Program Materials for Connected Solutions for Commercial / Industrial Customers

Contents

Summary ................................................................................................................................. 2
Enrollment through a CSP and Direct Participation ............................................................ 3
Shared Savings ....................................................................................................................... 4
Annual Payment Process ..................................................................................................... 4
   For Cape Light Compact, National Grid and Unitil Customers: ...................................... 4
   For Eversource Customers: ........................................................................................... 4
Number of Events ................................................................................................................... 4
   Targeted Dispatch Summer ............................................................................................ 4
   Daily Dispatch Demonstration Summer ......................................................................... 5
   Targeted Dispatch Winter .............................................................................................. 5
Eligibility Requirements ........................................................................................................ 5
Enrollment Deadlines ........................................................................................................... 5
Withdrawal from the Program ............................................................................................. 5
Cancellation of the Program ................................................................................................. 6
Notification of Demand Response Events .......................................................................... 6
Length and Time of Demand Response Events .................................................................. 6
Days for Demand Response Events .................................................................................... 6
Performance Calculation ..................................................................................................... 6
Weekend Bonus for the Targeted Dispatch Options ............................................................ 7
Co-Participation in ISO-NE Demand Resource Programs .................................................. 8
Co-Participation in SMART ............................................................................................... 8
Exporting Power to the Electrical Grid ................................................................................ 8
   Renewable Energy Only Systems .................................................................................. 8
   Renewable Energy Plus Storage .................................................................................... 9
   Storage Only Systems ..................................................................................................... 9
Performance Calculation ..................................................................................................... 10
Shutdown reporting requirement .......................................................................................... 10
Targeted Dispatch Summer and Targeted Dispatch Winter ..................................................... 10
   Baseline: ......................................................................................................................... 10
   Baseline Adjustment: ........................................................................................................ 11
   Demand Response Performance ..................................................................................... 11
   Curtailment Limit: ........................................................................................................... 12
Daily Dispatch Demonstration Summer ............................................................................... 12
Customer Interval Data ...................................................................................................... 13
   For Cape Light Compact Customers ............................................................................... 13
   For National Grid Customers: ......................................................................................... 13
   For Eversource Customers: ............................................................................................ 13
   For Unitil Customers: ...................................................................................................... 13
On-Site Generation ............................................................................................................. 13
For Cape Light Compact customers: .................................................................................... 13
For Unitil Customers: .......................................................................................................... 14
Enrollment Process ............................................................................................................. 14
Testing ................................................................................................................................. 14
Summary
The ConnectedSolutions Active Demand Response Program incentivizes commercial and industrial customers of the Massachusetts Program Administrators (Cape Light Compact, Eversource, National Grid, and Unitil) (“PAs”) to curtail their energy when the grid is forecasted to be at its peak. Customer and their curtailment service provider are compensated on a pay-for-performance basis for every average kW they curtail.

The ConnectedSolutions Program offers customers 3 options to participate:

• Targeted Dispatch Summer option aims to reduce the load on the electrical grid at the one peak hour of the year.
• Daily Dispatch Demonstration option aims to reduce the one peak hour of the year, and daily peaks in July and August.
• Targeted Winter Dispatch option aims to reduce load during up to five peak days in the winter.

A summary of each option, by PA, are shown in the tables below.

<table>
<thead>
<tr>
<th>Cape Light Compact, National Grid, and Unitil</th>
<th>Summer</th>
<th>Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Targeted Dispatch Summer¹</td>
<td>Daily Dispatch Demonstration Summer²</td>
<td>Targeted Dispatch Winter³</td>
</tr>
<tr>
<td>Number of Events per Season</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 to 8 per Summer</td>
<td>30 to 60 per Summer</td>
<td>Up to 5 per Winter</td>
</tr>
<tr>
<td>Incentive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$35/kW-Summer</td>
<td>$200/kW-Summer</td>
<td>$25/kW-Winter</td>
</tr>
<tr>
<td>+10/kW-Summer Weekend Bonus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incentive Lock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>5 Years</td>
<td>None</td>
</tr>
<tr>
<td>Length of Events</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Hours</td>
<td>2 to 3 Hours</td>
<td>3 Hours</td>
</tr>
<tr>
<td>Time of Day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 2pm and 7pm</td>
<td>Between 2pm and 7pm</td>
<td>TBD</td>
</tr>
<tr>
<td>Weekend/Weekday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mon. – Friday Only With a Weekend Bonus</td>
<td>Any Day</td>
<td>Mon. – Friday Only</td>
</tr>
<tr>
<td>Events on Holidays</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Day-Ahead Notification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June – September</td>
<td>June – September</td>
<td>December – March</td>
</tr>
</tbody>
</table>

¹ For Cape Light Compact Customers, add $65/kW-summer (total $100/kW-summer) to the Targeted Dispatch Summer incentive when curtailing with electrochemical battery storage such as a lithium ion or redux battery.
² Not applicable to Cape Light Compact or Unitil customers
³ For Cape Light Compact Customers, add $25/kW-Winter (total $50/kW-winter) to the Winter Dispatch incentive when curtailing with electrochemical battery storage such as a lithium ion or redux battery.
Customers will be notified the day before the event.

**Enrollment through a CSP and Direct Participation**

Typically, customers enroll through an approved Curtailment Service Provider (CSP). The approved CSPs for each PA are listed below. CSPs provide many services that make it easier for customers to maximize their curtailment performance and incentive. However, enrolling through an approved CSP is not a requirement of the program. Customers may use any CSP they chose, or not use a CSP at all. “Direct Participation” refers to a customer enrolling without a CSP.

### CSPs

<table>
<thead>
<tr>
<th>CSP</th>
<th>National Grid</th>
<th>Eversource</th>
<th>Cape Light Compact</th>
<th>Unitil</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPower</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Enel-X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>IPKeys</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

### For Eversource and Cape Light Compact Customers

If a customer enrolls through a CSP, the customer will benefit from the integration between the CSP and the PA. This integration will provide PAs with on-site telemetry and automatic scheduling, which will ease the settlement of performance and consequent payment of incentives.

---

4 Incentive lock is not available for demonstration programs

5 Electrochemical rechargeable batteries where electrical output can be discreetly measured at the device

6 Rechargeable thermal batteries where a specific substrate is thermally charged
Direct Participants will have to provide interval meter data and report on event participation during the season, and should expect settlement of performance to be done no less than 4 months after the season ends. The PAs will share an event communication protocol with the Direct Participants. PAs will not be responsible if the Customers don’t receive or act upon an event notification or if a customer doesn’t follow the event communication protocol.

Shared Savings
Typically, customers share the incentive with CSPs. This is a common practice in other demand response programs, such as ISO-NE’s programs. How or if the incentive is split between the customer and the CSP is up to the customer and the CSP. The PA does not require or reject how or if the incentives are split. Direct Participants will receive the full incentive amount directly.

Annual Payment Process
Incentive payments for the summer programs, Targeted Dispatch Summer and Daily Dispatch Demonstration Summer, will be made after the Season ends. Incentive payments for the Summer options will be paid before the end of the year, and incentive payments for Targeted Dispatch Winter option will be made before the end of the following Spring.

For Cape Light Compact, National Grid and Unitil Customers:
If a customer enrolls through a CSP, the customer’s seasonal performance incentive will be sent directly to that CSP at the end of the season. This allows the CSP to remove their shared savings portion of the customer incentive and pass the remainder through to the customer. This is also common practice for customers who participate in ISO-NE’s demand resource programs through a CSP.

If a customer does not enroll through a CSP, the full incentive will be paid directly to the customer. Please mark NONE (DIRECT PARTICIPANT) on the customer application and provide the customer tax ID number, company type, and who the check should be made out to.

For Eversource Customers:
Customers will be able to elect their payment option when applying for the program. The 3 options available include:

1. Payment to their CSP vendor. This allows the CSP to remove their shared savings portion of the customer incentive before the customer gets paid. This is also common practice for customers who participate in ISO-NE’s demand resource programs through a CSP.
2. Payment to the customer only. This will be typical for direct participants.
3. Split payment to customer and vendor. The customer portion of the incentive will be paid directly to the customer, and the CSP portion will be paid directly to the CSPs, based on the PERCENTAGE OF INCENTIVE value entered in the customer application.

Number of Events
Targeted Dispatch Summer
Although the intent of this program is to decrease electricity use at the one ISO-NE peak hour of the year, more than one event will be called per summer due to uncertainty in forecasting when the peak hour will be. We will limit the number of events as best as our forecasting allows. As such, the PAs may call events when the system load is particularly high, for example, during a heat wave. We will never call more than 8 events in a summer.

**Daily Dispatch Demonstration Summer**

The goal of Daily Dispatch Demonstration is to not only hit the ISO-NE peak hour, but also the highest daily peaks in July and August. Events will only be called in June and September if the annual peak is forecasted to be in those months. Events will be called in July and August to try to hit the highest 40 peak hours. We will never call more than 60 events in a summer.

**Targeted Dispatch Winter**

The goal of Winter Dispatch is to hit the top 5 peak hours between December 1 each year and March 31 of the following year. We will never call more than 5 events in a winter.

**Eligibility Requirements**

To be eligible for this program, the customer must have a National Grid, Eversource, or Unitil electric service account in Massachusetts where the demand response savings will be implemented. The customer must also pay into the energy efficiency fund on their electric bill. Most electric customers pay into the energy efficiency fund. Customers whose National Grid, Eversource, or Unitil electric service monthly bill has a line for “Energy Efficiency Prgms” and pay into this line item of the course of a year are eligible for this program. Front of the meter assets such as power plants or solar farms are not eligible for this program.

**Enrollment Deadlines**

To participate in that summer’s program, a customer should enroll in Targeted Dispatch Summer or Daily Dispatch Demonstration Summer by 11:59 p.m. on May 31 of that year. Eversource and Cape Light Compact customers may enroll later than May 31st, but for settlement purposes, any event called before the enrollment date will still count towards settlement of performance and will be included in the Customers’ performance calculations as a nonperformance event.

To participate in the Targeted Dispatch Winter’s option, a customer should enroll by 11:59 p.m. on November 30 of that year. Eversource and Cape Light Compact customers may enroll later than November 30th, but for settlement purposes, any event called before the enrollment date will count towards settlement of performance and will be included in the Customers’ performance calculations as a nonperformance event.

**Withdrawal from the Program**

Customers who enroll in the Connected Solutions program will remain in the program year to year until they provide written notice to their CSP or program administrator that they would like to be removed from the program. Once a season (summer or winter) starts the customer must stay enrolled for the entire season to receive the incentive. A customer cannot unenroll part way through a season and receive the performance incentive for fewer events than all the other program participants.
Cancellation of the Program
Due to regulatory or other reasons, the program administrators or individual program administrators (Cape Light Compact, National Grid, Eversource, and/or Unitil) may cancel their Connected Solutions Program or subsets of their program at any time.

Notification of Demand Response Events
Notification of demand response events will be given at 1pm the day before the event. For customers who sign up through a pre-approved CSP, these notifications will be sent to the customer’s CSP. The CSP is then responsible for notifying the customers. Notification emails will be sent directly to Direct Participants using the email address given in the customer’s application.

Typically, CSPs offer a variety of ways of notifying customers of events. These can include email, voicemail, phone call, text message, and/or machine-to-machine communication. Customers and CSPs are responsible for implementing the necessary communications so that customers are notified of events.

Length and Time of Demand Response Events
Targeted Dispatch Summer and Targeted Dispatch Winter events last 3 hours. Daily Dispatch Demonstration Summer events can last 2 or 3 hours. All events happen between 2pm and 7pm, and all events start and end at the beginning of the hour (i.e. 2pm, 3pm, or 4pm).

Days for Demand Response Events
Targeted Dispatch Summer program events are generally called on weekdays. However, there is a Weekend Bonus available for customers who curtail if an event is called on a weekend. Please see the Weekend Bonus section below. The Targeted Dispatch Winter option is only called on weekdays. The Daily Dispatch Demonstration Summer events are called on both weekdays and weekends and can be called on holidays. Targeted Dispatch Summer and Targeted Dispatch Winter events will not be called on the following holidays.

<table>
<thead>
<tr>
<th>Dispatch Season</th>
<th>Holiday</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter</td>
<td>New Year’s Day</td>
<td>January 1</td>
</tr>
<tr>
<td>Winter</td>
<td>Birthday of Martin Luther King Jr.</td>
<td>January 21</td>
</tr>
<tr>
<td>Winter</td>
<td>Birthday of George Washington (President’s Day)</td>
<td>February 18</td>
</tr>
<tr>
<td>Summer</td>
<td>Independence Day</td>
<td>July 4</td>
</tr>
<tr>
<td>Summer</td>
<td>Labor Day</td>
<td>First Monday of September</td>
</tr>
<tr>
<td>Winter</td>
<td>Christmas Day</td>
<td>December 25</td>
</tr>
</tbody>
</table>

Demand response events can be called for a Monday. In this case the event notification will still be given the day before the event, Sunday, which is a weekend day.

Performance Calculation
The incentive rates refer to the average curtailment amount across every event of the demand response season. If a customer chooses not to participate in an event, the baseline method and performance calculation will be done as if the customer had participated. This would likely result in a low calculated performance for that event, which would lower the customers average performance for the season and lower the incentive for the season.
Performance for an event may not be increased by curtailing solar or CHP production to increase a battery’s 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.

For example, the table below shows the results of a fictional customer’s curtailment performance over a Targeted Dispatch Summer season that had 3 demand response events over the whole summer.

<table>
<thead>
<tr>
<th>Event</th>
<th>Performed Curtailment Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event 1</td>
<td>100 kW</td>
</tr>
<tr>
<td>Event 2</td>
<td>200 kW</td>
</tr>
<tr>
<td>Event 3</td>
<td>300 kW</td>
</tr>
</tbody>
</table>

The customers average performance over the summer would be:

\[
Average\ Performance = \frac{100 \text{ kW} + 200 \text{ kW} + 300 \text{ kW}}{3} = 200 \text{ kW}
\]

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

\[
200 \text{ kW} \cdot \frac{\$35}{\text{kW}} = \$7,000
\]

The average performance for Daily Dispatch Demonstration Summer and Targeted Dispatch Winter would be calculated by the same process.

**Weekend Bonus for the Targeted Dispatch Options**

Although it is rare, weekend events may be called in the Targeted Dispatch program. If a weekend event is called in a summer, customer will be paid an additional $10/kW-performed incentive for their average performance over all weekend events for the summer. This incentive is in addition to the $35/kW-performed incentive paid for weekday performance. A customer performance on a weekend will not impact their weekday performance calculation or vice versa.

For example, for a hypothetical summer in which there are 2 weekend events and 2 weekday events a customer who curtails 100kW for each event would be paid the following in the Targeted Dispatch measure.

<table>
<thead>
<tr>
<th>Day Type</th>
<th>Incentive Rate</th>
<th>Incentive for a customer with a 100kW Performance for All Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday Standard Measure</td>
<td>$35/kW</td>
<td>100kW \cdot \frac{$35}{kW} = $3,500</td>
</tr>
<tr>
<td>Weekend Bonus</td>
<td>$10/kW</td>
<td>100kW \cdot \frac{$10}{kW} = $1,000</td>
</tr>
<tr>
<td>Total Incentive for the Summer</td>
<td></td>
<td>$4,500</td>
</tr>
</tbody>
</table>
The Weekend Bonus will use the same performance calculation as the rest of the Targeted Dispatch. However, the baseline will use the last 5 similar days instead of the last 10. Please see the Performance Calculation section below for more details.

Co-Participation in ISO-NE Demand Resource Programs
Customers may co-participate in ISO-NE Demand Resource Programs and Connected Solutions. It is possible that a Connected Solutions demand response event could fall within the 10-day baseline period used by ISO-NE. In this case the customer’s baseline may be eroded by participating on the Connected Solutions event. Customers and their CSP should consider this risk before enrolling in Connected Solutions.

Although rare, it is possible that both Connected Solutions and ISO-NE will call on a customer to curtail on the same day. This will not affect how the customer performance is calculated in the Connected Solutions program. If the Connected Solutions event starts before the ISO-NE event, it may decrease the same-day-adjustment calculated by ISO-NE. Customers and their CSP should consider this risk before enrolling in Connected Solutions.

If demand response assets are called by ISO-NE because of real-time market prices exceeding $950/MWh at any time during a day or an ISO-NE OP4 event is called during the baseline period of a Connected Solutions event, this day will not be counted in the baseline. Please see the Baseline section below.

One of the benefits of the Connected Solutions program is the decrease in the long-term installed capacity requirement (generation) in the ISO-NE markets, also known as the installed capacity requirement (ICR). Customers are not allowed to co-participate in Connected Solutions and any ISO-NE program that would cause the customer’s curtailment in the Connected Solutions program to be reconstituted in the ICR, because this would negate one of the core goals of Connected Solutions.

Co-Participation in SMART
Customers may co-participate in SMART (Solar Massachusetts Renewable Target) Program and Connected Solutions. SMART provides an energy storage adder for applicable technologies.

The energy storage system adder in the SMART program is dependent on the customer completing 52 full discharge cycles of their energy storage system per year.

Exporting Power to the Electrical Grid

Renewable Energy Only Systems

Customers with interconnected renewable energy systems, such as solar PV and wind turbines, may participate in Connected Solutions. Renewable energy systems, especially solar PV, provide somewhat predictable performance. Curtailment performance of customers with renewable energy systems will be calculated like every other program participant. When a customer’s interconnected renewable energy system produces more electricity than the customer’s facility, that excess electricity is sent, exported, to
the electrical grid. If the customer is already exporting power to the grid during a demand response event, the customer can still participate in Connected Solutions by reducing the facility electrical load during events so that even more power is sent to the grid. The baseline methods used in this program will compensate the customer for this facility’s curtailment.

**Renewable Energy Plus Storage**

Customers with interconnected renewable energy systems, such as solar PV and wind turbines, and energy storage systems, like batteries, may participate in Connected Solutions. The SMART Program and the federal investment tax credit (ITC), also known as the federal solar tax credit, provide added incentives for energy storage systems that are charged by renewable energy systems. Before exporting power to the grid, customers must go through the interconnection process. Participation in the Connected Solutions program does not alter a customer interconnection service agreement (ISA).

**Storage Only Systems**

Customers who don’t have a renewable energy system but do have an energy storage system may participate in Connected Solutions. Before exporting power to the grid, customers must go through the interconnection process. Participation in the Connected Solutions program does not alter a customer interconnection service agreement (ISA).


There are several financial benefits of charging energy storage systems with renewable energy systems. The SMART program energy storage system adder requires that energy storage systems be charged by a solar system. The ITC also has requirements around charging from applicable renewable energy systems.

Energy storage systems that participate in Daily Dispatch Demonstration have the option of sending state-of-charge information to the customer’s program administrator so that the customer’s energy storage system can be monitored. The customer’s program administrator will not call on an energy storage system for up to 5 demand response events per summer if the state-of-charge is less than 90%. After the 5 demand response events, the customer’s energy storage system will be called for all Daily Dispatch Demonstration Summer demand response events. If the energy storage system is not fully charged, this may impact the customer’s average performance. It is the customer’s responsibility to size their renewable energy system and energy storage system so that the energy storage system can be recharged in time to participate in Connected Solutions. This includes accounting for cloudy days for solar PV and windless days for wind turbines.

Customers must coordinate how the discharge rate and state-of-charge information from their energy storage systems will be monitored and transmitted to their program administrator on a case-by-case basis. After these methods are developed, they may be added to the Program Materials to be used on a prescriptive basis.
**Performance Calculation**

**Shutdown reporting requirement**

Customers or their CSP must inform their program administrator of a planned facility shutdown with a week’s notice. This is typically done for maintenance. There is a limit of 10 shutdown days per season.

**Targeted Dispatch Summer and Targeted Dispatch Winter**

Performance in Target Dispatch Summer and Targeted Dispatch Winter is calculated using a “last 10-of-10 baseline model” with a same-day adjustment.

Customers in this program will never be charged a fee for poor performance. However, since this is a pay-for-performance program, poor performance on any or all events will decrease the incentive amount paid. Not participating on an event may count as a zero for that event in the customer’s seasonal average performance calculation.

**Baseline:**

To calculate a customer’s performance during a demand response event, it is necessary to calculate what a customer’s typical power use is in order to estimate what the power use would have been if no demand response event was called.

ISO-NE uses a similar last 10-of-10 model in their active demand response programs. This method looks at the customer’s last 10 similar days. Similar days are of the same day type (weekday or weekend) that are not holidays and where no other DR event from either ISO-NE (OP4) or the program administrators was called. Days where a customer has a scheduled shutdown are not considered similar days. For shutdown days to be excluded from the baseline calculations, customer’s or their CSP must inform their program administrator of the shutdown with a week’s notice. There is a limit of 10 shutdown days per season.

**Example of baseline set by loads in the 10 similar days before a DR event**

<table>
<thead>
<tr>
<th>Time Interval</th>
<th>10 similar days before event</th>
<th>2 similar days before event</th>
<th>holiday</th>
<th>weekend</th>
<th>weekend</th>
<th>Day of another DR event</th>
<th>1 similar day before event</th>
<th>Customer’s Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noon – 1pm</td>
<td>500kW</td>
<td>...</td>
<td>500kW</td>
<td>Not counted in average</td>
<td>500kW</td>
<td>500kW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2pm – 5pm</td>
<td>500kW</td>
<td>...</td>
<td>500kW</td>
<td>500kW</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Weekend bonus uses the same procedure but only looks back at the last 5 similar days instead of 10.
For Eversource and Cape Light Compact customers

Battery\(^2\) performance is measured at the asset level, and there is no need for a baseline. For Eversource thermal\(^6\) storage participants, all equipment connected to the thermal unit (f.e.g. compressor, fans, HVAC, etc.) needs to be measured at the asset level. In this case, the baseline is calculated using a regression method over non-event hours. If the customer is enrolled in generic targeted dispatch also, the thermal component is evaluated using a regression adjusted method over all non-event days. Please email connectedsolutions@eversource.com for detailed information.

**Baseline Adjustment:**
Demand response events are called during extreme weather (very hot or cold). The day of the event may be hotter/colder than the last 10 similar days, and the customers load may be higher that day. To account for this, the baseline is adjusted to reflect to customers load during the demand response event day. This is called the baseline adjustment. The baseline adjustment is the difference between the customer’s average load during the hour starting 2 hours before the event start and the load during the event day. However, the customer’s load may be lower during an event day than the last 10 similar days because the customer is responding to the demand response event. Therefore, the adjustment can only be positive. It will never penalize the customer.

Example of a same day baseline adjustment.

<table>
<thead>
<tr>
<th>Time Interval</th>
<th>Customer’s Baseline</th>
<th>Event Day Load</th>
<th>Baseline Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noon – 1pm</td>
<td>500kW</td>
<td>600kW</td>
<td>100kW</td>
</tr>
</tbody>
</table>

Another example of a same day baseline adjustment.

<table>
<thead>
<tr>
<th>Time Interval</th>
<th>Customer’s Baseline</th>
<th>Event Day Load</th>
<th>Baseline Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noon – 1pm</td>
<td>500kW</td>
<td>400kW</td>
<td>0 kW (not negative)</td>
</tr>
</tbody>
</table>

**Demand Response Performance**
Performance is calculated by subtracting the event day load during the demand response event from the sum of the customer’s baseline and baseline adjustment.

Example of an event day performance:

<table>
<thead>
<tr>
<th>Time Interval</th>
<th>Customer’s Baseline</th>
<th>Event Day Load</th>
<th>Baseline Adjustment</th>
<th>Event Day Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noon – 1pm</td>
<td>500kW</td>
<td>600kW</td>
<td>100kW</td>
<td>Performance = Baseline + Adjustment – Event Day</td>
</tr>
<tr>
<td>2pm – 5pm</td>
<td>500kW</td>
<td>400kW</td>
<td></td>
<td>500kW + 100kW – 400kW = 200kW</td>
</tr>
</tbody>
</table>

If the customer produces more energy than they consume during the baseline period or the event day through permitted and interconnect onsite generation or discharging energy storage, the net energy use will be used to calculate the customers performance in the same process detailed above.
Curtailment Limit:

Although it is rare, sometime the baseline adjustment causes the baseline to be adjusted to a level higher than the customer ever uses. A customer cannot curtail more load than they use. To prevent this, the Event Day Performance must be smaller than the maximum load of the customer during the last 10 similar days. Performance for an individual demand response event is calculated by subtracting the customer’s adjusted baseline power from average power (kW) use during the demand response event.

For example:

<table>
<thead>
<tr>
<th>Time</th>
<th>Customer’s Adjusted Baseline</th>
<th>Customer’s Power Use During the DR Event</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2pm to 3pm</td>
<td>500kW</td>
<td>400kW</td>
<td>100kW</td>
</tr>
<tr>
<td>3pm to 4pm</td>
<td>500kW</td>
<td>400kW</td>
<td>100kW</td>
</tr>
<tr>
<td>5pm to 6pm</td>
<td>500kW</td>
<td>400kW</td>
<td>100kW</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average Performance for Event</td>
<td>100kW</td>
</tr>
</tbody>
</table>

The Customer’s Adjusted Baseline is calculated by taking the customer’s average power use during the demand response event hours and adding the baseline adjustment. Performance during the demand response event is the average Customer’s Adjusted Baseline minus the Customer’s Power Use During the DR Event, over the whole event.

Negative performance is not penalized, for example:

<table>
<thead>
<tr>
<th>Time</th>
<th>Customer’s Adjusted Baseline</th>
<th>Customer’s Power Use During the DR Event</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2pm to 3pm</td>
<td>300kW</td>
<td>400kW</td>
<td>-100kW → 0</td>
</tr>
<tr>
<td>3pm to 4pm</td>
<td>500kW</td>
<td>400kW</td>
<td>100kW</td>
</tr>
<tr>
<td>5pm to 6pm</td>
<td>500kW</td>
<td>400kW</td>
<td>100kW</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average Performance for Event</td>
<td>(0 + 100 + 100)/3 = 67kW</td>
</tr>
</tbody>
</table>

Daily Dispatch Demonstration Summer

In the case of energy storage devices such as batteries, generators, and co-generation, the average performance during a demand response event is the average discharge from the device during the event. No same day adjustment is applied.

In the case of thermal storage or other curtailment methods enrolled in Daily Dispatch Demonstration Summer, a custom baseline method must be applied. This can be done using the same last-10-of-10 baseline method explained above, or another method if there are extenuating circumstances why a last-10-of-10 baseline would not be accurate. The baseline methodology for Eversource customers is described in the Baselines sections. For Eversource customers, please contact connectedsolutions@eversource.com for more information.
Customer Interval Data

With the exception of Storage for Eversource and Cape Light Compact customers, as described above, the interval data to be used to measure a customer performance in Targeted Dispatch Summer and Targeted Dispatch Winter must be measured at the utility meter.

For Cape Light Compact Customers

All participants are required to install metering capable of sending real time interval data to Cape Light Compact. Cape Light Compact may waive this requirement at its sole discretion.

For National Grid Customers:

In most cases, the customer already has a utility interval meter that records and transmits the information needed to complete the performance calculations. If this is the case, no other metering is required to participate in the program. All G-3 customers have this interval meter. Customers who do not have an interval utility meter may also participate in the program. The customer or the CSP must install a meter to measure the customer electrical load in at least 15-minute intervals for the entire demand response season. This data must be shared with the customer’s program administrator at the end of the season. The cost for this added metering is the responsibility of the customer or its CSP.

For Eversource Customers:

All customers are required to install metering capable of sending real time interval data to Eversource. Customers may apply for an added incentive of up to $1,500 per meter to pay for metering costs. Storage should be measured at the asset level. Refer to the Eversource application for more detail.

For Unitil Customers:

All customers are required to install metering capable of collecting interval data. Generally, Unitil will supply these types of meters. In the event these types of meters cannot be installed in a timely fashion, the CSP can supply such meters. Contact the CSP for the cost and a potential incentive from Unitil.

On-Site Generation

Some PAs allow customers to use onsite non-renewable generation for demand response. This includes backup generators, standby generators, co-generation, etc. However, in such cases, the generation asset must comply with all federal, state, and local laws and permitting required for operation and participation in demand response programs.

For Eversource customers:

Eversource may restrict the amount and/or type of generation participating in its Connected Solutions offering. Generators may be allowed to participate in targeted dispatch. Contact an approved CSP or Eversource for more information.

For Cape Light Compact customers:

Cape Light Compact may restrict the amount and/or type of generation participating in its Connected Solutions offerings. Contact an approved CSP or Cape Light Compact for more information.
For Unitil Customers:
Unitil may have some additional restrictions for on-site Generation. Contact the approved CSP or Unitil for more information.

Enrollment Process
To enroll in the program, the customer or their vendor must complete an application form. This form is available on the MassSave website here: https://www.masssave.com/en/saving/business-rebates/demand-response-and-storage and from the National Grid website here: https://www.nationalgridus.com/MA-Business/Energy-Saving-Programs/ConnectedSolutions

For Eversource customers
Customers should download the application on Eversource’s C&I website here: https://www.eversource.com/content/ema-c/business/save-money-energy/manage-energy-costs-usage/demand-response

Testing
A performance test events are not planned in this program. However, the program administrator may elect to run communication or performance tests to ensure all notification processes are functioning.