Department of Legislative Services

Maryland General Assembly
2018 Session

FISCAL AND POLICY NOTE
First Reader

House Bill 1453 (Delegate Frick, *et al.*)
Economic Matters

Clean Energy Jobs Act of 2018

This bill increases the State's Renewable Energy Portfolio Standard (RPS) from 25% by 2022 to 50% by 2030, reduces alternative compliance payments (ACPs), removes specified sources from eligibility, and makes related changes. The bill also modifies the existing offshore wind process to allow new applications beginning January 1, 2020, with maximum ratepayer impacts from projects approved after that date of $0.70 per month for an average residential customer and 0.7% for nonresidential customers. A total of up to $27.0 million is transferred from the Strategic Energy Investment Fund (SEIF) for specified purposes. An existing study being conducted by the Power Plant Research Program (PPRP) is modified to include additional topics and a supplemental study on a 100% RPS.

Fiscal Summary

State Effect: State expenditures (all funds) increase by $1.2 million in FY 2019, escalating to $3.0 million in FY 2023. General fund expenditures increase by $1.7 million in FY 2019 and by a minimum of $1.5 million annually thereafter. Special fund revenues/expenditures generally reflect required transfers and consultant costs. General fund revenues increase by $1.5 million in FY 2020 due to one of the required transfers.

($ in millions)	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
GF Revenue	$0	$1.5	$0	$0	$0
SF Revenue	$0	$3.6	$3.6	$1.6	$1.6
GF Expenditure	$1.7	$2.4	$1.7	$1.5	$1.5
SF Expenditure	$0	$3.6	$3.6	$1.6	$1.6
GF/SF/FF Exp.	$1.2	$2.4	$2.8	$2.8	$3.0
Net Effect	($2.8)	($3.4)	($4.5)	($4.2)	($4.4)

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

Local Effect: Local expenditures increase beginning in FY 2019 due to higher electricity prices. Revenues are not materially affected.

Small Business Effect: Meaningful.

Analysis

Bill Summary:

RPS Increase to 50% and ACP Reductions

Minimum RPS percentage requirements are increased beginning in 2019 and escalate to 50% by 2030, as shown in **Exhibit 1**. Associated ACPs are reduced beginning in that same year; by 2029, solar and nonsolar ACPs reach parity at $22.50 per megawatt-hour. Waste-to-energy and refuse-derived fuel are removed as eligible sources, effective January 1, 2019.

Exhibit 1
Annual RPS Specifications
Under the Bill

	Percentage of Retail Sales				Alternative Compliance Payments[1]			
	The Bill		Current Law		The Bill		Current Law	
Year	**Total[2]**	**Solar**	**Total**	**Solar**	**Total**	**Solar**	**Total**	**Solar**
2019	26.20%	5.50%	20.40%	1.95%	$30.00	$100.00	$37.50	$150.00
2020	28.00%	6.00%	25.00%	2.50%	30.00	$100.00	37.50	$125.00
2021	30.05%	6.75%	25.00%	2.50%	30.00	$90.00	37.50	100.00
2022	31.85%	7.25%	25.00%	2.50%	30.00	$70.00	37.50	75.00
2023	34.65%	8.75%	25.00%	2.50%	30.00	$50.00	37.50	60.00
2024	37.45%	10.25%	25.00%	2.50%	27.50	$42.50	37.50	50.00
2025[3]	40.00%	11.50%	25.00%	2.50%	25.00	$35.00	37.50	50.00
2026	42.50%	12.50%	25.00%	2.50%	24.50	$30.00	37.50	50.00
2027	45.50%	13.50%	25.00%	2.50%	24.50	$25.00	37.50	50.00
2028	47.50%	14.50%	25.00%	2.50%	22.50	$25.00	37.50	50.00
2029	49.50%	14.50%	25.00%	2.50%	22.50	$22.50	37.50	50.00
2030+	50.00%	14.50%	25.00%	2.50%	22.50	$22.50	37.50	50.00

[1]Dollars per megawatt-hour.

[2]Total columns include solar and offshore wind percentage requirements.

[3]The maximum offshore wind percentage requirement is increased from 2.5% to 10% beginning in 2025.

ACP revenue must still be used to support new renewable energy sources in the State, but, under the bill, the renewable energy sources also must be owned by or directly benefit low-income residents.

New Offshore Wind Applications

The existing offshore wind application and approval process is modified to allow new applications beginning January 1, 2020, with maximum ratepayer impacts from projects approved after that date of $0.70 per month (in 2017 dollars) for an average residential customer (1,000 kilowatt-hours per month) and 0.7% for nonresidential customers. The process is generally the same, except:

- the ratepayer impacts are in addition to the $1.50/1.5% residential/nonresidential monthly maximums allowed under the existing process;
- the maximum amount that can be paid under a proposed offshore renewable energy credit price schedule is $130 per megawatt-hour in 2017 dollars, instead of $190 in 2012 dollars; and
- projects must be located 15 to 80 miles off the coast of the State, instead of 10 to 30 miles.

SEIF Transfers for Various Clean Energy Initiatives

The Maryland Energy Administration (MEA) must use SEIF to provide $17.28 million in funding for access to capital for small, minority, women, and veteran-owned businesses in the clean energy industry under the Small, Minority, and Women-owned Businesses Account (SMWOBA) in Commerce. The funding must be allocated in annual increments through 2030. A related authorization (as opposed to the bill's requirement) is repealed.

MEA must also use SEIF to invest in pre-apprenticeship, apprenticeship, and other workforce development programs to establish career paths in the clean energy industry under the Maryland Employment Advancement Right Now (EARN) program. Up to $1.0 million each year, for two years, must be provided to both (1) apprenticeship sponsors to create clean energy apprenticeships and (2) career and technical schools to launch and upgrade relevant programs. The Clean Energy Workforce Account is established in the EARN program to receive the transfers, and a related reporting requirement is altered to incorporate the outcomes of the funding.

Finally, MEA must use SEIF to provide $5.72 million for tax credits provided to eligible businesses that create apprenticeships under the More Jobs for Marylanders Program.

RPS Study Expansion and Supplemental Report

An existing PPRP study on RPS required by Chapter 393 of 2017 is expanded to include additional impacts related to in-state clean energy generation as an increasing percentage of RPS. After submission of the final report, which is required under the Act to be submitted by December 1, 2019, PPRP must conduct a supplemental study to assess the overall costs and benefits of increasing the RPS to 100%. Particular subjects must include (1) all relevant subjects listed for the original study and (2) an assessment of whether certain in-state industries could be displaced by a 100% RPS, with recommendations on how to transition workers and communities that rely on those industries. By December 1, 2020, PPRP must submit a final report on the supplemental study, including related recommendations.

Current Law/Background:

Renewable Energy Portfolio Standard – Generally

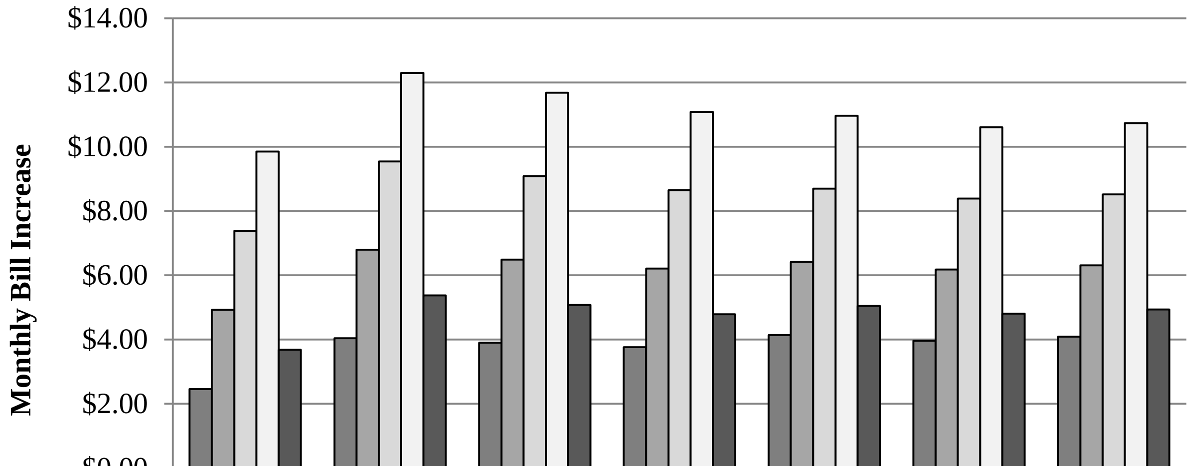
Maryland's RPS was enacted in 2004 to facilitate a gradual transition to renewable sources of energy. It operates on a two-tiered system with carve-outs for solar energy and offshore wind energy and corresponding renewable energy credits (RECs) for each tier. Tier 1 sources include wind, geothermal, 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.

In 2017, the Public Service Commission (PSC) approved two offshore wind projects through the process established in current law, which combined are estimated to produce almost the statutory maximum of 2.5% when they are both operational. The amounts count toward the overall Tier 1 requirements in a given year.

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

A range of potential average residential customer bill increases (1,000 kilowatt-hours per month) for the existing 25% RPS is shown in **Exhibit 2**. The amounts are adjusted to reflect net costs associated with approved offshore wind projects beginning in 2020. The Department of Legislative Services (DLS) notes that while prices in the exhibit are expressed as a percentage of ACP, in a functioning market, ACP is not the sole determinant of REC prices. In addition to costs shown as a percentage of ACP, potential costs are also shown using a fixed REC price of $12 because average nonsolar REC prices have stabilized in recent years between $11 and $13.

Exhibit 2
Existing RPS: Average Residential Customer Monthly Bill Effect by REC and SREC Prices as Percent of ACP
Calendar 2019-2025+



	2019	2020	2021	2022	2023	2024	2025+
25% ACP	$2.46	$4.04	$3.90	$3.76	$4.14	$3.96	$4.09
50% ACP	$4.92	$6.79	$6.49	$6.20	$6.41	$6.17	$6.31
75% ACP	$7.38	$9.54	$9.08	$8.64	$8.69	$8.39	$8.52
100% ACP	$9.84	$12.29	$11.68	$11.08	$10.96	$10.60	$10.73
$12 REC*	$3.68	$5.37	$5.07	$4.78	$5.05	$4.80	$4.94

25% ACP 50% ACP 75% ACP 100% ACP $12 REC*

Note: The average residential customer uses 1,000 kilowatt-hours per month.

*Costs for a fixed $12 REC price, with an SREC price of 50% of ACP in that year.

ACP = Alternative Compliance Payment
REC = Renewable Energy Credit
SREC = Solar Renewable Energy Credit

Source: Department of Legislative Services

SEIF

Chapters 127 and 128 of 2008 established SEIF primarily to receive revenue from Regional Greenhouse Gas Initiative (RGGI) carbon dioxide emission allowance auctions. The Acts also established an allocation of the revenue from the quarterly RGGI carbon dioxide emission allowance auctions to be distributed among various categories of spending. Other revenue in SEIF available from different fund sources is not subject to the allocation.

Generally, RGGI funds in SEIF support (1) energy assistance programs; (2) low- and moderate-income energy efficiency and other energy efficiency programs, (3) renewable energy, climate change, resiliency, and energy education programs; and (4) MEA administrative expenses. A detailed discussion of the funding allocations for SEIF can be found in the 2018 budget analysis for MEA on the DLS website.

EARN Program

The EARN program was established in 2013 to create industry-led partnerships to advance the skills of the State's workforce, grow the State's economy, and increase sustainable employment for working families. Specifically, the program provides general fund grants on a competitive basis for industry partnerships, workforce training programs, and job-readiness and skills training.

Small, Minority, and Women-owned Businesses Account

State Law generally requires that 1.5% of video lottery terminal proceeds at each licensed video lottery facility be paid into SMWOBA. The account, which was established in 2007, is a special, nonlapsing fund that is administered by Commerce. The purpose of the account is to provide investment capital and loans to small, minority, and women-owned businesses in the State. At least 50% of such activity must be allocated to eligible businesses in the jurisdictions and communities surrounding a video lottery facility.

Apprenticeship Tax Credits

Chapter 149 of 2017 established the More Jobs for Marylanders Program, which, among other changes, established a $1,000 State income tax credit for individuals or corporations who employ an apprentice for at least seven months during a taxable year in a registered apprenticeship program. The Department of Labor, Licensing, and Regulation (DLLR) may approve tax credits of up to $500,000 annually through fiscal 2020.

Power Plant Research Program

PPRP in the Department of Natural Resources (DNR) was created in 1971 to conduct research on the impacts of existing and proposed power plants in each county. PPRP is required to undertake a continuing research program for electric power plant site evaluation and related environmental and land use considerations. PPRP is funded through an assessment on electricity used in the State, which accrues to the Environmental Trust Fund (ETF).

State Fiscal Effect: State expenditures (all funds) increase by $1.2 million in fiscal 2019, escalating to $3.0 million by fiscal 2023, and significantly thereafter, due to higher electricity costs, as discussed below. General fund administrative expenditures for PPRP increase by $1.7 million in fiscal 2019, $2.4 million in fiscal 2020, $1.7 million in fiscal 2021, and $1.5 million annually in fiscal 2022 and 2023.

Special fund expenditures for the Office of People's Counsel increase by $75,000 annually in fiscal 2020 and 2021 for expert witnesses in anticipated offshore wind application hearings. Special fund revenues increase correspondingly from assessments imposed on public service companies.

Transferring funds from SEIF for other purposes does not affect overall SEIF revenues or expenditures. However, individual programs currently funded by SEIF may receive less revenue. Special fund revenues and expenditures for Commerce and DLLR increase correspondingly to reflect the transfers. The required transfer to the Comptroller for the apprenticeship tax credit results in an increase in general fund revenues, as discussed below.

Special fund revenues and corresponding expenditures for the Maryland Offshore Wind Business Development Fund (MOWBDF) increase by at least $6.0 million for each new offshore wind project approved by PSC. The exact amount and potential timing of such revenues is unknown.

PSC, DLLR, Commerce, and the Comptroller can handle the bill's requirements with existing budgeted resources.

Electricity Costs

The incremental cost associated with the bill is absorbed by all electric customers in the State. As an electric customer, State agencies and the University System of Maryland use approximately 1.5 million megawatt-hours of electricity annually. Assuming that RECs are $12 and solar RECs (SRECs) cost 50% of the applicable ACP in each year, the bill increases State expenditures (all funds) by about $1.2 million in fiscal 2019, $2.4 million in fiscal 2020, $2.8 million in fiscal 2021, $2.8 million in fiscal 2022, and $3.0 million in fiscal 2023. This reflects a rate increase of about $1.40 to $1.85 per megawatt-hour. DLS notes that an average residential customer uses approximately that amount of energy per month.

The costs reflect the following additional assumptions: (1) PSC does *not* waive solar compliance costs beyond 2.5% of retail sales; (2) sufficient RECs and SRECs are available in each year; and (3) no new offshore projects receive payments through 2025.

PPRP

The bill has several separate effects on PPRP in DNR. First, PPRP must evaluate proposed solar electric generating facilities as part of the existing Certificate of Public Convenience and Necessity (CPCN) process. To meet the enhanced solar requirement under the bill, PPRP estimates an additional 25 to 30 CPCN applications must be filed each year at an estimated cost of $1.3 million to $1.5 million annually. PPRP also requires two additional staff to handle the increased volume.

PPRP must also modify an existing study, at an estimated cost of $20,000 in fiscal 2019, and conduct a supplemental study, at an estimated cost of $750,000 in fiscal 2020. DLS cannot independently verify this amount.

Absent sufficient general funds to conduct additional CPCN analyses, hire staff, and conduct the additional studies, either funds in ETF are redirected from existing projects or PPRP is unable to meet some of the bill's requirements. Therefore, general fund expenditures for DNR (PPRP) increase by $1,673,069 in fiscal 2019. This estimate reflects the cost of hiring two staff, effective October 1, 2018, to handle the additional volume of solar CPCNs. It includes salaries, fringe benefits, one-time start-up costs, ongoing operating expenses, and costs associated with additional CPCN evaluations and the modified study.

Positions	2
Salaries and Fringe Benefits	$142,351
CPCN Evaluation Costs	1,500,000
Modified Study Costs	20,000
Other Operating Expenses	10,718
Total FY 2019 DNR Expenditures	**$1,673,069**

Future year expenditures of $2.4 million in fiscal 2020, $1.7 million in fiscal 2021, and $1.5 million annually in fiscal 2022 and 2023 reflect full salaries with annual increases and employee turnover, ongoing operating expenses, the costs of the supplemental study in fiscal 2020, and continued CPCN evaluation costs.

SEIF Transfers

Transferring funds from SEIF for other purposes does not affect overall SEIF revenues or expenditures. However, individual programs currently funded by SEIF may receive less revenue. The bill does not specify when the transfers must occur. For purposes of this fiscal and policy note, it is assumed that the SEIF transfers do not begin until fiscal 2020.

The bill specifies that $27.0 million in total must be transferred. DLS notes that the apprenticeship tax credit, which receives $5.72 million in funding under the bill, can reduce State revenue by up to $1.5 million under current law; therefore, it is assumed that the remaining $4.22 million remains in SEIF. Under this assumption, a total of $22.78 million is transferred from SEIF beginning in fiscal 2020: $17.28 million to SMWOBA in Commerce; $4.0 million to the EARN program in DLLR; and $1.5 million to the Comptroller's Office to fund the apprenticeship tax credits. Annual transfers are shown in **Exhibit 3**. Special fund revenues and expenditures for Commerce and DLLR increase correspondingly to reflect the transfers. It is assumed that the transfer to the Comptroller for the apprenticeship tax credit increases general fund revenues in fiscal 2020 by the total amount authorized for the credit under current law.

Exhibit 3
Strategic Energy Investment Fund Transfers
Fiscal 2020-2023
($ Millions)

	FY 2020	FY 2021	FY 2022	FY 2023
SMWOBA	$1.57	$1.57	$1.57	$1.57
EARN	2.00	2.00	0	0
Apprenticeship Tax Credit	1.50	0	0	0
Total	**$5.07**	**$3.57**	**$1.57**	**$1.57**

SMWOBA = Small, Minority, and Women-Owned Businesses Account
EARN = Maryland Employment Advancement Right Now

Source: Department of Legislative Services

Offshore Wind Approvals

Part of the application process for new offshore wind projects requires applicants to deposit a minimum of $6.0 million in MOWBDF. Therefore, special fund revenues and corresponding expenditures for MOWBDF increase by at least $6.0 million for each offshore wind project approved by PSC. The exact amount and potential timing of such revenues is unknown.

Small Business Effect: Small businesses incur higher electricity prices under the bill beginning in fiscal 2019. However, the bill also creates demand for solar and other renewable energy technology installations. Small businesses in this industry benefit from increased demand to design, build, install, and maintain renewable energy systems under the bill. Small businesses may also benefit from additional funding and qualified employees made available through the SEIF transfers in the bill.

Additional Information

Prior Introductions: None.

Cross File: SB 732 (Senator Feldman, *et al.*) - Finance.

Information Source(s): Public Service Commission; Maryland Energy Administration; Office of People's Counsel; Department of Natural Resources; Maryland Department of the Environment; Department of Labor, Licensing, and Regulation; Department of Commerce; Comptroller's Office; Montgomery County, City of Takoma Park; Department of Legislative Services

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