

Department of Legislative Services
Maryland General Assembly
2013 Session

FISCAL AND POLICY NOTE

House Bill 1187
Economic Matters

(Delegate Hucker)

Public Utilities - Solar Photovoltaic Systems

This bill exempts a person constructing a generating station that produces electricity from a solar photovoltaic (PV) system from certificate of public convenience and necessity (CPCN) requirements under specified conditions. Persons seeking approval to construct specified solar PV systems must pay a deposit of 1% or 2% of the total installed costs of the project, depending on the size of the project, to an escrow account held by the Public Service Commission (PSC). The amount of total installed costs must be based on average installed costs data provided by the Maryland Energy Administration (MEA). PSC must refund the deposit of a person who begins a project within three years after filing an application. After three years, unless granted an extension by PSC, the money is considered abandoned and is transferred to the Maryland Strategic Energy Investment Fund (SEIF).

Fiscal Summary

State Effect: PSC, MEA, and the Maryland Department of Planning (MDP) can each handle the bill's requirements with existing budgeted resources. SEIF revenues may increase from payments made from the escrow account established by PSC under the bill beginning in FY 2017; however, the amount cannot be reliably estimated at this time. The bill is not expected to materially affect the price of electricity in the State.

Local Effect: The bill is not expected to materially affect local government finances or operations.

Small Business Effect: Minimal.

Analysis

Bill Summary: MEA, in consultation with members of the solar industry, must develop and post average installed costs data on its website on a quarterly basis. Average installed costs data must be classified based on the capacity of a generating station to produce electricity.

Solar PV Projects Up To 10 Megawatts

A person constructing an electric generating station is exempted from the CPCN requirement if (1) the capacity of the generating station is up to 10 megawatts and (2) the electricity that may be exported for sale from the generating station is sold only on the wholesale market under an interconnection, operation, and maintenance agreement with the local electric company. A person who has filed an application for approval with PSC to construct a solar PV system with a capacity of between 2 and 10 megawatts must pay a deposit of 1% of the total installed costs of the project to PSC.

Solar PV Projects Larger Than 10 Megawatts

A CPCN application for a PV system with a capacity of more than 10 megawatts must include (1) the capacity of the project; (2) the location of the project by zip code; (3) the interconnection, operation, and maintenance agreement; (4) the anticipated start date that the project will be online; (5) the solar renewable energy credit (SREC) management plan; and (6) any other information PSC requires. MDP must forward the application of solar PV projects larger than 10 megawatts to MEA, which may choose to make the application public. In addition, a person who has filed a CPCN application with PSC to construct a solar PV project larger than 10 megawatts must pay a 2% deposit of the total installed costs of the project to PSC.

Current Law: A person may not begin construction in the State of a generating station or a qualified generator lead line unless a CPCN is first obtained from PSC. PSC regulations define a “generating station” as property or facilities located in Maryland constituting an integral plant or unit for the production of electric energy, including any new production unit that would be added to an existing production plant. It does not include an integral plant or unit less than 373 kilowatts if it is installed with equipment that prevents the flow of electricity to the electric system during time periods when the electric system is out of service.

There are three general conditions under which a person constructing an electric generating station may apply to PSC for an exemption from the CPCN requirement:

- the facility is designed to provide on-site generated electricity, the capacity is up to 70 megawatts, and the excess electricity can be sold only on the wholesale market pursuant to an interconnection, operation, and maintenance agreement with the local electric company;
- at least 10% of the electricity generated is consumed on-site, the capacity is up to 25 megawatts, and the excess electricity is sold on the wholesale market pursuant to an interconnection, operation, and maintenance agreement with the local electric company; or
- the facility is wind-powered and land-based, the capacity is up to 70 megawatts, and the facility is no closer than a PSC-determined distance from the Patuxent River Naval Air Station, among other requirements.

However, PSC must require a person that is exempted from the CPCN requirement to obtain approval from the commission before the person may construct a generating station as described above. The application must contain specified information that PSC requires, including proof of compliance with all applicable requirements of the independent system operator.

Background:

CPCN

The licensing of new electric power plants in the State is a comprehensive two-part process involving PSC and several other State agencies, *e.g.*, the Department of Natural Resources and the Maryland Department of the Environment. PSC is the lead agency for licensing the siting, construction, and operation of power plants in the State. If a generating station is granted an exemption from the CPCN requirement, PSC evaluation is limited to ensuring safety and reliability of the electric system. All issues other than safety and reliability of the electric system are left up to other State and local agencies.

Solar Energy

Chapter 120 of 2007 (HB 1016) revised Maryland's Renewable Energy Portfolio Standard (RPS) to include a solar carve-out, requiring that at least 0.005% of electricity in 2008 be from solar generation increasing to at least 2.0% in 2022. The solar carve-out works to encourage the development of solar electricity generation through the use of Alternative Compliance Payments (ACPs) and SRECs. Owners of solar facilities sell credits associated with their energy production to offset a portion of the installation costs. The price of an SREC is effectively capped by the applicable ACP – what a supplier pays for a solar shortfall. For information relating to Maryland's RPS, see the **Appendix – Maryland's Renewable Energy Portfolio Standard**.

Solar Project Installed Costs

MEA advises that any deposit would be seen as a deterrent to PV developers. *For illustrative purposes only*, MEA provides the following data on installed costs for various solar PV projects in **Exhibit 1**, which also shows the range of potential deposits required under the bill. Projects smaller than 2,000 kilowatts (two megawatts) are not required to submit a deposit under the bill.

Exhibit 1
Required Deposit – Selected Solar PV Project Sizes

Project Size (Kilowatts)	Installed Cost \$/Kilowatt	Installed Cost (\$)	Deposit (%)	Deposit (\$)
2,000	\$2,500	\$5,000,000	1%	\$50,000
5,000	2,250	11,250,000	1%	112,500
10,000	2,000	20,000,000	2%	400,000
20,000	2,000	40,000,000	2%	800,000
30,000	2,000	60,000,000	2%	1,200,000

Source: Maryland Energy Administration

Additional Information

Prior Introductions: None.

Cross File: SB 887 (Senator Garagiola) - Finance.

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

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Appendix – Maryland’s Renewable Energy Portfolio Standard

Maryland’s Renewable Energy Portfolio Standard (RPS) was enacted in 2004 to facilitate a gradual transition to renewable sources of energy. It requires that renewable sources generate specified percentages of the State’s electricity supply each year, increasing to 20%, including 2% from solar sources, by 2022. Electric companies (utilities) and other electricity suppliers must submit renewable energy credits (RECs) equal to the percentage specified in statute each year, or pay an alternative compliance payment (ACP) equivalent to their shortfall. Any ACPs are used by the Maryland Energy Administration to support new renewable energy sources.

A REC is a tradable commodity equal to one megawatt-hour of electricity generated or obtained from a renewable energy generation resource. In other words, a REC represents the “generation attributes” of renewable energy – the lack of carbon emissions, its renewable nature, etc. A REC has a three-year life during which it may be transferred, sold, or redeemed. RECs are classified as Tier 1, Tier 1 Solar, or Tier 2, depending on the energy source. REC generators and electricity suppliers are allowed to trade RECs using a Public Service Commission-approved system known as the Generation Attributes Tracking System, which is a trading platform designed and operated by PJM Environmental Information Services, Inc, which tracks the ownership and trading of the RECs.

Examples of Tier 1 sources include wind; qualifying biomass; methane from anaerobic decomposition of organic materials in a landfill or wastewater treatment plant; geothermal; ocean, including energy from waves, tides, currents, and thermal differences; a fuel cell that produces electricity from a Tier 1 renewable source; a small hydroelectric plant of less than 30 megawatts; poultry litter-to-energy; and waste-to-energy. Tier 1 Solar sources include photovoltaic cells and residential solar water heating systems commissioned in fiscal 2012 or later.

RPS Compliance

In 2012, the standard required that 9.0% of retail electric sales come from renewable sources, including 0.1% from solar. In general, electricity suppliers have been able to meet all of their Tier 1 nonsolar and Tier 2 REC requirements, and therefore the predominant source of ACPs is from the Tier 1 solar requirement. For the 2010 compliance year (the most recent year for which data is available), electricity suppliers retired 3.6 million RECs. According to the compliance reports filed with the Public Service Commission, the cost of RECs retired totaled \$7.6 million for the 2010 compliance year. The total cost of compliance with the 2010 RPS was slightly less than \$8 million, with ACPs accounting for \$217,620 of this total.