

Department of Legislative Services
 Maryland General Assembly
 2020 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 891 (Senators Hershey and Feldman)
 Education, Health, and Environmental Affairs

Environment - Solar Panel Stewardship Programs

This bill requires the Maryland Department of the Environment (MDE), by July 1, 2021, to develop and adopt guidelines for solar panel stewardship programs to guide manufacturers in developing, preparing, and implementing a self-directed program to ensure the convenient, safe, and environmentally sound takeback and recycling of out-of-service solar panels and their component materials. The bill establishes a timeline by which an affected manufacturer must submit, receive approval, and implement a solar panel stewardship plan in order to sell solar panels in the State. The bill also establishes minimum standards for solar panel stewardship plans, a civil penalty for violators, and annual reporting requirements. MDE may adopt implementing regulations.

Fiscal Summary

State Effect: General fund expenditures increase by \$40,000 in FY 2021 and by \$41,900 in FY 2022; in future years, MDE can implement the bill with existing resources. The bill’s penalty provision is not anticipated to materially affect State finances.

(in dollars)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	40,000	41,900	0	0	0
Net Effect	(\$40,000)	(\$41,900)	\$0	\$0	\$0

Note: () = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: The bill does not directly affect local government finances or operations; however, local governments could benefit to the extent the bill results in a decrease in solar panels disposed of in landfills.

Small Business Effect: Potential meaningful.

Analysis

Bill Summary:

Solar Panel Stewardship Program Guidelines and Plans

By July 1, 2021, MDE must develop and adopt the required guidelines by regulation. In developing the guidelines, MDE must work with manufacturers, stewardship organizations, and other stakeholders.

By January 1, 2022, or within 30 days before completing a first sale in or into the State, a manufacturer must prepare and submit a solar panel stewardship plan to MDE for review. Among other things, a solar panel stewardship plan must, at a minimum (1) conform to MDE guidelines; (2) apply to all solar panels sold by the manufacturer in or into the State beginning July 1, 2020; (3) provide for the acceptance of out-of-service solar panels at collection sites that are convenient for consumers; (4) describe specified information; and (5) establish performance goals.

MDE must (1) review each solar panel stewardship plan submitted and (2) approve a plan only if the plan meets the bill's requirements and the requirements set forth in the guidelines developed pursuant to the bill. A manufacturer may amend the plan at any time, subject to MDE approval.

Beginning January 1, 2022, a manufacturer is prohibited from selling or offering for sale a solar panel in the State unless the manufacturer (1) has an approved solar panel stewardship plan and (2) operates a solar panel stewardship program in accordance with the plan.

A manufacturer may designate a stewardship organization to act as the manufacturer's agent in implementing the plan, as specified. A manufacturer may not charge a fee to a consumer for the takeback and recycling of an out-of-service solar panel.

Required Reports

By July 1, 2022, and annually thereafter, a manufacturer or a manufacturer's stewardship organization must report to MDE on the implementation of the manufacturer's solar panel stewardship program. Each report must be posted to the manufacturer's website or the stewardship organization's website.

Civil Penalty

A person who violates the bill or regulations adopted pursuant to the bill is subject to a warning for a first violation and a civil penalty of up to \$1,000 for a second or subsequent violation.

Current Law/Background: Current law does not establish specific requirements for the disposal or recycling of solar panels. However, certain large solar projects must typically provide for decommissioning costs as part of the project approval process under the Public Service Commission. Small solar systems have no such requirement.

According to MDE, solar photovoltaic (PV) systems can have a life expectancy of around 30 years before being decommissioned. Recycling end-of-life solar PV systems conserves landfill capacity that would otherwise be occupied by bulky systems, reduces heavy metal contamination leaching from landfills, and recovers rare metals that are contained within solar PV systems. However, solar PV systems can be difficult to recycle; although many of the individual parts are easily recycled (*e.g.*, the metal framing, glass sheets, wires, and plexiglass), they must be deconstructed to recover the recyclable components, and each component needs to be recycled in a different way, making the process complex and expensive.

According to MDE, a 2016 study by the International Renewable Energy Agency estimated that \$15 billion could be recovered from recycling solar PV systems by calendar 2050. Additionally, according to the Product Stewardship Institute, the State of Washington passed the first solar panel extended producer responsibility (EPR) program in the United States in 2017. In Europe, solar panel EPR has been mandated under the Waste Electrical and Electronic Equipment Directive since 2013.

State Expenditures: General fund expenditures increase by \$39,992 in fiscal 2021, which accounts for the bill's October 1, 2020 effective date. This estimate reflects the cost of hiring one full-time contractual natural resources planner to (1) develop guidelines for solar panel stewardship programs; (2) conduct outreach to affected manufacturers, stewardship organizations, and other stakeholders; (3) implement the self-directed program; (4) adopt regulations; and (5) review and approve solar stewardship plans. It includes a salary, fringe benefits, one-time start-up costs, and ongoing operating expenses.

Contractual Position	1
Salary and Fringe Benefits	\$31,658
Operating Expenses	<u>8,334</u>
Total FY 2021 State Expenditures	\$39,992

Future year expenditures reflect an increase in the salary, ongoing operating expenses, and termination of the contractual employee in fiscal 2022 once the guidelines are developed and MDE has completed the initial plan reviews.

This estimate does not include any health insurance costs that could be incurred for specified contractual employees under the State's implementation of the federal Patient Protection and Affordable Care Act.

MDE can receive annual reports, review any amended plans, and review any *new* solar stewardship plans in the out-years with existing resources. This assumes that once approved, solar stewardship plans do not expire and MDE need not review them again unless they are amended. To the extent that solar stewardship plans must be reviewed on an ongoing basis, MDE may need to hire permanent staff or retain the contractual employee for a longer period of time, resulting in ongoing costs.

Small Business Effect: The bill may result in a meaningful increase in expenditures for any small businesses that must develop and implement solar stewardship plans under the bill. Additionally, there may be an impact on small businesses that sell, install, or maintain solar panels to the extent manufacturers do not have the required solar panel stewardship plans in place prior to January 1, 2022, when the bill's prohibition on the sale of solar panels by manufacturers without approved plans takes effect.

Any small businesses that provide solar panel collection and/or recycling services may benefit from increased business opportunities as a result of the bill.

Additional Information

Prior Introductions: None.

Designated Cross File: None.

Information Source(s): Maryland Department of the Environment; International Renewable Energy Agency; Product Stewardship Institute; Department of Legislative Services

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