

## Program Guidelines for ConnectedSolutions Battery Program

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## Summary

**Connected**Solutions incentivizes customers to curtail their energy when demand on the New York electric grid is forecasted to be at its peak, known as Demand Response. Customers are compensated on a pay-for-performance basis for the average kW they curtail when dispatched in Demand Response events over the summer season.

A summary of the program is given in the table below:

Performance Incentive	\$50/kW-summer
Discharge Events per Season	Up to 60
Months Discharge Events Can Occur	May through September
Time Discharge Events Can Occur	2pm to 10pm

## Participation Through an Approved Inverter Manufacturer

To participate in the program, the customer needs to have a battery storage system controlled by an approved inverter manufacturer. The approved inverter manufacturers are:

- Canadian Solar
- Enphase
- SolarEdge
- Fortress Power
- Franklin WH
- Qcells
- Tesla

The battery integrators are responsible for communicating the need for demand response events and sending the customer's battery storage systems discharge rate and state-of-charge to National Grid. During a demand response event, the battery will be remotely discharged without the customer's active participation. The discharge will be barely noticeable, if at all, by customers.

## Incentive Payment Process

Incentive payments for summer performance will be made after the conclusion of each summer season. Some installers or other parties may offer their customers an upfront discount on the customer battery system in exchange for the customer electing to send that party their seasonal performance incentives. Such negotiations are solely between the customer and their installer or other party.

## Number of Events

Events will be called when system or local conditions require load reduction as determined by National Grid. The number of events called may vary year-to-year depending on weather and system conditions. National Grid will never call more than 60 events in a summer season.



### Eligibility Requirements

- The customer must have a National Grid electric service account in New York, where the demand response savings will be achieved. Eligible Customers must be served only at primary and secondary voltage levels under Service Classification Nos. 1, 1C, 2, 3, 3A, 4, 7, or 12.
- To export to the grid, participants must have an interconnection agreement.
- The battery storage system must be considered a behind-the-meter (BTM) asset. BTM means a facility that serves an on-site load other than parasitic load or station load utilized to operate the facility.

### Unsubscribing from the Program

Customers who enroll in the **ConnectedSolutions** program will remain in the program year over year until they provide written notice to their inverter manufacturer or National Grid that they would like to be removed from the program. If a customer is removed from the program during an a season they become ineligible to receive the incentive for that season. A customer cannot unenroll part way through a season and receive the performance incentive for fewer events than all the other program participants.

### No Transfer of Enrollment

Enrollment in **ConnectedSolutions** cannot be transferred from one customer to another. If a customer moves out of their residence/facility, and the new occupant would like to participate in **ConnectedSolutions**, they must submit a customer application and participate at the incentive rate offered at that time.

### Notification of Demand Response Events

Notification of discharge events will be sent directly to the customer's inverter which controls their battery storage system. The customer does not need to take any action for their battery system to respond to a discharge event.

### Battery System Maintenance, Internet Connection, and Durability

Customers, their inverter manufacturer or installer are responsible for maintaining the enrolled battery storage system so that it can respond to dispatch events. The incentives in this program are calculated using the actual performance (as average kW over the duration of all dispatch events) of the customer's battery system. If a battery system is not properly maintained, the internet connection to the battery system is not maintained, or any other aspect that would impact the battery system's ability to discharge or be otherwise unable to properly report performance, the incentive amount could be affected. Battery systems do degrade over time, causing them to be able to discharge less power and/or energy. This will also affect the incentive amount. Customers and their inverter manufacturer or installer should consider the possibility of smaller than anticipated incentive due to poor performance of their battery systems before enrolling in the **ConnectedSolutions** program.

### Length and Time of Demand Response Events

Discharge events can last up to 4 hours. All events happen between 2pm and 10pm.



### Days for Demand Response Events

Discharge events are called on weekends or weekdays. Events will not be called on the following holidays.

Dispatch Season	Holiday	Typical Date
Summer	Memorial Day	Last Monday in May
Summer	Independence Day	July 4
Summer	Labor Day	First Monday of September

### No DR Events Before Large Storms

We realize many customers purchase energy storage systems in part for backup power during power outages. Most power outages in our region happen during the winter. National Grid will make reasonable attempts to avoid calling events if large scale storms are forecasted. National Grid cannot account for outages resulting from isolated and/or localized storms. Customers should discuss the ability to opt out of an event with their battery manufacturer in this scenario.

### Incentive Rates and Average Performance

The incentive rate for each option is shown in the table below.

Performance Incentive	\$50 per kW
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The incentive rates refer to the average curtailment amount across all events of the dispatch season.

Performance per event is equal to the average discharge rate of the battery in kW-AC over the length of the event, compared to average discharge rate on previous non-event days. For any event which occurred for which the customer was not enrolled or has an issue preventing their performance (see Demand Response Performance below), the customer's performance will be set to 0kW when calculating their seasonal performance.

Performance for an event may not be increased by curtailing solar production to increase the battery discharge rate. For example, if the total production of the solar system and battery system is limited by the inverter size, the solar system cannot be limited during demand response events so that the battery can discharge more. Doing this would not decrease the load on the grid and would be against the goals of this program.



The table below shows the results of a fictional customer's curtailment performance over a summer that had four demand response events over the whole summer. There are typically many more events over the course of a summer season.

Event	Performed Curtailment Amount
Event 1	2 kW
Event 2	3 kW
Event 3	3 kW
Event 4	0 kW

The customer's average performance over the summer would be:

$$\frac{2kW + 3kW + 3kW + 0kW}{4} = 2.0kW$$

The total incentive amount to be paid for this fictional customer would be:

$$2 \text{ kW} \times \$50 \text{ per kW} = \$100$$

### Demand Response Performance

Performance per event is equal to the average discharge rate of the battery in kW-AC over the length of the event, compared to average discharge rate on previous non-event days. For any event which occurred for which the customer was not enrolled, the customer's performance will be set to 0kW when calculating their seasonal performance.

If a customer opts out of an event or has some communication or other issue that prevents them from discharging during an event, they will be given a 0 kW performance for that event. This will affect the customer's average performance and incentive. Approved inverter manufacturers must provide 24x7 15-minute interval, or more granular data, for the entire demand response season which performance is being calculated to receive fees or for their customers to receive performance-based incentives. This data is used to calculate performance and to evaluate the effectiveness of the baseline method.

### Co-Participation in NYISO or Other Utility Demand Resource Programs

This Program is not available to customers who participate, either directly or indirectly, through a Company, third party or NYISO, demand response program. This includes but is not limited to, the NYISO Special Case Resources ("SCR") Program (or any applicable Company program that is intended to take the place of the NYISO SCR Program), in the Company's Distribution Load Relief Program, Commercial System Relief Program, or Emergency Demand Response Program.

### Co-Participation in Net Metering

Customers may co-participate in Net Metering and **Connected**Solutions. Net Metering provides an incentive for electricity generated from renewable sources, like solar PV and wind turbines.



### **Enrollment Process**

To enroll in the program, the customer must enroll via their battery manufacturer's website or app. The customer's battery manufacturer is responsible for submitting the customer's application to National Grid and registering the inverter into the battery control platform, if any.

### **Testing**

National Grid may elect to conduct an annual test event of up to 4 hours in duration.

### **Terms and Conditions**

These program materials and participation in **Connected**Solutions are pursuant to and subject to the Terms and Conditions in effect for customer applications at the time that the application is approved by National Grid.