LEGISLATIVE FISCAL ESTIMATE
SENATE, No. 2313
STATE OF NEW JERSEY
218th LEGISLATURE

DATED: APRIL 5, 2018

SUMMARY

Synopsis:	Establishes zero emission certificate program for nuclear power plants.
Type of Impact:	Annual increase in State revenue. Annual increase in expenditures for public entity electric utility ratepayers.
Agencies Affected:	All State and local government entities; Board of Public Utilities (BPU).

Office of Legislative Services Estimate

Fiscal Impact	Annual Impact for Lifetime of ZEC Program
State Revenue Increase	Up to $20.0 million
State Expenditure Increase	Indeterminate
Local Expenditure Increase	Indeterminate
BPU Revenue and Cost Increase	Indeterminate

- The Office of Legislative Services (OLS) estimates that the bill may increase costs to State and local government entities that are retail consumers of electricity by indeterminate amounts annually subject to increases and decreases based on total electricity distribution by selected nuclear power plants, due to a tariff imposed at a rate of $0.004 per kilowatt hour on retail distribution customers.

- The OLS estimates that this bill will increase sales and use tax revenue by up to $20.0 million. As a result of imposing the tariff authorized by the bill, retail distribution customers will experience an increase in the retail price paid for electricity. The amount of the retail price increase attributable to the tariff will be subject to the sales and use tax, excluding electricity purchases by certain entities and users which are exempt under the sales and use tax.

- Any administrative costs associated with the bill are covered in part or in whole by application fees. If the administrative costs exceed the amounts generated by application fees, the Public Utilities (BPU) is able to recover costs from the electric public utility accounts established pursuant to the bill.

Office of Legislative Services
State House Annex
P.O. Box 068
Trenton, New Jersey 08625

– OLS –

Legislative Budget and Finance Office
Phone (609) 847-3105
Fax (609) 777-2442
www.njleg.state.nj.us

BILL DESCRIPTION

This bill directs the BPU to establish a zero emissions certificate (ZEC) program. Under the bill, a ZEC is a certificate, issued by the BPU, representing the fuel diversity, air quality, and environmental attributes of one megawatt-hour of electricity generated by an eligible nuclear power plant selected by the BPU to participate in the ZEC program.

"Nuclear power plant," as defined in this bill, means an individual electric generating unit utilizing nuclear fuel to produce electric power. In order to be certified by the BPU as an eligible nuclear power plant, a nuclear power plant is required to: 1) be licensed to operate by the United States Nuclear Regulatory Commission by the date of enactment of the bill and through 2030 or later; 2) demonstrate a significant and material contribution to the air quality in the State by minimizing emissions that result from electricity consumed in New Jersey, demonstrate that it minimizes harmful emissions that adversely affect the citizens of the State, and that if the nuclear power plant was to retire, the retirement would significantly and negatively impact the State's ability to comply with air emissions reduction requirements; 3) demonstrate that the nuclear power plant's fuel diversity, air quality, and environmental attributes are at risk of loss because the nuclear power plant is projected not to fully cover its costs and risks, or alternatively is projected not to cover its costs including its risk-adjusted cost of capital, and that the nuclear power plant will cease operations within three years unless the nuclear power plant experiences a material financial change; 4) certify annually that the nuclear power plant does not receive any direct or indirect payment of credit under State or federal law or regional compact except for any payment or credit received under the provisions of the bill; and 5) submit an application fee to the BPU in an amount to be determined by the BPU, but not to exceed $250,000.

A nuclear power plant seeking to participate in the ZEC program is required to submit certain financial documentation to the BPU as requested. The BPU is required to adopt an order no later than 180 days after the date of enactment of the bill establishing the ZEC program. A nuclear power plant seeking to participate in the ZEC program is required to submit an application to the BPU no later than 210 days after the date of enactment of the bill. Lastly, the BPU is required to establish a rank-ordered list of the nuclear power plants eligible to receive ZECs and select eligible nuclear power plants to receive ZECs based on their ranking. If the BPU determines that no nuclear power plants satisfy the criteria set forth in the bill, the BPU is under no obligation to certify any nuclear power plant.

The BPU is to determine the price of a ZEC each energy year pursuant to the formula prescribed in the bill. Within 90 days after the conclusion of an energy year, each electric public utility in this State is required to purchase ZECs in an amount equal to the total number of ZECs received by the nuclear power plants multiplied by the percentage of electricity the electric public utility distributed in this State. The BPU is to order the full recovery of all costs associated with the electric public utility's procurement of the ZECs through a non-bypassable, irrevocable charge imposed on the customers of the electric public utility ($0.004 per kilowatt hour) which reflects the emissions avoidance benefits associated with the continued operation of selected nuclear power plants. The BPU may reduce the per kilowatt-hour charge starting in the second three-year eligibility period thereafter, provided that the BPU determines that the reduced charge will be sufficient to achieve the State's air quality and other environmental objectives by preventing the retirement of the eligible nuclear power plants.

A selected nuclear power plant is to initially receive ZECs through the end of the first energy year in which the plant was selected, plus an additional three energy years thereafter, and then is subject to review by the BPU triennially for renewed eligibility for additional, three energy year periods. For the second three energy year eligibility period, and every subsequent eligibility period thereafter, a selected nuclear power plant is required to pay a renewal fee to the BPU in an amount determined by the BPU, not to exceed $250,000.

A selected nuclear power plant may suspend or cease operations under certain circumstances. If a selected nuclear power plant ceases operations during an eligibility period for any reason other than those specified in the bill, the selected nuclear power plant is to pay a charge to the electric public utilities that purchases ZECs. The electric public utility is required to provide a refund to its distribution customers in an amount equal to the charge paid by a selected nuclear power plant to the electric public utility.

FISCAL ANALYSIS

EXECUTIVE BRANCH

None received.

OFFICE OF LEGISLATIVE SERVICES

The OLS estimates that the bill may cost electric public utility ratepayers in this State, which includes State and local government entities, approximately $250.0 million to $302.0 million per energy year, subject to increases and decreases based on total electricity distribution by selected nuclear power plants, due to a tariff imposed at a rate of $0.004 per kilowatt hour on retail distribution customers. The percentage of the total cost that will be borne by State and local governments as retail electricity consumers is indeterminate. The OLS notes that the monies generated from the tariff imposed by electric public utilities in this State are to be used to purchase ZECs from selected nuclear power plants. The OLS further notes that excess monies in an electric public utility's account, following the purchase of required ZECs, are to be refunded to its retail distribution customers at the end of each energy year. Any administrative costs associated with the bill are covered in part or in whole by application fees. If the administrative costs exceed the amounts generated by application fees, the BPU is able to recover costs from the electric public utility accounts established pursuant to the bill. Due to increased retail energy prices from the tariff, State sales and use tax revenue will increase annually.

Eligible Nuclear Power Plants: There are three domestic nuclear power plants, totaling four individual electric generating units, currently operating in New Jersey: 1) Public Service Electric and Gas Company (PSE&G) Salem Nuclear Generating Station ("PSE&G Salem") (unit one is licensed to operate through August 13, 2036; unit two is licensed to operate through April 18, 2040); 2) PSE&G Hope Creek Nuclear Generating Station ("PSE&G Hope Creek") (licensed to operate through April 11, 2046); and 3) Oyster Creek Nuclear Generating Station (scheduled to be permanently shut down in October 2018). Since Oyster Creek Nuclear Generating Station is not licensed to operate through 2030, this nuclear power plant is not eligible to participate in the ZEC program. Based strictly on the first criteria for eligibility, the requirement for a nuclear power plant to be licensed to operate through 2030, the two units of PSE&G Salem and the single unit of PSE&G Hope Creek are eligible to participate in the ZEC program if all other criteria prescribed by the bill are met. However, a nuclear power plant outside the State may be eligible to apply for and could be selected if the nuclear power plant meets all other criteria prescribed by the bill.

The OLS notes that numerous deadlines are set forth in the provisions of the bill which may further limit a nuclear power plant's ability to participate in the ZEC program. The OLS further notes that eligible nuclear power plants are required to pay an application fee of not more than $250,000 to the BPU to cover the costs incurred by the BPU to administer the ZEC program. Assuming that the three eligible individual electric generating units submit an application to participate in the ZEC program, the maximum amount the BPU can raise through the application fee to defray the costs of the bill is $750,000.

A selected nuclear power plant is to initially receive ZECs through the end of the first energy year in which the plant was selected, plus an additional three energy years thereafter, and then is subject to review by the BPU triennially for renewed eligibility for additional, three energy year periods. For the second three energy year eligibility period, and every subsequent eligibility period thereafter, a selected nuclear power plant is required to pay a renewal fee to the BPU in an amount determined by the BPU, not to exceed $250,000.

Selection of Eligible Nuclear Power Plants: The BPU is required to select eligible nuclear power plants in accordance with a rank-ordered list described in the bill. The combined number of megawatt-hours (MWh) of electricity distributed in the energy year prior to the enactment of the bill by all selected nuclear power plants cannot exceed 40 percent of the total number of MWh of electricity distributed by electric public utilities in the State in the energy year immediately prior to the date of enactment of the bill. According to calendar year 2016 data provided by the U.S. Energy Information Administration, total electricity distribution (retail sales) in New Jersey reached 75,359,371 MWh. Total combined generation between PSE&G Salem (15,696,653 MWh – includes both units) and PSE&G Hope Creek (9,603,443 MWh) was 25,300,096 MWh, which was 33.5 percent of the total electricity distribution by electric public utilities in the State in calendar year 2016. The OLS has preliminary generation data by plant solely for calendar year 2016; thus, for the energy prior to the date of enactment of the bill the OLS assumes that PSE&G Salem and PSE&G Hope Creek combined electricity distribution will fall below the 40 percent threshold.

Tariff on Ratepayers: The bill requires each electric public utility to impose a $0.004 per kilowatt hour (KWh) tariff on its retail distribution customers. Based on calendar year 2016 total electricity distribution (retail sales) of 75,359,371 MWh (75,359,371,000 KWh), the total amount of revenue generated by the tariff would be approximately $301.44 million.

The revenues generated by the tariff are required to be deposited into an interest-bearing account and are to be solely used for the purpose of purchasing ZECs, and to reimburse the BPU for administrative costs which exceed the application fees collected by the BPU. The OLS notes that the BPU may reduce the per kilowatt-hour charge starting in the second three year eligibility period thereafter, provided that the BPU determines that the reduced charge will be sufficient to achieve the State's air quality and other environmental objectives by preventing the retirement of the eligible nuclear power plants.

Sales and Use Tax Implications: As a result of the tariff authorized and imposed pursuant to the bill on retail distribution customers, customers will experience an increase in the retail price paid for electricity. The amount of the retail price increase attributable to the imposition of the tariff will be subject to the imposition of sales and use tax, excluding electricity purchases by certain entities and users which are exempt under the sales and use tax. Utilizing a sales and use tax rate of 6.625 percent, and multiplying this rate by the $301.44 million in projected revenue from the tariff, the maximum amount of sales and use tax revenue the State may realize annually as a result of the ZEC program would be $20.0 million. The OLS notes that the $20.0 million estimate does not account for entities which are subject to the tariff, but are exempt from sales and use tax; thus, the amount of sales and use tax revenues could be less than $20.0 million. The OLS further notes that the sales and use tax gain will be an additional cost to electric public utility ratepayers since the sales and use tax is imposed on ratepayers' electricity bills (unless the ratepayer is exempt).

Zero Emission Certificate: Selected nuclear power plants are eligible to receive ZECs 330 days after the date of enactment of the bill. The number of ZECs each nuclear power plant receives is equal to the number of MWh of electricity each nuclear power plant produced in a given energy year starting on the date of the eligible nuclear power plant's selection. Based on preliminary calendar year 2016 data, PSE&G Salem and PSE&G Hope Creek collectively distributed 25,300,096 MWh of electricity in the State; thus, the nuclear power plants would have collectively received 25,300,096 ZECs. Selected nuclear power plants are to initially receive ZECs through the end of the first energy year in which the plant was selected, plus an additional three energy years thereafter, and then are subject to review by the BPU triennially for renewed eligibility for additional, three energy year periods.

The cost of each ZEC is determined by dividing the total number of dollars held by electric public utilities in accounts established by the bill (approximately $301.44 million based on the amounts to be generated from the tariff) at the end of the prior energy year by the greater of: 40 percent of the total number of MWh of electricity distributed by the electric public utilities in this State in the prior energy year, or the number of MWh of electricity generated in the prior energy year by the selected nuclear power plants. The OLS notes that the combined electricity distribution by PSE&G Salem and PSE&G Hope Creek in calendar year 2016 was 25,300,096 MWh, which was 33.5 percent of the total electricity distribution by public utilities in the State in calendar year 2016 and is less than the alternative calculation. Thus, in order to determine an estimate regarding the cost per ZEC, $301.44 million would be divided by 30,143,748 MWh (40 percent of the total number of MWh of electricity distributed by the electric public utilities in this State in calendar year 2016 – 75,359,371 MWh), which results in a per ZEC cost of about $10.00.

Each electric public utility in this State is required to use the funds generated by the tariff and deposited into the accounts established pursuant to the bill to purchase ZECs on a monthly basis from each selected nuclear power plant. Based on the approximate total number of ZECs available for PSE&G Salem and PSE&G Hope Creek to sell, 25,300,096 based on calendar year 2016 data, and the cost per ZEC, $10.00, PSE&G Salem and PSE&G Hope Creek would receive approximately $253.00 million in revenue from ZEC sales to electric public utilities.

The OLS recognizes that the $253.00 million is less than the total amount of revenue that would be generated by the tariff ($301.44 million). Thus, this OLS estimate specifies a potential range of $253.00 million to $301.44 million based on total electricity distribution in calendar year 2016. This range will be subject to variance each energy year as the total amount of electricity distributed throughout the State is subject to annual fluctuation.

The OLS notes that the bill requires excess monies in an electric public utility's account to be refunded to its retail distribution customers at the end of each energy year. The OLS further acknowledges that electric public utilities are not required to purchase any additional number of ZECs if the cost of the additional number of ZECs exceeds the revenues deposited in an electric public utility's account established pursuant to the bill.

A selected nuclear power plant may suspend or cease operations under certain circumstances. If a selected nuclear power plant ceases operations during an eligibility period for any reason other than those specified in the bill, the selected nuclear power plant is to pay a charge to the electric public utilities that purchases ZECs. The electric public utility is required to provide a refund to its distribution customers in an amount equal to the charge paid by a selected nuclear power plant to the electric public utility.

Reporting Requirements: The owner of a selected nuclear power plant is required to provide a plan to the BPU, two years after receiving ZECs, to retain, retrain, or compensate personnel whose employment would be eliminated as a direct result of the cessation of the selected nuclear power plant's operations.

Further, the owner of a selected nuclear power plant is required to conduct a study and prepare a written report, within two years after receiving ZECs, in cooperation with selected experts to determine the optimal use of dry cask storage of spent nuclear fuel at its site, considering environmental impacts, worker safety, and cost impacts.

The BPU is required to conduct a study, no later than 10 years after the date of enactment of the bill, to evaluate the efficacy of the ZEC program and submit a written report to the Governor and the Legislature. The written report is required to: 1) summarize the effectiveness of the program in deterring the premature retirement of nuclear power plants, its effect on the environment and air quality in the State, and its contribution to a more reliable energy supply by assuring fuel diversity; 2) discuss and quantify the potential benefits and costs associated with the ZEC program; 3) recommend any changes to the program or whether it should continue; and 4) recommend whether the ZEC program should be expanded to include other technologies.

The OLS notes that the reporting requirements in the bill will likely result in higher administrative costs for various executive departments and agencies. The number of staff required to be hired to implement the provisions of the bill, the use of outside consultants to provide assistance with implementing the provisions of the bill, and the associated expenditures that the various executive departments and agencies will incur as a result of the bill, will be determined by future decisions of executive branch officials.

Section:	*Revenue, Finance and Appropriations*
Analyst:	*Jordan M. DiGiovanni* *Associate Fiscal Analyst*
Approved:	*Frank W. Haines III* *Legislative Budget and Finance Officer*

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