WVULAW

# The Essentials of Community Solar

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# What is Community Solar?

- Centralized solar facilities owned by a group of individuals who receive credits on their electricity bills for the power produced
- Members of an array are residential and commercial customers of the utility partner offering the program (utility-sponsored model)

# What is Community Solar?

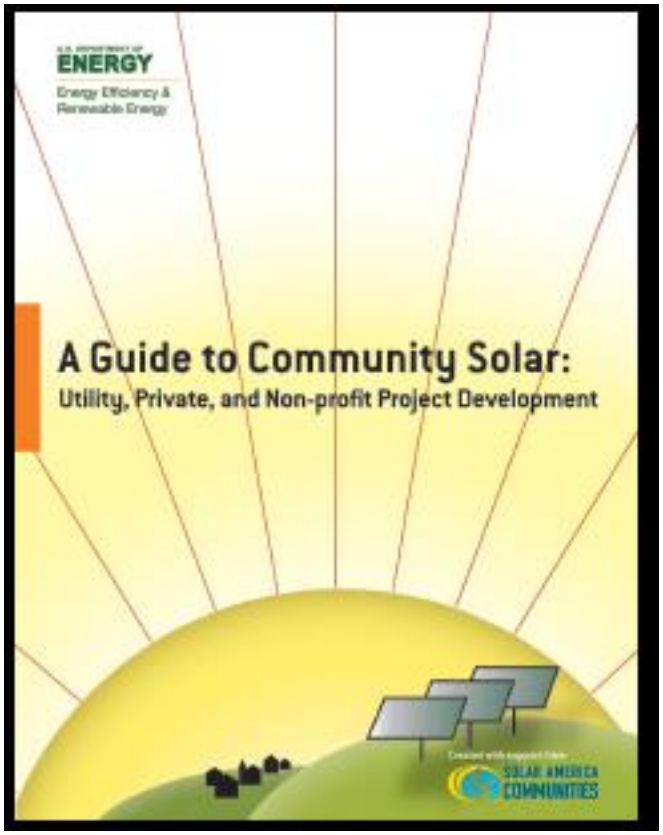
United Power's Sol Partners Installation, Colorado

# Community Solar Projects

- Community Solar Hub
  - 98 Projects
  - 25 States
  - 100,546 total kW

https://www.communitysolarhub.com/

# What is Community Solar?

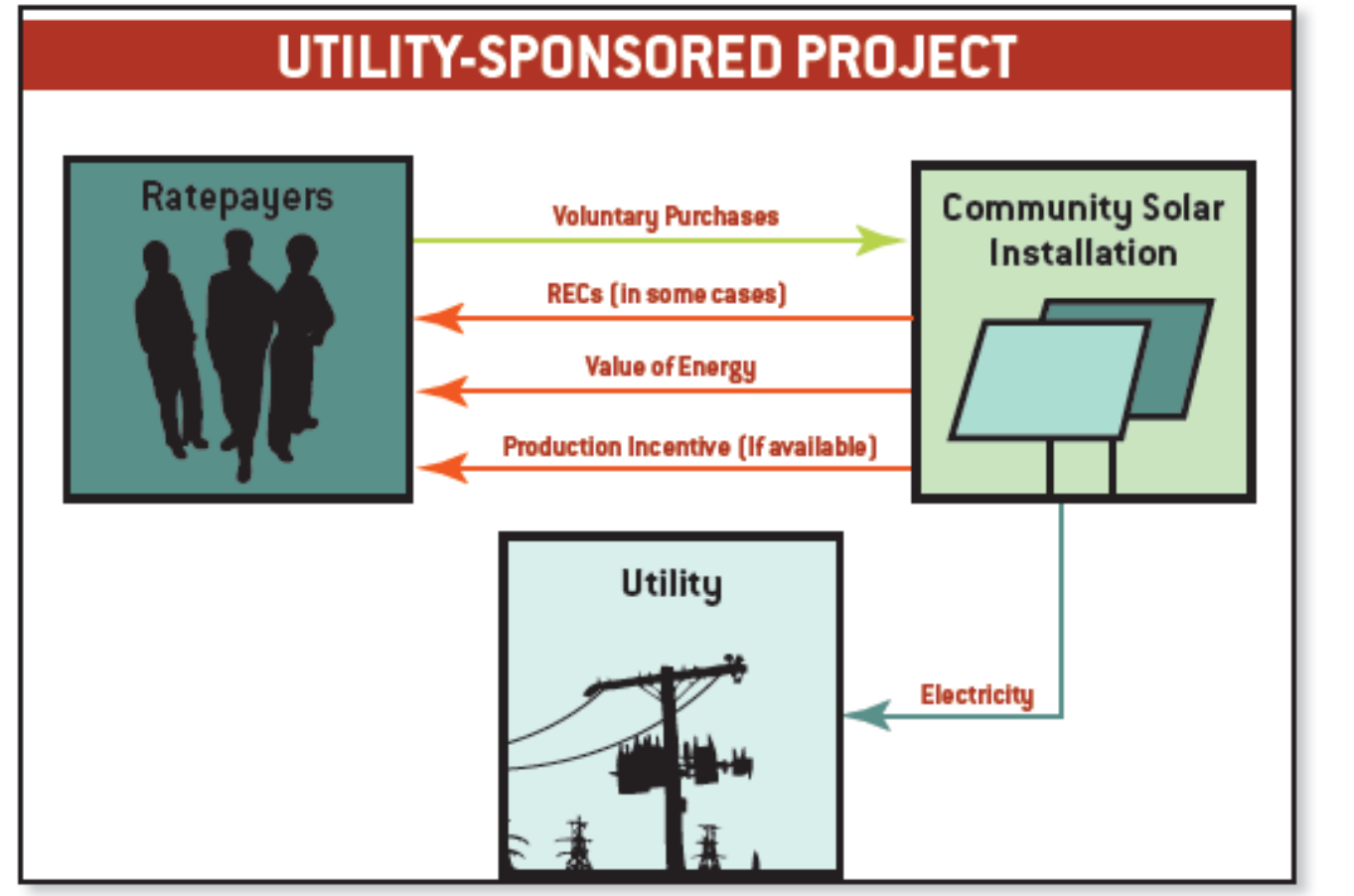



- **Utility-Sponsored Model**, in which a utility owns or operates a project that is open to voluntary ratepayer participation
- **Special Purpose Entity (SPE) Model**, in which individual investors join in a business enterprise to develop a community solar project
- **Non-Profit "Buy a Brick" Model**, in which donors contribute to a community installation owned by a charitable non-profit corporation

# Utility-Sponsored Model

- Utility customers participate by contributing either an up-front or ongoing payment to support a solar project
- In exchange, customers receive a payment or credit on their electric bills that is proportional to 1) their contribution and 2) how much electricity the solar project produces
- Usually, the utility or some identified third party owns the solar system itself
- The participating customer has no ownership stake in the solar system. Rather, the customer buys rights to the benefits of the energy produced by the system
- Utility-sponsored community solar programs are distinct from traditional utility "green power" programs in that "green power" programs sell RECs from a variety of renewable energy resources; utility community solar programs sell energy or rights to energy from a specific solar installation, with or without the RECs
- Utility-sponsored programs can help make solar power more accessible by decreasing the amount of the purchase required, and by enabling customers to purchase solar electricity in monthly increments

# Utility-Sponsored Model



# Utility-Sponsored Model

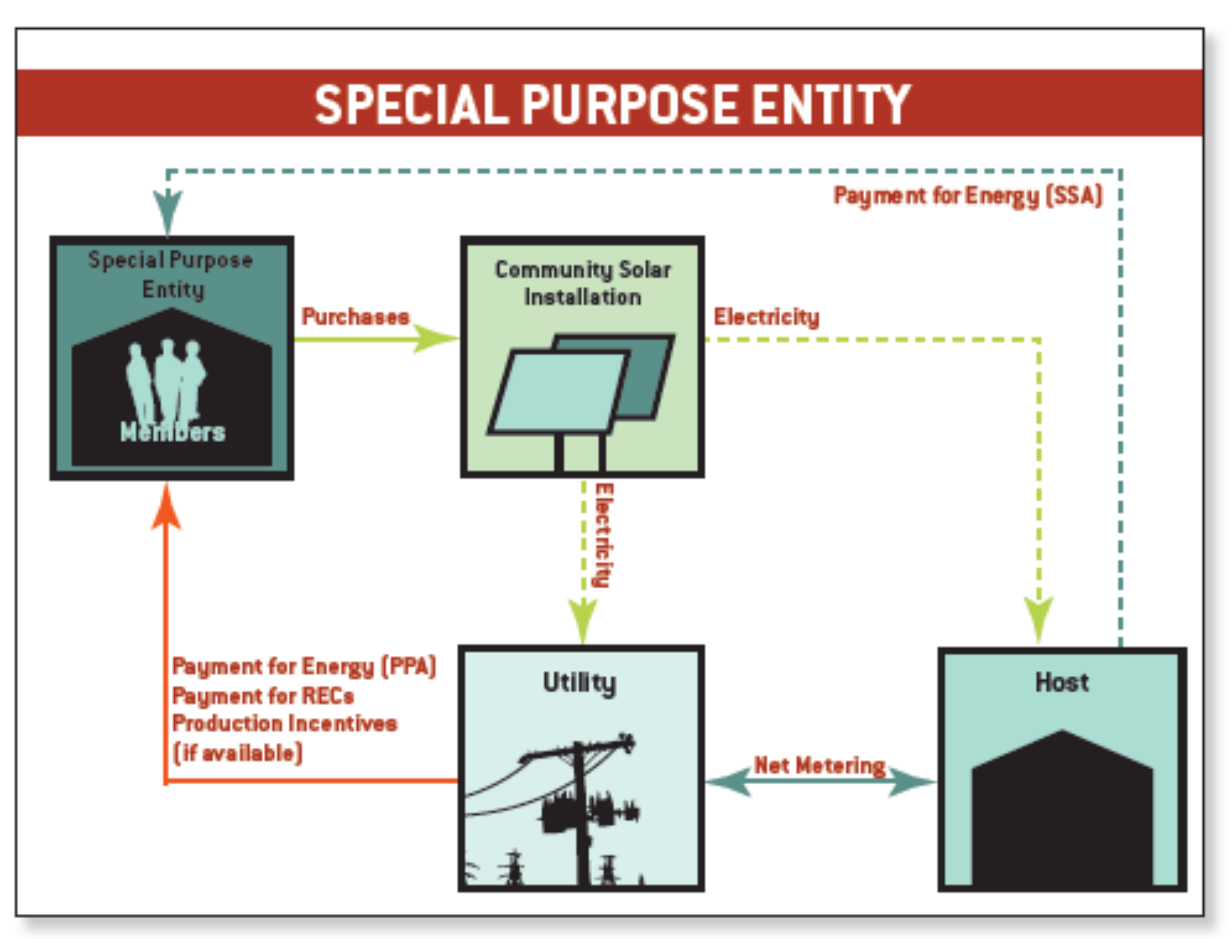
- Example: Seattle City Light

  http://www.seattle.gov/light/solarenergy/commsolar.asp

# Special Purpose Entity Model

- To take advantage of the tax incentives available to commercial solar projects, organizers may choose to structure a project as a business
- In most states, there is a range of business entities that could be suitable for a participant-owned community solar project
- The main challenges in adapting these commercial solar structures for community projects include:
  - Fully using available tax benefits when community investors have limited tax appetite, including a lack of passive income
  - Maintaining the community project identity when engaging non-community-based tax-motivated investors
  - Working within limits on the number of unaccredited investors if the project is to be exempt under securities laws

# Special Purpose Entity Model



- Special Purpose Entity Model

## University Park Community Solar LLC, Maryland

The volunteer founders of University Park Community Solar spent more than two years crafting the legal and financial aspects of their business model. With expert consultation, including help from a state Senator to change the Maryland net metering law, they formed a member-managed LLC that will return their investment in five to six years. Within the group, there are both active and passive investors.

Courtesy of David Brosch, University Park Community Solar, LLC

A 22 kW system was installed on the roof of a local church in May 2010. The LLC will pass benefits to its members based on revenue from several sources: electricity sold to the church and grid, the auction of RECs, federal tax incentives, and depreciation. The LLC and the Church have signed a 20-year agreement detailing the provision of electricity, access to the solar array, maintenance, insurance, and other issues. The host has an option to purchase the system before the 20-year term is up.

The founders note that accounting and legal fees could overwhelm any return to members. To assist in establishing the LLC, the group received pro bono help from the Maryland Intellectual Property Legal Resource Center and paid approximately $12,000 for other legal and accounting expertise. Going forward, they plan to handle the accounting and tax paperwork in house as much as possible.

The LLC organizers were careful to obtain legal advice on how to gain an exemption from state and federal SEC filing requirements. They are not all "accredited" investors. In addition, they were required to create lengthy disclosure documents to ensure that investors were fully informed of the risks. Their attorneys advised them to pursue an exemption that restricted them in several aspects, including having fewer than 35 unaccredited investors, keeping the offering private, and limiting membership within the state of Maryland. (See Section 5: Securities Compliance to read more about securities compliance and private placement exemptions.)

### PROJECT HIGHLIGHTS

- System Owner: University Park Community Solar LLC
- System Host: Church of the Brethren, University Park, MD
- Installed Capacity: 22 kW
- Participant Agreement: LLC passes net revenues (after expenses) and tax credits to members
- Electricity: LLC sells power to church below retail rate. Rate escalates approx 3.5%/yr. Host net meters. Annual net excess generation is compensated by the utility.
- RECs: LLC is currently negotiating the sale of RECs to the installer
- Number of Participants: 36 LLC Members

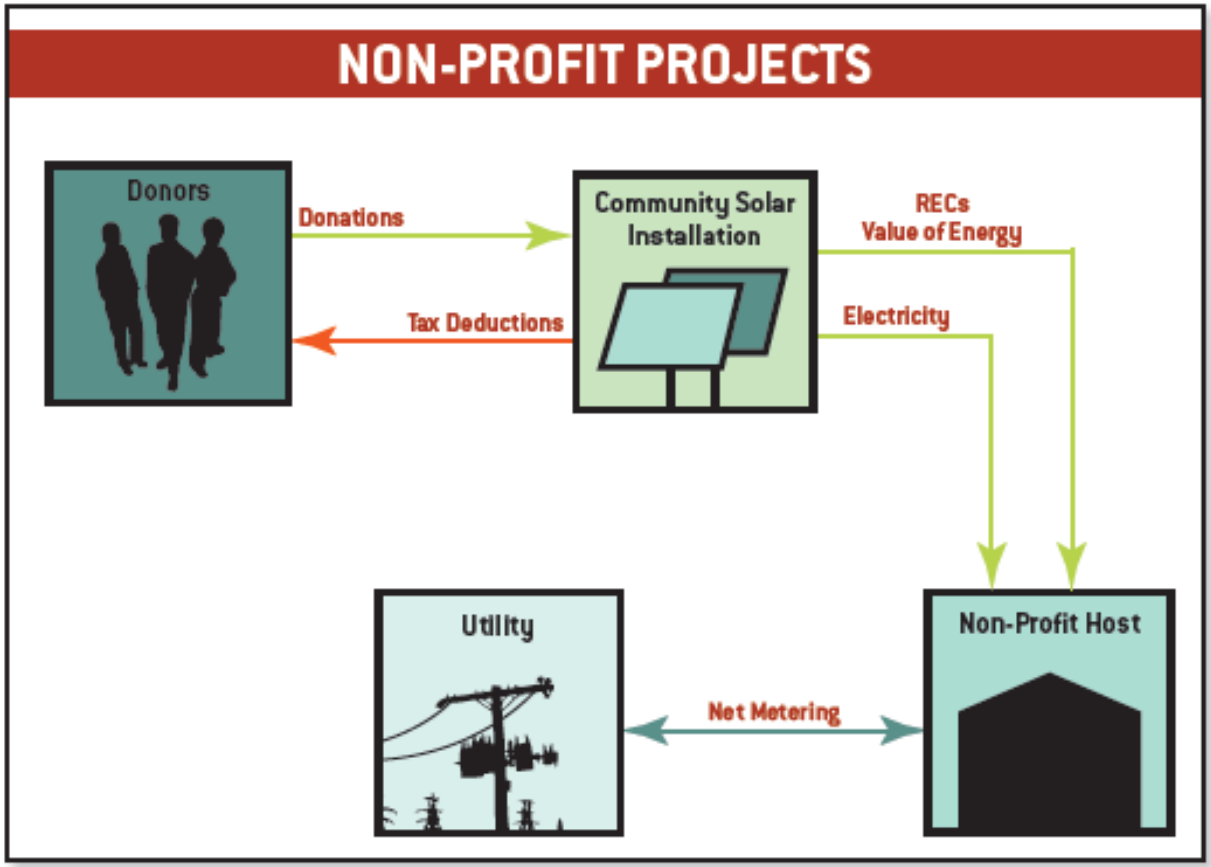
### FINANCIAL DETAILS

- Installed Cost: $5.90/watt
- Capital Financing: Member financed
- Tax Credits: 30% federal ITC equivalent to $39,000
- Grants: $10,000 from State of MD
- MACRS: Will depreciate 85% of cost over six years
- Estimated Annual Income from Power Sales: $3,600 in year 1, rising 3.5% per year

# Non-Profit Model

- Not strictly “community solar” in that the donors do not share directly in the benefits of the solar installation
- Donors do share indirectly, by lowering energy costs for their favored non-profit and demonstrating environmental leadership
- In addition, with emerging state policies such as virtual net metering and group billing, there may be possibilities for a non-profit project sponsor to share benefits with their donor/members
- In a variation on non-profit ownership, a non-profit may partner with a third party for-profit entity, which can own and install the system and take the tax benefits

# Non-Profit Model



# Non-Profit Model

## Solar for Sakai, Bainbridge Island, Washington

Community Energy Solutions, a non-profit organization on Bainbridge Island, Washington, led the effort to raise funds for a solar installation at Sakai Intermediate School. Twenty-six community organizations or individuals made tax-deductible donations to Community Energy Solutions. The school owns the PV system and all of the resulting power and environmental attributes.

Courtesy of Joe Deets, Community Energy Solutions

**PROJECT HIGHLIGHTS**

- System Owner: Sakai Intermediate School
- Installed Capacity: 5.1 kW
- Electricity: Net metered

**FINANCIAL DETAILS**

- Installed Cost: $50,000 or $9.80/watt
- Grants: $25,000 from utility (Puget Sound Energy)
- Donations: $30,000 via Community Energy Solutions
- Production Incentive: $0.15/kWh from State of WA

# Summary of Models

| Administered by | Utility | Special Purpose Entity | Non-profit |
|---|---|---|---|
| **Owned by** | Utility or 3rd party | SPE members | Non-profit |
| **Financed by** | Utility, grants, ratepayer subscriptions | Member investments, grants, incentives | Donor contributions, grants |
| **Hosted by** | Utility or 3rd party | 3rd party | Non-profit |
| **Subscriber Profile** | Electric rate payers of the utility | Community investors | Donors |
| **Subscriber Motive** | Offset personal electricity use | Return on investment; Offset personal electricity use | Philanthropy |
| **Long-term Strategy of Sponsor** | Offer solar options<br><br>Add solar generation (possibly for Renewable Portfolio Standard) | Sell system to host<br><br>Retain for electricity production for life of system | Retain for electricity production for life of system |
| **Examples** | Sacramento Municipal Utility District – Solar-Shares Program<br><br>United Power Sol Partners | University Park Community Solar, LLC<br><br>Clean Energy Collective, LLC | Solar for Sakai |

# State Policies to Promote Community Solar

- Group Billing
  - A utility produces a group bill showing all participants' energy consumption and relevant charges
  - Output from a shared PV system is netted against the group bill
  - The remaining costs are allocated to participants according to an agreement between the participants
  - Under this framework, group billing allows multiple participants to receive net-metering credits from a single renewable energy facility

# State Policies to Promote Community Solar

- Virtual Net Metering
  - Virtual net metering allows net metering credits generated by a renewable system to offset load at multiple retail electric accounts within a utility's service territory
  - Under virtual net metering, credits appear on each individual customer's bill the same as they would under traditional net metering

# State Policies to Promote Community Solar

- Joint Ownership
  - A few states have begun to explore options for distributing benefits of participation in a community renewables program through frameworks akin to wholesale power sale arrangements
  - Enter into a long-term contract to sell output from a facility to a transmission and distribution utility

# Thank You

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