

SENATE, No. 2185

STATE OF NEW JERSEY 220th LEGISLATURE

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SYNOPSIS

Requires BPU to develop program to incentivize installation of new energy storage systems.

CURRENT VERSION OF TEXT

As introduced.



(Sponsorship Updated As Of: 3/14/2022)

1 AN ACT concerning energy storage systems and supplementing
2 Title 48 of the Revised Statutes.

3

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

6

7 1. The Legislature finds and declares that:

8 a. The electric grid is evolving from a system that relies on one-
9 way, long-distance transmission of electricity from centralized
10 power plants to customers, to a system that includes local energy
11 sources located close to customers, who increasingly both produce
12 and consume electricity;

13 b. Energy storage systems, distributed throughout the electric
14 grid, can facilitate greater energy independence and energy security
15 for the State's electric customers by providing increased stability of
16 the power supply, smoother integration of renewable energy
17 sources, a reduction in the peak demand placed on centralized
18 power plants, and cost savings;

19 c. Locating energy sources and energy storage systems near the
20 point of consumption enhances grid stability and increases
21 efficiency;

22 d. Empowering New Jerseyans to take a more active role in the
23 State's electric grid would leverage private capital, protect
24 customers from rising energy costs, and promote greater
25 understanding and engagement with the challenges associated with
26 updating the State's electric grid;

27 e. There are currently significant barriers that disincline New
28 Jersey electric customers from obtaining the benefits of distributed
29 energy storage systems, including inadequate valuation of energy
30 storage; and

31 f. It is fitting, proper, and in the public interest to encourage the
32 installation of energy storage systems by providing monetary
33 incentives to new energy storage systems and distributed energy
34 sources paired with energy storage systems, until these barriers are
35 removed by market forces.

36

37 2. As used in this act:

38 "All-in system cost" means the total cost of purchasing and
39 installing a new energy storage system, including the costs of
40 hardware, siting, installation, permitting, and interconnection.

41 "Board" means the Board of Public Utilities.

42 "Customer-sited energy storage system" means an energy storage
43 system that operates in parallel with an electric distribution system,
44 is connected on the customer side of the meter, and is owned by the
45 customer or another party that is not the electric public utility that
46 provides electric power to the customer.

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

4 "Energy storage system" means a commercially available
5 technology that is capable of absorbing energy, storing such energy
6 for a period of time, and redelivering the energy after it has been
7 stored to provide direct or indirect benefits to the broader electricity
8 system.

9 "Front-of-the-meter energy storage system" means an energy
10 storage system that is interconnected to the transmission and
11 distribution system on the utility side of the meter.

12 "Gap analysis" means an analysis that determines the difference
13 between the average all-in system costs of energy storage systems,
14 considering each energy storage technology and application, and the
15 prevailing revenue stream opportunities to support the economics of
16 the energy storage systems.

17 "Overburdened community" means the same as the term is
18 defined in section 2 of P.L.2020, c.92 (C.13:1D-158).

19 "Performance incentive" means a series recurring monetary
20 payments paid by an electric public utility to an owner of an energy
21 storage system who participates in the pilot program to compensate
22 for the benefits to the transmission and distribution system provided
23 by the system.

24 "Pilot program" means the pilot program to incentivize the
25 installation of new energy storage systems in the State developed by
26 the board pursuant to section 3 of this act.

27 "PJM Interconnection, L.L.C." or "PJM" means the same as the
28 term is defined in section 3 of P.L.1999, c.23 (C.48:3-51).

29 "Upfront incentive" means a one-time monetary payment from
30 the board to an owner of an energy storage system who participates
31 in the pilot program to mitigate the upfront costs of the system.

32 "Transmission and distribution system" means the same as the
33 term is defined in section 3 of P.L.1999, c.23 (C.48:3-51).

34

35 3. a. No later than 90 days of the effective date of this act, the
36 board shall initiate a proceeding to develop a pilot program to
37 incentivize the installation of new energy storage systems in the
38 State. The pilot program shall include an upfront incentive as set
39 forth in section 4 of this act and a performance incentive as set forth
40 in section 5 of this act for owners of energy storage systems that are
41 approved by the board to participate in the program. The provisions
42 of the pilot program shall be based upon the best available data
43 from similarly designed programs in other states.

44 At the completion of the proceeding or 180 days after the
45 effective date of this act, whichever occurs sooner, the board shall
46 issue a board order establishing the pilot program. The order shall
47 include the incentive amounts established for customer-sited energy
48 storage systems and front-of-the-meter energy storage systems, and

1 an application process for persons who wish to participate in the
2 pilot program. The upfront incentive amounts shall be based on the
3 nameplate storage capacity of the energy storage system, as
4 measured in kilowatt hours of alternating current power output.
5 The board shall establish a cap on the total monetary value of
6 incentives to be distributed through the pilot program, which shall
7 be consistent with the Statewide energy storage goals established by
8 subsection d. of section 1. P.L.2018, c.17 (C.48:3-87.8).

9 b. Stand-alone energy storage systems or energy storage systems
10 that are paired with a distributed source of electric power,
11 including, but not limited to, a solar photovoltaic array, shall be
12 eligible for the program. However, the pilot program shall be
13 available only to an energy storage system that:

14 (1) becomes operable on or after the date of the pilot program's
15 establishment; and

16 (2) is either:

17 (a) a customer-sited energy storage system that is owned,
18 leased, or operated by a residential or non-residential customer of
19 an electric public utility; or

20 (b) a front-of-the meter energy storage system located in the
21 service area of an electric public utility.

22 c. The board shall reserve at least one third of the upfront
23 incentives for customer classes or deployment scenarios that face
24 greater economic hurdles, including, but not limited to low-to-
25 moderate income customers, customers sited in overburdened
26 communities, and owners of stand-alone energy storage systems
27 who do not qualify for federal investment tax credits.

28 d. In the course of developing the pilot program, the board shall
29 consider revising the eligibility requirement for net-metering for
30 solar energy systems that requires that the capacity of the solar
31 energy system be no greater than the annualized electricity usage of
32 the facility to which the solar energy system supplies electricity, in
33 order to accommodate the inclusion of energy storage system
34 capacity, as well as the potential for future electric vehicle capacity.
35 The board shall include its recommendation in the report required
36 by section 7 of this act.

37 e. The pilot program shall be designed to achieve or exceed,
38 together with other programs established by the board, the energy
39 storage goals established by subsection d. of section 1. P.L.2018,
40 c.17 (C.48:3-87.8).

41 f. The program shall not prevent energy storage systems from
42 providing services to, or participating in, the wholesale market.
43 Any evaluation of costs and benefits of energy storage systems shall
44 include benefits that accrue directly or indirectly to ratepayers due
45 to the participation of the energy storage systems in wholesale
46 markets.

1 g. The pilot program shall be closed immediately upon the
2 adoption of the rules and regulations required pursuant to section 8
3 of this act.

4
5 4. a. The pilot program shall include an upfront incentive for
6 energy storage system owners, which shall be based on the installed
7 capacity of the energy storage system and provided in dollars per
8 kilowatt-hour, and shall not exceed 40 percent of the project's all-in
9 cost. When determining the amount of the upfront incentive offered
10 to an energy storage system, the board shall perform a gap analysis
11 to ensure that the incentive to the owner incorporates consideration
12 of the difference between available revenue streams, including any
13 performance incentive offered under the pilot program, and the all-
14 in system costs of the energy storage system. The board may
15 develop a system of incentive bonuses to differentiate between
16 projects by attributes including, but not limited to, those serving
17 low- and middle-income communities. After the expiration of the
18 pilot program, the board may reduce or eliminate the upfront
19 incentive commensurate with a Statewide reduction in all-in system
20 costs for energy storage systems or an increase in revenue streams
21 available to owners of energy storage systems.

22 b. The board shall establish qualifications and requirements an
23 applicant shall be required to meet in order to be eligible for an
24 upfront incentive pursuant to this section, which may be more
25 stringent than the requirements of subsection b. of section 3 of this
26 act.

27 c. For energy storage systems with 25 kilowatts of nameplate
28 storage capacity or greater, the board shall require the applicant for
29 an upfront incentive to pay to the board a refundable deposit, which
30 shall be refunded once the energy storage system is determined by
31 the board to be operable and in use. The board shall develop a
32 formula for calculating the deposit amount, in which the amount of
33 the deposit is proportional to the nameplate capacity of the energy
34 storage system.

35 d. The board shall require an applicant for an upfront incentive
36 to complete the energy storage project:

37 (1) for customer-sited energy storage systems, no later than 18
38 months after the date the board approves the applicant's
39 application; and

40 (2) for front-of-the-meter energy storage systems, no later than
41 40 months after the date the board approves the applicant's
42 application. An applicant that does not comply with the project
43 timeline requirements of this subsection shall not be refunded the
44 deposit paid to the board pursuant to subsection c. of this section.
45 The deposit shall be transferred by the board to the General Fund.
46 The board may waive or extend the project timeline requirements
47 established by this subsection for an applicant that demonstrates
48 extenuating circumstances that caused a delay in the completion of

1 the energy storage project, including any delays caused by an
2 electric public utility or PJM.

3 e. The board shall limit upfront incentives to one award per
4 electric meter, for customer-sited energy storage systems.

5 f. The board shall allocate at least \$60 million per year, for the
6 duration of the pilot program, from moneys collected from the
7 societal benefits charge imposed pursuant to section 12 of P.L.1999,
8 c.23 (C.48:3-60) to fund upfront incentives pursuant to this section.
9 After the expiration of the pilot program, the board may determine
10 the appropriate amount of funds to allocate to upfront incentives.

11

12 5. a. The pilot program shall include a performance incentive to
13 compensate the owner of an energy storage system that is connected
14 to the transmission and distribution system. The purpose of the
15 performance payment shall be to:

16 (1) provide fair compensation for the full value of services
17 provided by the energy storage system, including improving the
18 efficiency of the transmission and distribution system and reducing
19 the peak demand placed on electricity generators;

20 (2) increase the number of cost-effective energy storage systems
21 that are connected to the transmission and distribution system;

22 (3) facilitate the integration of distributed sources of electricity
23 generation; and

24 (4) increase the resilience of the transmission and distribution
25 systems through the deployment of back-up power.

26 b. The board shall require each electric public utility in the State
27 to offer an appropriate performance incentive, for a period to be
28 determined by the board, to an owner of an energy storage system
29 that participates in the program, which compensates for the
30 operational attributes of the system, including, but not limited to,
31 capacity, demand response, load shifting, generation shifting,
32 locational value, and voltage support. The costs of the performance
33 incentives shall be apportioned to ratepayers using a methodology
34 approved by the board.

35

36 6. Each electric public utility in the State shall file a tariff with
37 the board, no later than 12 months after the effective date of this
38 act, that would apply only to front-of-the-meter energy storage
39 systems connected to the transmission and distribution system. The
40 tariff shall be formulated to provide front-of-the-meter energy
41 storage systems with compensation for their value to the grid, as
42 described in section 5 of this act. The tariff shall establish a new
43 rate design for front-of-the-meter energy storage systems that
44 accurately reflects cost causation, based on a cost of service study.
45 The tariff may distinguish between different sizes and types of
46 energy storage systems. The tariff shall exempt front-of-the-meter
47 energy storage systems from charges intended for customers who
48 consume electricity, including, but not limited to, the societal

1 benefits charge imposed pursuant to section 12 of P.L.1999, c.23
2 (C.48:3-60).

3
4 7. No later than one year after the date of the pilot program's
5 establishment, the board shall conduct a review of the program and
6 submit a report, pursuant to section 2 of P.L.1991, c.164 (C.52:14-
7 19.1), to the Legislature that includes, but need not be limited to,
8 details about the recipients of incentive payments, the total costs of
9 upfront incentives provided through the program, an evaluation of
10 the extent of energy storage capacity that has been deployed in the
11 State as a result of the program, an evaluation of the distribution of
12 different energy storage technologies deployed, and an analysis of
13 the maturity of the energy storage market in the State.

14
15 8. No later than three years after the effective date of this act,
16 the board, pursuant to the "Administrative Procedure Act,"
17 P.L.1968, c.410 (C.52:14B-1 et seq.), shall adopt rules and
18 regulations establishing a permanent energy storage incentive
19 program. The permanent program shall be consistent with the
20 provisions of this act.

21
22 9. This act shall take effect immediately.

23
24

25 STATEMENT

26

27 This bill would require the Board of Public Utilities (BPU) to
28 develop a program to provide monetary incentives to persons who
29 install new energy storage systems in the State.

30 Specifically, the bill would direct the BPU, no later than 180
31 days after the bill's enactment to publish incentive levels and an
32 application process for an energy storage incentive pilot program.
33 The pilot program would continue until the BPU adopts rules and
34 regulations to establish a permanent program pursuant to the bill.

35 The bill would establish certain requirements for the program,
36 including parameters for the types of energy storage projects that
37 would be eligible for the program, as described in subsections a.
38 and b. of section 3 of the bill. The program would be available to
39 smaller energy storage systems that are owned by customers of
40 electric utilities and sited in the customer's residence or business –
41 referred to as "customer-sited energy storage systems" in the bill, as
42 well as larger energy storage systems that are connected directly to
43 the grid – referred to as "front-of-the-meter energy storage systems"
44 by the bill.

45 The bill would also direct the BPU to reserve a portion of the
46 incentives for energy storage systems that are owned by low-to-
47 moderate income customers, customers sited in overburdened
48 communities, and owners of stand-alone energy storage systems

1 who do not qualify for federal investment tax credits. The program
2 would be designed to meet (or exceed) the State's goal of hosting
3 two gigawatts of energy storage capacity by 2030.

4 The incentives would consist of an upfront incentive, described
5 in section 4 of the bill, and a performance incentive, described in
6 section 5 of the bill. The upfront incentive would consist of a one-
7 time payment made by the BPU's clean energy program, which is
8 funded by the societal benefits charge imposed pursuant to section
9 12 of P.L.1999, c.23 (C.48:3-60). The amount of the upfront
10 incentive would be calculated using a "gap analysis," as defined in
11 the bill, which would determine the difference between the all-in
12 system cost of the system and the expected lifetime revenue that the
13 customer could expect to gain from the system. "All-in system
14 cost" is defined to mean the total cost of purchasing and installing a
15 new energy storage system, including the costs of hardware, siting,
16 installation, permitting, and interconnection. The bill would require
17 applicants for an upfront incentive to pay a deposit and to meet
18 certain timeline requirements, as described in subsections c. and d.
19 of section 4 of the bill. The bill would specify that the \$60 million
20 per year of funds collected from the societal benefits charge would
21 be allocated for upfront incentives for the three-year duration of the
22 pilot program. The performance incentive would be a recurring
23 payment made by the relevant electric utility, to compensate the
24 owner of the energy storage system for services to the grid made by
25 the system, including reducing peak demand and supplying power
26 during outages.

27 The bill would direct each electric public utility to file a tariff (a
28 pricing structure that includes rates and other charges) with the
29 board that would apply only to front-of-the-meter energy storage
30 systems. The tariff would be required to take into account the costs
31 of, and benefits to, the grid caused by front-of-the-meter energy
32 storage systems. The tariff would also be required to exempt front-
33 of-the-meter energy storage systems from charges intended for
34 customers who consume electricity, including, but not limited to,
35 the societal benefits charge.

36 Finally, the bill would direct the BPU to submit a report to the
37 Legislature on the pilot program no later than one year after the
38 program is established.