

## **BOARD AGENDA SUMMARY SHEET**

<b>Committee or Board:</b> Board	<b>Date:</b> May 10, 2019	<b>Board Meeting Date:</b> May 22, 2019
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**For All Board Voting Items:**

**Title of Agenda Item:** Approval of Tariff Changes to Enable Energy Storage Systems to Participate in Dynamic Load Management

**Consent Agenda:** ☐ Yes ☒ No

**Accompanying Presentation:** ☐ Yes ☒ No

**Recommendation from Committee:** ☒ N/A ☐ F&A; ☐ GP&P; ☐ Oversight & REV

**LIPA Presenter:** Justin Bell

**PSEG Long Island Presenter:** N/A

**For Finance Approval Items Only:**

**Budget** ☐; **Plan of Finance** ☐; **Tariff Changes** ☒; **Other** ☐ (describe below)

<b>Requested Action:</b>	The Trustees are requested to approve changes to the Authority's Tariff to enable incentives in support of PSEG Long Island's planned behind-the-meter energy storage program, effective June 1, 2019. The incentives will be offered through the Authority's existing dynamic load management tariffs. In connection with this offering, the proposed changes will also expand eligibility for participation in the dynamic load management tariffs to customers with eligible generating equipment, such as rooftop solar.
<b>Summary: (include proposed amendments to Board Policies, if applicable)</b>	<p>As part of its 2018 Utility 2.0 annual update, PSEG Long Island proposed to introduce an innovative, open solicitation program opportunity for third-party aggregators to install behind-the-meter batteries for PSEG Long Island customers. The goal of the program is 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</p> <p>The Authority's existing Dynamic Load Management ("DLM") programs include a peak load-shaving Commercial System Relief Program (the "CSR") and a local reliability supporting Distribution Load Relief Program (the "DLRP"). As more fully set forth in the accompanying memorandum, the Authority Staff proposes to modify the Tariff to enable incentives in support of the Utility 2.0 behind-the-meter battery storage program to be paid through the Authority's existing CSR and DLRP tariffs.</p>

## **FOR CONSIDERATION**

May 22, 2019

**TO:** The Board of Trustees

**FROM:** Thomas Falcone

**SUBJECT:** Consideration of Tariff Changes to Enable Energy Storage Systems to Participate in Dynamic Load Management

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### **Requested Action**

The Trustees are requested to approve changes to the Authority's Tariff for Electric Service ("Tariff") to enable incentives in support of PSEG Long Island's planned behind-the-meter energy storage program, effective June 1, 2019. The incentives will be offered through the Authority's existing dynamic load management tariffs. In connection with this offering, the proposed changes will also expand eligibility for participation in the dynamic load management tariffs to customers with eligible generating equipment, such as rooftop solar.

### **Background**

Each year, PSEG Long Island submits an annual update to its Utility 2.0 Long Range Plan, in which the utility proposes new initiatives to enhance the customer experience, modernize the Long Island electric grid, and promote New York State's Reforming the Energy Vision policies. As part of its 2018 Utility 2.0 annual update, filed on June 29, 2018, PSEG Long Island proposed to introduce an innovative, open solicitation program opportunity for third-party aggregators to install behind-the-meter batteries for PSEG Long Island customers.<sup>1</sup> The goal of the program is 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. On November 1, 2018, the Department of Public Service ("DPS" or "Department") recommended adoption of PSEG Long Island's behind-the-meter battery program.<sup>2</sup> The program is intended to launch in June 2019, in coordination with new incentives for behind-the-meter batteries to be offered by the New York State Energy and Research Development Authority ("NYSERDA").

The Authority's existing Dynamic Load Management ("DLM") programs include a peak load-shaving Commercial System Relief Program (the "CSRP") and a local reliability supporting Distribution Load Relief Program (the "DLRP"). The behind-the-meter battery program would make use of the Authority's existing CSRP and DLRP tariffs to offer incentives for qualifying battery storage equipment in exchange for enrolling and participating in the programs. This proposal will modify those tariffs consistent with the behind-the-meter battery program, as recommended by the DPS, and will make related tariff improvements.

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<sup>1</sup> Case No. 14-01299, In the Matter of PSEG-LI Utility 2.0 Long Range Plan, Item No. 48.

<sup>2</sup> Case No. 14-01299, In the Matter of PSEG-LI Utility 2.0 Long Range Plan, Item No. 57.

## **Proposed Action**

The Authority Staff proposes to modify the Tariff for Electric Service to enable incentives in support of the Utility 2.0 behind-the-meter battery storage program to be paid through the Authority's existing CSRP and DLRP tariffs.

The CSRP and DLRP tariffs offer reservation payments, which are based on the number of summer months the participant is enrolled in the programs and the anticipated kW peak reduction, and performance payments, which are based on the participant's performance during specific load relief events called by PSEG Long Island. As proposed in the Utility 2.0 plan, third-party aggregators will enroll customers in the behind-the-meter battery storage program, install eligible battery storage systems (either themselves or through qualified installers), and allow PSEG Long Island to remotely dispatch customers' energy storage systems through the aggregators to reduce load during called events through the existing CSRP and DLRP programs. In exchange, the aggregators will receive reservation and performance payments under the CSRP and DLRP tariffs.<sup>3</sup>

Under existing rules, reservation and performance payment amounts may be reset as needed by Authority staff. In order to promote market stability and provide additional price certainty needed to spur the upfront investment needed for installation of batteries, a change is proposed to lock in the amount of reservation payments offered to qualifying battery storage equipment under the CSRP and DLRP for a 10-year period.

In summary, the following updates to the CSRP and DLRP tariffs are proposed to accommodate the Utility 2.0 behind-the-meter storage program:

- New qualifying battery storage equipment interconnected with the Authority's system after March 1, 2019, will be eligible to participate in the CSRP and DLRP programs. Both stand-alone systems and systems paired with an eligible Net Energy Metering Technology will be eligible.
- New qualifying battery storage projects will be eligible to receive the Reservation Payment in effect at the time of their interconnection for a period of ten years.
- The CSRP and DLRP will include a new customer baseline methodology called the "10 day weather adjusted CBL".
  - A customer baseline methodology is used by the Service Provider to verify the actual load relief provided by the customer during load relief events. The CSRP and DLRP currently include two customer baseline methodology options for participating customers.
  - The purpose of the new methodology is to improve the accuracy of load relief verification for customers with distributed generation. The new methodology will be used to verify the load relief of participating customers who are enrolled in Net Energy Metering or the Value of Distributed Energy Resources ("VDER").
  - The new methodology will be optional for other participating customers, who may select it as an alternative to the existing methodologies.

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<sup>3</sup> Customers who meet the minimum load requirements of the CSRP and DLRP tariffs may choose to enroll in the programs directly rather than through an aggregator.

- If an aggregator enrolls customers whose reservation or performance payment rates differ (i.e. based on location or enrollment date rate lock-ins), payments will be based on a load relief weighted rate, which will be equivalent to the sum of the payments owed to the aggregator's enrollees.

The following improvements to the CSRP and DLRP tariffs are also proposed to enhance the functionality and increase participation in the programs:

- Net Energy Metering and VDER customers will now be allowed to participate in the CSRP and DLRP programs. This change has been requested by stakeholders and was recently enabled by the improvements in load relief verification methodology developed in connection with this proposal. This change will allow customers who pair storage with solar to participate in the newly proposed incentives without foregoing the opportunity to participate in the Authority's existing Net Energy Metering and VDER programs.
- Planned load relief events are currently called under the CSRP when the Authority's day-ahead forecasted load level exceeds 92 percent of the forecasted summer system-wide peak. Staff proposes to raise this threshold to 94 percent to limit the calling of events that do not contribute to lowering the system-wide peak. This change was also proposed by stakeholders as it limits the burden imposed on participants, increases customer satisfaction with the programs, and reduces participant turnover.

### **Financial Impact**

The proposed behind the meter battery storage incentives produces a net positive benefit to customers. This includes approximately \$6.5 million net present value in estimated avoided generation, transmission, and distribution capacity costs. Program administration costs to participating customers are estimated to be \$1.2 million net present value. The incentive payments to participating customers are estimated to be \$2.2 million net present value and will be recovered in the Power Supply Charge, consistent with the current recovery of demand response payments.

### **Department of Public Service Input**

On November 1, 2018, as mentioned above, the DPS recommended adoption of PSEG Long Island's behind-the-meter battery program. During development of the 2018 Utility 2.0 annual update and in its recommendation, the Department provided important feedback that was incorporated into this tariff proposal. The Department's feedback included a recommendation to allow standalone storage systems (i.e. not paired with solar) to participate in the incentives, a recommendation to expand the eligibility to the entire service territory rather than limit it to load constrained areas, and a recommendation to measure and verify the demand response performance of energy storage systems using a customer baseline methodology, consistent with other participants in the CSRP and DLRP programs. These recommendations were accepted and are included in the final proposed tariff (Exhibit B).

The DPS has provided a letter recommending adoption of these Tariff modifications (Exhibit D).

## **Public and Stakeholder Input**

Public hearings were held on the Tariff proposal on April 29, 2019 in Nassau and Suffolk Counties. Several members of the public attended the hearings, though none of the attendees commented on the tariff proposal.

Written comments were received from two stakeholders, the Advanced Energy Management Alliance (the “AEMA”) and Sunrun Inc. The AEMA is a trade association whose members include national distributed energy resource companies and advanced energy management service and technology providers, including demand response providers. Sunrun is a provider of residential distributed energy resources. Both commenters were supportive of aspects of the proposal, including the expansion of DLM program eligibility to customers with energy storage and solar systems. AEMA also supports the change in threshold for called events from 92% to 94% of forecasted peak load. Both commenters recommended modifications to the proposal, which are summarized here.

**Measurement and verification:** Both AEMA and Sunrun recommended that the performance of energy storage systems be measured by direct metering instead of the proposed customer baseline methodology.

Sunrun comments that direct metering is the most efficient and accurate method to perform measurement and verification and that, by isolating performance of the storage system, would provided needed clarity for energy storage developers. Direct metering would also prevent other customer load changes, including through onsite solar generation, from impacting the measurement and verification of the energy storage system.

AEMA comments that directly metering the energy storage system would provide for accuracy and uniform treatment of both behind the meter and front of the meter storage and would minimize the human resources needed to operate the program. AEMA also noted that baselining would create a disincentive for batteries to be discharged outside of CSRP and DLRP events because doing so would erode the customer’s baseline.

**Staff response:** During development of the programs, Authority staff and PSEG Long Island considered direct metering. In consultation with the DPS, and in observance of the PSC’s December 13, 2018 *Order Establishing Energy Storage Goal and Deployment Policy* in Case 18-E-0130, the Authority staff determined that customer baselining is the preferred approach for measuring participation in demand response because demand response programs are intended to incentivize a change in behavior. If the customer is not changing its net customer load during a demand response event as compared to a baseline, the customer is not providing on-call peak load reduction benefits. In response to Sunrun’s comment, staff notes that the newly proposed baseline methodology contains a weather adjustment that adjusts the baseline up or down based on a reference load from the event day. If a customer’s solar system is generating more on the baseline days than on the event day, the weather adjustment would adjust the baseline upwards (i.e. to create a baseline with less solar generation). It is the adjusted baseline that is used to measure performance.

**Duration of test event:** The original tariff proposal published on February 27, 2019 (Exhibit C), included a proposal to increase the duration of test events called under the dynamic load management tariffs from one hour to two hours, with the goal of improving the accuracy of test events in predicting performance during called events. AEMA opposed this change because one-hour tests are standard in New York and there is insufficient evidence that two-hour tests are more accurate. Other New York utilities have tested two-hour DLRP test events in 2018, and the results were recently found by the Public Service Commission to be inconclusive and in need of further testing.<sup>4</sup>

**Staff response:** This comment has been accepted and the proposed increase in the duration of the test event has been removed from the final tariff proposal.

**Lock-in of payment rates:** AEMA supports the 10-year lock-in of CSRP and DLRP rates for energy storage systems, and further recommends that this option be extended to other participants in the CSRP and DLRP. AEMA notes that allowing for price certainty will help customers considering other technology types or enhancements to help automate their response to CSRP and DLRP events and provide revenue certainty to help finance these projects, resulting in increased reliability of these programs.

**Staff response:** The tariff proposal as written allows flexibility for additional technologies to be designated as eligible for payment rate lock-ins in the future. However, the Authority has not identified any additional technologies that would require the certainty of a payment rate lock-in to enable their participation in CSRP and DLRP at this time. In addition, Authority staff has consulted with DPS staff and is guided by the December 13, 2018 *Order Establishing Energy Storage Goal and Deployment Policy* in Case 18-E-0130, which established locked-in payment rates only for energy storage systems. Accordingly, the Authority staff does not recommend adopting this comment.

## **Recommendation**

For the foregoing reasons, I recommend that the Trustees approve the modifications to the Tariff for Electric Service described herein and set forth in the accompanying resolutions.

## **Attachments**

<b><u>Exhibit A</u></b>	Resolution
<b><u>Exhibit B</u></b>	Tariff Redline (final proposed tariff reflecting comments compared to current tariff)
<b><u>Exhibit C</u></b>	Original Tariff Proposal (not reflecting comments)
<b><u>Exhibit D</u></b>	DPS Letter of Recommendation

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<sup>4</sup> Order Adopting Program Changes with Modifications and Making Other Findings, Case No. 14-E-0423, at 7.

**APPROVAL OF MODIFICATIONS TO LIPA'S TARIFF FOR ELECTRIC SERVICE TO ENABLE ENERGY STORAGE SYSTEMS TO PARTICIPATE IN DYNAMIC LOAD MANAGEMENT**

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**WHEREAS**, the Board of Trustees of the Long Island Power Authority (the "Authority") has adopted a Board Policy on Resource Planning, Energy Efficiency and Renewable Energy, which sets forth the Board's commitment to procuring cost-effective distributed energy production and storage technologies (the "Board Policy on Resource Planning"); and

**WHEREAS**, the proposal is consistent with the Board Policy on Resource Planning and would promote the New York Energy Storage Roadmap, decrease costs for the Authority and its customers, and lower carbon emissions; and

**WHEREAS**, the Department of Public Service is supportive of this proposal; and

**WHEREAS**, following the issuance of public notice in the State Register on February 27, 2019, two public hearings were held in Nassau and Suffolk counties on April 29, 2019, and the public comment period has since expired;

**NOW, THEREFORE, BE IT RESOLVED**, that for the reasons set forth herein and in the accompanying Memorandum, the proposed modifications to the Authority's Tariff are hereby adopted and approved to be effective June 1, 2019; and be it further

**RESOLVED**, that the Chief Executive Officer and his designees are authorized to carry out all actions deemed necessary or convenient to implement this Tariff; and be it further

**RESOLVED**, that the Tariff amendments reflected in the attached redlined Tariff leaves are approved.

Dated: May 22, 2019

**Exhibit B - Tariff Redline**  
**Final proposed Tariff reflecting**  
**comments compared to current Tariff**



**I. General Information (continued):****B. Abbreviations and Definitions (continued):**

**Demand Customer:** A Customer who is billed for Demand charges.

**Demand Meter:** The device that records the maximum amount of power used by the Customer over a 15-minute interval during a specific period, such as a month.

**Department:** The New York State Department of Public Service.

**Deposit:** A sum of money given as security for payment of service.

**Distribution Facilities:** Facilities used to distribute electric energy to consumers, including supply lines, distribution lines, service laterals, and accessory equipment.

**Distribution Line(s):** A system of poles, wires, ducts, conduits, and additional equipment used for the shared distribution of electricity to Customers.

**E**

**Easement:** (See *Right-of-way*)

**Eligible Net Metering Technology/Technologies:** The list of eligible technologies is: Solar Electric Generating Equipment, Wind Electric Generating Equipment, Micro-Hydroelectric Generating Equipment, Micro-Combined Heat and Power (CHP) Generating Equipment, Fuel Cell Electric Generating Equipment, and Farm Waste Electric Generating Equipment. See definition of Solar Electric Generating Equipment, Wind Electric Generating Equipment, Micro-Hydroelectric Generating Equipment, Micro-Combined Heat and Power (CHP) Generating Equipment, Fuel Cell Electric Generating Equipment, and Farm Waste Electric Generating equipment for further details.

**Energy:** Energy is electric power, used or supplied over time, and measured in KWH.

**Existing Overhead Areas:** Areas in which electric distribution facilities are constructed overhead, and there are no requirements to construct facilities underground.

**F**

**Farm Waste Electric Generating Equipment:** Equipment that generates electric energy from biogas produced by anaerobic digestion of agricultural wastes, such as livestock manure, farming wastes and food processing wastes with a rated capacity of not more than five thousand (5,000) kilowatts that is manufactured, installed and operated by Customer-generator in accordance with applicable government and industry standards, connected to the electric system and operated in conjunction with the Authority's transmission and distribution facilities, operated in compliance with the Authority's standards and requirements established therefor, fueled at a minimum of ninety (90) percent on an annual basis by biogas produced from the anaerobic digestion of agricultural waste such as livestock manure materials, crop residues, and food processing waste, and fueled by biogas generated by anaerobic digestion with at least fifty (50) percent by weight of its feed stock being livestock manure on an annual basis.

**Fuel Cell Electric Generating Equipment:** A solid oxide, molten carbonate, proton exchange membrane or phosphoric acid fuel cell, with a combined rated capacity of not more than ten (10) kilowatts for a residential customer or with a rated capacity of not more than five thousand (5,000) kilowatts for a non-residential customer, that is manufactured, installed and operated in accordance with applicable government and industry standards, that is connected to the electric system and operated in compliance with the Authority's standards and requirements established therefor. This definition, including the capacity limits specified herein, does not apply to fuel cells participating in the Fuel Cell Feed-in Tariff.

**Fuel and Purchased Power Cost Adjustment Clause:** See definition for Power Supply Charge.

**Full-Requirements Customer:** A Customer whose electric power requirements are all supplied by the Authority. (See *Customer – Full Requirements Customer*)

**G**

**Generation Project:** A specific project that is eligible to participate in the Commercial Solar or Fuel Cell Feed-In Tariff under Service Classification No. 11 – Buy-Back Service.

**XIII. Dynamic Load Management****B. Commercial System Relief Program****1. Purpose and Availability**

The Commercial System Relief Program is being offered by the Authority to enable participating eligible customers to be compensated for reducing their load under certain conditions when called upon by the Authority to do so.

The program is available to any Customer served at transmission, primary or secondary voltage and taking service under one of the Service Classifications shown below; and to any Aggregator that meets the requirements of this Rider.

Service Classification No. 1 (Rate Codes 180, 380, 580, 880; excluding 480, 481)

Service Classification No. 1-VMRP(L) (Rate Codes 181, 182, 184)

Service Classification No. 1-VMRP(S) (Rate Codes 188)

Service Classification No. 2 (Rate Code 280)

Service Classification No. 2-VMRP (Rate Code 288)

Service Classification No. 2-L (Rate Codes 281, 291, 283)

Service Classification No. 2L-VMRP (Rate Codes 282, M282)

Service Classification No. 2-MRP (Rate Codes 284, 285, M284, M285)

Service Classification Nos. 11, 12, and 13 (Rate Codes 289, 680, 681, 278)

Service Classification No. 16-AMI (Rate Code M188, M288)

Customers who take service pursuant to ~~a Not Metering option or~~ the Direct Load Control Program are not eligible to participate in this program.

The Metropolitan Transportation Authority for Traction Power Service to the Long Island Rail Road and Brookhaven National Laboratories pursuant to a Sale for Resale agreement between the Authority and the New York Power Authority (both as referenced on Leaf 271) are not eligible to participate.

**2. Definitions:**

**Aggregator:** A party other than the Authority that represents and aggregates the load of Customers who collectively have a Load Relief potential of 50 kW or greater in an Authority Designated Area and is responsible for the actions of the Customers it represents, including performance and, as applicable, repayments to the Authority. A Direct Participant may combine multiple customer locations to meet the Load Relief potential requirements of an aggregator.

**Authority Designated Area:** An electrically defined area determined by the Authority to be approaching system capacity limits during peak periods. A current list of the Authority Designated Areas will be listed on the Manager's website and payments by area are listed on the Statement of Commercial System Relief Program Payments.

**Capability Period:** The period during which the Authority can request Load Relief. The Capability Period will be from May 1 through September 30.

**XIII. Dynamic Load Management****A. Commercial System Relief Program (continued):****Definitions (continued):**

~~CBL: A Customer baseline load as calculated under the Authority's~~ Customer Baseline Load Verification methodology is calculated using either one of the following three methods: ~~the weather-sensitive adjustment option—(1) the “5 of 10 Day weather-Weather adjusted-Adjusted CBL” or (2) “the 5 of 10 averageAverage-day-Day CBL” or (3) “10 Day Weather Adjusted CBL”.~~ The Customer Baseline Load methodology ~~ies will be~~ further described in the Authority's DLM operating procedures, which ~~will be published~~ is available on the Manager's website.

CBL Methodology: The methodology used by the Authority to verify the actual Load Relief provided (kW and kWh) during each hour of each designated Load Relief Period and Test Event. Actual load levels are compared to the customer baseline loads to verify whether the Direct Participant or Aggregator provided the kW of contracted Load Relief; provided, however, that the Authority may estimate the data pursuant to the Authority's operating procedure if data is not available for all intervals. When ~~the a~~ weather-adjusted CBL methodology is used and the calculated weather adjustment falls outside of the Authority defined ranges (i.e., the Authority deems the weather to be atypical on the day of a Load Relief Period or Test Event when compared to the baseline period), the Authority may review and revise a participant's baseline based on the Customer's historical load data. When ~~the a~~ weather-adjusted CBL methodology is used, the Authority, at its own discretion, may select alternate hours for the adjustment period to calculate the weather adjustment in order to accurately reflect the customer's typical usage.

Contracted Hours: The four-hour period within a weekday, Monday through Friday during the Capability Period excluding federal holidays, during which the Direct Participant or Aggregator contracts to provide Load Relief in an Authority Designated Area whenever the Authority designates a Planned Event. The Load Relief Period will be identified for each Authority Designated Area on the Manager's website.

Direct Participant: A Customer who enrolls under this Program directly with the Authority for a single account and agrees to provide at least 50 kW of Load Relief.

Electric Generating Equipment: (a) electric generating equipment that is served under Service Classification Nos. 11 or 12 and used to provide Load Relief under this Program; or (b) emergency electric generating equipment that is interconnected and operated in compliance with Authority rules governing Emergency Generating Facilities used for self-supply and used to provide Load Relief under this Program.

Load Relief: Power (kW) and energy (kWh): (a) ordinarily supplied by the Authority that is displaced by use of Electric Generating Equipment and/or reduced by the Direct Participant or Aggregator at the Customer's premises; or (b) that is produced by use of Electric Generating Equipment by a customer taking service pursuant to Service Classification No. 11 and delivered by that Customer to the Authority's distribution system during a Load Relief Period.

Load Relief Period: The hours for which the Authority requests Load Relief when it designates a Planned Event or an Unplanned Event.

New Participant: An Aggregator or Direct Participant that has not previously participated in a call for Load Relief under the Commercial System Relief Program.

Performance Adjusted kW: The kW level that a Direct Participant or Aggregator requests to

provide subsequent to the Direct Participant or Aggregator performance during an event.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):****Definitions (continued):**

Performance Factor: When a Planned Event or Test Event is called, is the ratio of: (i) the average hourly kW of Load Relief provided by the Direct Participant or Aggregator during the requested hours, up to the kW of contracted Load Relief to (ii) the kW of contracted Load Relief. The Performance Factor is subject to certain adjustments and limitations as described in Section B.9.d below.

Planned Event: The Authority's request, on not less than 21 hours' advance notice, for Load Relief during the Contracted Hours. Planned Events will be called when the Authority's day-ahead forecasted load level is at least ~~92-94~~ percent of the forecasted summer system-wide peak. Day-ahead and summer peak forecast information for the system will be posted to the Manager's website.

Qualifying Paired Battery Storage Equipment: New battery storage projects paired with Eligible Net Metering Technology and installed on the Authority's system after March 1<sup>st</sup> 2019 that have applied for and received a commitment from the Authority to lock in the current Reservation Payment price for a period of ten years.

Qualifying Stand-alone Battery Storage Equipment: New Stand-alone battery storage projects installed on the Authority's system after March 1<sup>st</sup> 2019 that have applied for and received a commitment from the Authority to lock in the current Reservation Payment price for a period of ten years. Qualifying Stand-alone Battery Storage Equipment is not a net metering eligible technology.

Test Event: The Authority's request for Direct Participants and Aggregators to provide one hour of Load Relief on not less than 21 hours' advance notice.

Unplanned Event: The Authority's request for Load Relief: (a) on less than 21 hours' advance notice; or (b) for hours outside of the Contracted Hours.

**3. Contracting for Commercial System Relief Program Service**

This Program is applicable to Direct Participants and Aggregators who agree in writing to provide Load Relief in an Authority Designated Area during all Contracted Hours in such Authority Designated Area, whenever the Authority designates a Planned Event during a Capability Period. Direct Participants and Aggregators may also agree to voluntarily provide Load Relief if an Unplanned Event is called. Authority Designated Areas will be posted on the Manager's website.

A Direct Participant must contract to provide at least 50 kW of Load Relief. An Aggregator must contract to provide at least 50 kW of Load Relief. Direct Participants or Aggregators that wish to participate on a voluntary basis may request a value of 0 kW of contracted Load Relief.

If other requirements for service under this Program are met, Electric Generating Equipment may be used to participate under this Program subject to the provisions set forth in section XIII.B.7 below. The participating Direct Participant or Aggregator is responsible for ensuring that the operation of generating equipment under this Program will be in conformance with any governmental limitations on operation.

Participation under this Program is permitted to participants in other programs that provide payment for capacity, such as the NYISO's Special Case Resources ("SCR") Program (or any successor Authority program to the NYISO's SCR Program).

Direct Participants and all customers of an Aggregator must meet the metering requirements

specified in Section XIII.B.6.

An Aggregator is responsible for the compliance of all customers it enrolls and will be liable for performance, including, as applicable, repayments to the Authority.

The Authority reserves the right to establish operating procedures and various forms for the implementation of this program. Direct Participants and Aggregators must abide by such operating procedures and utilize such forms to be eligible for participation.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):****4. Applications for Participation**

- a) Applications for participation under this program must be made electronically. Direct Participants and Aggregators may participate after the Authority's receipt and approval of a completed application. The Authority will accept an application by April 1 for a May 1 commencement date or by May 1 for a June 1 commencement date. However, if the application is received by April 1 and the Authority does not bill the participant monthly using interval metering at the time of application, participation may commence on July 1 provided all conditions in section XIII.B.6. are satisfied.
- b) The desired commencement month must be specified in the application. Applications will not be accepted after the specified date for participation during the current Capability Period. If the first of the month falls on a weekend or holiday, applications will be accepted until the first business day thereafter.
- c) The Authority will accept applications for participation in the Voluntary Participation Option under the Program at any time provided the metering and communications requirements are satisfied as specified in Section XIII.B.6.
- d) ~~Participants without Qualifying Paired Battery Storage Equipment and without Eligible Net Metering Technology will receive the "5 of 10 Day Weather-Adjusted CBL" will be used as the default CBL Verification Methodology for each account number enrolled, unless the application specifies that the "10 Day Weather-Adjusted CBL" or the "5 of 10 Average-Day CBL" is to be used for verification of performance. A single CBL Verification Methodology will be used for each customer to assess both energy (kWh) and demand (kW) Load Relief.~~
- e) ~~Qualifying Paired Battery Storage Equipment and Eligible Net Metering Technology will receive the "10 Day Weather-Adjusted CBL" for verification of performance.~~
- f) ~~Participants without Qualifying Paired Battery Storage Equipment and without Eligible Net Metering Technology may apply in writing prior to the start of the Capability Period to change the CBL Verification Methodology.~~
- g) ~~A Direct Participant or Aggregator may apply in writing prior to the start of the Capability Period CBL Verification Methodology, to change the kW of pledged Load Relief, or to terminate service under this Program for the upcoming Capability Period provided the request is received prior to commencing participation for that Capability Period. In order for a Direct Participant or Aggregator to increase its kW of contracted Load Relief in an Authority Designated Area, the Direct Participant's or Aggregator's most recent Performance Factor in that Authority Designated Area must be no less than 1.00.~~
- h) Each application must state the kW of Load Relief that the Direct Participant or Aggregator contracts to provide for the Load Relief Period. Load Relief of an Aggregator will be measured on a portfolio basis separately for each Authority Designated Area.

**5. Notification by the Authority and Required Response**

- a) The Authority will notify Direct Participants and Aggregators by phone, e-mail, or machine-readable electronic signal, or a combination thereof, in advance of the commencement of a Load Relief Period or Test Event. The Direct Participant or Aggregator will designate in writing an authorized representative and an alternate representative, and include an electronic address if applicable, to receive the notice. If an Aggregator is served under this Program, only the Aggregator will be notified of the Load Relief Period or Test Event. The Aggregator is responsible for notifying all of the customers within its respective aggregation group.
- b) The Authority will provide advance notice that a Planned Event or a Test Event may be

called at least 21 hours in advance of the event. The Authority will provide confirmation of a Planned Event or a Test Event on the day of the event, at least two hours in advance of the event.

- c) If the Authority designates an Unplanned Event, notice will be given as soon as practicable. Participants are requested to provide Load Relief as soon as they are able.



**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):  
Notification by the Authority and Required Response (continued):**

- d) Participants are required to participate during all Contracted Hours for all Planned Events called by the Authority during the Capability Period, and all Test Events called by the Authority. The Test Event period will not exceed one hour.

**6. Metering**

- a) Participation under this program requires that each participant's entire service be measured by interval metering with communications capability which will also be used by the Authority for monthly billing. All participants designated by an Aggregator must meet the metering and telecommunications requirements specified herein.
- b) If, at the time of application for service under this Program, the Authority does not bill the participant monthly using interval metering, the Customer will arrange with the Authority for the furnishing and installation of interval metering with communications capability to be used for billing, at the participant's expense.
- c) For participation under this program, the metering equipment and communications service must be installed and made operational prior to the Authority's acceptance of a completed application. Participation under this program will commence the first day of the first month within the Capability Period that occurs at least 30 days after both the interval metering and communications service become operational.
- d) The Authority will install interval metering with communications capability within 21 business days. If the Authority misses the installation time frame for a participant, it will make a "Lost Reservation Payment" to the Direct Participant or Aggregator, unless the meter delay was caused by a condition such as a major outage or storm.
- e) A Lost Reservation Payment will be calculated by determining the number of months between the earliest month in which the customer could have begun participation had the meter been installed within the required timeframe (assuming the Authority's acceptance of a completed application and receipt of payment for the meter upgrade) and the first month following the completed installation, and multiplying that number by the pledged kW and associated per-kW Reservation Payment Rate.

### **XIII. Dynamic Load Management**

#### **B. Commercial System Relief Program (continued):**

##### **7. Operation of Electric Generating Equipment**

- a) Participation by diesel-fired Electric Generating Equipment will be permitted only if the engine for the equipment is model year 2000 or newer. Participation by diesel-fired Electric Generating Equipment will be limited to 20 percent of the total kW enrolled under this Program for the Capability Period. Enrollment by such generators will be accepted on a first come, first served basis. No limit or cap will be placed on the following: natural gas-fired rich burn Electric Generating Equipment that incorporates three-way catalyst emission controls; natural gas lean-burn Electric Generating Equipment with an engine of model year of 2000 or newer; or Electric Generating Equipment that has a NOx emission level of no more than 2.96 lb/MWh.
- b) If a Direct Participant or Aggregator requests to operate Electric Generating Equipment for Load Relief purposes under this program and the Authority has approved the interconnection of such equipment, the application must state generator information, including the unit's serial number, nameplate rating, manufacturer, date of manufacture, fuel type or energy source, the kW enrolled using this equipment, and identification as to whether the unit incorporates three-way catalyst emission controls (natural gas-fired rich burn), a natural gas lean-burn engine of model year 2000 or newer, or a diesel-fired engine of model year 2000 or newer, or whether it has a NOx emission level of no more than 2.96 lb/MWh. If the generating equipment has a NOx emission level of no more than 2.96 lb/MWh, but is not natural gas-fired rich burn generating equipment that incorporates three-way catalyst emission controls, a natural gas lean-burn engine of model year 2000 or newer, or a diesel-fired engine of model year 2000 or newer, written certification by a professional engineer must be contained in the application, including the NOx emission level. Copies of all New York State Department of Environmental Conservation ("DEC") permits must be included with the application. By applying for service under this Program, Direct Participants and Aggregators (on behalf of their customers) agree to permit the Authority to provide information regarding the Electric Generating Equipment to the DEC for its review, subject to the DEC's agreement to keep this information confidential. Furthermore, participants enrolled in a NYISO market-based program offered by the Authority, NYPA or other entity, such as the Day-ahead Demand Response Program or the Demand-Side Ancillary Service Program, must provide the Authority with their NYISO generator identification number, under a confidentiality agreement, and give the Authority the ability to view their market participation activity. This information will be used to verify the times of participation in these other programs to prevent double-payment during concurrent events.

### **XIII. Dynamic Load Management**

#### **B. Commercial System Relief Program (continued):**

##### **8. Data Review**

- a) The Authority reserves the right to review records and/or operations of any Direct Participant, Aggregator, and customer of an Aggregator, to verify enrollment information and performance associated with any designated Load Relief Period or Test Event called by the Authority.
  - (1) Once the Authority initiates a data review, all payments will be suspended pending the outcome of the review.
  - (2) The Authority will complete its review within 30 days of receipt of all requested data, but no later than December 31 of the calendar year of the Capability Period under review.
  - (3) Any suspended payments will be reinstated if the Authority's review of the data results in a finding that the enrollment and performance information are correct.
- b) If the Authority determines that a Direct Participant, Aggregator, or customer of an Aggregator failed to cooperate fully and promptly with the review and/or did not fully comply with the provisions of this Program and/or provided inaccurate data, the Direct Participant Aggregator or the customer of the Aggregator will be deemed ineligible to participate in the Program until the issue is rectified. In addition, the Direct Participant or Aggregator will be required to make prompt repayment to the Authority of any overpayments that were made to such Direct Participant or Aggregator, on behalf of its customer, for the Capability Period that was reviewed as well as the current Capability Period, if different.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):****9. Reservation Payment**

- a) Direct Participants and Aggregators will receive a Reservation Payment for each month during the Capability Period in which they are enrolled for a maximum of five payments per calendar year. Reservation Payments will be calculated on a monthly basis. Payments will be made by bill credit, check, or wire transfer.
- b) The Reservation Payment rate per kW is based on the number of cumulative Planned Events for which the Direct Participant or Aggregator was asked to provide Load Relief during the Capability Period, as follows:
  - (1) The Reservation ~~p~~Payment rate ~~may vary~~ies by location and by the number of times the Direct Participant or Aggregator is asked to provide Load Relief, and may be eligible for a lock-in option as described below.
  - (2) The Authority reserves the right to identify additional locations and establish corresponding rates or lock-in options for Reservation Payments - from time-to-time based on reports and recommendations from the Authority's staff which will be provided at least annually.
  - (3) The identification of applicable locations and corresponding rates for Reservation Payments and lock-in options will be provided on a Statement of Commercial System Relief Program Payments to be updated as needed by the Authority's staff in consultation with the Department of Public Service.
  - (4) For Qualifying Paired Battery Storage Equipment and Qualifying Stand-alone Battery Storage Equipment projects enrolled as a Direct Participant or through an Aggregator, the Authority reserves the right to lock in a Reservation Payment price as of the date of project enrollment in the program for a period of ten years.
- c) The Reservation Payment per month is equal to the applicable Reservation Payment rate per kW per month multiplied by the kW of contracted Load Relief multiplied by the Performance Factor. For an Aggregator, the Reservation Payment will be based on a Load Relief weighted Reservation Payment rate which will be equivalent to the sum of the Reservation Payments owed to the Aggregator's enrolled participants.
- d) Voluntary Option: Direct Participants or Aggregators that wish to participate on a Voluntary Basis may establish 0 kW of contracted Load Relief.
- e) Performance Factor
  - (1) The Performance Factor for each New Participant is initially set at 0.50 in the current Capability Period and will remain at that level until the first month in which a Load Relief Period or Test Event is called. For New Participants the first Performance Factor that is measured will be applied retroactively, starting with the enrollment month, to true-up the Reservation Payments for the prior month(s). For returning Direct Participants and Aggregators the Performance Factor will be set to the last value established during the previous Capability Period.
  - (2) In each subsequent month, the achieved average kW load reduction during a Planned Event (not to exceed the first 4 hours) and Test Event is divided by the contract kW to calculate a new ratio. When more than one Planned Event and/or Test Event is called

during the month, the average of the Performance Factors of all events for a Direct Participant or Aggregator in each Authority Designated Area is the Performance Factor for that month. If no Planned or Test events are called in the month, then the Performance Factor continues unchanged from the prior month.

- (3) The Performance Factor is rounded to two decimal places (e.g., 0.99).

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):  
Reservation Payment (continued):**

- (4) Direct Participants and Aggregators can increase their Performance Factor and corresponding Reservation Payment prospectively by requesting a Performance Adjusted kW. The Performance Adjusted kW must be:
  - (a) No higher than the average hourly kW of Load Relief that was provided during the most recent single event (i.e., Test Event, Planned Event, or Unplanned Event);
  - (b) No lower than the kW of Load Relief on which the last payment was based; and
  - (c) It cannot exceed the kW of contracted Load Relief.
- (5) The Performance Factor will be recalculated as the Performance Adjusted kW divided by the Contract kW and will become effective on the first of the month following the date the request is received. If the request is received late due to the Authority's delay in providing interval meter data, the Performance Adjusted kW will be applied retroactively, effective as of the first of the month after the event on which the Performance Adjusted kW calculation is based occurred.
- (6) The new Performance Factor will remain in effect until the earlier of:
  - (a) The month in which a new Performance Adjusted kW is requested and approved pursuant to (4) above; or
  - (b) A new lower Performance Factor is calculated based on the results of monthly performance; or
  - (c) the term of service under this Program ends.
- (7) Once a Performance Adjustment is in effect, a Direct Participant or Aggregator may request subsequent increases to the Performance Adjusted kW if the updated kW level meets the requirements for Performance Adjusted kW. No more than one request will be accepted per month to increase the Performance Adjusted kW. The Performance Adjustment will become effective commencing the first day of the first calendar month that follows the Authority's receipt of the request to initiate or update the Performance Adjusted kW.
- (8) Requests for Performance Adjusted kW cannot be used to lower the Performance Factor under this Program.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):  
Reservation Payment (continued)**f) Adjustments to the Contract kW during the Capability Period

- 1) An Aggregator may increase its kW of pledged Load Relief during a Capability Period only if it enrolls Customers whose Aggregator either exits the program or is suspended from enrollment in the program for noncompliance with Aggregator eligibility requirements or the Company's operating procedures. In such case, the Aggregator may increase its kW of pledged Load Relief up to the amount of the transferred Customers' existing kW of pledged Load Relief.

10. Performance Payments for Load Relief

- a) Except as specified in section XIII.B.10.d below, the Authority will make a payment to a Direct Participant or Aggregator who provides Load Relief during a Planned Event, Test Event, or Unplanned Event.
- b) The Performance payment rate may vary by location, type of event, duration of the event, number of times the Direct Participant or Aggregator is asked to provide Load Relief, and whether the Customer is participating on a voluntary basis.
  - (1) The Performance Payment rate is specified on the Statement of Commercial System Relief Program Payments.
  - (2) The Authority reserves the right to identify additional locations, ~~equipment~~ and establish corresponding rates for Performance Payments from time to time based on reports and recommendations from the Authority's staff which will be provided at least annually.
  - (3) The identification of applicable locations, ~~equipment~~ and corresponding rates for Reservation Payments will be provided on a Statement of Commercial System Relief Program Payments to be updated as needed by the Authority's staff in consultation with the Department of Public Service.
- c) The Performance Payment amount paid per event is equal to the Performance Payment rate per kWh multiplied by the average hourly kWh of Load Relief provided during the event multiplied by the number of event hours.
- d) Performance Payments will not be made under this Program if the Direct Participant or Aggregator (on behalf of its customer) receives payment for energy during concurrent Load Relief hours under any other demand response program (e.g., NYISO's Day-ahead Demand Reduction Program or NYISO's Special Case Resources Program) in which the Customer is enrolled. Direct Participants or Aggregators who also participate in the Distribution System Relief Program during concurrent Load Relief hours will only receive Performance Payments under this program.
- e) If an S.C. No. 11 Customer participates in the NYISO market and receives payment for energy during concurrent Load Relief hours, Performance Payments will be made under this Program only for Load Relief in excess of the Customer's CBL, expressed in kWh.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):**11. Testing

- a) The Authority may require a Direct Participant or Aggregator to participate in one or more Test Events, each for a period not to exceed one hour, commencing at a time determined solely at Authority's discretion, but within the Contracted Hours.
- b) The Authority will make a payment for one hour of energy for the Load Relief achieved up to the contracted amount, as specified above.



**XIII. Dynamic Load Management****C. Distribution Load Relief Program****1. Purpose and Availability**

The Distribution Load Relief Program is being offered by the Authority to enable participating eligible customers to be compensated for reducing their load under certain conditions when called upon by the Authority to do so.

The program is available to any Customer served at primary or secondary voltage and taking service under one of the Service Classifications shown below; and to any Aggregator that meets the requirements of this Rider.

Service Classification No. 1 (Rate Codes 180, 380, 580, 880; excluding 480, 481)

Service Classification No. 1-VMRP(L) (Rate Codes 181, 182, 184)

Service Classification No. 1-VMRP(S) (Rate Codes 188)

Service Classification No. 2 (Rate Code 280)

Service Classification No. 2-VMRP (Rate Code 288)

Service Classification No. 2-L (Rate Codes 281, 291, 283)

Service Classification No. 2L-VMRP (Rate Codes 282, M282)

Service Classification No. 2-MRP (Rate Codes 284, 285, M284, M285)

Service Classification Nos. 11, 12, and 13 (Rate Codes 289, 680, 681, 278)

Service Classification No. 16-AMI (Rate Code M188, M288)

Customers who take service pursuant to ~~a Net Metering option or~~ the Direct Load Control Program are not eligible to participate in this program.

The Metropolitan Transportation Authority for Traction Power Service to the Long Island Rail Road and Brookhaven National Laboratories pursuant to a Sale for Resale agreement between the Authority and the New York Power Authority (both as referenced on Leaf 271) are not eligible to participate.

**2. Definitions:**

Aggregator: A party other than the Authority that represents and aggregates the load of Customers who collectively have a Load Relief potential of 50 kW or greater in an Authority Designated Area and is responsible for the actions of the Customers it represents, including performance and, as applicable, repayments to the Authority. A Direct Participant may combine multiple customer locations to meet the Load Relief potential requirements of an Aggregator.

Authority Designated Area: An electrically defined area determined by the Authority to be approaching system capacity limits during peak periods. A current list of the Authority Designated Areas will be listed on the Manager's website and ~~r~~Reservation ~~P~~payments by area are listed on the Statement of Distribution Load Relief Program Payments.

Capability Period: The period during which the Authority can request Load Relief. The Capability Period will be from May 1 through September 30.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):  
Definitions (continued):**

CBL: ~~A Customer baseline load as calculated under the Authority's~~ Customer Baseline Load Verification ~~Methodology is calculated using one of the following three methods:- either the weather-sensitive adjustment option~~ (1) "the-5 of 10 day "weather-Weather adjusted-Adjusted CBL" (2) "the-5 of 10 averageAverage-day-Day CBL" or (3) "10 Day Weather Adjusted CBL". The Customer Baseline Load methodology~~ies will beare further~~ described in the Authority's DLM operating procedures, which ~~will be publishedis available~~ on the Manager's website.

CBL Verification Methodology: The methodology used by the Authority to verify the actual Load Relief provided (kW and kWh) during each hour of each designated Load Relief Period and Test Event. Actual load levels are compared to the customer baseline loads to verify whether the Direct Participant or Aggregator provided the kW of contracted Load Relief; provided, however, that the Authority may estimate the data pursuant to the Authority's operating procedure if data is not available for all intervals. When ~~the-a~~ weather-adjusted CBL methodology is used and the calculated weather adjustment falls outside of the Authority defined ranges (i.e., the Authority deems the weather to be atypical on the day of a Load Relief Period or Test Event when compared to the baseline period), the Authority may review and revise a participant's baseline based on the Customer's historical load data. When ~~the-a~~ weather-adjusted CBL methodology is used, the Authority, at its own discretion, may select alternate hours for the adjustment period to calculate the weather adjustment in order to accurately reflect the customer's typical usage.

Contingency Event: a Load Relief Period lasting four or more hours for which the Authority provides two or more hours of advance notice.

Direct Participant: A Customer who enrolls under this Program directly with the Authority for a single account and agrees to provide at least 50 kW of Load Relief.

Electric Generating Equipment: (a) electric generating equipment that is served under Service Classification Nos. 11 or 12 and used to provide Load Relief under this Program; or (b) emergency electric generating equipment that is interconnected and operated in compliance with Authority rules governing Emergency Generating Facilities used for self-supply and used to provide Load Relief under this Program.

Immediate Event: a Load Relief Period lasting six or more hours for which the Authority provides less than two hours of advance notice.

Load Relief: Power (kW) and energy (kWh): (a) ordinarily supplied by the Authority that is displaced by use of Electric Generating Equipment and/or reduced by the Direct Participant or Aggregator at the Customer's premises; or (b) that is produced by use of Electric Generating Equipment by a customer taking service pursuant to Service Classification No. 11 and delivered by that Customer to the Authority's distribution system during a Load Relief Period.

Load Relief Period: The hours for which the Authority requests Load Relief when it designates a Contingency Event or an Immediate Event. Load Relief will not be required between the hours of 12:00 AM and 6:00 AM.

### XIII. Dynamic Load Management

#### C. Distribution Load Relief Program (continued): Definitions (continued)

New Participant: An Aggregator or Direct Participant that has not previously participated in a call for Load Relief under the Distribution Load Relief Program.

Performance Factor: When a Contingency Event, Immediate Event or Test Event is called, is the ratio of: (i) the average hourly kW of Load Relief provided by the Direct Participant or Aggregator during the requested hours, up to the kW of contracted Load Relief to (ii) the kW of contracted Load Relief. The Performance Factor is subject to certain adjustments and limitations as described in Section XIII.C.10.d below.

Qualifying Paired Battery Storage Equipment: New battery storage projects paired with eligible generation technology and installed on the Authority's system after March 1<sup>st</sup> 2019 that have applied for and received a commitment from the Authority to lock in the current Reservation Payment price for a period of ten years.

Qualifying Stand-alone Battery Storage Equipment: New Stand-alone battery storage projects installed on the Authority's system after March 1<sup>st</sup> 2019 that have applied for and received a commitment from the Authority to lock in the current Reservation Payment price for a period of ten years. Qualifying Stand-alone Battery Storage Equipment is not a net metering eligible technology.

Test Event: The Authority's request for Direct Participants and Aggregators to provide one hour of Load Relief on not less than 2 hours of advance notice.

#### 3. Contracting for Distribution Load Relief Program Service

This Program is applicable to Direct Participants and Aggregators who agree in writing to provide Load Relief for no less than four consecutive hours in an Authority Designated Area whenever the Authority designates a Load Relief Period during the Capability Period. If Direct Participants and Aggregators provide Load Relief for no less than four consecutive hours in an Authority Designated Area for seven or more Load Relief Periods during a single Capability Period, the remaining ~~R~~reservation ~~P~~payments for that Capability Period will be increased per the amount listed on the Statement of Distribution Load Relief Program Payments. Authority Designated Areas will be posted on the Manager's website.

A Direct Participant in the Reservation Payment Option must contract to provide at least 50 kW of Load Relief. An Aggregator in the Reservation Payment Option must contract to provide at least 50 kW of Load Relief. Direct Participants or Aggregators that wish to participate on a voluntary basis may request a value of 0 kW of contracted Load Relief.

If all other requirements for service under this Program are met, Electric Generating Equipment may be used to participate under this Program subject to the provisions set forth in section XIII.C.8 below. The participating Direct Participant or Aggregator is responsible for ensuring that the operation of generating equipment under this Program will be in conformance with any governmental limitations on operation.

Participation under this Program is permitted to participants in other programs that provide payment for capacity, such as the NYISO's Special Case Resources ("SCR") Program (or any successor Authority program to the NYISO's SCR Program).

Direct Participants and all customers of an Aggregator must meet the metering requirements specified in Section XIII.C.7.

An Aggregator is responsible for the compliance of all customers it enrolls and will be liable

for performance, including, as applicable, repayments to the Authority.

The Authority reserves the right to establish operating procedures and various forms for the implementation of this program. Direct Participants and Aggregators must abide by such operating procedures and utilize such forms to be eligible for participation.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****4. Applications for Participation**

- a) Applications for participation under this program must be made electronically. Direct Participants and Aggregators may participate after the Authority's receipt and approval of a completed application. The Authority will accept an application by April 1 for a May 1 commencement date or by May 1 for a June 1 commencement date. However, if the application is received by April 1 and the Authority does not bill the participant monthly using interval metering at the time of application, participation may commence on July 1 provided all conditions in section XIII.C.7. are satisfied. Applicants with existing requisite metering and communication capabilities as specified in Section XIII.B.6. who wish to participate in the program on a voluntary basis may apply at any time.
- b) The desired commencement month must be specified in the application. Applications will not be accepted after the specified date for participation during the current Capability Period. If the first of the month falls on a weekend or holiday, applications will be accepted until the first business day thereafter.
- c) ~~Participants without Qualifying Paired Battery Storage Equipment and without Eligible Net Metering Technology the "5 of 10 Day The weatherWeather-adjusted-Adjusted CBL" will be used as the default CBL Verification Methodology for each account number-enrolled, unless the application specifies that the "10 Day Weather-Adjusted CBL" or "5 of 10 Day averageAverage-day-Day CBL" is to be used for verification of performance. A single CBL Verification Methodology will be used for each customer to assess both energy (kWh) and demand (kW) Load Relief.~~
- d) ~~Qualifying Paired Battery Storage Equipment and Eligible Net Metering Technology will receive the "10 Day Weather-Adjusted CBL" for verification of performance.~~
- e) ~~Participants without Qualifying Paired Battery Storage Equipment and without Eligible Net Metering Technology may apply in writing prior to the start of the Capability Period to change the CBL Verification Methodology.~~
- f) ~~A Direct Participant or Aggregator may apply in writing prior to the start of the Capability Period the CBL Verification Methodology, to change the kW of pledged Load Relief, or to terminate service under this Program for the upcoming Capability Period provided the request is received prior to commencing participation for that Capability Period. In order for a Direct Participant or Aggregator to increase its kW of contracted Load Relief in an Authority Designated Area, the Direct Participant's or Aggregator's most recent Performance Factor in that Authority Designated Area must be no less than 1.00.~~
- g) Each application must state the kW of Load Relief that the Direct Participant or Aggregator contracts to provide for the Load Relief Period. Load Relief of an Aggregator will be measured on a portfolio basis separately for each Authority Designated Area.

**5. Load Relief Period Criteria**

- a) Criteria for Designating a Load Relief Period: If the Authority declares a need for emergency or non-emergency relief, within the limitations described by 40 CFR 63.6640 subparts (f) (2) and (f)(4,) or if a voltage reduction of five percent or greater has been ordered, the Authority may designate such period as a Load Relief Period. The Authority may designate specific feeders or geographical areas in which Load Relief shall be requested.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****6. Notification by the Authority and Required Response**

- a) The Authority will notify Direct Participants and Aggregators by phone, e-mail, or machine-readable electronic signal, or a combination thereof, of the commencement of a Load Relief Period or Test Event. The Direct Participant or Aggregator will designate in writing an authorized representative and an alternate representative, and include an electronic address if applicable, to receive the notice. If an Aggregator is served under this Program, only the Aggregator will be notified of the Load Relief Period or Test Event. The Aggregator is responsible for notifying all of the customers within its respective aggregation group.
- b) If the Authority designates a Contingency Event or a Test Event, the Authority will provide advance notice at least 2 hours in advance of the event.
- c) If the Authority designates an Immediate Event, notice will be given as soon as practicable. Participants are requested to provide Load Relief as soon as they are able.
- d) Participants are required to participate during all Contracted Hours for all Contingency Events and Immediate Events called by the Authority during the Capability Period, and all Test Events called by the Authority. The Test Event period will not exceed one hour and will not be called between the hours of 12:00 AM and 6:00 AM.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****7. Metering**

- a) Participation under this program requires that each participant's entire service be measured by interval metering with communications capability which will also be used by the Authority for monthly billing. All participants designated by an Aggregator must meet the metering and telecommunications requirements specified herein.
- b) If, at the time of application for service under this Program, the Authority does not bill the participant monthly using interval metering, the Customer will arrange with the Authority for the furnishing and installation of interval metering with communications capability to be used for billing, at the participant's expense.
- c) For participation under this program, the metering equipment and communications service must be installed and made operational prior to the Authority's acceptance of a completed application. Participation under this program will commence the first day of the first month within the Capability Period that occurs at least 30 days after both the interval metering and communications service become operational.
- d) The Authority will install interval metering with communications capability within 21 business days. If the Authority misses the installation time frame for a participant, it will make a "Lost Reservation Payment" to the Direct Participant or Aggregator, unless the meter delay was caused by a condition such as a major outage or storm.
- e) A Lost Reservation Payment will be calculated by determining the number of months between the earliest month in which the customer could have begun participation had the meter been installed within the required timeframe (assuming the Authority's acceptance of a completed application and receipt of payment for the meter upgrade) and the first month following the completed installation, and multiplying that number by the pledged kW and associated per-kW Reservation Payment Rate.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****8. Operation of Electric Generating Equipment**

- a) Participation by diesel-fired Electric Generating Equipment will be permitted only if the engine for the equipment is model year 2000 or newer. Participation by diesel-fired Electric Generating Equipment will be limited to 20 percent of the total kW enrolled under this Program for the Capability Period. Enrollment by such generators will be accepted on a first come, first served basis. No limit or cap will be placed on the following: natural gas-fired rich burn Electric Generating Equipment that incorporates three-way catalyst emission controls; natural gas lean-burn Electric Generating Equipment with an engine of model year of 2000 or newer; or Electric Generating Equipment that has a NOx emission level of no more than 2.96 lb/MWh.
- b) If a Direct Participant or Aggregator requests to operate Electric Generating Equipment for Load Relief purposes under this program and the Authority has approved the interconnection of such equipment, the application must state generator information, including the unit's serial number, nameplate rating, manufacturer, date of manufacture, fuel type or energy source, the kW enrolled using this equipment, and identification as to whether the unit incorporates three-way catalyst emission controls (natural gas-fired rich burn), a natural gas lean-burn engine of model year 2000 or newer, or a diesel-fired engine of model year 2000 or newer, or whether it has a NOx emission level of no more than 2.96 lb/MWh. If the generating equipment has a NOx emission level of no more than 2.96 lb/MWh, but is not natural gas-fired rich burn generating equipment that incorporates three-way catalyst emission controls, a natural gas lean-burn engine of model year 2000 or newer, or a diesel-fired engine of model year 2000 or newer, written certification by a professional engineer must be contained in the application, including the NOx emission level. Copies of all New York State Department of Environmental Conservation ("DEC") permits must be included with the application. By applying for service under this Program, Direct Participants and Aggregators (on behalf of their customers) agree to permit the Authority to provide information regarding the Electric Generating Equipment to the DEC for its review, subject to the DEC's agreement to keep this information confidential. Furthermore, participants enrolled in a NYISO market-based program offered by the Authority, NYPA or other entity, such as the Day-ahead Demand Response Program or the Demand-Side Ancillary Service Program, must provide the Authority with their NYISO generator identification number, under a confidentiality agreement, and give the Authority the ability to view their market participation activity. This information will be used to verify the times of participation in these other programs to prevent double-payment during concurrent events.



**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****9. Data Review**

- a) The Authority reserves the right to review records and/or operations of any Direct Participant, Aggregator, and customer of an Aggregator, to verify enrollment information and performance associated with any designated Load Relief Period or Test Event called by the Authority.
  - (1) Once the Authority initiates a data review, all payments will be suspended pending the outcome of the review.
  - (2) The Authority will complete its review within 30 days of receipt of all requested data, but no later than December 31 of the calendar year of the Capability Period under review.
  - (3) Any suspended payments will be reinstated if the Authority's review of the data results in a finding that the enrollment and performance information are correct.
- b) If the Authority determines that a Direct Participant, Aggregator, or customer of an Aggregator failed to cooperate fully and promptly with the review and/or did not fully comply with the provisions of this Program and/or provided inaccurate data, the Direct Participant, Aggregator or the customer of the Aggregator will be deemed ineligible to participate in the Program until the issue is rectified. In addition, the Direct Participant or Aggregator will be required to make prompt repayment to the Authority of any overpayments that were made to such Direct Participant or Aggregator, on behalf of its customer, for the Capability Period that was reviewed as well as the current Capability Period, if different.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****10. Reservation Payment**

- a) Direct Participants and Aggregators will receive a Reservation Payment for each month during the Capability Period in which they are enrolled, for a maximum of five monthly payments per calendar year. Reservation Payments will be calculated on a monthly basis. Payments will be made by bill credit, check, or wire transfer.
- b) The Reservation Payment rate per kW is based on the number of cumulative Contingency Events and Immediate Events for which the Direct Participant or Aggregator was asked to provide Load Relief during the Capability Period, as follows:
  - (1) The Reservation ~~p~~Payment rate ~~may vary~~~~ies~~ by location and by the number of times the Direct Participant or Aggregator is asked to provide Load Relief, ~~and may be subject to a lock-in option as described below.~~
  - (2) The Authority reserves the right to identify additional locations and establish corresponding rates ~~or lock-in options~~ for Reservation Payments from time to time based on reports and recommendations from the Authority's staff which will be provided at least annually.
  - (3) The identification of applicable locations and corresponding rates for Reservation Payments ~~and lock-in options~~ will be provided on a Statement of Distribution Load Relief Program Payments to be updated as needed by the Authority's staff in consultation with the Department of Public Service.
  - (4) ~~The Authority reserves the right to lock in a Reservation Payment prices as of the date of project enrollment in the program for a multiple year period, for purposes that include but are not limited to enabling location-specific or resource-specific benefits.~~
- c) The Reservation Payment per month is equal to the applicable Reservation Payment rate per kW per month multiplied by the kW of contracted Load Relief multiplied by the Performance Factor. ~~For an Aggregator, the Reservation Payment will be based on Load Relief weighted Reservation Payment rate, which will be equivalent to the sum of the Reservation Payments owed to the Aggregator's enrolled participants.~~
- d) Voluntary Option: Direct Participants or Aggregators that wish to participate on a Voluntary Basis may establish 0 kW of contracted Load Relief.
- e) Performance Factor
  - (1) The Performance Factor for each New Participant is initially set at 0.50 in the current Capability Period and will remain at that level until the first month in which a Load Relief Period or Test Event is called. For New Participants the first Performance Factor that is measured will be applied retroactively, starting with the enrollment month, to true-up the Reservation Payments for the prior month(s). For returning Direct Participants and Aggregators the Performance Factor will be set to the last value established during the previous Capability Period.
  - (2) In each subsequent month, the achieved average kW load reduction during a Contingency Event (not to exceed the first 4 hours), an Immediate Event (the highest consecutive 4 hours within the first 6 hours) and Test Event is divided by the contract kW to calculate a new ratio. When more than one Contingency Event, Immediate Event and/or Test Event is called during the month, the average of the Performance Factors of all events for a Direct Participant or Aggregator in each Authority

Designated Area is the Performance Factor for that month. If no Contingency, Immediate or Test events are called in the month, then the Performance Factor continues unchanged from the prior month.

- (3) The Performance Factor is rounded to two decimal places.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):  
Reservation Payment (continued):****f) Adjustments to the Contract kW**

- (1) Aggregators will be able to increase the kW of contracted Load Relief during the current Capability Period for customer loads already enrolled in the Commercial System Relief Program through another Aggregator who is no longer allowed to participate in the Program.

**11. Performance Payments for Load Relief**

- a) Except as specified in section XIII.C.11.d below, the Authority will make a payment to a Direct Participant or Aggregator who provides Load Relief during a Contingency Event, Immediate Event, or Test Event.
- b) The Performance payment rate may vary by location, type of event, duration of the event, the number of times the Direct Participant or Aggregator is asked to provide Load Relief, and whether the Customer is participating on a voluntary basis.
  - (1) The Performance Payment rate is specified on the Statement of Distribution Load Relief Program Payment.
  - (2) The Authority reserves the right to identify additional **equipment, or** locations and establish corresponding rates for Performance Payments from time to time based on reports and recommendations from the Authority's staff which will be provided at least annually.
  - (3) The identification of applicable **equipment or** locations and corresponding rates for Reservation Payments will be provided on a Statement of Distribution Load Relief Program Payments to be updated as needed by the Authority's staff in consultation with the Department of Public Service.
- c) The Performance Payment amount paid per event is equal to the Performance Payment rate per kWh multiplied by the average hourly kWh of Load Relief provided during the event multiplied by the number of event hours.
- d) Performance Payments will not be made under this Program if the Direct Participant or Aggregator (on behalf of its customer) receives payment for energy during concurrent Load Relief hours under any other demand response program (e.g., NYISO's Day-ahead Demand Reduction Program or NYISO's Special Case Resources Program). Direct Participants or Aggregators who also participate in the Commercial System Relief Program during concurrent Load Relief hours will not receive Performance Payments under this program.
- e) If an S.C. No. 11 Customer participates in the NYISO market and receives payment for energy during concurrent Load Relief hours, Performance Payments will be made under this Program only for Load Relief in excess of the Customer's CBL, expressed in kWh

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):**12. Testing

- a) The Authority may require a Direct Participant or Aggregator to participate in one or more Test Events, each for a period not to exceed one hour, commencing at a time determined solely at Authority's discretion, but not between the hours of 12:00 AM and 6:00 AM.
- b) The Authority will make a payment for one hour of energy for the Load Relief achieved up to the contracted amount.
- c) For Direct Participants or Aggregators that receive Reservation Payments, results of the Test may affect the Performance Factor and Reservation Payments.

# **Exhibit C - Original Tariff Proposal Not Reflecting Comments**

## **Proposal Concerning Modifications to LIPA's Tariff for Electric Service**

### **Requested Action:**

The Long Island Power Authority (the "Authority") staff proposes to revise the Authority's Tariff for Electric Service to enable incentives in support of PSEG Long Island's planned behind-the-meter energy storage program. The incentives will be offered through the Authority's existing dynamic load management tariffs.

### **Background:**

Each year, PSEG Long Island submits an annual update to its Utility 2.0 Long Range Plan, in which it proposes new initiatives to enhance the customer experience, modernize the Long Island electric grid, and promote New York State's Reforming the Energy Vision policies. As part of its 2018 Utility 2.0 annual update, filed on June 29, 2018, PSEG Long Island proposed to introduce an innovative, open solicitation program opportunity for third-party aggregators to install behind-the-meter batteries for PSEG Long Island customers.<sup>1</sup> The goal of the program is 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. On November 1, 2018, the Department of Public Service ("DPS") recommended adoption of PSEG Long Island's behind-the-meter battery program.<sup>2</sup>

The Authority's existing Dynamic Load Management ("DLM") programs include a peak load-shaving Commercial System Relief Program (the "CSRP") and a local reliability supporting Distribution Load Relief Program (the "DLRP"). The behind-the-meter battery program would make use of the Authority's existing CSRP and DLRP tariffs to offer incentives for qualifying battery storage equipment. This proposal will modify those tariffs consistent with the behind-the-meter battery program, as recommended by the DPS, and will make related tariff improvements.

### **Proposal:**

The Authority Staff proposes to modify the Tariff for Electric Service to enable incentives in support of the Utility 2.0 behind-the-meter battery storage program to be paid through the Authority's existing CSRP and DLRP tariffs.

The CSRP and DLRP tariffs offer reservation payments, which are based on the number of summer months the participant is enrolled in the programs, and performance payments, which are based on the participant's performance during specific load relief events called by PSEG Long Island. As proposed in the Utility 2.0 plan, third-party aggregators will enroll customers in the behind-the-meter battery storage program, install eligible battery storage systems, and allow PSEG Long Island to remotely control customers' energy storage systems to reduce load during called events through the existing CSRP and DLRP programs. In exchange, the aggregators will receive reservation and performance payments under the CSRP and DLRP tariffs.

Under existing rules, reservation and performance payment amounts may be reset as needed by Authority staff. In order to promote market stability and provide additional price certainty needed to spur the upfront investment needed for installation of batteries, a change is proposed to lock in the

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<sup>1</sup> Case No. 14-01299, In the Matter of PSEG-LI Utility 2.0 Long Range Plan, Item No. 48.

<sup>2</sup> Case No. 14-01299, In the Matter of PSEG-LI Utility 2.0 Long Range Plan, Item No. 57.

amount of reservation payments offered to qualifying battery storage equipment under the CSRP and DLRP for a 10-year period.

In summary, the following updates to the CSRP and DLRP tariffs are proposed to accommodate the Utility 2.0 behind-the-meter storage program:

- New qualifying battery storage equipment interconnected with the Authority's system after March 1, 2019, will be eligible to participate in the CSRP and DLRP programs. Both stand-alone systems and systems paired with an eligible Net Energy Metering Technology will be eligible.
- New qualifying battery storage projects will be eligible to receive the Reservation Payment in effect at the time of their interconnection for a period of ten years.
- The CSRP and DLRP will include a new customer baseline methodology called the "10 day weather adjusted CBL".
  - A customer baseline methodology is used by the Service Provider to verify the actual load relief provided by the customer during load relief events. The CSRP and DLRP currently include two customer baseline methodology options for participating customers.
  - The purpose of the new methodology is to improve the accuracy of load relief verification for customers with distributed generation. The new methodology will be used to verify the load relief of participating customers who are enrolled in net metering or the Value of Distributed Energy Resources.
  - The new methodology will be optional for other participating customers, who may select it as an alternative to the existing methodologies.
- If an aggregator enrolls customers whose reservation or performance payment rates differ (i.e. based on location or enrollment date rate lock-ins), payments will be based on a load relief weighted rate, which will be equivalent to the sum of the payments owed to the aggregator's enrollees.

The following improvements to the CSRP and DLRP tariffs are also proposed to enhance the general functionality of the programs:

- Net metering and VDER customers will now be allowed to participate in the CSRP and DLRP programs. This change has been requested by stakeholders and was recently enabled by the improvements in load relief verification methodology developed in connection with this proposal. In the past, net metering and VDER customers were ineligible for participation in the CSRP and DLRP because their performance under the programs could not be adequately verified with the existing methodologies. The new methodology has enabled their participation.
- Planned events are currently called under the CSRP when the Authority's day-ahead forecasted load level exceeds 92 percent of the forecasted summer system-wide peak. Staff proposes to raise this threshold to 94 percent to limit the calling of events that do not contribute to lowering the system-wide peak. This change was also proposed by stakeholders.
- The test event period will be increased from one (1) hour to two (2) hours. This change will improve the accuracy of load relief verification and is consistent with proposals by IOUs in the State.



**Financial Impacts:**

The benefit/cost ratios of the behind the meter battery storage program using the societal cost test range from 1.29-1.37, which produces a net positive benefit to LIPA's non-participating customers. This includes approximately \$2 million net present value ("NPV") in avoided generation capacity costs, \$1.7 million NPV in avoided transmission capacity infrastructure, and \$2.8 million NPV in avoided distribution capacity infrastructure. Program administration costs are estimated to be \$1.2 million NPV. The incentive payments to participating customers are estimated to be \$2.2 million NPV and will be recovered in the Power Supply Charge, consistent with the current recovery of demand response payments.

**Affected Tariff Leaf:** 16, 330, 331, 332, 333, 334, 337,339, 341, 342, 343, 344, 345, 349 and 350.

The following leaves do not include any proposed changes but are included for informational purposes: 335, 356, 338, 340, 346, 347, 348 and 351.

**Summary of Proposed Changes:**

To enable incentives in support of the Utility 2.0 behind-the-meter battery storage program to be paid through the Authority's existing CSRP and DLRP tariffs and make other improvements to those tariffs.

**I. General Information (continued):****B. Abbreviations and Definitions (continued):**

**Demand Customer:** A Customer who is billed for Demand charges.

**Demand Meter:** The device that records the maximum amount of power used by the Customer over a 15-minute interval during a specific period, such as a month.

**Department:** The New York State Department of Public Service.

**Deposit:** A sum of money given as security for payment of service.

**Distribution Facilities:** Facilities used to distribute electric energy to consumers, including supply lines, distribution lines, service laterals, and accessory equipment.

**Distribution Line(s):** A system of poles, wires, ducts, conduits, and additional equipment used for the shared distribution of electricity to Customers.

**E**

**Easement:** (See *Right-of-way*)

**Eligible Net Metering Technology/Technologies:** The list of eligible technologies is: Solar Electric Generating Equipment, Wind Electric Generating Equipment, Micro-Hydroelectric Generating Equipment, Micro-Combined Heat and Power (CHP) Generating Equipment, Fuel Cell Electric Generating Equipment, and Farm Waste Electric Generating Equipment. See definition of Solar Electric Generating Equipment, Wind Electric Generating Equipment, Micro-Hydroelectric Generating Equipment, Micro-Combined Heat and Power (CHP) Generating Equipment, Fuel Cell Electric Generating Equipment, and Farm Waste Electric Generating equipment for further details.

**Energy:** Energy is electric power, used or supplied over time, and measured in KWH.

**Existing Overhead Areas:** Areas in which electric distribution facilities are constructed overhead, and there are no requirements to construct facilities underground.

**F**

**Farm Waste Electric Generating Equipment:** Equipment that generates electric energy from biogas produced by anaerobic digestion of agricultural wastes, such as livestock manure, farming wastes and food processing wastes with a rated capacity of not more than five thousand (5,000) kilowatts that is manufactured, installed and operated by Customer-generator in accordance with applicable government and industry standards, connected to the electric system and operated in conjunction with the Authority's transmission and distribution facilities, operated in compliance with the Authority's standards and requirements established therefor, fueled at a minimum of ninety (90) percent on an annual basis by biogas produced from the anaerobic digestion of agricultural waste such as livestock manure materials, crop residues, and food processing waste, and fueled by biogas generated by anaerobic digestion with at least fifty (50) percent by weight of its feed stock being livestock manure on an annual basis.

**Fuel Cell Electric Generating Equipment:** A solid oxide, molten carbonate, proton exchange membrane or phosphoric acid fuel cell, with a combined rated capacity of not more than ten (10) kilowatts for a residential customer or with a rated capacity of not more than five thousand (5,000) kilowatts for a non-residential customer, that is manufactured, installed and operated in accordance with applicable government and industry standards, that is connected to the electric system and operated in compliance with the Authority's standards and requirements established therefor. This definition, including the capacity limits specified herein, does not apply to fuel cells participating in the Fuel Cell Feed-in Tariff.

**Fuel and Purchased Power Cost Adjustment Clause:** See definition for Power Supply Charge.

**Full-Requirements Customer:** A Customer whose electric power requirements are all supplied by the Authority. (See *Customer – Full Requirements Customer*)

**G**

**Generation Project:** A specific project that is eligible to participate in the Commercial Solar or Fuel Cell Feed-In Tariff under Service Classification No. 11 – Buy-Back Service.

**XIII. Dynamic Load Management****A. Commercial System Relief Program****1. Purpose and Availability**

The Commercial System Relief Program is being offered by the Authority to enable participating eligible customers to be compensated for reducing their load under certain conditions when called upon by the Authority to do so.

The program is available to any Customer served at transmission, primary or secondary voltage and taking service under one of the Service Classifications shown below; and to any Aggregator that meets the requirements of this Rider.

Service Classification No. 1 (Rate Codes 180, 380, 580, 880; excluding 480, 481)

Service Classification No. 1-VMRP(L) (Rate Codes 181, 182, 184)

Service Classification No. 1-VMRP(S) (Rate Codes 188)

Service Classification No. 2 (Rate Code 280)

Service Classification No. 2-VMRP (Rate Code 288)

Service Classification No. 2-L (Rate Codes 281, 291, 283)

Service Classification No. 2L-VMRP (Rate Codes 282, M282)

Service Classification No. 2-MRP (Rate Codes 284, 285, M284, M285)

Service Classification Nos. 11, 12, and 13 (Rate Codes 289, 680, 681, 278)

Service Classification No. 16-AMI (Rate Code M188, M288)

Customers who take service pursuant to ~~a Net Metering option or~~ the Direct Load Control Program are not eligible to participate in this program.

The Metropolitan Transportation Authority for Traction Power Service to the Long Island Rail Road and Brookhaven National Laboratories pursuant to a Sale for Resale agreement between the Authority and the New York Power Authority (both as referenced on Leaf 271) are not eligible to participate.

**2. Definitions:**

**Aggregator:** A party other than the Authority that represents and aggregates the load of Customers who collectively have a Load Relief potential of 50 kW or greater in an Authority Designated Area and is responsible for the actions of the Customers it represents, including performance and, as applicable, repayments to the Authority. A Direct Participant may combine multiple customer locations to meet the Load Relief potential requirements of an aggregator.

**Authority Designated Area:** An electrically defined area determined by the Authority to be approaching system capacity limits during peak periods. A current list of the Authority Designated Areas will be listed on the Manager's website and payments by area are listed on the Statement of Commercial System Relief Program Payments.

**Capability Period:** The period during which the Authority can request Load Relief. The Capability Period will be from May 1 through September 30.

### XIII. Dynamic Load Management

#### A. Commercial System Relief Program (continued):

##### Definitions (continued):

CBL: ~~A Customer baseline load as calculated under the Authority's~~ Customer Baseline Load Verification methodology ~~is calculated~~ using ~~either one of the following three methods: the weather-sensitive adjustment option (1) the "5 of 10 Day weather-Weather adjusted-Adjusted CBL" or (2) "the 5 of 10 averageAverage-day-Day CBL" or (3) "10 Day Weather Adjusted CBL".~~ The Customer Baseline Load methodology ~~ies will beare further~~ described in the Authority's DLM operating procedures, which ~~will be publishedis available~~ on the Manager's website.

CBL Methodology: The methodology used by the Authority to verify the actual Load Relief provided (kW and kWh) during each hour of each designated Load Relief Period and Test Event. Actual load levels are compared to the customer baseline loads to verify whether the Direct Participant or Aggregator provided the kW of contracted Load Relief; provided, however, that the Authority may estimate the data pursuant to the Authority's operating procedure if data is not available for all intervals. When ~~the-a~~ weather-adjusted CBL methodology is used and the calculated weather adjustment falls outside of the Authority defined ranges (i.e., the Authority deems the weather to be atypical on the day of a Load Relief Period or Test Event when compared to the baseline period), the Authority may review and revise a participant's baseline based on the Customer's historical load data. When ~~the-a~~ weather-adjusted CBL methodology is used, the Authority, at its own discretion, may select alternate hours for the adjustment period to calculate the weather adjustment in order to accurately reflect the customer's typical usage.

Contracted Hours: The four-hour period within a weekday, Monday through Friday during the Capability Period excluding federal holidays, during which the Direct Participant or Aggregator contracts to provide Load Relief in an Authority Designated Area whenever the Authority designates a Planned Event. The Load Relief Period will be identified for each Authority Designated Area on the Manager's website.

Direct Participant: A Customer who enrolls under this Program directly with the Authority for a single account and agrees to provide at least 50 kW of Load Relief.

Electric Generating Equipment: (a) electric generating equipment that is served under Service Classification Nos. 11 or 12 and used to provide Load Relief under this Program; or (b) emergency electric generating equipment that is interconnected and operated in compliance with Authority rules governing Emergency Generating Facilities used for self-supply and used to provide Load Relief under this Program.

Load Relief: Power (kW) and energy (kWh): (a) ordinarily supplied by the Authority that is displaced by use of Electric Generating Equipment and/or reduced by the Direct Participant or Aggregator at the Customer's premises; or (b) that is produced by use of Electric Generating Equipment by a customer taking service pursuant to Service Classification No. 11 and delivered by that Customer to the Authority's distribution system during a Load Relief Period.

Load Relief Period: The hours for which the Authority requests Load Relief when it designates a Planned Event or an Unplanned Event.

New Participant: An Aggregator or Direct Participant that has not previously participated in a call for Load Relief under the Commercial System Relief Program.

Performance Adjusted kW: The kW level that a Direct Participant or Aggregator requests to

provide subsequent to the Direct Participant or Aggregator performance during an event.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):****Definitions (continued):**

Performance Factor: When a Planned Event or Test Event is called, is the ratio of: (i) the average hourly kW of Load Relief provided by the Direct Participant or Aggregator during the requested hours, up to the kW of contracted Load Relief to (ii) the kW of contracted Load Relief. The Performance Factor is subject to certain adjustments and limitations as described in Section B.9.d below.

Planned Event: The Authority's request, on not less than 21 hours' advance notice, for Load Relief during the Contracted Hours. Planned Events will be called when the Authority's day-ahead forecasted load level is at least ~~92~~ 94 percent of the forecasted summer system-wide peak. Day-ahead and summer peak forecast information for the system will be posted to the Manager's website.

Qualifying Paired Battery Storage Equipment: ~~New battery storage projects paired with Eligible Net Metering Technology and installed on the Authority's system after March 1<sup>st</sup> 2019 that have applied for and received a commitment from the Authority to lock in the current Reservation Payment price for a period of ten years.~~

Qualifying Stand-alone Battery Storage Equipment: ~~New Stand-alone battery storage projects installed on the Authority's system after March 1<sup>st</sup> 2019 that have applied for and received a commitment from the Authority to lock in the current Reservation Payment price for a period of ten years. Qualifying Stand-alone Battery Storage Equipment is not a net metering eligible technology.~~

Test Event: The Authority's request for Direct Participants and Aggregators to provide ~~one~~ two hours of Load Relief on not less than 21 hours' advance notice.

Unplanned Event: The Authority's request for Load Relief: (a) on less than 21 hours' advance notice; or (b) for hours outside of the Contracted Hours.

**3. Contracting for Commercial System Relief Program Service**

This Program is applicable to Direct Participants and Aggregators who agree in writing to provide Load Relief in an Authority Designated Area during all Contracted Hours in such Authority Designated Area, whenever the Authority designates a Planned Event during a Capability Period. Direct Participants and Aggregators may also agree to voluntarily provide Load Relief if an Unplanned Event is called. Authority Designated Areas will be posted on the Manager's website.

A Direct Participant must contract to provide at least 50 kW of Load Relief. An Aggregator must contract to provide at least 50 kW of Load Relief. Direct Participants or Aggregators that wish to participate on a voluntary basis may request a value of 0 kW of contracted Load Relief.

If other requirements for service under this Program are met, Electric Generating Equipment may be used to participate under this Program subject to the provisions set forth in section XIII.B.7 below. The participating Direct Participant or Aggregator is responsible for ensuring that the operation of generating equipment under this Program will be in conformance with any governmental limitations on operation.

Participation under this Program is permitted to participants in other programs that provide payment for capacity, such as the NYISO's Special Case Resources ("SCR") Program (or any successor Authority program to the NYISO's SCR Program).

Direct Participants and all customers of an Aggregator must meet the metering requirements

specified in Section XIII.B.6.

An Aggregator is responsible for the compliance of all customers it enrolls and will be liable for performance, including, as applicable, repayments to the Authority.

The Authority reserves the right to establish operating procedures and various forms for the implementation of this program. Direct Participants and Aggregators must abide by such operating procedures and utilize such forms to be eligible for participation.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):****4. Applications for Participation**

- a) Applications for participation under this program must be made electronically. Direct Participants and Aggregators may participate after the Authority's receipt and approval of a completed application. The Authority will accept an application by April 1 for a May 1 commencement date or by May 1 for a June 1 commencement date. However, if the application is received by April 1 and the Authority does not bill the participant monthly using interval metering at the time of application, participation may commence on July 1 provided all conditions in section XIII.B.6. are satisfied.
- b) The desired commencement month must be specified in the application. Applications will not be accepted after the specified date for participation during the current Capability Period. If the first of the month falls on a weekend or holiday, applications will be accepted until the first business day thereafter.
- c) The Authority will accept applications for participation in the Voluntary Participation Option under the Program at any time provided the metering and communications requirements are satisfied as specified in Section XIII.B.6.
- d) Participants without Qualifying Paired Battery Storage Equipment and without Eligible Net Metering Technology will receive the "5 of 10 Day Weather-Adjusted CBL" ~~will be used~~ as the default CBL Verification Methodology ~~for each account number enrolled~~, unless the application specifies that the "10 Day Weather-Adjusted CBL" or the "5 of 10 Average-Day CBL" is to be used for verification of performance. A single CBL Verification Methodology will be used for each customer to assess both energy (kWh) and demand (kW) Load Relief.
- e) Qualifying Paired Battery Storage Equipment and Eligible Net Metering Technology will receive the "10 Day Weather-Adjusted CBL" for verification of performance.
- f) Participants without Qualifying Paired Battery Storage Equipment and without Eligible Net Metering Technology may apply in writing prior to the start of the Capability Period to change the CBL Verification Methodology.
- ~~d)g)~~ A Direct Participant or Aggregator may apply in writing prior to the start of the Capability Period ~~CBL Verification Methodology~~, to change the kW of pledged Load Relief, or to terminate service under this Program for the upcoming Capability Period provided the request is received prior to commencing participation for that Capability Period. In order for a Direct Participant or Aggregator to increase its kW of contracted Load Relief in an Authority Designated Area, the Direct Participant's or Aggregator's most recent Performance Factor in that Authority Designated Area must be no less than 1.00.
- h) Each application must state the kW of Load Relief that the Direct Participant or Aggregator contracts to provide for the Load Relief Period. Load Relief of an Aggregator will be measured on a portfolio basis separately for each Authority Designated Area.

**5. Notification by the Authority and Required Response**

- a) The Authority will notify Direct Participants and Aggregators by phone, e-mail, or machine-readable electronic signal, or a combination thereof, in advance of the commencement of a Load Relief Period or Test Event. The Direct Participant or Aggregator will designate in writing an authorized representative and an alternate representative, and include an electronic address if applicable, to receive the notice. If an Aggregator is served under this Program, only the Aggregator will be notified of the Load Relief Period or Test Event. The Aggregator is responsible for notifying all of the customers within its respective aggregation group.
- b) The Authority will provide advance notice that a Planned Event or a Test Event may be



called at least 21 hours in advance of the event. The Authority will provide confirmation of a Planned Event or a Test Event on the day of the event, at least two hours in advance of the event.

- c) If the Authority designates an Unplanned Event, notice will be given as soon as practicable. Participants are requested to provide Load Relief as soon as they are able.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):  
Notification by the Authority and Required Response (continued):**

- d) Participants are required to participate during all Contracted Hours for all Planned Events called by the Authority during the Capability Period, and all Test Events called by the Authority. The Test Event period will not exceed ~~one~~two hours.

**6. Metering**

- a) Participation under this program requires that each participant's entire service be measured by interval metering with communications capability which will also be used by the Authority for monthly billing. All participants designated by an Aggregator must meet the metering and telecommunications requirements specified herein.
- b) If, at the time of application for service under this Program, the Authority does not bill the participant monthly using interval metering, the Customer will arrange with the Authority for the furnishing and installation of interval metering with communications capability to be used for billing, at the participant's expense.
- c) For participation under this program, the metering equipment and communications service must be installed and made operational prior to the Authority's acceptance of a completed application. Participation under this program will commence the first day of the first month within the Capability Period that occurs at least 30 days after both the interval metering and communications service become operational.
- d) The Authority will install interval metering with communications capability within 21 business days. If the Authority misses the installation time frame for a participant, it will make a "Lost Reservation Payment" to the Direct Participant or Aggregator, unless the meter delay was caused by a condition such as a major outage or storm.
- e) A Lost Reservation Payment will be calculated by determining the number of months between the earliest month in which the customer could have begun participation had the meter been installed within the required timeframe (assuming the Authority's acceptance of a completed application and receipt of payment for the meter upgrade) and the first month following the completed installation, and multiplying that number by the pledged kW and associated per-kW Reservation Payment Rate.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):****7. Operation of Electric Generating Equipment**

- a) Participation by diesel-fired Electric Generating Equipment will be permitted only if the engine for the equipment is model year 2000 or newer. Participation by diesel-fired Electric Generating Equipment will be limited to 20 percent of the total kW enrolled under this Program for the Capability Period. Enrollment by such generators will be accepted on a first come, first served basis. No limit or cap will be placed on the following: natural gas-fired rich burn Electric Generating Equipment that incorporates three-way catalyst emission controls; natural gas lean-burn Electric Generating Equipment with an engine of model year of 2000 or newer; or Electric Generating Equipment that has a NOx emission level of no more than 2.96 lb/MWh.
- b) If a Direct Participant or Aggregator requests to operate Electric Generating Equipment for Load Relief purposes under this program and the Authority has approved the interconnection of such equipment, the application must state generator information, including the unit's serial number, nameplate rating, manufacturer, date of manufacture, fuel type or energy source, the kW enrolled using this equipment, and identification as to whether the unit incorporates three-way catalyst emission controls (natural gas-fired rich burn), a natural gas lean-burn engine of model year 2000 or newer, or a diesel-fired engine of model year 2000 or newer, or whether it has a NOx emission level of no more than 2.96 lb/MWh. If the generating equipment has a NOx emission level of no more than 2.96 lb/MWh, but is not natural gas-fired rich burn generating equipment that incorporates three-way catalyst emission controls, a natural gas lean-burn engine of model year 2000 or newer, or a diesel-fired engine of model year 2000 or newer, written certification by a professional engineer must be contained in the application, including the NOx emission level. Copies of all New York State Department of Environmental Conservation ("DEC") permits must be included with the application. By applying for service under this Program, Direct Participants and Aggregators (on behalf of their customers) agree to permit the Authority to provide information regarding the Electric Generating Equipment to the DEC for its review, subject to the DEC's agreement to keep this information confidential. Furthermore, participants enrolled in a NYISO market-based program offered by the Authority, NYPA or other entity, such as the Day-ahead Demand Response Program or the Demand-Side Ancillary Service Program, must provide the Authority with their NYISO generator identification number, under a confidentiality agreement, and give the Authority the ability to view their market participation activity. This information will be used to verify the times of participation in these other programs to prevent double-payment during concurrent events.

### **XIII. Dynamic Load Management**

#### **B. Commercial System Relief Program (continued):**

##### **8. Data Review**

- a) The Authority reserves the right to review records and/or operations of any Direct Participant, Aggregator, and customer of an Aggregator, to verify enrollment information and performance associated with any designated Load Relief Period or Test Event called by the Authority.
  - (1) Once the Authority initiates a data review, all payments will be suspended pending the outcome of the review.
  - (2) The Authority will complete its review within 30 days of receipt of all requested data, but no later than December 31 of the calendar year of the Capability Period under review.
  - (3) Any suspended payments will be reinstated if the Authority's review of the data results in a finding that the enrollment and performance information are correct.
- b) If the Authority determines that a Direct Participant, Aggregator, or customer of an Aggregator failed to cooperate fully and promptly with the review and/or did not fully comply with the provisions of this Program and/or provided inaccurate data, the Direct Participant Aggregator or the customer of the Aggregator will be deemed ineligible to participate in the Program until the issue is rectified. In addition, the Direct Participant or Aggregator will be required to make prompt repayment to the Authority of any overpayments that were made to such Direct Participant or Aggregator, on behalf of its customer, for the Capability Period that was reviewed as well as the current Capability Period, if different.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):****9. Reservation Payment**

- a) Direct Participants and Aggregators will receive a Reservation Payment for each month during the Capability Period in which they are enrolled for a maximum of five payments per calendar year. Reservation Payments will be calculated on a monthly basis. Payments will be made by bill credit, check, or wire transfer.
- b) The Reservation Payment rate per kW is based on the number of cumulative Planned Events for which the Direct Participant or Aggregator was asked to provide Load Relief during the Capability Period, as follows:
  - (1) The Reservation ~~p~~Payment rate may vary by location and by the number of times the Direct Participant or Aggregator is asked to provide Load Relief, and may be eligible for a lock-in option as described below.
  - (2) The Authority reserves the right to identify additional locations and establish corresponding rates or lock-in options for Reservation Payments: from time-to-time based on reports and recommendations from the Authority's staff which will be provided at least annually.
  - (3) The identification of applicable locations and corresponding rates for Reservation Payments and lock-in options will be provided on a Statement of Commercial System Relief Program Payments to be updated as needed by the Authority's staff in consultation with the Department of Public Service.
  - (4) For Qualifying Paired Battery Storage Equipment and Qualifying Stand-alone Battery Storage Equipment projects enrolled as a Direct Participant or through an Aggregator, the Authority reserves the right to lock in a Reservation Payment price as of the date of project enrollment in the program for a period of ten years.
- c) The Reservation Payment per month is equal to the applicable Reservation Payment rate per kW per month multiplied by the kW of contracted Load Relief multiplied by the Performance Factor. For an Aggregator, the Reservation Payment will be based on a Load Relief weighted Reservation Payment rate which will be equivalent to the sum of the Reservation Payments owed to the Aggregator's enrolled participants.
- d) Voluntary Option: Direct Participants or Aggregators that wish to participate on a Voluntary Basis may establish 0 kW of contracted Load Relief.
- e) Performance Factor
  - (1) The Performance Factor for each New Participant is initially set at 0.50 in the current Capability Period and will remain at that level until the first month in which a Load Relief Period or Test Event is called. For New Participants the first Performance Factor that is measured will be applied retroactively, starting with the enrollment month, to true-up the Reservation Payments for the prior month(s). For returning Direct Participants and Aggregators the Performance Factor will be set to the last value established during the previous Capability Period.
  - (2) In each subsequent month, the achieved average kW load reduction during a Planned Event (not to exceed the first 4 hours) and Test Event is divided by the contract kW to calculate a new ratio. When more than one Planned Event and/or Test Event is called

during the month, the average of the Performance Factors of all events for a Direct Participant or Aggregator in each Authority Designated Area is the Performance Factor for that month. If no Planned or Test events are called in the month, then the Performance Factor continues unchanged from the prior month.

- (3) The Performance Factor is rounded to two decimal places (e.g., 0.99).

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):  
Reservation Payment (continued):**

- (4) Direct Participants and Aggregators can increase their Performance Factor and corresponding Reservation Payment prospectively by requesting a Performance Adjusted kW. The Performance Adjusted kW must be:
  - (a) No higher than the average hourly kW of Load Relief that was provided during the most recent single event (i.e., Test Event, Planned Event, or Unplanned Event);
  - (b) No lower than the kW of Load Relief on which the last payment was based; and
  - (c) It cannot exceed the kW of contracted Load Relief.
- (5) The Performance Factor will be recalculated as the Performance Adjusted kW divided by the Contract kW and will become effective on the first of the month following the date the request is received. If the request is received late due to the Authority's delay in providing interval meter data, the Performance Adjusted kW will be applied retroactively, effective as of the first of the month after the event on which the Performance Adjusted kW calculation is based occurred.
- (6) The new Performance Factor will remain in effect until the earlier of:
  - (a) The month in which a new Performance Adjusted kW is requested and approved pursuant to (4) above; or
  - (b) A new lower Performance Factor is calculated based on the results of monthly performance; or
  - (c) the term of service under this Program ends.
- (7) Once a Performance Adjustment is in effect, a Direct Participant or Aggregator may request subsequent increases to the Performance Adjusted kW if the updated kW level meets the requirements for Performance Adjusted kW. No more than one request will be accepted per month to increase the Performance Adjusted kW. The Performance Adjustment will become effective commencing the first day of the first calendar month that follows the Authority's receipt of the request to initiate or update the Performance Adjusted kW.
- (8) Requests for Performance Adjusted kW cannot be used to lower the Performance Factor under this Program.

**XIII. Dynamic Load Management****B. Commercial System Relief Program (continued):  
Reservation Payment (continued)**f) Adjustments to the Contract kW during the Capability Period

- 1) An Aggregator may increase its kW of pledged Load Relief during a Capability Period only if it enrolls Customers whose Aggregator either exits the program or is suspended from enrollment in the program for noncompliance with Aggregator eligibility requirements or the Company's operating procedures. In such case, the Aggregator may increase its kW of pledged Load Relief up to the amount of the transferred Customers' existing kW of pledged Load Relief.

10. Performance Payments for Load Relief

- a) Except as specified in section XIII.B.10.d below, the Authority will make a payment to a Direct Participant or Aggregator who provides Load Relief during a Planned Event, Test Event, or Unplanned Event.
- b) The Performance payment rate may vary by location, type of event, duration of the event, number of times the Direct Participant or Aggregator is asked to provide Load Relief, and whether the Customer is participating on a voluntary basis.
  - (1) The Performance Payment rate is specified on the Statement of Commercial System Relief Program Payments.
  - (2) The Authority reserves the right to identify additional locations, equipment and establish corresponding rates for Performance Payments from time to time based on reports and recommendations from the Authority's staff which will be provided at least annually.
  - (3) The identification of applicable locations, equipment and corresponding rates for Reservation Payments will be provided on a Statement of Commercial System Relief Program Payments to be updated as needed by the Authority's staff in consultation with the Department of Public Service.
- c) The Performance Payment amount paid per event is equal to the Performance Payment rate per kWh multiplied by the average hourly kWh of Load Relief provided during the event multiplied by the number of event hours.
- d) Performance Payments will not be made under this Program if the Direct Participant or Aggregator (on behalf of its customer) receives payment for energy during concurrent Load Relief hours under any other demand response program (e.g., NYISO's Day-ahead Demand Reduction Program or NYISO's Special Case Resources Program) in which the Customer is enrolled. Direct Participants or Aggregators who also participate in the Distribution System Relief Program during concurrent Load Relief hours will only receive Performance Payments under this program.
- e) If an S.C. No. 11 Customer participates in the NYISO market and receives payment for energy during concurrent Load Relief hours, Performance Payments will be made under this Program only for Load Relief in excess of the Customer's CBL, expressed in kWh.



### **XIII. Dynamic Load Management**

#### **B. Commercial System Relief Program (continued):**

##### 11. Testing

- a) The Authority may require a Direct Participant or Aggregator to participate in one or more Test Events, each for a period not to exceed one hour, commencing at a time determined solely at Authority's discretion, but within the Contracted Hours.
- b) The Authority will make a payment for one hour of energy for the Load Relief achieved up to the contracted amount, as specified above.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program****1. Purpose and Availability**

The Distribution Load Relief Program is being offered by the Authority to enable participating eligible customers to be compensated for reducing their load under certain conditions when called upon by the Authority to do so.

The program is available to any Customer served at primary or secondary voltage and taking service under one of the Service Classifications shown below; and to any Aggregator that meets the requirements of this Rider.

Service Classification No. 1 (Rate Codes 180, 380, 580, 880; excluding 480, 481)

Service Classification No. 1-VMRP(L) (Rate Codes 181, 182, 184)

Service Classification No. 1-VMRP(S) (Rate Codes 188)

Service Classification No. 2 (Rate Code 280)

Service Classification No. 2-VMRP (Rate Code 288)

Service Classification No. 2-L (Rate Codes 281, 291, 283)

Service Classification No. 2L-VMRP (Rate Codes 282, M282)

Service Classification No. 2-MRP (Rate Codes 284, 285, M284, M285)

Service Classification Nos. 11, 12, and 13 (Rate Codes 289, 680, 681, 278)

Service Classification No. 16-AMI (Rate Code M188, M288)

Customers who take service pursuant to ~~a Net Metering option or~~ the Direct Load Control Program are not eligible to participate in this program.

The Metropolitan Transportation Authority for Traction Power Service to the Long Island Rail Road and Brookhaven National Laboratories pursuant to a Sale for Resale agreement between the Authority and the New York Power Authority (both as referenced on Leaf 271) are not eligible to participate.

**2. Definitions:**

Aggregator: A party other than the Authority that represents and aggregates the load of Customers who collectively have a Load Relief potential of 50 kW or greater in an Authority Designated Area and is responsible for the actions of the Customers it represents, including performance and, as applicable, repayments to the Authority. A Direct Participant may combine multiple customer locations to meet the Load Relief potential requirements of an Aggregator.

Authority Designated Area: An electrically defined area determined by the Authority to be approaching system capacity limits during peak periods. A current list of the Authority Designated Areas will be listed on the Manager's website and ~~r~~Reservation ~~P~~payments by area are listed on the Statement of Distribution Load Relief Program Payments.

Capability Period: The period during which the Authority can request Load Relief. The Capability Period will be from May 1 through September 30.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):  
Definitions (continued):**

CBL: ~~A Customer baseline load as calculated under the Authority's~~ Customer Baseline Load Verification ~~Methodology is calculated using one of the following three methods: either the weather-sensitive adjustment option (1) "the 5 of 10 day "weather-Weather adjusted-Adjusted CBL" (2) "the 5 of 10 averageAverage-day-Day CBL" or (3) "10 Day Weather Adjusted CBL".~~ The Customer Baseline Load methodology ~~ies will beare further~~ described in the Authority's DLM operating procedures, which ~~will be publishedis available~~ on the Manager's website.

CBL Verification Methodology: The methodology used by the Authority to verify the actual Load Relief provided (kW and kWh) during each hour of each designated Load Relief Period and Test Event. Actual load levels are compared to the customer baseline loads to verify whether the Direct Participant or Aggregator provided the kW of contracted Load Relief; provided, however, that the Authority may estimate the data pursuant to the Authority's operating procedure if data is not available for all intervals. When ~~the a~~ weather-adjusted CBL methodology is used and the calculated weather adjustment falls outside of the Authority defined ranges (i.e., the Authority deems the weather to be atypical on the day of a Load Relief Period or Test Event when compared to the baseline period), the Authority may review and revise a participant's baseline based on the Customer's historical load data. When ~~the a~~ weather-adjusted CBL methodology is used, the Authority, at its own discretion, may select alternate hours for the adjustment period to calculate the weather adjustment in order to accurately reflect the customer's typical usage.

Contingency Event: a Load Relief Period lasting four or more hours for which the Authority provides two or more hours of advance notice.

Direct Participant: A Customer who enrolls under this Program directly with the Authority for a single account and agrees to provide at least 50 kW of Load Relief.

Electric Generating Equipment: (a) electric generating equipment that is served under Service Classification Nos. 11 or 12 and used to provide Load Relief under this Program; or (b) emergency electric generating equipment that is interconnected and operated in compliance with Authority rules governing Emergency Generating Facilities used for self-supply and used to provide Load Relief under this Program.

Immediate Event: a Load Relief Period lasting six or more hours for which the Authority provides less than two hours of advance notice.

Load Relief: Power (kW) and energy (kWh): (a) ordinarily supplied by the Authority that is displaced by use of Electric Generating Equipment and/or reduced by the Direct Participant or Aggregator at the Customer's premises; or (b) that is produced by use of Electric Generating Equipment by a customer taking service pursuant to Service Classification No. 11 and delivered by that Customer to the Authority's distribution system during a Load Relief Period.

Load Relief Period: The hours for which the Authority requests Load Relief when it designates a Contingency Event or an Immediate Event. Load Relief will not be required between the hours of 12:00 AM and 6:00 AM.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):  
Definitions (continued)**

New Participant: An Aggregator or Direct Participant that has not previously participated in a call for Load Relief under the Distribution Load Relief Program.

Performance Factor: When a Contingency Event, Immediate Event or Test Event is called, is the ratio of: (i) the average hourly kW of Load Relief provided by the Direct Participant or Aggregator during the requested hours, up to the kW of contracted Load Relief to (ii) the kW of contracted Load Relief. The Performance Factor is subject to certain adjustments and limitations as described in Section XIII.C.10.d below.

Qualifying Paired Battery Storage Equipment: New battery storage projects paired with eligible generation technology and installed on the Authority's system after March 1<sup>st</sup> 2019 that have applied for and received a commitment from the Authority to lock in the current Reservation Payment price for a period of ten years.

Qualifying Stand-alone Battery Storage Equipment: New Stand-alone battery storage projects installed on the Authority's system after March 1<sup>st</sup> 2019 that have applied for and received a commitment from the Authority to lock in the current Reservation Payment price for a period of ten years. Qualifying Stand-alone Battery Storage Equipment is not a net metering eligible technology.

Test Event: The Authority's request for Direct Participants and Aggregators to provide ~~one~~ two hours of Load Relief on not less than 2 hours of advance notice.

**3. Contracting for Distribution Load Relief Program Service**

This Program is applicable to Direct Participants and Aggregators who agree in writing to provide Load Relief for no less than four consecutive hours in an Authority Designated Area whenever the Authority designates a Load Relief Period during the Capability Period. If Direct Participants and Aggregators provide Load Relief for no less than four consecutive hours in an Authority Designated Area for seven or more Load Relief Periods during a single Capability Period, the remaining ~~R~~reservation ~~P~~payments for that Capability Period will be increased per the amount listed on the Statement of Distribution Load Relief Program Payments. Authority Designated Areas will be posted on the Manager's website.

A Direct Participant in the Reservation Payment Option must contract to provide at least 50 kW of Load Relief. An Aggregator in the Reservation Payment Option must contract to provide at least 50 kW of Load Relief. Direct Participants or Aggregators that wish to participate on a voluntary basis may request a value of 0 kW of contracted Load Relief.

If all other requirements for service under this Program are met, Electric Generating Equipment may be used to participate under this Program subject to the provisions set forth in section XIII.C.8 below. The participating Direct Participant or Aggregator is responsible for ensuring that the operation of generating equipment under this Program will be in conformance with any governmental limitations on operation.

Participation under this Program is permitted to participants in other programs that provide payment for capacity, such as the NYISO's Special Case Resources ("SCR") Program (or any successor Authority program to the NYISO's SCR Program).

Direct Participants and all customers of an Aggregator must meet the metering requirements specified in Section XIII.C.7.

An Aggregator is responsible for the compliance of all customers it enrolls and will be liable

for performance, including, as applicable, repayments to the Authority.

The Authority reserves the right to establish operating procedures and various forms for the implementation of this program. Direct Participants and Aggregators must abide by such operating procedures and utilize such forms to be eligible for participation.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****4. Applications for Participation**

- a) Applications for participation under this program must be made electronically. Direct Participants and Aggregators may participate after the Authority's receipt and approval of a completed application. The Authority will accept an application by April 1 for a May 1 commencement date or by May 1 for a June 1 commencement date. However, if the application is received by April 1 and the Authority does not bill the participant monthly using interval metering at the time of application, participation may commence on July 1 provided all conditions in section XIII.C.7. are satisfied. Applicants with existing requisite metering and communication capabilities as specified in Section XIII.B.6. who wish to participate in the program on a voluntary basis may apply at any time.
- b) The desired commencement month must be specified in the application. Applications will not be accepted after the specified date for participation during the current Capability Period. If the first of the month falls on a weekend or holiday, applications will be accepted until the first business day thereafter.
- c) Participants without Qualifying Paired Battery Storage Equipment and without Eligible Net Metering Technology the "5 of 10 Day The weatherWeather-adjusted-Adjusted CBL" will be used as the default CBL Verification Methodology for each account number-enrolled, unless the application specifies that the "10 Day Weather-Adjusted CBL" or "5 of 10 Day averageAverage-day-Day CBL" is to be used for verification of performance. A single CBL Verification Methodology will be used for each customer to assess both energy (kWh) and demand (kW) Load Relief.
- d) Qualifying Paired Battery Storage Equipment and Eligible Net Metering Technology will receive the "10 Day Weather-Adjusted CBL" for verification of performance.
- e) Participants without Qualifying Paired Battery Storage Equipment and without Eligible Net Metering Technology may apply in writing prior to the start of the Capability Period to change the CBL Verification Methodology.
- f) A Direct Participant or Aggregator may apply in writing prior to the start of the Capability Period the CBL Verification Methodology, to change the kW of pledged Load Relief, or to terminate service under this Program for the upcoming Capability Period provided the request is received prior to commencing participation for that Capability Period. In order for a Direct Participant or Aggregator to increase its kW of contracted Load Relief in an Authority Designated Area, the Direct Participant's or Aggregator's most recent Performance Factor in that Authority Designated Area must be no less than 1.00.
- g) Each application must state the kW of Load Relief that the Direct Participant or Aggregator contracts to provide for the Load Relief Period. Load Relief of an Aggregator will be measured on a portfolio basis separately for each Authority Designated Area.

**5. Load Relief Period Criteria**

- a) Criteria for Designating a Load Relief Period: If the Authority declares a need for emergency or non-emergency relief, within the limitations described by 40 CFR 63.6640 subparts (f) (2) and (f)(4,) or if a voltage reduction of five percent or greater has been ordered, the Authority may designate such period as a Load Relief Period. The Authority may designate specific feeders or geographical areas in which Load Relief shall be requested.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****6. Notification by the Authority and Required Response**

- a) The Authority will notify Direct Participants and Aggregators by phone, e-mail, or machine-readable electronic signal, or a combination thereof, of the commencement of a Load Relief Period or Test Event. The Direct Participant or Aggregator will designate in writing an authorized representative and an alternate representative, and include an electronic address if applicable, to receive the notice. If an Aggregator is served under this Program, only the Aggregator will be notified of the Load Relief Period or Test Event. The Aggregator is responsible for notifying all of the customers within its respective aggregation group.
- b) If the Authority designates a Contingency Event or a Test Event, the Authority will provide advance notice at least 2 hours in advance of the event.
- c) If the Authority designates an Immediate Event, notice will be given as soon as practicable. Participants are requested to provide Load Relief as soon as they are able.
- d) Participants are required to participate during all Contracted Hours for all Contingency Events and Immediate Events called by the Authority during the Capability Period, and all Test Events called by the Authority. The Test Event period will not exceed ~~one~~ two hours and will not be called between the hours of 12:00 AM and 6:00 AM.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****7. Metering**

- a) Participation under this program requires that each participant's entire service be measured by interval metering with communications capability which will also be used by the Authority for monthly billing. All participants designated by an Aggregator must meet the metering and telecommunications requirements specified herein.
- b) If, at the time of application for service under this Program, the Authority does not bill the participant monthly using interval metering, the Customer will arrange with the Authority for the furnishing and installation of interval metering with communications capability to be used for billing, at the participant's expense.
- c) For participation under this program, the metering equipment and communications service must be installed and made operational prior to the Authority's acceptance of a completed application. Participation under this program will commence the first day of the first month within the Capability Period that occurs at least 30 days after both the interval metering and communications service become operational.
- d) The Authority will install interval metering with communications capability within 21 business days. If the Authority misses the installation time frame for a participant, it will make a "Lost Reservation Payment" to the Direct Participant or Aggregator, unless the meter delay was caused by a condition such as a major outage or storm.
- e) A Lost Reservation Payment will be calculated by determining the number of months between the earliest month in which the customer could have begun participation had the meter been installed within the required timeframe (assuming the Authority's acceptance of a completed application and receipt of payment for the meter upgrade) and the first month following the completed installation, and multiplying that number by the pledged kW and associated per-kW Reservation Payment Rate.



**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****8. Operation of Electric Generating Equipment**

- a) Participation by diesel-fired Electric Generating Equipment will be permitted only if the engine for the equipment is model year 2000 or newer. Participation by diesel-fired Electric Generating Equipment will be limited to 20 percent of the total kW enrolled under this Program for the Capability Period. Enrollment by such generators will be accepted on a first come, first served basis. No limit or cap will be placed on the following: natural gas-fired rich burn Electric Generating Equipment that incorporates three-way catalyst emission controls; natural gas lean-burn Electric Generating Equipment with an engine of model year of 2000 or newer; or Electric Generating Equipment that has a NOx emission level of no more than 2.96 lb/MWh.
- b) If a Direct Participant or Aggregator requests to operate Electric Generating Equipment for Load Relief purposes under this program and the Authority has approved the interconnection of such equipment, the application must state generator information, including the unit's serial number, nameplate rating, manufacturer, date of manufacture, fuel type or energy source, the kW enrolled using this equipment, and identification as to whether the unit incorporates three-way catalyst emission controls (natural gas-fired rich burn), a natural gas lean-burn engine of model year 2000 or newer, or a diesel-fired engine of model year 2000 or newer, or whether it has a NOx emission level of no more than 2.96 lb/MWh. If the generating equipment has a NOx emission level of no more than 2.96 lb/MWh, but is not natural gas-fired rich burn generating equipment that incorporates three-way catalyst emission controls, a natural gas lean-burn engine of model year 2000 or newer, or a diesel-fired engine of model year 2000 or newer, written certification by a professional engineer must be contained in the application, including the NOx emission level. Copies of all New York State Department of Environmental Conservation ("DEC") permits must be included with the application. By applying for service under this Program, Direct Participants and Aggregators (on behalf of their customers) agree to permit the Authority to provide information regarding the Electric Generating Equipment to the DEC for its review, subject to the DEC's agreement to keep this information confidential. Furthermore, participants enrolled in a NYISO market-based program offered by the Authority, NYPA or other entity, such as the Day-ahead Demand Response Program or the Demand-Side Ancillary Service Program, must provide the Authority with their NYISO generator identification number, under a confidentiality agreement, and give the Authority the ability to view their market participation activity. This information will be used to verify the times of participation in these other programs to prevent double-payment during concurrent events.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****9. Data Review**

- a) The Authority reserves the right to review records and/or operations of any Direct Participant, Aggregator, and customer of an Aggregator, to verify enrollment information and performance associated with any designated Load Relief Period or Test Event called by the Authority.
  - (1) Once the Authority initiates a data review, all payments will be suspended pending the outcome of the review.
  - (2) The Authority will complete its review within 30 days of receipt of all requested data, but no later than December 31 of the calendar year of the Capability Period under review.
  - (3) Any suspended payments will be reinstated if the Authority's review of the data results in a finding that the enrollment and performance information are correct.
- b) If the Authority determines that a Direct Participant, Aggregator, or customer of an Aggregator failed to cooperate fully and promptly with the review and/or did not fully comply with the provisions of this Program and/or provided inaccurate data, the Direct Participant, Aggregator or the customer of the Aggregator will be deemed ineligible to participate in the Program until the issue is rectified. In addition, the Direct Participant or Aggregator will be required to make prompt repayment to the Authority of any overpayments that were made to such Direct Participant or Aggregator, on behalf of its customer, for the Capability Period that was reviewed as well as the current Capability Period, if different.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):****10. Reservation Payment**

- a) Direct Participants and Aggregators will receive a Reservation Payment for each month during the Capability Period in which they are enrolled, for a maximum of five monthly payments per calendar year. Reservation Payments will be calculated on a monthly basis. Payments will be made by bill credit, check, or wire transfer.
- b) The Reservation Payment rate per kW is based on the number of cumulative Contingency Events and Immediate Events for which the Direct Participant or Aggregator was asked to provide Load Relief during the Capability Period, as follows:
  - (1) The Reservation ~~p~~Payment rate ~~may vary~~~~ies~~ by location and by the number of times the Direct Participant or Aggregator is asked to provide Load Relief, and may be subject to a lock-in option as described below.
  - (2) The Authority reserves the right to identify additional locations and establish corresponding rates or lock-in options for Reservation Payments from time to time based on reports and recommendations from the Authority's staff which will be provided at least annually.
  - (3) The identification of applicable locations and corresponding rates for Reservation Payments and lock-in options will be provided on a Statement of Distribution Load Relief Program Payments to be updated as needed by the Authority's staff in consultation with the Department of Public Service.
  - (4) The Authority reserves the right to lock in a Reservation Payment prices as of the date of project enrollment in the program for a multiple year period, for purposes that include but are not limited to enabling location-specific or resource-specific benefits.
- c) The Reservation Payment per month is equal to the applicable Reservation Payment rate per kW per month multiplied by the kW of contracted Load Relief multiplied by the Performance Factor. For an Aggregator, the Reservation Payment will be based on Load Relief weighted Reservation Payment rate, which will be equivalent to the sum of the Reservation Payments owed to the Aggregator's enrolled participants.
- d) Voluntary Option: Direct Participants or Aggregators that wish to participate on a Voluntary Basis may establish 0 kW of contracted Load Relief.
- e) Performance Factor
  - (1) The Performance Factor for each New Participant is initially set at 0.50 in the current Capability Period and will remain at that level until the first month in which a Load Relief Period or Test Event is called. For New Participants the first Performance Factor that is measured will be applied retroactively, starting with the enrollment month, to true-up the Reservation Payments for the prior month(s). For returning Direct Participants and Aggregators the Performance Factor will be set to the last value established during the previous Capability Period.
  - (2) In each subsequent month, the achieved average kW load reduction during a Contingency Event (not to exceed the first 4 hours), an Immediate Event (the highest consecutive 4 hours within the first 6 hours) and Test Event is divided by the contract kW to calculate a new ratio. When more than one Contingency Event, Immediate Event and/or Test Event is called during the month, the average of the Performance Factors of all events for a Direct Participant or Aggregator in each Authority

Designated Area is the Performance Factor for that month. If no Contingency, Immediate or Test events are called in the month, then the Performance Factor continues unchanged from the prior month.

- (3) The Performance Factor is rounded to two decimal places.

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):  
Reservation Payment (continued):****f) Adjustments to the Contract kW**

- (1) Aggregators will be able to increase the kW of contracted Load Relief during the current Capability Period for customer loads already enrolled in the Commercial System Relief Program through another Aggregator who is no longer allowed to participate in the Program.

**11. Performance Payments for Load Relief**

- a) Except as specified in section XIII.C.11.d below, the Authority will make a payment to a Direct Participant or Aggregator who provides Load Relief during a Contingency Event, Immediate Event, or Test Event.
- b) The Performance payment rate may vary by location, type of event, duration of the event, the number of times the Direct Participant or Aggregator is asked to provide Load Relief, and whether the Customer is participating on a voluntary basis.
  - (1) The Performance Payment rate is specified on the Statement of Distribution Load Relief Program Payment.
  - (2) The Authority reserves the right to identify additional equipment, or locations and establish corresponding rates for Performance Payments from time to time based on reports and recommendations from the Authority's staff which will be provided at least annually.
  - (3) The identification of applicable equipment or locations and corresponding rates for Reservation Payments will be provided on a Statement of Distribution Load Relief Program Payments to be updated as needed by the Authority's staff in consultation with the Department of Public Service.
- c) The Performance Payment amount paid per event is equal to the Performance Payment rate per kWh multiplied by the average hourly kWh of Load Relief provided during the event multiplied by the number of event hours.
- d) Performance Payments will not be made under this Program if the Direct Participant or Aggregator (on behalf of its customer) receives payment for energy during concurrent Load Relief hours under any other demand response program (e.g., NYISO's Day-ahead Demand Reduction Program or NYISO's Special Case Resources Program). Direct Participants or Aggregators who also participate in the Commercial System Relief Program during concurrent Load Relief hours will not receive Performance Payments under this program.
- e) If an S.C. No. 11 Customer participates in the NYISO market and receives payment for energy during concurrent Load Relief hours, Performance Payments will be made under this Program only for Load Relief in excess of the Customer's CBL, expressed in kWh

**XIII. Dynamic Load Management****C. Distribution Load Relief Program (continued):**12. Testing

- a) The Authority may require a Direct Participant or Aggregator to participate in one or more Test Events, each for a period not to exceed one hour, commencing at a time determined solely at Authority's discretion, but not between the hours of 12:00 AM and 6:00 AM.
- b) The Authority will make a payment for one hour of energy for the Load Relief achieved up to the contracted amount.
- c) For Direct Participants or Aggregators that receive Reservation Payments, results of the Test may affect the Performance Factor and Reservation Payments.

## **Exhibit D - DPS Letter of Recommendation**



## Department of Public Service

125 East Bethpage Road, Plainview, NY 11803  
[www.dps.ny.gov/longisland](http://www.dps.ny.gov/longisland)

**John B. Rhodes**  
Chair and  
Chief Executive Officer

**Thomas Congdon**  
Deputy Chair and  
Executive Deputy

**John J. Sipos**  
Acting General Counsel

**Kathleen H. Burgess**  
Secretary

May 20, 2019

Via Email and U.S. Mail

Honorable Ralph V. Suozzi, Chairman  
Board of Trustees  
Long Island Power Authority  
333 Earle Ovington Blvd.  
Uniondale, New York 11553  
[RalphSuozzi@yahoo.com](mailto:RalphSuozzi@yahoo.com)

Re: Matter No. 19-01145 - Recommendations Regarding Long Island Power  
Authority's Proposed Modifications to its Tariff for Electric Service.

Dear Chairman Suozzi:

Enclosed please find the recommendations of the New York State Department of Public Service (DPS or the Department) regarding the Long Island Power Authority's (LIPA or the Authority) proposed modifications to its Tariff for Electric Service (tariff), effective June 1, 2019. The LIPA Reform Act (LRA) authorizes the Department to make recommendations regarding the operations and terms and conditions of service provided by the Authority and its Service Provider.<sup>1</sup> The Department recommends adoption of the Authority's proposals as proposed.

The Authority submitted to the DPS a proposal to modify its tariff to enable incentives in support of the Utility 2.0 behind-the-meter battery storage program to be paid through the Authority's Dynamic Load Management (DLM) programs, through its existing Commercial System Relief Program (CSRP) and Distribution Load Relief Program (DLRP) tariffs.<sup>2</sup>

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<sup>1</sup> Public Service Law §3-b(3)(a).

<sup>2</sup> Matter 14-01299, *In the Matter of PSEG-LI Utility 2.0 Long Range Plan*, PSEG LI - Utility 2.0 2018 Annual Update (filed June 29, 2018), p. 99. See also, Matter 14-01299, *Recommendations Regarding PSEG Long Island's Annual Update to the Utility 2.0 Long Range Plan* (issued November 1, 2018), p. 15.



LIPA's proposed modifications will expand CSRP and DLRP eligibility to include new battery storage equipment interconnected with the Authority's system after March 1, 2019. The expanded eligibility includes both standalone systems and hybrid systems paired with an eligible Net Energy Metering Technology.

In addition, new qualifying battery storage projects will be eligible to receive reservation payments,<sup>3</sup> available under the CSRP and DLRP tariffs, in effect at the time of their interconnection for a period of ten years, to promote market stability and provide additional price certainty to spur the upfront investment needed for the installation of battery storage projects.

The CSRP and DLRP will also include a new customer baseline (CBL) methodology called the "10-day weather adjusted CBL." The purpose of the new methodology is to improve the accuracy of load relief verification for customers with distributed generation and will be used to verify the load relief of participating customers who are enrolled in net metering or the Value of Distributed Energy Resources (VDER) program. The new methodology will be optional for other participating customers, who may select it as an alternative to the existing methodologies.

Net metering and VDER customers will also be allowed to participate in the CSRP and DLRP programs. LIPA stated that this modification was requested by its stakeholders and was recently enabled by LIPA and PSEG LI's improvements in their load relief verification methodology developed in connection with this proposal. Until now, net metering and VDER customers were ineligible for participation in the CSRP and DLRP because their performance under the programs could not be adequately verified with the existing methodologies. LIPA concluded that the intended value to be compensated under the DLM programs is the change in the customer's net load in response to a called event. Under the existing methodology, a customer who discharges its battery every day to manage the customer's billing demand charges could also receive DLM payments, which is not the intended purpose of demand response. Demand Response is provided by a customer taking an action it otherwise would not, or alternatively not taking an action it otherwise would, in response to utility calls on high demand days. If a customer response to an event call does not constitute a deviation from its normal operations, the customer is not providing Demand Response. Staff agrees with LIPA that comparing the net load during called event hours to the net load during non-event hours, as is proposed, reflects the incremental behavioral change on the day of a DLM event. Payment for DLM participation, when no measurable change in baseline load occurs, constitutes an unnecessary incentive for an already incentivized benefit, which is the daily reduction in peak demand charges and avoided demand payments under DLM.

LIPA currently calls planned events under the CSRP Tariff when the Authority's day-ahead forecasted load level exceeds 92% of the forecasted summer system-wide peak. The Authority proposes to raise this threshold to 94% to limit the calling of events that do not contribute to lowering the system-wide peak. Staff supports the Authority's

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<sup>3</sup> Reservation payments are incentive payments that encourage program participation.

proposal to increase the threshold. Increasing the threshold will reduce participant fatigue, which occurs when participants are called upon too often to respond effectively to an event call. The proposed increase in the threshold is more conducive for effective program participation. DPS and LIPA received comments submitted by Advanced Energy Management Alliance (AEMA), an alliance of providers of distributed energy resources. Increasing the threshold from 92% to 94% is in accord with AEMA's comments.

LIPA initially proposed increasing the test event period from one hour to two hours to improve the accuracy of load relief verification, however, based on discussions with Staff, and the comments received by the AEMA regarding this change, LIPA stated it will maintain the existing one hour test. Increasing the test from one to two hours may disadvantage program participants without energy storage equipment, therefore the one hour period is more appropriate.

In response to the new 10-day weather CBL methodology that LIPA proposes, AEMA recommended two options in its comments, both of which require metering the output of the storage battery. Sub-metering of the battery, however, has been previously addressed by the Public Service Commission (Commission) and determined to conflict with DLM principles. The Commission stated:

Allowing performance to be based on submetering will conflict with the existing DLM program rules that require flexible baseline readings and is rejected. Basing performance on baseline load data is the most common method used for this purpose, and it ensures that ratepayers only pay for concrete reductions in load under the program parameters.<sup>4</sup>

In accord with the above, Staff supports LIPA's proposed methodology as consistent with Commission policy.

In addition, LIPA proposes that qualifying battery storage equipment be given the option to lock-in payment rates for ten years to promote market stability and price certainty. The Commission acknowledged that energy storage resources are required to be offered a multi-year guaranteed incentive payment.<sup>5</sup> In its comments, AEMA requested that all CSRP and DLRP participants also be given the 10-year lock-in option. While Commission policy favors at least a three to five year lock-in period pertaining to only energy storage equipment, the Commission also recognized that a longer period can be adopted based on the specific utility circumstances for the 2020 Summer capability period and thereafter.<sup>6</sup> While Staff, therefore, favors a three to five year period, LIPA's proposal to adopt a lock-in option of ten years is consistent with the Commission's recommendations regarding guaranteed incentive payments for energy storage equipment.

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<sup>4</sup> Case 18-E-0130, In the Matter of Energy Storage Deployment Program, Order Establishing Energy Storage Goal and Deployment Policy (issued December 13, 2018), p. 34

<sup>5</sup> Id., pp. 32-33.

<sup>6</sup> Id.

Based upon the Department's review, LIPA's Tariff modifications are consistent with Commission policy concerning behind the meter energy storage projects. These modifications will allow net metering and VDER customers to participate in the CSRP and DLRP programs and this also reflects the interests of LIPA's stakeholders. In addition, raising the day-ahead forecasted load threshold level from 92% to 94% will reduce of the number of called events that do not contribute to lowering the system-wide peak and will, accordingly, further the objectives of the DLM program.

The Department recommends adoption of these tariff modifications by the LIPA Board of Trustees as proposed.

Respectfully submitted

A handwritten signature in black ink, appearing to read "John Rhodes".

John Rhodes  
Chair

CC: Thomas Falcone, LIPA Chief Executive Officer  
Anna Chacko, LIPA General Counsel Secretary  
Daniel Eichorn, PSEG LI President and Chief Operating Officer  
Guy Mazza, DPS LI Director