

Department of Legislative Services  
Maryland General Assembly  
2015 Session

**FISCAL AND POLICY NOTE**  
**Revised**

Senate Bill 398

(Senator Pugh, *et al.*)

Finance

Economic Matters

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**Electricity - Community Solar Energy Generating System Program**

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This bill requires the Public Service Commission (PSC) to establish a Community Solar Energy Generating System Pilot Program. PSC must adhere to specified guidelines in structuring the pilot program and adopt specified regulations to implement the pilot program. PSC must also, in consultation with the Maryland Energy Administration (MEA), convene a stakeholder workgroup to study the value and costs of the pilot program and make recommendations to PSC on the advisability of establishing a permanent program.

The bill takes effect July 1, 2015.

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**Fiscal Summary**

**State Effect:** PSC can establish the pilot program and convene the workgroup, in consultation with MEA, with existing budgeted resources. Revenues are not affected.

**Local Effect:** Minimal.

**Small Business Effect:** Minimal.

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**Analysis**

**Bill Summary:** A “community solar energy generating system” means a solar energy system that (1) is connected to the electric distribution grid serving the State; (2) is located in the same electric service territory as its subscribers; (3) is attached to the electric meter of a subscriber or is a separate facility with its own electric meter; (4) 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; (5) has at least two subscribers; (6) does

not have subscriptions larger than 200 kilowatts constituting more than 60% of its subscriptions; (7) has a generating capacity that may be up to two megawatts; and (8) may be owned by any person. It is *not* an electric company, an electricity supplier, or a generating station.

A “subscriber” means a retail customer of an electric company who holds a subscription to a community solar energy generating system and has identified one or more individual meters or accounts to which the subscription must be attributed. A “subscriber organization” means a person that owns or operates a community solar energy generating system or the collective group of subscribers of such a system.

“Virtual net energy metering” means 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 bill.

The pilot program must begin on the earlier of (1) the date of submission of the first petition of a subscriber organization after PSC adopts required regulations or (2) six months after PSC adopts the required regulations. The pilot program ends three years after the beginning date. PSC must notify the General Assembly and the Department of Legislative Services when the pilot program begins.

PSC must adhere to the following conditions in structuring the pilot program:

- all rate classes may participate in the pilot program;
- subscribers served by electric standard offer service and electricity suppliers may hold subscriptions to the same community solar energy generating system;
- a subscriber organization must determine how to allocate subscriptions and notify the electric company when applicable;
- an electric company must use the tariff structure adopted by PSC for the program;
- a subscriber may not receive credit for virtual net excess generation of more than 200% of the subscriber’s baseline annual usage;
- an electric company must use energy generated from a community solar energy generating system to offset purchases from wholesale electricity suppliers for standard offer service;
- any unsubscribed energy generated by a community solar energy generating system that is not owned by an electric company must be purchased under the electric company’s process for purchasing the output from qualifying facilities at the amount it would have cost the electric company to procure the energy;

- all costs associated with smaller generator interconnection standards are the responsibility of the subscriber organization;
- a subscriber organization may petition an electric company to coordinate the interconnection and commencement of operations of a community solar energy generating system after PSC adopts required regulations;
- a subscriber organization may contract with a third party for the third party to finance, build, own, or operate a community solar energy generating system;
- a municipal utility or cooperative utility may participate in the pilot program;
- equipment for a community solar energy generating system may not be built on contiguous parcels of land unless the equipment is installed only on building rooftops; and
- PSC must limit the pilot program in such a way that PSC may conduct a meaningful study of the pilot program and its results.

By May 15, 2016, PSC must adopt regulations to implement the bill, including regulations for:

- consumer protection;
- a tariff structure for an electric company to provide a subscriber with the kilowatt-hours or value of the subscriber's subscription, as PSC determines;
- a calculation for virtual net energy metering as PSC determines;
- a protocol for electric companies, electricity suppliers, and subscriber organizations to communicate necessary information to calculate and provide the monthly electric bill credits and yearly net excess generation payments required under the bill; and
- a protocol for a subscriber organization to coordinate with an electric company for the interconnection and commencement of operations of a community solar energy generating system.

The cumulative installed nameplate capacity under the pilot program counts toward the overall statewide net-metered capacity limit of 1,500 megawatts. Subject to PSC regulations or orders, a contract relating to a community solar energy generating system or subscriber organization that is entered into during the pilot program remains in effect according to the terms of the contract, including after the termination of the pilot program.

After termination of the pilot program (1) a subscriber organization may continue the operation of a community solar energy generating system that began operation during the pilot program, including the creation and trading of subscriptions and (2) an electric company must continue to facilitate the operation of a community solar energy generating system that began operation during the pilot program.

PSC, in consultation with MEA, must convene a stakeholder workgroup to study the value and costs of the pilot program and make recommendations to PSC on the advisability of establishing a permanent program. In conducting the study, the workgroup must identify and examine:

- a framework for valuation of the costs and benefits related to community solar and virtual net energy metering;
- the costs and benefits of community solar energy generating systems to participating subscribers and to nonsubscriber ratepayers;
- an appropriate credit mechanism and operational structure that allows a community solar energy generating system to minimize administrative costs to an electric company, electric supplier, or subscriber organization;
- the benefits to and the technical and cost impacts of community solar programs and virtual net energy metering on an electric company's distribution grid;
- issues, benefits, and concerns related to the participation of electric companies, including investor-owned utilities, in community solar programs and projects;
- whether and how community solar projects or virtual net energy metering have a substantially different technical impact on the distribution system than traditional net energy metering;
- identification of any impacts on the standard offer service procurement process;
- a review of community solar programs and cost-benefit studies in other states;
- whether and how community solar programs can help reduce the cost of compliance with the renewable energy portfolio standard;
- how community solar energy generating systems can impact locational marginal prices in Maryland;
- the impacts of the pilot program on energy costs, reliability, and equitable cost allocation for ratepayers;
- how community solar project developers can increase participation by low- and moderate-income retail electric customers in community solar projects;
- the progress of the community solar energy generating pilot program established under the bill in attracting low- and moderate-income retail electric customers;
- whether community solar energy generating systems are an overall net benefit in helping Maryland achieve its distributed generation and renewable goals;
- any other matters the workgroup considers relevant; and
- any additional factors PSC considers appropriate.

By July 1, 2019, PSC must report its findings and recommendations, based on the study conducted under the bill, to the Senate Finance Committee and the House Economic Matters Committee.

**Current Law/Background:** Net energy metering is the measurement of the difference between the electricity that is supplied by an electric company and the electricity that is generated by an eligible customer-generator and fed back to the electric company over the eligible customer-generator's billing period. The generating capacity of an eligible customer-generator for net metering may be up to two megawatts. As of June 30, 2014, the amount of net metered capacity in the State was approximately 144 megawatts, far below the statewide cap of 1,500 megawatts.

PSC must submit an annual report on the status of net energy metering to the General Assembly. The report must contain the amount of generating capacity owned by eligible customer generators in the State, the type of energy source used in generation, a recommendation regarding whether the generating capacity limit of the net metering program should be altered, and other pertinent information.

#### *Net Metering Aggregation*

PSC implemented a Net Metering Aggregation Pilot Program through electric company specific pilot programs in 2011, which was converted to a full Meter Aggregation Program in December 2013. Aggregation of net-metered loads is the practice of combining meter readings from more than one utility service point. Electric companies can provide this service by using physical interconnection of service points (physical aggregation) or by summing the total usage from two or more meters (virtual aggregation). Only certain types of customers are allowed to use this service. Agricultural, municipal, and nonprofit entities are allowed to aggregate net metered loads under PSC regulations.

The practice of meter aggregation may provide increased incentives for system deployment by providing greater economies of scale for installations and allowing a customer to make the most efficient use of existing solar or wind sources. For example, in an agricultural setting, a solar array could be installed on a barn, which would normally have excellent sun exposure but a low electric power requirement. Joining the load of the residence (which may have less roof area or be in a shady location) and other buildings to the load of the barn would make the installation more practical and cost-effective for the customer.

#### *Net Metering Working Group*

PSC staff also facilitates a stakeholder Net Metering Working Group to aid electric companies, installers, and customers in the implementation of new regulations and to address any additional technical issues that may arise as each utility drafts and files revised net metering tariffs and administers its meter aggregation program. Activities of the group include development of documentation to assist customers with the application and operation procedures for net metering.

## Additional Information

**Prior Introductions:** SB 786 of 2014, a similar bill, received a hearing in the Senate Finance Committee, but no further action was taken. Its cross file, HB 1192, received an unfavorable report from the House Economic Matters Committee.

**Cross File:** Although not designated as a cross file, HB 1087 (Delegate Clippinger, *et al.* – Economic Matters) is identical.

**Information Source(s):** Public Service Commission, Maryland Energy Administration, Department of Legislative Services

**Fiscal Note History:** First Reader - February 20, 2015  
mar/lgc Revised - Senate Third Reader - March 17, 2015  
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