

Department of Legislative Services  
Maryland General Assembly  
2024 Session

FISCAL AND POLICY NOTE  
First Reader

House Bill 1435

(Delegate Fraser-Hidalgo, *et al.*)

Economic Matters

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**Renewable Energy - Net Energy Metering Aggregation, Solar Renewable Energy Credits, and Taxes on Solar Energy Generating Systems (Brighter Tomorrow Act)**

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This bill increases the maximum generating capacity for specified aggregated net-metered generating facilities from two megawatts to five megawatts and allows an eligible customer-generator participating in meter aggregation to receive excess generation from more than one generating system. The Public Service Commission (PSC) must establish a program to certify specified solar energy generating systems as eligible to receive additional solar renewable energy credits (SRECS) for purposes of the State Renewable Energy Portfolio Standard (RPS) for the lifetime of the systems. The bill also extends and creates new property tax exemptions for specified solar energy generating systems and authorizes a county to enter into a payment-in-lieu-of-taxes (PILOT) for \$2,500 per megawatt for ground-mounted solar systems. **The bill takes effect June 1, 2024. The property tax provisions apply to taxable years beginning after June 30, 2024.**

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**Fiscal Summary**

**State Effect:** No effect in FY 2024. Special fund expenditures for PSC increase by \$150,000 annually from FY 2025 through 2028; special fund revenues for PSC increase correspondingly. Special fund revenues and expenditures for the Strategic Energy Investment Fund (SEIF) may decrease beginning in FY 2025. Annuity Bond Fund (ABF) revenues decrease beginning in FY 2025. This decrease may require either (1) an increase in the State property tax rate or (2) a general fund appropriation to cover debt service on the State's general obligation (GO) bonds. The effect on electricity prices is discussed in the Additional Comments section below.

**Local Effect:** Local property tax revenues decrease, potentially significantly, beginning in FY 2025, as discussed below. Expenditures are not affected. **This bill imposes a mandate on a unit of local government.**

**Small Business Effect:** Meaningful.

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## Analysis

### Bill Summary:

#### *Net Metering Capacity Increases*

The generating capacity of a net-metered facility that is meter aggregated under § 7-306.3 of the Public Utilities Article, which only applies to certain customer-generators, may not exceed five megawatts.

Notwithstanding the generating capacity limits established for the State's net metering law, an eligible customer-generator participating in meter aggregation under § 7-306.2 (community solar) or § 7-306.3 (certain customer-generators) of the Public Utilities Article may receive excess generation from more than one generating system, including if the combined generating capacity of all net-metered facilities that are meter aggregated exceeds five megawatts.

#### *Small Solar Energy Generating System Incentive Program*

PSC must establish a Small Solar Energy Generating System Incentive Program. Under the program, solar energy generating systems that are certified by PSC are eligible to receive additional SRECS for their entire life cycle. The bill establishes a one-time \$100 application fee, to be used by PSC to cover costs associated with program administration.

To be eligible for certification, a solar energy generating system must be located in the State, be eligible for inclusion in meeting the State RPS, have a generating capacity of no more than two megawatts, and be placed in service between July 1, 2024, and January 1, 2028, inclusive.

The total amount of in-State generating capacity for certified systems under the program may not exceed:

- 330 megawatts for systems with a generating capacity of less than 20 kilowatts; and
- 300 megawatts for systems with a generating capacity between 20 kilowatts and 2 megawatts.

Certified systems will receive 150% credit toward meeting the RPS for energy derived from solar, or 200% credit for systems that are located on a rooftop, parking canopy, or

brownfield. Credits created by a certified system under the program exist for five years from the date created (instead of three years).

Developers of certified systems with capacities greater than one megawatt must ensure workers are paid at least the prevailing wage rate unless the system is subject to a project labor agreement with specified conditions.

PSC must include information regarding the status of the program in its annual RPS report to the General Assembly.

### *Tax Incentives for Solar Systems*

#### *Community Solar – Extended Eligibility Period for Personal Property Tax Exemption*

The date by which a community solar generating system must be approved by PSC under the Community Solar Energy Generating Systems Program in order to be eligible for a personal property tax exemption is extended from December 31, 2025, to December 31, 2030. The system must still meet other existing requirements in current law.

#### *Nonresidential Solar on Rooftops or Parking Facility Canopies – Exemption from Valuation or State or Local Property Taxes*

Nonresidential solar energy generating systems that are constructed on the rooftops of buildings or on parking facility canopies are not subject to valuation or to State or local property taxes.

#### *Parking Facility Canopies – Reduced Local Real Property Assessment*

The governing body of a county or municipality may reduce or eliminate, by law, the percentage of the assessment of any real property that is subject to the county or municipal property tax if the real property includes a parking facility on which a solar energy generating system has been constructed on its canopy. The local government must submit a copy of the law to the State Department of Assessments and Taxation (SDAT); if the copy is received by May 1, the change becomes effective for the following taxable year. SDAT may adopt implementing regulations for this provision.

#### *Ground-mounted Solar – Authorization for Payment-in-lieu-of-taxes for County Real and Personal Property Tax*

The governing body of a county must exempt or partially exempt a ground-mounted solar energy generating system from the county real or personal property tax if the owner of the

system and the county enter into a PILOT agreement, approved by ordinance of the legislative body of the county, that specifies:

- that the owner of the system must pay to the county each year in lieu of the payment of county real or personal property taxes during the term of the agreement the sum of \$2,500 per megawatt of generating capacity of the system;
- the term of the agreement; and
- that each year after the expiration or termination of the agreement, full real and personal property taxes must be payable on the property.

### **Current Law:**

#### *Net Metering*

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. PSC must require electric utilities to develop and make net metering tariffs available to eligible customer-generators. Generally, the generating capacity of an eligible customer-generator for net metering may be up to 2 megawatts, or up to 5 megawatts for a community solar energy generating system. Eligible energy sources are solar, wind, biomass, micro combined heat and power, fuel cell, and certain types of hydroelectric. There is a statewide net-metered capacity limit of 3,000 megawatts.

#### *Renewable Energy Portfolio Standard*

Unlike most other sources of renewable energy, solar is eligible for inclusion in meeting the State RPS only if the source is connected with the electric distribution grid serving Maryland. Information on the ongoing solar shortfall can be found in the fiscal 2025 operating budget [analysis](#) for the Maryland Energy Administration (MEA) prepared by the Department of Legislative Services (DLS).

For information on the State RPS, see the **Appendix – Renewable Energy Portfolio Standard**.

#### *Solar Property Tax Incentives*

##### *Community Solar*

A community solar energy generating system that is placed in service after June 30, 2022, and has been approved by PSC on or before December 31, 2025, is exempt from the county

and municipal personal property tax through the life cycle of the system if the system (1) provides at least 50% of the energy it produces to low- to moderate-income customers at a cost that is at least 20% less than the amount charged by the electric company that serves the area where the community solar energy generating system is located and (2) is used for agrivoltaics or is installed on a rooftop, brownfield, parking facility canopy, landfill, or clean fill.

State and local governments must grant a 50% property tax credit for a brownfield, landfill, or clean fill on which a specified community solar energy generating system is installed.

#### *Certain Solar Energy Property Generally Not Subject to State or Local Real Property Tax*

Solar energy and geothermal heating and cooling systems installed in a building without a conventional heating and cooling system may not be assessed for property tax purposes at more than the value of a conventional heating and cooling system. If a solar energy or geothermal heating and cooling system is installed in addition to a conventional system in a building, the combined system may not be assessed at more than the value of a conventional system. With the exception of those provisions, solar energy property is not subject to State or local real property tax.

“Solar energy property” means equipment that is installed to use solar energy or solar thermal electric energy to generate electricity to be used in a structure or supplied to the electric grid, or provide hot water for use in a structure.

#### *Optional Local Property Tax Credit for Solar Energy Devices*

Counties and municipalities are authorized to grant tax credits against county or municipal property taxes for the use of a solar energy, geothermal energy, or qualifying energy conservation device in a structure for the purposes of heating and cooling, electricity generation, or the provision of hot water. The law allows local governments to establish definitions of solar energy devices, geothermal energy devices, and qualifying energy conservation devices in determining eligibility for the credit.

#### **State Fiscal Effect:**

##### *Administrative Costs*

PSC advises that it requires contractual services of approximately \$150,000 annually to handle the incremental workload associated with the Small Solar Energy Generating System Incentive Program. To be eligible for certification, a system must be placed in service between July 1, 2024, and January 1, 2028, inclusive. This estimate assumes that all applications are processed in fiscal 2025 through 2028, at which point existing PSC

staff can handle any remaining requirements. Accordingly, special fund expenditures for PSC increase by \$150,000 annually from fiscal 2025 through 2028.

Generally, PSC is funded through an assessment each fiscal year on the public service companies that it regulates. Under the bill, PSC also is expected to collect application fees from solar energy generating systems. Whether the revenue from such fees is sufficient to cover PSC's administrative costs in a particular fiscal year is unknown and largely depends on the number and timing of small systems that apply. Nevertheless, this estimate assumes that application fees offset revenues generated from the standard assessment.

Accordingly, special fund revenues for PSC increase correspondingly from application fee revenue and assessments imposed on public service companies. To the extent that PSC collects application fees in excess of its administrative costs, the amount otherwise assessed on public service companies decreases.

#### *Alternative Compliance Payments*

As discussed above, there is an ongoing solar shortfall for purposes of the State RPS, which has led to historically high alternative compliance payments (ACPs) in calendar 2021 and 2022. The vast majority of ACPs in those years were due to a shortfall of SRECs. ACP revenue accrues to SEIF and must be used by MEA for specified purposes. The bill creates a process that will generate between 50% and 100% additional SRECs for up to 630 additional megawatts of solar capacity built in the State over the next several years. Those additional SRECs will reduce solar ACPs beginning as early as fiscal 2025, although the overall effect is unknown.

Accordingly, special fund revenues and expenditures for SEIF decrease beginning in fiscal 2025 to the extent that solar ACPs are reduced under the bill.

#### *Annuity Bond Fund*

ABF revenues decrease beginning in fiscal 2025 as a result of the bill's property tax exemption on nonresidential solar on rooftops or parking facility canopies. DLS does not have additional information on the magnitude of the potential decrease at this time.

Debt service payments on the State's GO bonds are paid from the ABF. Revenue sources for the fund include State property taxes; premium from bond sales; and repayments from certain State agencies, subdivisions, and private organizations. General funds may be appropriated directly to the ABF to make up any differences between the debt service payments and funds available from property taxes and other sources. To offset the reduction in State property tax revenues, general fund expenditures could increase in an amount equal to the decrease in ABF revenues, or the State property tax rate would have

to be increased in order to meet debt service payments. This assumes that the ABF does not have an adequate fund balance to cover the reduction in State property tax revenues.

**Local Fiscal Effect:** The bill establishes four provisions that affect, or potentially affect, local property tax revenues:

- extending the eligibility period for certain community solar projects to receive a personal property tax exemption through 2030;
- excluding nonresidential solar on rooftops or parking facility canopies from State or local property taxes;
- establishing an optional authority to reduce the assessed value of real property for a parking structure that has rooftop solar; and
- establishing an optional ability for ground-mounted solar systems and counties to enter into a PILOT agreement that pays \$2,500 annually per megawatt.

Accordingly, local revenues decrease, potentially significantly, beginning in fiscal 2025 from reduced real and personal property tax revenues. The amount of revenue loss for a particular local government depends on several factors, including the number of eligible properties, individual property tax rates, and whether the local government chooses to implement the optional authorities (municipalities cannot enter into the PILOT). For context, SDAT has provided the following information:

- There are 3 community solar projects in Prince George’s County under construction that potentially qualify for the personal property tax exemption with the bill’s extension of the eligibility period. Combined, the projects are estimated to represent about \$87,500 in annual personal property tax revenue for the county.
- There are 22 nonresidential solar systems that qualify for the exemption from State and local property taxes under the bill. Combined, the projects are estimated to represent about \$1.0 million in personal property tax revenues annually across eight local jurisdictions. Property tax revenues in Baltimore City and Baltimore, Charles, Howard, and Montgomery counties are estimated to decrease by \$150,000 to \$240,000 annually, with lesser effects in Anne Arundel, Harford, and Worcester counties. There are also several more projects in development.
- There are 53 potential projects eligible for a PILOT agreement, not including the 20 projects currently operating under a PILOT. If all 53 projects move to the \$2,500 per megawatt PILOT, local revenues decrease by \$5.6 million across 16 counties. SDAT also notes that property under a PILOT is not included in the county assessable base report unless directed to do so by statute, so this provision affects State education aid calculations.

DLS notes that as additional solar energy generation continues to be built to meet the State RPS and other climate goals, potential revenue losses due to the tax incentives increase.

**Small Business Effect:** Small solar developers benefit significantly from the net metering changes, additional SREC credits, and solar property tax incentives in the bill.

**Additional Comments:** DLS cannot advise on the bill's effect on electricity prices paid by the State, local governments, and small businesses, as the net metering changes may broadly raise distribution costs due to additional net metering payments being made to eligible customer-generators, while the additional SREC credit and solar property tax incentives may reduce RPS compliance costs and the cost of solar energy.

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### **Additional Information**

**Recent Prior Introductions:** Similar legislation has not been introduced within the last three years.

**Designated Cross File:** SB 783 (Senator Elfreth, *et al.*) - Education, Energy, and the Environment and Budget and Taxation.

**Information Source(s):** Public Service Commission; State Department of Assessments and Taxation; Maryland Department of Labor; Office of People's Counsel; Anne Arundel, Harford, Prince George's, and Wicomico counties; City of College Park; Maryland Municipal League; Department of Legislative Services.

**Fiscal Note History:** First Reader - February 28, 2024  
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# Appendix – Renewable Energy Portfolio Standard

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## *General Overview*

Maryland’s Renewable Energy Portfolio Standard (RPS) was enacted in 2004 to facilitate a gradual transition to renewable sources of energy. There are specified eligible (“Tier 1” or “Tier 2”) sources as well as carve-outs for solar, offshore wind, and geothermal. Electric companies (utilities) and other electricity suppliers must submit renewable energy credits (RECs) equal to a percentage of their retail electricity sales specified in statute each year or else pay an alternative compliance payment (ACP) equivalent to their shortfall. Historically, RPS requirements have been met almost entirely through RECs, with negligible reliance on ACPs; however, as discussed further below, that has not been the case recently. The Maryland Energy Administration must use ACPs for purposes related to renewable energy, as specified.

In 2024, the requirements are 33.7% from Tier 1 sources, including at least 6.5% from solar and 0.15% from post-2022 geothermal systems, plus 2.5% from Tier 2 sources.

## *Recent Significant Changes to Overall Percentage Requirements*

- Chapter 757 of 2019 significantly increased the percentage requirements, which now escalate over time to a minimum of 50% from Tier 1 sources, including 14.5% from solar, by 2030.
- Chapter 673 of 2021 reduced the amount of solar energy required under the RPS each year from 2022 through 2029, while leaving the nonsolar requirement generally unchanged, before realigning with the previous requirements beginning in 2030. The Act also extended Tier 2 in perpetuity at 2.5%.
- Chapter 164 of 2021 created a carve-out for post-2022 geothermal systems in Tier 1 beginning in 2023.

## *Limited Applicability to Municipal Electric Utilities and Electric Cooperatives*

As RPS percentage requirements have grown over time, legislation has been enacted to limit the effect on municipal electric utilities and electric cooperatives. Tier 1 percentage requirements for municipal electric utilities are limited to 20.4% in total beginning in 2021, including at least 1.95% from solar energy and up to 2.5% from offshore wind. Municipal electric utilities are also exempt from Tier 2 after 2021. Electric cooperatives are exempt

from future increases to the solar carve-out beyond 2.5%, and the RPS does not apply to Choptank Electric Cooperative.

### *Renewable Energy Credits*

Generally, 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. REC generators and electricity suppliers are allowed to trade RECs using a Public Service Commission (PSC) approved system known as the Generation Attributes Tracking System, a trading platform designed and operated by PJM Environmental Information Services, Inc., that tracks the ownership and trading of RECs.

### *Eligible Sources*

Tier 1 sources include wind (onshore and offshore); solar (photovoltaic and certain water-heating systems); 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 specified sources; a small hydroelectric plant of less than 30 megawatts; poultry litter-to-energy; waste-to-energy; refuse-derived fuel; thermal energy from a thermal biomass system; and raw or treated wastewater used as a heat source or sink for heating or cooling. Tier 2 includes only large hydroelectric power plants.

Chapter 673 of 2021 excluded black liquor, or any product derived from black liquor, from Tier 1 beginning in 2022.

### *Trends in Compliance Costs, Renewable Energy Credit Prices, and Resources Used*

Compliance costs for electricity suppliers totaled \$438.8 million in 2022: \$332.7 million for 15.2 million RECs; and \$77.1 million in ACPs. Costs and RECs are shown in **Exhibit 1**. This continues a multi-year trend of increasing compliance costs and, generally, average REC prices.

In 2021, wind (50.8%), solar (13.2%), black liquor (12.5%), small hydroelectric (8.0%), and municipal solid waste (6.4%) were the primary energy sources used for Tier 1 RPS compliance. This continues a multi-year trend of increasing reliance on wind and solar energy. Maryland facilities generated 5.0 million RECs in 2021: approximately 2.9 million Tier 1 RECs; and 2.1 million Tier 2 RECs. Many RECs can be used for compliance in both Maryland and other surrounding states, although there are geographic and energy source restrictions.

**Exhibit 1**  
**RPS Compliance Costs and REC Prices**  
**2017-2022**

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
<b>Compliance Costs (\$ Millions)</b>						
Tier 1 Nonsolar RECs	\$50.0	\$56.4	\$79.3	\$99.8	\$187.3	\$246.5
Tier 1 Solar RECs	21.3	27.4	55.2	122.9	144.4	101.4
Tier 2 RECs	0.7	1.0	0.06	0.4	1.0	4.4
ACPs	<u>0.1</u>	<u>0.1</u>	<u>7.7</u>	<u>0.1</u>	<u>77.1</u>	<u>86.6</u>
<b>Total</b>	<b>\$72.1</b>	<b>\$84.9</b>	<b>\$142.3</b>	<b>\$223.2</b>	<b>\$409.8</b>	<b>\$438.8</b>
<b>Average REC Price (\$)</b>						
Tier 1 Nonsolar	\$7.14	\$6.54	\$7.77	\$8.24	\$14.36	\$17.80
Tier 1 Solar	38.18	31.91	47.26	66.10	72.59	57.80
Tier 2	0.48	0.66	1.05	1.06	6.45	7.42

ACP: alternative compliance payment  
REC: renewable energy credit  
RPS: Renewable Energy Portfolio Standard

Note: Numbers may not sum to total due to rounding. The vast majority of ACPs in 2021 and 2022 (\$76.9 million and \$85.9 million, respectively) were due to a shortfall of solar RECs.

Source: Public Service Commission

*Related Studies and Reports*

PSC must submit an RPS compliance report to the General Assembly each year. The most recent report, which contains historical data through 2022, can be found [here](#).

The Power Plant Research Program (PPRP) in the Department of Natural Resources has frequently been required to conduct RPS studies. PPRP submitted a final report on a comprehensive RPS study in December 2019, which can be found [here](#). PPRP also submitted a related required study on nuclear energy at that time, which can be found [here](#). A supplemental study on the overall costs and benefits of increasing the RPS to a goal of 100% by 2040 was due by January 1, 2024, but has been [delayed](#).

The Department of Legislative Services also issued a report on the RPS in 2023, which can be found [here](#). The report contains additional detail on the program, significant statutory changes, and visualizations of planned and actual RPS percentage requirements over time.