

[Second Reprint]

**SENATE, No. 2185**

---

**STATE OF NEW JERSEY**  
**220th LEGISLATURE**

---

INTRODUCED MARCH 7, 2022

**Sponsored by:**

**Senator BOB SMITH**

**District 17 (Middlesex and Somerset)**

**Senator LINDA R. GREENSTEIN**

**District 14 (Mercer and Middlesex)**

**Co-Sponsored by:**

**Senator Diegnan**

**SYNOPSIS**

Establishes incentive program for installation of energy storage systems.

**CURRENT VERSION OF TEXT**

As reported by the Assembly Telecommunications and Utilities Committee on June 5, 2023, with amendments.



**(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  
9 one-way, long-distance transmission of electricity from centralized  
10 power plants to customers <sup>2</sup>**[,]**<sup>2</sup> to a system that includes local  
11 energy sources located close to customers, who increasingly both  
12 produce and consume electricity;

13 b. Energy storage systems, <sup>2</sup>**[distributed]** located<sup>2</sup> throughout  
14 the electric grid, can facilitate greater energy independence and  
15 energy security for the State's electric customers by providing  
16 increased stability of the power supply, smoother integration of  
17 renewable energy sources, a reduction in the peak demand placed  
18 on centralized power plants, and cost savings;

19 c. Locating energy sources and energy storage systems <sup>2</sup>in high  
20 value locations, often<sup>2</sup> near the point of consumption <sup>2,2</sup> enhances  
21 grid 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. <sup>2</sup>Front-of-the-meter energy storage systems that are  
28 interconnected with 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.<sup>2</sup> There are currently significant barriers that disincline New  
33 Jersey electric customers from obtaining the benefits of  
34 <sup>2</sup>**[distributed]**<sup>2</sup> energy storage systems, including inadequate  
35 valuation of energy storage; and

36 <sup>2</sup>**[f.] g.**<sup>2</sup> It is fitting, proper, and in the public interest to  
37 encourage the installation of energy storage systems by providing  
38 monetary incentives to new energy storage systems and  
39 <sup>2</sup>**[distributed]** renewable<sup>2</sup> energy sources paired with energy  
40 storage systems, <sup>2</sup>and to compensate front-of-the-meter energy  
41 storage systems for their value to the grid,<sup>2</sup> until these barriers are  
42 removed by market forces.

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.

Matter enclosed in superscript numerals has been adopted as follows:

<sup>1</sup>Senate SEN committee amendments adopted June 9, 2022.

<sup>2</sup>Assembly ATU committee amendments adopted June 5, 2023.

1       2. As used in this act:

2       “All-in system cost” means the total cost of purchasing and  
3 installing a new energy storage system, including the costs of  
4 hardware, siting, installation, permitting, and interconnection.

5       “Board” means the Board of Public Utilities.

6       “Customer-sited energy storage system” means an energy storage  
7 system that operates in parallel with an electric distribution system,  
8 is connected on the customer side of the meter, and is owned by the  
9 customer or another party that is not the electric public utility that  
10 provides electric power to the customer.

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

14       “Energy storage system” means a commercially available  
15 technology that is capable of absorbing energy, storing such energy  
16 for a period of time, and redelivering the energy after it has been  
17 stored to provide direct or indirect benefits to the broader electricity  
18 system <sup>2</sup>[. <sup>1</sup>“Energy storage system” includes], including<sup>2</sup>, but  
19 <sup>2</sup>[is]<sup>2</sup> not limited to, a battery system, pumped hydroelectric  
20 system, compressed air system, flywheel, or a hydrogen production,  
21 storage, or fuel cell system, provided that the hydrogen is produced  
22 through electrolysis using electricity from a renewable source.<sup>1</sup>

23       “Front-of-the-meter energy storage system” means an energy  
24 storage system that is interconnected <sup>2</sup>[to] with<sup>2</sup> the transmission  
25 and distribution system on the utility side of the meter. <sup>2</sup>“Front-of-  
26 the-meter energy storage system” shall include an energy storage  
27 system that is subject to a tariff from an electric public utility or  
28 from PJM.<sup>2</sup>

29       “Gap analysis” means an analysis that determines the difference  
30 between the average all-in system costs of energy storage systems,  
31 considering each energy storage technology and application, and the  
32 prevailing revenue stream opportunities to support the economics of  
33 the energy storage systems.

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

36       “Performance incentive” means a series <sup>2</sup>of<sup>2</sup> recurring monetary  
37 payments paid by an electric public utility to an owner of an energy  
38 storage system who participates in the pilot program to compensate  
39 for the benefits to the transmission and distribution system provided  
40 by the system.

41       “Pilot program” means the pilot program to incentivize the  
42 installation of new energy storage systems in the State developed by  
43 the board pursuant to section 3 of this act.

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

46       <sup>2</sup>“Transmission and distribution system” means the same as the  
47 term is defined in section 3 of P.L.1999, c.23 (C.48:3-51).<sup>2</sup>

1 “Upfront incentive” means a one-time monetary payment from  
2 the board to an owner of an energy storage system who participates  
3 in the pilot program to mitigate the upfront costs of the system.

4 <sup>2</sup>“Transmission and distribution system” means the same as the  
5 term is defined in section 3 of P.L.1999, c.23 (C.48:3-51).<sup>2</sup>

6  
7 3. a. No later than 90 days <sup>2</sup>[of] after<sup>2</sup> the effective date of this  
8 act, the board shall initiate a proceeding to develop a pilot program  
9 to incentivize the installation of new energy storage systems in the  
10 State. The pilot program shall include an upfront incentive as set  
11 forth in section 4 of this act and a performance incentive as set forth  
12 in section 5 of this act for owners of energy storage systems that are  
13 approved by the board to participate in the program. The provisions  
14 of the pilot program shall be based upon the best available data  
15 from similarly designed programs in other states.

16 At the completion of the proceeding or 180 days after the  
17 effective date of this act, whichever occurs sooner, the board shall  
18 issue a board order establishing the pilot program. The order shall  
19 include<sup>2</sup>;<sup>2</sup> the incentive amounts established for customer-sited  
20 energy storage systems and front-of-the-meter energy storage  
21 systems <sup>2</sup>[,] pursuant to sections 4 and 5 of this act; a methodology  
22 for determining compensation amounts for tariffs filed for front-of-  
23 the-meter energy storage systems not subject to a tariff from PJM  
24 pursuant to section 6 of this act;<sup>2</sup> and an application process for  
25 persons who wish to participate in the pilot program. The upfront  
26 incentive amounts shall be based on the nameplate storage capacity  
27 of the energy storage system, as measured in kilowatt hours of  
28 alternating current power output. <sup>2</sup>[The board shall establish a cap  
29 on the total monetary value of incentives to be distributed through  
30 the pilot program, which shall be consistent with the Statewide  
31 energy storage goals established by subsection d. of section 1.  
32 P.L.2018, c.17 (C.48:3-87.8).]<sup>2</sup>

33 b. Stand-alone energy storage systems or energy storage  
34 systems that are paired with a <sup>2</sup>[distributed] renewable<sup>2</sup> source of  
35 electric power, including, but not limited to, a solar photovoltaic  
36 array, shall be eligible for the program. However, the pilot program  
37 shall be available only to an energy storage system that:

38 (1) becomes operable on or after the date of the pilot program’s  
39 establishment; and

40 (2) is either:

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

44 (b) a <sup>2</sup>[front-of-the meter] front-of-the-meter<sup>2</sup> energy storage  
45 system located in the service area of an electric public utility.

46 c. The board shall reserve at least one third of the upfront  
47 incentives <sup>2</sup>provided to customer-sited energy storage systems<sup>2</sup> for

1 customer classes or deployment scenarios that face greater  
2 economic hurdles, including, but not limited to <sup>2</sup><sub>2</sub> low-to-moderate  
3 income customers <sup>2</sup>[.] and<sup>2</sup> customers sited in overburdened  
4 communities <sup>2</sup>[, and owners of stand-alone energy storage systems  
5 who do not qualify for federal investment tax credits]<sup>2</sup>.

6 d. In the course of developing the pilot program, the board  
7 shall consider revising the eligibility requirement for net-metering  
8 for solar energy systems that requires that the capacity of the solar  
9 energy system be no greater than the annualized electricity usage of  
10 the facility to which the solar energy system supplies electricity, in  
11 order to accommodate the inclusion of energy storage system  
12 capacity, as well as the potential for future electric vehicle capacity.  
13 The board shall include its recommendation in the report required  
14 by section 7 of this act.

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

19 f. The program shall not prevent energy storage systems from  
20 providing services to, or participating in, the wholesale market.  
21 Any evaluation of costs and benefits of energy storage systems shall  
22 include benefits that accrue directly or indirectly to ratepayers due  
23 to the participation of the energy storage systems in wholesale  
24 markets.

25 g. The pilot program shall be closed immediately upon the  
26 adoption of the rules and regulations required pursuant to section 8  
27 of this act.

28  
29 4. a. The pilot program shall include an upfront incentive for  
30 <sup>2</sup>the owner of a customer-sited energy storage system or front-of-  
31 the-meter<sup>2</sup> energy storage system <sup>2</sup>[owners]<sup>2</sup>, which shall be based  
32 on the installed capacity of the energy storage system and provided  
33 in dollars per kilowatt-hour <sup>2</sup>[,]<sup>2</sup> and shall not exceed 40 percent of  
34 the project's all-in cost. When determining the amount of the  
35 upfront incentive offered to an energy storage system, the board  
36 shall perform a gap analysis to ensure that the incentive to the  
37 owner incorporates consideration of the difference between  
38 available revenue streams, including any performance incentive  
39 offered under the pilot program, and the all-in system costs of the  
40 energy storage system. The board may develop a system of  
41 incentive bonuses to differentiate between projects by attributes<sup>2</sup><sub>2</sub>  
42 including, but not limited to, those serving low- and middle-income  
43 communities. After the expiration of the pilot program, the board  
44 may reduce or eliminate the upfront incentive commensurate with a  
45 Statewide reduction in all-in system costs for energy storage  
46 systems or an increase in revenue streams available to owners of  
47 energy storage systems.

1       b. The board shall establish qualifications and requirements an  
2 applicant shall be required to meet in order to be eligible for an  
3 upfront incentive pursuant to this section, which may be more  
4 stringent than the requirements of subsection b. of section 3 of this  
5 act.

6       c. For energy storage systems with 25 kilowatts of nameplate  
7 storage capacity or greater, the board shall require the applicant for  
8 an upfront incentive to pay to the board a refundable deposit, which  
9 shall be refunded once the energy storage system is determined by  
10 the board to be operable and in use. The board shall develop a  
11 formula for calculating the deposit amount, in which the amount of  
12 the deposit is proportional to the nameplate capacity of the energy  
13 storage system.

14       d. <sup>2</sup>(1)<sup>2</sup> The board shall require an applicant for an upfront  
15 incentive to complete the energy storage project:

16       <sup>2</sup>[(1)] (a)<sup>2</sup> for customer-sited energy storage systems, no later  
17 than 18 months after the date the board approves the applicant's  
18 application; and

19       <sup>2</sup>[(2)] (b)<sup>2</sup> for front-of-the-meter energy storage systems, no  
20 later than 40 months after the date the board approves the  
21 applicant's application.

22       <sup>2</sup>(2)<sup>2</sup> An applicant that does not comply with the project  
23 timeline requirements of this subsection shall not be refunded the  
24 deposit paid to the board pursuant to subsection c. of this section.  
25 The deposit shall be transferred by the board to the General Fund.  
26 The board may waive or extend the project timeline requirements  
27 established by this subsection for an applicant that demonstrates  
28 extenuating circumstances that caused a delay in the completion of  
29 the energy storage project, including any delays caused by an  
30 electric public utility or PJM.

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

33       f. The board shall allocate at least \$60 million per year, for the  
34 duration of the pilot program, from moneys collected from the  
35 societal benefits charge imposed pursuant to section 12 of P.L.1999,  
36 c.23 (C.48:3-60) to fund upfront incentives pursuant to this section.  
37 After the expiration of the pilot program, the board may determine  
38 the appropriate amount of funds to allocate to upfront incentives.  
39

40       5. a. The pilot program shall include a performance incentive to  
41 compensate the owner of <sup>2</sup>[an] a customer-sited<sup>2</sup> energy storage  
42 system <sup>2</sup>[that is connected to the transmission and distribution  
43 system] or front-of-the-meter energy storage system<sup>2</sup>. The purpose  
44 of the performance payment shall be to:

45       (1) provide fair compensation for the full value of services  
46 provided by the energy storage system, including improving the

1 efficiency of the transmission and distribution system and reducing  
2 the peak demand placed on electricity generators;

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

5 (3) facilitate the integration of distributed sources of electricity  
6 generation; and

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

9 b. The board shall require each electric public utility in the  
10 State to offer an appropriate performance incentive, for a period to  
11 be determined by the board, to an owner of an energy storage  
12 system that participates in the program, which compensates for the  
13 operational attributes of the system, including, but not limited to,  
14 capacity, demand response, load shifting, generation shifting,  
15 locational value, and voltage support. The costs of the performance  
16 incentives shall be apportioned to ratepayers using a methodology  
17 approved by the board.

18 <sup>2</sup>c. The board shall establish qualifications and requirements an  
19 applicant shall be required to meet in order to be eligible for a  
20 performance incentive pursuant to this section, which may be more  
21 stringent than the requirements of subsection b. of section 3 of this  
22 act.<sup>2</sup>  
23

24 6. <sup>2</sup>**[Each]** In addition to the upfront incentive established  
25 pursuant to section 4 of this act, and the performance incentive  
26 established pursuant to section 5 of this act, each<sup>2</sup> electric public  
27 utility in the State shall file a tariff with the board, no later than 12  
28 months after the effective date of this act, that <sup>2</sup>**[would]** shall<sup>2</sup>  
29 apply only to front-of-the-meter energy storage systems  
30 <sup>2</sup>**[connected to the transmission and distribution system]** that are  
31 not subject to a tariff from PJM<sup>2</sup>. The tariff shall be formulated to  
32 provide front-of-the-meter energy storage systems with  
33 compensation for their value to the grid, as described in section 5 of  
34 this act. The tariff shall establish a new rate design for front-of-the-  
35 meter energy storage systems that accurately reflects cost causation,  
36 based on a cost of service study. The tariff may distinguish  
37 between different sizes and types of energy storage systems. The  
38 tariff shall exempt front-of-the-meter energy storage systems from  
39 charges intended for customers who consume electricity, including,  
40 but not limited to, the societal benefits charge imposed pursuant to  
41 section 12 of P.L.1999, c.23 (C.48:3-60).  
42

43 7. No later than one year after the date of the pilot program's  
44 establishment, the board shall conduct a review of the program and  
45 submit a report, pursuant to section 2 of P.L.1991, c.164 (C.52:14-  
46 19.1), to the Legislature that includes, but need not be limited to,  
47 details about the recipients of incentive payments, the total costs of

1   upfront incentives provided through the program, an evaluation of  
2   the extent of energy storage capacity that has been deployed in the  
3   State as a result of the program, an evaluation of the distribution of  
4   different energy storage technologies deployed, and an analysis of  
5   the maturity of the energy storage market in the State.

6  
7       8. No later than three years after the effective date of this act,  
8   the board, pursuant to the "Administrative Procedure Act,"  
9   P.L.1968, c.410 (C.52:14B-1 et seq.), shall adopt rules and  
10  regulations establishing a permanent energy storage incentive  
11  program. The permanent program shall be consistent with the  
12  provisions of this act.

13  
14       9. This act shall take effect immediately.