy in communities across the US.

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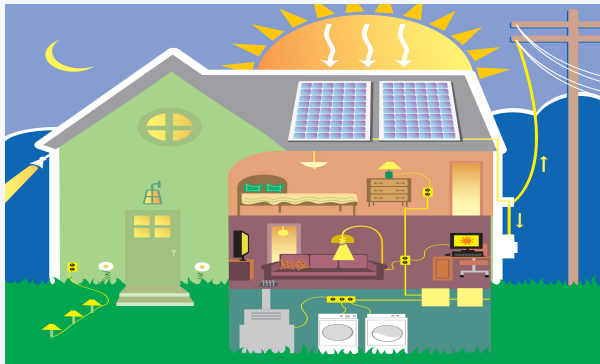


IREC

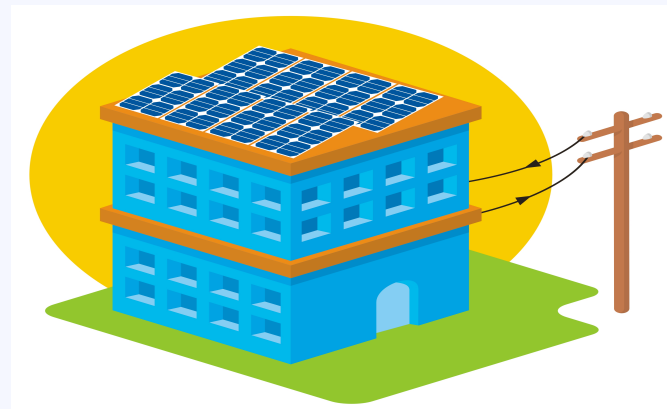
- 501(c)(3) non-profit
- Goal = promote the sustainable development of renewable energy
- Current projects:
 - Community renewable power policies
 - Net metering rules and Interconnection standards
 - Third-party ownership of renewable energy resources
 - Smart Grid, intersection of PEVs and renewables, and integration of advanced energy storage
 - Development of wholesale/retail markets for renewable energy
 - Workforce training and development for the renewables industry
- Represented by Keyes, Fox & Wiedman, LLP
- Web site: www.irecusa.org

Community-Shared Solar: Serving More Energy Consumers

Traditional Net Metering

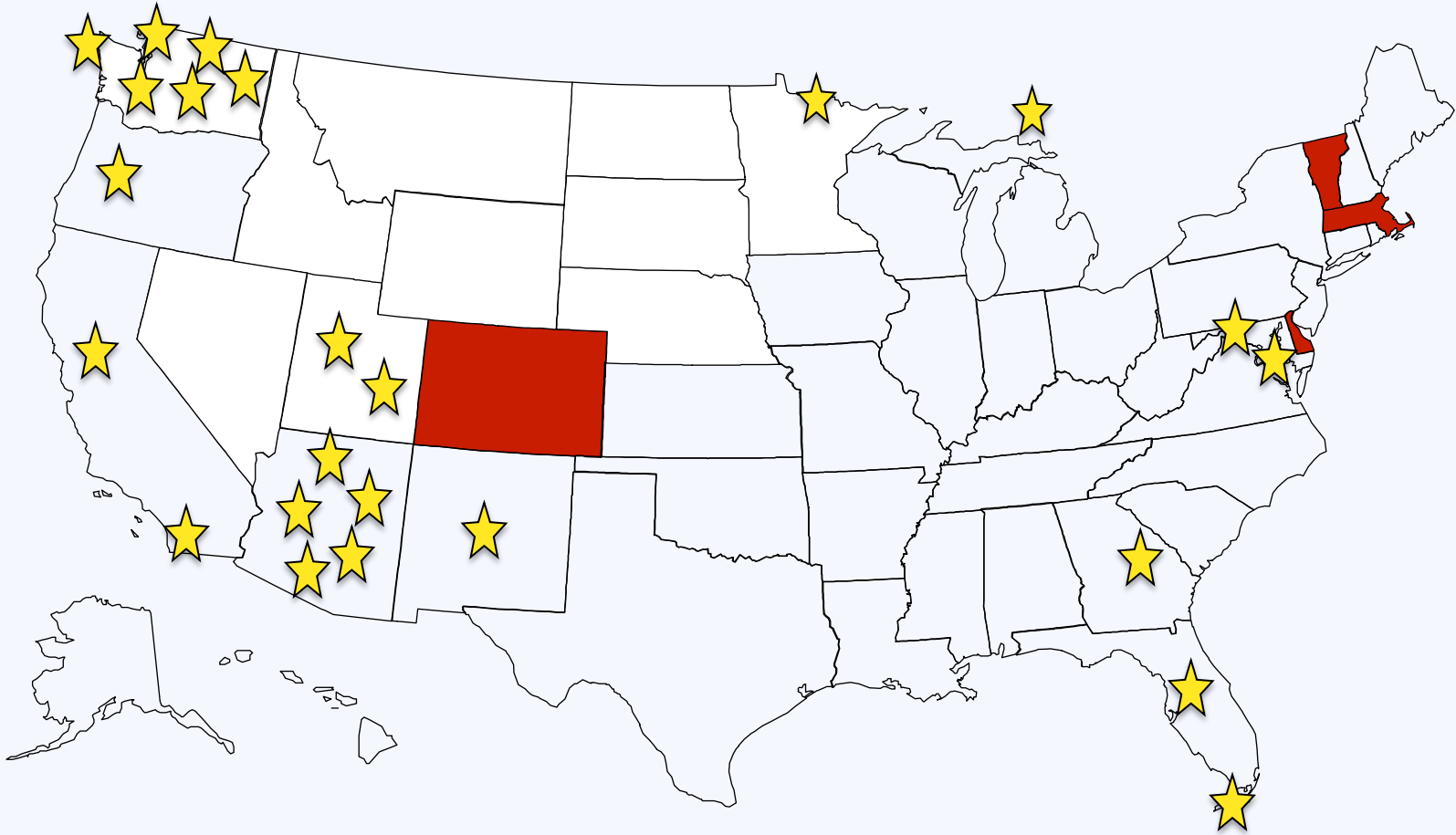


Community-Shared Solar



The Vote Solar Initiative

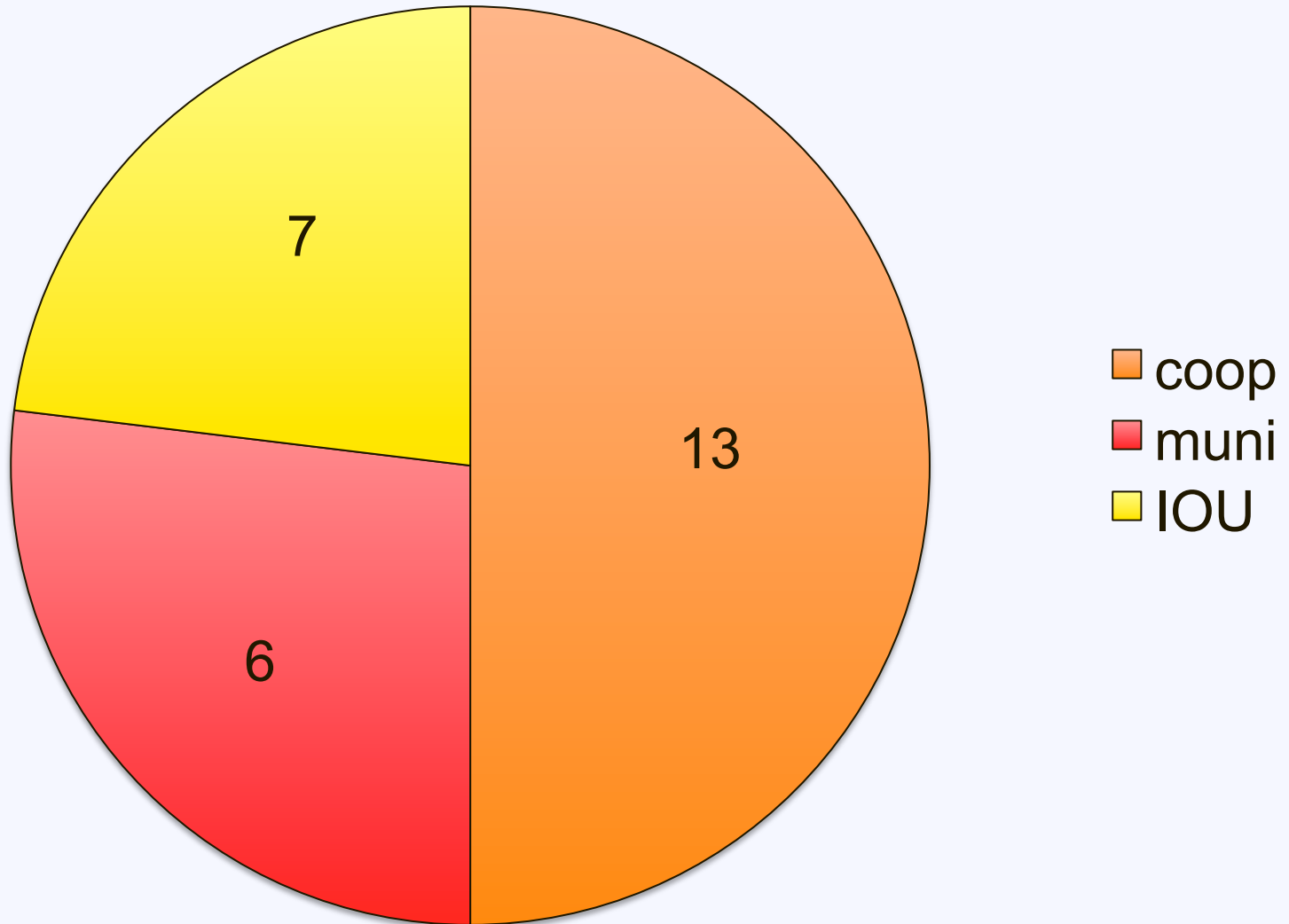
Community-Shared Solar Activity in the United States



 **Statewide Programs**

 **Voluntary Programs**

Type of Energy Service Provider



Average System Size by Type of Sponsor



Coop – 250 kW

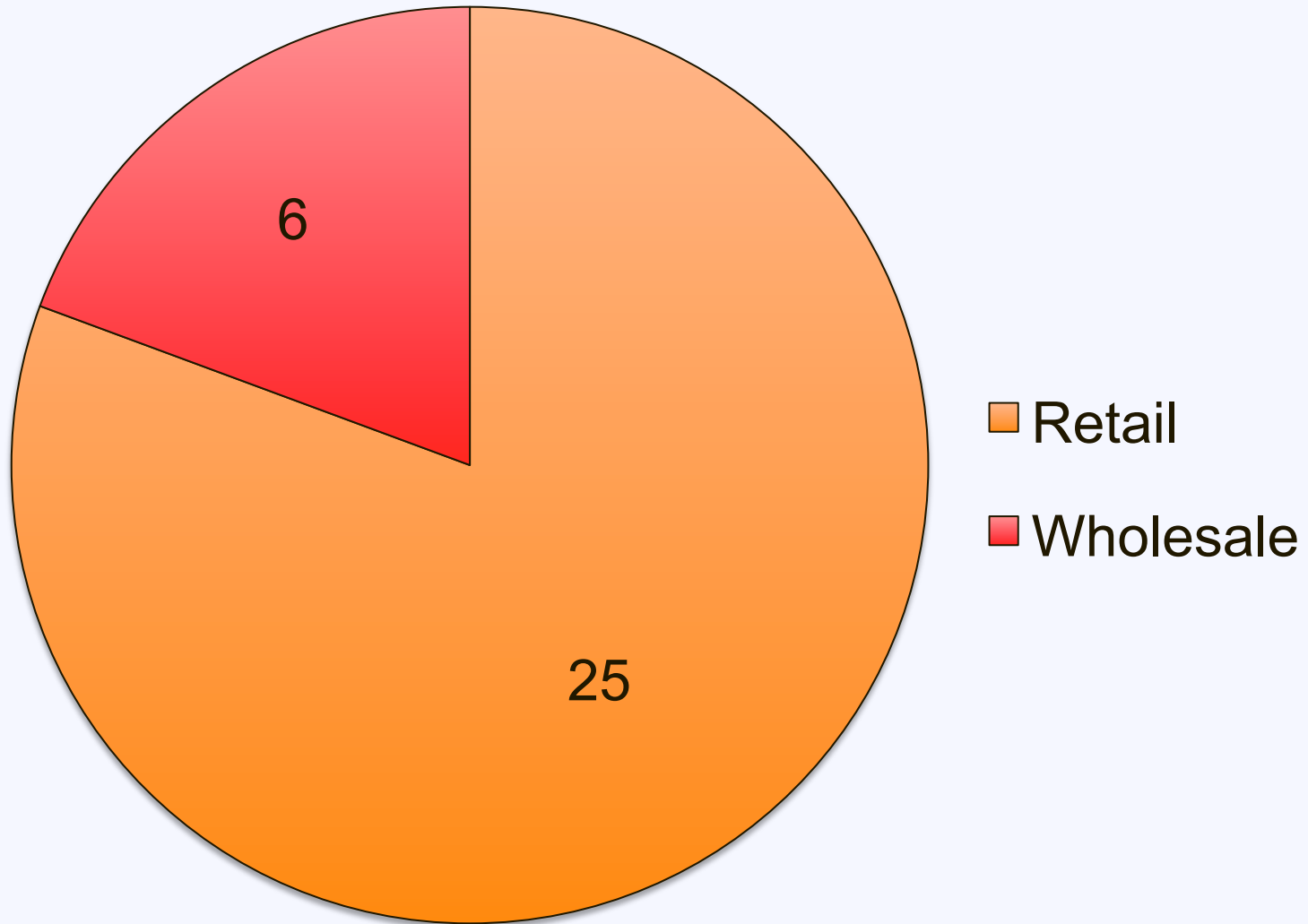


Muni – 700 kW



IOU – 1300 kW

Retail or Wholesale Orientation



Community-Shared Solar: Some Issues to Consider

Ownership

Interconnection

Distribution of benefits

Size

local/state/federal incentives

Risk

Valuation of bill credits

Goals of program

Participation

Securities issues

Guiding Principles

1. Participants in a community renewable generation program should have an experience that is as similar as possible to that of customers investing in on-site renewable generation.
2. A community renewable generation program should be additive to successful on-site renewable energy programs.

Critical Program Elements

- Participants should receive the benefits from their investment via a **bill credit mechanism** that is fair and easy to understand.
- Utilities should be **fairly compensated** for program administration.
- The program should provide **flexibility to community renewable generation developers**
 - Allows for third-party ownership
 - Promotes innovative financing to unlock available government incentives

Valuation of Generation

Benefits of community renewable generation should be appropriately factored into its valuation.

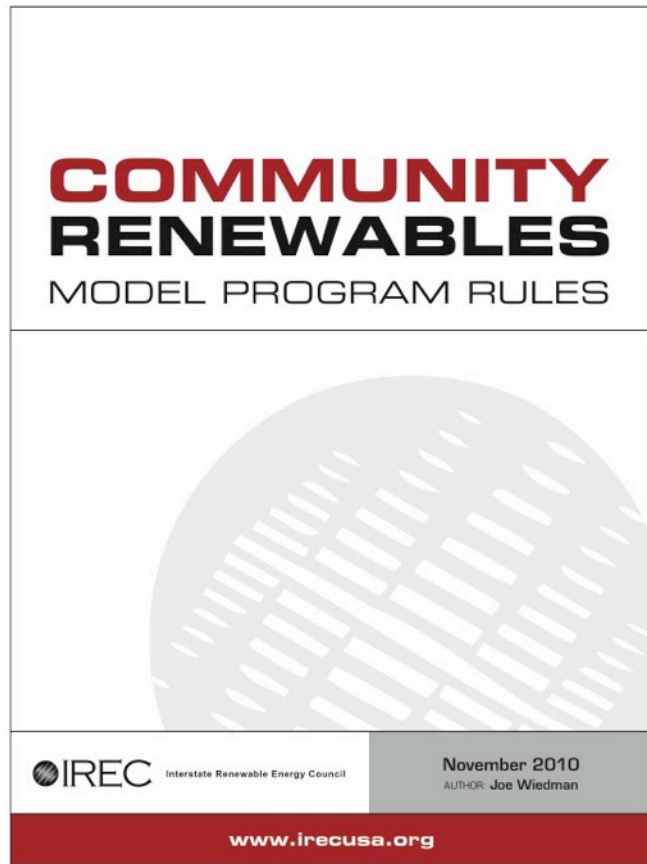
FKEC Simple Solar Program

- Program type: Cooperative utility
- Program location: Upper & Middle FL Keys
- Program size: 117.6 MW (2 arrays)
- Generation ownership: Utility
- Eligible participants: All members
- Participant buy-in: Lease panels, \$999/panel
- Participant term: 25 years
- Web Site:
<http://www.fkec.com/Green/simplesolar.cfm>
- Contact: TJ Patterson, tj.patterson@fkec.com

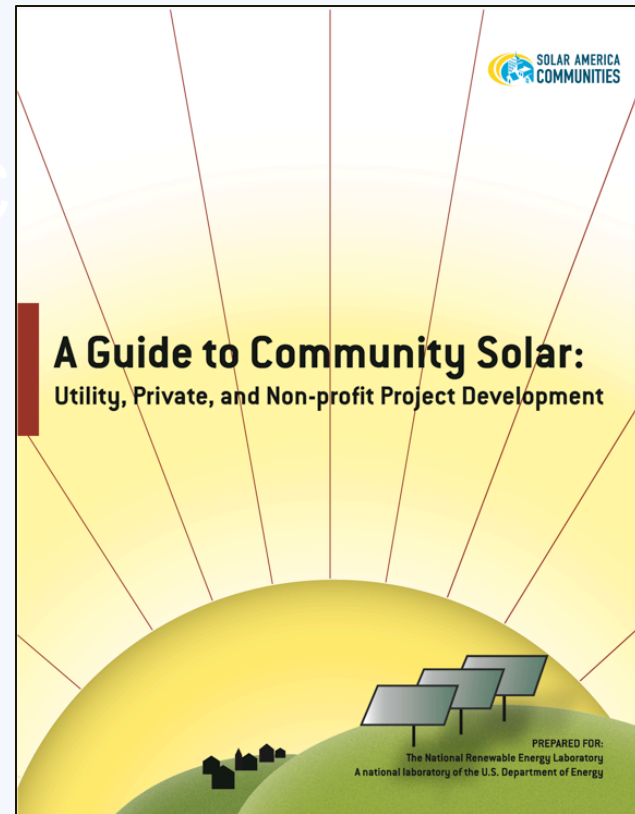
TEP Bright Tucson Community Solar Program

- Program type: Investor-owned utility
- Program location: Tucson, AZ
- Program size: Currently 4.13 MW
- Participation: Currently 777 enrolled customers
- Generation ownership: Utility and third-party
- Eligible participants: All customers except those enrolled in net metering
- Participant buy-in: Purchase 150-kWh monthly blocks for \$3/block/month
- Participation term: 20 years
- Web site: <https://www.tep.com/Renewable/Home/Bright>
- Contact: Marc Romito, mromito@tep.com

Resources



REC



www.nrel.gov/docs/fy11osti/49930.pdf

www.irecusa.org/irec-programs/connecting-to-the-grid/community-renewables-2



Colorado Springs Utilities
It's how we're all connected

Colorado Springs Utilities Community Solar Garden

Rich Swope

Senior Project Engineer

Colorado Springs Utilities

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Background

In 2004 Colorado Voters approve Amendment 37

- Colorado's largest utilities must have obtain 3% of electrical generation from renewable sources by 2007
- By 2015 this number increases to 10%
- 4% of this mandated generation must come from Solar

In 2006 Colorado Springs Utilities begins rooftop solar program

- Currently \$1.80 per watt installed
- Limited to 10kW for residential and 25kW for Commercial
- 2012 budget \$1.08 million

Community Solar Garden Tariff

Approved by the Utilities Board on September 27, 2011, effective date October 1, 2011

Rules

- Available to residential and educational customers
- 100kW to 500kW per garden limited to 2MW total generation
- Minimum 10 customers
- Minimum of 0.4kW per customer. Maximum of 120% of last 12 months usage (kWh)
- No single customer may have more than 40% of the Solar Garden
- The customer will receive a monthly bill credit of \$0.09 per kWh computed by multiplying the total Solar Garden output by the percent of customer interest in the garden.

Community Solar Garden Rules

For the Developer

- The developer must submit a Facilities Installation Request form
 - Fully describes the system with location, make and model of panels and inverters
 - All equipment must be California SBI qualified
 - Floor/site plan detailing the direction North and the location of all equipment (PV array, inverter, existing CSU electric meter (if applicable), meter(s) and AC Disconnect).
 - **Electrical one-line diagram of the Facility Owner's System, beginning at the point of interconnection.**
 - Signed Interconnection Agreement for Community Solar Garden Facility.
 - Installation Contract for Community Solar Garden Facility (within sixty (60) days of Installation Request Approval Date).
 - Subscriber Solar Garden Interest Agreements (within ninety (90) days of Installation Request Approval Date).
 - Release of Customer information forms for each subscriber (as subscribers are added – needed to verify Customer usage).

Community Solar Garden Rules

For the Customer

- The Customer must submit a Community Solar Garden Incentive application form (after the garden is interconnected)
 - Fully describes customer information and the Solar Garden they have an interest in
 - Evidence of a minimum twenty (20) year term Customer Solar Garden Interest in the Community Solar Garden Facility
 - Signed Affidavit of Lawful Presence with a copy of proper identification
 - Completed IRS Form W-9 (Request for Taxpayer Identification Number) for customer and third party incentive assignee, if applicable.

- The customer will receive a rebate equal to \$1.80 per watt of Solar Garden interest. This rebate may be assigned to a third party.

Community Solar Garden Participation

Currently 1MW in production

One 500kW garden due to interconnect
December 5.

Currently just under 400 residential customers
and 5 educational customers participating

Community Solar Garden Future

Currently under review by CSU, the local solar industry, and the Utility Board

Possible Changes

- Change to production based incentive
- Increase the size of the individual gardens as well as the total production
- Open the program to commercial customers other than educational

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Questions?