STATE OF NEW YORK
PUBLIC SERVICE COMISSION

Proceeding on Motion of the Commission to Consider Demand Response Initiatives	Case No. 09-E-0115
Petition of Consolidated Edison Company of New York, Inc. for Approval of Direct Load Control Program	Case No. 10-E-0229
Tariff Amendments to Make Various Revisions to Rider U – Distribution Load Relief Program (DLRP) in Compliance with Commission Order Issued April 8, 2009 in this Case	Case No. 08-E-1463
Tariff filing by Consolidated Edison Company of New York, Inc. to Revise its Commercial Demand Response Programs	Case No. 15-E-0570

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. REPORT ON PROGRAM PERFORMANCE AND COST EFFECTIVENESS OF DEMAND RESPONSE PROGRAMS - 2017

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1. Introduction

Consolidated Edison Company of New York, Inc. ("Con Edison" or the "Company") submits this evaluation of its Demand Response ("DR") programs pursuant to the New York State Public Service Commission's ("Commission" or "PSC") October 23, 2009 *Order Adopting in Part and Modifying in Part Con Edison's Proposed Demand Response Programs* ("October Order"). The October Order requires that the Company submit a report to the Commission by December 1 of each year assessing the DR programs approved in the October Order.[1]

The programs are the Rider T - Commercial System Relief Program ("CSRP"), Connected Devices Pilot Program ("CDP"), and Critical Peak Rebate Program ("CPRP").[2] The report also includes the Rider T – Distributed Load Relief Program ("DLRP") and the Rider L - Direct Load Control Program ("DLC" or "DLC Program").[3] The report covers the cost components and program performance associated with the Company's DR programs for the 2017 program year, January 1, 2017 through December 31, 2017.

Con Edison offers two types of DR programs, contingency and peak shaving, which focus on supporting reliability and reducing costs of operating the electric distribution system. The programs operate during the summer period of May 1 through September 30 ("Capability Period") throughout the Company service territory (New York City and Westchester) and are summarized in

[1] Case 09-E-0115, *Proceeding on Motion of the Commission to Consider Demand Response Initiatives*, Order Adopting in Part and Modifying in Part Con Edison's Proposed Demand Response Programs (issued October 23, 2009), pp. 25-26.

[2] CPRP is not discussed in this evaluation because in a subsequent order in this proceeding the Commission allowed the Company to eliminate the CPRP and to create a voluntary option in the CSRP program to accommodate existing CPRP large customer participants. *Order Adopting with Modifications Tariff Amendments Related to Demand Response Programs* (issued March 15, 2012), p. 9.

[3] The Commission directed that the DLC evaluation be included as part of the Company's evaluation of its demand response programs in Case 10-E-0229, Petition of Consolidated Edison Company of New York, Inc. for Approval of Direct Load Control Program, *Staff Recommends Approval of the Continuation of the Company's Direct Load Control Program as Described in this Memorandum – Approved as Recommended and So Ordered* (issued September 22, 2010), p. 10. While not required to do so, the Company has included DLRP in this report in order to provide the Commission with a comprehensive assessment of its demand response programs. CSRP and DLRP were previously in Rider S and Rider U respectively, but were combined into Rider T as authorized in Case 15-E-0570, *Tariff Filing by Consolidated Edison Company of New York, Inc. to revise its Commercial Demand Response Programs*, Order Approving Tariff Amendments (issued January 27, 2016).

Table 1 and Table 2.

Table 1: Contingency Programs

Program	Acronym	General Information	Incentive
Distribution Load Relief Program	**DLRP**	Activated by Con Edison in response to system critical situations (Condition Yellow or voltage reduction). Events last four or more hours. Premium paid for customers who commit load relief through the Reservation Payment Option. Customers who do not commit load relief participate through the Voluntary Option.	Customers participating through the Reservation Payment Option receive a reservation payment of $18 or $25 per kW per month pledged and performed, depending on location, and Performance Payments equal to $1 per kWh reduced. If a Reservation Payment Option customer is part of five or more events during a season it receives an additional $5 per kW per month. Customers participating through the Voluntary Option are paid only a Performance Payment equal to $3 per kWh reduced.
Direct Load Control	**DLC**	Activated by Con Edison in system critical situations. Participation limited to Con Edison residential, religious, and small business (demand less than 300 kW) customers with central air-conditioning. Allows Con Edison to remotely adjust thermostat settings. Also called for peak shaving events.	Customers enroll through a Service Provider whereby they receive an $85 enrollment payment and can receive an annual incentive payment of $25 after three years of participation. The customer is also eligible for a $25 energy efficiency rebate for the thermostat at the time of enrollment.

Table 2: Peak Shaving Programs

Program	Acronym	General Information	Incentive
Commercial System Relief Program	**CSRP**	Event activated when both day-ahead and same-day forecast is 92 percent or greater of forecasted summer system peak to relieve distribution network peak loads. A premium is paid for customers who commit load relief through the Reservation Payment Option. Customers who do not commit load relief participate through the Voluntary Option.	Customers participating through the Reservation Payment Option receive $6 or $18 per kW per month pledged and performed depending on location, and Performance Payments equal to $1 per kWh reduced. If a Reservation Payment Option customer is part of five or more events during a season it receives an additional $5 per kW-month. Voluntary Option customers receive a Performance Payment equal to $3 for each kWh reduced.
Direct Load Control	**DLC**	Event activated when a CSRP event is called to relieve system peak load. Participation limited to Con Edison residential, religious, and small business (demand less than 300 kW) customers with central air conditioning. Allows Con Edison to remotely adjust thermostat settings.	Customers enroll through a Service Provider and receive an $85 enrollment payment and can receive an annual incentive payment of $25 after three years of participation. The customer is also eligible for a $25 energy efficiency rebate for the thermostat at the time of enrollment.
Connected Devices Pilot Program [Pilot program]	**CDP**	Event activated when Commercial System Relief Program event is called to relieve system peak load. Con Edison pilots technology and program models to better manage demand from residential appliances. In 2017, this included a number of investment and delivery models for room air conditioners with a remote thermostat control and set back capability. Program was available to Con Edison residential customers with Wi-Fi and a compatible room air conditioner.	In 2017, participants earned points redeemable for gift cards. Rewards were called "Cool Points", and 1,000 points converted to $1. Points were earned for connecting eligible devices (ranging between 10,000 and 50,000 points) and participating in demand response (5,000 points per event). Additionally, returning customers earned bonus incentive of 2,500 Points and could "Refer a Friend" for 10,000 points.

The DR programs are divided by application type, contingency or peak-shaving, and by customer type. The CSRP and DLRP programs are designed for larger commercial customers who are able to achieve a pledged reduction amount through their own demand reduction strategies, but are open to smaller customers as well. The commercial programs each have a mandatory ("Reservation Payment") and a voluntary enrollment option with separate obligations and incentive rates. DLC and CDP are programs for smaller commercial and residential customers. Given that, in 2017, interval metering capability was generally restricted to larger commercial customers, the segmentation by customer type is important, as the programs require specific operational processes, equipment, communications to customers, performance evaluation, and education. This report is structured to reflect the segmentation.

Performance evaluation for each program for summer 2017 is based upon test event and actual event data for the contingency and peak-shaving programs.

2. Distribution Load Relief Program (DLRP)

DLRP is a network contingency DR program applicable to individual customers and third-party market participants ("Aggregators") who contract to reduce 50 kW or more during an event. DLRP may be called by the Company to reduce strain on local distribution networks (defined to including load areas) when contingencies or certain emergency conditions occur.

The incentive for the Reservation Payment Option is $18 per kW per month in Tier 1 networks and $25 per kW per month in Tier 2 networks. The majority of the Company's networks are Tier 1. Tier 2 networks are those identified as higher priority and in need of additional demand reduction resources. Performance Payments for Reservation Payment Option customers are $1 per kWh in both Tier 1 and Tier 2 networks. Reservation Payment Option participants can receive both Reservation Payments and Performance Payments. Voluntary participants only receive Performance Payments.

DLRP Costs

Total costs for DLRP during the 2017 program year were approximately $20,114,700, a four percent decrease from the 2016 program cost of $21,060,500.

Table 3: DLRP Cost Components for 2017 Program Year[4]

Component	Cost	Percentage
Customer Incentives	$ 19,660,500	98%
Program Administration - Con Edison	$ 56,200	<1%
Program Administration - Vendor	$ 115,500	1%
Program Marketing	$ 43,000	<1%
Technology	$ 205,600	1%
Market Research & Analytics	$ 35,900	<1%
Total Program Costs	**$ 20,116,700**	**100%**

Customer Incentives

Customer incentives in 2017 consisted of Performance and Reservation Payments paid to customers for their participation and performance during test and actual events. There were six DLRP events and one test event in 2017. Voluntary DLRP customers are not tested. Table 4 summarizes DLRP test and events called in 2017. In total, the Company paid approximately $19,660,500, or approximately 98 percent of total program costs in 2017 for DLRP customer incentives.

Program Administration – Con Edison

Other Con Edison operational costs are recovered via the monthly adjustment clause ("MAC"). The costs associated with program operation were $56,200, or less than one percent of total program costs in 2017.

Costs for the Con Edison staff salary and overhead associated with DLRP management and support are embedded in base rates, and not directly collected as part of the DLRP program costs. They are not included in the program costs presented. However, these costs are included in the TRC analysis for this program.

[4] Fourth quarter (October, November, and December) costs were estimated.

Program Administration – Vendor

Costs in this category include expenses related to operating functions performed by Con Edison vendors. More specifically, these costs include, but are not limited to third-party studies or reports. These costs totaled approximately $115,500, or approximately one percent of total program costs in 2017.

Program Marketing

The marketing component includes costs associated with Con Edison-led program marketing initiatives designed to inform and involve customers. These costs totaled approximately $43,000, or less than one percent of total program costs in 2017.

Aggregators provide the majority of program marketing to attract DR program participants. In 2017, the Company has continued its marketing efforts to provide "background" customer education on the DR concept to support the third-party sales process as well as to inform customers and Aggregators about program rules.

Technology

Costs included in this category are associated with the Demand Response Management System ("DRMS") and related product development, maintenance, and licensing. These costs totaled approximately $205,600, or approximately one percent of total program costs in 2017.

Market Research and Analytics

Costs included in this category include, but are not limited to, shared costs of market potential studies, benefit cost analysis ("BCA"), and other third-party studies or reports for department-wide use. These costs totaled $35,900, or less than one percent of total program costs in 2017.

DLRP Test and Event Performance and Network Impacts

This section focuses on two major areas: evaluation of performance and evaluation of impacts by network.

The goal of DLRP is to reduce the impact of grid contingencies by inducing customer load reductions prior to or during the time of a distribution contingency or emergency condition. The achieved performance is calculated by subtracting customer/Aggregator actual load from customer/Aggregator baseline load. The performance factor is the ratio of the achieved load reduction to the pledged load reduction.

During the 2017 Capability Period, the Company called six DLRP events for contingency reasons. In addition, Reservation Payment Option customers were required to participate in the one-hour test event in the month of July. The performance of participants during all events is assessed in this section.

Customer load reductions are measured using a Customer Baseline Load ("CBL") methodology. The CBL for the day of an event is the estimate of the customer's load level had there been no event. The difference between the CBL and the actual load is used to determine the achieved performance. Customers have the choice of selecting an Average Day or Weather Adjusted CBL depending on how they believe their load is normally affected by changes in the weather (usually heat).

Test and Event Summary

Performance of each Reservation Payment option customer is measured annually via event and/or test performance data. One test event for all networks is conducted per Capability Period. In 2017, over 99 percent of DLRP participants elected to join the mandatory Reservation Payment option over the Voluntary option. Voluntary participants represented less than one percent of 2017 DLRP enrollment and they are not tested.

The DLRP test was conducted on July 18, 2017 from 4:00 PM to 5:00 PM and included all Reservation Payment Option customers participating in DLRP program at that time.[5] The performance factor observed on the test was approximately 89 percent, which is lower than the test event performance factor of 104 percent achieved in 2016, but higher than the performance factor of 71 percent achieved in both 2014 and 2015.

Testing the entire DLRP portfolio provides the best possible insight into how customers would perform over a large sample, but the individual events can shed light on characteristics of program performance under specific conditions. The test event duration is one hour only, while performance during real events is measured for a four-hour period. The test event performance data is summarized in Table 4 and more detailed DLRP test data is included in Appendix A. The performance data shown in Table 4 is based on raw performance. This may differ from the load reductions used to calculate participant payments, which are capped at 100 percent or zero percent of individual pledged levels.

Table 4: 2017 Summary of DLRP Test & Events

Test or Event	Date	Hours	Customers Enrolled	MW Enrolled	MW Reduction Achieved	Performance Factor Achieved	Network or Zone
Event	6/12/17	3 PM – 9 PM	11	1.39	1.38	99%	Williamsburg
Event	6/12/17	3 PM – 9 PM	2	0.71	0.92	130%	Prospect Park
Event	6/13/17	3 PM – 9 PM	11	1.39	1.41	100%	Williamsburg
Event	6/13/17	3 PM – 9 PM	2	0.71	0.60	85%	Prospect Park
Event	6/19/17	4 PM – 10 PM	11	1.39	0.22	16%	Williamsburg
Event	6/19/17	4 PM – 10 PM	2	0.71	0.89	125%	Prospect Park
Test[5]	7/18/17	4 PM – 5 PM	1115	265	237	89%	All

In addition to the test event, there were six DLRP events called across two networks in Brooklyn during the month of June. The events were called for contingency reasons. The number of events in 2017 is significantly lower than 2016, when DLRP was called 27 times.

DLRP event performance is less predictable and consistent than test performance, since each event involves smaller subsets of customers in different situations (locations and call windows). In addition, performance for the test is based on a one-hour period, while during events performance is based on a four-hour window. Performance during events can be very heavily swayed by the particular subset of participants and their relative MW pledged in the

[5] Test event for most participants took place on 7/18/17. Due to a communication error, a small subset of customers participated in a test event on 7/31/2017 instead. Results from both tests are reported together.

event. Networks with a large portion of their total pledged reduction enrolled by a few customers can have their overall performance significantly influenced by the performance of a single customer. This effect is lessened in DLRP tests, as there are significantly more customers participating.

DLRP Measurement and Methodology

Approximately 14 percent of customers enrolled in the Reservation portion of DLRP elected to have their performance measured with the Average Day CBL. The remaining customer performance was measured using the Weather Adjusted CBL. The weather adjustment allows for a variation range of up to 20 percent in either direction (increase or decrease) from that of an average day assumption to account for the weather on the day of the event compared with the five days used for the baseline. The weather adjustment factor is an important aspect of measuring and verifying customer reductions, since demand is correlated with temperature for many customers.

DLRP Network Impacts

To assess the potential impacts of DLRP at the network level, the Company analyzed the enrollment in the Reservation Payment Option in each network to determine the potential impact in individual networks where the reductions were needed. Performance was analyzed using DLRP test data for the Reservation Option participants. "Enrolled" is defined as the total pledged MWs in a network, without adjusting for performance factor. "Achieved reductions" were calculated by adjusting enrollment values to reflect actual performance. Appendix A shows full performance data for the test event.

Assessment of Network Impacts

Table 5 summarizes performance data for Tier 1 networks, Tier 2 networks, and system-wide. Appendix B details program performance and network impacts as a percentage of network peaks for enrolled and achieved reductions. The average achieved load reduction as a percentage of network peaks was approximately 1.77 percent, a slight decrease from the 1.84 percent achieved in 2016. The median achieved load reduction as a percentage of network peaks is

approximately 1.12 percent. Greater enrollment is required to increase the network impact of achieved load reductions.

Table 5: Summary of DLRP Reservation Payment Option Enrolled, Anticipated, and Achieved Impact

Network Tier	Enrolled MW	Operationally Available MW*	Peak Demand (MW)	DLRP Impact
Tier 1 Networks	220	195	10,754	1.81%
Tier 2 Networks	45	42	2,623	1.60%
All Networks / Load Areas	265	237	13,377[6]	1.77%

* Adjustment based on Performance Factors from 2016 and 2017 test events respectively.

Assessment of DLRP Program Growth

DLRP experienced an increase in both the number of customers participating and the total MW enrolled compared with 2016. However, a four percent decrease in operationally available MW was observed in 2017. This was due to the lower overall performance of DLRP participants in 2017 (89 percent) compared to last year (104 percent). Possible causes for this decrease can include random variability and customer availability to respond during the requested call window.

Table 6 summarizes the resources enrolled in DLRP in 2017 compared to the resources in 2016 for the Reservation Payment Option, while Table 7 includes both Reservation Payment Option and Voluntary Option enrollment combined. The tables show enrollment by tier and system wide.

As shown in Table 6, substantial growth in MW enrollment occurred in Tier 2 networks for Reservation Payment Option customers. Potential drivers of Tier 2 enrollment growth are increased incentives in Tier 2 networks and synergies from the Brooklyn Queens Demand Management ("BQDM") program. The reservation payment in Tier 2 networks is 39 percent more than in Tier 1 networks. Some of the growth may also have been caused by the movement of two networks from Tier 2 to Tier 1 and vice versa. The movement of networks between tiers was an annual adjustment based on updated network reliability indexes.

[6] This is the sum of all individual network peaks and is not the coincident system peak.

Table 6: DLRP Reservation Payment Option Enrollment by Tier and System-Wide

	2016 MW Enrolled	2016 Operationally Available MW*	2017 MW Enrolled	2017 Operationally Available MW*	2017 vs. 2016 Change in MW Enrolled	2017 vs. 2016 Change in Operationally Available MW
Tier 1 Networks	209	208	220	195	5%	(6%)
Tier 2 Networks	27	38	45	42	67%	11%
All Networks / Load Areas	236	246	265	237	12%	(4%)

* Adjustment based on Performance Factors from 2016 and 2017 Test events respectively. Voluntary enrollees excluded.
** Percentage decreases are denoted by parenthesis
*** Two of the ten Tier 2 networks changed between 2016 and 2017. The shift of certain customers between tiers accounts for a portion of MW increases and decreases.

Table 7: DLRP Overall Enrollment by Tier and System-Wide

	2016 MW Enrolled	2016 Operationally Available MW*	2017 MW Enrolled	2017 Operationally Available MW*	2017 vs. 2016 Change in MW Enrolled	2017 vs. 2016 Change in Operationally Available MW
Tier 1 Networks	211	208	221	195	5%	(6%)
Tier 2 Networks	27	38	46	42	70%	11%
All Networks / Load Areas	238	246	267	237	12%	(4%)

* Adjustment based on Performance Factors from 2016 and 2017 Test events respectively. Voluntary enrollees included.
** Percentage decreases are denoted by parenthesis
*** Two of the ten Tier 2 networks changed between 2016 and 2017. The shift of certain customers between tiers accounts for a portion of MW increases and decreases.

3. Commercial System Relief Program (CSRP)

CSRP is open to customers throughout the Company service territory who can curtail load or use on-site generation to reduce their demand by a minimum of 50 kW individually, or to Aggregators/curtailment service providers who aggregate a minimum of 50 kW of demand reduction with a minimum of 21 hour notice before a planned event. A Planned Event refers to the Company's request for Load Relief when the day-ahead and then same-day forecasted load is at least 92 percent of the Company's forecasted summer system peak. If the forecasted load is revised below 92 percent of the Company's forecasted summer peak, the CSRP event can be cancelled up to two hours before the start of the event. The change to permit cancellation was made to avoid unnecessarily activating the program. In 2012, the program was expanded to allow participation by SC11 customers who can increase export load to the system during events.[7]

Like DLRP, the CSRP includes both a Reservation Payment Option and a Voluntary Option. Participants enrolled in the Reservation Payment Option receive monthly reservation payments of $6 per kW per month in Staten Island and Westchester, and $18 per kW per month in all other areas. During a Capability Period that includes five or more Planned Events, the reservation payment increases by $5 per kW per month beginning with the first month by when there have been five or more program year cumulative Planned Events in the network. Performance payments for participation during a Planned Event or test event is $1 per kWh reduced and $6 per kWh reduced for an Unplanned Event. The participant is required to respond to a CSRP Planned Event for a four-hour period, with the time of the event dependent on the participant's location.

The participants in the Voluntary Option do not receive reservation payments, but they receive a higher Performance Payment of $3 per kWh reduced during a Planned Event and $10 per kWh reduced during an Unplanned Event.

CSRP has environmental and performance requirements, including a 20 percent cap on the program resources enrolled via the use of on-site diesel generators. Participating diesel electric generating equipment must have an engine of model year vintage 2000 or newer, unless

[7] *See* Case 09-E-0115, *Proceeding on Motion of the Commission to Consider Demand Response Initiatives*, Order Adopting with Modifications Tariff Amendments Related to Demand Response Programs (issued March 15, 2012), p. 8.

it can certify that it has NOx emissions no greater than 2.96 lb/MWh. Enrollment by such generators is accepted on a first-come, first-served basis. All other electric generating equipment is limited to 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 vintage 2000 or newer; or electric generating equipment that has a NOx emissions level of no more than 2.96 lb/MWh.

CSRP Costs

Table 8 summarizes the costs, by component, associated with CSRP in 2017. Total CSRP costs for the 2017 program year were approximately $15,374,200, a 38 percent decrease over the 2016 cost of $24,763,500. Costs primarily decreased due to the elimination of the Three-Year Incentive and lack of CSRP events in 2017 compared to four events in 2016. The Three-Year Incentive was used to encourage participant retention in the Program for consecutive years.

Table 8: CSRP Cost Components for the 2017 Program Year[8]

Component	Cost	Percentage
Customer Incentives	$ 14,913,000	97%
Program Administration - Con Edison	$ 60,500	<1%
Program Administration - Vendor	$ 115,700	1%
Program Marketing	$ 46,000	<1%
Technology	$ 205,600	1%
Market Research & Analytics	$ 33,400	<1%
Total Program Costs	**$ 15,374,200**	**100%**

Customer Incentives

Customer incentives consist of Performance and Reservation payments paid to customers for their participation and performance in events and tests. This year there was one test event and no actual events. Voluntary CSRP customers are not tested. Table 9 below provides information about the 2017 CSRP events. In total, the Company paid $14,913,000, or approximately 97 percent of total program costs, in CSRP customer incentives (Performance Payments plus Reservation Payments). This is a 37 percent

[8] Fourth quarter (October, November and December) costs were estimated.

decrease from the 2016 CSRP customer incentive payments of $23,602,300. This is due to the elimination of the Three-Year Incentive and the fact that there was only one test event and no actual CSRP events in 2017, compared to four events in 2016.

Program Administration – Con Edison

Other Con Edison operational costs are recovered via the MAC. The costs associated with program operation totaled approximately $60,500, or less than one percent of total program costs in 2017.

Costs for the Con Edison staff salary and overhead associated with DLRP management and support are embedded in base rates, and not directly collected as part of the DLRP program costs. They are not included in the program costs presented. However, these costs are included in the TRC analysis for this program.

Program Administration – Vendor

Costs in this category include expenses related to operating functions performed by Con Edison vendors. More specifically, these costs include, but are not limited to third-party studies or reports. These costs totaled approximately $115,700, or one percent of total program costs in 2017.

Program Marketing

The marketing component include costs associated with Con Edison-led program marketing initiatives designed to inform and involve customers. These costs totaled approximately $46,000, or less than one percent of total program costs in 2017.

Aggregators provide the majority of program marketing to attract DR program participants. In 2017, the Company has continued its marketing efforts to provide "background" customer education on the DR concept to support the third-party sales process as well as to inform customers and Aggregators about program rules.

Technology

Costs included in this category are associated with DRMS and related product development, maintenance, and licensing. These costs totaled approximately $201,600, or one percent of program costs in 2017.

Market Research and Analytics

Costs included in this category include, but are not limited to, shared costs of market potential studies, BCA, and other third-party studies or reports for department-wide use. These costs totaled approximately $33,400, or less than one percent of total program costs in 2017.

CSRP Event Performance

The purpose of CSRP is to incentivize customers to reduce their demand for energy when the day-ahead and then same-day forecast exceeds 92 percent of the forecasted summer system-wide peak. Program participants are notified at least 21 hours before a peak load shaving event is scheduled to begin and, unless the event is cancelled because the same-day forecast does not exceed 92 percent, are expected to reduce load, or increase export in the case of SC-11 customers, based upon their pledged kW. Accordingly, one of the goals of the program evaluation is to determine whether participants are providing the pledged demand reductions or increases in export. The CBL for the day of an event is the estimate of the customer's load level had there been no event. The difference between the CBL and the actual load is used to determine the achieved performance.

CSRP has four call windows during which customers are called upon to provide load relief during a CSRP event. The four call windows were introduced for the 2014 Capability Period to more closely align test and event reductions with historical network peaking times. The call windows are 11:00 AM to 3:00 PM, 2:00 PM to 6:00 PM, 4:00 PM to 8:00 PM, and 7:00 PM to 11:00 PM. For the 2017 Capability Period, call windows for several networks were changed to better match the network peak demand load curves in order to maximize beneficial load relief potential.

Test Event Summary

Con Edison called one CSRP test event and no actual events during the 2017 Capability Period. During the test event, all Reservation Payment option participants were asked to respond for the first hour of their respective call window. Approximately 217 MW were enrolled at the time of the test event. An average performance factor of approximately 108 percent was demonstrated across the four call windows, which is higher than the 2016 average performance of 91 percent across four actual events. The test event performance factor for 2017 was likely higher because it was only a one hour test event versus the average of multiple four hour test events in 2016. The 2017 performance factor virtually matches the performance level that was achieved during 2015 test event. A summary of the test event results is shown in Table 9.

Table 9: CSRP Test Event Summary

Test or Event	Date	Event Hours	Customers Enrolled	MW Enrolled	MW Reduction Achieved	Performance Factor Achieved
Test	8/2/17	11 AM – 3 PM	378	86	78	91%
Test	8/2/17	2 PM – 6 PM	291	69	82	119%
Test	8/2/17	4 PM – 8 PM	163	28	32	113%
Test	8/2/17	7 PM – 11 PM	114	33	42	126%
Total	**8/2/17**	**All Windows**	**946**	**216**	**234**	**108%**

Performance data shown in Table 9 is based on achieved MW performance, which captures the MW performance as seen on the system. This may differ from the load performance used to calculate participant payments, which is capped between zero and 100 percent of the customer/Aggregator's network pledged level. The performance data is used to calculate the network performance factor for each customer/Aggregator by dividing the performance achieved by the performance pledged. The performance factor is important since it is used to calculate payments and determine resource reliability.

Increased program growth in 2017 in the Reservation Payment option resulted in an increase in the amount of load relief available for CSRP events. CSRP saw an 11 percent increase in program enrollment and a 30 percent increase in operational resources from 2016 to 2017.

CSRP Measurement and Methodology

As with DLRP, CSRP uses the CBL methodology to measure load reduction during all tests and events for both Reservation and Voluntary enrolled customers. Only 12 percent of customers enrolled in the Reservation portion of CSRP elected to have their performance measured with the Average Day CBL. The remaining customer performance was measured using the Weather Adjusted CBL for the test and all events. All customers enrolled in the Voluntary portion of CSRP elected to have their performance measured with the Weather Adjusted CBL.

CSRP System Impacts

The goal of the Company's peak shaving programs is to reduce the level of network peak to defer capital investment. The Company continues to see growth in the impact of the programs on the network peaks. The achieved network impact has increased from 1.35 percent in 2016 to 1.85 percent in 2017. The network impact increase is driven by increased enrollment, a reduction in forecasted system peak from 2016, and a realignment of CSRP call windows for multiple networks to better match the network peak demand load curves in order to maximize beneficial load relief potential. In addition, overall network peak demand growth has remained relatively flat. Full performance data for all networks is presented in the appendices at the end of this report in Appendix D.

Table 10: Summary of Enrolled and Achieved Impact[9]

Call Window	MW Enrolled	MW Reduction Achieved	Performance Factor Achieved	Call Window Peak Demand (MW)	CSRP Impact on Peak Demand (% of Call Window Peak)
11 AM – 3 PM	86	78	91%	2,181	3.58%
2 PM – 6 PM	69	82	119%	3,315	2.48%
4 PM – 8 PM	28	32	113%	3,820	0.83%
7 PM – 11 PM	33	42	126%	3,308	1.26%

[9] The three BQDM networks (Richmond Hill, Crown Heights, and Ridgewood) are not counted because the BQDM program has replaced CSRP in these networks for 2017.

Assessment of CSRP Program Growth

2017 saw an increase in the number of customers and associated MW enrolled in CSRP in addition to the operationally available MW from 2017. Table 11 shows the operationally available MW (i.e., MW reductions demonstrated during events) increased by 32 percent. The number of MW enrolled and operationally available MW in each call window has changed significantly in several call windows. This is due to a realignment of CSRP call windows for multiple networks to match shifts in the network peak demand load curves in order to maximize beneficial load relief potential. The positive growth in both customers and program MW indicates the success of our continued market education and the benefits of a stable program structure. Additionally, the removal of the Three-Year Incentive and the number of events in 2016 had little or no negative impact on enrollment.

Table 11: CSRP Reservation Payment Option Enrollment by Call Window and System-Wide

Call Window	2016 MW Enrolled	2016 Operationally Available MW*	2017 MW Enrolled	2017 Operationally Available MW*	2017 vs 2016 Change in MW Enrolled	2017 vs 2016 Change in Operationally Available MW
11 AM – 3 PM	91	82	86	78	(5%)	(5%)
2 PM – 6 PM	44	42	69	82	57%	95%
4 PM – 8 PM	26	26	28	32	8%	23%
7 PM – 11 PM	34	27	33	42	(3%)	56%
All Networks	**195**	**177**	**216**	**234**	**11%**	**32%**

* Adjustment based on Performance Factors from 2016 and 2017 Test events respectively.
** Multiple networks had their call windows adjusted in 2017 to better match network peak load curves to maximize demand relief potential.

As enrollment and performance continue to grow, the various benefits received from CSRP will continue to grow. Growth in load relief reduces the costs and environmental impacts associated with peaking generation, and load relief resources will start to drive distribution system planning. Additional growth is necessary for CSRP to have more substantial impacts on capital cost deferrals.

5. Commercial Cost Effectiveness Summary

Using the Company's cost effectiveness model[10] based upon the Company's application of the Total Resource Cost ("TRC") test[11] for the commercial DR programs yields a result of 1.27 and $163 million in net benefit over a 10-year period. In addition the Company evaluated the cost effectiveness of the program using the Utility Cost Test and the Ratepayer Impact Test, which yielded benefit cost ratios of 0.95 and 0.94 respectively.

The incentives were designed on a combined basis for CSRP and DLRP and the programs are being evaluated in the same manner.

The assumptions in the model are:

- 10 percent compounded growth per year for 10 years;
- Program costs updated with costs incurred in 2017 through October and estimated for November and December;
- The benefits for the TRC calculation included capacity and distribution benefits derived from the Company's BCA Handbook as presented in the Company's 2016 Distribution System Implementation Plan ("DSIP").[12]

6. Service Class No. 11 (SC-11) Customers – Export Demand Response

As required by the Commission's March 15, 2012 order, DR export capacity was accepted as load relief during peak shaving and contingency events beginning in 2012.[13] Performance was 124 percent for the DLRP test and 155 percent for the CSRP test.

[10] The results of the separate REV BCA track will be incorporated into future program design and reporting as appropriate.
[11] Freeman, Sullivan & Co., *Cost-effectiveness of CECONY Demand Response Programs*; Prepared for Consolidated Edison Company of New York (November 2013).
[12] Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, CECONY Initial DSIP (filed June 30, 2016).
[13] Case 09-E-0115, *Proceeding on Motion of the Commission to Consider Demand Response Initiatives*, Order Adopting with Modifications Tariff Amendments Related to Demand Response Programs (issued March 15, 2012).

7. NYPA

As required by the Commission's February 16, 2010 *Order Denying Petitions for Rehearing and Addressing Petition for Clarification*, the Company provides the following information regarding NYPA's participation in the Company's DR programs.[14]

NYPA accounts are enrolled in DR through several different Aggregators. The following summary includes all NYPA accounts enrolled in DR.

Table 12: DLRP Enrollments and Performance for NYPA Accounts

Program / Test Date	# of Accounts Enrolled	kW Enrolled	kW Reduced During Test	Performance During Test
2013 DLRP Test 6/26/13	61	10,385	7,417	71%
2014 DLRP Test 6/26/14	25	11,218	11,885	106%
2015 DLRP Test 6/24/15	60	38,230	16,723	44%
2016 DLRP Test 7/13/16	159	32,715	58,423	179%
2017 DLRP Test 7/18/17	242	24,110	36,841	153%

Table 13: CSRP Enrollments and Performance for NYPA Accounts

Program / Test Date	# of Accounts Enrolled	kW Enrolled	kW Reduced During Test	Performance During Test
2013 CSRP Test 6/25/13	1	75	42	56%
2014 CSRP Test 7/8/14	20	22,432	26,089	116%
2015 CSRP Test 7/21/15	21	22,898	25,732	112%
2016 Average CSRP Event Performance	137	37,235	49,509	133%
2017 CSRP Test 7/18/17	169	17,913	32,021	179%

[14] Case 09-E-0115, *Proceeding on Motion of the Commission to Consider Demand Response Initiatives*, Order Denying Petitions for Rehearing and Addressing Petition for Clarification (issued February 16, 2010), p. 9.

8. Brooklyn/Queens Demand Management (BQDM) Program

The BQDM program was the replacement for the CSRP in the networks of Crown Heights, Ridgewood, and Richmond Hill.[15] A test event for the BQDM regions was called on the same day as the CSRP test event in 2017. Table 14 shows the results of the BQDM test event. Voluntary BQDM customers were not tested.

Table 14: BQDM Enrollments and Performance

Event Type	Date	Hours	Customers Enrolled	kW Contracted	kW Reduction Achieved	Performance Factor Achieved
Test	8/2/17	4 PM – 8 PM	23	2150	1363	63%
Test	8/2/17	8 PM – 12 AM	30	1765	1929	109%

9. Battery Export Update

As required by the Commission's May 18, 2017 *Order Approving Subject to Modifications Tariff Amendment for Battery Discharge in Brooklyn/Queens Demand Management Program and Making Other Filings* ("May 2017 Order"), the Company has studied whether any tariff changes are necessary to allow customers with battery storage to safely export onto the primary or secondary distribution systems before the start of the 2018 demand response Capability Period.[16] Based on a review of Rider T, no further tariff changes are necessary to allow battery storage customers to safely export onto the primary distribution system. Rider T, Leaf 271, Revision 2, Section C states that "If other requirements for service under this Rider are met, Electric Generating Equipment may be used to participate under this Rider subject to the provisions set forth in Section D below [compliance with emissions requirements]" and "Electric Generating Equipment" is defined in Rider T, Leaf 269, Revision 3, to include "electric generating equipment at the premises of a Customer served under Standby Service, Rider R, or SC-11 and used to provide Load Relief under this Rider." Customers with on-site batteries are an eligible technology identified in Public Service Law 2b. Such technologies which export to the primary distribution system are permitted to participate under SC-11, and consequently in

[15] The Company reports all financial costs associated with the BQDM DR programs in its BQDM program quarterly reports.

[16] Case 17-E-0104, *Order Approving Subject to Modifications Tariff Amendment for Battery Discharge in Brooklyn/Queens Demand Management Program and Making Other Filings* (issued May 18, 2017), p. 2.

DR programs under Rider T. Customers with such battery storage systems are covered under this definition and therefore will be able to participate in CSRP or DLRP.

Separately, the Company filed tariff amendments[17] on July 27, 2017, requesting approval from the Public Service Commission ("PSC") to permit all inverter-based electric energy storage technologies to export to the secondary distribution system in addition to the primary distribution system via SC-11. Currently, only batteries that are located in Non-Wires Solutions ("NWS")[18] areas are allowed to export to the secondary distribution system. To the extent export into the Company's secondary network is allowed in all areas by the PSC, such storage technologies, including batteries, will be able to participate in the Company's CSRP and DLRP programs.

In the Commission's May 2017 Order, the Company was also ordered to investigate the "reasonableness of allowing participants in the New York Independent System Operator's ("NYISO") Special Case Resources ("SCR") and Emergency Demand Response Programs ("EDRP")…to export to the primary or secondary distribution system as described in the body of this Order in their December 1, 2017 Dynamic Load Management program annual reports." Export of any kind is not eligible to participate in the NYISO SCR and EDRP program according to the NYISO Market Administration Control Area Services Tariff ("MST"), Section 2.12, which states that "Local Generators supply Energy only to the Load they are being operated to serve and do not supply Energy to the distribution system.". However, as noted above, the Company currently does permit export to its primary system for NYISO SCR or EDRP under SC-11 as described above, as well as General Rule 8.3 of the Tariff – Generating Facilities Used Under Special Circumstances for Export. Export to the secondary system is also permitted in all NWS areas and is pending a PSC ruling on the July Filing for other areas.

[17] Case 17-E-0458, *Tariff Filing by Consolidated Edison Company of New York, Inc. to Modify Its Electric Tariff Schedule, P.S.C. No. 10, Regarding Electric Energy Storage Systems* (filed July 27, 2017).
[18] Formerly known as Non-Wires Alternatives ("NWA")

10. Commercial Program Conclusions

Both CSRP and DLRP grew in 2017 compared to 2016, in enrolled MW and number of customers enrolled. This was fueled by continued positive market education and stability in the programs with no new major program changes. The removal of penalties for CSRP and the increase in reservation payments in 2016 continued to have a positive impact on program growth in 2017.

The Company filed program changes in November 2017 after having engaged Staff and Aggregators. The timing of the anticipated decision date for the filing is satisfactory from the market education and DRMS modifications implementation perspectives. The proposed changes are designed to maintain the integrity of the programs by (a) setting a minimum performance factor to be eligible for reservation payments and therefore incentivizing accurate pledges (b) extending the maximum duration of a test event to four hours to help accurately forecast load relief capability, and (c) delaying the first incentive payment until after performance is demonstrated in the first event in order to avoid participants needing to refund estimated incentive payments to the Company. The proposed changes are also designed to add flexibility to the programs by allowing for the addition of new CBL types, which may be necessary for new technologies or types of customers. In addition, the Company proposed determining the networks for Tier 2 based on the most recent list of Network Reliability Index ("NRI") scores, instead of an average of the previous five years, so that the higher incentive rates for Tier 2 are allocated to the networks that currently have a need for it.

For the 2017 demand response Capability Period, there was one CSRP test event and no actual CSRP events. The Company called six DLRP events across two networks and one DLRP test event. The Programs continue to see positive growth in terms of number of customers enrolled and MW enrolled. Although there was a slight decrease in operationally available MW for DLRP, there were strong gains within the CSRP program in both MW enrolled and operationally available MW. The Company expects continued growth in both programs for the 2018 demand response season based on these positive trends.

11. Direct Load Control Program (DLC)

The DLC program is the residential component of the Company's DR offerings. The DLC program supports electric system reliability by using Wi-Fi enabled thermostats to control participants' central air conditioning units and reduce energy demand at times of critical system need. Customers have the ability to remotely control their central air conditioning units online through a personal computer or mobile device at all times and thus can override events called by the Company regardless of the customers' location. The DLC program has been offered in the Company's service territory since 2002. To implement the principles in the Reforming the Energy Vision[19] ("REV") proceeding, since 2014 the Company offers a Bring Your Own Thermostat ("BYOT") model that allows customers to enroll a thermostat through certain service providers or thermostat manufacturers.

The BYOT model provides an opportunity for customers to enroll a thermostat through certain service providers, or thermostat manufacturers, and to receive a one-time sign-up bonus. The current sign-up bonus is $110, a combination of an $85 BYOT bonus and a $25 energy efficiency rebate for the thermostat. The Company also offers a $25 payment for participation in DR events after the Company can verify participation in at least 50 percent of events in the first three summers.

The BYOT model allows the Company to coordinate demand response and energy efficiency offers, as the REV Demonstration Project Con Edison Marketplace ("Marketplace") sells BYOT-eligible thermostats with an instant energy efficiency rebate. BYOT offerings are also leveraged through the Brooklyn Queens Demand Management ("BQDM") program.

As of January 2017, the Company sunset the DLC Company Provided Thermostat ("CPT") option, a direct install program in which Con Edison provided and installed, without charge to the enrolling customer, a thermostat with internet-enabled technology. The BYOT model benefits the Company by eliminating the high costs of the direct install model, which costs approximately $400 per thermostat. The BYOT model is significantly less expensive at a cost of approximately $150 per thermostat.

For the 2017 summer capability season the CPTs were migrated to Whisker Lab's DR management system. There are approximately 17,000 active CPT customers, using 20,000

[19] Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Order Instituting Proceeding (issued April 25, 2014).

thermostats that can provide 18 MW of peak load reduction. Company-provided technicians remained available to provide service calls to the fleet of installed CPTs at no cost to the customer.

In 2017, the BYOT program achieved new enrollment of 2,600 customers and 4,000 thermostats year to date. As of November 2017, there are approximately 22,800 enrolled customers with a total of 30,000 thermostats that can provide approximately 25 MW of potential load reduction through the DLC program, representing both customers who enrolled through CPT and BYOT. Four DLC events were called during the 2017 Capability Period. The event summaries are provided later in this section.

DLC Program Technology Overview

The Wi-Fi thermostats connect to the customer's existing Wi-Fi router without any separate hardware needed. The Company installed Wi-Fi thermostats from 2013 through 2016. Also, a variety of pre-approved Wi-Fi and learning thermostats are currently available for participation in BYOT.

Program Marketing

In February 2017, the Company launched a smart thermostat purchase and enrollment campaign in support of DR goals. The campaign encouraged residential customers to (1) purchase any Wi-Fi-enabled smart thermostat and receive a $25 rebate and (2) enroll their eligible smart thermostat model in Con Edison's BYOT program and receive the $85 BYOT rebate.

The first two quarters of 2017 were dedicated to campaign launch logistics. Consumer targeted marketing for the campaign was strategically focused on Con Edison-owned channels, specifically product placement and supporting language on the Con Edison Marketplace and two email campaigns designed to drive direct audience participation among customers identified as most likely to participate given either past participation behavior (e.g., purchase of a smart thermostat on the Con Edison Marketplace) or identified through insights gained from customer segmentation and propensity modeling.

A targeted email was delivered on August 18 and targeted to 844 residential customers who had purchased a qualifying smart thermostat on the Con Edison Marketplace, encouraging them to enroll their thermostat(s) into the BYOT program.

A second email campaign was sent on September 8 to 149,000 residential customers identified through propensity modeling as most-likely to both qualify for and participate in a Demand Response program. This targeted email directed recipients to the Con Edison Marketplace where they could purchase a smart thermostat and enroll in the BYOT program.

As seen in Table 15, the August 18 email achieved an Open Rate of 45.61 percent and a click-through-rate ("CTR") of 7.1 percent and the September 8 email achieved an open rate of 16.78 percent with a CTR of 1.23 percent.

Table 15: Marketing Campaign Metrics

Send Date	Subject	Sent	Delivered	Delivered %	Unique Opens	Unique Opens %	Unique Clicks	Unique Clicks %	Enrollments Week Following Email
8/18/17	Don't miss out! $85 is waiting for you	844	831	98.46	379	45.61	59	7.1	66
9/8/17	Earn Up To $110 With a Smart Thermostat	149,045	148,631	99.72	24,941	16.78	1,823	1.23	57

Additional retail-based marketing initiatives in support of participation recruitment were identified for Q3 2017 to coincide with the commencement of the heating season in the region. In-store point-of-purchase ("POP") collateral was developed and placed in stores throughout Con Edison retail territory (71 stores) for the peak sales season of Black Friday/post-Thanksgiving through the end of the year. Messaging on the POP materials will highlight the rebates available to residential customers for both purchase of the smart thermostat and enrollment in the BYOT program.

A Marketplace Black Friday promotion supported by an increased energy efficiency rebate ran in Q4 2017, with a limited time increase of the $25 energy efficiency incentive to $75. The promotion was very successful, with over 2,500 thermostats sold during the promotional period. Customers who purchased smart thermostats through this campaign will be retargeted with the BYOT enrollment offer.

Customer Support

Con Edison has retained call center services for DLC customers. The call center services include, but are not limited to, helping customers enroll in the BYOT program, providing technical support for the CPTs, and handling incentive check inquiries. The call center is available to answer customer service inquiries from Monday through Friday from 7:00 AM to 7:00 PM EST. Calls received outside of normal operating hours will be redirected to a voicemail box, which will be checked on the following business day. For 2017, the Company estimates that approximately 5,000 calls will be received. Year to date, the program's call center has achieved high service levels, in which 83 percent of calls were serviced in less than twenty seconds.

Customer Satisfaction

Customer satisfaction surveys for customers who received a Wi-Fi-enabled thermostat energy efficiency rebate were conducted in the summer of 2017, 90 percent of those customers also enrolled in the BYOT program. Customers were invited to participate in online surveys via a Con Edison-branded email invite. Online surveys were offered in English, Chinese, and Spanish, though all respondents took the survey in English. Survey results include:

- A wide majority of those surveyed report being satisfied with the program (89 percent);
- When asked to select "major" reason for the purchase of the item selected, customers responded that the thermostat is an energy efficient unit used to save money on energy bills (83 percent), the model has other features desired (77 percent), it is an energy efficient unit and will help the environment (67 percent), the product is a brand they trust (58 percent), and the rebate from Con Edison (47 percent); and
- 63 percent of customers stated the time needed to decide on the product selected was a day to a few days.

DLC Program Costs

Table 16 shows the total program costs for 2017, which are expected to be under the $4.24 million allocated budget. While the Company's internal program management costs are not funded through the MAC and are not included in the budget, they are included in the TRC benefit cost analysis.

Table 16: 2017 DLC Program Costs[20]

Component	2017 Estimated Costs	Percentage
Program Implementation Vendor / Other	$1,850,000	56%
Program Equipment	$350,000	11%
Program Marketing	$175,000	5%
Customer Incentive	$925,000	28%
Total Costs	**$3,300,000**	**100%**

Program Implementation – Vendor/Other

Costs in this category include expenses related to program operations and management functions performed by Con Edison's vendors, DLC technical support implementation contractor, and BYOT service providers. The costs in this category were $1,850,000.

Equipment

Program equipment costs refer to costs attributable to the close out of the CPT program, such as the thermostats, equipment related to installing the thermostats, website hosting, and communication fees. The costs in this category were $350,000[21].

Program Marketing

Marketing costs include all costs associated with the marketing initiatives required to inform and involve customers in the program. These costs include, but are not limited to, program literature, direct mailings, website development, and promotional events. The costs in this category were $175,000.

[20] Fourth quarter (October, November and December) costs were estimated.
[21] These costs are attributable to work associated with the CPTs conducted in 2016.

Customer Incentives

Customer incentives consist of all payments to customers for program participation, based on the program design. Costs for this category were $925,000.

Program Administration – Con Edison

Con Edison's costs include, but are not limited to, Con Edison employees, including a program manager and a program specialist, as well as an estimate for program marketing, legal,[22] and market research staff. As these costs are embedded in base rates, and not directly collected as part of the DLC program costs, they are not included in the program costs presented. However, these costs are included in the TRC analysis for this program.

Cost Effectiveness Summary - DLC TRC Test

The 2017 DLC program was cost effective based upon the Company's application of the TRC test.[23] In order to perform the TRC analysis, the following assumptions were made:

- The analysis includes actual benefits and costs from January through September 2017 and estimated figures for the months of October, November, and December 2017.
- Thermostats are estimated to have a 10-year lifespan.[24]
- The benefits and costs of the program include the net present value of the 10-year customer incentives, vendor fees, and participant costs associated with the thermostats installed in 2017.
- Attrition rate for residential thermostats of approximately one percent is included.
- TRC calculations include administration, implementation, measurement and verification, and marketing costs.
- The benefits for the TRC calculation included capacity and distribution benefits derived

[22] Legal costs include, but are not limited to, advertising associated with regulatory filings.
[23] Freeman, Sullivan & Co., *Cost-effectiveness of CECONY Demand Response Programs; Prepared for Consolidated Edison Company of New York* (November 2013).
[24] The Cadmus Group, Inc./Energy Services, Wi-Fi Programmable Controllable Thermostat Pilot Program Evaluation: *Part of the Massachusetts 2011 Residential Retrofit and Low Income Program Area Evaluation*. *Prepared by The Cadmus Group, Inc./ Energy Services* (September 2012).

from the Company's BCA Handbook as presented in the Company's 2016 DSIP. [25]

- The 2017 DLC program assumed responsibility for the legacy thermostats from the CPT program, [26] resulting in a shift of the cost-effectiveness results relative to 2016.

Table 17: DLC Cost Effectiveness

Benefits	$45,752,147
Costs	$20,671,025
Net Benefits	$25,081,121
Benefit Cost Ratio	2.21

Risk Factors

The DLC program enrollment options and technologies present potential risks, which may impact cost effectiveness in subsequent years. The risks are:

- The Wi-Fi communication technology is reliant on the customer's Wi-Fi. Therefore, if the customer moves or changes its router password, the program will lose a DR resource and attrition will increase.
- Greater access to the thermostat through a mobile device will give the customer improved control and may lead to increased override rates.
- As the fleet of CPT thermostats continues to age, we anticipate the number of devices to be removed by customers to increase.
- AMI deployment may impact future program design as potential BYOT customers may be eligible for enrollment in other programs.
- For the BYOT each thermostat manufacturer has different demand reduction strategies, which may affect the reduction per thermostat. Table 18 shows the different strategies used by the various vendors.

[25] Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, *CECONY Initial DSIP* (filed June 30, 2016).

[26] As of January 2017, the Company discontinued the opportunity for customers to enroll in the DLC Company Provided Thermostat ("CPT") option, a direct install program in which Con Edison provided and installed, without charge to the enrolling customer, a thermostat with internet-enabled technology. The legacy CPTs remain active in DR events and the Company also provides technicians to service installed thermostats. Costs for the maintenance of the legacy CPT thermostats and the ongoing BYOT program were combined for the TRC test.

Table 18: Demand Reduction Strategies by Vendor

Vendor	Demand Reduction Strategy
Nest	Nest leverages a customized approach to DR, which is unique to each home. Based on the envelope of the home, functionality of cooling equipment and customer preferences, Nest uses a combination of A/C cycling and temperature precooling to maximize load reduction.
EnergyHub	EnergyHub implements temperature offset events of configurable duration, with an optional pre-cool period of up to 90 minutes, and an option to set a temperature ceiling. The strategy includes opt-out events, with a five-degree offset and a temperature ceiling of 92 degrees F.
Whisker Labs	Whisker Labs manages the fleet of CPT thermostats enrolled in the DLC program, as well as new BYOT enrollments. Whisker Labs sends a signal which turns the compressor off, but still allows the fan to run. Typically, a compressor will be set to cycle every 15 minutes for the desired length of the event. This is considered a 50 percent cycling event as the compressor runs 50 percent of the hour.

Test and Event Performance

The 2017 summer season was a fairly cool season with only eight days reaching above 90 degrees. Con Edison called three contingency and one test DR event during this program period. The following table shows a listing of the events to date and a summary of results for each event.

DLC Test and Event Performance

In 2017 the BYOT option had three program partners (Whisker Labs, Nest, and EnergyHub) that participated in test and contingency events. The CPT and BYOT data have been combined under Whisker Labs in the table below. These events took place on following dates shown in

Table 19.

Table 19: Summary of DLC/BYOT Test & Events

Date	Hours	Type of Event	Vendor	Network	Participating Thermostats	Average kW Reduction per Device
6/12/17	5:30 PM – 9:30 PM	Contingency	Nest	Williamsburg & Prospect Park	437	0.46
6/13/17	5:30 PM – 9:30 PM	Contingency	Nest	Williamsburg & Prospect Park	439	0.46
6/19/17	4 PM – 10 PM	Contingency	Nest	Williamsburg & Prospect Park	449	0.46
8/10/17	12 PM – 4 PM	Test	Nest	All	7,260	0.43
8/10/17	12 PM – 4 PM	Test	EnergyHub	All	393	0.18
8/10/17	12 PM – 4 PM	Test	Whisker Labs	All	17,215	0.59

Program Attrition

Customers leave the program or choose to have their thermostats removed for a variety of reasons. For example, when a thermostat stops communicating with the system for an extended period of time, the BYOT Service Providers undertake efforts to contact the customer to determine why the thermostat is not communicating. If the administrator is unable to contact the customer after multiple attempts, the customer is classified as an "opt-out", and is included in the attrition calculation. If the communication problem can be resolved, the thermostat is reactivated and returned to active status in the program.

Regarding CPTs, program administrators may determine that the customer had the CPT removed by its own contractor without notifying the program administrators or Con Edison. In these cases, the thermostat and customer are noted as removed from the program. Although the thermostat is the customer's property, whenever possible the implementation vendor removes the CPT, with the customer's approval, and it is replaced with a lower cost programmable thermostat or one provided by the customer.

The attrition rate for BYOT customers seems to be highly variable due to the technical nature of Wi-Fi thermostats. Customers who lack technical expertise in configuring their networks expressed difficulty in maintaining connectivity with the Wi-Fi thermostats. Service providers who assist such customers identified the primary cause of a thermostat losing connection as intermittent connectivity between the router and the thermostat. A thermostat labeled "offline" may come back "online" when a connection is re-established within its network. The year-to-date attrition rate is 8.2 percent.

2018 Operating Plan

As directed by the Commission's January 25, 2016 *Order Adopting Modifications to the Direct Load Control Program and Instituting the Connected Devices Pilot Program* ("DLC Order"), Con Edison submits this Annual Operating Plan – 2018 ("Operating Plan") for the Company's DLC program.

As required by the DLC Order, the Operating Plan includes: (1) the expected annual expenditure budget; (2) the anticipated number of control devices by program component to be installed during the year; and (3) the total number of megawatts the Company expects to have available in the program by the end of the year.

Table 20: 2018 Expenditure Budget ($ in MM)[27]

DLC – BYOT	$4,200,000
Con Edison Ancillary Charges	$500,000
Total	**$4,700,000**

Table 21: Operational Enrollment

December 31, 2017		
	Thermostat	**MW**
Total	30,500	25

Projected for December 31, 2018		
	Thermostat	**MW**
Total	34,500	28

Program Summary

The DLC program has had a successful year. New enrollments are projected to be a total of 4,000 thermostats through the BYOT program, surpassing the goal of 2,500 enrolled thermostats.

The BYOT program expects to see continued enrollment through the 2017 holiday season as a result of the coordinated efforts with the energy efficiency rebates and the Marketplace promotions. In 2018, the Company will focus on the marketing of the BYOT option for further growth. The Company also hopes to increase its number of thermostat providers in the future.

Recognizing that the demand reduction per thermostat varies based on the manufacturer and its respective demand reduction strategy, the Company will continue to monitor and study

[27] 2018 Budget does not include dollars for the Smart AC program, which is planned to be incorporated in Rider L.

demand reduction strategies used by the manufacturers and implement a standardized baseline across manufacturers.

12. Connected Devices Pilot Program (CDP)

Background

The Connected Devices Pilot ("CDP") was originally approved in 2009 as the Residential Smart Appliance Program ("RSAP"), a pilot intended to extend DR offerings to a broader residential population through the integration of smart curtailable appliances. The concept was that participants would receive a rebate for each smart or DR-ready appliance installed and, in return, the Company could curtail appliances as needed during system critical conditions. Because both market availability and the adoption of smart appliances were slower than anticipated, the Company explored alternative strategies to bring connectivity to customers' homes as follows:

- Between 2010 and 2012, RSAP targeted 300 customers with Automated Meter Reading ("AMR") meters and implemented a Tendril home area network ("HAN") solution. This proved cost prohibitive to test at a larger scale.
- In 2011, as part of a research and development ("R&D") initiative, the Company partnered with a vendor to jointly develop a prototype technology to enable customers to remotely operate and monitor their room air conditioner ("RAC") via the internet. The Company was able to use the technology to remotely turn off (or "cycle") RAC loads either on command or in response to ambient room temperature. The technology (the "SmartAC kit") consisted of a ZigBee[28] to USB internet-connected plug control device ("modlet") with a thermostat control. A major drawback of this early version was that it required the customers' computers to remain on at all times in order for the RAC to be controlled and monitored remotely. A 500 RAC proof of concept pilot was conducted in a master-metered building.

[28] ZigBee is a communications protocol, often used in home automation applications, for sensors and networks requiring low data transfer and low power consumption.

- In March of 2012, the Company received Commission approval and funding to expand the 2011 proof-of-concept pilot as an extension of RSAP.[29] RSAP branded the smart air conditioning-based DR Program "coolNYC" and deployed 10,000 RAC smartAC kits to 3,916 customers, largely through mail distribution.[30] The devices distributed included both first generation and an improved second generation smartAC kit with a ZigBee to Ethernet Gateway interconnection. The Gateway interconnection eliminated the need for customers to keep their computers on at all times to remotely control and monitor their RAC.
- In April 2013, the Commission approved and funded $4 million over two years for coolNYC to continue as a pilot with the goal of refining the product offering while remaining open to other technology options.[31] This translated into the deployment of an additional 10,000 smartAC kits during 2013 and 2014 with the objective of increasing the impact and reliability of the RAC load as a DR resource. The Program introduced a variety of improvements, including (1) a third generation Wi-Fi smartAC kit which is easier to install and connects directly to the internet via the customer's home router; (2) machine-learning DR platform software to enable the vendor to custom-tailor DR events based on learned customer preferences; (3) an installer-based distribution method for devices; and (4) two new pilot initiatives to improve DR participation and expand the program offerings, including "gamification" to further engage customers during DR events, and the integration and testing of one manufacturer's "smart" web-enabled RAC appliance into the DR platform and program – a Bring Your Own Device ("BYOD") model.
- In March 2015, the Commission approved coolNYC as a fifth-year pilot, with a $6.8 million budget to fund a mass expansion of the program as well as to allow flexibility for testing new DR strategies in a market that was now more accommodating to the

[29] Case 09-E-0115, *Proceeding on Motion of the Commission to Consider Demand Response Initiatives*, Order Adopting in Part and Modifying in Part Con Edison's Proposed Demand Response Programs, (issued March 15, 2012).
[30] Under the brand "Con Edison Smart AC Program" (formerly "coolNYC"), the Company provides participants with a free smartAC kit to enable window air conditioning units to respond during DR events.
[31] Case 09-E-0115, *Proceeding on Motion of the Commission to Consider Demand Response Initiatives*. Order Adopting in Part and Modifying in Part Con Edison's Proposed Demand Response Programs (issued April 19, 2013).

technology and behaviors that enable demand response.[32] RSAP grew the coolNYC customer base with the purchase of an additional 15,000 smartAC kits. More than 8,000 kits were deployed in addition to the re-engagement of 3,000 devices deployed in 2013 and 2014. The program also diversified the portfolio for DR-enabled smart appliances by expanding the BYOD model that was piloted in 2014 and engaging customers with packaged thermal air conditioners ("PTACs") through the use of the smartAC kit. The program enrolled 300 BYOD devices despite limited product availability and underdeveloped market readiness for the utilization of these devices as DR resources. Other 2015 RSAP initiatives included customer engagement strategies to bolster year-over-year program loyalty through an innovative rewards platform.

- In January 2016, the Commission approved and funded CDP for three years, at $4 million per year, to explore the DR capabilities of smart appliances being introduced through the "Internet-of-Things" ("IoT") market trend.[33] Unlike past generations of smart appliances, the vast majority of IoT appliances are Wi-Fi enabled and welcome action-oriented user interaction through mobile applications. As such, there is a significant opportunity to build longer term customer engagement with Wi-Fi smart appliances through a personalized DR-focused experience. With this in mind, in 2016 the Company set out to grow the pilot with an additional 3,000 smartAC kits on top of the existing inventory of 9,000 smartAC kits purchased in 2015. CDP focused on three key measures of public interest in DR participation: (a) Willingness to enroll, as measured by the ability to recruit customers to satisfy the program goal; (b) self-engagement, as measured by the level of self-installation; and (c) customer re-engagement, as measured by the number of participants from prior years that returned. In addition, the Company sought to further diversify the DR-enabled smart appliance portfolio by expanding the 2015 BYOD pilot. Other 2016 CDP initiatives included an expansion into the entire Con Edison service territory (New York City and Westchester County), and a rewards-centric customer

[32] Case 15-E-0012, *Petition of Consolidated Edison Company of New York, Inc. for Approval of Changes to Residential Demand Response Programs*, Order Modifying Residential Demand Response Programs (issued March 27, 2015).
[33] Case 15-E-0593, *Petition of Consolidated Edison Company of New York, Inc. for Approval to Continue its Residential and Small Commercial Demand Response Programs*, Order Adopting Modifications to the Direct Load Control Program and Instituting the Connected Devices Pilot Program (issued January 25, 2016).

recruitment and engagement strategy to personalize the DR experience with the goal of improving participation, customer satisfaction and year-over-year program loyalty.

- In 2017, the Company set out to grow the pilot by an additional 17,565 smartAC kits. CDP focused on three key measures of public interest in DR participation: (a) Willingness to enroll, as measured by the ability to recruit customers to satisfy the program goal; (b) self-engagement, as measured by the level of self-installation; and (c) customer re-engagement, as measured by the number of participants from prior years that returned. In addition, the program sought to further diversify the DR-enabled smart appliance portfolio by expanding the BYOD pilot. Other 2017 CDP initiatives included innovations in the customer engagement rewards strategy, hinging on a points-based platform to promote two-way communication between utility and customer, as well as improvement in year-over-year program loyalty and a trial of an alternative DR signal strategy to see deeper DR reduction results while improving participation and customer satisfaction. In addition to the smartAC kits and BYOD, CDP also launched a small pilot with 500 PTACs using the CTA-2045 modular communications standard.

Smart AC Program

Enrollment Model

In prior years, the Smart AC Program (formerly coolNYC) tested models to ensure maximum DR participation through free smartAC kit distribution coupled with third-party installation. While third-party installations ensured the installation of smartAC kits in 2014, it increased the cost of the program and decreased the number of reconnections in following years, as customers were not directly familiar with the process. In 2015 and 2016, the program was able to successfully eliminate the reliance on third-party installation without sacrificing program performance by focusing marketing efforts on customer engagement. In order to improve on the results of 2016, the 2017 program focused on (1) simplifying the basic marketing message at the point of enrollment process, (2) conversion of "interested" customers into "actively participating" customers (i.e., ones who will participate in DR without opting out) through targeted marketing, (3) increasing first-year setup rates and year-over-year re-setup rates through

customer engagement, and (4) reducing overall program costs.

In 2017, Smart AC enrolled customers through two channels based on the technology needed to make their RACs DR-ready: the smartAC kit and BYOD.

The smartAC kit was offered to customers with non-internet enabled RACs. Customers who enrolled through this channel were offered the smartAC kits for free with an opportunity to keep the device if they met the program participation requirements.[34] As part of enrollment, customers were required to submit their credit card information. By asking for a credit card, customers were in essence pre-screened, as they knew that setting up and using the smartAC kit was a key component of that transaction. Customers who did not meet the program requirements were asked to return their devices to avoid being charged.

As in 2016, the BYOD channel provided customers who purchased a smart Wi-Fi RAC an opportunity to enroll and participate in DR and earn rewards.

In 2017, the program had 20,004 new and approved smartAC kits and BYOD RACs signed up, of which 18,352 were smart AC kits and 1,652 BYOD. Of those new and approved smartAC kits and BYODs, 12,004 and 1,107, respectively, were setup, online and available for demand response. Returning customers included 9,092 (8,762 smartAC kits and 330 BYOD) online from prior years, which is the highest number of enrollments achieved in a single program cycle. By the end of the Capability Period 20,736 smartAC kits and 1,437 BYODs were setup, online, and available for demand response. Based on total device enrollment, Con Edison had a callable load of 2.043 MW, exceeding the 2.0 MW enrollment target. Con Edison has allowed customers to continue enrolling devices past full program enrollment (met in July) and the end of the Capability Period, to be used in the 2018 season. The Smart AC Program was also able to leverage the smartAC kits distributed via the New York State Energy Research and Development Authority ("NYSERDA") Power Perks study, which brought the total number of callable smartAC devices up to 21,380 and 2.1 MW of callable load.

[34] 2017 participation requirements included:
1. Set up and connect devices within 21 days of receipt of device
2. Participate in at least 1 DR event (without opting out)

Installation

In 2014, by default, customers were offered installation assistance. In 2015, while the program offered no such assistance, customers were pre-screened for their ability to set up equipment. In 2016, the program removed pre-screening. In 2017, the program achieved the highest set-up rate (94 percent) since the pilot began in 2011. This high rate of self-installation was achieved by: (1) maintaining active communication with the customer from sign up to set-up; (2) automating the approval process, which reduced the amount of time need to complete customer program eligibility verification; (3) securing a credit card-backed commitment from customers to participate in the program in exchange for receiving the devices for free; (4) high quality customer service via phone and online tools, which allowed for the addressing of customer questions and set up concerns as they arose; and (5) distributing rewards through an online rewards platform to customers who set up and use devices.

Incentives

Prior to 2015, customers received a single $25 rebate at the end of the program as a thank you for participation. In 2014, the program tested gamification of performance incentives during a DR event, which enhanced DR performance. In 2015, coolNYC introduced an online and mobile app accessible rewards platform called “Cool Points” to introduce gamification strategies into other program components. In 2016, CDP simplified incentives for customers through the Cool Points platform. In 2017, CDP aligned incentives with device-level participation in demand response events. Cool Points were earned in increments of 1,000 points ($1 equates to 1,000 points) and are instantly redeemable for online gift cards, donations to charities, or local deals. Customers received 10,000 Cool Points for setting up each smartAC kit and 2,500 Cool Points per RAC for each full DR event in which the RAC participated. Returning customers received an additional bonus of 2,500 Cool Points for re-enrolling, and new BYOD customers received 50,000 Cool Points for enrolling. Customers who referred a friend received 10,000 Cool Points. Customers who participated in all DR events with all RACs earned 5,000 Cool Point bonus. This new structure tied incentives directly to desired actions taken by the customer. In 2016 only 40 percent of award points were redeemed. The program anticipates similar rates of redemption in 2017.

The Cool Points incentive structure was designed to both reduce program costs by providing incentives for actual actions taken by the customer as well as to achieve higher metrics across all program performance categories, including enrollment, customer DR participation, and overall customer satisfaction. The program utilized Cool Points to: (1) generate enrollments via friend referrals; (2) achieve both high device set up rates and DR participation (DR event participation was consistently high, on average at 85 percent, across the three DR events); (3) engage customers; and (4) reduce program incentive costs.

Customer Engagement

In 2017, the Smart AC Program reached customers via a variety of marketing channels, including: online advertising, radio advertising, email, out of home advertising, and press media. The goal was to utilize messaging strategically to educate customers on reducing power during the summer peak and to attract and retain quality enrollments that are engaged in DR. Themes emphasized include (1) helping the community through grid reliability; (2) getting connected with RACs via the mobile app for enhanced convenience, control, and choice; and (3) educating customers on how to best use their RACs to optimize comfort and energy reductions.

Becoming Cost Effective

Following the completion of a Society Cost Test ("SCT") in 2017, it was determined that the smartAC kit technology would be cost effective if the Company enrolled approximately 18,000 smartAC kits. After exceeding 18,000 smartAC kits enrolled, and thus becoming cost beneficial, the Company filed a petition[35] to move the smartAC kit portion of CDP from pilot status to full program status under Rider L. By the end of the Capability Period, the SCT for the smartAC kit portion of CDP was 1.17. At the time of this report, the petition is still pending.

[35] Case 17-E-0526, *Petition of Consolidated Edison Company of New York, Inc. to Move a Room Air Conditioning Program to Rider L, Make Changes to Rider L, and Continue Connected Devices Pilot with Modifications* (filed August 24, 2017).

Packaged Thermal Air Conditioners (PTAC) Pilot

In 2017, CDP looked to offer new technologies to customers beyond room air conditioners. The Company engaged a technology provider to pilot Wi-Fi enabled PTACs. The PTACs included in this pilot utilize a new modular communication standard, CTA-2045, to provide Wi-Fi capability to the units. Recruitment of landlords and customers who will install units started in the fall, with installations anticipated in the winter of 2017-2018.

Program Costs

Table 22 shows a breakdown of the realized and anticipated CDP costs in 2017.

Table 22: 2017 CDP Program Costs[36]

Component	2017 Costs	Percentage
Incentives	$510,800	14%
Administration[37]	$2,429,700	65%
Equipment[38]	$167,600	5%
Marketing	$463,600	12%
Evaluation, Measurement, and Verification ("EM&V")	$143,600	4%
Total Costs	**$3,715,300**	**100%**

Incentives

For the 2017 program year, 11,838 customers earned Cool Points incentives equivalent to $241,148 for setting up devices, referring friends to the program, and participating in DR events. As of November 8, 2017, 2,783 customers have redeemed Cool Points worth $78,460. Customers can continue to redeem their Cool Points year-round to encourage multi-year participation.

Administration

[36] Fourth quarter (October, November and December) costs were estimated.
[37] Administration includes both Con Edison Program Administration and Vendor Program Administration fees.
[38] Equipment used in 2017 was pre-purchased in 2016 and reported in the 2016 Annual Demand Response Filing.

The program administration cost includes expenses associated with CDP program implementation. Costs include: reporting; program, operations, and information technology ("IT") management; data analysis; customer service; shipping and fulfillment; warehousing; device hosting; web, server, and mobile setup; rewards platform development; security; and BYOD integration.

Equipment

The 2017 program used 2,656 smartAC kits remaining from the 2016 Capability Period and another 15,000 smartAC kits purchased in the end of 2016 for the 2017 Capability Period. In addition to smartAC kits, CDP ordered 500 PTAC control modules.

Marketing

Marketing costs include design and printing costs, public relations, advertising, and social media campaigns.

Evaluation, Measurement, and Verification (EM&V)

EM&V costs included a third-party study to determine the average demand reduction from a BYOD. This study will continue through the 2018 season.

Event Performance

The 2017 program administered three test events. Results for the individual events are shown in

Table 23. The three events included a reduction methodology with a 50 percent cycling signal and a five-degree temperature offset applied to RACs.

Table 23: Summary of CDP Events

Event Date	Temp / Humidity	Event Time	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate	Combined Average Watts/AC Reduced	Combined smartAC kits Online
7/20/17	90-93°F/ 76-70% rh	2 PM – 6 PM	614	212	64%	2903	11%	188	11188
7/20/17	78-90°F/ 65-72% rh	7 PM – 11 PM	1483	179	50%	8285	24%		
8/22/17	81-85°F/ 80-88% rh	2 PM – 6 PM	464	142	60%	3258	10%	125	12019
8/22/17	78-81°F/ 88-93% rh	7 PM – 11 PM	1044	119	41%	8761	19%		
9/5/17	73-80°F/ 71-82% rh	2 PM – 6 PM	331	94	66%	3512	8%	87	12797
9/5/17	73-76°F/ 62-70% rh	7 PM – 11 PM	786	85	49%	9285	18%		

NYSERDA conducted a research study on behavior change strategies to maximize residential DR in master metered buildings had 638 RACs connected during the summer. These RACs were called for DR concurrently with the Smart AC program devices. Results for the individual events are shown below.

Table 24: Summary of Performance NYSERDA Study of Master Metered Buildings

Event Date	Temp / Humidity	Event Time	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
9/9/16	75-90°F/ 50-70% rh	2 PM – 6 PM	3	20	6%	127	8%
10/6/16	55-73°F/ 76-78% rh	2 PM – 6 PM	1	6	43%	157	2%
7/20/17	90-93°F/ 76-70% rh	2 PM – 6 PM	59	190	50%	313	22%
8/22/17	81-85°F/ 80-88% rh	2 PM – 6 PM	64	177	56%	362	12%

Program Summary

CDP continued to make improvements in 2017 by requiring a higher level of customer engagement and engaging customers via the rewards platform. High set-up rates and event participation numbers show that customers were both motivated by having something at stake — the risk of getting charged for not participating as part of the terms of the program, as well as having something to gain—earning Cool Points rewards. Customer feedback further supports the impact of a rewards system on motivating demand response behavior.

CDP also stands to benefit in future implementation from its 2017 awareness campaigns. Continuing in 2017, customers were reached via broad e-blast, mainstream media, and social media campaigns. As a result, the program generated a large number of enrollments, which demonstrates general interest.

Smart AC Program 2017 engagement and education strategies will be woven into all aspects of future program design. This will help grow the program as a DR resource and increase DR performance. Lessons learned from current CDP programs will aid in future into new technologies, outside of providing a smartAC kit. In 2017 CDP exceeded its enrollment goals and plans to continue to expand with and grow the market for connected devices in the Company's service territory.

13. Con Edison Demand Response Conclusions

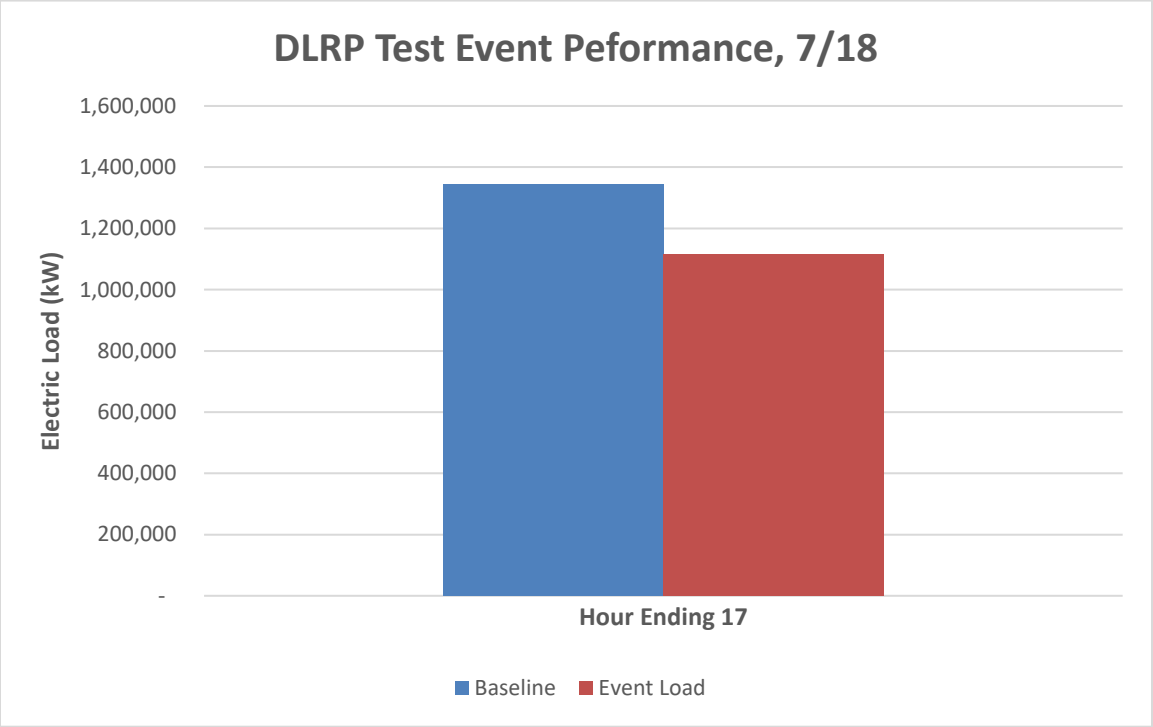
The Company has long been a committed leader in developing and implementing DR programs. The Company has developed and deployed a broad range of DR solutions and continues to successfully create opportunities for customers to better control their electricity use while providing value to the grid.

Con Edison's DR programs are constantly evolving. In 2017, the Company expanded CDP to the entire service territory while testing and refining additional strategies for DR event reduction and device setup rate. The Company removed the legacy paging technology thermostats from the DLC program, and will transition away from the CPT model to the BYOT model in 2017. CSRP and DLRP continued to grow in both MW enrolled and the number of customers. The Company will continue to improve the programs going forward to incorporate learnings and new technologies, and to continue to spur program growth and maximize value to the distribution system.

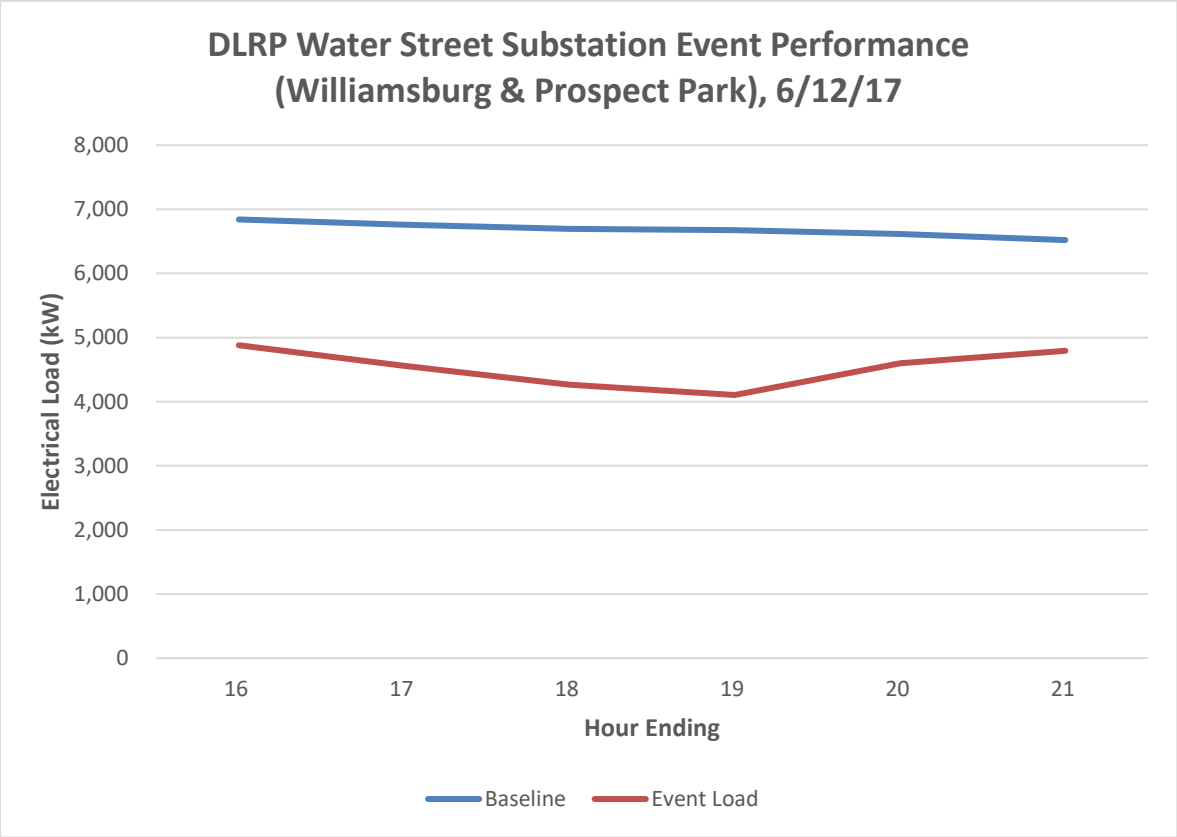
Program evolution will only gain momentum as REV continues to be implemented. The Company looks forward to leading this next phase of DR program development.

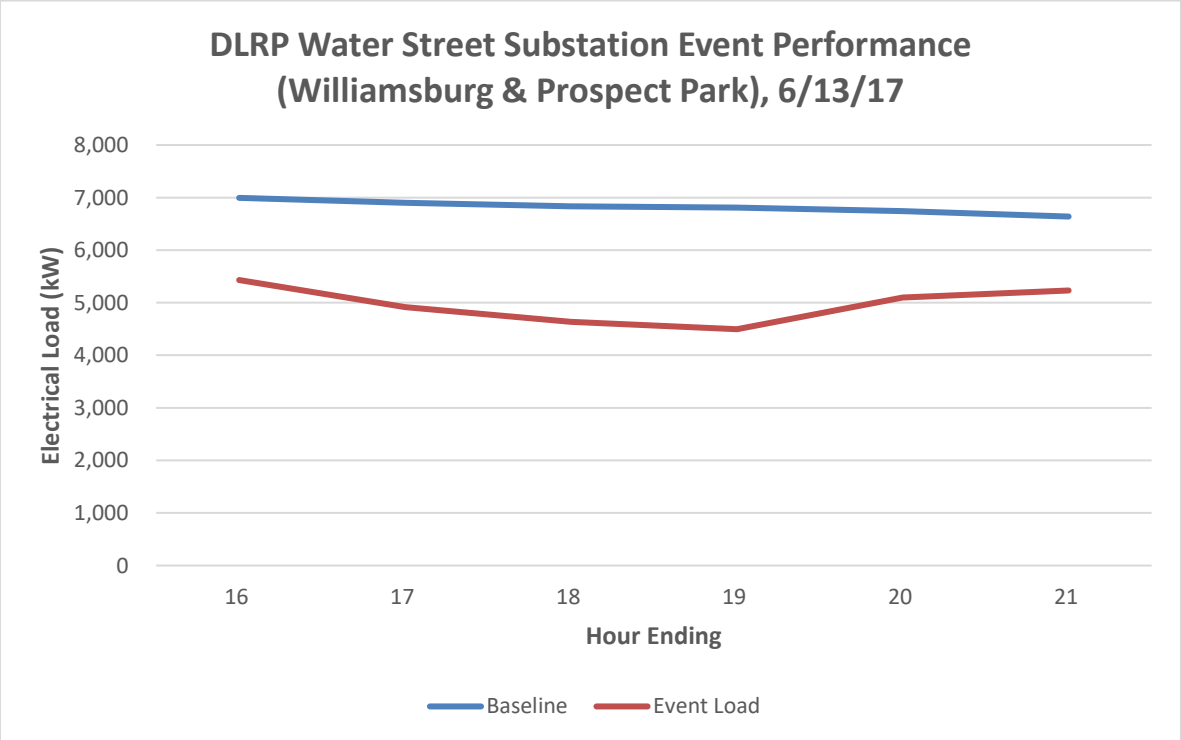
Appendix A: DLRP Event Performance Charts

Test Event

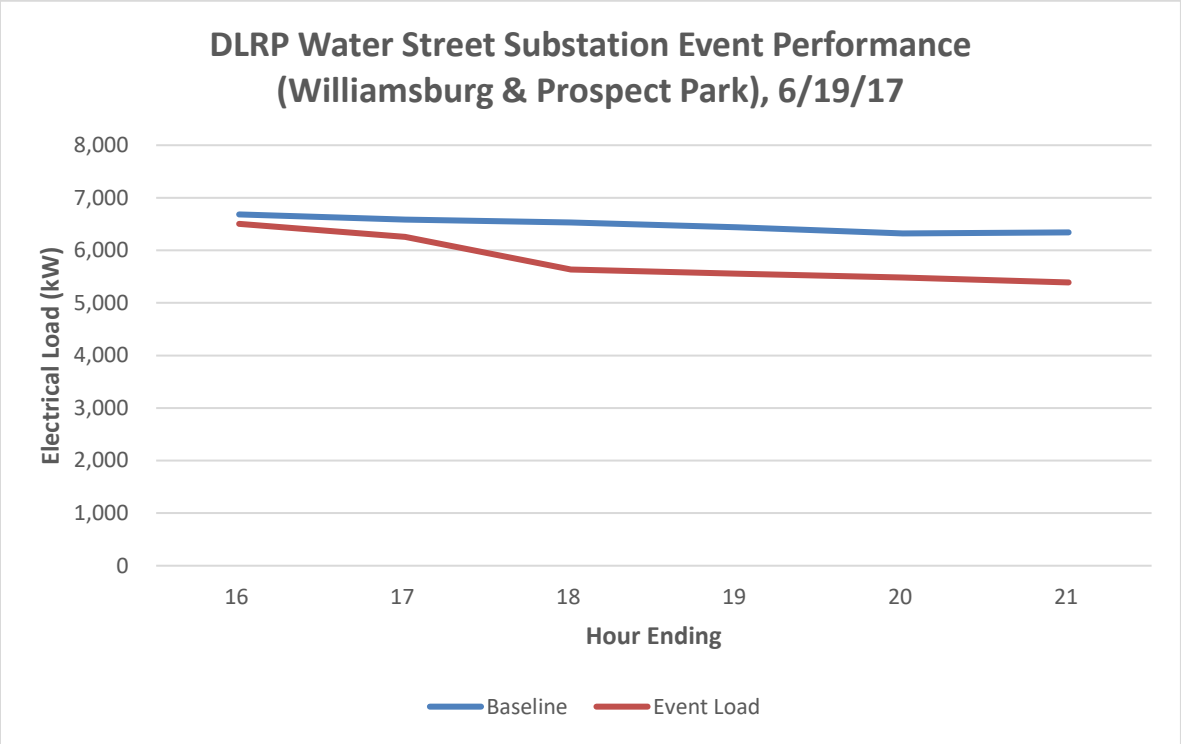


Actual Events

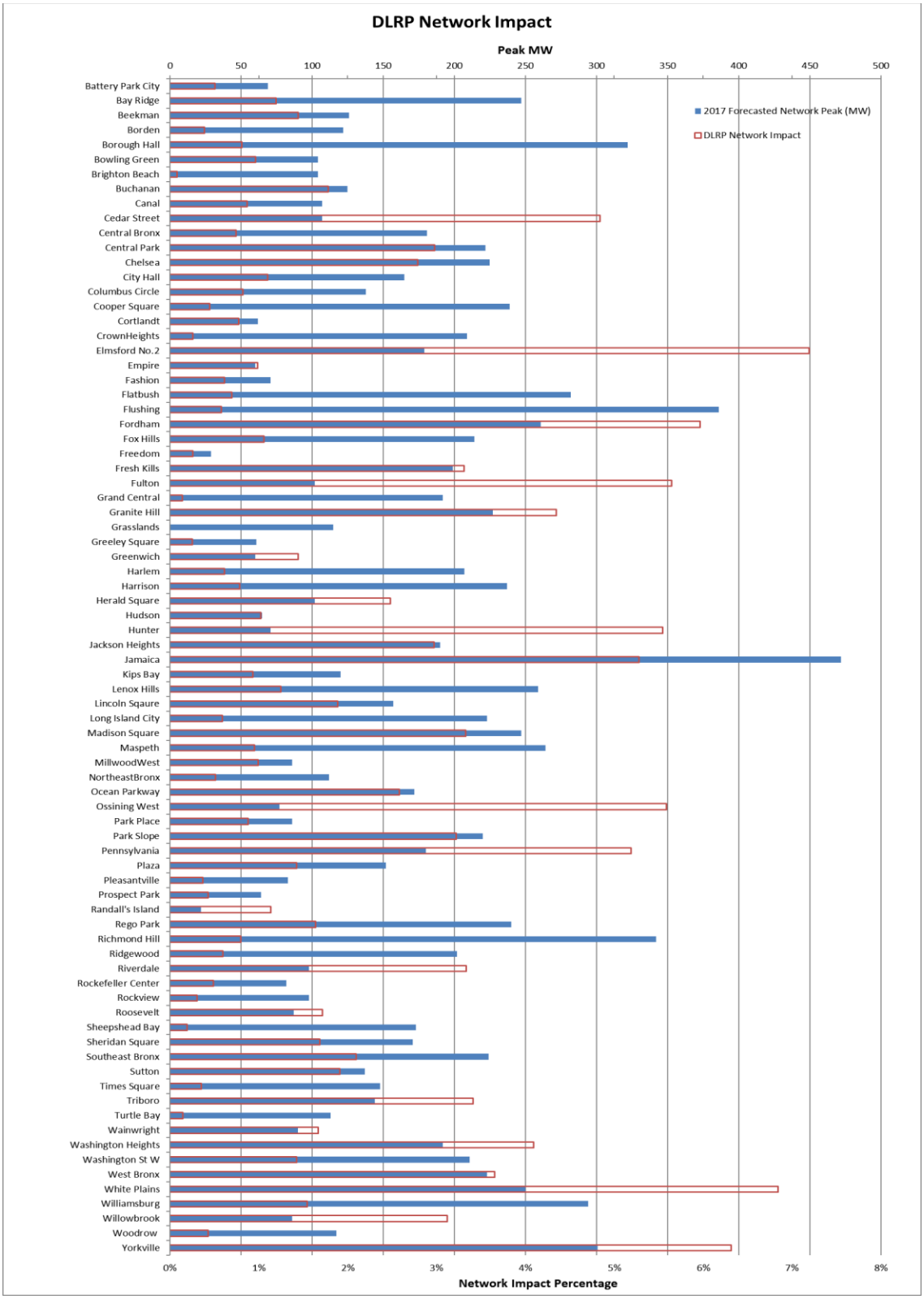




Actual Events (cont'd)



Appendix B: DLRP Reservation Payment Option Participation Programs – Enrolled and Achieved System Impacts



2017 DLRP MW Peak, Enrolled, Reduced, and Impact by Network

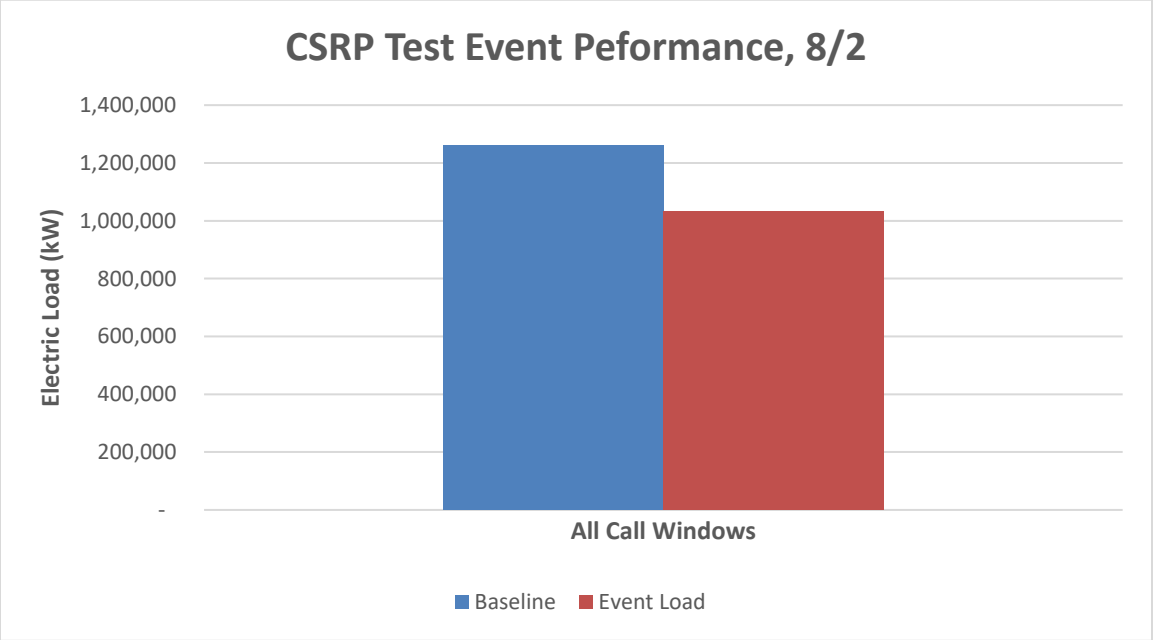
Network	Tier	2017 Forecasted Network Peak (MW)	MW Enrolled DLRP Summer Reservation	MW Reduced During DLRP Test	Enrolled % of Network Peak MW
Battery Park City	1	69	3.13	4.36	6.32%
Bay Ridge	1	247	1.02	1.06	0.43%
Beekman	1	126	5.96	3.94	3.12%
Borden	1	122	1.63	1.88	1.54%
Borough Hall	2	322	19.09	22.04	6.84%
Bowling Green	1	104	5.40	3.80	3.65%
Brighton Beach	1	104	1.84	1.48	1.43%
Buchanan	1	125	4.48	5.11	4.09%
Canal	1	107	2.10	1.78	1.67%
Cedar Street	1	107	0.15	0.16	0.15%
Central Bronx	1	181	5.59	6.17	3.41%
Central Park	1	222	0.90	0.78	0.35%
Chelsea	1	225	5.36	4.30	1.91%
City Hall	1	165	4.23	3.46	2.10%
Columbus Circle	1	138	5.04	2.33	1.69%
Cooper Square	1	239	1.86	0.46	0.19%
Cortlandt	1	62	1.47	1.06	1.71%
Crown Heights	2	209	0.77	0.64	0.31%
Elmsford No.2	1	179	0.78	0.88	0.49%
Empire	1	60	2.00	2.00	3.33%
Fashion	1	71	0.47	0.42	0.60%
Flatbush	2	282	1.72	2.26	0.80%
Flushing	2	386	8.96	6.33	1.64%
Fordham	1	261	2.72	2.97	1.14%
Fox Hills	1	214	1.25	0.93	0.43%
Freedom	1	29	0.80	0.11	0.37%
Fresh Kills	1	199	2.81	2.84	1.43%
Fulton	1	102	6.72	5.29	5.19%
Grand Central	1	192	7.68	6.18	3.22%
Granite Hill	1	227	1.83	2.01	0.88%
Grasslands	1	115	8.44	6.43	5.59%
Greeley Square	1	61	2.00	1.58	2.58%
Greenwich	1	60	0.57	0.31	0.51%
Harlem	1	207	3.93	2.06	0.99%
Harrison	1	237	2.45	2.26	0.95%
Herald Square	1	102	3.94	3.40	3.33%
Hudson	1	65	0.51	0.38	0.59%
Hunter	1	71	2.32	1.34	1.89%
Jackson Heights	1	190	1.67	2.37	1.25%
Jamaica	1	472	4.45	4.41	0.93%
Kips Bay	1	120	4.47	6.33	5.28%
Lenox Hills	1	259	6.54	7.70	2.97%
Lincoln Square	1	157	8.38	8.70	5.54%
Long Island City	1	223	0.93	2.28	1.02%
Madison Square	1	247	4.01	6.13	2.48%
Maspeth	1	264	3.79	2.08	0.79%
Millwood West	1	86	0.60	0.53	0.61%

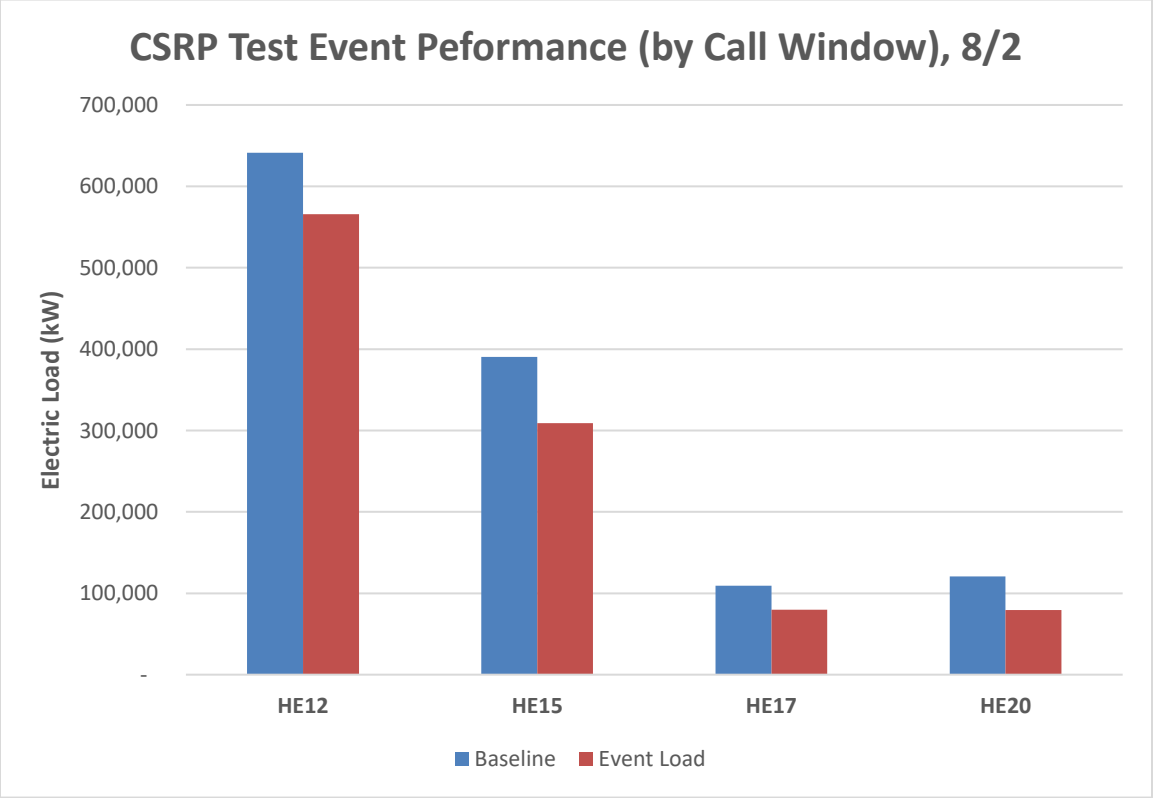
2017 DLRP MW Peak, Enrolled, Reduced, and Impact by Network (cont'd)

Network	Tier	2017 Forecasted Network Peak (MW)	MW Enrolled DLRP Summer Reservation	MW Reduced During DLRP Test	Enrolled % of Network Peak MW
Northeast Bronx	2	112	4.07	1.62	1.44%
Ocean Parkway	1	172	1.23	0.43	0.25%
Ossining West	1	77	0.10	0.00	0.00%
Park Place	1	86	4.22	3.74	4.35%
Park Slope	1	220	0.23	0.31	0.14%
Pennsylvania	1	180	11.45	10.16	5.65%
Plaza	1	152	6.58	5.03	3.31%
Pleasantville	1	83	0.65	0.22	0.26%
Prospect Park	1	64	0.71	0.68	1.06%
Randall's Island	1	22	1.00	1.31	5.97%
Rego Park	1	240	1.26	1.39	0.58%
Richmond Hill	2	342	2.53	2.39	0.70%
Ridgewood	2	202	1.97	1.25	0.62%
Riverdale	1	98	1.20	0.97	0.99%
Rockefeller Center	1	82	7.50	5.90	7.19%
Rockview	1	98	0.27	0.25	0.26%
Roosevelt	1	87	0.65	0.67	0.77%
Sheepshead Bay	2	173	1.43	0.77	0.45%
Sheridan Square	1	171	2.01	1.41	0.82%
Southeast Bronx	1	224	1.64	2.47	1.10%
Sutton	1	137	6.43	3.83	2.79%
Times Square	1	148	5.35	4.41	2.98%
Triboro	1	144	1.46	1.07	0.75%
Turtle Bay	1	113	6.70	5.47	4.84%
Wainwright	1	90	1.15	0.78	0.87%
Washington Heights	1	192	3.84	3.42	1.78%
Washington St W	1	211	0.11	0.18	0.08%
West Bronx	1	223	2.12	2.15	0.96%
White Plains	1	250	3.46	2.02	0.81%
Williamsburg	2	294	1.39	1.14	0.39%
Willowbrook	1	86	0.68	1.24	1.44%
Woodrow	1	117	1.29	1.40	1.19%
Yorkville	2	301	2.81	1.53	0.51%

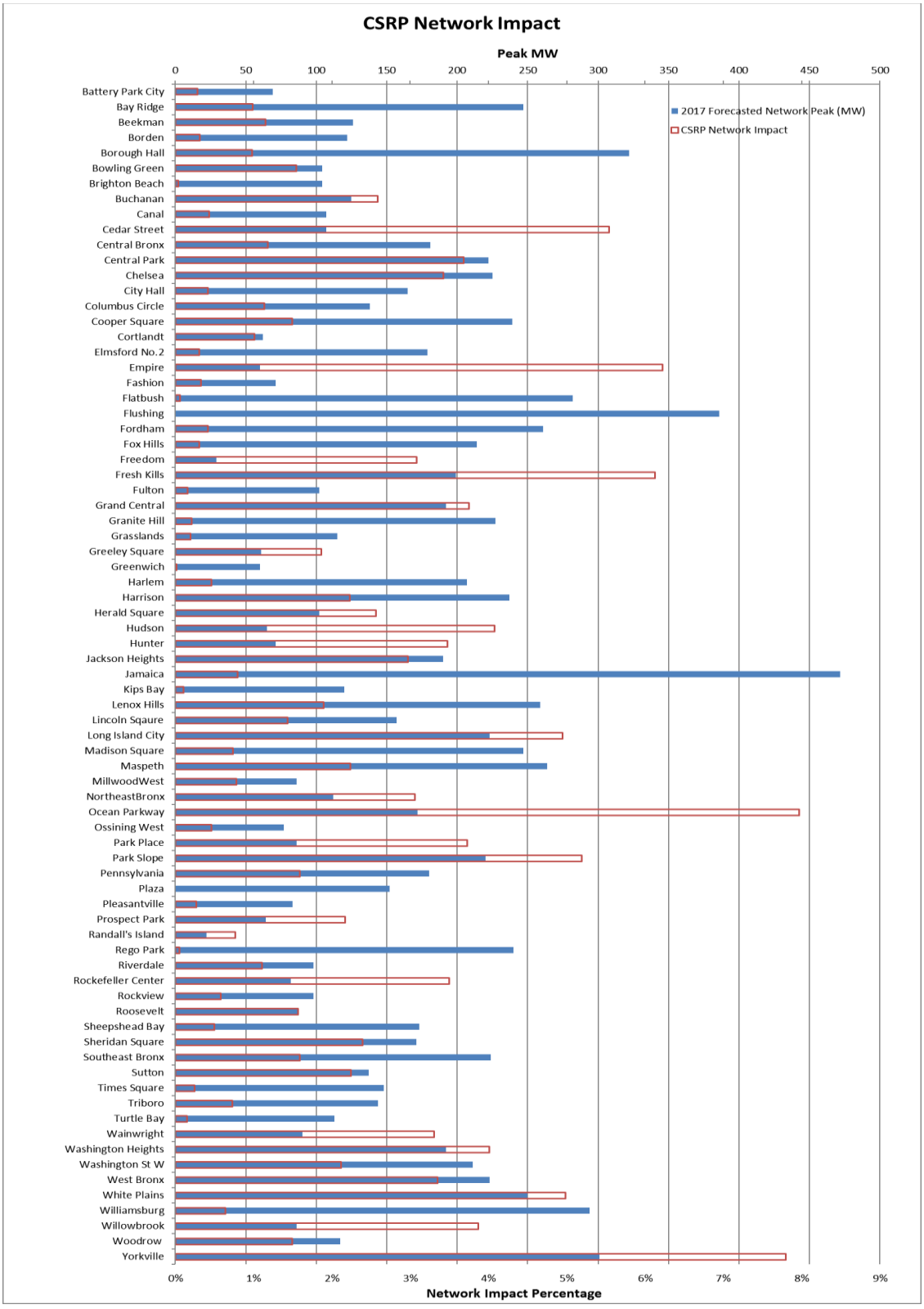
Appendix C: CSRP Event Performance Charts

Test Event





Appendix D: CSRP Reservation Payment Option Participation Programs – Enrolled and Achieved System Impacts



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Brighton Beach	1	104	1.61	2.20	2.12%
Buchanan	1	125	4.30	5.01	4.01%
Canal	1	107	2.38	3.54	3.31%
Cedar Street	1	107	0.15	0.16	0.15%
Central Bronx	1	181	1.55	1.32	0.73%
Central Park	1	222	0.37	0.55	0.25%
Chelsea	1	225	4.44	5.05	2.24%
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Columbus Circle	1	138	3.08	3.30	2.39%
Cooper Square	1	239	0.95	1.20	0.50%
Cortlandt	1	62	1.21	0.97	1.56%
Elmsford No.2	1	179	0.68	1.04	0.58%
Empire	1	60	1.96	2.10	3.50%
Fashion	1	71	0.57	0.79	1.11%
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Flushing	2	386	6.70	2.97	0.77%
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Fox Hills	1	214	0.88	0.58	0.27%
Freedom	1	29	0.80	-0.17	0.00%
Fresh Kills	1	199	2.08	3.16	1.59%
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Grasslands	1	115	7.60	9.17	7.97%
Greeley Square	1	61	2.27	1.87	3.06%
Greenwich	1	60	0.55	0.47	0.78%
Harlem	1	207	2.75	4.62	2.23%
Harrison	1	237	1.41	1.74	0.73%
Herald Square	1	102	3.45	5.05	4.95%
Hudson	1	65	0.51	0.93	1.43%
Hunter	1	71	2.09	1.34	1.89%
Jackson Heights	1	190	0.23	0.19	0.10%
Jamaica	1	472	1.70	3.74	0.79%
Kips Bay	1	120	4.75	3.56	2.97%
Lenox Hills	1	259	6.94	9.01	3.48%
Lincoln Square	1	157	6.21	6.40	4.08%
Long Island City	1	223	4.57	5.72	2.57%
Madison Square	1	247	3.92	5.51	2.23%
Maspeth	1	264	2.21	1.21	0.46%
Millwood West	1	86	0.10	0.01	0.01%
Northeast Bronx	2	112	1.40	2.09	1.87%

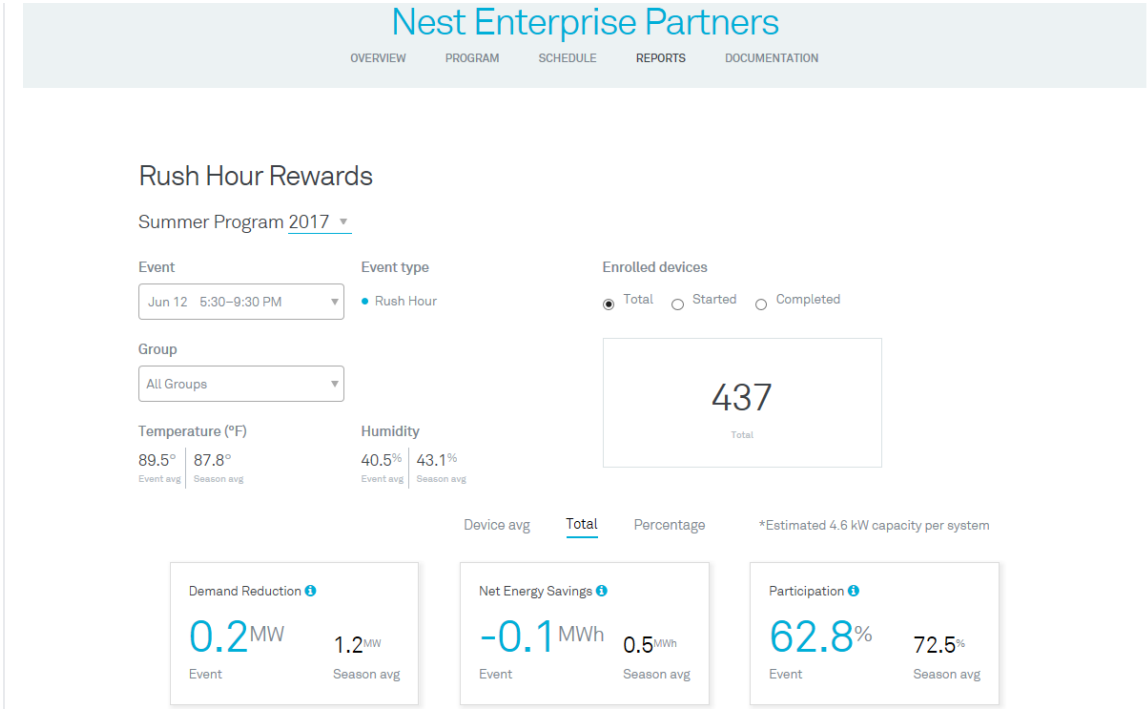
2017 CSRP MW Peak, Enrolled, Reduced, and Impact by Network (cont'd)

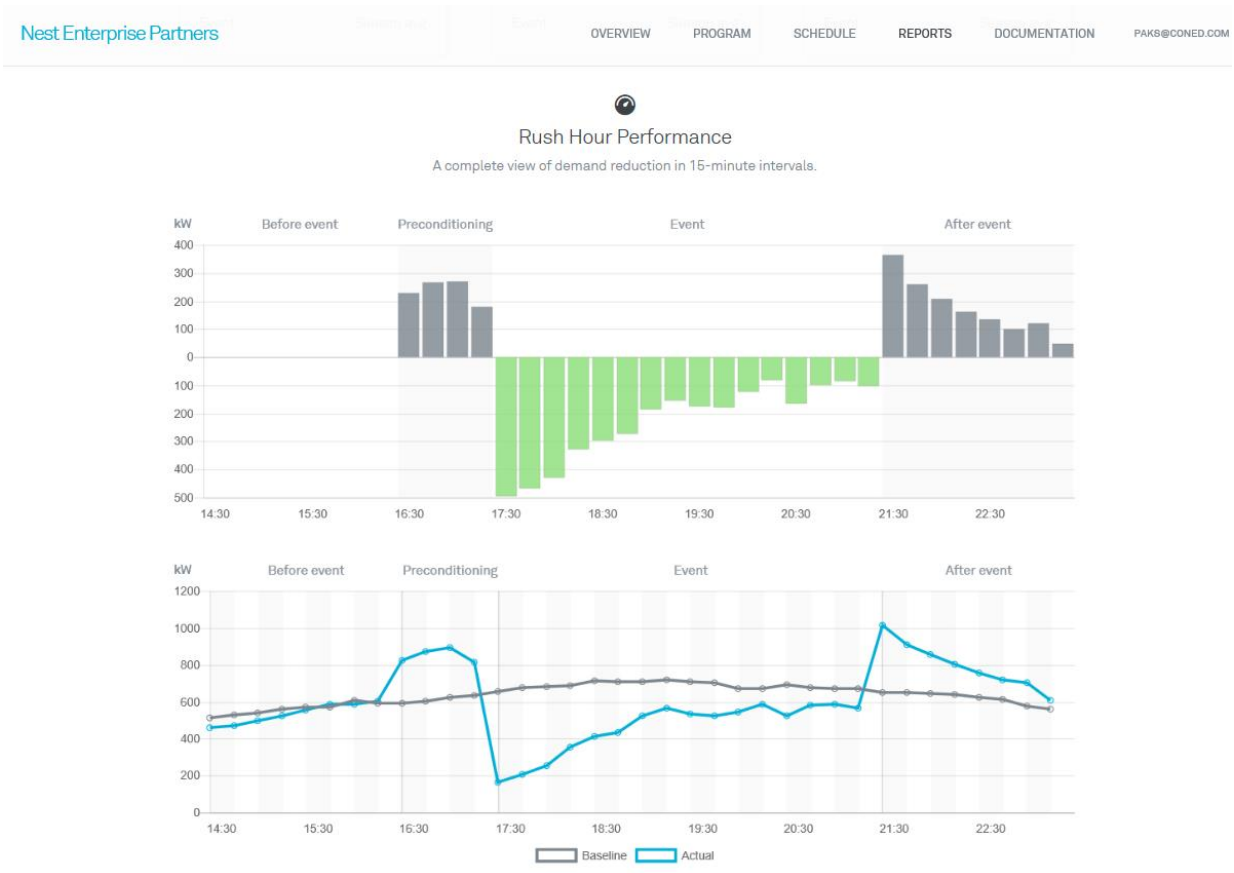
Network	Tier	2017 Forecasted Network Peak (MW)	MW Enrolled DLRP Summer Reservation	MW Reduced During DLRP Test	Enrolled % of Network Peak MW
Ocean Parkway	1	172	0.35	0.33	0.19%
Ossining West	1	77	0.10	0.16	0.21%
Park Place	1	86	2.87	3.23	3.75%
Park Slope	1	220	0.24	0.35	0.16%
Pennsylvania	1	180	10.85	11.03	6.13%
Plaza	1	152	6.11	4.69	3.09%
Pleasantville	1	83	0.25	0.26	0.31%
Prospect Park	1	64	0.56	0.27	0.42%
Randall's Island	1	22	1.00	-0.25	0.00%
Rego Park	1	240	0.48	0.14	0.06%
Riverdale	1	98	0.36	0.32	0.33%
Rockefeller Center	1	82	7.49	5.11	6.23%
Rockview	1	98	0.27	0.30	0.31%
Roosevelt	1	87	0.55	0.88	1.01%
Sheepshead Bay	2	173	1.57	2.58	1.49%
Sheridan Square	1	171	2.10	1.94	1.14%
Southeast Bronx	1	224	0.84	0.94	0.42%
Sutton	1	137	5.50	4.69	3.43%
Times Square	1	148	4.80	5.45	3.68%
Triboro	1	144	1.86	1.70	1.18%
Turtle Bay	1	113	6.46	6.26	5.54%
Wainwright	1	90	0.75	0.39	0.43%
Washington Heights	1	192	3.90	4.97	2.59%
Washington St W	1	211	0.05	0.08	0.04%
West Bronx	1	223	1.39	3.45	1.55%
White Plains	1	250	3.01	2.46	0.98%
Williamsburg	2	294	0.79	0.92	0.31%
Willowbrook	1	86	0.65	0.99	1.15%
Woodrow	1	117	0.97	1.16	0.99%
Yorkville	2	301	1.31	0.86	0.28%

Appendix E: DLC Test Event & Performance

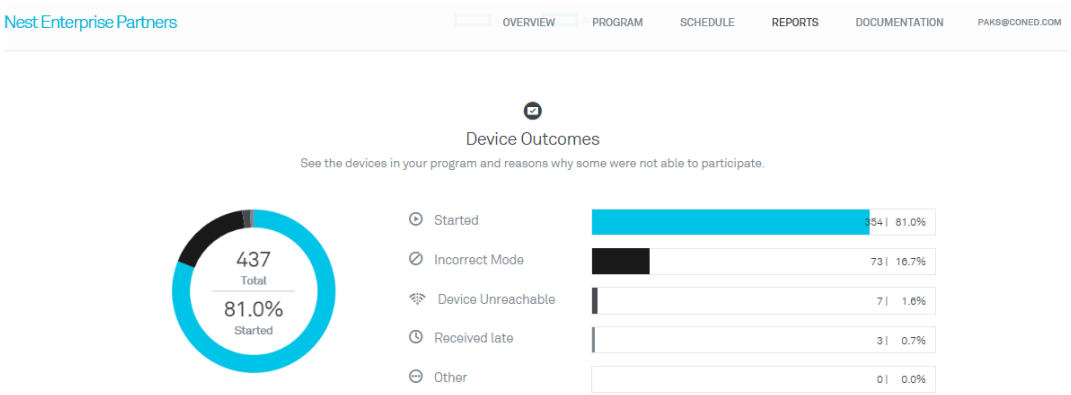
2017 Whisker LabEvent Reports

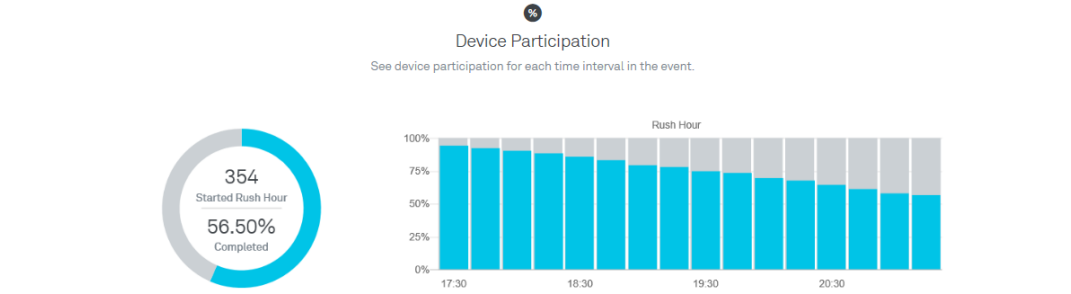
2017 Nest Event Reports

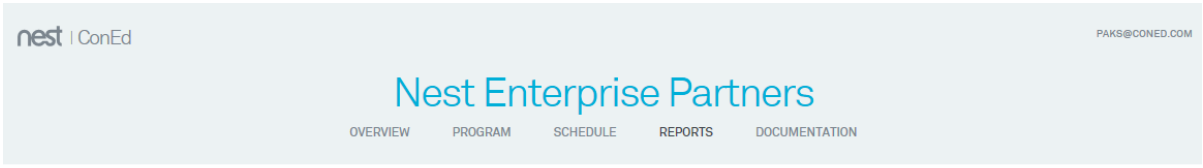


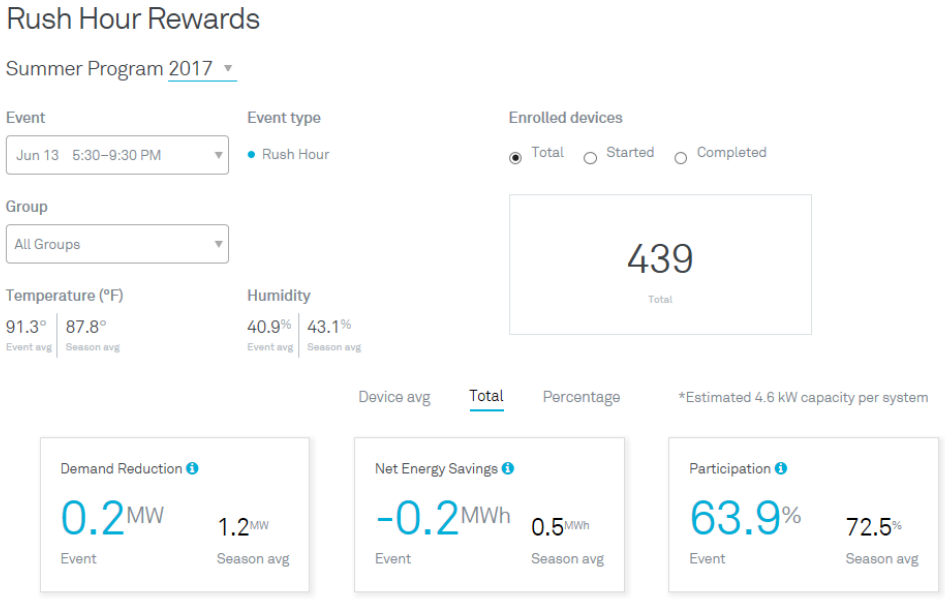


2017 Nest Event Reports (cont'd)

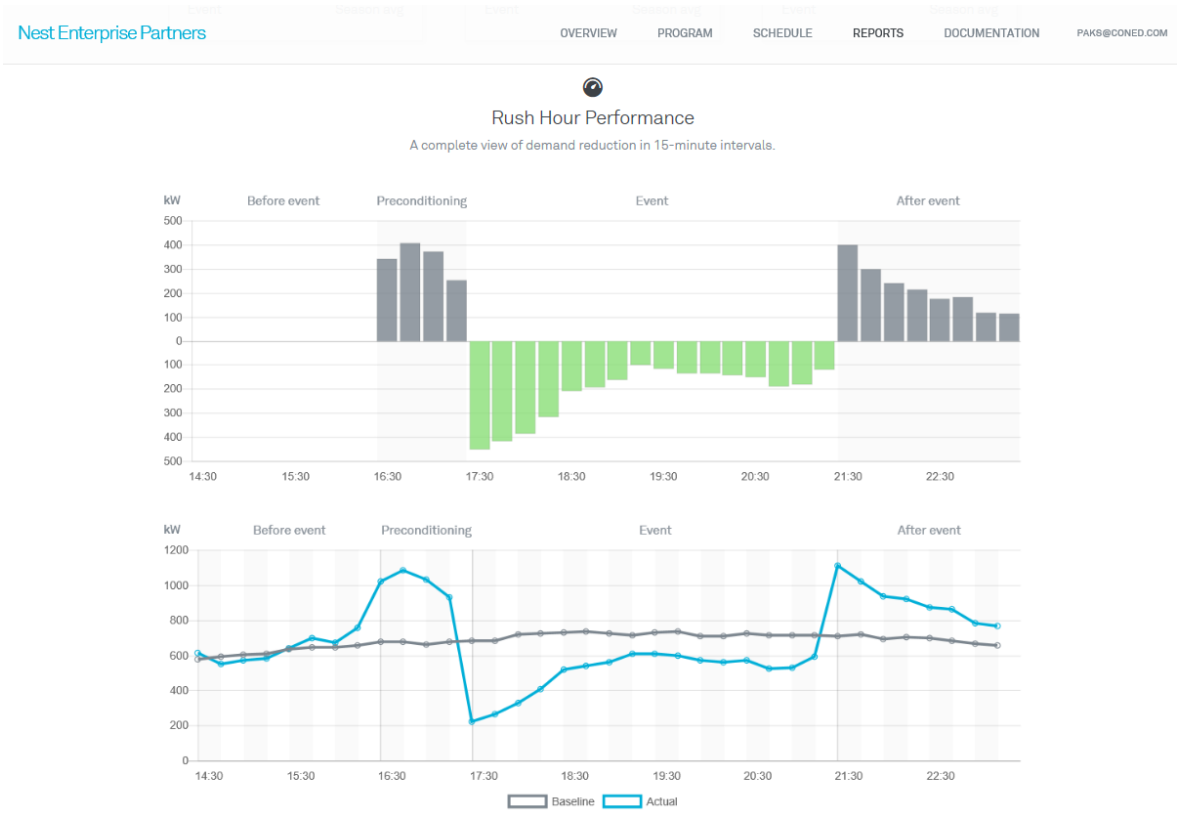


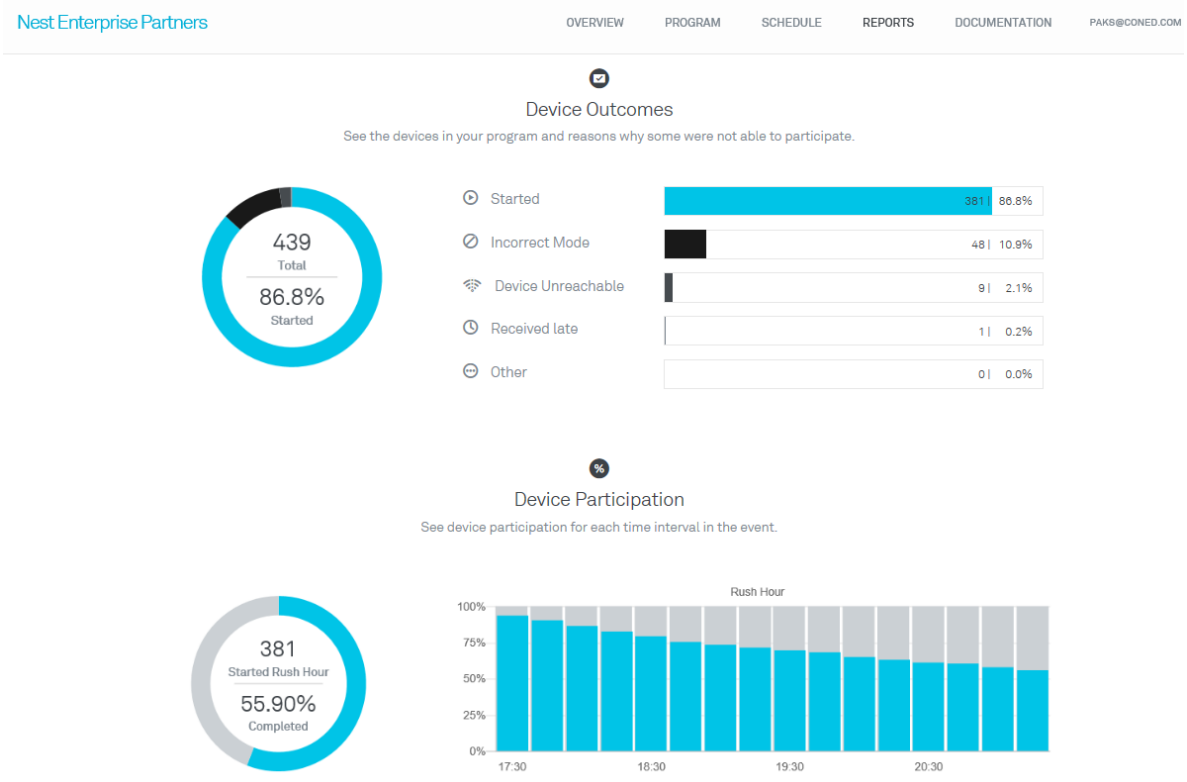






2017 Nest Event Reports (cont'd)





2017 Nest Event Reports (cont'd)

nest | ConEd

PAKS@CONED.COM

Nest Enterprise Partners

OVERVIEW PROGRAM SCHEDULE REPORTS DOCUMENTATION

Rush Hour Rewards

Summer Program 2017

Event: Jun 19 4:09–10:09 PM

Event type: Critical Rush Hour

Enrolled devices: Total Started Completed

Group: All Groups

449 Total

Temperature (°F): 73.2° Event avg | 73.2° Season avg

Humidity: 90.6% Event avg | 90.6% Season avg

Device avg Total Percentage *Estimated 4.6 kW capacity per system

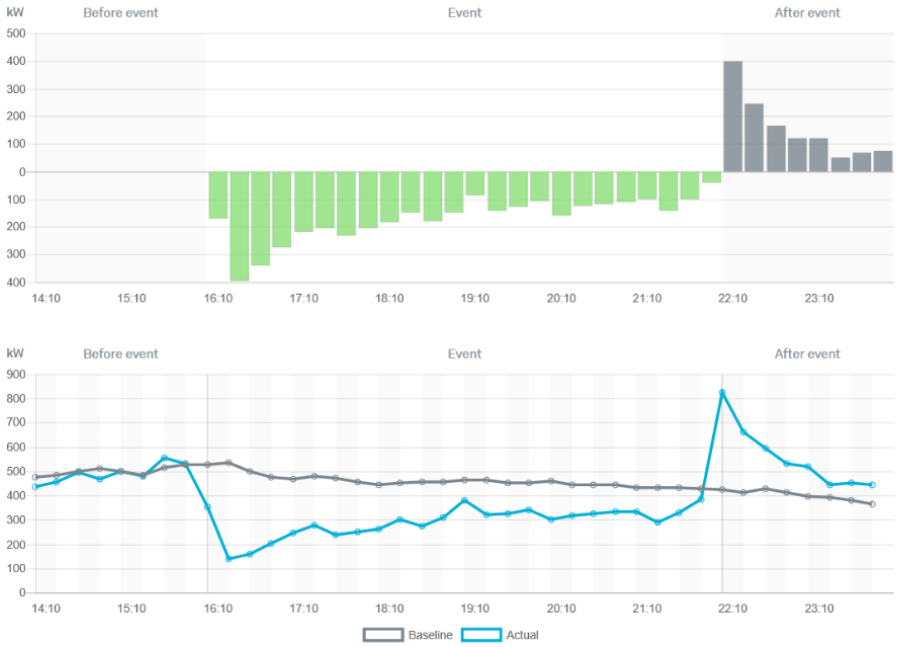
Demand Reduction	Net Energy Savings	Participation
0.1 MW Event	0.4 MWh Event	59.4% Event
0.1 MW Season avg	0.4 MWh Season avg	59.4% Season avg

Nest Enterprise Partners

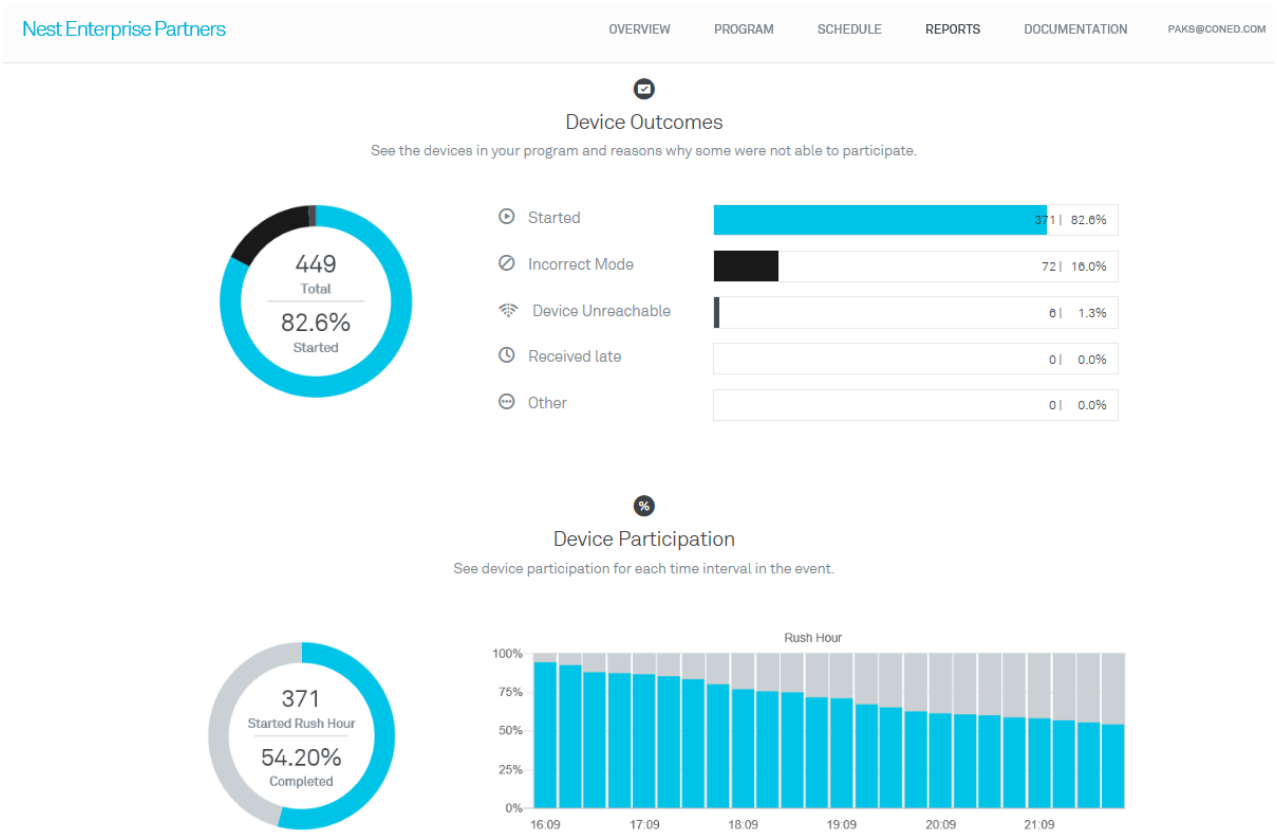
OVERVIEW PROGRAM SCHEDULE REPORTS DOCUMENTATION PAKS@CONED.COM

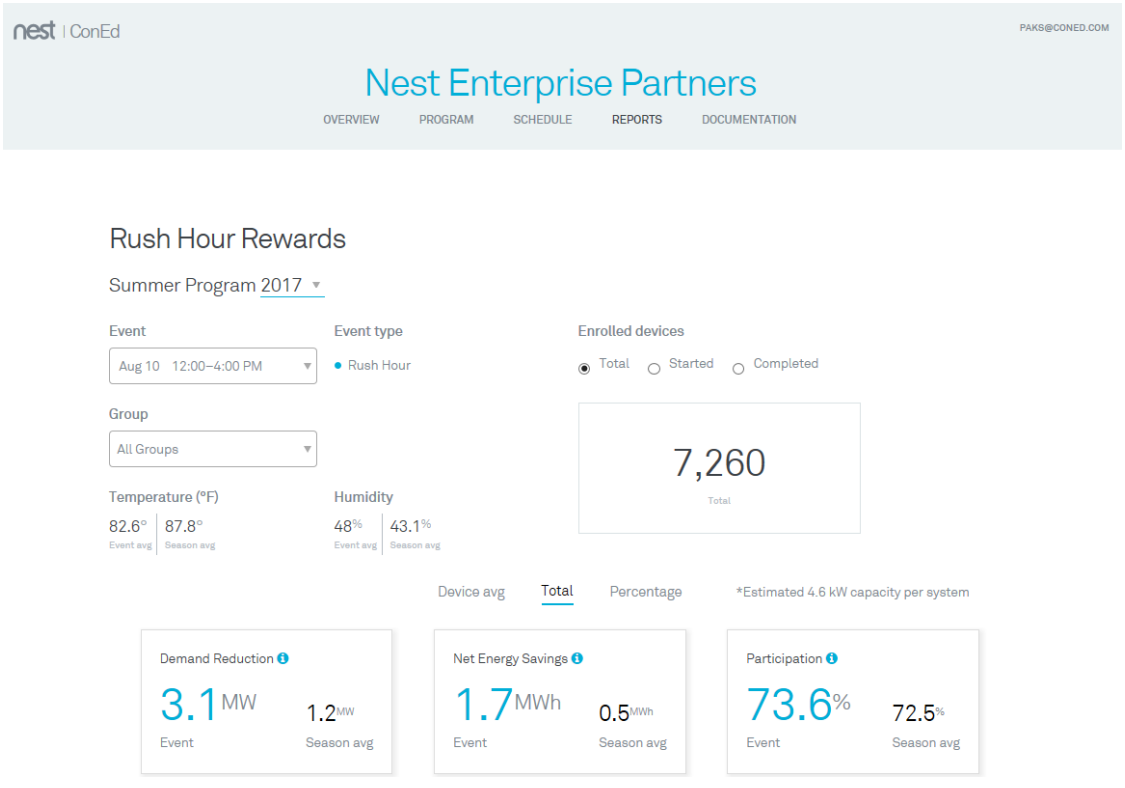
Rush Hour Performance

A complete view of demand reduction in 15-minute intervals.

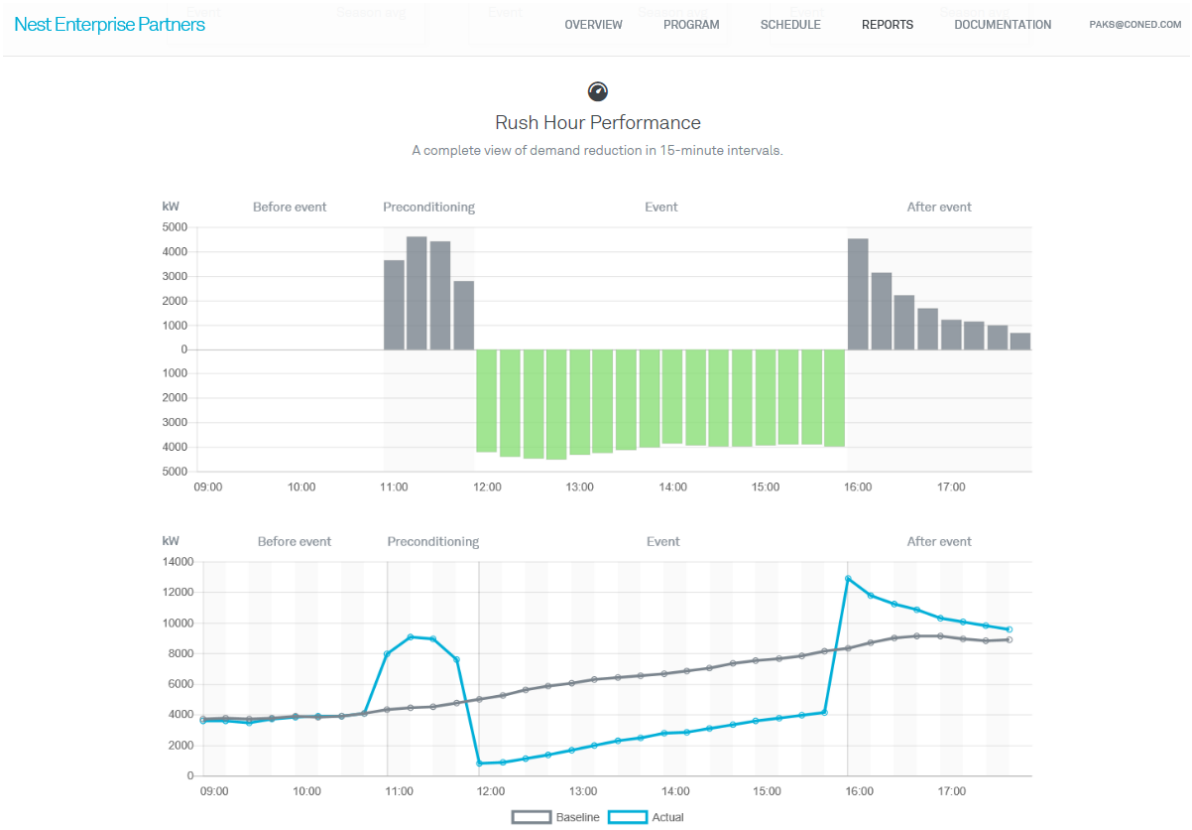


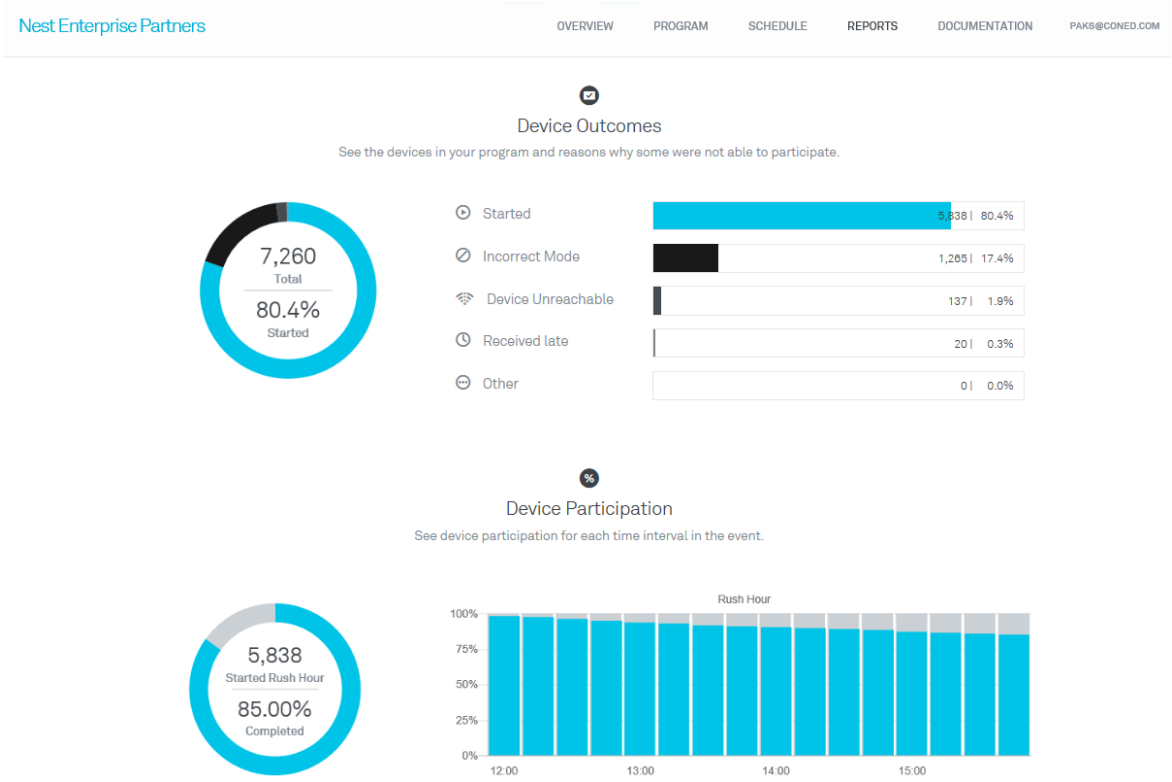
2017 Nest Event Reports (cont'd)





2017 Nest Event Reports (cont'd)





2017 EnergyHub Event Report

**Activity excludes data for: Alarm Panel*

Devices

Created by	**Steven Pak on Thu Aug 10, 2017 7:47 EDT**
Organization	**Con Edison, X - E - Northeast Bronx, B - E - Ocean Parkway, B - E - Flatbush, B - D - Ridgewood, B - D - Bay Ridge, B - E - Park Slope, B - E - Williamsburgh, Q - E - Richmond Hill, Q - E - Flushing, Q - E - Rego Park, Q - E - Jamaica, S - E - Fox_Hills, S - E - Fresh_Kills, S - E - Wainwright, S - E - Willowbrook, S - E - Woodrow, W - E - Buchanan, W - E - Elmsford_No.2, W - E - Granite_Hill, W - E - Harrison, W - E - Millwood_West, W - E - Ossining_West, W - E - Pleasantville, W - E - Rockview, W - E - White_Plains, W - E - Washington_Street, M - D - Cooper Square, M - D - Madison Square, M - D - Kips Bay, M - E - Yorkville, M - D - Cortlandt, M - D - Chelsea**
Devices	**376**

Time

Event Start Time	**Thu Aug 10, 2017 12:00 EDT**
Event Duration	**4 hours**
Event End Time	**Thu Aug 10, 2017 16:00 EDT**

Load Shed

Average Shed	**71.11 kW**
Max Shed	**136.48 kW at Thu Aug 10, 2017 12:30 EDT**
Total Energy Savings	**284.43 kWh**

**Totals do not include data for: Alarm Panel*

Participation Statistics

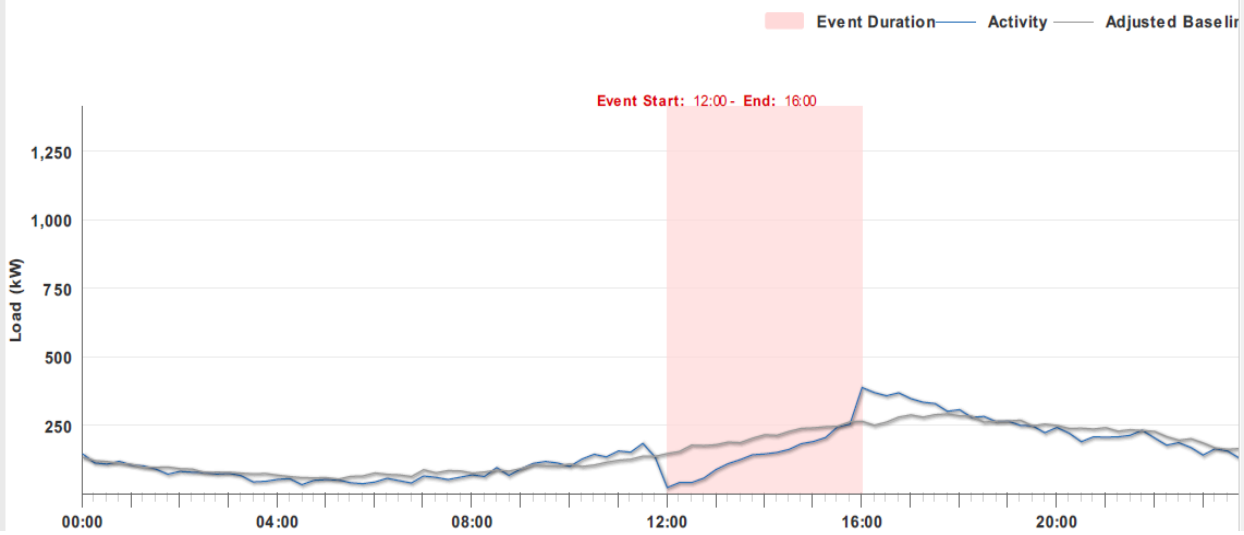
Event Status	**Past**	
Targeted	**376**	
Full Participation	**83**	**22.1%**
Partial Participation	**7**	**1.9%**
Incompatible Mode	**153**	**40.7%**
Offline	**70**	**18.6%**
Opt Out	**63**	**16.8%**

Email Participation Totals (.CSV)

Email Participation Intervals (.CSV)

Cooling Event Activity #5158

Data may be delayed by up to 30 minutes.
All times Eastern Time (U.S. & Can.).



Appendix F: 2017 – 2011 Con Edison Demand Response Event Review

NYISO TDRP – Borough/Network/Subzone

Borough	Network	Subzone
BK	Bay Ridge	J3
BK	Borough Hall	J8
BK	Brighton Beach	J3
BK	Crown Heights	J8
BK	Flatbush	J3
BK	Ocean Parkway	J3
BK	Park Slope	J3
BK	Prospect Park	J8
BK	Ridgewood	J8
BK	Sheepshead Bay	J3
BK	Williamsburg	J8
BX	Central Bronx	J8
BX	Fordham	J1
BX	Northeast Bronx	J1
BX	Riverdale	J1
BX	Southeast Bronx	J1
BX	West Bronx	J1
MN	Battery Park City	J8
MN	Beekman	J3
MN	Bowling Green	J8
MN	Canal	J7
MN	Central Park	J8
MN	Chelsea	J7
MN	City Hall	J7
MN	Columbus Circle	J6
MN	Cooper Square	J7
MN	Cortlandt	J8
MN	Empire	J3
MN	Fashion	J3
MN	Freedom	J8
MN	Fulton	J8
MN	Grand Central	J3
MN	Greeley Square	J7
MN	Greenwich	J7
MN	Harlem	J8
MN	Herald Square	J6
MN	Hudson	J6
MN	Hunter	J2
MN	Kips Bay	J7
MN	Lenox Hill	J8
MN	Lincoln Square	J6
MN	Madison Square	J7

Borough	Network	Subzone
MN	Midtown West	J6
MN	Park Place	J7
MN	Pennsylvania	J6
MN	Lenox Hill	J8
MN	Plaza	J6
MN	Randall's Island	J2
MN	Rockefeller Center	J6
MN	Roosevelt	J2
MN	Sheridan Square	J7
MN	Sutton	J2
MN	Times Square	J6
MN	Triboro	J8
MN	Turtle Bay	J2
MN	Washington Heights	J1
MN	Yorkville	J2
QN	Borden	J3
QN	Flushing	J5
QN	Jackson Heights	J5
QN	Jamaica	J5
QN	Long Island City	J5
QN	Maspeth	J3
QN	Rego Park	J5
QN	Richmond Hill	J8
QN	Sunnyside	J3
SI	Fox Hills	J4
SI	Fresh Kills	J4
SI	Wainwright	J4
SI	Woodrow	J4
SI	Willowbrook	J4
WS	Buchanan	H
WS	Cedar Street	I
WS	Elmsford No. 2	I
WS	Granite Hill	I
WS	Harrison	I
WS	Millwood West	h
WS	Mohansic	H
WS	Ossining West	H
WS	Washington Street	I
WS	White Plains	I
WS	Grasslands	I
WS	Pleasantville	I
WS	Rockview	I

2017 Demand Response Program Activity

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
June 12, 2017	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Williamsburg	Contingency
June 12, 2017	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Prospect Park	Contingency
June 12, 2017	Con Edison	DLC	5:30 PM	9:30 PM	4:00	Williamsburg	Contingency
June 12, 2017	Con Edison	DLC	5:30 PM	9:30 PM	4:00	Prospect Park	Contingency
June 13, 2017	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Williamsburg	Contingency
June 13, 2017	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Prospect Park	Contingency
June 13, 2017	Con Edison	DLC	5:30 PM	9:30 PM	4:00	Williamsburg	Contingency
June 19, 2017	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Williamsburg	Immediate
June 19, 2017	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Prospect Park	Immediate
June 19, 2017	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Williamsburg	Immediate
June 19, 2017	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Prospect Park	Immediate
July 18, 2017	Con Edison	DLRP	4:00 PM	5:00 PM	1:00	All	Test
July 20, 2017	Con Edison	SMART AC	2:00 PM	6:00 PM	4.00	All	Test
July 20, 2017	Con Edison	SMART AC	7:00 PM	11:00 PM	4.00	All	Test
July 31, 2017	Con Edison	DLRP	4:00 PM	5:00 PM	1:00	All	Test
August 2, 2017	Con Edison	CSRP	11:00 AM	12:00 PM	1:00	All	Test
August 2, 2017	Con Edison	CSRP	2:00 PM	3:00 PM	1:00	All	Test
August 2, 2017	Con Edison	CSRP	4:00 PM	5:00 PM	1:00	All	Test
August 2, 2017	Con Edison	CSRP	7:00 PM	8:00 PM	1:00	All	Test
August 2, 2017	Con Edison	BQDM	4:00 PM	8:00 PM	4:00	Richmond Hill, Ridgewood, Crown Heights	Test
August 2, 2017	Con Edison	BQDM	8:00 PM	12:00 AM	4.00	Richmond Hill, Ridgewood, Crown Heights	Test
August 22, 2017	Con Edison	SMART AC	2:00 PM	6:00 PM	4.00	All	Test
August 22, 2017	Con Edison	SMART AC	7:00 PM	11:00 PM	4.00	All	Test
August 24, 2017	NYISO	SCR	1:00 PM	2:00 PM	1.00	Zone H	Test
August 24, 2017	NYISO	SCR	2:00 PM	3:00 PM	1.00	Zone J	Test
September 5, 2017	Con Edison	SMART AC	2:00 PM	6:00 PM	4.00	All	Test
September 5, 2017	Con Edison	SMART AC	7:00 PM	11:00 PM	4.00	All	Test
October 5, 2017	NYISO	SCR	1:00 PM	2:00 PM	12:00 AM	Zone J	Test

2016 Demand Response Program Activity

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
July 23, 2016	Con Edison	DLC	8:25 PM	12:00 AM	03:45	Triboro	Immediate
July 24, 2016	Con Edison	DLRP	6:00 AM	10:00 AM	4:00	Riverdale	Contingency
July 24, 2016	Con Edison	DLC	6:19 AM	10:00 AM	3:41	Riverdale	Contingency
July 25, 2016	Con Edison	CSRP	11:00 AM	3:00 PM	4:00	All	Planned
July 25, 2016	Con Edison	CSRP	2:00 PM	6:00 PM	4:00	All	Planned
July 25, 2016	Con Edison	CSRP	4:00 PM	8:00 PM	4:00	All	Planned
July 25, 2016	Con Edison	CSRP	7:00 PM	11:00 PM	4:00	All	Planned
July 25, 2016	Con Edison	CDP	2:00 PM	6:00 PM	4:00	J1, J2, J3, J4, J5,	Planned
July 25, 2016	Con Edison	CDP	7:00 PM	11:00 PM	4:00	J6, J7, J8	Planned
July 25, 2016	NYISO	TDRP	1:00 PM	7:00 PM	6:00	Zone J	Immediate
July 25, 2016	Con Edison	DLC	11:40 AM	3:40 PM	4:00	Daytime Networks	Planned
July 25, 2016	Con Edison	DLC	4:00 PM	8:00 PM	4:00	Nighttime Networks	Planned
July 26, 2016	Con Edison	CSRP	11:00 AM	3:00 PM	4:00	All	Planned
July 26, 2016	Con Edison	CSRP	2:00 PM	6:00 PM	4:00	All	Planned
July 26, 2016	Con Edison	CSRP	4:00 PM	8:00 PM	4:00	All	Planned
July 26, 2016	Con Edison	CSRP	7:00 PM	11:00 PM	4:00	All	Planned
July 26, 2016	Con Edison	CDP	2:00 PM	6:00 PM	4:00	J1, J2, J3, J4, J5,	Planned
July 26, 2016	Con Edison	CDP	7:00 PM	11:00 PM	4:00	J6, J7, J8	Planned
July 26, 2016	Con Edison	DLC	11:00 AM	3:00 PM	4:00	Daytime Networks	Planned
July 26, 2016	Con Edison	DLC	4:00 PM	8:00 PM	4:00	Nighttime Networks	Planned
August 11, 2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Crown Heights	Contingency
August 11, 2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Ridgewood	Contingency
August 11, 2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Richmond Hill	Contingency
August 11, 2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Crown Heights	Contingency
August 11, 2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Ridgewood	Contingency
August 11, 2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Richmond Hill	Contingency
August 12, 2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Crown Heights	Contingency
August 12, 2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Ridgewood	Contingency
August 12, 2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Richmond Hill	Contingency
August 12, 2016	Con Edison	CSRP	2:00 PM	6:00 PM	4:00	All	Planned
August 12, 2016	Con Edison	CSRP	4:00 PM	8:00 PM	4:00	All	Planned
August 12, 2016	Con Edison	CSRP	7:00 PM	11:00 PM	4:00	All	Planned
August 12, 2016	NYISO	SCR	1:00 PM	6:00 PM	5:00	All	Event
August 12, 2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Crown Heights	Contingency
August 12, 2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Ridgewood	Contingency
August 12, 2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Richmond Hill	Contingency
August 12, 2016	Con Edison	DLC	8:20 PM	10:20 PM	2:00	Fox Hills	Immediate
August 12, 2016	Con Edison	DLC	8:20 PM	12:20 AM	4:00	Fresh Kills	Immediate
August 12, 2016	Con Edison	DLC	12:00 PM	4:00 PM	4:00	Daytime Networks	Planned
August 12, 2016	Con Edison	DLC	4:00 PM	8:00 PM	4:00	Nighttime Networks	Planned
August 12, 2016	Con Edison	DLRP	5:00 PM	10:00 PM	5:00	Fox Hills	Immediate
August 12, 2016	Con Edison	DLRP	4:00 PM	12:00 AM	8:00	Fresh Kills	Immediate
August 13, 2016	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Crown Heights	Contingency
August 13, 2016	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Ridgewood	Contingency
.	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Richmond Hill	Contingency
August 13, 2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Sheepshead Bay	Contingency
August 13, 2016	NYISO	TDRP	2:00 PM	8:00 PM	6:00	J4	Event
August 13, 2016	NYISO	TDRP	3:00 PM	10:00 PM	7:00	J8	Event
August 13, 2016	NYISO	TDRP	4:00 PM	8:00 PM	4:00	J3	Event

2016 Demand Response Program Activity (cont'd)

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
August 13, 2016	Con Edison	DLC	3:00 PM	9:00 PM	6:00	Crown Heights	Contingency
August 13, 2016	Con Edison	DLC	3:00 PM	9:00 PM	6:00	Ridgewood	Contingency
August 13, 2016	Con Edison	DLC	3:00 PM	9:00 PM	6:00	Richmond Hill	Contingency
August 13, 2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Sheepshead Bay	Contingency
August 13, 2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Fox Hills	Immediate
August 13, 2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Fresh Kills	Immediate
August 13, 2016	Con Edison	DLC	4:40 PM	10:40 PM	6:00	Rockview	Contingency
August 13, 2016	Con Edison	DLRP	2:00 PM	10:00 PM	8:00	Fox Hills	Immediate
August 13, 2016	Con Edison	DLRP	2:00 PM	10:00 PM	8:00	Fresh Kills	Immediate
August 14, 2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Crown Heights	Contingency
August 14, 2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Ridgewood	Contingency
August 14, 2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Richmond Hill	Contingency
August 14, 2016	NYISO	TDRP	2:00 PM	10:00 PM	8:00	Zone J	Event
August 14, 2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Crown Heights	Contingency
August 14, 2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Ridgewood	Contingency
August 14, 2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Richmond Hill	Contingency
August 14, 2016	Con Edison	DLC	2:00 PM	7:00 PM	5:00	Daytime Networks	Event
August 14, 2016	Con Edison	DLC	4:00 PM	9:00 PM	5:00	Nighttime Networks	Event
August 15, 2016	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Crown Heights	Contingency
August 15, 2016	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Ridgewood	Contingency
August 15, 2016	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Richmond Hill	Contingency
August 15, 2016	NYISO	TDRP	2:00 PM	10:00 PM	8:00	Zone J	Event
August 15, 2016	Con Edison	CSRP	2:00 PM	6:00 PM	4:00	All	Planned
August 15, 2016	Con Edison	CSRP	4:00 PM	8:00 PM	4:00	All	Planned
August 15, 2016	Con Edison	CSRP	7:00 PM	11:00 PM	4:00	All	Planned
August 15, 2016	Con Edison	CSRP	11:00 AM	3:00 PM	4:00	All	Planned
August 15, 2016	Con Edison	DLC	3:00 PM	9:00 PM	6:00	Crown Heights	Contingency
August 15, 2016	Con Edison	DLC	3:00 PM	9:00 PM	6:00	Ridgewood	Contingency
August 15, 2016	Con Edison	DLC	3:00 PM	9:00 PM	6:00	Richmond Hill	Contingency
August 15, 2016	Con Edison	DLC	11:00 AM	3:00 PM	4:00	Daytime Networks	Planned
August 15, 2016	Con Edison	DLC	4:00 PM	8:00 PM	4:00	Nighttime Networks	Planned
August 16, 2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Crown Heights	Contingency
August 16, 2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Ridgewood	Contingency
August 16, 2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Richmond Hill	Contingency
August 16, 2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Crown Heights	Contingency
August 16, 2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Ridgewood	Contingency
August 16, 2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Richmond Hill	Contingency

2015 Demand Response Program Activity

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
February 19, 2015	NYISO	SCR	5:00 PM	9:00 PM	4:00	Zones A, B, C, D, E, F, G, H, I, J, K,	Event
May 11, 2015	Con Edison	DLC	1:00 PM	7:00 PM	6:00	Beekman	Event
May 11, 2015	Con Edison	DLC	1:00 PM	7:00 PM	6:00	Empire	Event
May 11, 2015	Con Edison	DLC	1:00 PM	7:00 PM	6:00	Fashion	Event
May 11, 2015	Con Edison	DLC	1:00 PM	7:00 PM	6:00	Grand Central	Event
May 11, 2015	Con Edison	DLRP	1:00 PM	7:00 PM	6:00	Beekman	Event
May 11, 2015	Con Edison	DLRP	1:00 PM	7:00 PM	6:00	Empire	Event
May 11, 2015	Con Edison	DLRP	1:00 PM	7:00 PM	6:00	Fashion	Event
May 11, 2015	Con Edison	DLRP	1:00 PM	7:00 PM	6:00	Grand Central	Event
May 12, 2015	Con Edison	DLC	1:00 PM	5:00 PM	4:00	Beekman	Event
May 12, 2015	Con Edison	DLC	1:00 PM	5:00 PM	4:00	Empire	Event
May 12, 2015	Con Edison	DLC	1:00 PM	5:00 PM	4:00	Fashion	Event
May 12, 2015	Con Edison	DLC	1:00 PM	5:00 PM	4:00	Grand Central	Event
May 12, 2015	Con Edison	DLRP	1:00 PM	5:00 PM	4:00	Beekman	Event
May 12, 2015	Con Edison	DLRP	1:00 PM	5:00 PM	4:00	Empire	Event
May 12, 2015	Con Edison	DLRP	1:00 PM	5:00 PM	4:00	Fashion	Event
May 12, 2015	Con Edison	DLRP	1:00 PM	5:00 PM	4:00	Grand Central	Event
June 24, 2015	Con Edison	DLRP SC-11	4:00 PM	5:00 PM	1:00	Southeast Bronx	Test
June 24, 2015	Con Edison	DLRP	4:00 PM	5:00 PM	1:00	All	Test
July 19, 2015	Con Edison	DLC	6:14 PM	12:00 AM	05:46	Fox Hills	Event
July 19, 2015	Con Edison	DLRP	6:14 PM	12:00 AM	05:46	Fox Hills	Event
July 20, 2015	Con Edison	DLC	6:00 AM	12:00 PM	6:00	Richmond Hill	Event
July 20, 2015	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Fox Hills	Event
July 20, 2015	Con Edison	DLC	2:21 PM	9:00 PM	6:39	Fresh Kills	Event
July 20, 2015	Con Edison	DLC	4:09 PM	11:00 PM	6:51	Harrison	Event
July 20, 2015	Con Edison	DLC	4:55 PM	11:00 PM	6:05	Pennsylvania	Event
July 20, 2015	Con Edison	DLRP	6:23 PM	N/A	00:00	Crown Heights	DR resources were not called
July 20, 2015	Con Edison	DLRP	6:23 PM	N/A	00:00	Ridgewood	DR resources were not called
July 20, 2015	Con Edison	DLRP	6:00 AM	12:00 PM	6:00	Richmond Hill	Event
July 20, 2015	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Fox Hills	Event
July 20, 2015	Con Edison	DLRP	2:21 PM	9:00 PM	6:39	Fresh Kills	Event
July 20, 2015	Con Edison	DLRP	4:09 PM	11:00 PM	6:51	Harrison	Event
July 20, 2015	Con Edison	DLRP	4:55 PM	11:00 PM	6:05	Pennsylvania	Event
July 21, 2015	Con Edison	CSRP	11:00 AM	12:00 PM	1:00	Zone J	Test
July 21, 2015	Con Edison	CSRP	2:00 PM	3:00 PM	1:00	Zone J	Test
July 21, 2015	Con Edison	CSRP SC-11	2:00 PM	3:00 PM	1:00	Southeast Bronx	Test
July 21, 2015	Con Edison	CSRP	4:00 PM	5:00 PM	1:00	Zone J	Test
July 21, 2015	Con Edison	CSRP	7:00 PM	8:00 PM	1:00	Zone J	Test
July 21, 2015	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Fox Hills	Event
July 21, 2015	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Fox Hills	Event

2014 Demand Response Program Activity

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
February 6, 2014	Con Edison	DLRP - V	3:00 PM	8:00 PM	5:00	Time Square	Event
February 20, 2014	NYISO	SCR	4:00 PM	5:00 PM	1:00	Zones J, K,	Test
February 20, 2014	NYISO	SCR	5:00 PM	6:00 PM	1:00	Zones A, B	Test
February 20, 2014	NYISO	SCR	6:00 PM	7:00 PM	1:00	Zones C, D, E, F, G, H, I	Test
June 26, 2014	Con Edison	DLRP	4:00 PM	5:00 PM	1:00	All	Test
June 26, 2014	Con Edison	DLRP SC-11	4:00 PM	5:00 PM	1:00	Southeast Bronx	Test
July 8, 2014	Con Edison	CSRP	11:00 AM	12:00 PM	1:00	Zone J	Test
July 8, 2014	Con Edison	CSRP	2:00 PM	3:00 PM	1:00	Zone J	Test
July 8, 2014	Con Edison	CSRP SC-11	2:00 PM	3:00 PM	1:00	Southeast Bronx	Test
July 8, 2014	Con Edison	CSRP	4:00 PM	5:00 PM	1:00	Zone J	Test
July 8, 2014	Con Edison	CSRP	7:00 PM	8:00 PM	1:00	Zone J	Test
August 19, 2014	NYISO	SCR	1:00 PM	2:00 PM	1:00	Zones F,G,H,I,K	Test
August 19, 2014	NYISO	SCR	2:00 PM	3:00 PM	1:00	Zone J	Test
August 19, 2014	NYISO	SCR	3:00 PM	4:00 PM	1:00	Zones B, C, D, E	Test
August 19, 2014	NYISO	SCR	4:00 PM	5:00 PM	1:00	Zone A	Test
August 27, 2014	Con Edison	Modlet	7:00 PM	11:00 PM	4:00	Zone J	Test
August 28, 2014	Con Edison	Modlet	2:00 PM	6:00 PM	4:00	Zone J	Test
September 4, 2014	Con Edison	Modlet	7:00 PM	11:00 PM	4:00	Zone J	Test

2013 Demand Response Program Activity

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
May 24, 2013	Con Edison	DLC	9:25 AM	4:00 PM	6:35	Roosevelt	Event
May 24, 2013	Con Edison	DLRP	9:25 AM	4:00 PM	6:35	Roosevelt	Event
June 25, 2013	Con Edison	DLC	7:00 PM	12:00 AM	05:00	Flatbush	Event
June 25, 2013	Con Edison	CSRP - Day	2:00 PM	3:00 PM	1:00	Zone J	Test
June 25, 2013	Con Edison	CSRP - Night	7:00 PM	8:00 PM	1:00	Zone J	Test
June 25, 2013	Con Edison	DLRP	7:00 PM	12:00 AM	05:00	Flatbush	Event
June 26, 2013	Con Edison	DLRP	12:00 PM	1:00 PM	1:00	All	Test
July 6, 2013	Con Edison	DLRP	7:00 AM	12:00 PM	5:00	Fox Hills	Event
July 9, 2013	Con Edison	Modlet	6:00 PM	7:00 PM	1:00	Zone J	Test
July 15, 2013	Con Edison	DLC	12:00 PM	5:00 PM	5:00	Zone J	Event
July 15, 2013	Con Edison	DLC	5:00 PM	10:00 PM	5:00	Zone J	Event
July 15, 2013	Con Edison	DLC	5:00 PM	10:00 PM	5:00	Fox Hills	Event
July 15, 2013	Con Edison	DLC	6:00 PM	11:00 PM	5:00	Fresh Kills	Event
July 15, 2013	Con Edison	CSRP - Day	12:00 PM	5:00 PM	5:00	Zone J	Event
July 15, 2013	Con Edison	CSRP - Night	5:00 PM	10:00 PM	5:00	Zone J	Event
July 15, 2013	Con Edison	Modlet	12:00 PM	5:00 PM	5:00	Zone J	Event
July 15, 2013	Con Edison	DLRP	5:00 PM	10:00 PM	5:00	Fox Hills	Event
July 15, 2013	Con Edison	DLRP	6:00 PM	11:00 PM	5:00	Fresh Kills	Event
July 15, 2013	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones H,I,J	Event
July 15, 2013	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones H, I, J	Event
July 15, 2013	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones A, B, C, D, E, F	Event
July 15, 2013	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones A, B, C, D, E, F	Event
July 16, 2013	Con Edison	DLC	12:00 PM	5:00 PM	5:00	Zone J	Event
July 16, 2013	Con Edison	DLC	5:00 PM	10:00 PM	5:00	Zone J	Event
July 16, 2013	Con Edison	CSRP - Day	12:00 PM	5:00 PM	5:00	Zone J	Event
July 16, 2013	Con Edison	CSRP - Night	5:00 PM	10:00 PM	5:00	Zone J	Event
July 16, 2013	Con Edison	Modlet	5:00 PM	10:00 PM	5:00	Zone J	Event
July 16, 2013	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones H,I,J	Event
July 16, 2013	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones H, I, J	Event
July 16, 2013	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones A, B, C, D, E, F	Event
July 16, 2013	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones A, B, C, D, E, F	Event
July 17, 2013	Con Edison	DLC	12:00 PM	5:00 PM	5:00	Zone J	Event
July 17, 2013	Con Edison	DLC	5:00 PM	10:00 PM	5:00	Zone J	Event
July 17, 2013	Con Edison	CSRP - Day	12:00 PM	5:00 PM	5:00	Zone J	Event
July 17, 2013	Con Edison	CSRP - Night	5:00 PM	10:00 PM	5:00	Zone J	Event
July 17, 2013	Con Edison	Modlet	5:00 PM	10:00 PM	5:00	Zone J	Event
July 17, 2013	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones H,I,J	Event
July 17, 2013	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones H, I, J	Event
July 17, 2013	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones A, B, C, D, E, F	Event
July 17, 2013	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones A, B, C, D, E, F	Event
July 18, 2013	Con Edison	DLC	12:00 PM	5:00 PM	5:00	Zone J	Event

2013 Demand Response Program Activity (cont'd)

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
July 18, 2013	Con Edison	DLC	5:00 PM	10:00 PM	5:00	Zone J	Event
July 18, 2013	Con Edison	DLC	5:00 PM	12:00 AM	07:00	Fresh Kills	Event
July 18, 2013	Con Edison	CSRP - Day	12:00 PM	5:00 PM	5:00	Zone J	Event
July 18, 2013	Con Edison	CSRP - Night	5:00 PM	10:00 PM	5:00	Zone J	Event
July 18, 2013	Con Edison	Modlet	5:00 PM	10:00 PM	5:00	Zone J	Event
July 18, 2013	NYISO	SCR	12:00 PM	6:00 PM	6:00	Zones H,I,J	Event
July 18, 2013	NYISO	EDRP	12:00 PM	6:00 PM	6:00	Zones H, I, J	Event
July 18, 2013	NYISO	SCR	12:00 PM	6:00 PM	6:00	Zones A, B, C, D, E, F	Event
July 18, 2013	NYISO	EDRP	12:00 PM	6:00 PM	6:00	Zones A, B, C, D, E, F	Event
July 18, 2013	Con Edison	DLRP	5:00 PM	12:00 AM	07:00	Fresh Kills	Event
July 18, 2013	Con Edison	DLRP	10:59 PM	N/A	00:00	Williamsburg	DR resources were not called
July 19, 2013	Con Edison	DLC	12:00 PM	5:00 PM	5:00	Zone J	Event
July 19, 2013	Con Edison	DLC	5:00 PM	10:00 PM	5:00	Zone J	Event
July 19, 2013	Con Edison	CSRP - Day	12:00 PM	5:00 PM	5:00	Zone J	Event
July 19, 2013	Con Edison	CSRP - Night	5:00 PM	10:00 PM	5:00	Zone J	Event
July 19, 2013	Con Edison	DLRP	3:00 AM	N/A	00:00	Washington Street	DR resources were not called
July 19, 2013	Con Edison	Modlet	5:00 PM	10:00 PM	5:00	Zone J	Event
July 19, 2013	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones H,I,J	Event
July 19, 2013	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones H, I, J	Event
July 19, 2013	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones A, B, C, D, E, F	Event
July 19, 2013	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones A, B, C, D, E, F	Event
July 19, 2013	Con Edison	DLRP	11:03 PM	N/A	00:00	South East Bronx	DR resources were not called
July 20, 2013	Con Edison	DLRP	1:12 AM	N/A	00:00	Fordham	DR resources were not called
August 8, 2013	NYISO	SCR	1:00 PM	2:00 PM	1:00	Zones B, C, D, E	Test
August 8, 2013	NYISO	SCR	2:00 PM	3:00 PM	1:00	Zone A	Test
August 8, 2013	NYISO	SCR	3:00 PM	4:00 PM	1:00	Zone J	Test
August 8, 2013	NYISO	SCR	4:00 PM	5:00 PM	1:00	Zones F,G,H,I,K	Test

2012 Demand Response Program Activity

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
May 29, 2012	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones A, B, C, D, E, F, G, H, I, J, K	Event
June 20, 2012	Con Edison	DLC	4:57 PM	12:00 AM	07:03	Williamsburg	Event
June 20, 2012	Con Edison	DLC	4:57 PM	12:00 AM	07:03	Sheepshead Bay	Event
June 20, 2012	Con Edison	DLC	4:57 PM	12:00 AM	07:03	Jamaica	Event
June 20, 2012	Con Edison	DLC	5:18 PM	1:00 AM	07:42	Maspeth	Event
June 20, 2012	Con Edison	DLC	6:18 PM	2:00 AM	07:42	Richmond Hill	Event
June 20, 2012	Con Edison	DLRP	4:57 PM	12:00 AM	07:03	Williamsburg	Event
June 20, 2012	Con Edison	DLRP	4:57 PM	12:00 AM	07:03	Sheepshead Bay	Event
June 20, 2012	Con Edison	DLRP	4:57 PM	12:00 AM	07:03	Jamaica	Event
June 20, 2012	Con Edison	DLRP	5:18 PM	1:00 AM	07:42	Maspeth	Event
June 20, 2012	Con Edison	DLRP	6:18 PM	2:00 AM	07:42	Richmond Hill	Event
June 20, 2012	NYISO	SCR	2:00 PM	6:00 PM	4:00	Zones C,G,H,I,J	Event
June 20, 2012	NYISO	EDRP	2:00 PM	6:00 PM	4:00	Zones C,G,H,I,J	Event
June 21, 2012	Con Edison	DLC	12:00 PM	5:00 PM	5:00	Zone J	Event
June 21, 2012	Con Edison	DLC	5:00 PM	10:00 PM	5:00	Zone J	Event
June 21, 2012	Con Edison	CSRP - Day	12:00 PM	5:00 PM	5:00	Zone J	Event
June 21, 2012	Con Edison	CSRP - Night	5:00 PM	10:00 PM	5:00	Zone J	Event
June 21, 2012	Con Edison	RSAP	5:00 PM	10:00 PM	5:00	Zone J	Event
June 21, 2012	Con Edison	DLRP	8:00 AM	3:00 PM	7:00	Flushing	Event
June 21, 2012	Con Edison	DLRP	8:00 PM	3:00 AM	07:00	Park Slope	Event
June 21, 2012	Con Edison	DLRP	9:00 PM	4:00 AM	07:00	Sheepshead Bay	Event
June 21, 2012	Con Edison	Modlet	5:00 PM	10:00 PM	5:00	Zone J	Event
June 21, 2012	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones A,B,C,D,E,F,G, H,I,J,K	Event
June 21, 2012	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones A,B,C,D,E,F,G, H,I,J,K	Event
June 22, 2012	Con Edison	DLRP	7:00 AM	2:00 PM	7:00	Flatbush	Event
June 22, 2012	Con Edison	DLRP	5:00 PM	10:00 PM	5:00	Williamsburg	Event
June 22, 2012	Con Edison	DLRP	12:00 PM	1:00 PM	1:00	All	Test
June 22, 2012	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zones G,H,I,J,K	Event
June 22, 2012	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones G,H,I,J,K	Event
July 4, 2012	Con Edison	DLRP	9:06 PM	2:00 AM	04:54	Flatbush	Event
July 5, 2012	Con Edison	DLRP	3:00 PM	8:00 PM	5:00	Crown Heights Network	Event
July 5, 2012	Con Edison	DLRP	10:30 PM	N/A	00:00	South East Bronx	DR resources were not called
July 6, 2012	Con Edison	Modlet	6:00 PM	10:00 PM	4:00	Zone J	Event
July 6, 2012	NYISO	TDRP	3:00 PM	11:00 PM	00:00	Zones J1, J3, J8	DR resources were not called
July 7, 2012	Con Edison	Modlet	6:00 PM	10:00 PM	4:00	Zone J	Event
July 7, 2012	NYISO	TDRP	3:00 PM	11:00 PM	00:00	Zones J1, J3, J8	DR resources were not called
July 16, 2012	Con Edison	DLRP	1:20 PM	9:00 PM	7:40	Turtle Bay	Event
July 16, 2012	NYISO	TDRP	3:00 PM	11:00 PM	00:00	Zone J3	DR resources were not called

2012 Demand Response Program Activity (cont'd)

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
July 17, 2012	Con Edison	DLC	3:00 PM	8:00 PM	5:00	Bay Ridge, Fashion, Empire, Grand Central, Borden	Event
July 17, 2012	Con Edison	DLC	5:00 PM	10:00 PM	5:00	Brighton Beach, Flatbush, Ocean Parkway, Park Slope, Sheepshead Bay, Beekman, Maspeth, Sunnyside	Event
July 17, 2012	NYISO	TDRP	6:00 PM	11:00 PM	5:00	Zone J3	Event
July 17, 2012	Con Edison	Modlet	5:00 PM	10:00 PM	5:00	Zone J	Event
July 17, 2012	NYISO	TDRP	6:00 PM	11:00 PM	00:00	Zone J8	DR resources were not called
July 17, 2012	NYISO	SCR	1:00 PM	7:00 PM	00:00	Zones A, B, C, D, E, F, G, H, I, J, K	DR resources were not called
July 18, 2012	Con Edison	DLRP	7:09 AM	3:00 PM	7:51	Sutton	Event
July 18, 2012	Con Edison	CSRP-Day	12:00 PM	5:00 PM	5:00	Zone J	Event
July 18, 2012	Con Edison	CSRP - Night	5:00 PM	10:00 PM	5:00	Zone J	Event
July 18, 2012	Con Edison	RSAP	5:00 PM	10:00 PM	5:00	Zone J	Event
July 18, 2012	Con Edison	DLRP	5:09 PM	12:30 AM	07:21	Ocean Parkway	Event
July 18, 2012	NYISO	SCR	2:10 PM	6:00 PM	3:50	Zones G, H, I, K	Event
July 18, 2012	NYISO	SCR	1:00 PM	6:00 PM	5:00	Zone J	Event
July 18, 2012	NYISO	TDRP	6:00 PM	10:00 PM	4:00	Zone J3	Event
July 18, 2012	Con Edison	DLRP	9:00 PM	N/A	00:00	Flushing	DR resources were not called
July 19, 2012	NYISO	TDRP	6:00 PM	10:00 PM	00:00	Zone J3	DR resources were not called
July 24, 2012	NYISO	TDRP	3:00 PM	10:00 PM	00:00	Zone J3	DR resources were not called
July 26, 2012	NYISO	TDRP	3:00 PM	10:00 PM	00:00	Zone J3	DR resources were not called
July 27, 2012	NYISO	TDRP	3:00 PM	10:00 PM	00:00	Zone J3	DR resources were not called
August 2, 2012	Con Edison	DLRP	12:00 PM	5:00 PM	5:00	Riverdale	Event
August 2, 2012	NYISO	SCR	4:00 PM	5:00 PM	1:00	Zones E, F, G, H, I	Test
August 2, 2012	NYISO	SCR	5:00 PM	6:00 PM	1:00	Zone J,K	Test
August 9, 2012	Con Edison	DLRP	8:30 AM	N/A	00:00	Sheridan Square	DR resources were not called
August 15, 2012	Con Edison	Modlet	5:00 PM	10:00 PM	5:00	Zone J	Event
August 15, 2012	Con Edison	DLRP	5:00 PM	N/A	00:00	Sheepshead Bay	DR resources were not called

2012 Demand Response Program Activity (cont'd)

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
August 24, 2012	Con Edison	DLRP	11:00 AM	N/A	00:00	West Bronx	DR resources were not called
August 31, 2012	Con Edison	DLRP	5:30 AM	N/A	00:00	Central Park	DR resources were not called
September 16, 2012	Con Edison	DLRP	10:48 AM	7:00 PM	8:12	Brighton Beach	Event
September 16, 2012	Con Edison	DLRP	10:48 AM	7:00 PM	8:12	Flatbush	Event

2011 Demand Response Program Activity

Event Date	Administrator	Program	Time Start	Time End	Event Hours	Zone/Network	Event/ Test
June 8, 2011	Con Edison	DLC	3:00 PM	4:00 PM	1:00	All	Test
June 8, 2011	Con Edison	DLRP	3:00 PM	4:00 PM	1:00	All	Test
June 8, 2011	Con Edison	RSAP	4:00 PM	5:00 PM	1:00	Zone J	Test
June 9, 2011	Con Edison	CSRP	2:00 PM	3:00 PM	1:00	All	Test
June 9, 2011	Con Edison	CSRP	5:00 PM	6:00 PM	1:00	All	Test
July 19, 2011	NYISO	SCR (ICAP)	3:00 PM	4:00 PM	1:00	H & I	Test
July 19, 2011	NYISO	SCR (ICAP)	4:00 PM	5:00 PM	1:00	Zone J	Test
July 21, 2011	Con Edison	DLC	1:00 PM	6:00 PM	5:00	All	Event
July 21, 2011	Con Edison	RSAP	11:00 AM	7:00 PM	8:00	Zone J	Event
July 21, 2011	Con Edison	CSRP - Day	12:00 PM	5:00 PM	5:00	Zone J	Event
July 21, 2011	Con Edison	CSRP - Night	5:00 PM	10:00 PM	5:00	Zone J	Event
July 21, 2011	NYISO	SCR (ICAP)	1:00 PM	6:00 PM	5:00	All	Event
July 21, 2011	NYISO	EDRP	1:00 PM	6:00 PM	5:00	All	Event
July 22, 2011	Con Edison	DLC	7:00 AM	3:00 PM	8:00	Elmsford	Event
July 22, 2011	Con Edison	DLC	7:00 AM	3:00 PM	8:00	Maspeth	Event
July 22, 2011	Con Edison	DLC	6:00 PM	11:00 PM	5:00	Richmond Hill	Event
July 22, 2011	Con Edison	DLC	6:00 PM	11:00 PM	5:00	Fox Hills	Event
July 22, 2011	Con Edison	DLC	6:00 PM	11:00 PM	5:00	Ossining West	Event
July 22, 2011	Con Edison	DLC	6:00 PM	11:00 PM	5:00	Sheepshead Bay	Event
July 22, 2011	Con Edison	DLC	7:31 PM	11:00 PM	3:29	Granite Hill	Event
July 22, 2011	Con Edison	DLC	8:19 PM	11:00 PM	2:41	Buchanan	Event
July 22, 2011	Con Edison	DLC	9:03 PM	6:00 AM	08:57	Ridgewood	Event
July 22, 2011	Con Edison	DLC	9:03 PM	6:00 AM	08:57	Rego Park	Event
July 22, 2011	Con Edison	CSRP - Day	12:00 PM	5:00 PM	5:00	Zone J	Event
July 22, 2011	Con Edison	CSRP - Night	5:00 PM	10:00 PM	5:00	Zone J	Event
July 22, 2011	Con Edison	DLRP	7:00 AM	3:00 PM	8:00	Elmsford	Event
July 22, 2011	Con Edison	DLRP	7:00 AM	3:00 PM	8:00	Maspeth	Event
July 22, 2011	Con Edison	DLRP	6:00 PM	11:00 PM	5:00	Richmond Hill	Event
July 22, 2011	Con Edison	DLRP	6:00 PM	11:00 PM	5:00	Fox Hills	Event
July 22, 2011	Con Edison	DLRP	6:00 PM	11:00 PM	5:00	Sheepshead Bay	Event
July 22, 2011	Con Edison	DLRP	7:31 PM	11:00 PM	3:29	Granite Hill	Event
July 22, 2011	Con Edison	DLRP	8:19 PM	11:00 PM	2:41	Buchanan	Event
July 22, 2011	Con Edison	DLRP	9:03 PM	6:00 AM	08:57	Ridgewood	Event
July 22, 2011	Con Edison	DLRP	9:03 PM	6:00 AM	08:57	Rego Park	Event
July 22, 2011	NYISO	SCR (ICAP)	12:00 PM	6:00 PM	6:00	Zone J	Event
July 22, 2011	NYISO	EDRP	12:00 PM	6:00 PM	6:00	Zone J	Event
July 22, 2011	NYISO	SCR (ICAP)	1:00 PM	6:00 PM	5:00	Zones H & I	Event
July 22, 2011	NYISO	EDRP	1:00 PM	6:00 PM	5:00	Zones H & I	Event