

# A Guide to Becoming a Community Solar Subscriber in Carroll County



*Subscribing to a community solar project is an exciting new opportunity to go **green** and save on energy bills without needing to install solar equipment at your home.*

*Learn more now, so you are ready when subscriptions are available.*

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## About This Document

*Community solar is a new option in Maryland. As such, the approval process is also new, with only a few projects clearing the process so far and available for public subscription. The information in this document is not all-inclusive, but provides links and resources to find more information. Once more projects are available, hopefully more information can be provided.*

## What is Community Solar?

Community solar refers to a community-owned or third-party-owned solar energy generating system from which electricity is shared by more than one household or customer, similar to a co-op. The primary purpose of community solar is to allow members of a community the opportunity to share the benefits of solar power even if they cannot or prefer not to install solar panels on their property. For purposes of this publication, community solar will refer to a third-party-owned solar project to which you may subscribe.

Project participants benefit from the electricity generated by the community solar project when the subscription cost is less than the amount they would ordinarily pay to their utility company for electricity. Community solar allows people to go solar even if they do not own property on which to put their own system. (EnergySage. *Community Solar: What Is It?* Accessed April 20, 2018, from <https://www.energysage.com/solar/community-solar/community-solar-power-explained/>.)

Community solar is not the same as retail electric choice. People who are in wind power contracts, or other deals with competitive electric suppliers, can also sign up for community solar. Each project in Maryland will only be built once it has enough subscribers. (MyGreenMontgomery.org. *Community Solar is now available for Marylanders.* August 13, 2018. Accessed August 7, 2019, at <https://mygreenmontgomery.org/2018/community-solar/>.)

## Why Subscribe to Community Solar?

- ⚙️ **Access** — For those unable to install solar where they live
- ⚙️ **Customer Savings** — Saves customers money and helps protect against rising energy prices
- ⚙️ **Climate** — Reduces harmful carbon pollution from our electric grid



- ⚙️ **Economy** — Promotes a strong economy and provides additional well-paying, local jobs
- ⚙️ **Land Conservation** — Provides opportunities to preserve farmland, greenspace, ecosystems, and other natural land *by installing on brownfields and rooftops*

# Buzz Words

⚙️ **Baseline annual usage** – A subscriber's accumulated electricity use in kilowatt-hours for the 12 months before the subscriber's most recent subscription. Or, for a subscriber that does not have a record of 12 months of electricity use at the time of the subscriber's most recent subscription, an estimate of the subscriber's accumulated 12 months of electricity use in kilowatt-hours, determined in a manner the Commission [PSC] approves. (*Public Utilities Article, §7-306.2, Annotated Code of Maryland*)

⚙️ **Community solar energy generating system (CSEGS)** – A solar energy system that:

- (i) is connected to the electric distribution grid serving the state;
- (ii) is located in the same electric service territory as its subscribers;
- (iii) is attached to the electric meter of a subscriber or is a separate facility with its own electric meter;
- (iv) credits its generated electricity, or the value of its generated electricity, to the bills of the subscribers to that system through virtual net energy metering;
- (v) has at least two subscribers;
- (vi) does not have subscriptions larger than 200 kilowatts constituting more than 60% of its subscriptions;
- (vii) has a generating capacity that does not exceed 2 megawatts as measured by the alternating current rating of the system's inverter; and
- (viii) may be owned by any person. (*Public Utilities Article, §7-306.2, Annotated Code of Maryland*)

⚙️ **Maryland Public Service Commission (PSC)** – The PSC regulates all public electric and gas utilities and transportation companies in Maryland. It is a five-member independent agency that operates under the executive branch of the Maryland state government. All CSEGS projects must be approved by the PSC.

⚙️ **Net metering** – Measurement of the difference between the kilowatt-hours or value of electricity that is supplied by an electric company and the kilowatt-hours or value of electricity attributable to a subscription to a community solar energy generating system and fed back to the electric grid over the subscriber's billing period, as calculated under the tariffs established under subsection (e)(2) of this section. (*Public Utilities Article, §7-306.2, Annotated Code of Maryland*)

⚙️ **Pollinator-friendly** – The practice of adding attractive, pollinator friendly, native plantings under and around ground mounted solar arrays, replacing gravel or turf grass, to help address the threat of pollinator extinction, promote demand for native plants, and support local agriculture and farmers. (Bedford 2020. *Pollinator Friendly Solar*. Accessed August 8, 2018, at <http://bedford2020.org/pollinator-friendly-solar/>.)

⚙️ **Service area or territory** – The area served by a specific energy provider company.

⚙️ **Subscriber, individual** – A retail customer of an electric company that holds a subscription to a community solar energy generating system; and has identified one or more individual meters or accounts to which the subscription shall be attributed. (*Public Utilities Article, §7-306.2, Annotated Code of Maryland*)

⚙️ **Subscriber organization** – A person that owns or operates a community solar energy generating system; or the collective group of subscribers of a community solar energy generating system. (*Public Utilities Article, §7-306.2, Annotated Code of Maryland*) While not officially considered a broker, a subscriber organization does serve as a middle man between the developer and utility company, helps connect people with the project that best suits their needs, manages the contracts and billing, and handles customer service and relations.



⚙️ **Subscription** – The portion of the electricity generated by a community solar energy generating system that is credited to a subscriber. 🔄

# Community Solar in Maryland

The Maryland General Assembly passed legislation ([House Bill 1087](#)) in 2015 (and amended by [House Bill 683](#) in 2019) to allow community solar projects. This State law defines a community solar energy generating system (CSEGS or “community solar”) in Public Utilities Article, §7-306.2, Annotated Code of Maryland. (See definition on Page 2).

The legislation authorized approval of community solar projects as a pilot program. The Maryland PSC began accepting applications from subscriber organizations in April 2017 and will continue to accept applications through 2024. Unless, after evaluating the program, the PSC decides to make the program permanent, no new projects will be accepted into the program after the end of the seven-year period. However, a subscriber organization can continue to operate a community solar project established during the program until September 30, 2044, or 25 years after the organization was authorized to operate — whichever comes later.

Individual community solar projects will be operated by subscriber organizations (which can include utilities, retail electricity suppliers, solar developers, etc.) that are approved by the PSC and the electric company serving the location of the project. (Maryland Public Service Commission. *Community Solar Pilot Program*. Accessed March 13, 2018, from <http://www.psc.state.md.us/electricity/community-solar-pilot-program/>.)



## Purpose & Outcomes

According to the PSC, the community solar pilot program will:

- ☀ Provide access to solar-generated electricity – in a manner similar to rooftop solar and net metering – for all Maryland customers without requiring property ownership;
- ☀ Incentivize solar companies to provide service to low- and moderate-income customers;
- ☀ Set aside program capacity for each area of the state with a statewide cap at about 193 MW. About 60 MW is set aside for projects focused on low and moderate-income customers;
- ☀ Attract new investment in Maryland’s renewable infrastructure and green economy;
- ☀ Allow renters to contract for solar energy with the same benefits as rooftop owners;
- ☀ Create a separate program capacity for small systems and systems built on brownfields, parking lots, or industrial areas;
- ☀ Allow smaller and rural service territories to make use of existing solar facilities while encouraging construction of new systems in the urban and suburban areas of Maryland;
- ☀ Include significant consumer protections, including prohibition against unreasonable fees and clear contract disclosure requirements; and
- ☀ Allow the PSC staff to collect necessary data to study the impact on Maryland’s electricity grid over the three-year pilot program.

## Acronyms

- ☀ BGE = Baltimore Gas & Electric
- ☀ CSEGS = community solar energy generating systems
- ☀ kW = kilowatts
- ☀ kWh = kilowatt-hour (1,000 watts)
- ☀ MW = megawatt (1,000,000 watts or 1,000 kilowatts)
- ☀ PE = Potomac Edison
- ☀ PPA = Power Purchase Agreement
- ☀ PSC = Maryland Public Service Commission

## Related Online Resources:

- ☀ PSC. *Community Solar Pilot Program*. <https://www.psc.state.md.us/electricity/community-solar-pilot-program/>
- ☀ PSC. *Frequently Asked Questions*. <https://www.psc.state.md.us/electricity/community-solar-pilot-program/community-solar-pilot-program-frequently-asked-questions/>

## STEP 1

# Calculating Community Solar Subscription Needs



Regardless of the type of solar energy supply you are considering (private ownership vs. community solar, subscription vs. up-front payments), a fundamental question you will need to answer for yourself early on is, “how many kilowatt hours of electricity do I use in a year?” The answer to this question will allow you to understand costs and cost savings of various solar programs. Depending upon the type of solar program you pursue, you may also need to consider what your peak usage months are each year vs. your lowest consumption months and determine the variance between them.

Many solar providers will assist you with analyzing your electric bill to determine the optimum amount of kilowatts (1 kilowatt = 1,000 watts) of energy to purchase monthly or annually. However, most electric service providers print this information on your monthly statements (paper or online).

Example of annual electricity usage found on the back side of a BGE statement:

[https://www.bge.com/MyAccount/MyBillUsage/PublishingImages/New Bill Redesign/BGE\\_genericbill\\_10\\_10-2\\_600x776a\(1\).jpg](https://www.bge.com/MyAccount/MyBillUsage/PublishingImages/NewBillRedesign/BGE_genericbill_10_10-2_600x776a(1).jpg)

Example of annual electricity usage found on the front side of a Potomac Edison statement under Section “I,” Usage History:

[https://www.firstenergycorp.com/content/customer/help/billingpayments/about\\_your\\_bill/bill-samples/potomac-edison-bill-wv.html](https://www.firstenergycorp.com/content/customer/help/billingpayments/about_your_bill/bill-samples/potomac-edison-bill-wv.html)

## STEP 2

# Finding an Available Community Solar Subscription

BGE and Potomac Edison (PE) are the utility companies serving Carroll County. You may only subscribe to a community solar project that falls within the service territory of your utility company. However, when you subscribe to a community solar project, the subscriber organization with which you are dealing is a third-party organization (i.e., broker), not your utility company. Therefore, it is the utility customer’s responsibility to find a community solar project and ensure the contract offered by the subscriber organization is in the customer’s best interest. All Maryland solar subscriber organizations must register with and be approved by the PSC. 🌞



### Related Online Resources:

🌞 BGE. Subscriber Organizations. Pilot Program Application List (within service territory):

<http://www.psc.state.md.us/electricity/community-solar-pilot-program/>

🌞 Solar United Neighbors. Subscriptions available in Maryland ⇒ Go to the SUN website. Select a provider, enter your typical bill amount, then click on “View Community Solar Subscriptions.”

<https://cs.solarunitedneighbors.org/states/MD/show>

🌞 Neighborhood Sun. Example of Maryland-Based Subscriber Organization:

<https://neighborhoodsun.solar/>

## STEP 3a

# Choosing a Community Solar Subscription

Once you have found a community solar organization or community solar project that is supported by your utility company, the consumer (subscriber) should carefully review the subscriber agreement. Read the contract – called a Power Purchase Agreement (PPA) – carefully to be sure you understand the terms offered. The contract should include the following information:

- Contract price
- Term length
- Additional charges
- Renewal and early termination fees and associated requirements
- Dispute resolution
- Subscriber organization insurance information
- System maintenance
- Performance guarantees, if offered



If you have any questions, be sure to ask the provider/subscriber organization (see some common questions under the section “Questions to Ask Subscriber Organizations”).

### Related Online Resources:

Solar United Neighbors. *Shopping for Community Solar:*

[https://www.solarunitedneighbors.org/wp-content/uploads/2017/09/Shopping-for-Community-Solar\\_v5.pdf](https://www.solarunitedneighbors.org/wp-content/uploads/2017/09/Shopping-for-Community-Solar_v5.pdf)

## STEP 3b

# Questions to Ask Subscriber Organizations

- ☀ How much would a community solar subscription cost me?
- ☀ With typical usage, how much can I expect to save on a monthly basis? What pricing model is used to determine the subscription rate? Will my rate change over time?
- ☀ How would a community solar subscription affect my current electric bill, and how and where is it incorporated to my bill?
- ☀ Can I change my mind or ‘opt out’ if I so choose? If so, are there fees associated?
- ☀ What are the term lengths to which I can subscribe, and what happens if I sell or move before the end of that term?
- ☀ How long has the community solar “co-op” been in existence, how many subscribers, and what is the size and location of the solar generating arrays?
- ☀ What is the max potential generating output of these arrays?
- ☀ Is there any potential expansion planned of the current capacity? If so, would that affect my subscription cost/rate?
- ☀ Are the subscription costs paid up-front, monthly, or yearly? Are there any other fees?
- ☀ Is this a cheaper option than what is available to me now? Should I expect increases in the future?
- ☀ Are there any energy performance guarantees?



# Potential Cost Savings



“If you subscribe to a program, you will either pay for your solar electricity on a monthly basis through a type of Power Purchase Agreement (PPA), or in a one-time up-front payment. Most subscription-based community solar programs promise either immediate or eventual savings on your electricity bill, while some others may sell a subscription as a way to support clean electricity and not necessarily as a money-saver.” (Energy Sage. *Community solar: pricing models*. Accessed August 7, 2019, at <https://www.energysage.com/solar/community-solar/pricing-models/>.)

The average monthly cost savings from a community solar subscription varies with the community solar project and subscriber organization, as each may use a different pricing-model. A couple common methods of setting the price include a set discount over the utility rate, a fixed rate that doesn't change if the utility rate changes, or a monthly flat charge. Review the contract carefully and ask questions to be sure you understand the pricing model and how it impacts your potential savings.

For low- to moderate-income subscribers, certain community solar projects in the BGE service area may offer a further discounted rate of approximately 15%. Some solar projects require minimum credit scores, which vary by developer.

Currently, there are no up-front costs associated with subscribing to a community solar project. However, each community solar project has different terms including termination fees, contract length, and other applicable administrative fees. Subscribers must meet the minimum usage requirements for the community solar project – ranging from 80% to 100% of utility usage.

The maximum amount of energy you can subscribe to is 200% of your energy usage, although many websites advise not to subscribe to more than 80 to 100% of your annual usage. The Solar United Neighbors website indicates that tax credits are not available for community solar subscribers. (Solar United Neighbors. *Community solar resources – individual consumers*. Accessed August 7, 2019, at <https://www.solarunitedneighbors.org/maryland/learn-the-issues-in-maryland/community-solar-in-maryland/community-solar-resources-individual-consumers/>.)

Solar United Neighbors offers a tool to estimate the amount of monthly savings:

[https://cs.solarunitedneighbors.org/states/MD/programs/pepco/subscriptions?provider\\_id=arcadia](https://cs.solarunitedneighbors.org/states/MD/programs/pepco/subscriptions?provider_id=arcadia) 

# Renter vs. Homeowner



One of the benefits to the community solar program is the opportunity for renters to have access to solar-generated power. The State's program allows renters who subscribe to a CSEGS to enjoy the same benefits as homeowners who place solar panels on their property. Any person or entity in the state with an electric meter account can participate, but it requires subscribers to be in the same utility territory as the solar array.

The program makes it a safe investment for residents who need to relocate. If a customer moves, the solar share can be transferred to a new home within the same utility service territory or sold to someone else. (Office of Energy Efficiency & Renewable Energy. *Community and Shared Solar*. Accessed April 11, 2018, from <https://energy.gov/eere/solar/community-and-shared-solar>.) There are, however, terms and conditions that may apply for early termination of an agreement with a community solar supplier. 

# How Billing Works



Depending on the subscriber organization, a community solar subscriber generally pays an up-front or monthly fee directly to their subscriber organization. Some subscriber organizations may charge monthly or yearly upon subscribing. The subscriber organization is responsible for communicating to the utility company how much electricity the subscriber's share produces each month. The utility then will apply a credit to the subscriber's utility bill.

The credit is equal to the per-kilowatt price that the utility charges, multiplied by the number of kilowatt-hours generated by the subscriber's

portion of the community solar system. Effectively, the subscriber only pays the utility company the balance—the amount of electricity consumed minus the amount of electricity generated by the subscriber's community solar share. The total amount the subscriber pays for electricity is the combination of the subscriber organization bill and subscriber's utility bill. 🌞

## Community Solar Subscriber Bill

Electricity consumed	700 kWh
Community solar rate *	\$0.125/kWh
<b>Total</b>	<b>\$87.50</b>

## Utility Electricity Bill

Connection charge	\$10.00
<b>Charges for energy used</b>	
Electricity consumed	700 kWh
Utility rate	\$0.140/kWh
<b>Subtotal</b>	<b>\$98.00</b>
<b>Total</b>	<b>\$108.00</b>

example

## Community solar credit

Electricity generated	700 kWh
Community solar credit rate	\$0.14/kWh
<b>Subtotal</b>	<b>-\$98.00</b>

\* Community solar rate will vary by provider and project

Paid to Subscriber Organization      \$87.50/month

Paid to Utility      \$10.00/month

Source: <https://cs.solarunitedneighbors.org/states/MD/programs/bge/learn/billing>

# 🐝 Pollinator-Friendly Solar 🌻

Pollinator-Friendly Solar is the practice of adding attractive, pollinator-friendly, native plantings under and around ground mounted solar arrays, replacing gravel or turf grass. This pairing represents an unparalleled opportunity to advance solar energy and simultaneously address the threat of pollinator extinction, promote demand for native plants, and support local agriculture and farmers.



Many pollinators around the world and in Maryland are in decline. Pollination occurs when animals, water, or wind carry pollen from flower to flower or within flowers. In Maryland, the most important group of pollinators are bees. Over [400 species of bees](https://fresh-energy.org/19302/) can be found in the state as well as over [150 butterfly species](https://fresh-energy.org/19302/). In addition to bees and butterflies, other Maryland pollinators include ants, beetles, flies, moths, wasps, and the ruby-throated hummingbird. (Maryland DNR. *What's the Buzz: All About Pollinators*. Accessed August 9, 2019, at <http://dnr.maryland.gov/wildlife/Pages/habitat/wawhatsthebuzz.aspx>.)

Maryland set a goal of supplying 50% of the state's energy from renewable sources by 2030. With the anticipated amount of additional acreage of ground-mounted solar arrays as the State strives to meet this goal, these arrays present a valuable opportunity to provide habitat for these vital species.

In May 2017, Governor Larry Hogan signed the Pollinator-Friendly Designation Program bill ([Senate Bill 1158](#)), establishing a pollinator-friendly designation program for commercial ground-mounted solar facilities. 🌞

# Things to Consider Before Committing to a Community Solar Subscription



- ❑ Although BGE and PE are participating in the Maryland Community Solar Pilot Program, they do not currently play any role in selling or endorsing subscriptions to a solar subscriber organization for these projects. When you subscribe to a community solar project, you are dealing strictly with a third-party broker, not your utility company or electricity provider. Make sure your best interests are being served as far as energy savings and flexible options.
- ❑ For your own protection, verify that the broker holds a license with the PSC.
- ❑ Consider all arrangements with your broker and the broker's relationship with suppliers. Contract terms and conditions are important factors here.
- ❑ Remember the broker is basically a middleman between you and the electricity supplier. If you have an interest in all facets of renewable energy in addition to solar, make sure it's in the broker's interest as well.
- ❑ Consider all of your options in addition to community solar for your ultimate source of electricity, and compare costs, terms, length of contracts, and long-term savings.
- ❑ Reflect on your short- and long-term goals, in particular, how long you plan on living in your residence, as that may have an impact on deciding if community solar is right for you.
- ❑ Always be sure to read the entire contract carefully and understand the rates and fees before committing .
- ❑ **Community solar is an emerging option in renewable energy. Options for community solar subscriptions will increase in time. If you are not satisfied with the current options, keep checking the sites under "Finding an Available Community Solar Subscription" on Page 4 to discover new projects as they become available.** 🌍

## Additional Online Resources

### 🌞 Chesapeake Climate Action Network

Overview: <https://chesapeakeclimate.org/maryland/community-solar-for-everyone/>

Fact Sheet: [https://chesapeakeclimate.org/wp/wp-content/uploads/2018/10/community-solar\\_fact\\_sheet\\_2019.pdf](https://chesapeakeclimate.org/wp/wp-content/uploads/2018/10/community-solar_fact_sheet_2019.pdf)

### 🌞 Maryland Energy Administration

<https://energy.state.md.us/Pages/Info/index.aspx>



🌞 **Maryland Office of People's Council (OPC)** – An independent State agency representing the interests of residential consumers of electricity, natural gas, telecommunications, private water and certain transportation services in Maryland. The site includes additional buzz words and consumer advocacy publications.

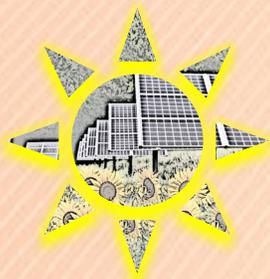
<http://www.opc.state.md.us/>

🌞 **Solar United Neighbors** – A national non-profit organization dedicated to representing the needs and interests of solar owners and supporters.

<https://cs.solarunitedneighbors.org/states/MD/show>

🌞 **U.S. Department of Energy**. Office of Energy Efficiency & Renewable Energy.

<https://www.energy.gov/eere/solar/community-and-shared-solar> 🌍



## Contact Info

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<https://www.carrollcountymd.gov/government/boards-commissions/environmental-advisory-council-eac/>

