

ASSEMBLY, No. 4893

STATE OF NEW JERSEY 220th LEGISLATURE

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Sponsored by:

Assemblyman JOHN F. MCKEON

District 27 (Essex and Morris)

SYNOPSIS

Establishes incentive program for installation of energy storage systems.

CURRENT VERSION OF TEXT

As introduced.



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

19 c. Locating energy sources and energy storage systems in high
20 value locations, often near the point of consumption enhances grid
21 stability and increases 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. Front-of-the-meter energy storage systems that are
28 interconnected to the transmission and distribution system offer
29 distinctive advantages, including, but not limited to, lower costs and
30 responsiveness to price signals from the wholesale electricity
31 market or electric public utility;

32 f. There are currently significant barriers that disincline New
33 Jersey electric customers from obtaining the benefits of energy
34 storage systems, including inadequate valuation of energy storage;
35 and

36 g. It is fitting, proper, and in the public interest to encourage
37 the installation of energy storage systems by providing monetary
38 incentives to new energy storage systems and renewable energy
39 sources paired with energy storage systems, and to compensate
40 front-of-the-meter energy storage systems for their value to the grid,
41 until these barriers are removed by market forces.

42

43 2. As used in this act:

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

47 "Board" means the Board of Public Utilities.

1 "Customer-sited energy storage system" means an energy storage
2 system that operates in parallel with an electric distribution system,
3 is connected on the customer side of the meter, and is owned by the
4 customer or another party that is not the electric public utility that
5 provides electric power to the customer.

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

9 "Energy storage system" means a commercially available
10 technology that is capable of absorbing energy, storing such energy
11 for a period of time, and redelivering the energy after it has been
12 stored to provide direct or indirect benefits to the broader electricity
13 system, including, but not limited to, a battery system, pumped
14 hydroelectric system, compressed air system, flywheel, or a
15 hydrogen production, storage, or fuel cell system, provided that the
16 hydrogen is produced through electrolysis using electricity from a
17 renewable source.

18 "Front-of-the-meter energy storage system" means an energy
19 storage system that is interconnected to the transmission and
20 distribution system on the utility side of the meter. "Front-of-the-
21 meter energy storage system" shall include an energy storage
22 system that is subject to a tariff from an electric public utility or
23 from PJM.

24 "Gap analysis" means an analysis that determines the difference
25 between the average all-in system costs of energy storage systems,
26 considering each energy storage technology and application, and the
27 prevailing revenue stream opportunities to support the economics of
28 the energy storage systems.

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

31 "Performance incentive" means a series recurring monetary
32 payments paid by an electric public utility to an owner of an energy
33 storage system who participates in the pilot program to compensate
34 for the benefits to the transmission and distribution system provided
35 by the system.

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

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

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

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

46

47 3. a. No later than 90 days of the effective date of this act, the
48 board shall initiate a proceeding to develop a pilot program to

1 incentivize the installation of new energy storage systems in the
2 State. The pilot program shall include an upfront incentive as set
3 forth in section 4 of this act and a performance incentive as set forth
4 in section 5 of this act for owners of energy storage systems that are
5 approved by the board to participate in the program. The provisions
6 of the pilot program shall be based upon the best available data
7 from similarly designed programs in other states.

8 At the completion of the proceeding or 180 days after the
9 effective date of this act, whichever occurs sooner, the board shall
10 issue a board order establishing the pilot program. The order shall
11 include the incentive amounts established for customer-sited energy
12 storage systems and front-of-the-meter energy storage systems
13 pursuant to sections 4 and 5 of this act, a methodology for
14 determining compensation amounts for tariffs filed for front-of-the-
15 meter energy storage systems not subject to a tariff from PJM
16 pursuant to section 6 of this act, and an application process for
17 persons who wish to participate in the pilot program. The upfront
18 incentive amounts shall be based on the nameplate storage capacity
19 of the energy storage system, as measured in kilowatt hours of
20 alternating current power output.

21 b. Stand-alone energy storage systems or energy storage systems
22 that are paired with a renewable source of electric power, including,
23 but not limited to, a solar photovoltaic array, shall be eligible for
24 the program. However, the pilot program shall be available only to
25 an energy storage system that:

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

28 (2) is either:

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

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

34 c. The board shall reserve at least one third of the upfront
35 incentives provided to customer-sited energy storage systems for
36 customer classes or deployment scenarios that face greater
37 economic hurdles, including, but not limited to low-to-moderate
38 income customers, and customers sited in overburdened
39 communities.

40 d. In the course of developing the pilot program, the board
41 shall consider revising the eligibility requirement for net-metering
42 for solar energy systems that requires that the capacity of the solar
43 energy system be no greater than the annualized electricity usage of
44 the facility to which the solar energy system supplies electricity, in
45 order to accommodate the inclusion of energy storage system
46 capacity, as well as the potential for future electric vehicle capacity.
47 The board shall include its recommendation in the report required
48 by section 7 of this act.

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

5 f. The program shall not prevent energy storage systems from
6 providing services to, or participating in, the wholesale market.
7 Any evaluation of costs and benefits of energy storage systems shall
8 include benefits that accrue directly or indirectly to ratepayers due
9 to the participation of the energy storage systems in wholesale
10 markets.

11 g. The pilot program shall be closed immediately upon the
12 adoption of the rules and regulations required pursuant to section 8
13 of this act.

14

15 4. a. The pilot program shall include an upfront incentive for
16 the owner of a customer-sited energy storage system or front-of-the-
17 meter energy storage system, which shall be based on the installed
18 capacity of the energy storage system and provided in dollars per
19 kilowatt-hour, and shall not exceed 40 percent of the project's all-in
20 cost. When determining the amount of the upfront incentive offered
21 to an energy storage system, the board shall perform a gap analysis
22 to ensure that the incentive to the owner incorporates consideration
23 of the difference between available revenue streams, including any
24 performance incentive offered under the pilot program, and the all-
25 in system costs of the energy storage system. The board may
26 develop a system of incentive bonuses to differentiate between
27 projects by attributes including, but not limited to, those serving
28 low- and middle-income communities. After the expiration of the
29 pilot program, the board may reduce or eliminate the upfront
30 incentive commensurate with a Statewide reduction in all-in system
31 costs for energy storage systems or an increase in revenue streams
32 available to owners of energy storage systems.

33 b. The board shall establish qualifications and requirements an
34 applicant shall be required to meet in order to be eligible for an
35 upfront incentive pursuant to this section, which may be more
36 stringent than the requirements of subsection b. of section 3 of this
37 act.

38 c. For energy storage systems with 25 kilowatts of nameplate
39 storage capacity or greater, the board shall require the applicant for
40 an upfront incentive to pay to the board a refundable deposit, which
41 shall be refunded once the energy storage system is determined by
42 the board to be operable and in use. The board shall develop a
43 formula for calculating the deposit amount, in which the amount of
44 the deposit is proportional to the nameplate capacity of the energy
45 storage system.

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

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

4 (2) for front-of-the-meter energy storage systems, no later than
5 40 months after the date the board approves the applicant's
6 application. An applicant that does not comply with the project
7 timeline requirements of this subsection shall not be refunded the
8 deposit paid to the board pursuant to subsection c. of this section.
9 The deposit shall be transferred by the board to the General Fund.
10 The board may waive or extend the project timeline requirements
11 established by this subsection for an applicant that demonstrates
12 extenuating circumstances that caused a delay in the completion of
13 the energy storage project, including any delays caused by an
14 electric public utility or PJM.

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

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

23

24 5. a. The pilot program shall include a performance incentive to
25 compensate the owner of a customer-sited energy storage system or
26 front-of-the-meter energy storage system. The purpose of the
27 performance payment shall be to:

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

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

34 (3) facilitate the integration of distributed sources of electricity
35 generation; and

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

38 b. The board shall require each electric public utility in the
39 State to offer an appropriate performance incentive, for a period to
40 be determined by the board, to an owner of an energy storage
41 system that participates in the program, which compensates for the
42 operational attributes of the system, including, but not limited to,
43 capacity, demand response, load shifting, generation shifting,
44 locational value, and voltage support. The costs of the performance
45 incentives shall be apportioned to ratepayers using a methodology
46 approved by the board.

47 c. The board shall establish qualifications and requirements an
48 applicant shall be required to meet in order to be eligible for an

1 performance incentive pursuant to this section, which may be more
2 stringent than the requirements of subsection b. of section 3 of this
3 act.

4
5 6. In addition to the upfront incentive established pursuant to
6 section 4 of this act, and the performance incentive established
7 pursuant to section 5 of this act, each electric public utility in the
8 State shall file a tariff with the board, no later than 12 months after
9 the effective date of this act, that would apply only to front-of-the-
10 meter energy storage systems that are not subject to a tariff from
11 PJM. The tariff shall be formulated to provide front-of-the-meter
12 energy storage systems with compensation for their value to the
13 grid, as described in section 5 of this act. The tariff shall establish a
14 new rate design for front-of-the-meter energy storage systems that
15 accurately reflects cost causation, based on a cost of service study.
16 The tariff may distinguish between different sizes and types of
17 energy storage systems. The tariff shall exempt front-of-the-meter
18 energy storage systems from charges intended for customers who
19 consume electricity, including, but not limited to, the societal
20 benefits charge imposed pursuant to section 12 of P.L.1999, c.23
21 (C.48:3-60).

22
23 7. No later than one year after the date of the pilot program's
24 establishment, the board shall conduct a review of the program and
25 submit a report, pursuant to section 2 of P.L.1991, c.164 (C.52:14-
26 19.1), to the Legislature that includes, but need not be limited to,
27 details about the recipients of incentive payments, the total costs of
28 upfront incentives provided through the program, an evaluation of
29 the extent of energy storage capacity that has been deployed in the
30 State as a result of the program, an evaluation of the distribution of
31 different energy storage technologies deployed, and an analysis of
32 the maturity of the energy storage market in the State.

33
34 8. No later than three years after the effective date of this act,
35 the board, pursuant to the "Administrative Procedure Act,"
36 P.L.1968, c.410 (C.52:14B-1 et seq.), shall adopt rules and
37 regulations establishing a permanent energy storage incentive
38 program. The permanent program shall be consistent with the
39 provisions of this act.

40
41 9. This act shall take effect immediately.

42
43

44 STATEMENT

45

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

1 Specifically, the bill would direct the BPU, no later than 180
2 days after the bill's enactment to publish incentive levels and an
3 application process for an energy storage incentive pilot program.
4 The pilot program would continue until the BPU adopts rules and
5 regulations to establish a permanent program pursuant to the bill.
6 The bill would establish certain requirements for the program,
7 including parameters for the types of energy storage projects that
8 would be eligible for the program, as described in subsections a.
9 and b. of section 3 of the bill. The program would be available to
10 smaller energy storage systems that are owned by customers of
11 electric utilities and sited in the customer's residence or business –
12 referred to as "customer-sited energy storage systems" in the bill, as
13 well as larger energy storage systems that are connected directly to
14 the grid – referred to as "front-of-the-meter energy storage systems"
15 by the bill.

16 The bill would also direct the BPU to reserve a portion of the
17 incentives for energy storage systems that are owned by low-to-
18 moderate income customers and customers sited in overburdened
19 communities. The program would be designed to meet (or exceed)
20 the State's goal of hosting two gigawatts of energy storage capacity
21 by 2030.

22 The incentives would consist of an upfront incentive, described
23 in section 4 of the bill, and a performance incentive, described in
24 section 5 of the bill. The upfront incentive would consist of a one-
25 time payment made by the BPU's clean energy program, which is
26 funded by the societal benefits charge imposed pursuant to section
27 12 of P.L.1999, c.23 (C.48:3-60). The amount of the upfront
28 incentive would be calculated using a "gap analysis," as defined in
29 the bill, which would determine the difference between the all-in
30 system cost of the system and the expected lifetime revenue that the
31 customer could expect to gain from the system. "All-in system
32 cost" is defined to mean the total cost of purchasing and installing a
33 new energy storage system, including the costs of hardware, siting,
34 installation, permitting, and interconnection. The bill would require
35 applicants for an upfront incentive to pay a deposit and to meet
36 certain timeline requirements, as described in subsections c. and d.
37 of section 4 of the bill. The bill would specify that the \$60 million
38 per year of funds collected from the societal benefits charge would
39 be allocated for upfront incentives for the three-year duration of the
40 pilot program.

41 The performance incentive would be a recurring payment made
42 by the relevant electric utility, to compensate the owner of the
43 energy storage system for services to the grid made by the system,
44 including reducing peak demand and supplying power during
45 outages.

46 The bill would also direct each electric public utility to file a
47 tariff (a pricing structure that includes rates and other charges) with
48 the BPU that would apply only to front-of-the-meter energy storage

1 systems that are not subject to a tariff by PJM Interconnection, the
2 regional electric grid operator. The tariff would be required to take
3 into account the costs of, and benefits to, the grid caused by front-
4 of-the-meter energy storage systems. The tariff would also be
5 required to exempt front-of-the-meter energy storage systems from
6 charges intended for customers who consume electricity, including,
7 but not limited to, the societal benefits charge. Finally, the bill
8 would direct the BPU to submit a report to the Legislature on the
9 pilot program no later than one year after the program is
10 established.