

Department of Legislative Services
Maryland General Assembly
2018 Session

FISCAL AND POLICY NOTE
First Reader

House Bill 866
Economic Matters

(Delegates West and Stein)

Maryland Energy Administration - Study on Location of Solar Photovoltaic
Technologies

This bill requires the Maryland Energy Administration (MEA) to study the effect that an increase in the State's renewable energy portfolio standard (RPS), including the increase in the percentage of energy required to be from solar energy, will have on the State's reliance on energy from solar photovoltaic technologies. MEA must submit a report of its findings and recommendations to the Governor and the General Assembly by December 31, 2019. **The bill takes effect June 1, 2018.**

Fiscal Summary

State Effect: Special fund expenditures increase by as much as \$240,000 in FY 2019 only. Revenues are not affected.

Local Effect: None.

Small Business Effect: Minimal or none.

Analysis

Bill Summary: The study must include:

- a calculation of the number of acres of agricultural land likely to be developed by the installation of solar photovoltaic technologies for each 1% increase in the percentage of energy required to be from Tier 1 renewable sources;
- the development of alternative programs designed to (1) disincentivize the installation of solar photovoltaic technologies on productive agricultural land and

- (2) provide incentives that encourage the installation of solar photovoltaic technologies on the rooftops of industrial, business, and commercial buildings; the rooftops of multifamily dwellings; and canopies constructed over parking lots; and
- cost estimates for each of the alternative programs developed.

In conducting the study, MEA must solicit input from (1) the Maryland Department of Agriculture; (2) the Maryland Department of the Environment; (3) the Public Service Commission; (4) representatives of environmental advocacy organizations, land preservation organizations, and land development businesses; (5) Maryland citizens; (6) members of the General Assembly; and (7) other interested stakeholders.

Current Law/Background:

Renewable Energy Portfolio Standard

Maryland's RPS was enacted in 2004 to facilitate a gradual transition to renewable sources of energy. It operates on a two-tiered system with carve-outs for solar energy and offshore wind energy and corresponding renewable energy credits (REC) for each tier. Tier 1 sources include wind, geothermal, solar, and several others. Following the transfer of several sources to Tier 1, Tier 2 includes only large hydroelectric power plants. Legislation enacted in 2017 increased the Tier 1 percentage requirements from 20% by 2022 to 25% by 2020. The 2018 requirement is 15.8%, including 1.5% from solar.

Electric companies (utilities) and other electricity suppliers must submit RECs equal to a percentage specified in statute each year or else pay a penalty equivalent to their shortfall. Revenue from the penalties, which historically has been zero or minimal in any given year, accrues to the Strategic Energy Investment Fund (SEIF) and is used by MEA to support new Tier 1 renewable energy sources in the State.

Agricultural Land Area and Solar Facility Area

According to the *2012 Census of Agriculture*, Maryland has approximately 2.0 million acres of farmland, which is about one-third of the State. As of January 2018, there was approximately 958 megawatts of solar capacity in the State, which is more than the combined solar capacity of Delaware, Pennsylvania, Virginia, and West Virginia. While solar technology is rapidly evolving, a 2013 National Renewable Energy Laboratories report estimated the land required for solar facilities at about eight acres per megawatt. Continued advancements will increase the capacity per acre in the future.

Chapter 393 of 2017 RPS Study

Pursuant to [Chapter 393 of 2017](#), the Power Plant Research Program (PPRP) within the Department of Natural Resources is conducting a comprehensive study of the RPS. Chapter 393 requires the study to be a comprehensive review of the history, implementation, overall costs and benefits, and effectiveness of the RPS in relation to the energy policies of the State, covering various specified subjects. PPRP must submit an interim report by December 1, 2018, and a final report by December 1, 2019.

State Expenditures: Special fund (SEIF) expenditures increase by as much as \$240,000 in fiscal 2019 for MEA to hire an economic consulting firm with experience evaluating state RPS programs to conduct the study. This estimate is based on MEA's previous experience working with economic consultants and previous contracts to perform similar studies. MEA has limited capacity among its existing staff to devote to the study and does not have the energy economic expertise or access to economic modeling applications necessary to complete it. Existing staff are anticipated to perform data collection and other work to support the economic consultants' efforts, however.

It is assumed that all of the expenditures resulting from the bill are incurred in fiscal 2019, though a small portion of the expenditures could instead be incurred in fiscal 2020. No costs are expected to be incurred in fiscal 2018.

SEIF, which receives proceeds from the auction of carbon allowances under the Regional Greenhouse Gas Initiative, is the primary source of funding for MEA.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Maryland Energy Administration; Maryland Department of Agriculture; Maryland Department of the Environment; Public Service Commission; Department of Legislative Services

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nb/lgc

Analysis by: Scott D. Kennedy

Direct Inquiries to:
(410) 946-5510
(301) 970-5510