LEGISLATIVE FISCAL ESTIMATE
ASSEMBLY, No. 3723
STATE OF NEW JERSEY
218th LEGISLATURE

DATED: APRIL 23, 2018

SUMMARY

Synopsis: Establishes and modifies clean energy and energy efficiency programs; modifies State's solar renewable energy portfolio standards.

Types of Impact: Annual increase in expenditures for State and local government entities; and annual State revenue and expenditure increases.

Agencies Affected: All State and local government entities;
Board of Public Utilities;
New Jersey Economic Development Authority;
Department of Labor and Workforce Development.

Office of Legislative Services Estimate

Fiscal Impact	Annual Impact
State Expenditure Increase	Indeterminate
State Revenue Increase	Indeterminate
State Revenue Decrease	Indeterminate
Local Expenditure Increase	Indeterminate

- The Office of Legislative Services (OLS) cannot determine whether the bill will have a positive or negative fiscal net impact on the State and local governments. The inability to determine the direction and magnitude of the fiscal net impact is rooted in a lack of information regarding multiple provisions in the bill that have counteracting fiscal effects.

- This bill will result in an indeterminate increase in State and local expenditures from higher retail prices for electricity. The amount of the price increase attributable to the bill is contingent, in part, on implementing decisions to be made by the Board of Public Utilities (BPU), which the OLS cannot anticipate.

The increase in the price of electricity will also yield indeterminate additional State revenues, given that the increase paid by all ratepayers will be subject to the State sales and use tax.

- The State will incur an indeterminate revenue loss from the bill's reauthorization of a tax credit program in support of the development of offshore wind energy generation facilities.

- The bill will result in additional indeterminate administrative costs to certain Executive departments and agencies related to conducting studies, publishing reports, and establishing and overseeing new programs.

BILL DESCRIPTION

The bill amends and supplements various sections of statutory law with the intent of increasing statewide energy efficiency and the use of renewable energy sources in the generation of electricity consumed in this State.

The bill requires the BPU to conduct an energy storage analysis and submit a written report to the Governor and the Legislature within one year after the date of enactment of the bill. No later than six months after report completion, the BPU is to initiate a proceeding to establish a process and mechanism for achieving the goal of 600 megawatts of energy storage by 2021 and 2,000 megawatts of energy storage by 2030.

The bill establishes a three-phase schedule to increase to 50 percent by energy year 2030 the percentage of the kilowatt-hours of electricity sold in the State by each electric power supplier and each basic generation service provider that must be from Class I renewable energy sources. Under N.J.A.C.14:8-2.3, the percentage is currently increasing annually to 17.88 percent in energy year 2021 with the BPU required to set targets for each energy year thereafter that cannot be less than 17.88 percent. The bill imposes a cap, excluding the costs of the offshore wind renewable energy certificate program (see below), on the cost to customers for those requirements. The cap equals nine percent of total electricity sales to retail customers in the State for three energy years beginning in energy year 2019, and seven percent thereof in any year thereafter. Class I renewable energy sources are solar technologies, photovoltaic technologies, wind energy, fuel cells, geothermal technologies, wave or tidal action, small-scale hydropower facilities, and methane gas from landfills or a biomass facility.

The bill also modifies the BPU-administered solar renewable energy certificate (SREC) program, the market-based trading mechanism that allows electric power suppliers and basic generation service providers to satisfy their solar obligations through the purchase of SRECs from solar power generators. The bill increases the annual percentage of the kilowatt-hours of electricity sold in the State by each electric power supplier and each basic generation service provider that must be from solar energy sources through energy year 2027 with the required annual percentages declining below current law starting in energy year 2028. The bill also lowers solar alternative compliance payments (SACP), which function as a de facto cap on the price of SRECs, beginning in energy year 2019 until energy year 2028, and extends the SACP schedule for five more years through energy year 2033. The bill further requires the BPU to complete a study that evaluates how to modify or replace the current SREC program. The BPU is also required to adopt rules and regulations that will close the SREC program to new applications once solar electric power constitutes 5.1 percent of the kilowatt-hours sold in the State by each electric power supplier and each basic generation service provider.

In addition, the bill increases from 1,100 to 3,500 megawatts the capacity target for qualified offshore wind projects. As under current law, the bill requires the BPU to operate an offshore wind renewable energy certificate (OREC) program to provide incentives for industry to install the needed capacity.

Further, the BPU is to adopt an energy efficiency program that requires each electric public utility and gas public utility to implement energy efficiency and peak demand measures intended to reduce electricity or natural gas usage in its service territory. The BPU is to review the utilities' performance against quantitative performance indicators each year. The utilities are to recover the cost of implementing the energy efficiency and peak demand reduction programs, including any associated revenue loss, through the BPU rate-setting process.

This bill establishes the "Community Solar Energy Pilot Program" to permit customers of an electric public utility to participate in a solar energy project that is remotely located from their properties, but is within their utility's service territory. The program allows for a credit to concerned customers' utility bills equal to the electricity generated that is attributed to the customers' participation in the solar energy project. No later than 36 months after the adoption of regulations establishing the pilot program, the BPU is to convert the pilot program to a permanent program.

The bill requires the BPU to establish an application and approval process to certify public entities to act as a host customer for remote net metering generating capacity. A public entity certified to act as a host customer may allocate credits to other public entities within the same utility service territory. A public entity certified to act as a host customer may host a solar energy project with a capacity up to the total average usage of the utility accounts for the host public entity customer.

The bill revises the application deadline for certain tax credits for qualified wind energy projects from August 1, 2016 to July 1, 2024. While the program makes up to $100 million in tax credits newly available to qualified applicants, the New Jersey Economic Development Authority may award additional tax credits to meritorious offshore wind projects.

The bill also requires the Department of Labor and Workforce Development to establish offshore wind energy equipment manufacturing and servicing job training programs through Workforce Investment Boards, county colleges, and other appropriate institutions.

FISCAL ANALYSIS

EXECUTIVE BRANCH

None received.

OFFICE OF LEGISLATIVE SERVICES

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This bill will result in an indeterminate increase in State and local expenditures from higher retail prices for electricity. The amount of the price increase attributable to the bill is contingent, in part, on implementing decisions to be made by the BPU, which the OLS cannot anticipate.

The increase in the price of electricity will also yield indeterminate additional State revenues, given that the increase paid by all ratepayers will be subject to the State sales and use tax.

The State will also incur an indeterminate revenue loss from the bill's reauthorization of a tax credit program in support of the development of offshore wind energy generation facilities.

The OLS further notes that the bill will result in additional indeterminate administrative costs to certain Executive departments and agencies related to conducting studies, publishing reports, and establishing and overseeing new programs.

Energy Storage: The bill requires the BPU to conduct an energy storage analysis and submit a written report to the Governor and the Legislature concerning the energy storage needs and opportunities in the State no later than one year following the bill's date of enactment. In addition, the BPU is required to initiate a proceeding to establish a process and mechanism for achieving 600 megawatts of energy storage capacity by 2021 and 2,000 megawatts of energy storage capacity by 2030.

The OLS finds that these provisions may increase BPU administrative costs. These costs will depend on BPU operating decisions, which the OLS cannot anticipate.

While it is not clear what specific process and mechanism the BPU would establish to achieve the energy storage goals, if the mechanism were to require electric energy generators or utilities to incur additional capital improvement costs, those costs would likely be passed on to the State's ratepayers, which include State and local government entities, in the form of higher retail prices for electricity.

Class I Renewable Energy Certificates: The BPU requires a gradually increasing percentage of kilowatt-hours of electricity sold in this State by each electric power supplier or basic generation service provider to be from Class I renewable energy sources each energy year. This requirement is referred to as the Class I renewable portfolio standard (Class I RPS). Electric power suppliers and basic generation service providers may meet these requirements by submitting Class I renewable energy certificates (Class I REC), which represent one megawatt-hour (MWh) of renewable energy generated and delivered to the utility grid. If a supplier or provider is not in compliance for an energy year, the supplier or provider must remit an alternative compliance payment (ACP) for the number of Class I RECs that were required but not submitted. The BPU determines the price of the ACP for each energy year, which has been set at $50.00 per MWh since energy year 2004.

Owners of excess Class I RECs typically sell those credits through market-based trading programs to other electric power suppliers or basic generation service providers. The ACP acts as a ceiling for the price of a Class I REC and Class I RECs tend to trade much lower than the ACP. Specifically, in energy year 2016, the BPU's NJ RPS Compliance History report states that the estimated year-end weighted average price for a Class I REC was $15.18 and for energy year 2017 the price was $12.12.

The BPU's NJ RPS Compliance History report shows that energy year 2017 total retail electricity sales were 75,031,955 MWh. That year's Class I RPS requirement was 10.485 percent (7,867,100 MWh). Based on this target and an estimated year-end weighted average price of $12.12 for Class I RECs, the estimated Class I RPS expenditure by electric power suppliers and basic generation service providers for energy year 2017 was $95.6 million.

Under current law, Class I RPS requirements are scheduled to peak at 17.88 percent in energy year 2020 and remain at that level until energy year 2027. However, the bill sets the Class I RPS target at 21 percent for energy year 2020, 35 percent for energy year 2025, and 50 percent for energy year 2030.

Assuming for energy year 2020 that the retail sales volume will remain at roughly 75,000,000 MWh, that the price of a Class I REC will remain at roughly $13.00 and that the Class I RPS requirement will be 17.88 percent, the estimated Class I RPS expenditures for energy year 2020 under current law would be $174.3 million. Current law maintains the 17.88 percent requirement for energy years subsequent to energy year 2020.

If the energy year 2020 Class I RPS requirement is set at 21 percent, and the Class I REC price increases to an assumed $18.00 due to an increase in the number of Class I RECs required to be retired (15,750,000 MWh under the bill based on 75,000,000 MWh in total retail sales), the estimated Class I RPS expenditures by electric power suppliers and basic generation service providers for energy year 2020 would be $283.5 million, or an increase of $109.2 million over the estimated current statutory cost.

If the energy year 2025 Class I RPS requirement is set at 35 percent, and the Class I REC price increases to an assumed $22.00 due to an increase in the number of Class I RECs required to be retired (26,250,000 MWh under the bill based on 75,000,000 MWh in total retail sales), the estimated Class I RPS expenditures by electric power suppliers and basic generation service providers for energy year 2025 would be $577.50 million, or an increase of $403.2 million over the estimated current statutory cost.

If the energy year 2030 Class I RPS requirement is set at 50 percent, and the Class I REC price increases to an assumed $24.00 due to an increase in the number of Class I RECs required to be retired (37,500,000 MWh under the bill based on 75,000,000 MWh in total retail sales), the estimated Class I RPS expenditures by electric power suppliers and basic generation service providers for energy year 2030 would be $900.0 million, or an increase of $725.7 million over the estimated current statutory cost.

The costs associated with increasing the Class I RPS targets would be passed on to the State's ratepayers, which include State and local government entities, and would increase the retail price of electricity. The OLS cannot determine the percentage of the total cost that will be borne by State and local governments because of a lack of data on their electricity consumption.

Solar Renewable Energy Certificates, Solar Alternative Compliance Payments, and Certain Solar Projects: The BPU requires a gradually increasing percentage of kilowatt-hours of electricity sold in this State by each electric power supplier or basic generation service provider to be from solar power each energy year. This requirement is referred to as the solar renewable portfolio standard (solar RPS). Electric power suppliers and basic generation service providers may meet their requirements by submitting solar renewable energy certificates (SREC), which represent one MWh of solar electricity generated and delivered to the utility grid. If a supplier or provider is not in compliance for an energy year, the supplier or provider must remit a solar alternative compliance payment (SACP) for the number of SRECs that were required, but not submitted. The price of the SACP for each energy year is set in statute.

Owners of excess SRECs typically sell those certificates through market-based trading programs to electric power suppliers or basic generation service providers that have yet to comply with the solar RPS targets. The SACP acts as a ceiling for the price of an SREC and SRECs tend to trade lower than the SACP. Specifically, in energy year 2016, the BPU's NJ RPS Compliance History report states that the estimated year-end weighted average price for an SREC was $225.85 ($323.00 SACP) and for energy year 2017 the price was $220.35 ($315.00 SACP).

The BPU's NJ RPS Compliance History report shows that energy year 2017 total retail electricity sales were 75,031,955 MWh. That year's solar RPS requirement was 3.00 percent (2,250,960 MWh). Based on this target and an estimated year-end weighted average price of $220.35 for SRECs, the estimated solar RPS expenditure by electric power suppliers and basic generation service providers for energy year 2017 was $496.0 million.

Currently, as an example, solar RPS requirements are set at 3.38 percent in energy year 2020 and 3.83 percent in energy year 2025. However, the bill sets the solar RPS target at 4.90 percent for energy year 2020 and at 4.80 percent for energy year 2025.

Utilizing the same methodology as discussed in calculating the Class I REC cost and assuming a $215.00 SREC price, if the solar RPS requirement is to remain at 3.38 percent for energy year 2020 and 3.83 percent for energy year 2025, the estimated solar RPS expenditure by electric power suppliers and basic generation service providers for energy year 2020 would be $545.0 million and for energy year 2025 would be $617.6 million.

If the energy year 2020 solar RPS requirement is set at 4.9 percent, and the SREC price increases to an assumed $235.00 due to an increase in the number of Class I RECs required to be retired (3,675,000 MWh under the bill based on 75,000,000 MWh in total retail sales), the estimated solar RPS expenditure by electric power suppliers and basic generation service providers for energy year 2020 would be $863.6 million, or an increase of $318.6 million over the estimated current statutory cost.

If the energy year 2025 solar RPS requirement is set at 4.8 percent, and the SREC price declines to an assumed $195.00 due to a decrease in the SACP to $208.00, the estimated solar RPS expenditure by electric power suppliers and basic generation service providers for energy year 2025 would be $702.0 million, or an increase of $84.4 million over the estimated current statutory cost.

The OLS points out that, under the bill, the SREC program is slated to close to new applicants upon the attainment of a solar RPS of 5.1 percent, which, based on the current solar RPS schedule in the bill, should occur in energy year 2021. The closing of the SREC program may reduce the supply of future SRECs; however, following energy year 2022, the solar RPS schedule declines annually until energy year 2033, which has a solar RPS target of 1.1 percent. Thus, the decrease in supply may not affect SREC prices after energy year 2022 since the demand for SRECs will fall as the solar RPS targets decline.

The costs associated with increasing the solar RPS targets would likely be passed on to the State's ratepayers, which include State and local government entities, and would increase the retail price of electricity. The OLS cannot determine the percentage of the total cost that will be borne by State and local governments because of a lack of data on their electricity consumption. The OLS notes that the costs to the State's ratepayers would likely decrease after energy year 2023 as the solar RPS target declines and the SACP price is reduced, which sets the ceiling for the price of an SREC.

The bill also requires the BPU to complete a study no later than two years after the enactment of the bill which evaluates how to modify or replace the SREC program and a report is required to be submitted to the Governor and the Legislature. The OLS finds that this provision may increase BPU administrative costs. These costs will depend on BPU operating decisions, which the OLS cannot anticipate.

The bill further requires the BPU to decide on any application for designation of a solar electric power generated facility as connected to the distribution system filed with the BPU. Applicants are required to post a notice escrow with the board not to exceed $40,000. The notice escrow is reimbursed to the applicant upon the denial of the application or the commencement of the commercial operation of the solar electric power generation facility. If an applicant's facility is designated as connected to the distribution system, but the applicant fails to commence commercial operation within two years following the date of the designation, the escrow amount is forfeited to the State. Any escrow amounts forfeited to the State will be a State revenue gain.

Renewable Energy Cap: The bill imposes a cap, excluding the costs of the currently inoperative offshore wind renewable energy certificate program, on the cost to ratepayers for the Class I renewable energy requirements. Specifically, the cap is set at nine percent of total electricity sales to all customers in the State for energy years 2019, 2020, and 2021, and at seven percent thereof in any subsequent energy year.

Based on calendar year 2016 data from the U.S. Energy Information Administration, the total paid for electricity by all customers in the State was approximately $10.0 billion. Assuming that the total remains at roughly $10.0 billion in energy years 2019, 2020, and 2021, the cap would be set at roughly $900.0 million, or nine percent of the total paid for electricity by all customers, for each of those energy years. For energy years thereafter, the annual cap would be set at roughly $700.0 million, or seven percent of the total paid for electricity by all customers. As noted previously, the Class I RPS expenditure for energy year 2017 was approximately $95.6 million and the solar RPS expenditure approximately $496.0 million. Thus, the energy year 2017 Class I RPS expenditure and the solar RPS expenditure combined totaled $591.6 million, or about six percent of the total paid for electricity by all customers in the State.

Given the increased requirements under the bill, the OLS projects that the cap will likely be applied in certain energy years to limit the cost of the bill. Whether the cap will be applied in any given energy year, however, will depend on numerous variables that contribute to total electricity sales in the State, the cost of SRECs, and the cost of Class I RECs.

For example, utilizing the OLS' energy year 2020 calculations for projected Class I RPS expenditures ($283.5 million) and solar RPS expenditures ($863.6 million) under the bill, total expenditures to satisfy the bill's Class I renewable energy requirement could reach $1.15 billion, or roughly $247.1 million above the projected $900.0 million cap in energy year 2020. As a result of potentially exceeding the cap in energy year 2020, the BPU would have to take any steps necessary, including adjusting the Class I renewable energy requirement, to limit the cost to ratepayers to the cap amount. Any decision by the BPU to modify the Class I renewable energy requirement will reduce the impact of the bill on State and local governments.

Offshore Wind Requirements and Tax Credits: P.L.2010, c.57, designated as the "Offshore Wind Economic Development Act," established an offshore wind renewable energy certificate (OREC) program and authorized the New Jersey Economic Development Authority (EDA) to provide tax credits for qualified wind energy facilities in wind energy zones. No ORECs or offshore wind tax credits have been issued to date.

The OREC law requires a percentage of the kilowatt-hours of electricity sold in this State by each electric power supplier and each basic generation service provider to be from offshore wind energy. The percentage must be sufficient to support at least 1,100 megawatts of generation from qualified offshore wind projects. The bill increases this amount to 3,500 megawatts of generation. This increase will require electric power suppliers and basic generation service providers to purchase a greater number of ORECs than they would have to purchase under current law, resulting in potentially higher electricity costs to the State's ratepayers, including State and local governments. The OLS cannot quantify the fiscal impact of the OREC program because the bill and existing law delegate the setting of implementation parameters to the BPU and the OLS cannot anticipate BPU decisions in that regard.

In addition, pursuant to the act, a tax credit program was established by the EDA to provide $100.0 million in corporation business tax credits for the development of qualified wind energy facilities in wind energy zones. The program required applications to be submitted by August 1, 2016, and supporting documentation to be submitted by August 1, 2019. The EDA did not award a tax credit under the program. The bill reauthorizes the program by requiring applications to be submitted by July 1, 2024 and supporting documentation to be submitted by July 1, 2027.

The OLS notes that the reauthorization of the tax credit program may result in the approval of tax credits, which are equal to 100 percent of a business's capital investment in a qualified wind energy facility located within an eligible wind energy zone, which would have otherwise not been awarded since the program had previously sunset. The OLS further notes that the direct

revenue loss to the State may exceed $100.0 million since the EDA may exceed the cap if it deems additional qualified offshore wind projects to be meritorious.

Energy Efficiency Programs: The bill requires each electric public utility and gas public utility to reduce the use of electricity, or natural gas, within its territory by its customers. Each electric public utility is required to achieve annual reductions in the use of electricity of two percent of the average annual usage in the prior three years within five years of the implementation of the electric public utility's energy efficiency program, while each natural gas public utility is required to achieve annual reductions in the use of natural gas of 0.75 percent over the same time period. The BPU is required to conduct a study no later than one year after the bill's date of enactment to determine higher energy savings targets, provided that the higher targets are consistent with the economic, cost-effective potential for usage and peak demand reductions. Further, the BPU is required to establish a stakeholder process, including the establishment of an independent advisory group, to evaluate the manifold aspects of the energy efficiency programs.

The OLS is uncertain as to how the public utilities will achieve the energy reduction requirements, given the flexibility the bill provides the public utilities in achieving the performance targets. As a result, the OLS cannot determine the impact of the energy efficiency programs on ratepayers, including State and local governments.

The OLS notes that a reduction in energy consumption does not necessarily translate into monetary savings for ratepayers, especially considering that the bill allows the utilities to recoup the cost of any capital investment to achieve the reduction targets and any revenue loss from the usage reductions. Consequently, ratepayer cost savings from reductions in their energy usage may be offset, in full or in part, by higher retail electricity prices.

The OLS further notes that public utilities that achieve performance targets will receive an incentive as determined by the BPU and those utilities that fail to achieve the performance targets will be subject to a penalty. The determination of the penalty amount is under the jurisdiction of the BPU and the OLS cannot quantify the amount of revenue that may be generated from the penalty.

The administration of the energy efficiency programs, including the conducting of the stakeholder process, is likely to increase annual BPU expenditures. The magnitude of the increase, however, will depend on BPU operating decisions, which the OLS cannot anticipate.

Community Solar Energy Pilot Program: The bill requires the BPU to establish a "Community Solar Energy Pilot Program" no later than seven months following the bill's date of enactment. The program permits customers of an electric public utility to participate in a solar energy project that is remotely located from their properties, but is within their electric public utility's service territory. A customer participating in this program is allowed a credit to the customer's utility bill equal to the electricity generated that is attributed to the customer's participation in the solar energy project.

The OLS points out that the BPU will likely incur additional costs associated with establishing and administering the program. The magnitude of these costs will depend on BPU operating decisions, which the OLS cannot anticipate.

Electric public utilities will likely incur additional administrative costs related to connecting projects to the distribution system of the electric public utility and certain reporting requirements. The bill allows electric public utilities to fully recover all costs incurred in implementing the program. The State's ratepayers, including the State and local governments, may be impacted by an increase in the retail price of electricity.

Certified Public Entities: The bill requires the BPU to establish a process to certify public entities to act as a host customer for remote net metering generating capacity. A public entity certified to act as a host customer may allocate credits to other public entities within the same electric public utility service territory. The BPU will likely incur additional administrative costs related to the certification of those public entities. The magnitude of these costs will depend on BPU operating decisions, which the OLS cannot anticipate.

Public entities, including the State and local governments, may benefit from credits which reduce the public entities' electricity bills if those public entities become certified and act as host customers. Additionally, the owner of a solar energy project is required to pay a certified public entity a pro-rated public sponsor fee of $10,000 per megawatt, up to a 10-megawatt allowance for each public entity. Thus, by becoming certified and acting as a host customer for solar energy projects, public entities may realize additional revenues as a result of the bill.

Workforce Training: The bill requires the Department of Labor and Workforce Development to establish job training programs for those who work in the manufacturing and servicing of offshore wind energy equipment through Workforce Investment Boards, county colleges, and other appropriate institutions.

The establishment of the job training programs will add to the responsibilities of the department. The magnitude of any related increase in administrative expenditures, however, will depend on department operating decisions, which the OLS cannot anticipate.

Sales and Use Tax and Societal Benefits Charge: The OLS expects the bill to result in a net increase in the retail price of electricity in the State for all customers, including the State and local governments. The amount of the price increase attributable to the bill will be subject to the imposition of sales and use tax except those electricity purchases by entities and users which are exempt under the sales and use tax. The OLS lacks the necessary data to quantify the net increase in the price of electricity because of the bill; thus, the OLS cannot determine the amount of State sales and use tax revenue that will be generated.

The OLS notes that certain provisions of the bill may influence ratepayer consumption behavior, which in turn could result in an increase or decrease in the amount of State revenue generated from the societal benefits charge. This statement assumes that the BPU will not adjust the societal benefits charge rate in response to a change in consumption.

Section:	*Revenue, Finance and Appropriations*
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This fiscal estimate has been prepared pursuant to P.L.1980, c.67 (C.52:13B-6 et seq.).