SENATE COMMITTEE SUBSTITUTE FOR
SENATE, No. 877

STATE OF NEW JERSEY

Sponsored by Senators SWEENEY, SMITH, and VAN DREW

AN ACT concerning energy, and amending and supplementing various parts of the statutory law.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1. (New section) a. The Legislature finds and declares that:
   (1) Climate change is one of the greatest threats facing the State today and in the future. Reducing emissions of carbon dioxide, greenhouse gases, and other pollutants by preserving and expanding zero-emission electricity generation within and outside the State is critical to mitigating the impacts of climate change.
   (2) Reducing emissions of carbon dioxide, greenhouse gases, and other pollutants by preserving and expanding zero-emission electricity generation within and outside the State is critical to mitigating the impacts of climate change.
   (3) Nuclear power is a reliable, zero-emission source of energy that has supplied New Jersey’s energy demands for decades.
   (4) New Jersey has historically relied on a diverse mix of energy supply sources, including nuclear power, to meet the needs of its residents and businesses.
   (5) Reducing emissions of carbon dioxide and other pollutants, and preserving and developing zero-emission electricity generation sources within and outside the State that currently provide electricity to customers in New Jersey, is critical to improving air quality for New Jersey residents.
   (6) The Energy Master Plan of New Jersey, last updated in 2015, requires significant revisions to ensure that 100 percent of the State’s electric energy needs are generated by clean energy sources by 2050. An update to the Energy Master Plan by the State must include a focus on the expansion of renewable and zero-emission sources of energy.

EXPLANATION – Matter enclosed in bold-faced brackets [thus] in the above bill is not enacted and is intended to be omitted in the law.

Matter underlined thus is new matter.
The existing renewable energy portfolio standard has been successful in promoting the growth of renewable energy generation to reduce air pollution in New Jersey. However, to achieve its near term environmental goals, New Jersey must expand its commitment to zero emission energy generation and value the environmental attributes of zero emission generation that currently falls outside the scope of the existing renewable energy portfolio standard, including but not limited to nuclear power.

Nuclear power generation is a critical component of the State’s clean energy portfolio because nuclear power plants do not emit greenhouse gases and other pollutants; in addition, nuclear power is an important element of a diverse energy portfolio that currently meets approximately 40 percent of New Jersey’s electric power needs.

Several of the existing, licensed, and operating nuclear power plants within and outside the State that currently provide electricity to customers in New Jersey are at risk for abrupt retirement due to a variety of factors.

The retirement of nuclear power generation will inevitably result in an immediate increase in air emissions within New Jersey due to increased reliance on natural gas-fired generation and coal-fired generation.

Poor air quality has a disproportionate impact on the most vulnerable citizens of New Jersey including children, older New Jerseyans, and people living in poverty. Fossil-fuel power plants drive increases in pollutants like ground-level ozone, which aggravates respiratory illnesses for individuals with decreased lung function. Public health and environmental justice necessitate the reduction in these pollutants to protect the most vulnerable of our citizenry.

As a coastal state, New Jersey is particularly exposed to many of the effects of global climate change, such as rising sea levels and more extreme storms. Many of New Jersey’s most important commercial and tourism assets are located in coastal areas, and events like Superstorm Sandy have demonstrated the imminent and tangible threats that intense storms pose to New Jersey’s economy and environment.

Given the overwhelming scientific consensus that fossil fuel use is causing potentially irreversible global climate change and the attendant environmental catastrophes, it is a moral imperative that the State of New Jersey invest in energy infrastructure within and outside the State that does not produce greenhouse gases.

The Legislature therefore determines that:

(1) The abrupt retirement of existing, licensed, and operating nuclear power plants within and outside the State that provide electricity to customers in New Jersey, and any concomitant increase in the proportion of New Jersey’s electricity demand met by natural gas and coal, will result in a substantial increase in
emissions of several serious pollutants, and associated adverse public health and environmental impacts. The pollutants resulting from increased fossil-fuel generation and drilling include emissions of carbon dioxide, methane, carbon monoxide, sulfur dioxide, particulate matter, volatile organic compounds, mercury, and nitrous oxides, and the creation of ozone.

(2) New Jersey is currently not projected to meet certain federal and State air quality standards and emissions level requirements, counties of the State are currently designated as nonattainment for the federal 8-hour Ozone National Ambient Air Quality Standard, and the abrupt retirement of nuclear power plants that serve New Jersey combined with increased reliance on natural gas-fired and coal-fired generation will substantially impede the State’s ability to meet those federal and State air quality and emissions standards and requirements.

(3) In light of the primacy of natural gas use for heating in New Jersey, increased reliance on natural gas-fired generation will render the electric generation and delivery systems less resilient and more vulnerable to the impacts of extreme winter weather, events such as natural gas pipeline accidents, and other factors affecting the deliverability of natural gas to electric generating stations in and around the State.

(4) The model of providing credits to zero- or low-emission energy generation sources as compensation for their environmental attributes has proven successful for Class I and Class II renewable energy sources, which receive renewable energy certificates, and solar electric power generators, which receive solar renewable energy certificates.

(5) A program that recognizes and compensates nuclear energy generators in a manner similar to other non-emitting energy generation resources to the extent required to prevent the loss of nuclear energy, subject to independent review as provided in section 3 of P.L. , c. (C. ) (pending before the Legislature as this bill), which the State’s residents and businesses rely on for approximately 40 percent of their electricity needs, could, in the absence of equally or more cost-effective clean energy alternatives, further the State’s interest in environmental protection and maintaining a diverse mix of energy sources.

(6) While recognizing the importance of nuclear energy generation, the State must also commit to the deployment of renewable and zero-emission energy to address climate change, drive economic development, and create new employment opportunities.

(7) In order to meet the goals under the "Global Warming Response Act," P.L.2007, c.112 (C.26:2C-37 et seq.), to reduce greenhouse gas emissions 80 percent by 2050, it will be necessary to significantly reduce emissions from the electric power generation sector. This will require reducing the State’s heavy reliance on
natural gas for electric power generation, the primary source of emissions from the electric power generation sector.

(8) The zero emission certificate program set forth below is structured such that its costs are guaranteed to be significantly less than the social cost of carbon emissions avoided by the continued operation of selected nuclear power plants, ensuring that the program does not place an undue financial burden on retail customers. The social cost of carbon, as calculated by the U.S. Interagency Working Group on the Social Cost of Carbon in its August 2016 Technical Update, is an accepted measure of the cost of carbon emissions. Carbon emissions avoided by selected nuclear power plants are but one component of their emissions avoidance benefits.

2. (New section) As used in sections 1 through 4 of P.L. , c. (pending before the Legislature as this bill):
   “Board” shall have the same meaning as provided in section 3 of P.L.1999, c.23 (C.48:3-51).
   “Electric public utility” shall have the same meaning as provided in section 3 of P.L.1999, c.23 (C.48:3-51).
   “Eligibility period” means the period of time, measured in energy years, during which a selected nuclear power plant may receive a zero emission certificate pursuant to section 3 of P.L. , c. (pending before the Legislature as this bill).
   “Eligible nuclear power plant” means a nuclear power plant certified by the board to allow it to be selected to participate in the program established pursuant to section 3 of P.L. , c. (pending before the Legislature as this bill).
   “Emissions avoidance benefits” means the benefits associated with the preservation of better air quality caused by the production of electric energy from a selected nuclear power plant, as well as the reduction in damage that would otherwise be caused by carbon dioxide or other greenhouse gases emitted but for the production of electric energy from a selected nuclear power plant. Such damage threatens massive economic and lifestyle disruption, and includes but is not limited to a contribution to sea level rise, heat waves, more frequent and severe occurrence of extreme weather events, damage to agriculture, water resources, public health, energy and communication systems, and the natural ecosystems that define and support communities.
   “Energy year” or “EY” shall have the same meaning as provided in section 3 of P.L.1999, c.23 (C.48:3-51).
   “Nuclear power plant” means an individual electric generating unit utilizing nuclear fuel to produce electric power.
   “Selected nuclear power plant” means an eligible nuclear power plant selected by the board to participate in the program established pursuant to section 3 of P.L. , c. (pending before the Legislature as this bill).
"Zero emission certificate" or "ZEC" means a certificate, issued by the board or its designee, representing the environmental and fuel diversity attributes of one megawatt-hour of electricity generated by an eligible nuclear power plant selected by the board to participate in the program established pursuant to section 3 of P.L. , c. (C.) (pending before the Legislature as this bill).

3. a. As part of an application submitted to the board pursuant to subsection c. of this section, a nuclear power plant seeking to participate in the program established by sections 1 through 4 of P.L. , c. (C.) (pending before the Legislature as this bill) shall provide to the board any financial information requested by the board pertaining to the nuclear power plant, including, but not limited to, certified cost projections over the next three energy years, including operation and maintenance expenses, fuel expenses, including spent fuel expenses, non-fuel capital expenses, fully allocated overhead costs, the cost of operational and market risks that would be avoided by ceasing operations, and any other information, financial or otherwise, to demonstrate that the nuclear power plant’s fuel diversity and air quality attributes are at risk of loss because the nuclear power plant is projected to not fully cover its costs and risks, or alternatively is projected to not fully cover its costs and risks including its risk-adjusted cost of capital. For purposes of this subsection, operational risks shall include, but need not be limited to, the risk that operating costs will be higher than anticipated because of new regulatory mandates or equipment failures and the risk that per megawatt-hour costs will be higher than anticipated because of a lower than expected capacity factor, and market risks shall include, but need not be limited to, the risk of a forced outage and the associated costs of arising from contractual obligations, and the risk that output from the nuclear power plant may not be able to be sold at projected levels. An application submitted to the board pursuant to subsection c. of this section, shall also include a certification that the nuclear power plant will cease operations within three years unless the nuclear power plant experiences a material financial change, and the certification shall specify the necessary steps required to be completed to cease the nuclear power plant’s operations. The financial and other information required pursuant to this subsection may be submitted on a confidential basis and shall be treated and maintained as confidential by the board and shall not be subject to public disclosure, notwithstanding any law to the contrary, including the common law. The board and the Attorney General shall jointly approve the disclosure of such confidential information to a party that they deem essential to aid the board in making the determinations required under this subsection, provided that the party is not in a position such that disclosure could harm
competition and the party agrees in writing to maintain the confidentiality of the confidential information.

b. Notwithstanding any law, regulation, rule, or order to the contrary, the board shall complete a proceeding no later than 180 days after the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill), to allow for the commencement of a program allowing for the issuance by the board of a zero emission certificate. In this proceeding, the board shall adopt, after notice, the opportunity for comment, and public hearing, an order establishing a ZEC program for selected nuclear power plants which shall include, but need not be limited to:

(1) a method and application process for determination of the eligibility and selection of nuclear power plants; and

(2) establishment of a mechanism for each electric public utility to purchase ZECs from selected nuclear power plants and a mechanism for the board to effectuate the provisions of subsection i. of this section.

c. No later than 210 days after the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill), a nuclear power plant seeking to participate in the program established by sections 1 through 4 of P.L. , c. (C. ) (pending before the Legislature as this bill), shall submit its application to the board.

d. Notwithstanding any law, regulation, rule, or order to the contrary, the board shall complete a proceeding no later than 330 days after the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill) and shall adopt, after notice, the opportunity for comment, and public hearing, an order establishing a rank-ordered list of the nuclear power plants eligible to be selected to receive ZECs, and establishing which eligible nuclear power plants have been selected to receive ZECs, pursuant to this section. If the board determines, in its discretion, that no nuclear plant that applies in accordance with subsection c. of this section satisfies the objectives of sections 1 through 4 of P.L. , c. (C. ) (pending before the Legislature as this bill), then the board shall be under no obligation to certify any nuclear power plant as an eligible nuclear power plant.

e. To be certified by the board as an eligible nuclear power plant, a nuclear power plant shall:

(1) be licensed to operate by the United States Nuclear Regulatory Commission by the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill) and through 2030 or later;

(2) demonstrate to the satisfaction of the board that it makes a significant and material contribution to the air quality in the State by minimizing emissions that result from electricity consumed in New Jersey, it minimizes harmful emissions that adversely affect the citizens of the State, and if the nuclear power plant were to retire, that retirement would significantly and negatively impact
New Jersey’s ability to comply with State air emissions reduction requirements;

(3) demonstrate to the satisfaction of the board, through the financial and other confidential information submitted to the board pursuant to subsection a. of this section, and any other information required by the board, which information may be submitted on a confidential basis and shall be treated and maintained as confidential by the board and shall not be subject to public disclosure, notwithstanding any law to the contrary, including the common law, that the nuclear power plant’s fuel diversity and air quality 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 or credit under a law, regulation, order, tariff, or other action of this State or any other state, or a federal law, regulation, order, tariff, or other action, or regional compact, despite its reasonable best efforts to obtain any such payment or credit, for its fuel diversity, resilience, or environmental attributes that will eliminate the need for the nuclear power plant to retire, except for any payment or credit received under the provisions of sections 1 through 4 of P.L. , c. (C. ) (pending before the Legislature as this bill); and

(5) submit an application fee to the board in an amount to be determined by the board, but which shall not exceed $250,000, to be used to defray the costs incurred by the board to administer the ZEC program.

f. In ranking eligible nuclear power plants from first to last, the board shall consider how well the nuclear power plants satisfy the criteria set forth under the provisions of sections 1 through 4 of P.L. , c. (C. ) (pending before the Legislature as this bill), and shall also consider other relevant factors such as sustainability or long-term commitment to nuclear energy production in a manner that supports New Jersey’ cost-effective transition to a zero carbon energy supply. Two or more eligible nuclear power plants shall not have the same ranking.

g. (1) The board shall select eligible nuclear power plants to receive ZECs according to their ranking. Beginning with the top-ranked eligible nuclear power plant and continuing in rank order, the board shall continue to select nuclear power plants but not beyond the point at which the combined number of megawatt-hours of electricity produced in the energy year immediately prior to the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill) by all selected nuclear power plants equals 40 percent of the total number of megawatt-hours of electricity
distributed by electric public utilities in the State in the energy year immediately prior to the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill). The board shall not select an eligible nuclear power plant to receive ZECs if the addition of the electricity produced by that nuclear power plant in the energy year immediately prior to the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill) by the selected plants ranked ahead of that plant on the rank-ordered list exceeds 40 percent of the total number of megawatt-hours of electricity distributed by electric public utilities in the State in the energy year immediately prior to the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill).

(2) A selected nuclear power plant shall be eligible to receive ZECs 330 days after the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill). In the first energy year in which an eligible nuclear power plant is selected, the nuclear power plant shall receive a number of ZECs equal to the number of megawatt-hours of electricity it produced in that energy year starting on the date of the eligible nuclear power plant’s selection. In each energy year thereafter, each selected nuclear power plant shall receive a number of ZECs equal to the number of megawatt-hours of electricity that it produced in that energy year.

h. (1) Selected nuclear power plants shall initially receive ZECs for an eligibility period that shall run through the end of the first energy year in which the nuclear power plant is selected, plus an additional three energy years.

(2) No later than 12 months prior to the conclusion of the initial eligibility period established pursuant to paragraph (1) of this subsection, and no later than 12 months prior to the conclusion of each three energy year eligibility period thereafter, a nuclear power plant may demonstrate its eligibility to the board and the board may certify the nuclear power plant’s eligibility to receive ZECs for additional eligibility periods of three energy years, consistent with the provisions of sections 1 through 4 of P.L. , c. (C. ) (pending before the Legislature as this bill).

(3) A selected nuclear power plant shall annually certify to the board that it will continue operations at full or near full capacity for the duration of the period of its eligibility to receive ZECs, except with respect to nuclear power plant shutdowns for necessary maintenance and refueling.

i. (1) The board shall determine the price of a ZEC each energy year by dividing the total number of dollars held by electric public utilities in the accounts established pursuant to paragraph (1) of subsection j. of this section at the end of the prior energy year by the greater of: 40 percent of the total number of megawatt-hours of
electricity distributed by the electric public utilities in the State in the prior energy year, or the number of megawatt-hours of electricity generated in the prior energy year by the selected nuclear power plants.

(2) Each electric public utility in the State shall be required to begin to purchase ZECs on a monthly basis from each selected nuclear power plant with payment to follow within 90 days after the conclusion of the first energy year in which selected nuclear power plants receive ZECs and within 90 days after the conclusion of each subsequent energy year. The number of ZECs an electric public utility shall be required to purchase shall equal the total number of ZECs received by the selected nuclear power plants for the prior energy year pursuant to paragraph (2) of subsection g. of this section multiplied by the percentage of electricity distributed in the State by the electric public utility as compared to other electric public utilities in the State.

(3) To ensure that a selected nuclear power plant shall not receive double-payment for its fuel diversity, resilience, or environmental attributes, the board shall annually determine the dollar amount received by the selected nuclear power plant in an energy year pursuant to a law, regulation, order, tariff, or other action of the State or any other state, or a federal law, regulation, order, tariff, or other action, or regional compact referenced in paragraph (4) of subsection e. of this section. Notwithstanding paragraph (2) of this subsection, the number of ZECs purchased by each electric public utility from a selected nuclear power plant for an energy year shall be reduced by the number of ZECs equal in value to the dollar amount determined by the board in this paragraph, multiplied by the percentage of electricity distributed in the State by the electric public utility as compared to other electric public utilities in the State. To the extent that the board determines that a selected nuclear plant receives revenues for its zero-emission attributes, fuel diversity, resilience, or environmental attributes, the board shall immediately reduce the number of ZECs on a prospective basis consistent with the level of such revenues.

j. (1) The board shall order the full recovery of all costs associated with the electric public utility’s required procurement of ZECs, and with the board’s implementation of the ZEC program under sections 1 through 4 of P.L.  , c. (C. ) (pending before the Legislature as this bill), through a non-bypassable, irrevocable charge imposed on the electric public utility’s retail distribution customers. Within 150 days after the date of enactment of P.L.  , c. (C. ) (pending before the Legislature as this bill), each electric public utility shall file with the board a tariff to recover from its retail distribution customers a charge in the amount of $0.004 per kilowatt hour which reflects the emissions avoidance benefits associated with the continued operation of selected nuclear power plants. Within 60 days of the tariff filing required pursuant to this
paragraph, after notice, the opportunity for comment, and public hearing, the board shall approve the tariff, provided that it is consistent with the provisions of this subsection. No later than the date of the board’s order establishing the initial selected nuclear power plants to receive ZECs, each electric public utility shall implement the tariff and begin collecting from its customers the approved charge. Revenues collected by the electric public utility from the non-bypassable, irrevocable charge shall be placed in a separate, interest-bearing account and shall be used solely to purchase ZECs, and to reimburse the board for reasonable, verifiable costs it incurs to implement the ZEC program pursuant to sections 1 through 4 of P.L. , c. (pending before the Legislature as this bill) to the extent the board’s costs exceed the application fees collected by the board pursuant to paragraph (5) of subsection e. of this section.

(2) Notwithstanding any provision of sections 1 through 4 of P.L. , c. (pending before the Legislature as this bill) to the contrary, an electric public utility shall not be required to purchase any additional number of ZECs if the cost of the additional number of ZECs exceeds the revenues deposited in the electric public utility’s separate, interest-bearing account, created pursuant to paragraph (1) of this subsection, for that energy year, after subtracting the reasonable, verifiable costs incurred by the board during that energy year to implement the ZEC program pursuant to subsections b., c., and d. of this section, which costs shall be remitted to the board from the ZEC fund each energy year in a manner to be determined by the board. Excess monies in an electric public utility’s separate, interest-bearing account shall be refunded to its retail distribution customers at the end of each energy year.

(3) (a) Notwithstanding the provisions of paragraph (1) of this subsection, and to ensure that the ZEC program remains affordable to New Jersey customers, the board may, in its discretion, reduce the per-kilowatt hour charge imposed in paragraph (1) of this subsection starting in the second three year eligibility period and for each subsequent three year eligibility period thereafter, provided that the board determines that a reduced charge will nonetheless be sufficient to achieve the State’s fuel diversity, resilience, and environmental objectives by preventing the abrupt retirement of the nuclear power plants that meet the eligibility criteria established pursuant to subsections d. and e. of this section.

(b) If the board reduces the per-kilowatt hour charge imposed in paragraph (1) of this subsection pursuant to subparagraph (a) of this paragraph, the reduction shall be applicable to the next eligibility period only and the board shall make its determination no later than 12 months prior to the start of that eligibility period. Within 30 days thereafter, each electric public utility shall file, in lieu of the tariff described in paragraph (1) of this subsection, a tariff consistent with the board’s determination. Within 60 days after filing of the tariff,
after notice, the opportunity for comment, and public hearing, the board shall approve the revised tariff, provided that it is consistent with the board’s determination. The revised tariff will take effect starting in the next eligibility period.

(c) If the board does not certify any nuclear power plants for a subsequent eligibility period pursuant to sections 1 through 4 of P.L. , c. (C.) (pending before the Legislature as this bill), the board may, in its discretion, reduce the per kilowatt hour charge imposed pursuant to paragraph (1) of this subsection in the final year of the first eligibility period after making a finding in writing that a reduced charge will nonetheless be sufficient to achieve the State’s environmental objectives by preventing the retirement of the nuclear power plants that meet the eligibility criteria established pursuant to subsections d. and e. of this section.

(d) For the second three energy year eligibility period, and every subsequent eligibility period thereafter, a selected nuclear power plant shall pay a renewal fee to the board in an amount to be determined by the board, but which shall not exceed $250,000, to be used to defray the costs incurred by the board to administer the ZEC program.

k. (1) A selected nuclear power plant shall be excused from performance, including but not limited to the sale of ZECs, and a payment from an electric public utility shall not be due to the selected nuclear power plant, if:

(a) A selected nuclear power suspends or ceases operations, despite the selected nuclear power plant’s reasonable efforts to continue operations, due to an event beyond its control, including but not limited to acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, labor dispute, labor or material shortage, sabotage, or explosion. The selected nuclear power plant shall no longer be excused from performance, and a payment from a public utility shall be due, after conclusion of the event;

(b) A State law is enacted imposing a significant new tax, special assessment, or fee on the generation of electricity, the ownership or leasehold of a generating unit, or the privilege or occupation of the generation, ownership, or leasehold of generation units by a selected nuclear power plant;

(c) A State or federal law is enacted that materially reduces the value of a ZEC, or the board exercises its discretion to reduce the amount of the per-kilowatt hour charge pursuant to paragraph (3) of subsection j. of this section;

(d) The selected nuclear power plant requires capital expenditures in excess of $40,000,000 that were neither known nor reasonably foreseeable at the time it was selected to receive ZECs, and the capital expenditures are expenditures that a prudent owner or operator of a selected nuclear power plant would not undertake; or
(e) The United States Nuclear Regulatory Commission terminates the selected nuclear power plant’s license.

(2) If a selected nuclear power plant ceases operations during an eligibility period for any reason other than those specified in this subsection, the selected nuclear power plant shall pay a charge to the electric public utilities that purchased ZECs from the selected nuclear power plant in an amount equal to the compensation received for the sale of ZECs since the board’s last determination of the selected nuclear power plant’s eligibility to receive ZECs. An electric public utility shall provide a refund to its retail distribution customers in an amount equal to the charge paid by a selected nuclear power plant to the electric public utility pursuant to the provisions of this paragraph.

(3) The owner of a selected nuclear power plant shall, within two years after receiving ZECs, submit a plan to the board 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, including an alternative economic development plan for communities that rely on the selected nuclear power plant for a substantial portion of their tax revenues.

1. A selected nuclear power plant shall not lay off any personnel unless the lay-off is due to employee misconduct or underperformance issues, or due to the suspension or cessation of the selected nuclear power plant’s operations as provided in subsection k. of this section.

m. The owner of a selected nuclear power plant shall, within two years after receiving ZECs, conduct a study and prepare a written report 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.

4. (New section) a. No later than 10 years after the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill), the Board of Public Utilities shall conduct a study to evaluate the efficacy of the zero emission certificate program and submit a written report thereon to the Governor and, pursuant to section 2 of P.L.1991, c.164 (C.52:14-19.1), to the Legislature. In conducting the study, the board shall evaluate the program's effect on 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. The study shall also evaluate the program's benefits and costs to ratepayers.

b. The written report shall: (1) summarize the analysis conducted pursuant to subsection a. of this section; (2) discuss and quantify the potential benefits and costs associated with the program; (3) recommend any changes to the program or whether it should continue; and (4) recommend whether the program should be expanded to include other technologies.
5. (New section)  a. No later than one year after the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill), the Board of Public Utilities, in consultation with PJM Interconnection, L.L.C., the independent system operator, shall, together with stakeholders including but not limited to third party suppliers and electric public utilities, conduct an energy storage analysis and submit a written report to the Governor and, pursuant to section 2 of P.L.1991, c.164 (C.52:14-19.1), to the Legislature concerning energy storage needs and opportunities in the State. In conducting this analysis, the board shall:

   (1) consider how implementation of renewable electric energy storage systems may benefit ratepayers by providing emergency back-up power for essential services, offsetting peak loads, and stabilizing the electric distribution system;

   (2) consider whether implementation of renewable electric energy storage systems would promote the use of electric vehicles in the State, and the potential impact on renewable energy production in the State;

   (3) study the types of energy storage technologies currently being implemented in the State;

   (4) consider the benefits and costs to ratepayers, local governments, and electric public utilities associated with the development and implementation of additional energy storage technologies;

   (5) determine the optimal amount of energy storage to be added in the State over the next five years in order to provide the maximum benefit to ratepayers;

   (6) determine the optimum points of entry into the electric distribution system for distributed energy resources; and

   (7) calculate the cost to the State’s ratepayers of adding the optimal amount of energy storage.

   In conducting the analysis required by this subsection, the board shall also consider the need for integration of distributed energy resources into the electric distribution system and how distributed energy resources may be incorporated into the electric distribution system in the most efficient and cost-effective manner.

   b. In conducting the energy storage analysis required by this section, the board shall consult with the Laboratory for Energy Smart Systems in the Center for Advanced Infrastructure and Transportation at Rutgers, The State University, and public and private entities in the State and in other states that have conducted studies concerning, or are implementing technologies for, energy storage and distributed energy resources.

   c. The written report shall: (1) summarize the analysis conducted pursuant to subsection a. of this section; (2) discuss and quantify the potential benefits and costs associated with increasing opportunities for energy storage and distributed energy resources in
the State; and (3) recommend ways to increase opportunities for energy storage and distributed energy resources in the State, including any recommendations for financial incentives to aid in the development and implementation of these technologies by public and private entities in the State.

d. No later than six months after completion of the report, the board shall 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.

6. Section 3 of P.L.1999, c.23 (C.48:3-51) is amended to read as follows:

3. As used in P.L.1999, c.23 (C.48:3-49 et al.):

"Assignee" means a person to which an electric public utility or another assignee assigns, sells, or transfers, other than as security, all or a portion of its right to or interest in bondable transition property. Except as specifically provided in P.L.1999, c.23 (C.48:3-49 et al.), an assignee shall not be subject to the public utility requirements of Title 48 or any rules or regulations adopted pursuant thereto.

"Base load electric power generation facility" means an electric power generation facility intended to be operated at a greater than 50 percent capacity factor including, but not limited to, a combined cycle power facility and a combined heat and power facility.

"Base residual auction" means the auction conducted by PJM, as part of PJM's reliability pricing model, three years prior to the start of the delivery year to secure electrical capacity as necessary to satisfy the capacity requirements for that delivery year.

"Basic gas supply service" means gas supply service that is provided to any customer that has not chosen an alternative gas supplier, whether or not the customer has received offers as to competitive supply options, including, but not limited to, any customer that cannot obtain such service for any reason, including non-payment for services. Basic gas supply service is not a competitive service and shall be fully regulated by the board.

"Basic generation service" or "BGS" means electric generation service that is provided, to any customer that has not chosen an alternative electric power supplier, whether or not the customer has received offers for competitive supply options, including, but not limited to, any customer that cannot obtain such service from an electric power supplier for any reason, including non-payment for services. Basic generation service is not a competitive service and shall be fully regulated by the board.

"Basic generation service provider" or "provider" means a provider of basic generation service.

"Basic generation service transition costs" means the amount by which the payments by an electric public utility for the procurement of power for basic generation service and related ancillary and
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administrative costs exceeds the net revenues from the basic generation service charge established by the board pursuant to section 9 of P.L.1999, c.23 (C.48:3-57) during the transition period, together with interest on the balance at the board-approved rate, that is reflected in a deferred balance account approved by the board in an order addressing the electric public utility's unbundled rates, stranded costs, and restructuring filings pursuant to P.L.1999, c.23 (C.48:3-49 et al.). Basic generation service transition costs shall include, but are not limited to, costs of purchases from the spot market, bilateral contracts, contracts with non-utility generators, parting contracts with the purchaser of the electric public utility's divested generation assets, short-term advance purchases, and financial instruments such as hedging, forward contracts, and options. Basic generation service transition costs shall also include the payments by an electric public utility pursuant to a competitive procurement process for basic generation service supply during the transition period, and costs of any such process used to procure the basic generation service supply.

"Board" means the New Jersey Board of Public Utilities or any successor agency.

"Bondable stranded costs" means any stranded costs or basic generation service transition costs of an electric public utility approved by the board for recovery pursuant to the provisions of P.L.1999, c.23 (C.48:3-49 et al.), together with, as approved by the board: (1) the cost of retiring existing debt or equity capital of the electric public utility, including accrued interest, premium and other fees, costs, and charges relating thereto, with the proceeds of the financing of bondable transition property; (2) if requested by an electric public utility in its application for a bondable stranded costs rate order, federal, State and local tax liabilities associated with stranded costs recovery, basic generation service transition cost recovery, or the transfer or financing of the property, or both, including taxes, whose recovery period is modified by the effect of a stranded costs recovery order, a bondable stranded costs rate order, or both; and (3) the costs incurred to issue, service or refinance transition bonds, including interest, acquisition or redemption premium, and other financing costs, whether paid upon issuance or over the life of the transition bonds, including, but not limited to, credit enhancements, service charges, overcollateralization, interest rate cap, swap or collar, yield maintenance, maturity guarantee or other hedging agreements, equity investments, operating costs, and other related fees, costs, and charges, or to assign, sell, or otherwise transfer bondable transition property.

"Bondable stranded costs rate order" means one or more irrevocable written orders issued by the board pursuant to P.L.1999, c.23 (C.48:3-49 et al.) which determines the amount of bondable stranded costs and the initial amount of transition bond charges
authorized to be imposed to recover the bondable stranded costs, including the costs to be financed from the proceeds of the transition bonds, as well as on-going costs associated with servicing and credit enhancing the transition bonds, and provides the electric public utility specific authority to issue or cause to be issued, directly or indirectly, transition bonds through a financing entity and related matters as provided in P.L.1999, c.23 (C.48:3-49 et al.), which order shall become effective immediately upon the written consent of the related electric public utility to the order as provided in P.L.1999, c.23 (C.48:3-49 et al.).

"Bondable transition property" means the property consisting of the irrevocable right to charge, collect, and receive, and be paid from collections of, transition bond charges in the amount necessary to provide for the full recovery of bondable stranded costs which are determined to be recoverable in a bondable stranded costs rate order, all rights of the related electric public utility under the bondable stranded costs rate order including, without limitation, all rights to obtain periodic adjustments of the related transition bond charges pursuant to subsection b. of section 15 of P.L.1999, c.23 (C.48:3-64), and all revenues, collections, payments, money, and proceeds arising under, or with respect to, all of the foregoing.

"British thermal unit" or "Btu" means the amount of heat required to increase the temperature of one pound of water by one degree Fahrenheit.

"Broker" means a duly licensed electric power supplier that assumes the contractual and legal responsibility for the sale of electric generation service, transmission, or other services to end-use retail customers, but does not take title to any of the power sold, or a duly licensed gas supplier that assumes the contractual and legal obligation to provide gas supply service to end-use retail customers, but does not take title to the gas.

"Brownfield" means any former or current commercial or industrial site that is currently vacant or underutilized and on which there has been, or there is suspected to have been, a discharge of a contaminant.

"Buydown" means an arrangement or arrangements involving the buyer and seller in a given power purchase contract and, in some cases third parties, for consideration to be given by the buyer in order to effectuate a reduction in the pricing, or the restructuring of other terms to reduce the overall cost of the power contract, for the remaining succeeding period of the purchased power arrangement or arrangements.

"Buyout" means an arrangement or arrangements involving the buyer and seller in a given power purchase contract and, in some cases third parties, for consideration to be given by the buyer in order to effectuate a termination of such power purchase contract.

"Class I renewable energy" means electric energy produced from solar technologies, photovoltaic technologies, wind energy, fuel
cells, geothermal technologies, wave or tidal action, small scale hydropower facilities with a capacity of three megawatts or less and put into service after the effective date of P.L.2012, c.24, and methane gas from landfills or a biomass facility, provided that the biomass is cultivated and harvested in a sustainable manner.

"Class II renewable energy" means electric energy produced at a hydropower facility with a capacity of greater than three megawatts, but less than 30 megawatts, or a resource recovery facility, provided that the facility is located where retail competition is permitted and provided further that the Commissioner of Environmental Protection has determined that the facility meets the highest environmental standards and minimizes any impacts to the environment and local communities. Class II renewable energy shall not include electric energy produced at a hydropower facility with a capacity of greater than 30 megawatts on or after the effective date of P.L.2015, c.51.

"Co-generation" means the sequential production of electricity and steam or other forms of useful energy used for industrial or commercial heating and cooling purposes.

"Combined cycle power facility" means a generation facility that combines two or more thermodynamic cycles, by producing electric power via the combustion of fuel and then routing the resulting waste heat by-product to a conventional boiler or to a heat recovery steam generator for use by a steam turbine to produce electric power, thereby increasing the overall efficiency of the generating facility.

"Combined heat and power facility" or "co-generation facility" means a generation facility which produces electric energy and steam or other forms of useful energy such as heat, which are used for industrial or commercial heating or cooling purposes. A combined heat and power facility or co-generation facility shall not be considered a public utility.

"Competitive service" means any service offered by an electric public utility or a gas public utility that the board determines to be competitive pursuant to section 8 or section 10 of P.L.1999, c.23 (C.48:3-56 or C.48:3-58) or that is not regulated by the board.

"Commercial and industrial energy pricing class customer" or "CIEP class customer" means that group of non-residential customers with high peak demand, as determined by periodic board order, which either is eligible or which would be eligible, as determined by periodic board order, to receive funds from the Retail Margin Fund established pursuant to section 9 of P.L.1999, c.23 (C.48:3-57) and for which basic generation service is hourly-priced.

"Comprehensive resource analysis" means an analysis including, but not limited to, an assessment of existing market barriers to the implementation of energy efficiency and renewable technologies that are not or cannot be delivered to customers through a competitive marketplace.
"Connected to the distribution system" means, for a solar electric power generation facility, that the facility is: (1) connected to a net metering customer's side of a meter, regardless of the voltage at which that customer connects to the electric grid; (2) an on-site generation facility; (3) qualified for net metering aggregation as provided pursuant to paragraph (4) of subsection e. of section 38 of P.L.1999, c.23 (C.48:3-87); (4) owned or operated by an electric public utility and approved by the board pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1); (5) directly connected to the electric grid at 69 kilovolts or less, regardless of how an electric public utility classifies that portion of its electric grid, and is designated as "connected to the distribution system" by the board pursuant to subsections q. through s. of section 38 of P.L.1999, c.23 (C.48:3-87); or (6) is certified by the board, in consultation with the Department of Environmental Protection, as being located on a brownfield, on an area of historic fill, or on a properly closed sanitary landfill facility. Any solar electric power generation facility, other than that of a net metering customer on the customer's side of the meter, connected above 69 kilovolts shall not be considered connected to the distribution system.

"Customer" means any person that is an end user and is connected to any part of the transmission and distribution system within an electric public utility's service territory or a gas public utility's service territory within this State.

"Customer account service" means metering, billing, or such other administrative activity associated with maintaining a customer account.

"Delivery year" or "DY" means the 12-month period from June 1st through May 31st, numbered according to the calendar year in which it ends.

"Demand side management" means the management of customer demand for energy service through the implementation of cost-effective energy efficiency technologies, including, but not limited to, installed conservation, load management, and energy efficiency measures on and in the residential, commercial, industrial, institutional, and governmental premises and facilities in this State.

"Electric generation service" means the provision of retail electric energy and capacity which is generated off-site from the location at which the consumption of such electric energy and capacity is metered for retail billing purposes, including agreements and arrangements related thereto.

"Electric power generator" means an entity that proposes to construct, own, lease, or operate, or currently owns, leases, or operates, an electric power production facility that will sell or does sell at least 90 percent of its output, either directly or through a marketer, to a customer or customers located at sites that are not on or contiguous to the site on which the facility will be located or is located. The designation of an entity as an electric power generator
for the purposes of P.L.1999, c.23 (C.48:3-49 et al.) shall not, in and of itself, affect the entity's status as an exempt wholesale generator under the Public Utility Holding Company Act of 1935, 15 U.S.C. s.79 et seq., or its successor act.

"Electric power supplier" means a person or entity that is duly licensed pursuant to the provisions of P.L.1999, c.23 (C.48:3-49 et al.) to offer and to assume the contractual and legal responsibility to provide electric generation service to retail customers, and includes load serving entities, marketers, and brokers that offer or provide electric generation service to retail customers. The term excludes an electric public utility that provides electric generation service only as a basic generation service pursuant to section 9 of P.L.1999, c.23 (C.48:3-57).

"Electric public utility" means a public utility, as that term is defined in R.S.48:2-13, that transmits and distributes electricity to end users within this State.

"Electric related service" means a service that is directly related to the consumption of electricity by an end user, including, but not limited to, the installation of demand side management measures at the end user's premises, the maintenance, repair, or replacement of appliances, lighting, motors, or other energy-consuming devices at the end user's premises, and the provision of energy consumption measurement and billing services.

"Electronic signature" means an electronic sound, symbol, or process, attached to, or logically associated with, a contract or other record, and executed or adopted by a person with the intent to sign the record.

"Eligible generator" means a developer of a base load or mid-merit electric power generation facility including, but not limited to, an on-site generation facility that qualifies as a capacity resource under PJM criteria and that commences construction after the effective date of P.L.2011, c.9 (C.48:3-98.2 et al.).

"Energy agent" means a person that is duly registered pursuant to the provisions of P.L.1999, c.23 (C.48:3-49 et al.), that arranges the sale of retail electricity or electric related services, or retail gas supply or gas related services, between government aggregators or private aggregators and electric power suppliers or gas suppliers, but does not take title to the electric or gas sold.

"Energy consumer" means a business or residential consumer of electric generation service or gas supply service located within the territorial jurisdiction of a government aggregator.

"Energy efficiency portfolio standard" means a requirement to procure a specified amount of energy efficiency or demand side management resources as a means of managing and reducing energy usage and demand by customers.

"Energy year" or "EY" means the 12-month period from June 1st through May 31st, numbered according to the calendar year in which it ends.
"Existing business relationship" means a relationship formed by a voluntary two-way communication between an electric power supplier, gas supplier, broker, energy agent, marketer, private aggregator, sales representative, or telemarketer and a customer, regardless of an exchange of consideration, on the basis of an inquiry, application, purchase, or transaction initiated by the customer regarding products or services offered by the electric power supplier, gas supplier, broker, energy agent, marketer, private aggregator, sales representative, or telemarketer; however, a consumer's use of electric generation service or gas supply service through the consumer's electric public utility or gas public utility shall not constitute or establish an existing business relationship for the purpose of P.L.2013, c.263.

"Farmland" means land actively devoted to agricultural or horticultural use that is valued, assessed, and taxed pursuant to the "Farmland Assessment Act of 1964," P.L.1964, c.48 (C.54:4-23.1 et seq.).

"Federal Energy Regulatory Commission" or "FERC" means the federal agency established pursuant to 42 U.S.C. s.7171 et seq. to regulate the interstate transmission of electricity, natural gas, and oil.

"Final remediation document" shall have the same meaning as provided in section 3 of P.L.1976, c.141 (C.58:10-23.11b).

"Financing entity" means an electric public utility, a special purpose entity, or any other assignee of bondable transition property, which issues transition bonds. Except as specifically provided in P.L.1999, c.23 (C.48:3-49 et al.), a financing entity which is not itself an electric public utility shall not be subject to the public utility requirements of Title 48 of the Revised Statutes or any rules or regulations adopted pursuant thereto.

"Gas public utility" means a public utility, as that term is defined in R.S.48:2-13, that distributes gas to end users within this State.

"Gas related service" means a service that is directly related to the consumption of gas by an end user, including, but not limited to, the installation of demand side management measures at the end user's premises, the maintenance, repair or replacement of appliances or other energy-consuming devices at the end user's premises, and the provision of energy consumption measurement and billing services.

"Gas supplier" means a person that is duly licensed pursuant to the provisions of P.L.1999, c.23 (C.48:3-49 et al.) to offer and assume the contractual and legal obligation to provide gas supply service to retail customers, and includes, but is not limited to, marketers and brokers. A non-public utility affiliate of a public utility holding company may be a gas supplier, but a gas public utility or any subsidiary of a gas utility is not a gas supplier. In the event that a gas public utility is not part of a holding company legal structure, a related competitive business segment of that gas public
utility may be a gas supplier, provided that related competitive business segment is structurally separated from the gas public utility, and provided that the interactions between the gas public utility and the related competitive business segment are subject to the affiliate relations standards adopted by the board pursuant to subsection k. of section 10 of P.L.1999, c.23 (C.48:3-58).

"Gas supply service" means the provision to customers of the retail commodity of gas, but does not include any regulated distribution service.

"Government aggregator" means any government entity subject to the requirements of the "Local Public Contracts Law," P.L.1971, c.198 (C.40A:11-1 et seq.), the "Public School Contracts Law," N.J.S.18A:18A-1 et seq., or the "County College Contracts Law," P.L.1982, c.189 (C.18A:64A-25.1 et seq.), that enters into a written contract with a licensed electric power supplier or a licensed gas supplier for: (1) the provision of electric generation service, electric related service, gas supply service, or gas related service for its own use or the use of other government aggregators; or (2) if a municipal or county government, the provision of electric generation service or gas supply service on behalf of business or residential customers within its territorial jurisdiction.

"Government energy aggregation program" means a program and procedure pursuant to which a government aggregator enters into a written contract for the provision of electric generation service or gas supply service on behalf of business or residential customers within its territorial jurisdiction.

"Governmental entity" means any federal, state, municipal, local, or other governmental department, commission, board, agency, court, authority, or instrumentality having competent jurisdiction.

"Greenhouse gas emissions portfolio standard" means a requirement that addresses or limits the amount of carbon dioxide emissions indirectly resulting from the use of electricity as applied to any electric power suppliers and basic generation service providers of electricity.

"Historic fill" means generally large volumes of non-indigenous material, no matter what date they were emplaced on the site, used to raise the topographic elevation of a site, which were contaminated prior to emplacement and are in no way connected with the operations at the location of emplacement and which include, but are not limited to, construction debris, dredge spoils, incinerator residue, demolition debris, fly ash, and non-hazardous solid waste. "Historic fill" shall not include any material which is substantially chromate chemical production waste or any other chemical production waste or waste from processing of metal or mineral ores, residues, slags, or tailings.

"Incremental auction" means an auction conducted by PJM, as part of PJM's reliability pricing model, prior to the start of the delivery year to secure electric capacity as necessary to satisfy the
capacity requirements for that delivery year, that is not otherwise provided for in the base residual auction.

"Leakage" means an increase in greenhouse gas emissions related to generation sources located outside of the State that are not subject to a state, interstate, or regional greenhouse gas emissions cap or standard that applies to generation sources located within the State.

"Locational deliverability area" or "LDA" means one or more of the zones within the PJM region which are used to evaluate area transmission constraints and reliability issues including electric public utility company zones, sub-zones, and combinations of zones.

"Long-term capacity agreement pilot program" or "LCAPP" means a pilot program established by the board that includes participation by eligible generators, to seek offers for financially-settled standard offer capacity agreements with eligible generators pursuant to the provisions of P.L.2011, c.9 (C.48:3-98.2 et al.).

"Market transition charge" means a charge imposed pursuant to section 13 of P.L.1999, c.23 (C.48:3-61) by an electric public utility, at a level determined by the board, on the electric public utility customers for a limited duration transition period to recover stranded costs created as a result of the introduction of electric power supply competition pursuant to the provisions of P.L.1999, c.23 (C.48:3-49 et al.).

"Marketer" means a duly licensed electric power supplier that takes title to electric energy and capacity, transmission and other services from electric power generators and other wholesale suppliers and then assumes the contractual and legal obligation to provide electric generation service, and may include transmission and other services, to an end-use retail customer or customers, or a duly licensed gas supplier that takes title to gas and then assumes the contractual and legal obligation to provide gas supply service to an end-use customer or customers.

"Mid-merit electric power generation facility" means a generation facility that operates at a capacity factor between baseload generation facilities and peaker generation facilities.

"Net metering aggregation" means a procedure for calculating the combination of the annual energy usage for all facilities owned by a single customer where such customer is a State entity, school district, county, county agency, county authority, municipality, municipal agency, or municipal authority, and which are served by a solar electric power generating facility as provided pursuant to paragraph (4) of subsection e. of section 38 of P.L.1999, c.23 (C.48:3-87).

"Net proceeds" means proceeds less transaction and other related costs as determined by the board.

"Net revenues" means revenues less related expenses, including applicable taxes, as determined by the board.
"Offshore wind energy" means electric energy produced by a qualified offshore wind project.

"Offshore wind renewable energy certificate" or "OREC" means a certificate, issued by the board or its designee, representing the environmental attributes of one megawatt hour of electric generation from a qualified offshore wind project.

"Off-site end use thermal energy services customer" means an end use customer that purchases thermal energy services from an on-site generation facility, combined heat and power facility, or co-generation facility, and that is located on property that is separated from the property on which the on-site generation facility, combined heat and power facility, or co-generation facility is located by more than one easement, public thoroughfare, or transportation or utility-owned right-of-way.

"On-site generation facility" means a generation facility, including, but not limited to, a generation facility that produces Class I or Class II renewable energy, and equipment and services appurtenant to electric sales by such facility to the end use customer located on the property or on property contiguous to the property on which the end user is located. An on-site generation facility shall not be considered a public utility. The property of the end use customer and the property on which the on-site generation facility is located shall be considered contiguous if they are geographically located next to each other, but may be otherwise separated by an easement, public thoroughfare, transportation or utility-owned right-of-way, or if the end use customer is purchasing thermal energy services produced by the on-site generation facility, for use for heating or cooling, or both, regardless of whether the customer is located on property that is separated from the property on which the on-site generation facility is located by more than one easement, public thoroughfare, or transportation or utility-owned right-of-way.

"Person" means an individual, partnership, corporation, association, trust, limited liability company, governmental entity, or other legal entity.

"PJM Interconnection, L.L.C." or "PJM" means the privately-held, limited liability corporation that is a FERC-approved Regional Transmission Organization, or its successor, that manages the regional, high-voltage electricity grid serving all or parts of 13 states including New Jersey and the District of Columbia, operates the regional competitive wholesale electric market, manages the regional transmission planning process, and establishes systems and rules to ensure that the regional and in-State energy markets operate fairly and efficiently.

"Preliminary assessment" shall have the same meaning as provided in section 3 of P.L.1976, c.141 (C.58:10-23.11b).

"Private aggregator" means a non-government aggregator that is a duly-organized business or non-profit organization authorized to do business in this State that enters into a contract with a duly
licensed electric power supplier for the purchase of electric energy and capacity, or with a duly licensed gas supplier for the purchase of gas supply service, on behalf of multiple end-use customers by combining the loads of those customers.

"Properly closed sanitary landfill facility" means a sanitary landfill facility, or a portion of a sanitary landfill facility, for which performance is complete with respect to all activities associated with the design, installation, purchase, or construction of all measures, structures, or equipment required by the Department of Environmental Protection, pursuant to law, in order to prevent, minimize, or monitor pollution or health hazards resulting from a sanitary landfill facility subsequent to the termination of operations at any portion thereof, including, but not necessarily limited to, the placement of earthen or vegetative cover, and the installation of methane gas vents or monitors and leachate monitoring wells or collection systems at the site of any sanitary landfill facility.

"Public utility holding company" means: (1) any company that, directly or indirectly, owns, controls, or holds with power to vote, 10 percent or more of the outstanding voting securities of an electric public utility or a gas public utility or of a company which is a public utility holding company by virtue of this definition, unless the Securities and Exchange Commission, or its successor, by order declares such company not to be a public utility holding company under the Public Utility Holding Company Act of 1935, 15 U.S.C. s.79 et seq., or its successor; or (2) any person that the Securities and Exchange Commission, or its successor, determines, after notice and opportunity for hearing, directly or indirectly, to exercise, either alone or pursuant to an arrangement or understanding with one or more other persons, such a controlling influence over the management or policies of an electric public utility or a gas public utility or public utility holding company as to make it necessary or appropriate in the public interest or for the protection of investors or consumers that such person be subject to the obligations, duties, and liabilities imposed in the Public Utility Holding Company Act of 1935, 15 U.S.C. s.79 et seq., or its successor act.

"Qualified offshore wind project" means a wind turbine electricity generation facility in the Atlantic Ocean [and] that is connected to [the electric transmission system in this State, and includes] an offshore wind transmission system that links the qualified offshore wind project with a utility electric transmission system in the State on the mainland. A qualified offshore wind project as approved by the board pursuant to section 3 of P.L.2010, c.57 (C.48:3-87.1) shall not include an offshore wind transmission system and shall include only a wind turbine electricity generation facility and the associated [transmission-related interconnection] facilities and equipment necessary to interconnect the wind turbine
electric generation facility to the offshore wind transmission system, and approved by the board pursuant to section 3 of P.L.2010, c.57 (C.48:3-87.1).

"Registration program" means an administrative process developed by the board pursuant to subsection u. of section 38 of P.L.1999, c.23 (C.48:3-87) that requires all owners of solar electric power generation facilities connected to the distribution system that intend to generate SRECs, to file with the board documents detailing the size, location, interconnection plan, land use, and other project information as required by the board.

"Regulatory asset" means an asset recorded on the books of an electric public utility or gas public utility pursuant to the Statement of Financial Accounting Standards, No. 71, entitled "Accounting for the Effects of Certain Types of Regulation," or any successor standard and as deemed recoverable by the board.

"Related competitive business segment of an electric public utility or gas public utility" means any business venture of an electric public utility or gas public utility including, but not limited to, functionally separate business units, joint ventures, and partnerships, that offers to provide or provides competitive services.

"Related competitive business segment of a public utility holding company" means any business venture of a public utility holding company, including, but not limited to, functionally separate business units, joint ventures, and partnerships and subsidiaries, that offers to provide or provides competitive services, but does not include any related competitive business segments of an electric public utility or gas public utility.

"Reliability pricing model" or "RPM" means PJM's capacity-market model, and its successors, that secures capacity on behalf of electric load serving entities to satisfy load obligations not satisfied through the output of electric generation facilities owned by those entities, or otherwise secured by those entities through bilateral contracts.

"Renewable energy certificate" or "REC" means a certificate representing the environmental benefits or attributes of one megawatt-hour of generation from a generating facility that produces Class I or Class II renewable energy, but shall not include a solar renewable energy certificate or an offshore wind renewable energy certificate.

"Resource clearing price" or "RCP" means the clearing price established for the applicable locational deliverability area by the base residual auction or incremental auction, as determined by the optimization algorithm for each auction, conducted by PJM as part of PJM's reliability pricing model.

"Resource recovery facility" means a solid waste facility constructed and operated for the incineration of solid waste for energy production and the recovery of metals and other materials.
for reuse, which the Department of Environmental Protection has
determined to be in compliance with current environmental
standards, including, but not limited to, all applicable requirements
of the federal "Clean Air Act" (42 U.S.C. s.7401 et seq.).

"Restructuring related costs" means reasonably incurred costs
directly related to the restructuring of the electric power industry,
including the closure, sale, functional separation, and divestiture
of generation and other competitive utility assets by a public utility, or
the provision of competitive services as those costs are determined
by the board, and which are not stranded costs as defined in
P.L.1999, c.23 (C.48:3-49 et al.) but may include, but not be limited
to, investments in management information systems, and which
shall include expenses related to employees affected by
restructuring which result in efficiencies and which result in
benefits to ratepayers, such as training or retraining at the level
equivalent to one year's training at a vocational or technical school
or county community college, the provision of severance pay of two
weeks of base pay for each year of full-time employment, and a
maximum of 24 months' continued health care coverage. Except as
to expenses related to employees affected by restructuring,
"restructuring related costs" shall not include going forward costs.

"Retail choice" means the ability of retail customers to shop for
electric generation or gas supply service from electric power or gas
suppliers, or opt to receive basic generation service or basic gas
service, and the ability of an electric power or gas supplier to offer
electric generation service or gas supply service to retail customers,
consistent with the provisions of P.L.1999, c.23 (C.48:3-49 et al.).

"Retail margin" means an amount, reflecting differences in
prices that electric power suppliers and electric public utilities may
charge in providing electric generation service and basic generation
service, respectively, to retail customers, excluding residential
customers, which the board may authorize to be charged to
categories of basic generation service customers of electric public
utilities in this State, other than residential customers, under the
board's continuing regulation of basic generation service pursuant to
sections 3 and 9 of P.L.1999, c.23 (C.48:3-51 and 48:3-57), for the
purpose of promoting a competitive retail market for the supply of
electricity.

"Sales representative" means a person employed by, acting on
behalf of, or as an independent contractor for, an electric power
supplier, gas supplier, broker, energy agent, marketer, or private
aggregator who, by any means, solicits a potential residential
customer for the provision of electric generation service or gas
supply service.

"Sanitary landfill facility" shall have the same meaning as

"School district" means a local or regional school district
established pursuant to chapter 8 or chapter 13 of Title 18A of the
New Jersey Statutes, a county special services school district established pursuant to article 8 of chapter 46 of Title 18A of the New Jersey Statutes, a county vocational school district established pursuant to article 3 of chapter 54 of Title 18A of the New Jersey Statutes, and a district under full State intervention pursuant to P.L.1987, c.399 (C.18A:7A-34 et al.).

"Shopping credit" means an amount deducted from the bill of an electric public utility customer to reflect the fact that the customer has switched to an electric power supplier and no longer takes basic generation service from the electric public utility.

"Site investigation" shall have the same meaning as provided in section 3 of P.L.1976, c.141 (C.58:10-23.11b).

"Small scale hydropower facility" means a facility located within this State that is connected to the distribution system, and that meets the requirements of, and has been certified by, a nationally recognized low-impact hydropower organization that has established low-impact hydropower certification criteria applicable to: (1) river flows; (2) water quality; (3) fish passage and protection; (4) watershed protection; (5) threatened and endangered species protection; (6) cultural resource protection; (7) recreation; and (8) facilities recommended for removal.

"Social program" means a program implemented with board approval to provide assistance to a group of disadvantaged customers, to provide protection to consumers, or to accomplish a particular societal goal, and includes, but is not limited to, the winter moratorium program, utility practices concerning "bad debt" customers, low income assistance, deferred payment plans, weatherization programs, and late payment and deposit policies, but does not include any demand side management program or any environmental requirements or controls.

"Societal benefits charge" means a charge imposed by an electric public utility, at a level determined by the board, pursuant to, and in accordance with, section 12 of P.L.1999, c.23 (C.48:3-60).

"Solar alternative compliance payment" or "SACP" means a payment of a certain dollar amount per megawatt hour (MWh) which an electric power supplier or provider may submit to the board in order to comply with the solar electric generation requirements under section 38 of P.L.1999, c.23 (C.48:3-87).

"Solar renewable energy certificate" or "SREC" means a certificate issued by the board or its designee, representing one megawatt hour (MWh) of solar energy that is generated by a facility connected to the distribution system in this State and has value based upon, and driven by, the energy market.

"Standard offer capacity agreement" or "SOCA" means a financially-settled transaction agreement, approved by board order, that provides for eligible generators to receive payments from the electric public utilities for a defined amount of electric capacity for a term to be determined by the board but not to exceed 15 years,
and for such payments to be a fully non-bypassable charge, with such an order, once issued, being irrevocable.

"Standard offer capacity price" or "SOCP" means the capacity price that is fixed for the term of the SOCA and which is the price to be received by eligible generators under a board-approved SOCA.

"State entity" means a department, agency, or office of State government, a State university or college, or an authority created by the State.

"Stranded cost" means the amount by which the net cost of an electric public utility's electric generating assets or electric power purchase commitments, as determined by the board consistent with the provisions of P.L.1999, c.23 (C.48:3-49 et al.), exceeds the market value of those assets or contractual commitments in a competitive supply marketplace and the costs of buydowns or buyouts of power purchase contracts.

"Stranded costs recovery order" means each order issued by the board in accordance with subsection c. of section 13 of P.L.1999, c.23 (C.48:3-61) which sets forth the amount of stranded costs, if any, the board has determined an electric public utility is eligible to recover and collect in accordance with the standards set forth in section 13 of P.L.1999, c.23 (C.48:3-61) and the recovery mechanisms therefor.

"Telemarketer" shall have the same meaning as set forth in section 2 of P.L.2003, c.76 (C.56:8-120).

"Telemarketing sales call" means a telephone call made by a telemarketer to a potential residential customer as part of a plan, program, or campaign to encourage the customer to change the customer's electric power supplier or gas supplier. A telephone call made to an existing customer of an electric power supplier, gas supplier, broker, energy agent, marketer, private aggregator, or sales representative, for the sole purpose of collecting on accounts or following up on contractual obligations, shall not be deemed a telemarketing sales call. A telephone call made in response to an express written request of a customer shall not be deemed a telemarketing sales call.

"Thermal efficiency" means the useful electric energy output of a facility, plus the useful thermal energy output of the facility, expressed as a percentage of the total energy input to the facility.

"Transition bond charge" means a charge, expressed as an amount per kilowatt hour, that is authorized by and imposed on electric public utility ratepayers pursuant to a bondable stranded costs rate order, as modified at any time pursuant to the provisions of P.L.1999, c.23 (C.48:3-49 et al.).

"Transition bonds" means bonds, notes, certificates of participation, beneficial interest, or other evidences of indebtedness or ownership issued pursuant to an indenture, contract, or other agreement of an electric public utility or a financing entity, the
proceeds of which are used, directly or indirectly, to recover, finance or refinance bondable stranded costs and which are, directly or indirectly, secured by or payable from bondable transition property. References in P.L.1999, c.23 (C.48:3-49 et al.) to principal, interest, and acquisition or redemption premium with respect to transition bonds which are issued in the form of certificates of participation or beneficial interest or other evidences of ownership shall refer to the comparable payments on such securities.

"Transition period" means the period from August 1, 1999 through July 31, 2003.

"Transmission and distribution system" means, with respect to an electric public utility, any facility or equipment that is used for the transmission, distribution, or delivery of electricity to the customers of the electric public utility including, but not limited to, the land, structures, meters, lines, switches, and all other appurtenances thereof and thereto, owned or controlled by the electric public utility within this State.

"Universal service" means any service approved by the board with the purpose of assisting low-income residential customers in obtaining or retaining electric generation or delivery service.

"Unsolicited advertisement" means any advertising claims of the commercial availability or quality of services provided by an electric power supplier, gas supplier, broker, energy agent, marketer, private aggregator, sales representative, or telemarketer which is transmitted to a potential customer without that customer's prior express invitation or permission.

(cf: P.L.2015, c.51, s.1)

7. Section 38 of P.L.1999, c.23 (C.48:3-87) is amended to read as follows:

38. a. The board shall require an electric power supplier or basic generation service provider to disclose on a customer's bill or on customer contracts or marketing materials, a uniform, common set of information about the environmental characteristics of the energy purchased by the customer, including, but not limited to:

(1) Its fuel mix, including categories for oil, gas, nuclear, coal, solar, hydroelectric, wind and biomass, or a regional average determined by the board;

(2) Its emissions, in pounds per megawatt hour, of sulfur dioxide, carbon dioxide, oxides of nitrogen, and any other pollutant that the board may determine to pose an environmental or health hazard, or an emissions default to be determined by the board; and

(3) Any discrete emission reduction retired pursuant to rules and regulations adopted pursuant to P.L.1995, c.188.

b. Notwithstanding any provisions of the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.) to the contrary, the board shall initiate a proceeding and shall adopt, in
consultation with the Department of Environmental Protection, after notice and opportunity for public comment and public hearing, interim standards to implement this disclosure requirement, including, but not limited to:

1. A methodology for disclosure of emissions based on output pounds per megawatt hour;
2. Benchmarks for all suppliers and basic generation service providers to use in disclosing emissions that will enable consumers to perform a meaningful comparison with a supplier's or basic generation service provider's emission levels; and
3. A uniform emissions disclosure format that is graphic in nature and easily understandable by consumers. The board shall periodically review the disclosure requirements to determine if revisions to the environmental disclosure system as implemented are necessary.

Such standards shall be effective as regulations immediately upon filing with the Office of Administrative Law and shall be effective for a period not to exceed 18 months, and may, thereafter, be amended, adopted or readopted by the board in accordance with the provisions of the "Administrative Procedure Act."

c. (1) The board may adopt, in consultation with the Department of Environmental Protection, after notice and opportunity for public comment, an emissions portfolio standard applicable to all electric power suppliers and basic generation service providers, upon a finding that:

a) The standard is necessary as part of a plan to enable the State to meet federal Clean Air Act or State ambient air quality standards; and

b) Actions at the regional or federal level cannot reasonably be expected to achieve the compliance with the federal standards.

(2) By July 1, 2009, the board shall adopt, pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), a greenhouse gas emissions portfolio standard to mitigate leakage or another regulatory mechanism to mitigate leakage applicable to all electric power suppliers and basic generation service providers that provide electricity to customers within the State. The greenhouse gas emissions portfolio standard or any other regulatory mechanism to mitigate leakage shall:

a) Allow a transition period, either before or after the effective date of the regulation to mitigate leakage, for a basic generation service provider or electric power supplier to either meet the emissions portfolio standard or other regulatory mechanism to mitigate leakage, or to transfer any customer to a basic generation service provider or electric power supplier that meets the emissions portfolio standard or other regulatory mechanism to mitigate leakage. If the transition period allowed pursuant to this subparagraph occurs after the implementation of an emissions portfolio standard or other regulatory mechanism to mitigate leakage...
leakage, the transition period shall be no longer than three years; and

(b) Exempt the provision of basic generation service pursuant to a basic generation service purchase and sale agreement effective prior to the date of the regulation.

Unless the Attorney General or the Attorney General’s designee determines that a greenhouse gas emissions portfolio standard would unconstitutionally burden interstate commerce or would be preempted by federal law, the adoption by the board of an electric energy efficiency portfolio standard pursuant to subsection g. of this section, a gas energy efficiency portfolio standard pursuant to subsection h. of this section, or any other enhanced energy efficiency policies to mitigate leakage shall not be considered sufficient to fulfill the requirement of this subsection for the adoption of a greenhouse gas emissions portfolio standard or any other regulatory mechanism to mitigate leakage.

d. Notwithstanding any provisions of the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.) to the contrary, the board shall initiate a proceeding and shall adopt, after notice, provision of the opportunity for comment, and public hearing, renewable energy portfolio standards that shall require:

(1) that two and one-half percent of the kilowatt hours sold in this State by each electric power supplier and each basic generation service provider be from [Class I or] Class II renewable energy sources;

(2) beginning on January 1, 2001, 2020, that [one-half of one] 21 percent of the kilowatt hours sold in this State by each electric power supplier and each basic generation service provider be from Class I renewable energy sources. The board shall increase the required percentage for Class I renewable energy sources so that by January 1, 2006, one percent 2025, 35 percent of the kilowatt hours sold in this State by each electric power supplier and each basic generation service provider shall be from Class I renewable energy sources [and shall additionally increase the required percentage for Class I renewable energy sources by one-half of one percent each year until January 1, 2012, when four percent], and by January 1, 2030, 50 percent of the kilowatt hours sold in this State by each electric power supplier and each basic generation service provider shall be from Class I renewable energy sources. Notwithstanding the requirements of this subsection, the board shall ensure that the cost to ratepayers of the Class I renewable energy requirement imposed pursuant to this subsection, shall be capped so that the cost to customers of satisfying the requirement shall not exceed seven percent of the Statewide average residential customer bill for energy year 2019, energy year 2020, and energy year 2021, and shall not exceed five percent of the Statewide average residential customer bill in any year thereafter. The board may
adjust the Class I renewable portfolio standard requirement pursuant to this subsection to meet the cap of the cost to customers.

An electric power supplier or basic generation service provider may satisfy the requirements of this subsection by participating in a renewable energy trading program approved by the board in consultation with the Department of Environmental Protection;

(3) that the board establish a multi-year schedule, applicable to each electric power supplier or basic generation service provider in this State, beginning with the one-year period commencing on June 1, 2010, and continuing for each subsequent one-year period up to and including, the one-year period commencing on June 1, 2033, that requires the following number or percentage, as the case may be, of kilowatt-hours sold in this State by each electric power supplier and each basic generation service provider to be from solar electric power generators connected to the distribution system in this State:

<table>
<thead>
<tr>
<th>Energy Year (EY)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>EY 2011</td>
<td>306 Gwhrs</td>
</tr>
<tr>
<td>EY 2012</td>
<td>442 Gwhrs</td>
</tr>
<tr>
<td>EY 2013</td>
<td>596 Gwhrs</td>
</tr>
<tr>
<td>EY 2014</td>
<td>2.050%</td>
</tr>
<tr>
<td>EY 2015</td>
<td>2.450%</td>
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<tr>
<td>EY 2016</td>
<td>2.750%</td>
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<tr>
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<tr>
<td>EY 2019</td>
<td>3.290%</td>
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<tr>
<td>EY 2020</td>
<td>3.470%</td>
</tr>
<tr>
<td>EY 2021</td>
<td>3.800%</td>
</tr>
<tr>
<td>EY 2022</td>
<td>3.560%</td>
</tr>
<tr>
<td>EY 2023</td>
<td>3.650%</td>
</tr>
<tr>
<td>EY 2024</td>
<td>3.740%</td>
</tr>
<tr>
<td>EY 2025</td>
<td>3.830%</td>
</tr>
<tr>
<td>EY 2026</td>
<td>3.920%</td>
</tr>
<tr>
<td>EY 2027</td>
<td>4.010%</td>
</tr>
</tbody>
</table>

For every energy year thereafter, at least 4.100% per energy year to reflect an increasing number of kilowatt-hours to be purchased by suppliers or providers from solar electric power generators connected to the distribution system in this State, and to establish a framework within which, of the electricity that the generators sell in this State, suppliers and providers shall each obtain at least 3.470 percent in the energy year 2021 and 4.100 percent in the energy year 2028 from solar electric power generators connected to the distribution system in this State, provided, however, that:

<table>
<thead>
<tr>
<th>Energy Year (EY)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>EY 2022</td>
<td>4.900%</td>
</tr>
<tr>
<td>EY 2023</td>
<td>4.900%</td>
</tr>
<tr>
<td>EY 2024</td>
<td>4.700%</td>
</tr>
<tr>
<td>EY 2025</td>
<td>4.620%</td>
</tr>
</tbody>
</table>
No later than 24 months after the date of enactment of P.L. , c. (pending before the Legislature as this bill), the board shall complete a study that evaluates how to modify or replace the SREC program to encourage the continued efficient and orderly development of solar renewable energy generating sources throughout the State. The board shall submit the written report thereon to the Governor and, pursuant to section 2 of P.L. , c. (C. 1991, c.164 (C.52:14-19.1), to the Legislature. The board shall consult with public utilities, industry experts, regional grid operators, solar power providers and financiers, and other State agencies to determine whether the board can modify the SREC program such that the program will:

(1) continually reduce, where feasible, the cost of achieving the solar energy goals set forth above;

(2) provide an orderly transition from the SREC program to a new or modified program;

(3) develop megawatt targets for grid connected and distribution systems, including residential and small commercial rooftop systems, community solar systems, and large scale behind the meter systems, as a share of the overall solar requirement, which targets the board may modify periodically based on the cost, feasibility, or social impacts of different types of projects;

(4) establish and update market-based maximum incentive payment caps periodically for each of the above categories of solar projects;

(5) encourage and facilitate market-based cost recovery through long-term contracts and energy market sales; and

(6) where cost recovery is needed for any portion of an efficient solar project when costs are not recoverable through wholesale market sales and direct payments from customers, utilize competitive processes such as competitive procurement and long-term contracts where possible to assure such recovery, without exceeding the maximum incentive payment cap for that category of projects.

The board shall approve, conditionally approve, or disapprove any application for designation as connected to the distribution system of a solar electric power generation facility filed with the board after the date of enactment of P.L. , c. (pending before the Legislature as this bill), no more than 90 days after receipt by the board of a completed application. For any such application for a project greater than 25 kilowatts, the board shall require the applicant to post a notice escrow with the board in an amount of
$40 per kilowatt of DC nameplate capacity of the facility, not to exceed $40,000. The notice escrow amount shall be reimbursed to the applicant in full upon either denial of the application by the board, or upon commencement of commercial operation of the facility. The escrow amount shall be forfeited to the State if the facility is designated as connected to the distribution system pursuant to this subsection but does not commence commercial operation within two years following the date of the designation by the board.

For all applications for designation as connected to the distribution system of a solar electric power generation facility filed with the board after the date of enactment of P.L. [P.L.2012, c.24] (pending before the Legislature as this bill), the SREC term shall be 10 years.

(a) The board shall determine an appropriate period of no less than 120 days following the end of an energy year prior to which a provider or supplier must demonstrate compliance for that energy year with the annual renewable portfolio standard;

(b) No more than 24 months following the date of enactment of P.L.2012, c.24, the board shall complete a proceeding to investigate approaches to mitigate solar development volatility and prepare and submit, pursuant to section 2 of P.L.1991, c.164 (C.52:14-19.1), a report to the Legislature, detailing its findings and recommendations. As part of the proceeding, the board shall evaluate other techniques used nationally and internationally;

(c) The solar renewable portfolio standards requirements in this paragraph shall exempt those existing supply contracts which are effective prior to the date of enactment of [P.L.2012, c.24] P.L. [P.L.2012, c.24] (pending before the Legislature as this bill) from any increase beyond the number of SRECs mandated by the solar renewable portfolio standards requirements that were in effect on the date that the providers executed their existing supply contracts. This limited exemption for providers' existing supply contracts shall not be construed to lower the Statewide solar sourcing requirements set forth in this paragraph. Such incremental requirements that would have otherwise been imposed on exempt providers shall be distributed over the providers not subject to the existing supply contract exemption until such time as existing supply contracts expire and all providers are subject to the new requirement in a manner that is competitively neutral among all providers and suppliers. [The board shall] Notwithstanding any rule or regulation to the contrary, the board shall recognize these new solar purchase obligations as a change required by operation of law and implement the provisions of this subsection in a manner so as to prevent any subsidies between suppliers and providers and to promote competition in the electricity supply industry.

An electric power supplier or basic generation service provider may satisfy the requirements of this subsection by participating in a
renewable energy trading program approved by the board in consultation with the Department of Environmental Protection, or compliance with the requirements of this subsection may be demonstrated to the board by suppliers or providers through the purchase of SRECs.

The renewable energy portfolio standards adopted by the board pursuant to paragraphs (1) and (2) of this subsection shall be effective as regulations immediately upon filing with the Office of Administrative Law and shall be effective for a period not to exceed 18 months, and may, thereafter, be amended, adopted or readopted by the board in accordance with the provisions of the "Administrative Procedure Act."

The renewable energy portfolio standards adopted by the board pursuant to this paragraph shall be effective as regulations immediately upon filing with the Office of Administrative Law and shall be effective for a period not to exceed 30 months after such filing, and shall, thereafter, be amended, adopted or readopted by the board in accordance with the "Administrative Procedure Act"; and

(4) within 180 days after the date of enactment of P.L.2010, c.57 (C.48:3-87.1 et al.), that the board establish an offshore wind renewable energy certificate program to require that a percentage of the kilowatt hours sold in this State by each electric power supplier and each basic generation service provider be from offshore wind energy in order to support at least [1,100] 3,500 megawatts of generation from qualified offshore wind projects.

The percentage established by the board pursuant to this paragraph shall serve as an offset to the renewable energy portfolio standard established pursuant to paragraphs (1) and (2) of this subsection and shall reduce the corresponding Class I renewable energy requirement.

The percentage established by the board pursuant to this paragraph shall reflect the projected OREC production of each qualified offshore wind project, approved by the board pursuant to section 3 of P.L.2010, c.57 (C.48:3-87.1), for [twenty] 20 years from the commercial operation start date of the qualified offshore wind project which production projection and OREC purchase requirement, once approved by the board, shall not be subject to reduction.

An electric power supplier or basic generation service provider shall comply with the OREC program established pursuant to this paragraph through the purchase of offshore wind renewable energy certificates at a price and for the time period required by the board. In the event there are insufficient offshore wind renewable energy certificates available, the electric power supplier or basic generation service provider shall pay an offshore wind alternative compliance payment established by the board. Any offshore wind alternative
compliance payments collected shall be refunded directly to the ratepayers by the electric public utilities.

The rules established by the board pursuant to this paragraph shall be effective as regulations immediately upon filing with the Office of Administrative Law and shall be effective for a period not to exceed 18 months, and may, thereafter, be amended, adopted or readopted by the board in accordance with the provisions of the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.).

e. Notwithstanding any provisions of the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.) to the contrary, the board shall initiate a proceeding and shall adopt, after notice, provision of the opportunity for comment, and public hearing:

(1) net metering standards for electric power suppliers and basic generation service providers. The standards shall require electric power suppliers and basic generation service providers to offer net metering at non-discriminatory rates to industrial, large commercial, residential and small commercial customers, as those customers are classified or defined by the board, that generate electricity, on the customer's side of the meter, using a Class I renewable energy source, for the net amount of electricity supplied by the electric power supplier or basic generation service provider over an annualized period. Systems of any sized capacity, as measured in watts, are eligible for net metering. If the amount of electricity generated by the customer-generator, plus any kilowatt hour credits held over from the previous billing periods, exceeds the electricity supplied by the electric power supplier or basic generation service provider, then the electric power supplier or basic generation service provider, as the case may be, shall credit the customer-generator for the excess kilowatt hours until the end of the annualized period at which point the customer-generator will be compensated for any remaining credits or, if the customer-generator chooses, credit the customer-generator on a real-time basis, at the electric power supplier's or basic generation service provider's avoided cost of wholesale power or the PJM electric power pool's real-time locational marginal pricing rate, adjusted for losses, for the respective zone in the PJM electric power pool. Alternatively, the customer-generator may execute a bilateral agreement with an electric power supplier or basic generation service provider for the sale and purchase of the customer-generator's excess generation. The customer-generator may be credited on a real-time basis, so long as the customer-generator follows applicable rules prescribed by the PJM electric power pool for its capacity requirements for the net amount of electricity supplied by the electric power supplier or basic generation service provider. The board may authorize an electric power supplier or basic generation service provider to cease offering net metering to customers that are not already net metered.
whenever the total rated generating capacity owned and operated by net metering customer-generators Statewide equals \( 2.9 \) \( 5.8 \) percent of the total annual kilowatt-hours sold in this State by each electric power supplier and each basic generation service provider during the prior one-year period;

(2) safety and power quality interconnection standards for Class I renewable energy source systems used by a customer-generator that shall be eligible for net metering.

Such standards or rules shall take into consideration the goals of the New Jersey Energy Master Plan, applicable industry standards, and the standards of other states and the Institute of Electrical and Electronics Engineers. The board shall allow electric public utilities to recover the costs of any new net meters, upgraded net meters, system reinforcements or upgrades, and interconnection costs through either their regulated rates or from the net metering customer-generator;

(3) credit or other incentive rules for generators using Class I renewable energy generation systems that connect to New Jersey's electric public utilities' distribution system but who do not net meter; and

(4) net metering aggregation standards to require electric public utilities to provide net metering aggregation to single electric public utility customers that operate a solar electric power generation system installed at one of the customer's facilities or on property owned by the customer, provided that any such customer is a State entity, school district, county, county agency, county authority, municipality, municipal agency, or municipal authority. The standards shall provide that, in order to qualify for net metering aggregation, the customer must operate a solar electric power generation system using a net metering billing account, which system is located on property owned by the customer, provided that:

(a) the property is not land that has been actively devoted to agricultural or horticultural use and that is valued, assessed, and taxed pursuant to the "Farmland Assessment Act of 1964," P.L.1964, c.48 (C.54:4-23.1 et seq.) at any time within the 10-year period prior to the effective date of P.L.2012, c.24, provided, however, that the municipal planning board of a municipality in which a solar electric power generation system is located may waive the requirement of this subparagraph (a), (b) the system is not an on-site generation facility, (c) all of the facilities of the single customer combined for the purpose of net metering aggregation are facilities owned or operated by the single customer and are located within its territorial jurisdiction except that all of the facilities of a State entity engaged in net metering aggregation shall be located within five miles of one another, and (d) all of those facilities are within the service territory of a single electric public utility and are all served by the same basic generation service provider or by the same electric power supplier. The standards shall provide that in
order to qualify for net metering aggregation, the customer's solar electric power generation system shall be sized so that its annual generation does not exceed the combined metered annual energy usage of the qualified customer facilities, and the qualified customer facilities shall all be in the same customer rate class under the applicable electric public utility tariff. For the customer's facility or property on which the solar electric generation system is installed, the electricity generated from the customer's solar electric generation system shall be accounted for pursuant to the provisions of paragraph (1) of this subsection to provide that the electricity generated in excess of the electricity supplied by the electric power supplier or the basic generation service provider, as the case may be, for the customer's facility on which the solar electric generation system is installed, over the annualized period, is credited at the electric power supplier's or the basic generation service provider's avoided cost of wholesale power or the PJM electric power pool real-time locational marginal pricing rate. All electricity used by the customer's qualified facilities, with the exception of the facility or property on which the solar electric power generation system is installed, shall be billed at the full retail rate pursuant to the electric public utility tariff applicable to the customer class of the customer using the electricity. A customer may contract with a third party to operate a solar electric power generation system, for the purpose of net metering aggregation. Any contractual relationship entered into for operation of a solar electric power generation system related to net metering aggregation shall include contractual protections that provide for adequate performance and provision for construction and operation for the term of the contract, including any appropriate bonding or escrow requirements. Any incremental cost to an electric public utility for net metering aggregation shall be fully and timely recovered in a manner to be determined by the board. The board shall adopt net metering aggregation standards within 270 days after the effective date of P.L.2012, c.24.

Such rules shall require the board or its designee to issue a credit or other incentive to those generators that do not use a net meter but otherwise generate electricity derived from a Class I renewable energy source and to issue an enhanced credit or other incentive, including, but not limited to, a solar renewable energy credit, to those generators that generate electricity derived from solar technologies.

Such standards or rules shall be effective as regulations immediately upon filing with the Office of Administrative Law and shall be effective for a period not to exceed 18 months, and may, thereafter, be amended, adopted or readopted by the board in accordance with the provisions of the "Administrative Procedure Act."

f. The board may assess, by written order and after notice and opportunity for comment, a separate fee to cover the cost of
implementing and overseeing an emission disclosure system or emission portfolio standard, which fee shall be assessed based on an electric power supplier's or basic generation service provider's share of the retail electricity supply market. The board shall not impose a fee for the cost of implementing and overseeing a greenhouse gas emissions portfolio standard adopted pursuant to paragraph (2) of subsection c. of this section, the electric energy efficiency portfolio standard adopted pursuant to subsection g. of this section, or the gas energy efficiency portfolio standard adopted pursuant to subsection h. of this section.

g. The board may adopt, pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), an electric energy efficiency [portfolio standard] program in order to ensure investment in cost-effective energy efficiency measures, ensure universal access to energy efficiency measures, and serve the needs of low-income communities that require each electric public utility to implement energy efficiency measures that reduce electricity usage in the State [by 2020 to a level that is 20 percent below the usage projected by the board in the absence of such a standard] pursuant to section 8 of P.L. , c. (C. ) (pending before the Legislature as this bill). Nothing in this section shall be construed to prevent an electric public utility from meeting the requirements of this section by contracting with another entity for the performance of the requirements.

h. The board may adopt, pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), a gas energy efficiency [portfolio standard] program in order to ensure investment in cost-effective energy efficiency measures, ensure universal access to energy efficiency measures, and serve the needs of low-income communities that require each gas public utility to implement energy efficiency measures that reduce natural gas usage [for heating] in the State [by 2020 to a level that is 20 percent below the usage projected by the board in the absence of such a standard] pursuant to section 8 of P.L. , c. (C. ) (pending before the Legislature as this bill). Nothing in this section shall be construed to prevent a gas public utility from meeting the requirements of this section by contracting with another entity for the performance of the requirements.

i. After the board establishes a schedule of solar kilowatt-hour sale or purchase requirements pursuant to paragraph (3) of subsection d. of this section, the board may initiate subsequent proceedings and adopt, after appropriate notice and opportunity for public comment and public hearing, increased minimum solar kilowatt-hour sale or purchase requirements, provided that the board shall not reduce previously established minimum solar kilowatt-hour sale or purchase requirements, or otherwise impose constraints that reduce the requirements by any means.
j. The board shall determine an appropriate level of solar alternative compliance payment, and permit each supplier or provider to submit an SACP to comply with the solar electric generation requirements of paragraph (3) of subsection d. of this section. The value of the SACP for each Energy Year, for Energy Years 2014 through 2033 per megawatt hour from solar electric generation required pursuant to this section, shall be:

<table>
<thead>
<tr>
<th>Energy Year</th>
<th>SACP Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EY 2014</td>
<td>$339</td>
</tr>
<tr>
<td>EY 2015</td>
<td>$331</td>
</tr>
<tr>
<td>EY 2016</td>
<td>$323</td>
</tr>
<tr>
<td>EY 2017</td>
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<tr>
<td>EY 2018</td>
<td>$308</td>
</tr>
<tr>
<td>EY 2019</td>
<td>$290</td>
</tr>
<tr>
<td>EY 2020</td>
<td>$275</td>
</tr>
<tr>
<td>EY 2021</td>
<td>$266</td>
</tr>
<tr>
<td>EY 2022</td>
<td>$259</td>
</tr>
<tr>
<td>EY 2023</td>
<td>$252</td>
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<tr>
<td>EY 2028</td>
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</tr>
<tr>
<td>EY 2029</td>
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</tr>
<tr>
<td>EY 2030</td>
<td>$150</td>
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<tr>
<td>EY 2031</td>
<td>$140</td>
</tr>
<tr>
<td>EY 2032</td>
<td>$140</td>
</tr>
<tr>
<td>EY 2033</td>
<td>$130</td>
</tr>
</tbody>
</table>

The board may initiate subsequent proceedings and adopt, after appropriate notice and opportunity for public comment and public hearing, an increase in solar alternative compliance payments, provided that the board shall not reduce previously established levels of solar alternative compliance payments, nor shall the board provide relief from the obligation of payment of the SACP by the electric power suppliers or basic generation service providers in any form. Any SACP payments collected shall be refunded directly to the ratepayers by the electric public utilities.

k. The board may allow electric public utilities to offer long-term contracts through a competitive process, direct electric public utility investment and other means of financing, including but not limited to loans, for the purchase of SRECs and the resale of SRECs to suppliers or providers or others, provided that after such contracts have been approved by the board, the board’s approvals shall not be modified by subsequent board orders. If the board allows the offering of contracts pursuant to this subsection, the board may establish a process, after hearing, and opportunity for public comment, to provide that a designated segment of the contracts approved pursuant to this subsection shall be contracts
involving solar electric power generation facility projects with a capacity of up to 250 kilowatts.

l. The board shall implement its responsibilities under the provisions of this section in such a manner as to:
   (1) place greater reliance on competitive markets, with the explicit goal of encouraging and ensuring the emergence of new entrants that can foster innovations and price competition;
   (2) maintain adequate regulatory authority over non-competitive public utility services;
   (3) consider alternative forms of regulation in order to address changes in the technology and structure of electric public utilities;
   (4) promote energy efficiency and Class I renewable energy market development, taking into consideration environmental benefits and market barriers;
   (5) make energy services more affordable for low and moderate income customers;
   (6) attempt to transform the renewable energy market into one that can move forward without subsidies from the State or public utilities;
   (7) achieve the goals put forth under the renewable energy portfolio standards;
   (8) promote the lowest cost to ratepayers; and
   (9) allow all market segments to participate.

m. The board shall ensure the availability of financial incentives under its jurisdiction, including, but not limited to, long-term contracts, loans, SRECs, or other financial support, to ensure market diversity, competition, and appropriate coverage across all ratepayer segments, including, but not limited to, residential, commercial, industrial, non-profit, farms, schools, and public entity customers.

n. For projects which are owned, or directly invested in, by a public utility pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1), the board shall determine the number of SRECs with which such projects shall be credited; and in determining such number the board shall ensure that the market for SRECs does not detrimentally affect the development of non-utility solar projects and shall consider how its determination may impact the ratepayers.

o. The board, in consultation with the Department of Environmental Protection, electric public utilities, the Division of Rate Counsel in, but not of, the Department of the Treasury, affected members of the solar energy industry, and relevant stakeholders, shall periodically consider increasing the renewable energy portfolio standards beyond the minimum amounts set forth in subsection d. of this section, taking into account the cost impacts and public benefits of such increases including, but not limited to:
   (1) reductions in air pollution, water pollution, land disturbance, and greenhouse gas emissions;
(2) reductions in peak demand for electricity and natural gas, and the overall impact on the costs to customers of electricity and natural gas;

(3) increases in renewable energy development, manufacturing, investment, and job creation opportunities in this State; and

(4) reductions in State and national dependence on the use of fossil fuels.

p. Class I RECs and ORECs shall be eligible for use in renewable energy portfolio standards compliance in the energy year in which they are generated, and for the following two energy years. SRECs shall be eligible for use in renewable energy portfolio standards compliance in the energy year in which they are generated, and for the following four energy years.

q. (1) During the energy years of 2014, 2015, and 2016, a solar electric power generation facility project that is not: (a) net metered; (b) an on-site generation facility; (c) qualified for net metering aggregation; or (d) certified as being located on a brownfield, on an area of historic fill or on a properly closed sanitary landfill facility, as provided pursuant to subsection t. of this section may file an application with the board for approval of a designation pursuant to this subsection that the facility is connected to the distribution system. An application filed pursuant to this subsection shall include a notice escrow of $40,000 per megawatt of the proposed capacity of the facility. The board shall approve the designation if: the facility has filed a notice in writing with the board applying for designation pursuant to this subsection, together with the notice escrow; and the capacity of the facility, when added to the capacity of other facilities that have been previously approved for designation prior to the facility's filing under this subsection, does not exceed 80 megawatts in the aggregate for each year. The capacity of any one solar electric power supply project approved pursuant to this subsection shall not exceed 10 megawatts. No more than 90 days after its receipt of a completed application for designation pursuant to this subsection, the board shall approve, conditionally approve, or disapprove the application. The notice escrow shall be reimbursed to the facility in full upon either rejection by the board or the facility entering commercial operation, or shall be forfeited to the State if the facility is designated pursuant to this subsection but does not enter commercial operation pursuant to paragraph (2) of this subsection.

(2) If the proposed solar electric power generation facility does not commence commercial operations within two years following the date of the designation by the board pursuant to this subsection, the designation of the facility shall be deemed to be null and void, and the facility shall not be considered connected to the distribution system thereafter.

(3) Notwithstanding the provisions of paragraph (2) of this subsection, a solar electric power generation facility project that as
of May 31, 2017 was designated as "connected to the distribution system," but failed to commence commercial operations as of that date, shall maintain that designation if it commences commercial operations by May 31, 2018.

r. (1) For all proposed solar electric power generation facility projects except for those solar electric power generation facility projects approved pursuant to subsection q. of this section, and for all projects proposed in [each energy year following energy year 2016, a] energy year 2019 and energy year 2020, the board may approve projects for up to 50 megawatts annually in auctioned capacity in two auctions per year as long as the board is accepting applications. If the board approves projects for less than 50 megawatts in energy year 2019 or less than 50 megawatts in energy year 2020, the difference in each year shall be carried over into the successive energy year until 100 megawatts of auctioned capacity has been approved by the board pursuant to this subsection. A proposed solar electric power generation facility that is neither net metered nor an on-site generation facility, may be considered "connected to the distribution system" only upon designation as such by the board, after notice to the public and opportunity for public comment or hearing. A proposed solar power electric generation facility seeking board designation as "connected to the distribution system" shall submit an application to the board that includes for the proposed facility: the nameplate capacity; the estimated energy and number of SRECs to be produced and sold per year; the estimated annual rate impact on ratepayers; the estimated capacity of the generator as defined by PJM for sale in the PJM capacity market; the point of interconnection; the total project acreage and location; the current land use designation of the property; the type of solar technology to be used; and such other information as the board shall require.

(2) The board shall approve the designation of the proposed solar power electric generation facility as "connected to the distribution system" if the board determines that:

(a) the SRECs forecasted to be produced by the facility do not have a detrimental impact on the SREC market or on the appropriate development of solar power in the State;

(b) the approval of the designation of the proposed facility would not significantly impact the preservation of open space in this State;

(c) the impact of the designation on electric rates and economic development is beneficial; and

(d) there will be no impingement on the ability of an electric public utility to maintain its property and equipment in such a condition as to enable it to provide safe, adequate, and proper service to each of its customers.
(3) The board shall act within 90 days of its receipt of a completed application for designation of a solar power electric generation facility as "connected to the distribution system," to either approve, conditionally approve, or disapprove the application. If the proposed solar electric power generation facility does not commence commercial operations within two years following the date of the designation by the board pursuant to this subsection, the designation of the facility as "connected to the distribution system" shall be deemed to be null and void, and the facility shall thereafter be considered not "connected to the distribution system."

s. In addition to any other requirements of P.L.1999, c.23 or any other law, rule, regulation or order, a solar electric power generation facility that is not net metered or an on-site generation facility and which is located on land that has been actively devoted to agricultural or horticultural use that is valued, assessed, and taxed pursuant to the "Farmland Assessment Act of 1964," P.L.1964, c.48 (C.54:4-23.1 et seq.) at any time within the 10-year period prior to the effective date of P.L.2012, c.24, shall only be considered "connected to the distribution system" if (1) the board approves the facility's designation pursuant to subsection q. of this section; or (2) (a) PJM issued a System Impact Study for the facility on or before June 30, 2011, (b) the facility files a notice with the board within 60 days of the effective date of P.L.2012, c.24, indicating its intent to qualify under this subsection, and (c) the facility has been approved as "connected to the distribution system" by the board. Nothing in this subsection shall limit the board's authority concerning the review and oversight of facilities, unless such facilities are exempt from such review as a result of having been approved pursuant to subsection q. of this section.

t. (1) No more than 180 days after the date of enactment of P.L.2012, c.24, the board shall, in consultation with the Department of Environmental Protection and the New Jersey Economic Development Authority, and, after notice and opportunity for public comment and public hearing, complete a proceeding to establish a program to provide SRECs to owners of solar electric power generation facility projects certified by the board, in consultation with the Department of Environmental Protection, as being located on a brownfield, on an area of historic fill or on a properly closed sanitary landfill facility, including those owned or operated by an electric public utility and approved pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1). Projects certified under this subsection shall be considered "connected to the distribution system", shall not require such designation by the board, and shall not be subject to board review required pursuant to subsections q. and r. of this section. Notwithstanding the provisions of section 3 of P.L.1999, c.23 (C.48:3-51) or any other law, rule, regulation, or order to the contrary, for projects certified under this subsection, the
board shall establish a financial incentive that is designed to supplement the SRECs generated by the facility in order to cover the additional cost of constructing and operating a solar electric power generation facility on a brownfield, on an area of historic fill or on a properly closed sanitary landfill facility. Any financial benefit realized in relation to a project owned or operated by an electric public utility and approved by the board pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1), as a result of the provision of a financial incentive established by the board pursuant to this subsection, shall be credited to ratepayers. The issuance of SRECs for all solar electric power generation facility projects pursuant to this subsection shall be deemed "Board of Public Utilities financial assistance" as provided under section 1 of P.L.2009, c.89 (C.48:2-29.47).

(2) Notwithstanding the provisions of the "Spill Compensation and Control Act," P.L.1976, c.141 (C.58:10-23.11 et seq.) or any other law, rule, regulation, or order to the contrary, the board, in consultation with the Department of Environmental Protection, may find that a person who operates a solar electric power generation facility project that has commenced operation on or after the effective date of P.L.2012, c.24, which project is certified by the board, in consultation with the Department of Environmental Protection pursuant to paragraph (1) of this subsection, as being located on a brownfield for which a final remediation document has been issued, on an area of historic fill or on a properly closed sanitary landfill facility, which projects shall include, but not be limited to projects located on a brownfield for which a final remediation document has been issued, on an area of historic fill or on a properly closed sanitary landfill facility owned or operated by an electric public utility and approved pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1), or a person who owns property acquired on or after the effective date of P.L.2012, c.24 on which such a solar electric power generation facility project is constructed and operated, shall not be liable for cleanup and removal costs to the Department of Environmental Protection or to any other person for the discharge of a hazardous substance provided that:

(a) the person acquired or leased the real property after the discharge of that hazardous substance at the real property;

(b) the person did not discharge the hazardous substance, is not in any way responsible for the hazardous substance, and is not a successor to the discharger or to any person in any way responsible for the hazardous substance or to anyone liable for cleanup and removal costs pursuant to section 8 of P.L.1976, c.141 (C.58:10-23.11g);

(c) the person, within 30 days after acquisition of the property, gave notice of the discharge to the Department of Environmental Protection in a manner the Department of Environmental Protection prescribes;
(d) the person does not disrupt or change, without prior written permission from the Department of Environmental Protection, any engineering or institutional control that is part of a remedial action for the contaminated site or any landfill closure or post-closure requirement;

(e) the person does not exacerbate the contamination at the property;

(f) the person does not interfere with any necessary remediation of the property;

(g) the person complies with any regulations and any permit the Department of Environmental Protection issues pursuant to section 19 of P.L.2009, c.60 (C.58:10C-19) or paragraph (2) of subsection a. of section 6 of P.L.1970, c.39 (C.13:1E-6);

(h) with respect to an area of historic fill, the person has demonstrated pursuant to a preliminary assessment and site investigation, that hazardous substances have not been discharged; and

(i) with respect to a properly closed sanitary landfill facility, no person who owns or controls the facility receives, has received, or will receive, with respect to such facility, any funds from any post-closure escrow account established pursuant to section 10 of P.L.1981, c.306 (C.13:1E-109) for the closure and monitoring of the facility.

Only the person who is liable to clean up and remove the contamination pursuant to section 8 of P.L.1976, c.141 (C.58:10-23.11g) and who does not have a defense to liability pursuant to subsection d. of that section shall be liable for cleanup and removal costs.

u. No more than 180 days after the date of enactment of P.L.2012, c.24, the board shall complete a proceeding to establish a registration program. The registration program shall require the owners of solar electric power generation facility projects connected to the distribution system to make periodic milestone filings with the board in a manner and at such times as determined by the board to provide full disclosure and transparency regarding the overall level of development and construction activity of those projects Statewide.

v. The issuance of SRECs for all solar electric power generation facility projects pursuant to this section, for projects connected to the distribution system with a capacity of one megawatt or greater, shall be deemed "Board of Public Utilities financial assistance" as provided pursuant to section 1 of P.L.2009, c.89 (C.48:2-29.47).

w. No more than 270 days after the date of enactment of P.L.2012, c.24, the board shall, after notice and opportunity for public comment and public hearing, complete a proceeding to consider whether to establish a program to provide, to owners of solar electric power generation facility projects certified by the
board as being three megawatts or greater in capacity and being net metered, including facilities which are owned or operated by an electric public utility and approved by the board pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1), a financial incentive that is designed to supplement the SRECs generated by the facility to further the goal of improving the economic competitiveness of commercial and industrial customers taking power from such projects. If the board determines to establish such a program pursuant to this subsection, the board may establish a financial incentive to provide that the board shall issue one SREC for no less than every 750 kilowatt-hours of solar energy generated by the certified projects. Any financial benefit realized in relation to a project owned or operated by an electric public utility and approved by the board pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1), as a result of the provisions of a financial incentive established by the board pursuant to this subsection, shall be credited to ratepayers.

x. Solar electric power generation facility projects that are located on an existing or proposed commercial, retail, industrial, municipal, professional, recreational, transit, commuter, entertainment complex, multi-use, or mixed-use parking lot with a capacity to park 350 or more vehicles where the area to be utilized for the facility is paved, or an impervious surface may be owned or operated by an electric public utility and may be approved by the board pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1).

(cf:  P.L.2017, c.139, s.1)

8. (New section) a. No later than one year after the date of enactment of P.L. , c. (C. ) (pending before the Legislature as this bill), the board shall require each electric public utility and gas public utility to reduce the use of electricity, or natural gas, as appropriate, within its territory, by its customers, below what would have otherwise been used. For the purposes of this section, gas public utilities shall reduce the use of natural gas for residential, commercial, and industrial uses, but shall not be required to include a reduction in natural gas used for distributed energy resources such as combined heat and power.

Each electric public utility shall be required to achieve annual reductions in the use of electricity of two percent of the average annual usage in the prior three years within four years of implementation of the electric energy efficiency programs. Each natural gas public utility shall be required to achieve annual reductions in the use of natural gas of .75 percent of the average annual usage in the prior three years within four years of implementation of the gas energy efficiency programs. The amount of reduction mandated by the board that exceeds two percent of the average annual usage for electricity and .75 percent of the average annual usage for natural gas for the prior three years shall be
determined pursuant to the study conducted pursuant to subsection b. of this section until the reduction in energy usage reaches the full economic, cost-effective potential in each service territory, as determined by the board.  

b. No later than one year after the date of enactment of P.L. 1968, c. (pending before the Legislature as this bill), the board shall conduct and complete a study to determine the energy savings targets for full economic, cost-effective potential for electricity usage reduction or natural gas usage reduction as well as the potential for peak demand reduction by the customers of each electric public utility and gas public utility and the timeframe for achieving the reductions. The energy savings targets for each electric public utility and gas public utility shall be reviewed every three years to determine if the targets should be adjusted. The board, in conducting the study, shall accept comments and suggestions from interested parties.  

c. No later than one year after the date of enactment of P.L. 1968, c. (pending before the Legislature as this bill), the board shall adopt quantitative performance indicators pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.) for each electric public utility and gas public utility which shall establish reasonably achievable targets for energy reductions and peak demand reductions and that take into account the public utility's energy efficiency measures and other non-utility energy efficiency measures including measures to support the development and implementation of building code changes, appliance efficiency standards, the Clean Energy program, and any other State-sponsored energy efficiency or peak reduction programs, and utility energy efficiency programs that exist on the effective date of P.L. 1968, c. (pending before the Legislature as this bill). In establishing quantitative performance indicators the board shall use a methodology that incorporates weather, economic factors, customer growth, outage-adjusted efficiency factors, and any other factors to ensure that the utility's incentives or penalties determined pursuant to subsection e. of this section and section 13 of P.L.2007, c.340 (C.48:3-98.1) are based upon performance, and take into account the growth in the use of electric vehicles, microgrids, and distributed energy resources. In establishing quantitative performance indicators, the board shall also consider each utility's customer class mix and potential for adoption by each of those customer classes of energy efficiency programs offered by the utility or that are otherwise available. The board shall review each quantitative performance indicator every three years. A public utility may apply all energy savings attributable to programs available to its customers, including demand side management programs, other measures implemented by the utility, non-utility programs, including those available under energy efficiency programs in existence on the date of enactment of P.L. c. (pending before the Legislature as this bill).
d. (1) Each electric public utility and gas public utility shall establish energy efficiency programs and peak demand reduction programs to be approved by the board no later than 30 days prior to the start of the energy year in order to comply with the requirements of this section. The energy efficiency programs and peak demand reduction programs adopted by each public utility shall comply with quantitative performance indicators adopted by the board pursuant to subsection c. of this section.

(2) The energy efficiency programs and peak demand reduction programs shall have a benefit-to-cost ratio greater than or equal to 1.0 at the portfolio level, considering both economic and environmental factors, and shall be subject to review during the stakeholder process established by the board pursuant to subsection f. of this section. The methodology, assumptions, and data used to perform the benefit-to-cost analysis shall be based upon publicly available sources and shall be subject to stakeholder review and comment. A program may have a benefit-to-cost ratio of less than 1.0 but may be appropriate to include within the portfolio if the implementation of the program is in the public interest, including, but not limited to, benefitting low-income customers or promoting emerging energy efficiency technologies.

(3) Each electric public utility and gas public utility shall file with the board implementation and reporting plans as well as evaluation, measurement, and verification strategies to determine the energy reductions and peak demand reductions achieved by the energy efficiency programs and peak demand reduction programs approved pursuant to this section. The filings shall include details of expenditures made by the utility and the resultant reduction in energy usage and peak demand. The board shall determine the appropriate level or reasonable and prudent costs for each energy efficiency and peak demand reduction program.

e. (1) Each electric public utility and gas public utility shall file an annual petition with the board to demonstrate compliance with the energy efficiency program, compliance with the targets established pursuant to the quantitative performance indicators, and for cost recovery of the program, including any performance incentives or penalties, pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1). Each electric public utility and gas public utility shall file annually with the board a petition to recover on a full and current basis through a surcharge all reasonable and prudent costs incurred as a result of energy efficiency programs and peak demand reduction programs required pursuant to this section, including, but not limited to, recovery of and on capital investment, and the revenue impact of sales losses associated with implementation of
the energy efficiency and peak demand reduction schedules, pursuant to section 13 of P.L. 2007, c. 340 (C.48:3-98.1).

(2) If an electric public utility or gas public utility achieves the performance targets established in the quantitative performance indicator, the public utility shall receive an incentive as determined by the board through an accounting mechanism established pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1) for its energy efficiency measures and peak demand reduction measures for the following year. The incentive shall scale in a linear fashion to a maximum established by the board that reflects the extra value of achieving greater savings.

(3) If an electric public utility or gas public utility fails to achieve the reductions in its performance target established in the quantitative performance indicators, the public utility shall receive a penalty as determined by the board through an accounting mechanism established pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1) for its energy efficiency measures and peak demand reduction measures for the following year. The penalty shall scale in a linear fashion to a maximum established by the board that reflects the extent of the failure to achieve the required savings.

(4) The adjustments made pursuant to this subsection may be made through adjustments of the electric public utility's or gas public utility's return on equity related to the energy efficiency or peak reduction programs only, or a specified dollar amount, reflecting the incentive structure as established in this subsection. The adjustments shall not be included in a revenue or cost in any base rate filing and shall be adopted by the board pursuant to the "Administrative Procedure Act."

f. (1) The board shall establish a stakeholder process to evaluate the economically achievable energy savings and peak demand reduction requirements, rate adjustments, quantitative performance indicators, and the process for evaluating, measuring, and verifying energy reductions and peak demand reduction by the public utilities. As part of the stakeholder process, the board shall establish an independent advisory group to study the evaluation, measurement, and verification process for energy efficiency programs, which shall include representatives from the public utilities, Division of Rate Counsel, and environmental and consumer organizations, to provide recommendations to the board for improvements to the program.

(2) Each electric public utility and gas public utility shall conduct a demographic analysis as part of the stakeholder process to determine if all of its customers are able to participate fully in implementing energy efficiency measures, to identify market barriers that prevent such participation, and to make recommendations for measures to overcome such barriers. The utility shall be entitled to full and timely cost recovery of the costs associated with this analysis.
g. For the purposes of this section, the board shall only consider usage for which utility energy efficiency programs are applicable.

9. (New section) a. No later than one year after the date of enactment of P.L.  , c. (C. ) (pending before the Legislature as this bill), the Board of Public Utilities shall direct each of the electric public utilities in the State to undertake a study to determine the optimal voltage for use in their respective distribution systems, including a consideration of voltage optimization. The utility shall be entitled to full and timely cost recovery of the costs associated with this analysis.

b. No later than five years after the date of enactment of P.L.  , c. (C. ) (pending before the Legislature as this bill), the board shall require the owner or operator of each commercial building over 25,000 square feet in the State to benchmark energy and water use for the prior calendar year using the United States Environmental Protection Agency’s Portfolio Manager tool.

10. (New section) a. No later than 210 days after the date of enactment of P.L.  , c. (C. ) (pending before the Legislature as this bill), the Board of Public Utilities shall adopt, pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), rules and regulations establishing a "Community Solar Energy Investment 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 service territory to allow for a credit to the customer's utility bill equal to the electricity generated that is attributed to the customer's participation in the solar project.

b. The rules and regulations developed by the board shall establish:
   (1) a capacity limit for individual solar energy projects;
   (2) an annual capacity limit for all solar energy projects under the pilot program;
   (3) geographic limitations for solar energy projects and participating customers;
   (4) a minimum number of participating customers for each solar energy project;
   (5) the value of the credit on each participating customer's bill that takes into account the SREC value for the solar energy project and the value of any federal incentives;
   (6) standards to limit the land use impact of a solar energy project as required in subsection r. of P.L.1999, c.23 (C.48:3-87);
   (7) the provision of access to projects for low and moderate income customers;
   (8) the ability of residential and commercial customers that are unable to install solar on their property to participate in solar energy projects, including residential customers in multifamily housing;
(9) standards for connection to the distribution system; and
(10) provisions to minimize impacts to the distribution system.

c. The board shall make available on its Internet website information on solar energy projects whose owners are seeking investors.

d. The board shall establish standards and an application process for owners of solar energy projects who wish to be included in the Community Solar Energy Investment Pilot Program. The standards for the Community Solar Energy Investment Pilot Program shall include, but need not be limited to, a verification process to ensure that solar energy projects are producing an amount of energy that is greater than or equal to the amount of energy that is being credited to its participating customer's electric utility bills pursuant to subsection b. of this section, and consumer protection measures. Projects approved by the board shall have no fewer than two participating customers.

The board may restrict qualified solar projects to those located on brownfields, landfills, areas designated in need of redevelopment, in underserved communities, or on commercial rooftops.

e. Subject to review by the board, an electric public utility shall be entitled to full and timely cost recovery for all costs incurred in implementation and compliance with this section.

f. No later than 36 months after the adoption of rules and regulations pursuant to subsection b. of this section, the board shall adopt rules and regulations pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), to convert the Community Solar Energy Investment Pilot Program to a permanent program. The board shall adopt rules and regulations for the permanent program that set forth standards for projects owned by utilities, special purpose entities, and nonprofit entities. The rules and regulations shall also:

(1) limit the capacity of each solar energy project to a maximum of five megawatts;
(2) establish a goal for the development of at least 50 megawatts of solar energy projects per year, taking into account any changes to the SREC program;
(3) set geographic limitations for solar energy projects and participating customers;
(4) provide for a minimum number of participating customers for each solar energy project;
(5) require the provision of access to solar energy projects for low and moderate income customers;
(5) promote the ability of residential and commercial customers unable to install solar on their property to participate in solar energy projects, including residential customers in multifamily housing;
(6) establish a method for determining the value of the credit on each participating customer's bill that takes into account the value
of the solar energy on the distribution system, SREC value for the solar energy project, and the value of any federal incentives;

(7) establish timeframes for the credit available to the customer;

(8) establish standards and methods to verify solar electric energy generation on a monthly basis for a solar generation project;

(9) standards consistent with the land use provisions for solar energy projects as provided in subsections r., s., and t. of P.L.1999, c.23 (C.48:3-87);

(10) establish standards, fees, and uniform procedures for solar energy projects to be connected to the distribution system;

(11) minimize impacts to the distribution system;

(12) require monthly reporting requirements for the operators of solar energy projects to the electric public utility, customers, and the board;

(13) require reporting by the electric public utility to the operator of a solar energy project on the value of credits to the participating customer bills;

(14) require transferability, portability, and buy out provisions for customers who participate in community solar energy projects.

f. As used in this section:

“Solar energy project” means a system containing one or more solar panels and associated equipment.

“Solar panel” means an elevated panel or plate, or a canopy or array thereof, that captures and converts solar radiation to produce electric power, and is approved by the board to be included in the Neighborhood Solar Energy Investment Program. “Solar power includes flat plate, focusing solar collectors, or photovoltaic solar cells and excludes the base or foundation of the panel, plate, canopy, or array.

11. a. No later than 120 days after the date of enactment of P.L. , c. (pending before the Legislature as this bill), the board shall 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 copy of the agreement between the public entity certified to act as a host customer and other public entities designated to receive credits shall be provided to the utility before remote net metering credits may be applied to a customer bill. 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.

b. The board shall also establish a remote net metering application process to approve as the primary account holder a certified public entity that is the host customer and the other public entities designated to receive credits.
c. The board shall require the owner of solar energy project 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. The board shall require each participating customer to pay at least 50 percent of the societal benefits charge.

12. Section 6 of P.L.2010, c.57 (C.34:1B-209.4) is amended to read as follows:
   6. a. (1) A business, upon application to and approval from the authority, shall be allowed a credit of 100 percent of its capital investment, made after the effective date of P.L.2010, c.57 (C.48:3-87.1 et al.) but prior to its submission of documentation pursuant to subsection c. of this section, in a qualified wind energy facility located within an eligible wind energy zone, pursuant to the restrictions and requirements of this section. To be eligible for any tax credits authorized under this section, a business shall demonstrate to the authority, at the time of application, that the State's financial support of the proposed capital investment in a qualified wind energy facility will yield a net positive benefit to the State. The value of all credits approved by the authority pursuant to this section may be up to $100,000,000, except as may be increased by the authority if the chief executive officer of the authority judges certain qualified offshore wind projects to be meritorious. Credits provided pursuant to this section shall not be applicable to the cap on the credits provided in section 3 of P.L.2007, c.346 (C.34:1B-209).

   (2) (a) A business, other than a tenant eligible pursuant to subparagraph (b) of this paragraph, shall make or acquire capital investments totaling not less than $50,000,000 in a qualified wind energy facility, at which the business, including tenants at the qualified wind energy facility, shall employ at least 300 new, full-time employees, to be eligible for a credit under this section. A business that acquires a qualified wind energy facility after the effective date of P.L.2010, c.57 (C.48:3-87.1 et al.) shall also be deemed to have acquired the capital investment made or acquired by the seller.

   (b) A business that is a tenant in the qualified wind energy facility, the owner of which has made or acquired capital investments in the facility totaling more than $50,000,000, shall occupy a leased area of the qualified wind energy facility that represents at least $17,500,000 of the capital investment in the qualified wind energy facility at which at least 300 new, full-time employees in the aggregate are employed, to be eligible for a credit under this section. The amount of capital investment in a facility that a leased area represents shall be equal to that percentage of the owner's total capital investment in the facility that the percentage of net leasable area leased by the tenant is of the total net leasable area of the qualified business facility. Capital investments made by a
tenant shall be deemed to be included in the calculation of the capital investment made or acquired by the owner, but only to the extent necessary to meet the owner's minimum capital investment of $50,000,000. Capital investments made by a tenant and not allocated to meet the owner's minimum capital investment threshold of $50,000,000 shall be added to the amount of capital investment represented by the tenant's leased area in the qualified wind energy facility.

(c) The calculation of the number of new, full-time employees required pursuant to subparagraphs (a) and (b) of this paragraph may include the number of new, full-time positions resulting from an equipment supply coordination agreement with equipment manufacturers, suppliers, installers and operators associated with the supply chain required to support the qualified wind energy facility.

For the purposes of this paragraph, "full time employee" shall not include an employee who is a resident of another state and whose income is not subject to the "New Jersey Gross Income Tax Act," N.J.S.54A:1-1 et seq., unless that state has entered into a reciprocity agreement with the State of New Jersey, provided that any employee whose work is provided pursuant to a collective bargaining agreement with [the port district] a business in the wind energy zone may be included.

(3) A business shall not be allowed a tax credit pursuant to this section if the business [participates in] receives a business employment incentive grant pursuant to the “Business Employment Incentive Program Act,” P.L.1996, c.26 (C.34:1B-124 et al.), relating to the same capital and employees that qualify the business for this credit, or if the business receives assistance pursuant to the "Business Retention and Relocation Assistance Act," P.L.1996, c.25 (C.34:1B-112 et seq.). A business that is allowed a tax credit under this section shall not be eligible for incentives authorized pursuant to the "Municipal Rehabilitation and Economic Recovery Act," P.L.2002, c.43 (C.52:27BBB-1 et al.).

(4) Full-time employment for an accounting or privilege period shall be determined as the average of the monthly full-time employment for the period.

b. A business shall apply for the credit by [August 1, 2016] July 1, 2024, and a business shall submit its documentation for approval of its credit amount by [August 1, 2019] July 1, 2027.

c. The credit allowed pursuant to this section shall be administered in accordance with the provisions of subsection c. of section 3 of P.L.2007, c.346 (C.34:1B-209) and section 33 of P.L.2009, c.90 (C.34:1B-209.1), except that all references therein to "qualified business facility" shall be deemed to refer to "qualified wind energy facility," as that term is defined in subsection f. of this section.
d. The amount of the credit allowed pursuant to this section shall, except as otherwise provided, be equal to the capital investment made by the business, or the capital investment represented by the [business'] business's leased area, and shall be taken over a 10-year period, at the rate of one-tenth of the total amount of the [business'] business's credit for each tax accounting or privilege period of the business, beginning with the tax period in which the business is first approved by the authority as having met the investment capital and employment qualifications, subject to any disqualification as determined by annual review by the authority. In conducting its annual review, the authority may require a business to submit any information determined by the authority to be necessary and relevant to its review. The credit amount for any tax period ending after the date [eight] 18 years after the effective date of P.L.2007, c.346 (C.34:1B-207 et seq.) during which the documentation of a [business'] business's credit amount remains unapproved shall be forfeited, although credit amounts for the remainder of the years of the 10-year credit period shall remain available. The amount of the credit allowed for a tax period to a business that is a tenant in a qualified wind energy facility shall not exceed the [business'] business's total lease payments for occupancy of the qualified wind energy facility for the tax period.

e. The authority shall adopt rules [in accordance with] and regulations pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.) as are necessary to implement this section, including, but not limited to: examples of and the determination of capital investment; the nature of businesses and employment positions constituting and participating in an equipment supply coordination agreement; a determination of the types of businesses that may be eligible and expenses that may constitute capital improvements; the promulgation of procedures and forms necessary to apply for a credit; and provisions for applicants to be charged an initial application fee, and ongoing service fees, to cover the administrative costs related to the credit.

The rules and regulations established by the authority pursuant to this subsection shall be effective immediately upon filing with the Office of Administrative Law and shall be effective for a period not to exceed 12 months and may, thereafter, be amended, adopted or readopted in accordance with the provisions of the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.).

f. As used in this section: the terms "authority," "business," and "capital investment" shall have the same meanings as defined in section 2 of the "Urban Transit Hub Tax Credit Act," P.L.2007, c.346 (C.34:1B-208), except that all references therein to "qualified business facility" shall be deemed to refer to "qualified wind energy facility" as defined in this subsection.
In addition, as used in this section:

"Equipment supply coordination agreement" means an agreement between a business and equipment manufacturer, supplier, installer, and operator that supports a qualified offshore wind project, or other wind energy project as determined by the authority, and that indicates the number of new, full-time jobs to be created by the agreement participants towards the employment requirement as set forth in paragraph (2) of subsection a. of this section.

"Qualified offshore wind project" means a project that: (1) shall have the same meaning as the term is defined provided in section 3 of P.L.1999, c.23 (C.48:3-51).

"Qualified wind energy facility" means any building, complex of buildings, or structural components of buildings, including water access infrastructure, and all machinery and equipment used in the manufacturing, assembly, development or administration of component parts that support the development and operation of a qualified offshore wind project, or other wind energy project as determined by the authority, and that are located in a wind energy zone.

"Wind energy zone" means property located in the South Jersey Port District established pursuant to "The South Jersey Port Corporation Act," P.L.1968, c.60 (C.12:11A-1 et seq.).

13. (New section) The Department of Labor and Workforce Development shall establish job training programs for those who work in manufacturing and servicing of offshore wind energy equipment through Workforce Investment Boards, county colleges, and other appropriate institutions. The department shall develop training curricula in consultation with the equipment manufacturers.

14. (New section) If any provision of P.L. , c. (C. ) (pending before the Legislature as this bill) or its application to any person or circumstance is held invalid or unconstitutional, that judgment or decision shall not affect other provisions or applications of P.L. , c. (C. ) (pending before the Legislature as this bill) which can be given effect without the invalid or unconstitutional provision or application, and to this end the provisions of this act are severable.

15. This act shall take effect immediately.

Establishes and modifies clean energy and energy efficiency programs; establishes zero emission certificate program; modifies State's solar renewable energy portfolio standards.