



2025 Dynamic Load Management Program Report

November 14, 2025

INTRODUCTION

This program report summarizes PSEG Long Island's Direct Load Control (DLC) and Demand Response (DR) events for the 2025 program year, May 1, 2025, through September 30, 2025.

PSEG Long Island is submitting this summary report on program performance and costs associated with the following Dynamic Load Management programs:

- Smart Savers Direct Load Control Program (DLC or Smart Savers Program)
- The PSEG Long Island Commercial System Relief Program (CSRP) and the Distribution Load Relief Program (DLRP)
- Behind the Meter (BTM) Energy Storage Systems

PSEG Long Island operates the Long Island Power Authority's transmission and distribution system under a 12-year contract. PSEG Long Island is a subsidiary of Public Service Enterprise Group Incorporated (NYSE: PEG), a publicly traded diversified energy company with annual revenues of approximately \$9.7 billion.

Overall, the efforts break down into two components. First are Direct Load Control efforts, which are thermostat control-based programs of which most participants are residential customers. Second are Demand Response programs of which participants are either large commercial customers or small aggregated customers capable of reducing or displacing power and energy from the grid when dispatched.

Long Island Power Authority (LIPA) Tariff for Electric Service, state that the 7-Day Load Forecast is used as a basis to initiate CSRP curtailment events. Planned Called Events are scheduled when the Authority's Day-ahead system-wide peak forecast exceeds 94% of the forecast summer peak load

For the 2025 summer capability period the forecast summer peak was 5,186 MW or 4,875 MW @ 94% forecast summer peak.

2026 Capacity Cost Savings

The Dynamic Load Management Programs are dispatched for economic and load reduction purposes in 2025. When dispatching for economic purposes, the objective is to realize savings for customers by reducing the amount of capacity needed to be purchased for the following summer period.

To be able to claim savings to offset the following year's capacity requirement, the program curtailment must be coincident with the peak hour on the peak day of demand for the current summer period. There are two peak demands each summer, the New York Control Area (NYCA) peak and the Long Island Control Area (LICA) peak. These peaks may or may not be synchronic with each other in any given year. Both the overall and relative level of savings can fluctuate yearly based on forecasted changes in load, supply, locational requirements and pool- reserve margin requirements.

In 2025, the Programs successfully shed load **coincident with Summer LICA and NYCA peak** as follows:

NYCA Peak Information

July 29, 2025, Hr. ending 1900

Smart Savers: **29.93 MW**

CSRP and DLRP: $(8.82 + 2.9^*) = 11.72$ MW

TOTAL Peak Reduction: 41.65 MW

2026 capacity cost reduction for Smart Savers is estimated to be \$ 1,296,757

2026 capacity cost reduction for CSRP and DLRP programs are estimated to be \$ 648,055

LICA Peak Information

July 30, 2025, Hr. ending 1800

Smart Savers: **0.0 MW**

CSRP and DLRP; $(7.13 + 2.9^*) = 10.03$ MW

TOTAL Peak Reduction = 10.03 M

2026 capacity cost reduction for Smart Savers is estimated to be \$ 0

2026 capacity cost reduction for CSRP and DLRP programs are estimated to be \$ 996,775

Total 2026 capacity cost reduction for all programs is estimated to be \$ 2,941,587

*Direct Metering Energy Storage Systems (residential battery)

Smart Savers Program

The LIPA Board of Trustees adopted the Smart Savers (DLC) Program as a component of the Dynamic Load Management Tariff Program in May 2016.

The Smart Savers Program pays customers a one-time payment of \$85 upon the customer's enrollment of a qualifying smart thermostat into the Smart Savers Program. In exchange, participants agree to allow PSEG Long Island to curtail usage of central air conditioning systems in the home or small business. In addition, the customer will receive a \$25 check/bill credit for each subsequent year they remain in the program and fully participate in at least 50% of the curtailment events called during the capability period. EnergyHub, Inc. has been retained as the implementation contractor to provide enrollment, communication, curtailment and result reporting services for the program.

Smart Savers Program Technology Overview

The customer must utilize an approved thermostat, install and program the device in their home or business. Approved thermostat manufacturers market and promote the program to potential customers. The approved smart thermostat devices are Wi-Fi enabled and are registered with the program enrollment administrator, EnergyHub. PSEG Long Island initiates a load reduction curtailment day when appropriate, during the program capability period. EnergyHub provides an administrative portal through which PSEG Long Island can initiate curtailment events, manage and monitor program activity.

The Smart Savers program supports electric system reliability and reduces operational costs by using all communicating thermostats to control participants' central air conditioning units and reduce energy demand at times of critical system need. Customers can over-ride any event that PSEG Long Island calls and are able to remotely control their central air conditioning units online through a personal computer or mobile device.

The program currently uses web-based two-way communications to/from the connected thermostats using a Distributed Energy Resource Management System (DERMS) platform provided by EnergyHub, the program administrator. During curtailment events, the system sends a signal to each customer's device to curtail load, generally between the hours of 1600 and 1900 during the summer on Critical Demand Days.

The Smart Savers Program currently includes the following eligible manufacturers: Google Nest, Honeywell, Emerson, Ecobee, Vivint, Alarm.com, Lux Geo, and Amazon. During an event, all active smart thermostats in the program receive a web-based signal to participate in a curtailment event. The system can curtail specific load constrained areas based on needs. Active thermostats send confirmations that they are operational during the curtailment, which are logged into the database.

Direct Load Control Events are at the Authority's determination to activate some or all of the participating Control Devices including but not limited to situations when: (a) The NYISO declares an emergency in conjunction with an in-day peak hour forecast response to an operating reserve peak forecast shortage; or (b) In response to a major state of emergency as defined in Section 3.2 of the NYISO Emergency Operations Manual; or (c) At the NYISO's discretion to relieve system or zonal emergencies; or (d) The Authority determines that a NYISO or Authority peak may occur; or the Authority at its discretion identifies a need to reduce load throughout the Authority's system generally or at specific locations

While PSEG Long Island continues to have a sufficient supply of electricity to meet customer demand, activation of the program allows for both testing of the program to meet any reliability emergency, which might arise, and provide customer savings by reducing the amount of capacity needed to be procured for the following year.

Smart Savers Program Marketing

PSEG Long Island worked with Energy Hub to create a co-branded marketing program that includes emails and a PSEG LI customer facing webpage. Marketing efforts also leverages device manufacturer and service provider partnerships to target potential leverage through digital platforms with in-app marketing.

Customers purchase and install an approved thermostat in their home or business and then the thermostat manufacturers will market and promote the program to potential customers through a mobile application. Through the mobile application customers can enroll in the Smart Savers program directly with the administrator, EnergyHub.

EnergyHub provides a microsite, enrollment page, FAQ page and in-app technology to drive enrollment and convert customers. PSEG Long Island also has a website that includes both residential and commercial program information and detail. This includes program description, FAQ information, program application, tariff information, and aggregator eligibility criteria.

Smart Savers Program Savings Impact

As of September 30, 2025, there are 67,117 thermostat devices (approximately 45,000 customers) enrolled in the Smart Savers Program, almost entirely residential. In 2025, a total of three island-wide curtailment events were called, with 63,171 devices on 06/24/25, 63,133 devices on 06/25/25, and 64,673 devices called on 07/29/25.

Date	Duration	Avg. Load Shed Per Targeted Device (kW)
6/24/2025	3 hours	0.65
6/25/2025	3 hours	0.73
7/29/2025	3 hours	0.73

To calculate load shed, EnergyHub's Mercury DERMS platform uses compressor runtime (on/off) data to develop an event load curve and baseline load curve for each demand response event across all targeted devices. The runtime curves are built in 15-minute "buckets." An average nameplate capacity value for each air conditioner is applied to its compressor runtime data to develop an individual kW value for each of those intervals. The product of those two inputs, the runtime data and nameplate capacity, provides the ability to calculate historical and event energy usage.

For the three island-wide events, the average load shed per device in 2025 was 0.70 kW, a decrease from 0.78 kW average in 2024. The decrease in load shed per device in 2025 is likely attributed to not having full participation over the three events.

Smart Savers Program Cost Effectiveness Summary

The Smart Savers program achieved peak load reductions of approximately 29.93 MW on the NYCA Peak hour resulting in an approximate capacity cost savings estimate of \$ 1,296,757 million for 2025

The Smart Savers program did not call an event on the LICA Peak hour for 2025.

The total cost for administration of the Smart Savers Program in 2025 is estimated to be \$3.2 million, which includes customer incentives of (\$85/thermostat enrollment incentives and \$25/thermostat for anniversary payments). Note that the \$85 enrollment is a one-time expense and will not represent a cost to the program for existing participants in future years and therefore not included in the UCT.

The UCT benefit/cost ratio for the Smart Savers Program is 1.03

The SCT benefit/cost ratio for the Smart Savers Program is 0.62

Additional savings included in the UCT B/C ratio include avoided investment, avoided energy use, and environmental externalities.

Smart Savers 2025 Curtailment Summary

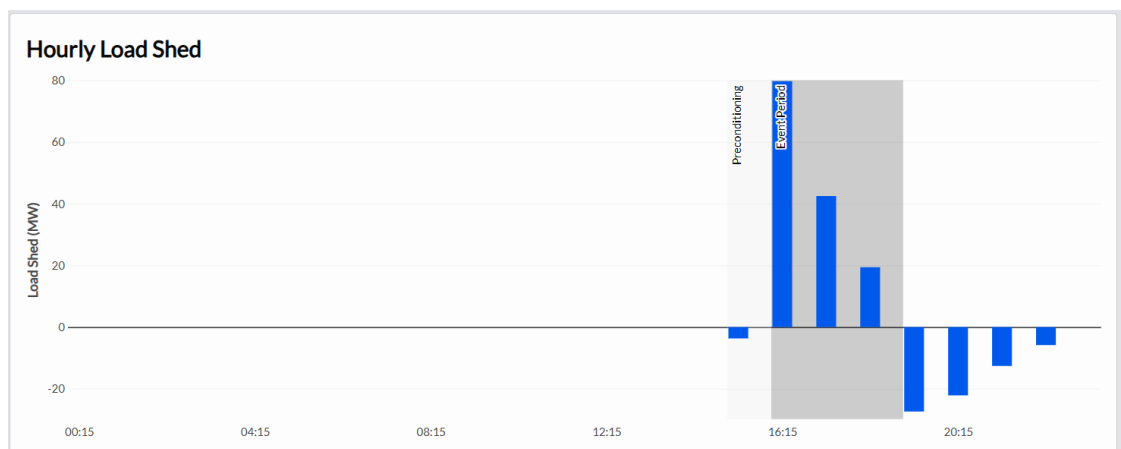
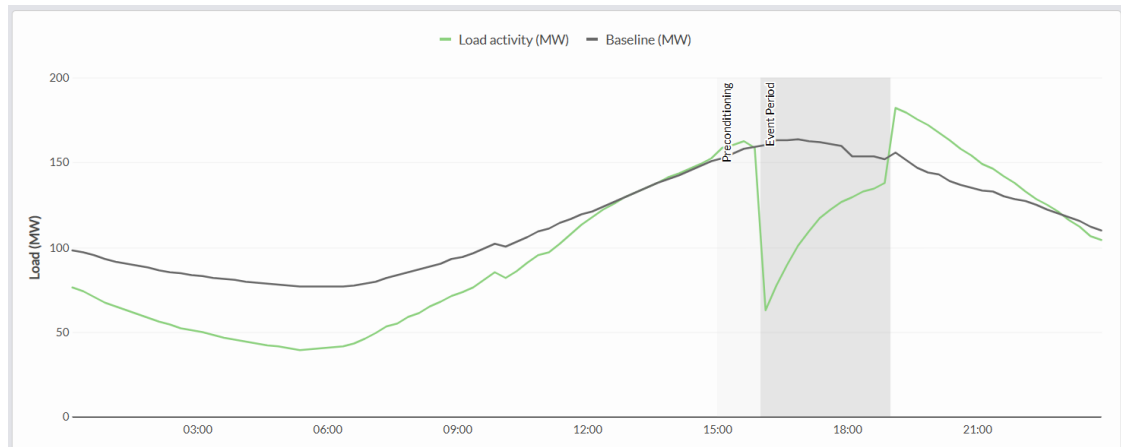
In 2025, the Smart Savers DLC Program was able to successfully reduce the peak load on a Critical Demand Day's (CDD). The program effectively assured that the customer demand for electricity did not exceed the available supply and jeopardize the reliability of the electrical system.

On 07/29/2025, the Smart Savers load shed at hour ending 1900 was coincident with the NYCA peak load. This resulted in about 29.93 MW of peak load reduction

Activation also allows PSEG Long Island to assess the program's capability to reduce demand in cases of emergency need to help maintain reliability.

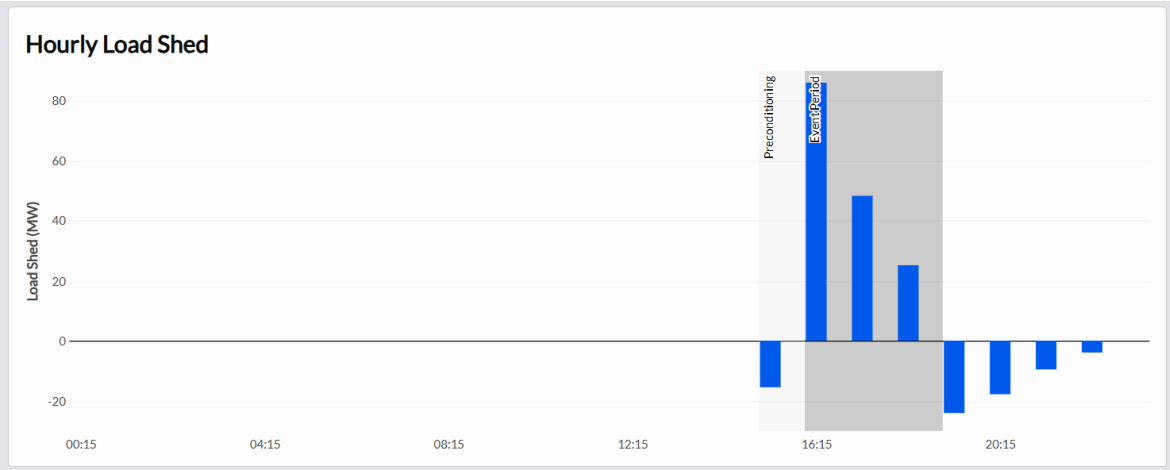
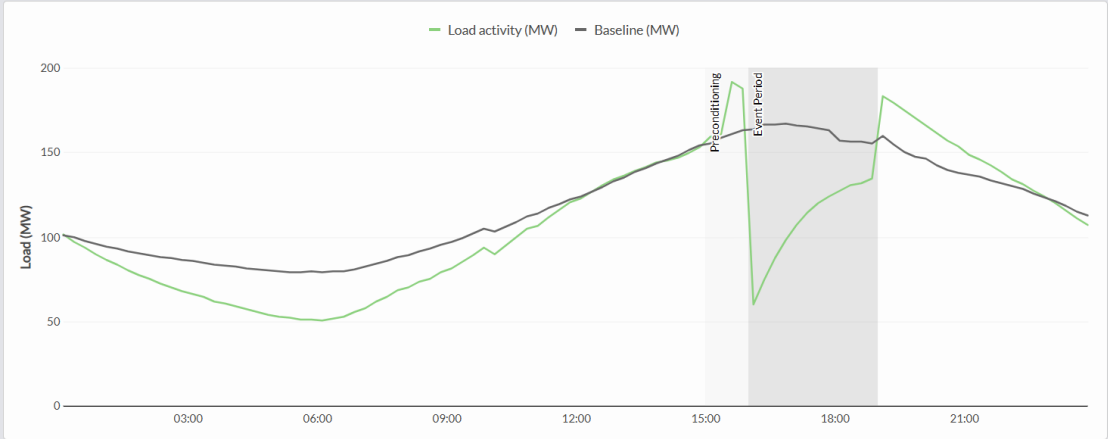
Smart Savers Curtailment Results

June 24, 2025



Load Shed 📍	
All partners, all groups	
Avg. total load shed (MW)	47.30
Max load shed (MW)	97.38
Total energy shifted (MWh)	141.91
Avg. load shed per device (kW)	0.65
Avg. reporting devices	66,724
Baseline method	PJM

June 25, 2025

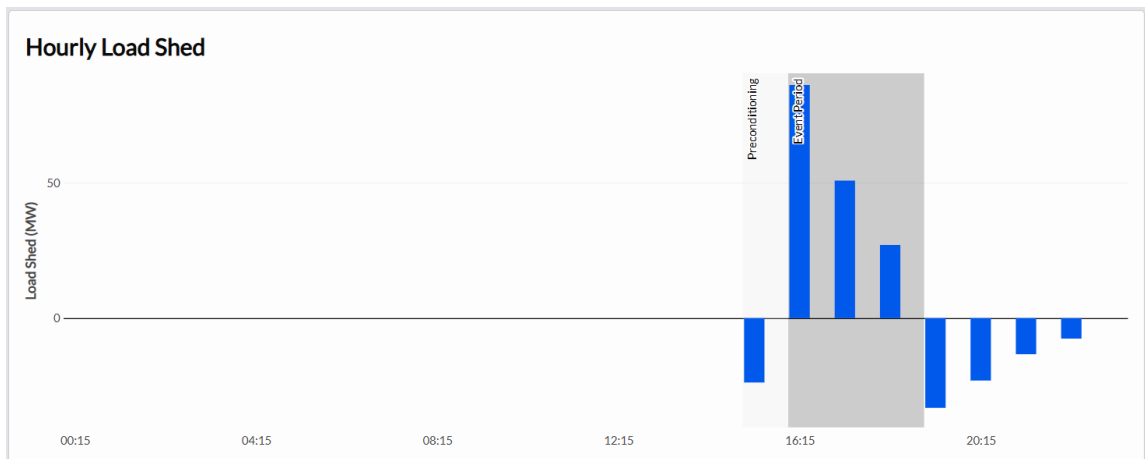
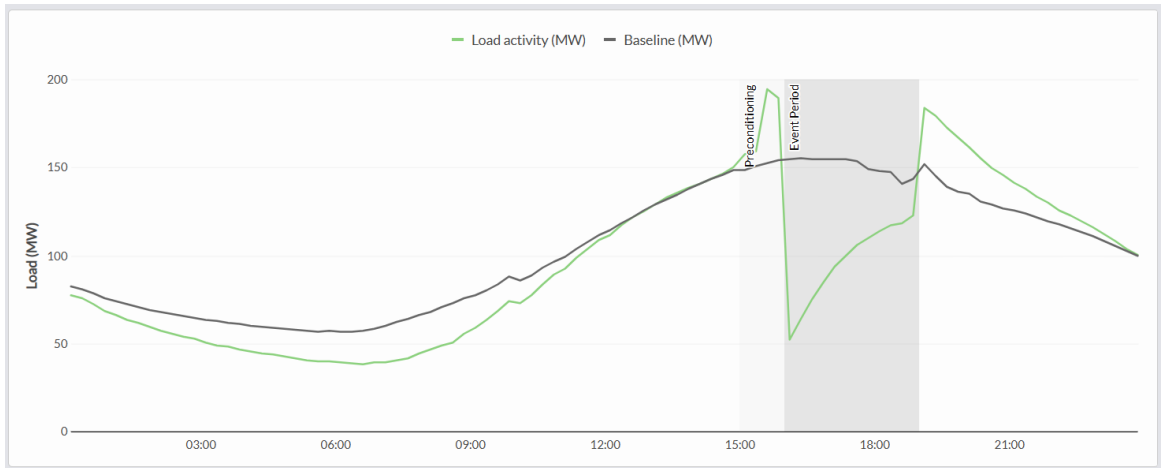


Load Shed

All partners, all groups

Avg. total load shed (MW)	53.25
Max load shed (MW)	103.49
Total energy shifted (MWh)	159.76
Avg. load shed per device (kW)	0.73
Avg. reporting devices	67,385
Baseline method	PJM

July 29, 2025



Load Shed [ⓘ]	
All partners, all groups	
Avg. total load shed (MW)	54.63
Max load shed (MW)	102.56
Total energy shifted (MWh)	163.88
Avg. load shed per device (kW)	0.73
Avg. reporting devices	68,896
Baseline method	PJM

Commercial System Relief Program and the Distribution Load Relief Programs

The LIPA Board of Trustees adopted the Commercial System Relief Program and the Distribution Load Relief Programs as a component of the Dynamic Load Management Tariff Program in 2016.

These programs create the opportunity for market forces to identify and implement load relief measures that would allow PSEG Long Island to avoid building new distribution capacity at specific locations along the transmission and distribution system. The goal of the program is to have the market provide such solutions and for PSEG Long Island to spend less on transmission and distribution upgrades and projects.

The Commercial System Relief Program curtailment notification requires 21 hours advance notice. The Distribution Load Relief Program curtailment notification requires 3 hours advance notice. Eligibility requires Aggregators to have collectively a Load Relief potential of 50 kW or Direct Participants who have at least 50 kW of Load Relief.

The Program is administered by EnergyHub Inc., which manages CSRP and DLRP enrollment, data collection, and calculates the payment to enrollees.

The Commercial System Relief Program scheduled a Planned Curtailment 'events' when the forecasted peak demand level is expected to reach or exceed 94% of the forecasted system peak for the summer.

The forecasted load used as a basis to initiate curtailment events was 5,186 MW (initiated if forecast exceeds 94% of that amount or 4,875 MW).

Commercial System Relief Program Implementation

The Commercial System Relief Program is applicable to Direct Participants and Aggregators who agree to provide Load Relief for a minimum of 4 hours during all contracted hours whenever PSEG Long Island designates a planned event during the "Capability Period" which is from May 1 - September 30. The Direct Participant or Aggregator must contract to provide at least 50 KW of Load Relief to participate in the program.

The Commercial System Relief Program offers several features to both Direct Participants and Aggregators of customers in the program. As per the Statement of Commercial System Relief Program Payments, the program scope consists of:

- Monthly reservation payments per kW for commitments to reduce load on 21 hours' notice. The current reservation payment is \$5/kW/month.
- Performance payments for each kWh of energy curtailed during an event called, lasting up to 4 hrs. The current performance payment is \$0.25 per kWh reduced during a curtailment event.

Direct Participants and Aggregators may participate by reducing or deferring load, or utilizing dispatchable, on-site generation options (including Net Energy Metered customers with Energy Storage Systems), to meet the commitment to reduce their load on the system. Generation options must meet strict emissions criteria to be eligible for the program. AMI metering is also required of all customers enrolled in the program, except those with master meters. All load reduction provided during a called curtailment event will be quantified using a Customer Base Load (CBL) methodology, which requires detailed Interval data and usage information.

Distribution Load Relief Program

The Distribution Load Relief Program creates the opportunity to reduce electric load in certain Designated Areas or “load pockets” determined to be approaching system capacity limits during peak periods on the PSEG Long Island System. A current list of the Authority Designated Areas will be listed on the Manager’s website and Reservation Payments by area are listed on the Statement of Distribution Load Relief Program Payments.

The DLRP offers:

- Monthly reservation payments per kW for commitments to reduce load on two (2) hours’ notice. The current reservation payment is \$3/kW/month.
- Performance payments for each kWh of energy curtailed during a called event lasting up to 4 hours. The current performance payment for load reduced during a called event is \$0.25 per kWh.
- Locational premiums for load pocket areas or areas that PSEG Long Island designates as an area requiring distribution relief.

Direct Participants and Aggregators may participate by reducing or deferring load, or utilizing dispatchable, on-site generation options, to meet the commitment to reduce their load on the system. Generation options must meet strict emissions criteria to be eligible for the program. AMI metering is also required of all customers enrolled in the program. All load reduction provided during a called curtailment event will be quantified using a Customer Base Load (CBL) methodology, which requires Interval data usage information made available on a timely basis.

Customers enrolled in the DLRP can also enroll in the CSRP and are largely duplicative. The tariff provides no penalties for underperformance, but customers and Aggregators are paid based on a “Performance Factor”.

2025 CSRP and DLRP Load Relief Results

Overall, both the CSRP and DLRP program were successful in providing load reduction across Long Island totaling nine (9) curtailment events with one (1) single DLRP event.

Total CSRP and DLRP results are depicted in the following table:

Date	Non-Battery		Battery Direct Metering		Total Average Load Reduction (MW)
	Event Length	Average Load Reduction (MW)	Event Length	Average Load Reduction (MW)	
6/23/2025*	4	8.66	3	1.3	9.96
6/24/2025	4	5.88	3	2.7	8.58
6/25/2025	4	6.55	3	2.7	9.25
7/8/2025	4	8.32	3	2.9	11.22
7/17/2025	4	7.43	3	2.9	10.33
7/25/2025	4	8.51	3	2.7	11.21
7/28/2025	4	8.43	3	2.9	11.33
7/29/2025**	4	8.82	3	2.9	11.72
7/30/2025***	4	7.13	3	2.9	10.03

*DLRP only **NYCA Peak ***LICA Peak

The UCT benefit/cost ratio for the CSRP/DLRP programs is 1.82

The SCT benefit/cost ratio for the CSRP/DLRP programs is 1.83

The programs achieved total peak load reductions of approximately 10.03 MW on the LICA peak hour resulting in an approximate capacity cost savings of \$ 996,775 for 2026.

Additional savings included in the UCT B/C ratio include avoided T&D investment, avoided energy use, and environmental externalities.

2025 Aggregator and Participation

The Demand Response Program has grown to fourteen (14) market Aggregators approved in the program providing aggregation services to various market segments.

Charge Scape	Generac Grid Services	Solutions
CPower	Leap	NuEnergen
Enel X	Logical Buildings	Sonnen
Enersponse	Meltek	Voltus
Enphase	NRG Curtailment	Tesla

In 2025, Demand Response Program experienced exponential growth in terms of total participation as well as an increasingly diverse range of customers.

In previous years, commercial rate code customers with stand-by generation or energy management systems or a combination of both were the predominant participants. In 2025, the predominant customer was residential. Residential sub-sets include Electric Vehicle Charging (290 participants) and Residential Energy Management (450) participants.

2025 Participation	
Customer Class	Number
Commercial	257
Residential	825
Energy Management	(450)
Electric Vehicle Charging	(290)
Battery Storage Interval Metering	(85)
Battery Storage Direct Metering	450

Note: 150+ additional Battery Storage Direct Metering participants enrolled post June late enrollment period. The program allows year-round enrollments. Outside of enrollment period, participants are on a voluntary basis until the enrollment period begins.

Behind-the-Meter Energy Storage Systems

In June of 2019, PSEG Long Island amended the existing Dynamic Load Management Tariff to enable Net Energy Metered customers who install qualified Solar PV paired with Energy Storage Systems and stand-alone Energy Storage Systems to participate and receive Reservation and Performance payments through the existing CSRP and DLRP Demand Response Program. The goal was to catalyze the local availability of energy storage for the commercial and residential market while providing load relief, especially in those defined areas of the grid where peak demand needs are most critical.

To promote market stability and provide additional price certainty needed to spur upfront investment needed for installation of batteries, qualifying battery storage equipment under the CSRP and DLRP reservation payments are locked in for a 10-year period.

- The CSRP and DLRP utilize a customer baseline methodology called the “10-day weather adjusted CBL” to improve the accuracy of load relief verification for customers with distributed generation.

In 2025, there were ~75 Solar PV paired with Battery Storage Systems who chose this methodology, representing about ~ 226.28 kW of CSRP/DLRP contracted capacity. These Load Relief Savings (MW) are inclusive of the overall CSRP and DLRP Savings above.

Behind-the-Meter Energy Storage Systems

Direct Metering

In January 1, 2024, PSEG Long Island further amended the DLM program intended to increase participation of residential customers who install behind-the-meter battery storage systems. The amendment allows customers to choose to have their Load Relief measured via direct metering of the energy storage system.

The amendment is better suited to support the energy-storage system technology and industry acceptance. Participants with Qualifying Paired Battery Storage Equipment may choose to receive the performance measure based on the battery output directly measured through a third-party vendor. This amendment to the Demand Response peak load-shavings program is an alternative to the existing Commercial System Relief Program (CSRP) and Distribution Load Relief Program (DLRP)

- The primary DLM Tariff modifications include:
 - Performance of energy storage systems to be measured and verified through direct metering of the energy storage system
 - Eliminate the 10-day weather adjusted CBL methodology in the measurement and verification of load relief.
 - Residential Time-of-Day Rate Code Customers will be eligible

Direct metering of the energy storage system output measures the actual Load Relief provided (kW and kWh) during each hour of each designated Load Relief Period and Test Event.

Data received via direct metering of the energy storage system for each designated Load Relief event is captured through a PSEG LI third-party vendor EnergyHub to evaluate performance and compensation. This is accomplished through API agreements between the vendor, and the energy storage system O.E.M. Secure data is transmitted in real-time to the vendor directly from the energy storage system inverter. Inverter metering is of utility grade specifications.

Isolating performance of the storage system will ensure that onsite solar generation is prohibited from influencing measured peak load relief.

Residential rate code customers and residential Time-of-Day (“TOD”) rate code customers are eligible. Both stand-alone systems and systems paired with eligible Net Energy Metering Technology are eligible provided that they meet the 50kW limit for a direct customer or for participation with an energy aggregator. Customers can choose the existing CSRP/DLRP or the direct metering subsection. In accordance with DLM Tariff, customers enrolled in the Direct Load Control (Smart Savers) program are not eligible to participate in the new direct metering alternative.

For the 2025 season, ~450 customers representing 2.9 MW contracted capacity chose direct metering of the energy storage system output to measure the actual Load Relief during each designated Load Relief Period.

Tesla Battery Storage Powerwall units represented the entirety of these systems utilizing their proprietary mobile in app enrollment process linked to EnergyHub's Bring Your Own Battery (BYOB) platform. Like Smart Saver enrollment, customers who purchase and install battery storage in their home, Tesla will market and promote the program to potential customers through a mobile application. Through the mobile application customers can enroll in the Program directly with the administrator, EnergyHub.

The program has been marketed as NYSERDA's Battery Storage Rewards Incentive Program. Note that the BYOB Demand Response Program participation has since grown to over 600* active residential battery storage systems.

The CSRP and DLRP (non-battery) results are depicted in the following table:

A total of 1,532 customers participated in these curtailment events with an average contracted load of 12.72MW in CSRP and 12.41MW of load in DLRP.

Date	Event Length (non- battery)	Total Average Load Reduction (MW)	CSRP Contracted Amount (MW)	DLRP Contracted Amount (MW)
6/23/2025	4 Hrs.	4.07	12.41	12.41
6/24/2025	4 Hrs.	8.24	12.80	12.41
6/25/2025	4 Hrs.	8.04	12.80	12.41
7/8/2025	4 Hrs.	8.03	12.76	12.37
7/17/2025	4 Hrs.	8.08	12.75	12.42
7/25/2025	4 Hrs.	8.06	12.75	12.42
7/28/2025	4 Hrs.	7.38	12.75	12.42
7/29/2025**	4 Hrs.	5.32	12.75	12.42
7/30/2025*	4 Hrs.	7.99	12.75	12.42

*LICA Peak **NYCA Peak

“Achieved reductions” results are partly based on data that will be further validated.

The Battery Storage AMI Interval Data results are depicted in the following table:

Date	Event Length	Total Average Load Reduction (MW)	CSRP Contracted Amount (MW)	DLRP Contracted Amount (MW)
6/23/2025	3 Hrs.	0.04	0.226	0.105
6/24/2025	3 Hrs.	0.04	0.226	0.105
6/25/2025	3 Hrs.	0.04	0.226	0.105
7/8/2025	3 Hrs.	0.02	0.226	0.105
7/17/2025	3 Hrs.	0.10	0.226	0.105
7/25/2025	3 Hrs.	0.06	0.226	0.105
7/28/2025	3 Hrs.	0.08	0.226	0.105
7/29/2025**	3 Hrs.	0.09	0.226	0.105
7/30/2025*	3 Hrs.	0.07	0.226	0.105

*LICA Peak **NYCA Peak

Bring Your Own Battery (BYOB) Direct Metering Load Relief Results

Date	Event Length	Total Average Load Reduction (MW)	BYOB Max Load Reduction (MW)	BYOB Device Customer Participation
6/23/2025	3 Hrs.	1.3	3.1	94%
6/24/2025	3 Hrs.	2.7	3.1	95%
6/25/2025	3 Hrs.	2.7	3.1	95%
7/8/2025	3 Hrs.	2.9	3.3	94%
7/17/2025	3 Hrs.	2.9	3.3	96%
7/25/2025	3 Hrs.	2.7	3.2	87%
7/28/2025	3 Hrs.	2.9	3.3	98%
7/29/2025**	3 Hrs.	2.9	3.3	96%
7/30/2025*	3 Hrs.	2.9	3.4	95%

*LICA Peak **NYCA Peak