STATE OF NEW YORK PUBLIC SERVICE COMMISSION

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

Gregory Elcock Norberto Rivera Consolidated Edison Company of New York, Inc. 4 Irving Place New York, NY 10003 (212) 460-6507

Dated: December 1, 2016

Table of Contents

1.	INTRODUCTION
2.	DISTRIBUTION LOAD RELIEF PROGRAM ("DLRP")7
3.	COMMERCIAL SYSTEM RELIEF PROGRAM ("CSRP")18
4.	COMMERCIAL DEMAND RESPONSE THREE-YEAR INCENTIVE UPDATE
5.	COMMERCIAL COST EFFECTIVENESS SUMMARY
6.	SC 11 CUSTOMERS - EXPORT DEMAND RESPONSE
7.	NYPA
8.	UPDATE ON METER DATA ACCESS
9.	DLRP CALL WINDOW EVALUATION
10.	COMMERCIAL PROGRAM CONCLUSIONS
11.	DIRECT LOAD CONTROL PROGRAM ("DLC")
12.	CONNECTED DEVICES PILOT PROGRAM ("CDP")
13.	CDP PROGRAM CONCLUSIONS
14.	CON EDISON DEMAND RESPONSE CONCLUSIONS
App	endix A: DLRP Event Performance Charts61
App Impa	endix B: DLRP Reservation Payment Option Participation Programs - Enrolled and Achieved System acts
App	endix C: CSRP Event Performance Charts
App Impa	endix D: CSRP Reservation Payment Option Participation Programs - Enrolled and Achieved System acts
App	endix E: DLC Test & Event Performance
App	endix F: CDP 2016 Demand Response Event Performance
App	endix G: 2016 – 2011 Con Edison Demand Response Event Review146

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 four DR programs approved in the October Order.¹

The programs are the Commercial System Relief Program ("Rider T" or "CSRP"),

Connected Devices Pilot Program ("CDP"), and Critical Peak Rebate Program² ("CPRP"). The report also includes the Rider T – Distributed Load Relief Program ("Rider T" or "DLRP") and the Rider L - Direct Load Control Program ("DLC" or "DLC Program").³ In addition, the report addresses reporting requirements pertaining to meter data access during all tests and DR events.⁴ As directed by the Commission in its March 13, 2014 *Order Adopting Tariff Revisions with Modifications* (March Order"), the report also includes an analysis on enrollment for Rider T

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 and effective 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 participation option in the CSRP program to accommodate existing CPRP large customer participants. *Order Adopting with Modifications Tariff AmendmentsRelated to Demand Response Programs*, issued and effective 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 and effective 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 in Case 15-E-0570, *Tariff Filing by Consolidated Edison Company of New York, Inc. to revise its Commercial Demand Response Programs*.

⁴ The Commission directed that the Company file a report on the status of its meter access plan implementation each year as part of its demand response program assessment report in Case 08-E-1463, Plan for Providing Rider U Data Access in a Manner that Supports Market Requirements and Customer Needs, *Staff Recommends that the Company's Proposed Plan Be Approved – Approved as Recommended and So Ordered*, issued and effective July 14, 2011, p. 4.

(previously Rider S and Rider U).⁵ The report covers the cost components and program performance associated with the Company's DR programs for the 2016 program year, January 1, 2016 through December 31, 2016.

As directed by the Commission in its January 27, 2016 *Order Approving Tariff Amendments*, the report also includes an analysis of the DLRP call availability window.⁶

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 May 1 through September 30 in the entire Company service territory (New York City and Westchester) and are summarized in Table 1 and Table 2.

issued and effective January 27, 2016, p. 25.

⁵ The Commission directed Con Edison to include in this report an analysis of the effect of the increased payment rates on enrollment, including actual enrollment and performance statistics in Case 13-E-0573, Tariff Filing by Consolidated Edison Company of New York, Inc. to Make Revisions to its Demand Response Programs Rider S – Commercial System Relief Program and Rider U – Distribution Load Relief Program contained in P.S.C. No. 10 – Electricity, *Order Adopting Tariff Revisions with Modifications*, issued and effective March 13, 2014, p. 15. ⁶ Case 15-E-0570, Tariff filing by Consolidated Edison Company of New York, Inc. to revise its Commercial Demand Response Programs contained in P.S.C. No. 10 – Electricity and conforming revisions to Charge for Demand Management Programs contained in P.S.C. No. 12 - Electricity, *Order Approving Tariff Amendments*,

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 for four or more hours. Premium paid for customers who pre-commit load through the Reservation Payment Option. Customers who did not pre-commit load participate through the Voluntary Participation Option.	Customers participating through the Reservation Payment Option receive a reservation payment of \$18.00 or \$25.00 per kW-month pledged and performed, depending on location, and Performance Payments equal to \$1.00 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. Customers participating through the Voluntary Participation Option are paid only a Performance Payment equal to \$3.00 per kWh reduced.	
Direct Load Control	irect Load Control DLC Activated by Con Edison in system critical situations. Participation limited to Con Edison residential, religious, and small business (demand less than 100 kW) customers with central air-conditioning. Allows Con Edison to remotely adjust thermostat settings. Also called for peak shaving events.		Customers receive a free programmable thermostat and an incentive payment of \$25 for residential customers per unique address, and \$50 for small commercial customers per unique building site. Customers also have the option to enroll through a Service Provider whereby they can receive an annual incentive payment of \$25.	

Table 1: Contingency Programs

Program	Acronym	General Information	Incentive
Commercial System Relief Program	CSRP	Event activated when day-ahead forecast is 92 percent or greater of forecasted summer system peak to relieve distribution network peak loads. Premium paid for customers who pre- commit load through the Reservation Payment Option. Customers who did not pre- commit load participate through the Voluntary Participation Option.	Customers participating through the Reservation Payment Option receive \$6 or \$18 per kW-month pledged and performed depending on location, and Performance Payments equal to \$1.00 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 Participation Option customers receive a Performance Payment equal to \$3.00 for each kWh reduced.
Direct Load Control	DLC	Event activated when Commercial System Relief Program event is called to relieve system peak load. Participation limited to Con Edison residential, religious, and small business (demand less than 100 kW) customers with central air-conditioning. Allows Con Edison to remotely adjust thermostat settings.	Customers receive a free programmable thermostat and an incentive payment of \$25 for residential customers per unique address, and \$50 for small commercial customers per unique building site. Customers also have the option to enroll through a Service Provider whereby they receive a \$85 enrollment payment and can receive an annual incentive payment of \$25 after
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 2016, 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 2016, 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.

Table 2: Peak Shaving Programs

The DR programs are divided by application type, contingency or peak-shaving, and also 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. The commercial programs each have a mandatory (Reservation Payment) and voluntary (Voluntary Participation) enrollment option with separate obligations and incentive rates. DLC and CDP are programs for smaller commercial and residential customers. The segmentation by customer type is important, as the programs require specific operational processes, equipment, communications to customers, and education. This report is structured to reflect the segmentation.

Performance evaluation for each program for summer 2016 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 lines within specific networks (defined to including load areas) when contingencies occur.

The incentive for the Reservation Payment Option is \$18.00 per kW-month in Tier One networks and \$25.00 per kW-month in Tier Two networks. The majority of the Company's networks are Tier One; Tier Two areas are those identified as higher priority and in need of additional demand reduction resources. Performance Payments for Reservation Payment Option customers are \$1.00 per kWh in both Tier One and Tier Two networks. Reservation Payment Option participants can receive both Reservation Payments and Performance Payments. Voluntary participants only receive Performance Payments.

DLRP Costs

Table 3 summarizes the costs, by component, associated with DLRP in 2016.

Component	Cost	Percentage
Customer Incentives	\$ 19,926,500	95%
Program Administration - Con Edison	\$ 381,200	2%
Program Administration - Vendor	\$ 27,300	0%
Program Marketing	\$ 164,200	1%
Technology	\$ 561,300	2%
Total Program Costs	\$ 21,060,500	100%

 Table 3: DLRP Cost Components for 2016 Program Year⁷

DLRP Cost Summary

Total costs for DLRP during the 2016 program year were approximately \$21,060,500, a 241 percent increase over the 2015 cost of \$6,183,900. Costs increased primarily due to increased program incentives and the Three-Year Incentive payout.

Customer Incentives

Customer incentives in 2016 consisted of Performance and Reservation Payments paid to customers for their participation and performance in events and tests. There were 27 DLRP events and one test event in 2016. Voluntary DLRP customers are not tested. Table 4 below summarizes the DLRP test and events called in 2016. In total, the Company paid \$16,198,820.31 (77 percent of total program costs) in 2016 DLRP customer incentives.

The Three-Year Incentive was eliminated in the Commission's January 27, 2016 *Order Adopting Tariff Amendments.*⁸ The Company paid out the Three-Year incentive in March, 2016 and no additional Three-Year Incentives payments will be made in the future. \$3,727,679.69 was paid for 2014 and 2015 Three-Year Incentives for DLRP.

⁷ November and December costs were estimated.

⁸ Case 15-E-0570, Tariff filing by Consolidated Edison Company of New York, Inc. to revise its Commercial Demand Response Programs contained in P.S.C. No. 10 – Electricity and conforming revisions to Charge for Demand Management Programs contained in P.S.C. No. 12 - Electricity, *Order Approving Tariff Amendments*, issued and effective January 27, 2016.

<u>Program Administration – Con Edison</u>

Costs in this category include Con Edison staff salary and overhead associated with DLRP management and support. This includes, but is not limited to work performed by program managers and other internal support staff. Program staff salaries are recovered through the operating and maintenance ("O&M") budget and via the monthly adjustment clause ("MAC"). Other operational costs are recovered via the MAC. The costs associated with program operation were \$381,200 (two percent of total program costs) in 2016. Costs were calculated using a percentage of time allocation for staff and support personnel to DLRP activities, with their associated salaries, overhead, and Administrative and Supervisory ("A&S") costs.

<u>Program Administration – Vendor</u>

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, shared costs of third-party studies or reports for department-wide use. These costs totaled \$27,300 (less than one percent of total program costs) in 2016.

Program Marketing

Marketing costs include costs associated with Con Edison led program marketing initiatives required to inform and involve customers. These costs totaled \$164,200 (one percent of total program costs) in 2016. This program's marketing cost component also includes Con Edison staff salary associated with time spent on marketing events and marketing material design.

Aggregators provide the majority of program marketing to attract DR program participants. In 2016, the Company has increased 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 about program rules.

9

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 \$561,300 (three percent of program costs) in 2016.

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 at the time of an event. 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 2016 Capability Period, the Company called 27 DLRP events for contingency reasons. In addition, Reservation Payment Option customers were required to participate in the one-hour test event. The performance of participants all events is assessed in this section.

Customer load reductions are measured using a Customer Baseline Load ("CBL") methodology. A CBL is a representation of a customer's average hourly consumption based on the top five highest days of energy usage within a 10-weekday period selected from the 30 weekdays prior to an event. For weekend events, the CBL uses the top two highest weekend days from the past three weekends. The CBL is used to calculate a customer's performance during a test or event by taking the difference between the CBL and the customer's actual load on the event day. 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). If the customer does not make a choice, the customer is assigned a Weather Adjusted CBL.

Test Summary and Event Summary

Performance of each Reservation Payment option customer is measured annually via event and/or test performance data. At least one test is conducted per Summer Capability Period. The mandatory component of DLRP represents approximately 99 percent of 2016 total DLRP load enrolled.

The performance factor on the July 13 DLRP test was 104%. In addition to the test event there were 27 DLRP events called across eight networks. The events were called for contingency reasons. Twenty-seven events are significantly more than last year when DLRP was called 15 times.

Testing the entire DLRP portfolio provides the best insight possible 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 is one hour only, while performance during real events is measured for a four hour period. The performance data is summarized in Table 4 below and more detailed DLRP test data is included in Appendix A. The performance data shown in Table 4 is based on raw performance, which may differ from the load reductions used to calculate participant payments (which are capped at 100 percent or zero percent of individual pledged levels).

Test or Event	Date	Event/Test Hours	Customers Enrolled	MW Enrolled	MW Reduction Achieved	Performance Factor Achieved	Test/Event Network or Zone
Test	July 13	4 PM – 5 PM	968	234.4	246.1	104%	All
Event	July 15	2 PM – 8 PM	11	2.6	3.8	149%	Fresh Kills
Event	July 22	5 PM – 11 PM	7	0.9	(0.3)	(39%)	Fox Hills
Event	July 23	8 PM – 12 AM	9	1.8	(0.2)	(10%)	Triboro
Event	July 24	6 AM – 10 AM	12	1.1	0.3	28%	Riverdale
Event	Aug. 11	2 PM – 8 PM	29	4.9	2.6	53%	BQDM
Event	Aug. 12	2 PM – 8 PM	29	4.9	3.0	61%	BQDM
Event	Aug. 12	5 PM – 11 PM	7	0.9	0.2	23%	Fox Hills
Event	Aug. 12	4 PM – 12 AM	11	2.6	2.6	100%	Fresh Kills
Event	Aug. 13	2 PM – 8 PM	7	0.9	0.1	15%	Fox Hills
Event	Aug. 13	2 PM – 8 PM	11	2.6	1.8	70%	Fresh Kills
Event	Aug. 13	3 PM – 9 PM	29	4.9	0.9	19%	BQDM
Event	Aug. 13	4 PM – 10 PM	6	1.1	0.9	86%	Sheepshead Bay
Event	Aug. 14	4 PM – 10 PM	29	4.9	0.4	9%	BQDM
Event	Aug. 15	3 PM – 9 PM	29	4.9	1.8	37%	BQDM
Event	Aug. 16	4 PM – 10 PM	29	4.9	1.7	35%	BQDM

 Table 4: 2016 Summary of DLRP Test and Events

The DLRP test was conducted on July 13, 2016 from 4:00 PM to 5:00 PM and included all Reservation Payment Option customers participating in the DLRP program at that time. The test event achieved a significantly higher level of performance than was observed in 2015 and 2014. Although resources demonstrated excellent performance at the program level, the table above demonstrates there is still a significant range of performance factors seen at the network level.

DLRP event performance can be 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 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.

In addition, the fact that a DLRP event can be called on weekends and nighttime hours, which generally are low demand and low staffing times, makes the load reduction achieved during these time periods less reliable. This is clearly demonstrated by the generally lower performance during the weekend events called on July 23 and 24 in addition to August 13 and 14.

DLRP Measurement and Methodology

Sixteen percent of customers enrolled in the Reservation portion of DLRP elected to have their performance measured with the average day CBL. This is a six percentage point drop from average from 2013 through 2015. The remaining customer performance was measured using the weather adjustment calculation. 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 for many customers their demand correlated with heat.

DLRP Network Impacts

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

Assessment of Network Impacts

Table 5 below summarizes performance data for Tier One, Tier Two, 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 is approximately 1.84 percent, an improvement over 0.99 percent in 2014 and 1.30 percent in 2015. The median achieved load reduction as a percentage of network peaks is approximately 1.38 percent. These figures indicate that DLRP continues to have a limited impact. Greater MW enrollment volume is required to increase the network impact of achieved load reductions.

	Enrollment & Average Impact by DLRP Network Tier						
Network Tier	Enrolled MW DLRP Reservation Payment Option	DLRP Operationally Available MW	Peak Demand (MW)	DLRP Mandatory Impact			
Tier One Networks	209	208	11036	1.88%			
Tier Two Networks	27	38	2331	1.64%			
All Networks / Load Areas	236	246	13367	1.84%			

	Ta	abl	e 5:	Summarv	of	Enrolled	. Antici	pated.	. and	Achi	eved I	mpact
--	----	-----	------	---------	----	-----------------	----------	--------	-------	------	--------	-------



Assessment of DLRP Program Growth

DLRP experienced an increase in both the number of customers participating and the total kW enrolled compared with 2015. As overall customer performance increased in 2016, this resulted in an increase in total MW operationally available in 2016.

Table 6 below summarizes the resources enrolled in DLRP in 2016 compared to the resources in 2015 for the Reservation Payment Option component of the program, while

Table 7 includes both Reservation Payment Option and Voluntary Participation Option enrollment combined. The tables show enrollment by tier and system wide.

As shown in Table 6, the majority of the growth in enrollment occurred in Tier Two networks for Reservation Payment Option customers. Potential drivers of Tier Two enrollment growth are increased incentives in Tier Two networks and synergistic activity from the Brooklyn Queens Demand Management ("BQDM") program. The reservation payment in Tier Two networks is 39% more than in Tier One networks.

	2015 MW Enrolled	2015 Operationally Available MW*	2016 MW Enrolled	2016 Operationally Available MW*	2016 vs. 2015 Change in MW Enrolled % Increase (Decrease)	2016 vs. 2015 Change in Operationally Available MW Increase (Decrease)
Tier One Networks	211	156	209	208	(1%)	33%
Tier Two Networks	17	10	27	38	59%	280%
All Networks/ Load Areas	228	166	236	246	4%	48%

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

* Adjustment based on Performance Factors from 2015 and 2016 Test events respectively. Voluntary enrollees excluded.

	2015 MW Enrolled	2015 Operationally Available MW*	2016 MW Enrolled	2016 Operationally Available MW*	2016 vs. 2015 Change in MW Enrolled % Increase (Decrease)	2016 vs. 2015 Change in MW with Derating % Increase (Decrease)
Tier One Networks	215	157	211	208	(2%)	32%
Tier Two Networks	17	10	27	38	59%	280%
All Networks/ Load Areas	232	167	238	246	3%	47%

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

* Adjustment based on Performance Factors from 2015 and 2016 Test events respectively. Voluntary enrollees included.

The following charts quantify the following subcomponents of enrollments.

- New to DR these are enrollments that did not participate in any of the Company's commercial DR program in the previous year
- 2. New to DLRP– these are enrollments that only participated in CSRP in the prior year and then enrolled in both CSRP and DLRP.
- 3. Enrollments transferred to the program these are enrollments that participated in one program in the prior year and in the following year enrolled in the other program. For example, if a customer participated in DLRP last year and this year enrolled in CSRP, that customer would be included in this category.
- 4. Enrollments that remained in the program these are enrollments that participated in the program in the previous year and re-enrolled this year.
- Enrollments that transferred from program for example, when looking at the DLRP enrollment breakdown, these are enrollments that discontinued their enrollment in DLRP and enrolled in CSRP or vice-versa when looking at CSRP.
- 6. Dropped all DR these are enrollments that participated in one or both programs last year, but

no longer participated in any program this year.

7. Dropped from a DR program - enrollments from the prior year that participated in both programs but only enrolled in one program this year are in this category.

This information provides insights into how incentive changes have affected enrollments. 2016 the Company retained almost all of the MW enrolled in DLRP despite the retirement of the Three-Year Incentive payment structure. 2016 also saw the largest number of new customers enroll in program. Enrollment growth was probably driven by a combination of increased in year incentives, greater awareness of Demand Response, and more access to DR enabled technologies. 2016 saw the smallest kW enrollment on a per customer basis of new participants, supporting the claim smaller customers are enrolling in DR.



Annual DLRP MW Enrolled Breakdown



Annual DLRP Customers Enrolled Breakdown

3. COMMERCIAL SYSTEM RELIEF PROGRAM ("CSRP")

CSRP is open to participants throughout the Company service territory who can curtail load or bring on certain on-site generation to reduce their demand by a minimum of 50 kW individually, or to Aggregators/Curtailment Service Providers who aggregate greater than 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 forecasted load is at least 92 percent of the Company's forecasted summer system peak. In 2012 the program was expanded to allow participation by SC11 customers who can increase export load to the system during events.⁹

Like the DLRP, the CSRP includes both a Reservation Payment Option and a Voluntary Participation 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 Summer Capability Periods that include five or more Planned Events, the reservation payment increases by \$5 per kW per month beginning with the first month in which by the end of the month there have been five or more cumulative Planned Events in the network. Performance payments for participation during a Planned Event or test event are \$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 location.

The participants in the Voluntary Participation Option do not receive reservation payments, but they do receive a higher Performance Payment of \$3.00 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 it can certify that it has NOx emissions no greater than 2.96lbs/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.

⁹ 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 and effective March 15, 2012, p. 8.

CSRP Costs

Table 8 summarizes the costs, by component, associated with CSRP in 2016.

<u> </u>		
Component	Cost	Percentage
Customer Incentives	\$ 23,602,300	95%
Program Administration - Con Edison	\$ 413,000	2%
Program Administration - Vendor	\$ 27,300	0%
Program Marketing	\$ 156,500	1%
Technology	\$ 564,400	2%
Total Program Costs	\$ 24,763,500	100%

	10
Table 8: CSRP Cost Components for 2016 Program Ye	ear

CSRP Cost Summary

Total CSRP costs for the 2016 program year were \$24,763,500, a 263 percent increase over the 2015 cost of \$6,821,200. Costs increased primarily due to increased program incentives, Three-Year Incentive payout, and a 43 percent increase in the megawatts enrolled in the Reservation Payment Option from 2015 to 2016.

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 were four CSRP events and no test event; voluntary customers are not tested. Table 9 below provides information about the 2016 CSRP events. In total, the Company paid \$15,799,960.45 (64 percent of total program costs) in 2016 CSRP customer incentives (Performance Payment plus Reservation Payments).

The Three-Year Incentive was eliminated in the Commission's January 27, 2016 *Order Adopting Tariff Amendments*.¹¹ The Company paid out the Three-Year incentive in March, 2016 and no additional Three-Year Incentives payments will be made in the future. \$7,802,339.55 was paid for 2014 and 2015 Three-Year Incentives for CSRP.

¹⁰ November and December costs were estimated.

¹¹ Case 15-E-0570, Tariff filing by Consolidated Edison Company of New York, Inc. to revise its Commercial Demand Response Programs contained in P.S.C. No. 10 – Electricity and conforming revisions to Charge for Demand management Programs contained in P.S.C. No. 12 - Electricity, *Order Approving Tariff Amendments,* issued and effective January 27, 2016.

<u>Program Administration – Con Edison</u>

Costs in this category include Con Edison staff salary and overhead associated with CSRP management and support. This includes, but is not limited to work performed by program managers and other internal support staff. Program staff salaries are recovered through the operating and maintenance ("O&M") budget and via the MAC. Other operational costs are recovered via the MAC. The costs associated with program operation were \$413,000 (two percent of total program costs) in 2016. Costs were calculated using a percentage of time allocation for staff and support personnel to CSRP activities, with their associated salaries, overhead, and Administrative and Supervisory ("A&S") costs.

<u>Program Administration – Vendor</u>

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, shared costs of third-party studies or reports for department-wide use. These costs totaled \$27,300 (less than one percent of total program costs) in 2016.

Program Marketing

Marketing costs include costs associated with Con Edison led program marketing initiatives required to inform and involve customers. These costs totaled \$156,500 (one percent of total program costs) in 2016. This program's marketing cost component also includes Con Edison staff salary associated with time spent on marketing events and marketing material design.

Aggregators provide the majority of program marketing to attract DR program participants. In 2016, the Company has increased 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 about program rules.

21

Technology

Costs included in this category are associated with DRMS and related product development, maintenance, and licensing. These costs totaled \$564,400 (two percent of program costs) in 2016.

CSRP Event Performance

The purpose of CSRP is to incentivize customers to reduce their demand for energy when the day-ahead 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 are expected to reduce load, or increase export in the case of SC11 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 export increases. 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 P.M. to 6:00 P.M., 4:00 P.M. to 8:00 P.M., and 7:00 P.M. to 11:00 P.M. Customers enrolling as SC 11 participants are viewed as supply resources instead of DR resources and are now required to export load during the 2:00 P.M. to 6:00 P.M. call window regardless of their network's call window. If call windows overlap between New York Independent System Operator ("NYISO") and Con Edison DR programs, customers and Aggregators are able to maximize the benefits from concurrent program activations. This is the time when the maximum benefit of DR is recognized, both generation and transmission and distribution benefit. Participants may be challenged in the event of consecutive call windows being activated by Con Edison and the NYISO. This would occur when a customer is located in a night-time peak distribution network but is also committed to respond to a day-time peaking NYISO call. Customers may be forced to decide on enrolling in either the SCR or the CSRP due to their limitations to reduce load for extended periods of time. On August 12, 2016 NYISO and Con Edison called concurrent SCR and CSRP events.

Event Summary

Con Edison called four planned events during the 2016 capability period in response to two heat waves. The events were called on July 25, July 26, August 12, and August 15, 2016. All call windows were called for four hours except on August 12 when the 11 a.m. to 3 p.m. call window was not called. Approximately 195 MW were enrolled at the time of the events and demonstrated an average performance factor of 91 percent across the four events. Although performance dropped relative to the 107 percent performance factor demonstrated during the 2015 test event, program performance was higher than expected as performance penalties were removed prior to the 2016 capability period.

A summary of the planned event results is shown in Table 9 below.

Event	Date	Event Hours	Customers Enrolled	MW Enrolled	MW Reduction Achieved	Performance Factor Achieved
Event	July 25	11 AM – 3 PM	429	91	83	91%
Event	July 25	2 PM – 6 PM	143	46	42	89%
Event	July 25	4 PM – 8 PM	100	26	26	101%
Event	July 25	7 PM – 11 PM	124	31	33	104%
Event	July 26	11 AM – 3 PM	429	91	78	86%
Event	July 26	2 PM – 6 PM	143	46	44	94%
Event	July 26	4 PM – 8 PM	100	26	26	101%
Event	July 26	7 PM – 11 PM	124	31	26	82%
Event	Aug. 12	2 PM – 6 PM	143	46	37	77%
Event	Aug. 12	4 PM – 8 PM	100	26	25	99%
Event	Aug. 12	7 PM – 11 PM	124	31	24	80%
Event	Aug. 15	11 AM – 3 PM	429	91	85	94%
Event	Aug. 15	2 PM – 6 PM	143	46	44	99%
Event	Aug. 15	4 PM – 8 PM	100	26	27	102%
Event	Aug. 15	7 PM – 11 PM	124	31	25	73%

Table 9: CSRP Event Summary

Table 10: CSRP Resource Comparison with 2015

Call Window	2015 MW Enrolled*	2015 MW Reduction (Test Event)	2016 MW Enrolled	2016 Average MW Reduction
11 a.m. – 3 p.m.	69	79	92	82
2 p.m. – 6 p.m.	29	30	46	42

4 p.m. – 8 p.m.	18	19	26	26
7 p.m. – 11 p.m.	20	19	31	27
Total	136	147	195	177

*Enrolled at the time of the test event

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 as it is used to calculate payments and determine resource reliability.

Increased program growth in 2016 in the Reservation Payment Option resulted in an increase in the amount of MW reduction available for CSRP DR events. CSRP saw a 42 percent increase in program enrollment and a 19 percent increase in operational resources from 2015 to 2016.

CSRP Measurement and Methodology

As with the DLRP, CSRP uses the CBL methodology to measure load reduction during all tests and events for both Reservation and Voluntary enrolled customers. Only 13 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 adjustment calculation 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 reduce capital costs, with the associated benefits of reduced customer costs and improved reliability of service. While the peak shaving programs are in the early stages of development, as illustrated in Table 11 below, the Company continues to see growth in the impact of the programs on the network peaks. The achieved network impact has increased from 0.59 percent in 2013 to 1.10 percent in 2014 to 1.25 percent in 2015 to 1.35 percent in 2016. The network impact increase is driven by increased enrollment. In addition, network peak demand decreased by 1 percent on average. Full performance data for all networks is presented in the appendices at the end of this report.

Call Window	Enrollment (MW)	Average CSRP 2016 Reduction (MW)	2016 Call Window Performance Factor	Call Window Peak Demand (MW)	2016 CSRP Call Window Impact (Percent of Call Window Peak)
11 AM - 3 PM	91	85	94%	3,429	2.5%
2 PM - 6 PM	44	32	73%	1,943	1.6%
4 PM - 8 PM	26	27	102%	3,134	0.8%
7 PM - 11 PM	34	36	107%	4,861	0.7%

Table 11: Summary	y of Enrolled Antici	ipated and Achieved Im	pact
-------------------	----------------------	------------------------	------





Assessment of CSRP Program Growth

2016 saw an increase in the number of customers and associated MW enrolled in CSRP in addition to the operational available MW from 2015. The table below shows how the operationally available MW (i.e., MW reductions demonstrated during events) increased by nineteen percent. The significant enrollment growth in CSRP (forty three percent over 2015) was primarily drive by two factors: One, the elimination of penalties in CSRP and, two, the removal of the Three-Year Incentive which increased in-year incentive payments. The chart below shows how CSRP increased the number of MW and number of customers from 2015 and lost relatively few customers and MW. It remains to be seen if the new 2016 participants reenroll in the program given the number of events called in 2016.

There are three potential sources of growth for CSRP enrollment – customers who participated in only DLRP and who will also enroll in CSRP, CSRP customers who will increase their 2016 pledged load reductions in 2017 and customers who have never participated in the Company's DR programs.

Call Window	2015 MW Enrolled	2015 Operationally Available MW	2016 MW Enrolled	2016 Operationally Available MW	2016 vs. 2015 Change in MW Enrolled % Increase	2016 vs. 2015 Change in Operationally Available MW % Increase
11 AM to 3 PM	73	80	91	82	25%	2%
2 PM to 6 PM	29	31	44	42	52%	35%
4 PM to 8 PM	18	19	26	26	45%	37%
7 PM to 11 PM	18	19	34	27	89%	42%
All Networks	137	149	195	177	43%	19%

Table 12: CSRP Overall Enrollment by Call Window and System-Wide

The following charts quantify the subcomponents of enrollments. Each subcomponent was described in Section 2 of the report. This information helps to provide a general idea of the impacts of the incentive changes on the subcomponents of enrollments. It is evident that in 2016 CSRP experienced the best retention in customers and MW enrolled compared to any other year, indicating that the significant growth seen in 2014 yielded longer term customers. It is of note that the program continued to retain customers despite the retirement of the Three-

Year Incentive payment structure. It is also clear that the CSRP penalty represented a significant barrier to customers who wanted to enroll medium kW reductions in CSRP. 2016 saw 457 new customers enroll in the program amounting to 90 MW, representing roughly an average enrollment of 200 kW per participant.



Annual CSRP MW Enrolled Breakdown



Annual CSRP Customers Enrolled Breakdown

As enrollment and performance continue to grow, the various benefits received from CSRP will continue to grow. Growth in available load reduction reduces the costs and environmental impacts associated with peaking generation, and load reduction resources become a larger driver of distribution system planning. The Company recognizes that additional enrollment growth is necessary for CSRP to have more substantial impacts on capital cost deferrals.

4. COMMERCIAL DEMAND RESPONSE THREE-YEAR INCENTIVE UPDATE

In 2014 Con Edison introduced a Three-Year Incentive payment structure for qualifying customers in both DLRP and CSRP programs and the Aggregator Network Resource ("ANR") concept was introduced. An ANR is one or more customers in a network that are grouped by an Aggregator for the purposes of calculating performance and for determining eligibility for the Three-Year Incentive. Each ANR has to demonstrate a performance factor above 80 percent in each of the three years in order to receive the Three-Year Incentive. The Three-Year Incentive

pays \$5 per kW per month for DLRP and \$10 per kW per month for CSRP upon the completion of the three-year period.

In its September 2015 tariff filing,¹² the Company proposed eliminating the Three-Year Incentive Payments. In its January 27, 2016 *Order Approving Tariff Amendments*¹³ the Commission approved elimination of the Three-Year Incentive. The multi-year payment was intended to encourage customer re-enrollment from year to year, encourage customer performance during events, and improve the accuracy of demand response capability forecasting for system planning. However, the Three-Year Incentive Payment did not meet these objectives. Table 13 outlines how many ANRs enrolled in the Three-Year Incentive structure and the number that were disqualified for poor performance. Despite good participation in the programs (at the beginning of the 2015 Capability Period roughly 97 percent of MW enrolled in DLRP and CSRP were also enrolled in the Three-Year Incentive program), 53 percent and 30 percent of the ANRs were disqualified in DLRP and CSRP respectively due to performance below the 80 percent threshold.

Program	ANR Start Year	Number of ANRs*	Number of Customers	MW in ANRs	# of ANRs Disqualified	MW disqualified	% of ANRs disqualified	% of MW disqualified
	2014	255	321	86	114	27	45%	32%
DLRP	2015	380	411	125	223	81	59%	65%
Tota	ıl	635	732	211	337	108	53%	51%
CSPD	2014	168	175	67	44	22	26%	32%
CSRP	2015	212	234	68	71	19	33%	28%
Tota	l	380	409	136	115	41	30%	30%

Table 13: Three-Year Incentive Participation

*Number of ANRs that started the Three-Year Incentive that year.

In addition, the Three-Year Incentive mechanism was not effective for the Company's long-term planning. Customers were able to enroll in different years and, therefore, become

¹² Case 15-E-0570, Tariff filing by Consolidated Edison Company of New York, Inc. to revise its Commercial Demand Response Programs contained in P.S.C. No. 10 – Electricity and conforming revisions to Charge for Demand management Programs contained in P.S.C. No. 12 – Electricity.

¹³ Case 15-E-0570, Order Approving Tariff Amendments, issued and effective January 27, 2016.

eligible for this incentive in different years. Because a customer was able to choose not to reenroll in a program after completing a three-year term, the Company in any given year did not know the full extent of enrollments three years into the future. Furthermore, based on the Company's experience and Aggregator comments and feedback, the Three-Year Incentive was not conducive to market animation. There are several possible reasons for this: customer budget cycles typically look only one year ahead; the Three-Year Incentive had stringent qualification criteria; and smaller Aggregators may be disinclined to participate if they do not have the financial strength to wait three years for payment. Finally, the Company procured a DRMS that is used by grid operators and utilities around the world to facilitate the operational functions of demand response. The Company learned that no entities served by the DRMS vendor have a delayed incentive model similar to the Company's Three-Year Incentive Payment. Maintaining the multi-year incentive would result in the Company having to pay the DRMS vendor for expensive system customization. The Company replaced the multi-year incentive with an increased upfront incentive to more effectively retain customers from year to year, attract new customers, and improve annual performance.

The Company paid the Three-Year Incentive Payments to Aggregators and Direct Participants for their resources that qualified for the Three-Year Incentive Payment in March 2016. The Three-Year Incentive rate was paid to qualified resources for each month of participation. A total of \$3,727,679.69 was paid to qualified DLRP resources, and a total of \$7,802,339.55 was paid to qualified CSRP resources.

5. COMMERCIAL COST EFFECTIVENESS SUMMARY

Using the Company's cost effectiveness model¹⁴ based upon the Company's application of the Freeman, Sullivan, and Co. TRC test.¹⁵ The Total Resource Cost ("TRC") test for the commercial DR programs yields a result of 1.36 and \$714 million in net benefit over a 10-year period. In addition the Company evaluated the cost effectiveness of the program using the

¹⁴ The results of the separate REV benefit cost analysis ("BCA") track will be incorporated into future program design and reporting as appropriate.

¹⁵ Freeman, Sullivan & Co., *Cost-effectiveness of CECONY Demand Response Programs*; Prepared for Consolidated Edison Company of New York, November 2013.

Utility Cost Test and the Ratepayer Impact Test, which yielded benefit cost ratios of 1.03 and 1.02 respectively. Benefit cost ratios above 1.0 confirm that a program is cost effective.

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:

- Actual 2016 data for the model's initial enrollment for 2016 and 10 percent compounded growth per year for 10 years;
- Program costs updated with costs incurred in 2016 through October and estimated for November and December;
- CSRP and DLRP overlap percentages updated based on 2016 enrollment overlaps; and
- The benefits for the TRC calculation included capacity and distribution benefits derived from the Company's Benefit-Cost Analysis Handbook as presented in the Company's 2016 Distribution System Implementation Plan (DSIP)¹⁶

6. 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 Two SC 11 customers participated in the peak shaving program and the contingency program compared to one in 2015. The customers enrolled a total DR export capacity of 12.5 MW for peak shaving (no change relative to 2015) and 12.2 MW for contingency events (a 22 percent increase over 2015). These resources were called to perform for the contingency program test and the peak shaving events. Performance was 120 percent for the contingency program test and 106 percent for the peak shaving events.

¹⁶ Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision., *CECONY Initial DSIP*, filed June 30, 2016.

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.¹⁷

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

DLRP						
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%		

Table 14: DLRP Enrollments and Performance for NYPA Accounts

Table 15: CSRP Enrollments and Performance for NYPA Accounts

CSRP						
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%		

8. UPDATE ON METER DATA ACCESS

The Company's Meter Data Access Plan provides commercial customers with 15-minute interval data on a close to real time basis during the Company's DR events ("Fast Polling"). This access is provided via the Company's new DR Customer Portal. The Portal allows customers to download event-day customer baseline, actual, and target energy use in Excel and

¹⁷ 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 and effective February 16, 2010, p. 9.

PDF formats. The Company continues to work with the Portal product and associated systems to check the speed and quality of the data provided via the Portal.

The Company experienced some technical issues with Fast Polling during the 2016 Capability Period, which led some customers and Aggregators to have reduced access to realtime meter data during events. The primary cause of the technical issues was a software update to the Company's meter data management system which led to unforeseen problems with Fast Polling. The Company is currently working on a solution to this issue to ensure that customers and Aggregators have access to Fast Polling data during DR events.

9. DLRP CALL WINDOW EVALUATION

As required by the Commission's January 27, 2016 Order Approving Tariff Amendments, the Company is expected to include an analysis of the DLRP call availability window.¹⁸ Specifically, the Company was directed to examine whether the 6 AM to Midnight, Monday through Sunday, throughout the capability period, demand response availability requirement is inhibiting DLRP program growth.

The Company surveyed aggregators on preferences for DLRP to gauge if the current call availability window is inhibiting program growth and if changing it would be more attractive for customers and aggregators. The survey was sent to aggregators on July 19, 2016 and final responses were collected on August 1, 2016. Ten aggregators completed the survey. The survey also solicited aggregator feedback on potential tariff changes and other ways the Company could improve its commercial DR programs. Only the results relevant to the DLRP call availability window are included here. Tables Table 16, Table 17, and Table 18 show the survey questions and the rank of the average of the ratings given by aggregators.

Survey respondents were asked to rank six different potential DLRP programs (options A through F, see Table 16) in order of preference. Option A is the status quo where the Reservation payment is 18/kW/month, notification time is 2 hours, the mandatory event duration is four hours, and the call availability window is 6AM - 12AM, seven days a week. Each of the

¹⁸ Case 15-E-0570, Tariff filing by Consolidated Edison Company of New York, Inc. to revise its Commercial Demand Response Programs contained in P.S.C. No. 10 – Electricity and conforming revisions to Charge for Demand management Programs contained in P.S.C. No. 12 - Electricity, *Order Approving Tariff Amendments,* issued and effective January 27, 2016, p. 25.

remaining five options have one parameter changed – either the notification time, event duration or call availability window. The reservation payment was then adjusted to reflect the change in parameter. Performance payment for all options remained 1/kWh. Table 16 shows the six options along with the rank of the average rating (where 1 is the most preferred option and 6 is the least preferred option amongst the aggregators who responded to the survey). The status quo (option A) is tied for rank 1 with option C (increased notification time). Option D, which had a reduced event duration, has rank 3. The three options with reduced call availability windows (options B, E, and F) came in with the lowest ranks. Option F, with the shortest call availability window (8AM – 6PM 5 days a week) was ranked last overall by aggregators who responded to the survey.

Option	Reservation payment	Notification time (hours)	Event duration (hours)	Call availability (hours)	Call availability (days)	Rank (1 is most preferred)
	(\$/kW/month)					
А	18	2	4	6A – 12A	7	1
В	12	2	4	7A – 7P	7	4
С	16	6	4	6A – 12A	7	1
D	13	2	3	6A – 12A	7	3
E	12	2	4	6A – 12A	5	5
F	7	2	4	8A – 6P	5	6

Table 16: Survey question: Which of these six DLRP program designs would customers prefer? Rank them from 1 for most preferred down to 6 for least preferred.

These results indicate that reducing the call availability window has the potential to hurt enrollments, since aggregators indicate that customers substantially prefer the status quo to multiple program options with reduced call availability windows.

Aggregators were also asked to rank the importance of program features to increase participation in DLRP. Table 17 shows the program features and the ranking of the average of the ratings assigned by aggregators who responded to the survey. Reducing the call availability window was ranked right in the middle at number three. Aggregators indicated that customers would prefer programs with increased incentives and reduced event duration over a reduced call availability window. It is less important to them to reduce generation restrictions and permitting, or to have joint aggregator and utility marketing programs. These results are consistent with the results from the survey question in Table 16. Aggregators indicated that customers would prefer programs with higher reservation payments and reduced event duration over those with shorter call availability windows.

Table 17: Survey question: Please rank the importance of these program features to increase participation in the Distribution Load Relief Program (DLRP)? One is most important five is least important.

Program Feature	Rank
Increase incentives	1
Have joint aggregator & utility marketing programs	5
Reduce the amount of time the customers are asked to respond	2
to events	
Reduce generation restrictions and permitting requirements	4
Reduce the call availability window (i.e. when Con Edison is	3
allowed to call an event)	

Finally, aggregators were asked to rank the importance of program features to increase performance during DLRP events. Table 18 shows the program features and the ranking of the average rating by survey respondents where 1 is the most preferred. Reducing the call availability window was tied for rank 3 with increasing performance payments. Aggregators indicated that increasing notification time and increasing incentive rates would be more likely to maximize performance. Reducing the event duration was the only program feature that was ranked behind reducing the call availability window.

Program Feature	Rank
Increase the notification time	1
Reduce the event duration	5
Increase reservation incentive rates	2
Increase performance payments	3
Reduce call availability window	3

 Table 18: Survey question: Please rank these program features on the best way to maximize performance during a DLRP event? One is most important five is least important.

The responses to the above three survey questions indicate that the current call availability window of 6AM - 12AM, seven days a week, is not inhibiting program growth relative to similar program parameters with reduced call availability windows. Aggregators indicated that customers prefer the status quo to similar options with reduced call availability
windows. This implies that reducing the call availability window may actually harm program growth.

10. COMMERCIAL PROGRAM CONCLUSIONS

Both CSRP and DLRP grew substantially in 2016 compared to 2015, in enrolled MW, operationally available MW and number of customers enrolled. This was fueled by the removal of penalties for CSRP and the removal of the Three-Year Incentive which allowed for an increase in reservation payments.

The Company filed program changes in September 2016 after having engaged Staff and Aggregators. (In the 2015 Evaluation Report the Company discussed how it continues to work with Department of Public Service Staff ("Staff") and stakeholders to file program changes in a timely manner to allow adequate time for market education and for DRMS modifications.) 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 add flexibility to CSRP operations by switching to a day-ahead advisory notice with a same-day notification. This is similar to the way NYISO dispatches its SCR program and will ensure that no events are unnecessarily called when the forecast drops below the 92 percent threshold for calling events. The proposed changes are also designed to simplify and ease the enrollment process for aggregators and customers by removing the restriction for increasing pledges for customers whose performance factor was less than one in the previous year, and adding more time for the submission of permits.

To comply with the Commission's January 27, 2016 Order Approving Tariff Amendments, on September 1, 2016 the Company filed a *Report on the Appropriateness of* Auctions for CSRP and DLRP for 2017. The Company determined that CSRP and DLRP currently do not meet the conditions for success for auctions and does not recommend them at this time. As the Company gains more experience with auctions, it will reevaluate whether they are appropriate for CSRP and DLRP.

There were four CSRP demand response events in the summer of 2016. The Company called 27 actual DLRP events across eight networks and one test event. Although overall performance increased for DLRP compared to 2015 and decreased for CSRP, the levels of

operationally available MWs increased for both programs.

11.DIRECT LOAD CONTROL PROGRAM ("DLC")

The DLC program is comprised of the Residential Direct Load Control program ("Residential" or "Residential Component") and the Business Direct Load Control program ("Business" or "Business Component"). The DLC program supports electric system reliability by using communication enabled (Wi-Fi and radio paging) 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 to over-ride 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 Vision¹⁹ ("REV") proceeding, since 2014 the Company also offers a Bring Your Own Thermostat ("BYOT") option that allows customers to enroll a thermostat through certain service providers or thermostat manufacturers.

For the DLC Company Provided Thermostat ("CPT") option, Con Edison provides and installs, without charge to the enrolling business or residential customer, a thermostat with internet-enabled technology. In addition, participants are given a one-time incentive of \$25 or \$50 for enrollment in the residential and business programs, respectively. As of July 1, 2016, there were approximately 19,000 customers, using 26,000 thermostats that can provide 39 MW of peak load reductions (or operational capacity). At the end of September 2016, the Company removed Legacy Thermostats from the DLC program through the retirement of the Carrier two-way paging thermostats. This will result in approximately 18,000 thermostats remaining active in DLC, representing 14,000 customers. For the 2016 summer capability season, through August 15, 2016, a total of twenty-six DLC events were called; the event summaries are provided later in this section.

In 2017 the residential DLC model will be transitioning to the BYOT model. Beginning January 2017, the Company will no longer offer customers the opportunity to enroll in the DLC CPT option and will only offer customers the opportunity to enroll in DLC through the BYOT

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, p. 1.

model. Company provided technicians will remain available to provide service calls to currently installed CPTs at no cost to the customer.

The BYOT option 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. Company provided technicians will be available to customers who purchase a Con Edison-approved thermostat through the BYOT option, upon customer request, at a small fee for the customer.

The transition to the BYOT model will benefit 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 costs of approximately \$150 per thermostat.

An additional benefit of the BYOT model is that it leverages existing marketing executed by various thermostat manufactures. Also, only having one offer in the market should eliminate any confusion resulting from the promotion of two separate offers. In addition, the BYOT model allows the Company to coordinate demand response and energy efficiency offers, as the REV Demo's Con Ed marketplace sells BYOT eligible thermostats with an instant energy efficiency rebate. BYOT offerings are also leveraged through the Targeted Demand Management ("TDM") programs.

As of October 2016, the BYOT option had approximately 3,550 enrolled customers with a total of 5,500 thermostats that can provide approximately 5.7 MW of potential load reduction. The BYOT thermostats and the 18,000 remaining CPT thermostats will be the enrolled devices in DLC at the start of January 2017.

DLC Program Technology Overview

<u>Wi-Fi Thermostats</u>

The Wi-Fi thermostats connect to the customer's existing Wi-Fi router without any separate hardware needed. The Wi-Fi thermostats provide a more ubiquitous two-way communication source than the Legacy Thermostat paging technology, which allows the Company to more accurately monitor DR event participation and verify load reduction. The

Company began installing Wi-Fi thermostats in 2013. In March 2015, the Company was given approval by the Commission to begin replacing the existing two-way paging technology thermostats with Wi-Fi thermostats in an effort to maintain DR capacity. A variety of pre-approved Wi-Fi and learning thermostats are available for participation in BYOT.

Two-way Paging Thermostats

At the program inception, the DLC CPT option exclusively utilized a two-way paging technology thermostat, with DLC events initiated through the manufacturer's proprietary system. Challenges to this technology became evident as many thermostats became non-responsive thermostats ("NRT"). The Company defines a NRT as one that has not communicated for 90 days. After a device is a NRT for six months the Company removes the thermostat from the program. Additionally, the paging communication system became obsolete and the communications vendor moved to discontinue service. The Company closed out this system at the end of September 2016.

To maintain the long-term efficacy of the DLC program in the face of the increasing failure rate of the Legacy Thermostats, in its March 25, 2015 order in this proceeding,²⁰ the Commission gave the Company permission to replace 8,000 Legacy Thermostats by the end of 2015. The Company marketed directly to these customers in 2016 to upgrade their thermostats to a Wi-Fi enabled thermostat. As of the end October 2016, the Company had replaced 6,900 paging thermostats. The Company will continue to market the BYOT offer to these customers in 2017.

Program Marketing

The Company continues to use a strategic, analytical, targeted marketing approach, which began in 2013, to recruit participants into the DLC program. The strategy has sustained a significant increase in residential customer enrollment. As seen in Table 19 below, the Company achieved a 1.18 percent penetration rate; the rate is on par with the Company's expectations and in-line with the marketing penetration rate of 1.33% from last year.

²⁰ 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 and effective March 27, 2015, p. 8.

2016 Estimate									
Campaign	Pieces Sent	Leads	Penetration	Cost	Cost per Lead				
Residential Mail	440,918	3,550	0.81%	\$244,237.00	\$68.80				
De-install – Re-install ("DERE") Residential Mail	47,730	2,223	4.66%	\$67,580	\$30.40				
Total All Mail Campaigns	488,648	5,773	1.18%	\$311,817.00	\$54.01				

Table 19: DLC Marketing Efforts

*Costs associated with Cross-Promotional Emails cannot be determined as they are part of the Company's overall awareness campaigns to customers.

The Company continues to employ a strategic marketing database platform to drive all aspects of customer recruitment and engagement. The focus on data-driven marketing is the key reason for the current marketing success. Predictive models help the program by optimizing marketing campaigns, prioritizing customer segments, and predicting future response rates. Reducing the audience size to those customers who would qualify for the program and have a higher probability to respond translates into reduced marketing expense and increased customer satisfaction scores.

These predictive solutions help the Company know who to target, what to say, and when and where to invest marketing dollars in order to achieve a desired customer reaction. This targeted marketing is informed by insights gained from segmentation and other means, and further driven by advanced analytics, including predictive modeling, customer value identification, and forecasting.

Customer Support

Con Edison has retained call center services for both residential and business DLC customers. The call center services include but are not limited to, helping customers apply for the DLC program, answering scheduling questions, and handling incentive check inquiries. The call center is available 24 hours a day, seven days a week. For 2016, the Company estimates that over 21,000 calls will be received. In addition, the Company estimates the call center will make over 52,000 outbound calls by the end of the year for telemarketing and scheduling installations. For the year to date, the program's call center has enjoyed high service levels. It has experienced its highest call volume in program history and 96% of calls were answered in less than twenty seconds.

Customer Satisfaction

Telephone surveys were conducted in October and November 2015, using sample records for the 2015 calendar year participants. Surveys were limited to respondents who were involved in the decision to participate in the DLC program. The survey utilized a one-to-five overall satisfaction scale and considered a customer as satisfied if it gave the program a satisfaction score of "four" or "five." Key outcomes of the 2015 survey include:

- A wide majority of those surveyed report being satisfied with the program (84 percent Residential and 76 percent Business, similar to 83 percent Residential and 69 percent Business in 2014);
- The most common reasons to participate in the program were the free thermostat (54 percent Residential and 22 percent Business) and the ability to manage energy use (42 percent Residential and 24 percent Business). Also, the ability to program thermostats using a mobile phone continues to increase as a reason to participate in the program among Residential participants (29 percent up from 23 percent in 2014).²¹

DLC CPT and BYOT Program Costs

As indicated in Table 20 below, the total program costs incurred in 2016 are expected to be under the \$8.25 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.

DLC Program Cost 2016							
Component	2016 Estimated Costs*	Percentage					
Program Implementation Vendor / Other	\$5,648,000	72%					
Program Equipment	\$1,050,000	13%					
Program Marketing	\$525,000	7%					
Customer Incentive	\$675,000	9%					
Total Costs	\$7,898,000	100%					

Table 20: Program Costs 2016

*Includes estimated costs for Nov. - Dec. 2016

²¹ Multiple responses were allowed for the question regarding reasons for participating.

<u>Program Implementation – Vendor/Other</u>

Costs in this category include expenses related to program operations and management functions performed by Con Edison's vendors and BYOT service providers. The costs in this category were \$5,648,000.

<u>Equipment</u>

Program equipment costs refer to the thermostats, equipment related to installing the thermostats, website hosting, and communication fees. The costs in this category were \$1,050,000.

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 \$525,000.

Customer Incentives

Customer incentives consist of all payments to customers for program participation, based on the program design. Costs for this category were \$675,000.

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.

²² Legal costs include, but are not limited to, advertising associated with regulatory filings.

Cost Effectiveness Summary

DLC TRC Test

The 2016 DLC program was cost effective based upon the Company's application of the Freeman, Sullivan, and Co. 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 2016 and estimated figures for the months of October, November, and December 2016.
- Thermostats are estimated to have a 10-year lifespan.²⁴
- The benefits and costs of the program were calculated over 10 years for thermostats installed in 2016.
- Attrition rates for both Residential and Commercial components of approximately 1 percent and 7 percent, respectively, are included.
- TRC calculations include administration, implementation, maintenance, and marketing costs. Installation costs were calculated using 2016 adjusted installation and equipment costs. Maintenance costs were calculated using 2016 operation and maintenance costs for all active thermostats as well as estimates of operation and maintenance costs for the remaining life of all active thermostats.
- The benefits for the TRC calculation included capacity and distribution benefits derived from the Company's Benefit-Cost Analysis Handbook as presented in the Company's 2016 Distribution System Implementation Plan (DSIP)²⁵

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; September 2012

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.

Total Resource Cost Test					
Benefits	\$56,828,686				
Costs	\$36,955,701				
Net Benefits	\$19,872,984				
Benefit Cost Ratio	1.54				

Table 21: DLC Cost Effectiveness

BYOT Total Resource Cost Test

Assumptions for the BYOT TRC are similar to the Company-Provided Thermostat model. Additionally, costs include the net present value of the ten-year customer incentives and vendor fees associated with the thermostats installed in 2016.

This year the Company took a more conservative approach in calculating the cost effectiveness of the BYOT program and included the full participant cost of the thermostat. This explains the decrease in cost effectiveness in the BYOT program relative to the 2015 report, which reported the Benefit Cost Ratio at 4.52. Going forward the Company will work to refine this input to better understand the percentage of participants who purchased an eligible thermostat because of the program incentive, and the percentage of participants who would have purchased an eligible thermostat without an incentive.

As in previous years, the Company determined that the DLC and the BYOT programs were cost effective based on the TRC test.

BYOT Total Resource Cost Test				
Benefits	\$7,489,404			
Costs	\$3,128,628			
Net Benefits	\$4,360,776			
Benefit Cost Ratio	2.39			

Table 22: BYOT Cost Effectiveness

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.
- For the BYOT specifically, each thermostat manufacturer has different demand reduction strategies, which may affect the reduction per thermostat.
- Table 23 below shows the different strategies used by the various vendors.

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 implemented 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. The events lasted for four hours, the time of day varies from afternoon to evening across events.
Honeywell	The Honeywell thermostat is sent a signal which turns the compressor off, but, still allows the fan to run. Typically a compressor will be set to run every other 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.

Table 23: Demand Reduction Strategies by Vendor

Test and Event Performance

The 2016 summer season was an active season with hot and humid weather within the Con Edison service territory. Con Edison called twenty-six DR events during this program period. The following tables show a listing of the events to date and a summary of results for each event.

2016 Event Information						
Date	Time	Time End	Resource (s) called for the	Participating	MW	
	Start		Event	Thermostats		
13-Jul-16	4:00 PM	5:00 PM	All	37,352	24.33	
15-Jul-16	2:00 PM	8:00 PM	Fresh Kills	2,806	1.97	
22-Jul-16	5:00 PM	11:00 PM	Fox Hills	2,207	1.21	
23-Jul-16	8:25 PM	12:00 AM	TriBoro	119	NA*	
24-Jul-16	6:19 AM	10:00 AM	Riverdale	100	0.03	
25-Jul-16	11:40 AM	3:40 PM	Daytime Networks	4,690	1.48	
25-Jul-16	4:00 PM	8:00 PM	Evening Networks	27,870	26.13	
26-Jul-16	11:00 AM	3:00 PM	Daytime Networks	4,690	1.48	
26-Jul-16	4:00 PM	8:00 PM	Evening Networks	27,873	15.38	
11-Aug-16	2:00 PM	8:00 PM	Crown Heights, Richmond Hill, and Ridgewood	1.052	0.77	
12-Aug-16	12:00PM	4:00 PM	Davtime Networks	4.192	2.87	
12-Aug-16	2:00 PM	8:00 PM	Crown Heights, Richmond Hill and	,		
C			Ridgewood	1,028	0.73	
12-Aug-16	4:00 PM	8:00 PM	Evening Networks	27,641	23.92	
12-Aug-16	8:20 PM	10:20 PM	Fox Hills	2,218	0.31	
12-Aug-16	8:20 PM	12:20 AM	Fresh Kills	2,912	0.28	
13-Aug-16	3:00 PM	9:00 PM	Crown Heights, Richmond Hill and Ridgewood	1,056	0.60	
13-Aug-16	2:00 PM	8:00 PM	Fox Hills, Fresh Kills	5,289	4.50	
13-Aug-16	4:00 PM	10:00 PM	Sheepshead Bay	496	0.28	
13-Aug-16	4:40 PM	10:40 PM	Rockview	992	0.74	
14-Aug-16	4:00 PM	10:00 PM	Crown Heights, Richmond Hill and Ridgewood	1,029	0.53	
14-Aug-16	2:00 PM	7:00 PM	Daytime Networks	4,242	3.15	
14-Aug-16	4:00 PM	9:00 PM	Evening Networks	27,072	17.44	
15-Aug-16	11:00 AM	3:00 PM	Daytime Networks	4,586	2.70	
15-Aug-16	3:00 PM	9:00 PM	Crown Heights, Richmond Hill and Ridgewood	1,061	0.59	
15-Aug-16	4:00 PM	8:00 PM	Evening Networks	27,325	15.26	
16-Aug-16	4:00 PM	10:00 PM	Crown Heights, Richmond Hill and Ridgewood	1,058	0.67	

Table 24: Summary of DLC Test and Events

The 2016 event book further detailing all program events is attached as Appendix F.

BYOT Test and Event Performance

In 2016 the BYOT option had three program partners (Honeywell, NEST and EnergyHub) that participated in test and contingency events. These events took place on following dates:

Date	Hours	Type of Event	Vendor	Network	Participating Thermostats	Average kW Reduction per Device
13-July-16	5:30PM- 9:30PM	Test	Nest	All	3,315	1.05
25-July-16	5:30PM- 9:30PM	Contingency	Nest	All	3,614	0.70
26-July-16	5:30PM- 9:30PM	Contingency	Nest	All	3,611	0.48
11-Aug-16	5:30PM- 9:30PM	Contingency	Nest	Crown Heights, Richmond Hill and Ridgewood	89	1.08
12-Aug-16	5:30PM- 9:30PM	Contingency	Nest	All	3,623	1.03
15-Aug-16	4:08 PM-8:08 PM	Emergency	Nest	All	3,680	0.81
13-Aug-16	4:48 PM -10:47 PM	Emergency	Energy Hub	Rockview	1	NA*
14-Aug-16	3:57PM- 8:56PM	Emergency	Energy Hub	All	52	NA*
13-July-16	5:30PM- 9:30PM	Test	Honeywell	All	357	0.57
15-July-16	2:00PM- 8:00PM	Contingency	Honeywell	Fresh Kills	24	1.00
25-July-16	4:00PM- 8:00PM	Contingency	Honeywell	All	375	0.63
26-July-16	4:00PM- 8:00PM	Contingency	Honeywell	All	378	0.39
11-Aug-16	2:00PM- 8:00PM	Contingency	Honeywell	Crown Heights, Richmond Hill and Ridgewood	18	0.44
11-Aug-16	4:00 PM- 8:00PM	Contingency	Honeywell	All	400	0.66
13-Aug-16	2:00PM- 8:00PM	Contingency	Honeywell	Zone J	42	0.29
14-Aug-16	4:00pm- 9:00pm	Contingency	Honeywell	All	397	0.37

Table 25: Summary of BYOT Test & Events

*Inconclusive data based on the number of thermostats participating.

As of the end of October 2016, NEST thermostats comprised approximately 83 percent of the BYOT program enrollment. The other thermostat manufacturers did not have a statistically significant number of participating thermostats at the time of certain events.

Program Attrition

Customers leave the program or choose to have their thermostats removed for a variety of reasons. For example, a thermostat that stops communicating with the system for an extended period of time is assigned a NRT status as described above. In these instances, the DLC program administrator undertakes 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 a "Dropout," and is included in the attrition calculation (described below). If one of these Dropout customers calls the call center for assistance, and the communication problem can be resolved, the thermostat is reactivated and returned to active status in the program.

When the program administrator is able to make contact with a customer whose thermostat has been categorized as an NRT, the administrator may determine that the customer had the thermostat removed by its own contractor without notifying the program administrator or Con Edison. In these cases, the thermostat and customer are noted as Removals. Although the thermostat is the customer's property, whenever possible the implementation vendor removes the DLC thermostat, with the customer's approval, and it is replaced with a lower cost programmable thermostat or one provided by the customer. The program thermostat is either recycled back into the program or disposed of properly. The Company projects that over 8,000 residential and business thermostats will be removed from the program in 2016, resulting in an attrition rate of 32 percent. The increase in attrition is directly tied to the paging network being shut down. If this shutdown were not factored in the Company would expect an attrition rate of 2.61%. Program attrition from BYOT has not yet been captured.

2017 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 – 2016 ("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 26: Expenditures

2017 Expenditure Budget (\$ in MM)						
DLC - BYOT	3.74					
Con Edison Ancillary Charges	0.50					
Total	4.24					

Table 27: Operational Enrollment

Decembe	er 31, 2016	Projected as December 31, 2017			
	Thermostat	MW		Thermostat	MW
Wi-Fi CPT			Wi-Fi CPT		
Residential	15,620	16.24	Residential	15,620	16.24
Wi-Fi CPT Small			Wi-Fi CPT Small		
Business	2,380	3.34	Business	2,380	3.34
ВҮОТ	5,500	5.71	ВҮОТ	8,000	8.32
Total	23,500	25.30	Total	26,000	27.90

Program Summary

The DLC program has had a successful year. The new installations for the Residential Component are projected to be a total of 6,165 thermostats, surpassing the goal of 3,500 installed new residential thermostats. The Company anticipates achieving 100 percent of the total combined program goal of 9,000 thermostat installations in 2016.

The BYOT option of the program continues to grow its enrollment. The BYOT option expects to see a significant increase in enrollment during the holiday season. In 2017, the Company will focus on the marketing of the BYOT option for further growth, as past efforts may have been diluted with the DLC option. 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 demand reduction strategies used by the manufacturers and implement a standardized baseline across manufactures.

12. CONNECTED DEVICES PILOT PROGRAM ("CDP")

Background

The Connected Devices Pilot ("CDP") was originally approved in 2009 as the Residential Smart Appliance Program ("RSAP") as a pilot intended to extend DR offerings to a broader residential population through the integration of "smart" curtailable appliances.²⁶ 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. Since both market availability and the adoption of smart appliances were slower than anticipated, the Company explored alternative strategies to bring connectivity to customers' homes.

- 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 ZigBee²⁷ to USB internet-connected plug control device ("the 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.

²⁶ 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 and effective October 23, 2009.

²⁷ 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.²⁸ RSAP branded the smart air conditioner based DR Program "coolNYC" and deployed 10,000 RAC smartAC kits to 3,916 customers, largely through mail distribution.²⁹ 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.³⁰ 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

²⁸ 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 and effective March 15, 2012.

²⁹ Under the brand "Con Edison Smart AC Program" (formerly "coolNYC"), the Company provides participants with a free "smartAC kit" device to enable window air-conditioning units to respond during DR events.

³⁰ 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 and effective April 19, 2013.

technology and behaviors that enable DR.³¹ RSAP grew the coolNYC customer base with the purchase of an additional 15,000 smartAC kits. More than 8,000 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 BYODs 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 \$4 million per year over three years to extend CDP to explore the DR capabilities of smart appliances being introduced through the "Internet-of-Things" ("IoT") market trend.³² 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 CDP set out to grow the pilot with an additional 3,000 smartAC kits. CDP focused on two key measures of public interest in DR participation: (a) self-engagement, as measured by the level of self-installation; and (b) 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 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 recruitment and engagement strategy to personalize the DR experience with the

³¹ 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 and effective March 27, 2015.

³² 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 and effective January 25, 2016

goal of improving participation, customer satisfaction and year-over-year program loyalty.

Program Improvements

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 use 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, the program was able to successfully eliminate the reliance on third-party installation without sacrificing program performance by focusing our marketing efforts on customer engagement. In order to improve on the results of 2015, the 2016 program focused on (1) simplifying the basic marketing message at the point of enrollment process, (2) conversion of "interested" customers into "actively participating" customer (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 2016, the Smart AC Program 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 earn and keep the device if they met the program participation requirements.³³ 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.

³³ 2016 participation requirements included:

^{1.} Set up devices and get connected online within 21 days of receipt of device

^{2.} Participate in at least 1 DR events (without opting out)

• As in 2015, the BYOD channel provided customers who purchased a smart Wi-Fi RAC an opportunity to enroll and participate in DR and earn rewards.

This year, the program had 8,946 approved smartAC and BYOD customers signed up (16,670 units), which is the highest number of enrollments achieved in a single program cycle. Of these, 11,576 devices (6,594 customers) were online and available for demand response.³⁴ In addition, approximately 68 percent and 42 percent of total enrolled devices were new and returning devices, respectively. Of new devices, the majority (approximately 98 percent) were smartAC kits and 2 percent were BYOD devices. Based on total device enrollment, Con Edison had a callable load of 1.43MW, exceeding the 1.25 MW enrollment target.³⁵ Con Edison has allowed customers to continue enrolling devices past the end of the summer capability period, to be used for the 2017 season, to a total of 12,062 devices (6,856 customers) enrolled in calendar year 2016.

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 achieved the highest set up rate (89 percent) since the beginning of this pilot in 2011. This high rate of self-installation was attained by: (1) maintaining active communication with the customer from sign up to set up; (2) an automated approval process which reduced the amount of time for 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 immediately addressed customer questions set up concerns as they arose; and (5) rewards distributed through the an online rewards platform for setting up and using devices.

³⁴ This number is reported slightly differently from that in the 2015 filing, in an effort to focus on callable load. In 2015, 10,090 smartAC kits and BYOD devices were enrolled and 8,141 were online and available for demand response.

³⁵ 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 and effective January 25, 2016

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 "coolPoints" to introduce gamification strategies into other program components. In 2016, CDP simplified incentives for customers through the Cool Points platform.³⁶ Cool Points were earned in increments of 1,000 points (\$1 equates to 1,000 points) and are instantly redeemable for online gift cards or donations to charities. Customers received 10,000 Cool Points for setting up their smartAC kit and 5,000 Cool Points per full DR event in which they participated. Returning customers received 50,000 Cool Points for enrolling. Customers who referred a friend received 10,000 Cool Points. This new structure tied incentives directly to desired actions taken by the customer. Note that in 2015 only 63 percent of award points were redeemed. The program anticipates similar rates of redemption in 2016.

The Cool Points incentive matrix 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 participation³⁷ was consistently high, on average at 85 percent,³⁸ across the six DR events); (3) engage customers and their friends and family in a fun and interactive way; and (4) reduce program incentive costs.

Customer Engagement

In 2016, the Smart AC Program reached customers via a variety of marketing channels, including: online advertising, radio advertising, email, and press media (e.g., television and print articles). The goal was to utilize messaging strategically to educate customers on reducing

³⁶ The "coolPoints" platform was rebranded to "Cool Points" in 2016 as part of the full program rebranding.

³⁷ Event participation is calculated as the number of devices participating in an event out of the number of devices set up at the time of an event.

³⁸ Event participation was 84 percent, 78 percent 84 percent 87 percent 86 percent and 90 percent for events 1 to 6 respectively.

power during the summer peak and to attract and retain quality enrollments who 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.

Program Costs

The following is a breakdown of the realized and anticipated projected costs associated with the Smart AC Program in 2016.

Realized and Anticipated Costs						
Incentives	\$	125,550	3%			
Administrative	\$	1,443,280	38%			
Equipment	\$	1,620,000	43%			
Marketing	\$	505,126	14%			
EM&V	\$	62,831	2%			
Total	\$	3,756,786	100%			

Incentives

For the 2016 program year, 7,959 customers earned incentives equivalent to \$132,934 in "Cool Points" incentives for setting up devices, referring friends to the program, and participating in DR events. As of November 15, 2016, 1,751 customers have redeemed "Cool Points" worth \$51,927. Customers can continue to redeem their "Cool Points" year round to encourage multi-year participation.

Administration

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

<u>Equipment</u>

The 2016 program used 9,286 smartAC kits ordered in 2015 and an additional 3,000 new units purchased in 2016. 15,000 smartAC kits will be purchased in 2016 for the 2017 capability period to ensure that sufficient stock is available at the start of the 2017 enrollment period.

<u>Marketing</u>

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

Evaluation, Measurement and Verification

Evaluation, Measurement and Verification costs included third-party verification and QA/QC of the Smart AC Program DR event results as well as review of customer support call logs with the aim of assessing how the Company could adjust the program to increase customer satisfaction.

Demand Response Results

The 2016 program administered two test events and four actual events that coincided with DLRP events. Results for the individual events are shown below. The first five events included a DR reduction methodology which utilized one of three different temperature offsets applied to customers during two time periods, based on customer network. The final event tested several cycling methodologies, which improved reductions.

Because customer engagement is a cornerstone for the Smart AC Program's success, customer comfort is always a high priority during a DR event. 2016's relatively low opt-out rates indicate that customer comfort was successfully maintained during DR events, even though 2016 was considerably hotter than 2014 and 2015. For 2017, the possibility of using more aggressive DR techniques will be considered, which may increase load reductions at the expense of slightly higher opt-out rates.

CDP Program Summary

In 2016 CDP expanded into Westchester County and introduced a number of program improvements while proving out strategies used in 2015, such as program models, new strategies utilizing the incentive rewards and new ways to increase customer engagement and satisfaction. The goals in CDP 2016 included: (1) growing the program and interest in residential DR year over year; (2) reducing program costs; (3) diversification of the DR portfolio; and (4) increasing setup rates and DR participation. Providing customers the smartAC kit for free, with an opportunity to keep the devices, resulted in quality enrollments. By asking for credit card information, customers showed their commitment to the program, where only customers interested in participating in the program would receive a smartAC kit. The 2016 BYOD program model further explored how customers can get connected with Wi-Fi Enabled RACs and interact with the utility to earn rewards for DR participation. Rewarding BYOD and smartAC kit customers with points that they could cash in for online gift cards via their mobile devices helped reduce the program costs, by eliminating the need to install devices while rewarding customers incrementally for the benefits they contribute. The incremental rewards created new vehicles for engaging customers in program activities, such as referring friends, returning customer bonuses, and participating in DR. Rewarding customers in near real-time for their contributions to DR resulted in higher set up rates and DR participation compared to prior years.

13. CDP PROGRAM CONCLUSIONS

CDP made improvements in 2016 by requiring a higher level of customer engagement and engaging customers via a rewards platform, as compared to previous years. 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 2016 awareness campaigns. This year, 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.

2016 engagement and education strategies will be woven into all aspects of future program design for continued expansion of CDP DR resources and CDP DR performance. In 2016 CDP exceeded its enrollment goals and plans to continue to expand with and grow the market for connected devices in Con Edison's service territory.

14. 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 2016 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. Additionally, the Company removed the Three-Year Incentive structure in the Company's commercial DR programs. 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

DLRP Test Event Performance, 7/13







DLRP Fox Hills Event Performance, 7/22

DLRP Triboro Event Performance, 7/23





DLRP Riverdale Event Performance, 7/24

DLRP BQDM Event Performance, 8/11





DLRP BQDM Event Performance, 8/12

DLRP Fox Hills Event Performance, 8/12





DLRP Fresh Kills Event Performance, 8/12













Baseline — Event Load

Hour Ending

14,000

DLRP Fresh Kills Event Performance, 8/13



DLRP BQDM Event Performance, 8/15

DLRP BQDM Event Performance, 8/16



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



NetworkTierNetwork Peak (MW)DLRP Summer ReservationDuring DLRP TestImpact (Percent of Network Peak)Battery Park City1622.875.729.2%Bay Ridge12420.930.880.4%Beekman11264.505.544.4%Borden11191.281.651.4%Borough Hall23114.696.472.1%Bowling Green11115.724.313.9%Brighton Beach21041.612.492.4%Buchanan11260.580.380.3%Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%			2016 Forecasted	MW Enrolled	MW Reduced	2016 DLRP Network
(MW)ReservationTestNetwork Peak)Battery Park City1622.875.729.2%Bay Ridge12420.930.880.4%Beekman11264.505.544.4%Borden11191.281.651.4%Borough Hall23114.696.472.1%Bowling Green11115.724.313.9%Brighton Beach21041.612.492.4%Buchanan11260.580.380.3%Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Network	Tier	Network Peak	DLRP Summer	During DLRP	Impact (Percent of
Battery Park City1622.875.729.2%Bay Ridge12420.930.880.4%Beekman11264.505.544.4%Borden11191.281.651.4%Borough Hall23114.696.472.1%Bowling Green11115.724.313.9%Brighton Beach21041.612.492.4%Buchanan11260.580.380.3%Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%			(MW)	Reservation	Test	Network Peak)
Bay Ridge12420.930.880.4%Beekman11264.505.544.4%Borden11191.281.651.4%Borough Hall23114.696.472.1%Bowling Green11115.724.313.9%Brighton Beach21041.612.492.4%Buchanan11260.580.380.3%Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Battery Park City	1	62	2.87	5.72	9.2%
Beekman11264.505.544.4%Borden11191.281.651.4%Borough Hall23114.696.472.1%Bowling Green11115.724.313.9%Brighton Beach21041.612.492.4%Buchanan11260.580.380.3%Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Bay Ridge	1	242	0.93	0.88	0.4%
Borden11191.281.651.4%Borough Hall23114.696.472.1%Bowling Green11115.724.313.9%Brighton Beach21041.612.492.4%Buchanan11260.580.380.3%Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Beekman	1	126	4.50	5.54	4.4%
Borough Hall23114.696.472.1%Bowling Green11115.724.313.9%Brighton Beach21041.612.492.4%Buchanan11260.580.380.3%Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Central Park12260.881.090.5%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Borden	1	119	1.28	1.65	1.4%
Bowling Green11115.724.313.9%Brighton Beach21041.612.492.4%Buchanan11260.580.380.3%Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Central Park12260.881.090.5%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Borough Hall	2	311	4.69	6.47	2.1%
Brighton Beach21041.612.492.4%Buchanan11260.580.380.3%Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Central Park12260.881.090.5%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Bowling Green	1	111	5.72	4.31	3.9%
Buchanan11260.580.380.3%Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Central Park12260.881.090.5%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Brighton Beach	2	104	1.61	2.49	2.4%
Canal111111.803.182.9%Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Central Park12260.881.090.5%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Buchanan	1	126	0.58	0.38	0.3%
Cedar Street11080.150.760.7%Central Bronx11824.655.693.1%Central Park12260.881.090.5%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Canal	1	111	11.80	3.18	2.9%
Central Bronx11824.655.693.1%Central Park12260.881.090.5%Chelsea12254.953.911.7%City Hall11512.962.631.7%Columbus Circle11314.694.383.3%	Cedar Street	1	108	0.15	0.76	0.7%
Central Park 1 226 0.88 1.09 0.5% Chelsea 1 225 4.95 3.91 1.7% City Hall 1 151 2.96 2.63 1.7% Columbus Circle 1 131 4.69 4.38 3.3%	Central Bronx	1	182	4.65	5.69	3.1%
Chelsea 1 225 4.95 3.91 1.7% City Hall 1 151 2.96 2.63 1.7% Columbus Circle 1 131 4.69 4.38 3.3%	Central Park	1	226	0.88	1.09	0.5%
City Hall 1 151 2.96 2.63 1.7% Columbus Circle 1 131 4.69 4.38 3.3%	Chelsea	1	225	4.95	3.91	1.7%
Columbus Circle 1 131 4.69 4.38 3.3%	City Hall	1	151	2.96	2.63	1.7%
	Columbus Circle	1	131	4.69	4.38	3.3%
Cooper Square 1 257 2.15 2.12 0.8%	Cooper Square	1	257	2.15	2.12	0.8%
Cortlandt 1 69 1.35 2.09 3.0%	Cortlandt	1	69	1.35	2.09	3.0%
Crown Heights 1 211 1.07 0.52 0.2%	Crown Heights	1	211	1.07	0.52	0.2%
Elmsford No.2 1 182 0.22 0.72 0.4%	Elmsford No.2	1	182	0.22	0.72	0.4%
Empire 1 60 1.87 2.24 3.7%	Empire	1	60	1.87	2.24	3.7%
Fashion 1 69 0.48 0.56 0.8%	Fashion	1	69	0.48	0.56	0.8%
Flatbush 2 281 1.62 1.64 0.6%	Flatbush	2	281	1.62	1.64	0.6%
Flushing 1 392 7.50 8.75 2.2%	Flushing	1	392	7.50	8.75	2.2%
Fordham 1 258 5.80 3.70 1.4%	Fordham	1	258	5.80	3.70	1.4%
Fox Hills 1 220 0.89 0.65 0.3%	Fox Hills	1	220	0.89	0.65	0.3%
Freedom 1 26 0.00 0.00 0.0%	Freedom	1	26	0.00	0.00	0.0%
Fresh Kills 1 201 2.56 3.37 1.7%	Fresh Kills	1	201	2.56	3.37	1.7%
Fulton 1 98 5.26 5.89 6.0%	Fulton	1	98	5.26	5.89	6.0%
Grand Central 1 199 6.76 8.42 4.2%	Grand Central	1	199	6.76	8.42	4.2%
Granite Hill 1 234 2.22 0.59 0.3%	Granite Hill	1	234	2.22	0.59	0.3%
Grasslands 1 120 5.38 5.15 4.3%	Grasslands	1	120	5.38	5.15	4.3%
Greeley Square 1 63 0.92 2.09 3.3%	Greeley Square	1	63	0.92	2.09	3.3%
Greenwich 1 60 0.76 0.43 0.7%	Greenwich	1	60	0.76	0.43	0.7%
Harlem 1 202 4.18 5.19 2.6%	Harlem	1	202	4.18	5.19	2.6%
Harrison 1 234 3.54 4.18 1.8%	Harrison	1	234	3.54	4.18	1.8%
Herald Square 1 102 3.03 3.30 3.2%	Herald Square	1	102	3.03	3.30	3.2%
Hudson 1 61 3.38 0.19 0.3%	Hudson	1	61	3.38	0.19	0.3%
Hunter 1 74 1.29 2.02 2.7%	Hunter	1	74	1.29	2.02	2.7%
Jackson Heights 1 191 1.29 1.66 0.9%	Jackson Heights	1	191	1.29	1.66	0.9%
Jamaica 1 461 3.77 5.05 1.1%	Jamaica	1	461	3.77	5.05	1.1%
Kips Bay 1 116 2.97 3.49 3.0%	Kips Bay	1	116	2.97	3.49	3.0%

		2016 Forecasted	MW Enrolled	MW Reduced	2016 DLRP Network
Network	Tier	Network Peak	DLRP Summer	During DLRP	Impact (Percent of
		(MW)	Reservation	Test	Network Peak)
Lenox Hill	1	254	6.03	5.71	2.2%
Lincoln Square	1	152	6.19	7.15	4.7%
Long Island City	1	234	1.23	1.00	0.4%
Madison Square	1	247	3.63	4.10	1.7%
Maspeth	1	265	2.73	2.22	0.8%
Millwood West	1	88	0.65	0.41	0.5%
Mohansic	1	8	0.00	0.00	0.0%
Northeast Bronx	2	114	2.85	2.88	2.5%
Ocean Parkway	1	173	1.00	1.52	0.9%
Ossining West	1	79	0.28	0.92	1.2%
Park Place	1	83	3.81	4.03	4.9%
Park Slope	2	222	0.23	0.33	0.1%
Pennsylvania	1	253	8.15	11.57	4.6%
Plaza	1	149	4.69	4.76	3.2%
Pleasantville	1	85	0.78	0.19	0.2%
Prospect Park	1	66	0.75	0.82	1.2%
Randall's Island	1	23	0.80	1.52	6.6%
Rego Park	1	243	1.25	1.06	0.4%
Richmond Hill	2	343	2.83	3.32	1.0%
Ridgewood	2	196	0.99	3.82	1.9%
Riverdale	1	99	1.08	1.17	1.2%
Rockefeller Center	1	77	6.69	1.84	2.4%
Rockview	1	92	0.00	0.00	0.0%
Roosevelt	1	80	0.53	0.40	0.5%
Sheepshead Bay	2	174	1.09	0.97	0.6%
Sheridan Square	1	174	1.81	2.29	1.3%
Southeast Bronx	1	225	11.54	13.36	5.9%
Sunnyside	1	85	0.03	0.00	0.0%
Sutton	1	138	6.79	7.91	5.7%
Time Square	1	150	7.00	4.44	3.0%
Triboro	1	138	1.80	1.59	1.2%
Turtle Bay	1	113	3.73	3.46	3.1%
Wainwright	1	91	1.10	1.25	1.4%
Washington Heights	1	192	3.25	4.07	2.1%
Washington St W	1	218	0.37	0.22	0.1%
West Bronx	1	218	2.20	2.35	1.1%
White Plains	1	255	3.17	1.79	0.7%
Williamsburg	2	282	9.15	14.48	5.1%
Willowbrook	1	89	0.50	0.98	1.1%
Woodrow	1	120	1.12	1.27	1.1%
Yorkville	2	304	2.18	1.75	0.6%





CSRP 11 AM - 3 PM Performance, 7/25


CSRP 4 PM - 8 PM Performance, 7/25







CSRP 11 AM - 3 PM Performance, 7/26







CSRP 4 PM - 8 PM Performance, 7/26







CSRP 2 PM - 6 PM Performance, 8/12

CSRP 4 PM - 8 PM Performance, 8/12





CSRP 7 PM - 11 PM Performance, 8/12







CSRP 2 PM - 6 PM Performance, 8/15







CSRP 7 PM - 11 PM Performance, 8/15

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



80

Network	Call Window	Enrollment	Average 2016 Reduction	2016 Network Performance Factor	2016 Forecasted Network Peak Demand (MW)	2016 CSRP Network Impact (Percent of Network Peak)
Battery Park City	11 AM - 3 PM	2.89	4.10	142%	62	6.6%
Bay Ridge	2 PM - 6 PM	1.95	2.26	116%	242	0.9%
Beekman	11 AM - 3 PM	4.60	5.00	109%	126	4.0%
Borden	11 AM - 3 PM	0.83	0.57	69%	119	0.5%
Borough Hall	11 AM - 3 PM	2.16	2.74	127%	311	0.9%
Bowling Green	11 AM - 3 PM	2.67	2.28	85%	111	2.0%
Brighton Beach	7 PM - 11 PM	1.51	1.90	126%	104	1.8%
Buchanan	4 PM - 8 PM	0.00	0.00	N/A	126	0.0%
Canal	2 PM - 6 PM	2.83	2.89	102%	111	2.6%
Cedar Street	4 PM - 8 PM	0.15	0.17	114%	108	0.2%
Central Bronx	7 PM - 11 PM	2.04	1.99	97%	182	1.1%
Central Park	7 PM - 11 PM	0.35	0.15	43%	226	0.1%
Chelsea	2 PM - 6 PM	3.35	3.14	94%	225	1.4%
City Hall	11 AM - 3 PM	2.96	3.03	102%	151	2.0%
Columbus Circle	11 AM - 3 PM	3.05	3.50	115%	131	2.7%
Cooper Square	4 PM - 8 PM	1.80	1.66	92%	257	0.6%
Cortlandt	11 AM - 3 PM	1.31	1.21	92%	69	1.8%
Crown Heights	7 PM - 11 PM	1.07	0.02	2%	211	0.0%
Elmsford No.2	4 PM - 8 PM	0.22	0.58	263%	182	0.3%
Empire	2 PM - 6 PM	1.87	2.08	111%	60	3.5%
Fashion	2 PM - 6 PM	0.71	0.59	83%	69	0.9%
Flatbush	7 PM - 11 PM	0.16	-0.01	-6%	281	0.0%
Flushing	7 PM - 11 PM	6.11	6.13	100%	392	1.6%
Fordham	7 PM - 11 PM	3.94	1.13	29%	258	0.4%
Fox Hills	4 PM - 8 PM	0.67	0.46	68%	220	0.2%
Freedom	11 AM - 3 PM	0.00	0.00	N/A	26	0.0%
Fresh Kills	4 PM - 8 PM	1.82	3.06	168%	201	1.5%
Fulton	11 AM - 3 PM	5.04	5.46	108%	98	5.6%
Grand Central	11 AM - 3 PM	8.43	5.73	68%	199	2.9%
Granite Hill	7 PM - 11 PM	1.77	0.98	55%	234	0.4%
Grasslands	2 PM - 6 PM	4.80	3.59	75%	120	3.0%
Greeley Square	11 AM - 3 PM	0.91	0.69	76%	63	1.1%
Greenwich	11 AM - 3 PM	0.76	0.45	60%	60	0.8%
Harlem	7 PM - 11 PM	2.84	2.24	79%	202	1.1%

Network	Call Window	Enrollment	Average 2016 Reduction	2016 Network Performance Factor	2016 Forecasted Network Peak Demand (MW)	2016 CSRP Network Impact (Percent of Network Peak)
Harrison	4 PM - 8 PM	1.46	0.91	62%	234	0.4%
Herald Square	2 PM - 6 PM	2.54	-0.93	-37%	102	-0.9%
Hudson	2 PM - 6 PM	0.24	0.00	-1%	61	0.0%
Hunter	11 AM - 3 PM	1.52	0.92	61%	74	1.2%
Jackson Heights	7 PM - 11 PM	0.04	-0.09	-246%	191	0.0%
Jamaica	7 PM - 11 PM	0.78	0.52	66%	461	0.1%
Kips Bay	11 AM - 3 PM	2.29	1.82	79%	116	1.6%
Lenox Hill	11 AM - 3 PM	6.61	6.58	100%	254	2.6%
Lincoln Square	11 AM - 3 PM	5.67	5.80	102%	152	3.8%
Long Island City	2 PM - 6 PM	4.69	6.40	136%	234	2.7%
Madison Square	11 AM - 3 PM	4.03	4.89	121%	247	2.0%
Maspeth	7 PM - 11 PM	1.09	0.50	45%	265	0.2%
Millwood West	4 PM - 8 PM	0.00	0.00	N/A	88	0.0%
Mohansic	4 PM - 8 PM	0.00	0.00	N/A	8	0.0%
Northeast Bronx	7 PM - 11 PM	1.10	0.60	55%	114	0.5%
Ocean Parkway	4 PM - 8 PM	0.20	0.33	172%	173	0.2%
Ossining West	4 PM - 8 PM	0.08	0.08	111%	79	0.1%
Park Place	11 AM - 3 PM	2.79	2.38	85%	83	2.9%
Park Slope	2 PM - 6 PM	0.15	0.03	20%	222	0.0%
Pennsylvania	11 AM - 3 PM	8.95	7.62	85%	253	3.0%
Plaza	11 AM - 3 PM	4.21	2.30	55%	149	1.5%
Pleasantville	2 PM - 6 PM	0.28	0.25	91%	85	0.3%
Prospect Park	7 PM - 11 PM	0.75	1.94	259%	66	2.9%
Randall's Island	7 PM - 11 PM	0.80	1.27	159%	23	5.5%
Rego Park	7 PM - 11 PM	0.43	0.29	67%	243	0.1%
Richmond Hill	4 PM - 8 PM	2.49	2.82	113%	343	0.8%
Ridgewood	7 PM - 11 PM	0.55	0.04	7%	196	0.0%
Riverdale	7 PM - 11 PM	3.01	0.16	5%	99	0.2%
Rockefeller						
Center	2 PM - 6 PM	7.24	8.69	120%	77	11.3%
Rockview	4 PM - 8 PM	0.00	0.00	N/A	92	0.0%
Roosevelt	2 PM - 6 PM	0.43	0.31	72%	80	0.4%
Sheepshead Bay	7 PM - 11 PM	1.28	2.26	177%	174	1.3%
Sheridan Square	11 AM - 3 PM	2.19	1.39	64%	174	0.8%
Southeast Bronx	7 PM - 11 PM	10.15	11.71	115%	225	5.2%
Sunnyside	4 PM - 8 PM	0.03	0.00	0%	85	0.0%

Network	Call Window	Enrollment	Average 2016 Reduction	2016 Network Performance Factor	2016 Forecasted Network Peak Demand (MW)	2016 CSRP Network Impact (Percent of Network Peak)
Sutton	11 AM - 3 PM	5.31	4.98	94%	138	3.6%
Time Square	11 AM - 3 PM	6.19	5.62	91%	150	3.7%
Triboro	4 PM - 8 PM	1.85	0.38	21%	138	0.3%
Turtle Bay	11 AM - 3 PM	5.95	6.40	108%	113	5.7%
Wainwright	4 PM - 8 PM	0.70	0.83	120%	91	0.9%
Washington Heights	7 PM - 11 PM	2.75	2.68	98%	192	1.4%
Washington St W	7 PM - 11 PM	0.42	0.15	35%	218	0.1%
West Bronx	4 PM - 8 PM	1.49	1.44	97%	218	0.7%
White Plains	2 PM - 6 PM	2.94	2.68	91%	255	1.1%
Williamsburg	4 PM - 8 PM	11.84	11.87	100%	282	4.2%
Willowbrook	4 PM - 8 PM	0.45	1.00	222%	89	1.1%
Woodrow	4 PM - 8 PM	0.80	1.03	129%	120	0.9%
Yorkville	7 PM - 11 PM	1.06	-0.20	-19%	304	-0.1%

Appendix E: DLC Test & Event Performance

2016 Honeywell Event Reports

CON EDISON DLC PROGRAM - EVENT IMPACT SUMMARY REPORT COMBINED LEGACY, DI WiFi and BYOT

Event Date:Wednesday, July 13, 2016Event Start:4:00 PMEvent End:5:00 PMEvent Refresh:NoneResources Included:Duty CycleCurtailment Strategy :50% Cycling

SUMMARY REPORT - ALL ZONES, ALL GROUPS

Residential

	Hour ending	Average				
	5:00 PM					Average
Total kW load reduction	15,634					15,634
Participating Thermostats	29,194					29,194
Per unit kW reduction with overrides	0.536					0.536

Commercial

	Hour ending 5:00 PM	Hour ending	Hour ending	Hour ending	Hour ending	Average
Total kW load reduction	8,695					8,695
Participating Thermostats	8,158					8,158
Per unit kW reduction with overrides	1.066					1.066

Total

	Hour ending	Average				
	5:00 PM					Average
Total kW load reduction	24,330					24,330
Participating Thermostats	37,352					37,352
Per unit kW reduction with overrides	0.651					0.651

Zone H

Residential Zone H

	Hour ending	A				
	5:00 PM					Average
Total kW load reduction	888					888
Participating Thermostats	1,538					1,538
Per unit kW reduction with overrides	0.578					0.578
Cumulative Overrides	2.2%					2.2%
Per unit kW reduction without overrides	0.590					0.590
Total kW load reduction without overrides	908					908

Commercial Zone H

	Hour ending	Average				
	5:00 PM					Average
Total kW load reduction	182					182
Participating Thermostats	157					157
Per unit kW reduction with overrides	1.159					1.159
Cumulative Overrides	12.1%					12.1%
Per unit kW reduction without overrides	1.319					1.319
Total kW load reduction without overrides	207					207

<u>Total Zone H</u>

	Hour ending	Average				
	5:00 PM					Average
Total kW load reduction	1,070					1,070
Participating Thermostats	1,695					1,695
Per unit kW reduction with overrides	0.631					0.631

<u>Zone I</u>

Residential Zone I

	Hour ending	Average				
	5:00 PM					Average
Total kW load reduction	5,540					5,540
Participating Thermostats	8,660					8,660
Per unit kW reduction with overrides	0.640					0.640
Cumulative Overrides	1.9%					1.9%
Per unit kW reduction without overrides	0.652					0.652
Total kW load reduction without overrides	5,649					5,649

Commercial Zone I

	Hour ending	Average				
	5:00 PM					Average
Total kW load reduction	1,113					1,113
Participating Thermostats	1,085					1,085
Per unit kW reduction with overrides	1.026					1.026
Cumulative Overrides	6.9%					6.9%
Per unit kW reduction without overrides	1.102					1.102
Total kW load reduction without overrides	1,196					1,196

	Hour ending 5:00 PM	Hour ending	Hour ending	Hour ending	Hour ending	Average
Total kW load reduction	6,653					6,653
Participating Thermostats	9,745					9,745
Per unit kW reduction with overrides	0.683					0.683

<u>Zone J</u> <u>Residential Zone J</u>

	Hour ending 5:00 PM	Hour ending	Hour ending	Hour ending	Hour ending	Average
Total kW load reduction	9,206					9,206
Participating Thermostats	18,996					18,996
Per unit kW reduction with overrides	0.485					0.485
Cumulative Overrides	2.5%					2.5%
Per unit kW reduction without overrides	0.497					0.497
Total kW load reduction without overrides	9,444					9,444

Commercial Zone J

	Hour ending	Average				
	5:00 PM					_
Total kW load reduction	7,400					7,400
Participating Thermostats	6,916					6,916
Per unit kW reduction with overrides	1.070					1.070
Cumulative Overrides	7.3%					7.3%
Per unit kW reduction without overrides	1.154					1.154
Total kW load reduction without overrides	7,980					7,980

	Hour ending	Average				
	5:00 PM					Average
Total kW load reduction	16,607					16,607
Participating Thermostats	25,912					25,912
Per unit kW reduction with overrides	0.641					0.641

COMBINED LEGACY, DI WiFi

Event Date:Friday, July 15, 2016Event Start:2:00 PMEvent End:8:00 PMEvent Refresh:5:09 PMResources Included:Duty CycleCurtailment Strategy:50% Cycling

SUMMARY REPORT - ALL ZONES, ALL GROUPS

Residential

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	1,911	1,772	1,968	2,150	1,770	1,465	1,839
Participating Thermostats	2,676	2,676	2,676	2,676	2,676	2,676	2,676
Per unit kW reduction with overrides	0.714	0.662	0.735	0.804	0.662	0.547	0.687

Commercial

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	160	125	105	169	134	95	131
Participating Thermostats	130	130	130	130	130	130	130
Per unit kW reduction with overrides	1.231	0.964	0.804	1.303	1.032	0.732	1.011

<u>Total</u>

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Avelage
Total kW load reduction	2,071	1,897	2,072	2,320	1,904	1,560	1,971
Participating Thermostats	2,806	2,806	2,806	2,806	2,806	2,806	2,806
Per unit kW reduction with overrides	0.738	0.676	0.739	0.827	0.679	0.556	0.702

<u>Zone J</u> <u>Residential Zone J</u>

	Hour ending	A					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	1,911	1,772	1,968	2,150	1,770	1,465	1,839
Participating Thermostats	2,676	2,676	2,676	2,676	2,676	2,676	2,676
Per unit kW reduction with overrides	0.714	0.662	0.735	0.804	0.662	0.547	0.687
Cumulative Overrides	1.4%	4.3%	7.3%	4.9%	2.9%	13.7%	5.8%
Per unit kW reduction without overrides	0.724	0.692	0.793	0.845	0.681	0.635	0.728
Total kW load reduction without overrides	1,938	1,852	2,123	2,262	1,823	1,698	1,949

Commercial Zone J

	Hour ending	A.v					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	160	125	105	169	134	95	131
Participating Thermostats	130	130	130	130	130	130	130
Per unit kW reduction with overrides	1.231	0.964	0.804	1.303	1.032	0.732	1.011
Cumulative Overrides	4.1%	12.4%	19.0%	8.3%	10.1%	14.6%	11.4%
Per unit kW reduction without overrides	1.284	1.100	0.993	1.422	1.147	0.856	1.134
Total kW load reduction without overrides	167	143	129	185	149	111	147

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	2,071	1,897	2,072	2,320	1,904	1,560	1,971
Participating Thermostats	2,806	2,806	2,806	2,806	2,806	2,806	2,806
Per unit kW reduction with overrides	0.738	0.676	0.739	0.827	0.679	0.556	0.702

<u>CON EDISON DLC PROGRAM - EVENT IMPACT SUMMARY REPORT</u> <u>COMBINED LEGACY, DI WIFI</u>

Event Date:Friday, July 22, 2016Event Start:5:00 PMEvent End:11:00 PMEvent Refresh:7:58 PMResources Included:Duty CycleCurtailment Strategy :50% Cycling

SUMMARY REPORT - ALL ZONES, ALL GROUPS

Residential

	Hour ending	Average					
	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	1,908	1,499	1,090	1,159	793	367	1,136
Participating Thermostats	2,077	2,077	2,077	2,077	2,077	2,077	2,077
Per unit kW reduction with overrides	0.918	0.722	0.525	0.558	0.382	0.177	0.547

Commercial

	Hour ending	Average					
	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	118	63	45	77	82	37	70
Participating Thermostats	130	130	130	130	130	130	130
Per unit kW reduction with overrides	0.907	0.484	0.343	0.591	0.633	0.288	0.541

<u>Total</u>

	Hour ending	Average					
	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	2,025	1,562	1,135	1,236	875	404	1,206
Participating Thermostats	2,207	2,207	2,207	2,207	2,207	2,207	2,207
Per unit kW reduction with overrides	0.918	0.708	0.514	0.560	0.396	0.183	0.547

<u>Zone J</u>

Residential Zone J

	Hour ending	A					
	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	1,908	1,499	1,090	1,159	793	367	1,136
Participating Thermostats	2,077	2,077	2,077	2,077	2,077	2,077	2,077
Per unit kW reduction with overrides	0.918	0.722	0.525	0.558	0.382	0.177	0.547
Cumulative Overrides	3.0%	9.1%	15.1%	5.9%	4.3%	18.2%	9.3%
Per unit kW reduction without overrides	0.947	0.794	0.619	0.593	0.399	0.216	0.595
Total kW load reduction without overrides	1,967	1,649	1,285	1,231	829	448	1,235

Commercial Zone J

	Hour ending	Average					
	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	118	63	45	77	82	37	70
Participating Thermostats	130	130	130	130	130	130	130
Per unit kW reduction with overrides	0.907	0.484	0.343	0.591	0.633	0.288	0.541
Cumulative Overrides	3.4%	8.9%	11.5%	3.9%	6.0%	6.8%	6.7%
Per unit kW reduction without overrides	0.939	0.532	0.388	0.615	0.673	0.309	0.576
Total kW load reduction without overrides	122	69	50	80	87	40	75

	Hour ending	Average					
	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	2,025	1,562	1,135	1,236	875	404	1,206
Participating Thermostats	2,207	2,207	2,207	2,207	2,207	2,207	2,207
Per unit kW reduction with overrides	0.918	0.708	0.514	0.560	0.396	0.183	0.547

CON EDISON 2016 DLC PROGRAM IMPACT REPORT COMBINED LEGACY, DI WIFI, BYOT

Event Date:	Saturday, July 23, 2016					
Event Start Time	8:35 PM					
Event End Time:	12:00 AM					
Event Refresh	11:00 PM					
Baseline Date:	Saturday, August 06, 2016	Saturday, July 30, 2016				
Resources Called	Duty Cycle All Zones/Network 55 - Triboro					
Version History	Version 1					
	Event called for Specific Group ((55 Triboro)				
	This was an Event of 3.5 Hours	Duration, with refresh				
Comments/Notes	BYOT participants insufficient (o	only 2 Res) for analysis				
	DI WiFi inconclusive (43 Res, 23	Comm) vs. 2 potential baselines, not				
	reported					
	Legacy participant data (2 Res, 6	6 Comm out of 51) insufficient, not				
	reported					
Report Date:	Tuesday, August 16, 2016					

COMBINED LEGACY, DI WiFi

Event Date:Sunday, July 24, 2016Event Start:6:30 AMEvent End:10:00 AMEvent Refresh:NoneResources Included:Duty CycleCurtailment Strategy:50% Cycling

SUMMARY REPORT - ALL ZONES, ALL GROUPS

Residential

	Hour ending	Average					
	7:00 AM	8:00 AM	9:00 AM	10:00 AM			Averag
Total kW load reduction	17	18	23	8			16
Participating Thermostats	73	73	73	73			73
Per unit kW reduction with overrides	0.228	0.243	0.315	0.114			0.225

Commercial

	Hour ending 7:00 AM	Hour ending 8:00 AM	Hour ending 9:00 AM	Hour ending 10:00 AM	Hour ending	Hour ending	Average
Total kW load reduction	6	15	22	22			16
Participating Thermostats	27	27	27	27			27
Per unit kW reduction with overrides	0.206	0.555	0.802	0.807			0.592

Total

	Hour ending	Average					
	7:00 AM	8:00 AM	9:00 AM	10:00 AM			Average
Total kW load reduction	22	33	45	30			32
Participating Thermostats	100	100	100	100			100
Per unit kW reduction with overrides	0.222	0.328	0.446	0.301			0.324

<u>Zone J</u>

Residential Zone J

	Hour ending	Average					
	7:00 AM	8:00 AM	9:00 AM	10:00 AM			Average
Total kW load reduction	17	18	23	8			16
Participating Thermostats	73	73	73	73			73
Per unit kW reduction with overrides	0.228	0.243	0.315	0.114			0.225
Cumulative Overrides	0.0%	0.0%	1.3%	5.1%			1.6%
Per unit kW reduction without overrides	0.228	0.243	0.319	0.120			0.228
Total kW load reduction without overrides	17	18	23	9			17

Commercial Zone J

	Hour ending	Average					
	7:00 AM	8:00 AM	9:00 AM	10:00 AM			Average
Total kW load reduction	6	15	22	22			16
Participating Thermostats	27	27	27	27			27
Per unit kW reduction with overrides	0.206	0.555	0.802	0.807			0.592
Cumulative Overrides	0.0%	0.0%	0.0%	4.2%			1.0%
Per unit kW reduction without overrides	0.206	0.555	0.802	0.842			0.601
Total kW load reduction without overrides	6	15	22	23			16

	Hour ending	Average					
	7:00 AM	8:00 AM	9:00 AM	10:00 AM			Average
Total kW load reduction	22	33	45	30			32
Participating Thermostats	100	100	100	100			100
Per unit kW reduction with overrides	0.222	0.328	0.446	0.301			0.324

COMBINED LEGACY, DI WiFi

Event Date:	Monday, July 25, 2016		
Event Start:	11:00 AM	Legacy	
Event End:	3:00 PM		
Event Refresh:	None	for Legacy	
Resources Included:	Duty Cycle		
Curtailment Strategy :	50% Cycling		

11:40 AM DIWiFi 3:40 PM 3:00:00 PM for DIWiFi

SUMMARY REPORT - ALL ZONES, ALL GROUPS

Residential

	Hour ending	4 Hr	Average				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	151	1,003	1,032	1,643	1,112	1,235	988
Participating Thermostats	3,570	3,570	3,570	3,570	3,570	3,570	3,570
Per unit kW reduction with overrides	0.042	0.281	0.289	0.460	0.312	0.346	0.277

Commercial

	Hour ending	4 Hr	A				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	180	452	334	915	269	537	448
Participating Thermostats	1,120	1,120	1,120	1,120	1,120	1,120	1,120
Per unit kW reduction with overrides	0.161	0.403	0.298	0.817	0.240	0.480	0.400

Total

	Hour ending	4 Hr	Average				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	331	1,455	1,365	2,558	1,381	1,773	1,477
Participating Thermostats	4,690	4,690	4,690	4,690	4,690	4,690	4,690
Per unit kW reduction with overrides	0.071	0.310	0.291	0.545	0.294	0.378	0.315

<u>Total Zone I</u>

	Hour ending	4 Hr	Average				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	133	978	912	1,549	1,047	1,155	924
Participating Thermostats	3,243	3,243	3,243	3,243	3,243	3,243	3,243
Per unit kW reduction with overrides	0.041	0.302	0.281	0.478	0.323	0.356	0.285

<u>Zone J</u>

Residential Zone J

	Hour ending	4 Hr	Average				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	62	150	169	206	164	188	150
Participating Thermostats	529	529	529	529	529	529	529
Per unit kW reduction with overrides	0.118	0.283	0.319	0.390	0.311	0.355	0.284
Cumulative Overrides	0.3%	1.4%	2.6%	2.8%	0.0%	1.8%	1.4%
Per unit kW reduction without overrides	0.118	0.287	0.328	0.401	0.311	0.362	0.289
Total kW load reduction without overrides	63	152	173	212	164	191	153

Commercial Zone J

	Hour ending	4 Hr	Average				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	136	327	285	802	169	430	344
Participating Thermostats	918	918	918	918	918	918	918
Per unit kW reduction with overrides	0.148	0.356	0.310	0.874	0.184	0.468	0.375
Cumulative Overrides	0.9%	4.2%	7.6%	8.3%	3.5%	6.2%	4.9%
Per unit kW reduction without overrides	0.150	0.372	0.336	0.953	0.191	0.499	0.400
Total kW load reduction without overrides	138	342	308	875	175	458	368

	Hour ending	4 Hr	Average				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	199	477	454	1,008	334	618	494
Participating Thermostats	1,447	1,447	1,447	1,447	1,447	1,447	1,447
Per unit kW reduction with overrides	0.137	0.329	0.314	0.697	0.231	0.427	0.342

CON EDISON DLC PROGRAM - EVENT IMPACT SUMMARY REPORT COMBINED LEGACY, DI WIFI

 Event Date:
 Monday, July 25, 2016

 Event Start:
 4:00 PM

 Event End:
 8:00 PM

 Event Refresh:
 7:00 PM

 for Legacy, DI WiFi
 None
 for BYOT

 Resources Included:
 Duty Cycle

 Curtailment Strategy :
 50% Cycling

SUMMARY REPORT - ALL ZONES, ALL GROUPS

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	21,922	22,953	21,739	20,788		21,851
Participating Thermostats	23,860	23,860	23,860	23,860		23,860
Per unit kW reduction with overrides	0.919	0.962	0.911	0.871		0.916

Commercial

Residential

	Hour ending	A				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	5,319	4,148	3,744	3,899		4,277
Participating Thermostats	4,010	4,010	4,010	4,010		4,010
Per unit kW reduction with overrides	1.326	1.034	0.934	0.972		1.067

Total

	Hour ending	Average				
	5:00 PIVI	0:00 PW	7:00 PIVI	0:00 PIVI		
Total kW load reduction	27,241	27,101	25,482	24,687		26,128
Participating Thermostats	27,870	27,870	27,870	27,870		27,870
Per unit kW reduction with overrides	0.977	0.972	0.914	0.886		0.937

<u>Zone H</u>

Residential Zone H

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	2,738	2,534	2,297	2,085		2,413
Participating Thermostats	2,497	2,497	2,497	2,497		2,497
Per unit kW reduction with overrides	1.097	1.015	0.920	0.835		0.967
Cumulative Overrides	1.2%	3.4%	5.6%	2.7%		3.2%
Per unit kW reduction without overrides	1.110	1.050	0.975	0.858		0.998
Total kW load reduction without overrides	2,772	2,623	2,434	2,143		2,493

Commercial Zone H

	Hour ending	A.v.072.00				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	75	78	59	49		65
Participating Thermostats	65	65	65	65		65
Per unit kW reduction with overrides	1.147	1.205	0.901	0.756		1.002
Cumulative Overrides	10.8%	25.4%	29.2%	3.1%		17.1%
Per unit kW reduction without overrides	1.285	1.614	1.273	0.780		1.238
Total kW load reduction without overrides	84	105	83	51		80

<u>Total Zone H</u>

	Hour ending	A				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	2,813	2,612	2,355	2,134		2,479
Participating Thermostats	2,562	2,562	2,562	2,562		2,562
Per unit kW reduction with overrides	1.098	1.019	0.919	0.833		0.967

Zone I Residential Zo

Residential Zone I

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	5,086	5,101	4,606	4,283		4,769
Participating Thermostats	4,945	4,945	4,945	4,945		4,945
Per unit kW reduction with overrides	1.028	1.032	0.931	0.866		0.964
Cumulative Overrides	1.0%	3.5%	6.2%	4.4%		3.8%
Per unit kW reduction without overrides	1.039	1.069	0.993	0.906		1.002
Total kW load reduction without overrides	5,138	5,289	4,912	4,480		4,955

Commercial Zone I

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	741	608	486	557		598
Participating Thermostats	480	480	480	480		480
Per unit kW reduction with overrides	1.544	1.266	1.013	1.161		1.246
Cumulative Overrides	3.4%	7.9%	9.4%	2.2%		5.7%
Per unit kW reduction without overrides	1.597	1.375	1.119	1.187		1.319
Total kW load reduction without overrides	767	660	537	570		633

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	5,827	5,709	5,092	4,840		5,367
Participating Thermostats	5,425	5,425	5,425	5,425		5,425
Per unit kW reduction with overrides	1.074	1.052	0.939	0.892		0.989

Zone J Residential Zone J

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	14,098	15,319	14,837	14,420		14,668
Participating Thermostats	16,418	16,418	16,418	16,418		16,418
Per unit kW reduction with overrides	0.859	0.933	0.904	0.878		0.893
Cumulative Overrides	2.2%	6.3%	10.1%	7.3%		6.5%
Per unit kW reduction without overrides	0.878	0.996	1.005	0.948		0.957
Total kW load reduction without overrides	14,411	16,356	16,506	15,563		15,709

Commercial Zone J

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	4,504	3,462	3,199	3,293		3,614
Participating Thermostats	3,465	3,465	3,465	3,465		3,465
Per unit kW reduction with overrides	1.300	0.999	0.923	0.950		1.043
Cumulative Overrides	5.0%	12.0%	14.8%	8.4%		10.0%
Per unit kW reduction without overrides	1.368	1.135	1.084	1.038		1.156
Total kW load reduction without overrides	4,739	3,932	3,756	3,596		4,006

Total Zone J

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	18,601	18,780	18,035	17,713		18,282
Participating Thermostats	19,883	19,883	19,883	19,883		19,883
Per unit kW reduction with overrides	0.936	0.945	0.907	0.891		0.919

COMBINED LEGACY, DI WiFi

Event Date:Tuesday, July 26, 2016Event Star:11:00 AMEvent End:3:00 PMEvent Refresh:2:00 PMResources Included:Duty CycleCurtailment Strategy:50% Cycling

SUMMARY REPORT - ALL ZONES, ALL GROUPS

Residential

	Hour ending	4 Hr	•				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	151	1,003	1,032	1,643	1,112	1,235	988
Participating Thermostats	3,570	3,570	3,570	3,570	3,570	3,570	3,570
Per unit kW reduction with overrides	0.042	0.281	0.289	0.460	0.312	0.346	0.277

Commercial

	Hour ending	4 Hr	A.v.ora.g.o				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	180	452	334	915	269	537	448
Participating Thermostats	1,120	1,120	1,120	1,120	1,120	1,120	1,120
Per unit kW reduction with overrides	0.161	0.403	0.298	0.817	0.240	0.480	0.400

<u>Total</u>

	Hour ending	4 Hr	Average				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	331	1,455	1,365	2,558	1,381	1,773	1,477
Participating Thermostats	4,690	4,690	4,690	4,690	4,690	4,690	4,690
Per unit kW reduction with overrides	0.071	0.310	0.291	0.545	0.294	0.378	0.315

Zone I Residential Zone I

	Hour ending	4 Hr	Average				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Avenage
Total kW load reduction	89	854	863	1,437	948	1,047	838
Participating Thermostats	3,041	3,041	3,041	3,041	3,041	3,041	3,041
Per unit kW reduction with overrides	0.029	0.281	0.284	0.472	0.312	0.344	0.276
Cumulative Overrides	0.2%	1.1%	2.5%	2.2%	0.0%	1.5%	1.2%
Per unit kW reduction without overrides	0.029	0.284	0.291	0.483	0.312	0.350	0.280
Total kW load reduction without overrides	89	863	885	1,470	948	1,064	851

Commercial Zone I

	Hour ending	4 Hr	A.v				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	44	125	49	113	100	107	86
Participating Thermostats	202	202	202	202	202	202	202
Per unit kW reduction with overrides	0.216	0.616	0.242	0.557	0.493	0.531	0.425
Cumulative Overrides	0.0%	3.5%	8.9%	6.7%	0.0%	4.8%	3.8%
Per unit kW reduction without overrides	0.216	0.638	0.266	0.597	0.493	0.558	0.442
Total kW load reduction without overrides	44	129	54	121	100	113	89

Total Zone I

	Hour ending	4 Hr	A.v.a.r.a.r.a				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	133	978	912	1,549	1,047	1,155	924
Participating Thermostats	3,243	3,243	3,243	3,243	3,243	3,243	3,243
Per unit kW reduction with overrides	0.041	0.302	0.281	0.478	0.323	0.356	0.285

<u>Zone J</u>

Residential Zone J

	Hour ending	4 Hr	A.v.a.r.a.r.a				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	62	150	169	206	164	188	150
Participating Thermostats	529	529	529	529	529	529	529
Per unit kW reduction with overrides	0.118	0.283	0.319	0.390	0.311	0.355	0.284
Cumulative Overrides	0.3%	1.4%	2.6%	2.7%	0.0%	1.7%	1.4%
Per unit kW reduction without overrides	0.118	0.287	0.328	0.400	0.311	0.361	0.289
Total kW load reduction without overrides	63	152	173	212	164	191	153

Commercial Zone J

	Hour ending	4 Hr	Avorago				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	136	327	285	802	169	430	344
Participating Thermostats	918	918	918	918	918	918	918
Per unit kW reduction with overrides	0.148	0.356	0.310	0.874	0.184	0.468	0.375
Cumulative Overrides	0.9%	4.2%	7.6%	7.0%	3.5%	5.8%	4.7%
Per unit kW reduction without overrides	0.150	0.372	0.336	0.939	0.191	0.497	0.398
Total kW load reduction without overrides	138	342	308	862	175	456	365

	Hour ending	4 Hr	Average				
	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	Average	Average
Total kW load reduction	199	477	454	1,008	334	618	494
Participating Thermostats	1,447	1,447	1,447	1,447	1,447	1,447	1,447
Per unit kW reduction with overrides	0.137	0.329	0.314	0.697	0.231	0.427	0.342

COMBINED LEGACY, DI WiFi

Event Date:Tuesday, July 26, 2016Event Start:4:00 PMEvent End:8:00 PMEvent Refresh:7:00 PMResources Included:Duty CycleCurtailment Strategy:50% Cycling

SUMMARY REPORT - ALL ZONES, ALL GROUPS

Residential

	Hour ending	A				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	16,259	13,809	10,353	8,833		12,313
Participating Thermostats	23,861	23,861	23,861	23,861		23,861
Per unit kW reduction with overrides	0.681	0.579	0.434	0.370		0.516

Commercial

	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Hour ending	Average
Total kW load reduction	4,784	3,012	2,177	2,294		3,067
Participating Thermostats	4,012	4,012	4,012	4,012		4,012
Per unit kW reduction with overrides	1.192	0.751	0.543	0.572		0.764

<u>Total</u>

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	21,043	16,820	12,530	11,127		15,380
Participating Thermostats	27,873	27,873	27,873	27,873		27,873
Per unit kW reduction with overrides	0.755	0.603	0.450	0.399		0.552

Zone H Residential Zone H

	Hour ending	•				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	1,640	1,476	1,004	759		1,220
Participating Thermostats	2,495	2,495	2,495	2,495		2,495
Per unit kW reduction with overrides	0.658	0.592	0.403	0.304		0.489
Cumulative Overrides	1.0%	3.1%	5.3%	2.6%		3.0%
Per unit kW reduction without overrides	0.664	0.611	0.425	0.312		0.503
Total kW load reduction without overrides	1.657	1,523	1.061	779		1.255

Commercial Zone H

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	72	42	3	-37		20
Participating Thermostats	64	64	64	64		64
Per unit kW reduction with overrides	1.126	0.659	0.050	-0.577		0.314
Cumulative Overrides	6.3%	14.8%	17.2%	0.8%		9.8%
Per unit kW reduction without overrides	1.201	0.773	0.061	-0.581		0.363
Total kW load reduction without overrides	77	49	4	-37		23

Total Zone H

	Hour ending	A.v.o.r.a.r.a				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	1,713	1,518	1,007	722		1,240
Participating Thermostats	2,559	2,559	2,559	2,559		2,559
Per unit kW reduction with overrides	0.669	0.593	0.394	0.282		0.485

<u>Zone I</u>

Residential Zone I

	Hour ending	A				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	4,016	3,650	2,821	2,298		3,196
Participating Thermostats	4,945	4,945	4,945	4,945		4,945
Per unit kW reduction with overrides	0.812	0.738	0.570	0.465		0.646
Cumulative Overrides	1.2%	3.9%	6.4%	3.5%		3.8%
Per unit kW reduction without overrides	0.822	0.768	0.610	0.482		0.670
Total kW load reduction without overrides	4,067	3,798	3,015	2,382		3,315

Commercial Zone I

	Hour ending	Average				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	555	431	329	395		427
Participating Thermostats	480	480	480	480		480
Per unit kW reduction with overrides	1.156	0.898	0.686	0.823		0.891
Cumulative Overrides	2.9%	6.8%	8.2%	2.4%		5.1%
Per unit kW reduction without overrides	1.191	0.963	0.747	0.843		0.936
Total kW load reduction without overrides	572	462	359	405		449

	Hour ending	A.v.o.r.o.m.o				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	4,571	4,081	3,150	2,693		3,624
Participating Thermostats	5,425	5,425	5,425	5,425		5,425
Per unit kW reduction with overrides	0.843	0.752	0.581	0.496		0.668

Zone J Residential Zone J

	Hour ending	A				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	10,602	8,683	6,527	5,777		7,897
Participating Thermostats	16,421	16,421	16,421	16,421		16,421
Per unit kW reduction with overrides	0.646	0.529	0.398	0.352		0.481
Cumulative Overrides	1.7%	5.3%	9.0%	5.4%		5.4%
Per unit kW reduction without overrides	0.657	0.558	0.437	0.372		0.506
Total kW load reduction without overrides	10,790	9,168	7,175	6,104		8,309

Commercial Zone J

	Hour ending	A				
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	4,157	2,538	1,845	1,936		2,619
Participating Thermostats	3,468	3,468	3,468	3,468		3,468
Per unit kW reduction with overrides	1.199	0.732	0.532	0.558		0.755
Cumulative Overrides	4.0%	9.9%	12.7%	5.5%		8.0%
Per unit kW reduction without overrides	1.248	0.812	0.610	0.591		0.815
Total kW load reduction without overrides	4,329	2,817	2,114	2,049		2,827

<u>Total Zone J</u>

	Hour ending Hour ending Hour ending Hour		Hour ending	Hour ending	Average	
	5:00 PM	6:00 PM	7:00 PM	8:00 PM		Average
Total kW load reduction	14,759	11,221	8,372	7,713		10,516
Participating Thermostats	19,889	19,889	19,889	19,889		19,889
Per unit kW reduction with overrides	0.742	0.564	0.421	0.388		0.529

CON EDISON DLC PROGRAM - EVENT IMPACT SUMMARY REPORT COMBINED LEGACY, DI WiFi

Event Date:	Thursday, August 11, 2016				
Event Start:	2:00 PM				
Event End:	8:00 PM				
Event Refresh:	5:00 PM	for Legacy, DI WiFi			
Resources Included:	Duty Cycle				
Curtailment Strategy :	50% Cycling				

SUMMARY REPORT - BQ Group

	Hour ending	A.v.070.00					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	410	364	378	534	451	290	405
Participating Thermostats	644	644	644	644	644	644	644
Per unit kW reduction with overrides	0.637	0.566	0.588	0.829	0.701	0.450	0.628

Commercial

Residential

	Hour ending	Average					
Total kW load reduction	499	400	369	391	286	254	366
Participating Thermostats	408	408	408	408	408	408	408
Per unit kW reduction with overrides	1.223	0.979	0.905	0.958	0.700	0.623	0.898

<u>Total</u>

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	909	764	748	925	737	544	771
Participating Thermostats	1,052	1,052	1,052	1,052	1,052	1,052	1,052
Per unit kW reduction with overrides	0.864	0.726	0.711	0.879	0.701	0.517	0.733

<u>Zone J</u> Residential Zone J

ĸes	aenti	aı zo	ne J

	Hour ending	Hour ending	Hour ending	Hour ending	lour ending Hour ending	Hour ending	Average
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	410	364	378	534	451	290	405
Participating Thermostats	644	644	644	644	644	644	644
Per unit kW reduction with overrides	0.637	0.566	0.588	0.829	0.701	0.450	0.628
Cumulative Overrides	1.9%	5.6%	9.5%	3.2%	2.5%	9.9%	5.4%
Per unit kW reduction without overrides	0.649	0.600	0.649	0.857	0.719	0.499	0.662
Total kW load reduction without overrides	418	386	418	552	463	322	426

Commercial Zone J

	Hour ending Hour ending Hour ending Hour ending Hour ending	Hour ending	Hour ending Hour ending				
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	499	400	369	391	286	254	366
Participating Thermostats	408	408	408	408	408	408	408
Per unit kW reduction with overrides	1.223	0.979	0.905	0.958	0.700	0.623	0.898
Cumulative Overrides	6.0%	14.7%	19.3%	4.8%	10.1%	10.9%	11.0%
Per unit kW reduction without overrides	1.301	1.148	1.122	1.006	0.779	0.699	1.009
Total kW load reduction without overrides	531	468	458	410	318	285	412

Total Zone J

	Hour ending Hour ending		Hour ending	Hour ending	Hour ending	Hour ending	A.v.o.r.o.r.o
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	909	764	748	925	737	544	771
Participating Thermostats	1,052	1,052	1,052	1,052	1,052	1,052	1,052
Per unit kW reduction with overrides	0.864	0.726	0.711	0.879	0.701	0.517	0.733

COMBINED LEGACY, DI WiFi

Friday, August 12, 2016				
12:00 PM				
4:00 PM				
3:00 PM	for Legacy, DI WiFi			
Duty Cycle				
50% Cycling				
	Friday, August 12:00 PM 4:00 PM 3:00 PM Duty Cycle 50% Cycling			

Residential

SUMMARY REPORT - Daytime Groups

	Hour ending	Average					
	1:00 PM	2:00 PM	3:00 PM	4:00 PM			Average
Total kW load reduction	2,266	2,118	2,419	2,289			2,273
Participating Thermostats	3,594	3,594	3,594	3,594			3,594
Per unit kW reduction with overrides	0.630	0.589	0.673	0.637			0.632

Commercial

	Hour ending	Average					
	1:00 PM	2:00 PM	3:00 PM	4:00 PM			·····j-
Total kW load reduction	747	596	500	553			599
Participating Thermostats	598	598	598	598			598
Per unit kW reduction with overrides	1.249	0.997	0.836	0.925			1.002

<u>Total</u>

	Hour ending	Average					
	1:00 PM	2:00 PM	3:00 PM	4:00 PM			Avelage
Total kW load reduction	3,013	2,714	2,919	2,842			2,872
Participating Thermostats	4,192	4,192	4,192	4,192			4,192
Per unit kW reduction with overrides	0.719	0.647	0.696	0.678			0.685

SUMMARY REPORT - BY ZONES

Zone I Residential Zone I

	Hour ending	Average					
	1:00 PM	2:00 PM	3:00 PM	4:00 PM			Average
Total kW load reduction	1,941	1,840	2,154	2,064			2,000
Participating Thermostats	3,065	3,065	3,065	3,065			3,065
Per unit kW reduction with overrides	0.633	0.600	0.703	0.673			0.652
Cumulative Overrides	0.7%	2.7%	5.3%	1.4%			2.5%
Per unit kW reduction without overrides	0.638	0.617	0.742	0.683			0.670
Total kW load reduction without overrides	1,955	1,891	2,275	2,093			2,054

Commercial Zone I

	Hour ending	Average					
	1:00 PM	2:00 PM	3:00 PM	4:00 PM			Average
Total kW load reduction	122	114	81	105			105
Participating Thermostats	99	99	99	99			99
Per unit kW reduction with overrides	1.230	1.149	0.813	1.063			1.064
Cumulative Overrides	8.6%	23.7%	31.8%	5.1%			17.3%
Per unit kW reduction without overrides	1.345	1.506	1.193	1.120			1.291
Total kW load reduction without overrides	133	149	118	111			128

	Hour ending	Average					
	1:00 PM	2:00 PM	3:00 PM	4:00 PM			Average
Total kW load reduction	2,063	1,954	2,235	2,169			2,105
Participating Thermostats	3,164	3,164	3,164	3,164			3,164
Per unit kW reduction with overrides	0.652	0.618	0.706	0.686			0.665

Zone J Residential Zone J

	Hour ending	Average					
	1:00 PM	2:00 PM	3:00 PM	4:00 PM			Average
Total kW load reduction	325	278	265	225			273
Participating Thermostats	529	529	529	529			529
Per unit kW reduction with overrides	0.614	0.525	0.501	0.425			0.516
Cumulative Overrides	1.4%	3.7%	5.0%	0.9%			2.8%
Per unit kW reduction without overrides	0.623	0.546	0.527	0.430			0.531
Total kW load reduction without overrides	329	289	279	227			281

Commercial Zone J

	Hour ending	• • • • •					
	1:00 PM	2:00 PM	3:00 PM	4:00 PM			Average
Total kW load reduction	625	482	419	448			494
Participating Thermostats	499	499	499	499			499
Per unit kW reduction with overrides	1.253	0.967	0.841	0.898			0.990
Cumulative Overrides	5.8%	15.1%	21.1%	4.3%			11.6%
Per unit kW reduction without overrides	1.330	1.138	1.066	0.939			1.118
Total kW load reduction without overrides	664	568	532	468			558

	Hour ending	Average					
	1:00 PM	2:00 PM	3:00 PM	4:00 PM			Average
Total kW load reduction	950	760	684	673			767
Participating Thermostats	1,028	1,028	1,028	1,028			1,028
Per unit kW reduction with overrides	0.924	0.740	0.666	0.655			0.746

COMBINED LEGACY, DI WiFi

Event Date:	Friday, August	12, 2016
Event Start:	2:00 PM	
Event End:	8:00 PM	
Event Refresh:	5:00 PM	for Legacy, DI WiFi
Resources Included:	Duty Cycle	
Curtailment Strategy :	50% Cycling	

Residential

SUMMARY REPORT - BQ Group

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	-
Total kW load reduction	334	284	383	533	483	359	396
Participating Thermostats	637	637	637	637	637	637	637
Per unit kW reduction with overrides	0.525	0.446	0.602	0.837	0.758	0.564	0.622

Commercial

	Hour ending 3:00 PM	Hour ending 4:00 PM	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Average
Total kW load reduction	343	263	442	422	313	236	336
Participating Thermostats	391	391	391	391	391	391	391
Per unit kW reduction with overrides	0.876	0.672	1.130	1.079	0.802	0.603	0.861

<u>Total</u>

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	
Total kW load reduction	677	547	825	955	797	595	733
Participating Thermostats	1,028	1,028	1,028	1,028	1,028	1,028	1,028
Per unit kW reduction with overrides	0.658	0.532	0.803	0.929	0.775	0.579	0.713

SUMMARY REPORT - BY ZONES

Zone J Residential Zon

Residential Zone J

	Hour ending	A.v.o.r.o.r.o					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	334	284	383	533	483	359	396
Participating Thermostats	637	637	637	637	637	637	637
Per unit kW reduction with overrides	0.525	0.446	0.602	0.837	0.758	0.564	0.622
Cumulative Overrides	2.0%	5.0%	7.0%	1.8%	4.2%	5.5%	4.2%
Per unit kW reduction without overrides	0.535	0.470	0.647	0.852	0.792	0.597	0.649
Total kW load reduction without overrides	341	299	412	543	504	380	413

Commercial Zone J

	Hour ending	A.v.or.0.00					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	343	263	442	422	313	236	336
Participating Thermostats	391	391	391	391	391	391	391
Per unit kW reduction with overrides	0.876	0.672	1.130	1.079	0.802	0.603	0.861
Cumulative Overrides	4.9%	11.6%	13.8%	1.7%	4.0%	5.0%	6.8%
Per unit kW reduction without overrides	0.922	0.760	1.311	1.098	0.835	0.635	0.927
Total kW load reduction without overrides	360	297	513	429	326	248	362

	Hour ending Hour ending Hour ending Hour en	Hour ending	Hour ending	Hour ending	Avorago		
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	677	547	825	955	797	595	733
Participating Thermostats	1,028	1,028	1,028	1,028	1,028	1,028	1,028
Per unit kW reduction with overrides	0.658	0.532	0.803	0.929	0.775	0.579	0.713

COMBINED LEGACY, DI WiFi, BYOT

Event Date:	Friday, August 12, 2016					
Event Start:	4:00 PM					
Event End:	8:00 PM					
Event Refresh:	7:00 PM	for Legacy, DI WiFi only				
Resources Included:	Duty Cycle					
Curtailment Strategy :	50% Cycling					

Residential

SUMMARY REPORT - Nighttime Groups

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	21,535	21,764	19,078	19,466			20,461
Participating Thermostats	23,754	23,754	23,754	23,754			23,754
Per unit kW reduction with overrides	0.907	0.916	0.803	0.819			0.861

Commercial

	Hour ending	Avorago					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	4,859	3,505	2,653	2,833			3,462
Participating Thermostats	3,887	3,887	3,887	3,887			3,887
Per unit kW reduction with overrides	1.250	0.902	0.683	0.729			0.891

<u>Total</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			
Total kW load reduction	26,394	25,270	21,731	22,299			23,923
Participating Thermostats	27,641	27,641	27,641	27,641			27,641
Per unit kW reduction with overrides	0.955	0.914	0.786	0.807			0.866

SUMMARY REPORT - BY ZONES

Zone H

Residential Zone H

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Avelage
Total kW load reduction	2,688	2,640	2,114	1,798			2,310
Participating Thermostats	2,519	2,519	2,519	2,519			2,519
Per unit kW reduction with overrides	1.067	1.048	0.839	0.714			0.917
Cumulative Overrides	0.7%	2.9%	5.6%	2.4%			2.9%
Per unit kW reduction without overrides	1.075	1.079	0.889	0.731			0.943
Total kW load reduction without overrides	2,707	2,718	2,238	1,842			2,377

Commercial Zone H

	Hour ending	Hour ending	Hour ending 7:00 PM	Hour ending	Hour ending	Hour ending	Average
	5:00 PM	6:00 PM		8:00 PM			Average
Total kW load reduction	66	78	46	36			57
Participating Thermostats	68	68	68	68			68
Per unit kW reduction with overrides	0.967	1.154	0.682	0.528			0.833
Cumulative Overrides	7.4%	20.6%	27.2%	6.6%			15.4%
Per unit kW reduction without overrides	1.043	1.453	0.937	0.565			1.000
Total kW load reduction without overrides	71	99	64	38			68

Total Zone H

	Hour ending	Hour ending Hour ending Hour ending Hour ending Hour	Hour ending	Hour ending	A.v		
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	2,754	2,719	2,161	1,833			2,367
Participating Thermostats	2,587	2,587	2,587	2,587			2,587
Per unit kW reduction with overrides	1.064	1.051	0.835	0.709			0.915
<u>Zone I</u> <u>Residential Zone I</u>

	Hour ending	A.v.ora.go					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	5,436	5,487	4,731	4,327			4,995
Participating Thermostats	4,984	4,984	4,984	4,984			4,984
Per unit kW reduction with overrides	1.091	1.101	0.949	0.868			1.002
Cumulative Overrides	1.2%	4.7%	8.5%	3.0%			4.4%
Per unit kW reduction without overrides	1.104	1.155	1.038	0.895			1.048
Total kW load reduction without overrides	5,503	5,757	5,172	4,461			5,223

Commercial Zone I

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	704	516	398	509			532
Participating Thermostats	479	479	479	479			479
Per unit kW reduction with overrides	1.469	1.078	0.832	1.063			1.110
Cumulative Overrides	3.2%	8.9%	12.1%	2.5%			6.7%
Per unit kW reduction without overrides	1.518	1.184	0.947	1.090			1.185
Total kW load reduction without overrides	727	567	454	522			568

<u>Total Zone I</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	6,140	6,004	5,129	4,836			5,527
Participating Thermostats	5,463	5,463	5,463	5,463			5,463
Per unit kW reduction with overrides	1.124	1.099	0.939	0.885			1.012

<u>Zone J</u>

Residential Zone J

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	13,411	13,637	12,233	13,342			13,156
Participating Thermostats	16,251	16,251	16,251	16,251			16,251
Per unit kW reduction with overrides	0.825	0.839	0.753	0.821			0.810
Cumulative Overrides	2.4%	7.8%	13.0%	4.2%			6.8%
Per unit kW reduction without overrides	0.845	0.910	0.865	0.857			0.869
Total kW load reduction without overrides	13,740	14,783	14,057	13,923			14,126

Commercial Zone J

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	4,090	2,910	2,209	2,287			2,874
Participating Thermostats	3,340	3,340	3,340	3,340			3,340
Per unit kW reduction with overrides	1.224	0.871	0.661	0.685			0.860
Cumulative Overrides	4.2%	10.5%	13.5%	2.6%			7.7%
Per unit kW reduction without overrides	1.278	0.974	0.764	0.703			0.930
Total kW load reduction without overrides	4,267	3,253	2,553	2,349			3,105

Total Zone J

	Hour ending	A.v.ora #0					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	17,501	16,547	14,441	15,629			16,030
Participating Thermostats	19,591	19,591	19,591	19,591			19,591
Per unit kW reduction with overrides	0.893	0.845	0.737	0.798			0.818

COMBINED LEGACY, DI WiFi

Event Date:Friday, August 12, 2016Event Start:8:20 PMEvent End:10:20 PMEvent Refresh:noneResources Included:Duty CycleCurtailment Strategy:50% Cycling

SUMMARY REPORT - Network Fox Hills (82)

<u>Residential</u>							
	inconclusive						
	Hour ending	Hour ending	Hour ending	Hour ending	Hour ending	First 2 hour	Average
	9:00 PM	10:00 PM	11:00 PM			Average	Average
Total kW load reduction	260	836	-238			548	286
Participating Thermostats	2,084	2,084	2,084			2084	2084
Per unit kW reduction with overrides	0.125	0.401	-0.114				

Commercial

	inconclusive						
	Hour ending	Hour ending	Hour ending	Hour ending	Hour ending	First 2 hour	Average
	9:00 PM	10:00 PM	11:00 PM			Average	Average
Total kW load reduction	39	50	-5			44	28
Participating Thermostats	134	134	134			134	134
Per unit kW reduction with overrides	0.290	0.372	-0.041				

<u>Total</u>

Total										
	inconclusive	onclusive								
	Hour ending	Hour ending	Hour ending	Hour ending	Hour ending	First 2 hour	Average			
	9:00 PM	10:00 PM	11:00 PM			Average	Average			
Total kW load reduction	298	886	-244			592	314			
Participating Thermostats	2,218	2,218	2,218			2218	2218			
Per unit kW reduction with overrides	0.135	0.399	-0.110			0.267	0.141			

SUMMARY REPORT - BY ZONES

<u>Zone J</u>

Residential Zone J

	Hour ending	First 2 hour	A.v				
	9:00 PM	10:00 PM	11:00 PM			Average	Average
Total kW load reduction	260	836	-238			548	286
Participating Thermostats	2,084	2,084	2,084			2,084	2,084
Per unit kW reduction with overrides	0.125	0.401	-0.114			0.263	0.137
Cumulative Overrides	2.0%	5.7%	7.8%			3.8%	5.2%
Per unit kW reduction without overrides	0.127	0.425	-0.124			0.276	0.143
Total kW load reduction without overrides	265	887	-258			576	298

Commercial Zone J

	Hour ending	First 2 hour	A				
	9:00 PM	10:00 PM	11:00 PM			Average	Average
Total kW load reduction	39	50	-5			44	28
Participating Thermostats	134	134	134			134	134
Per unit kW reduction with overrides	0.290	0.372	-0.041			0.331	0.207
Cumulative Overrides	0.4%	1.3%	1.9%			0.8%	1.2%
Per unit kW reduction without overrides	0.291	0.377	-0.042			0.334	0.209
Total kW load reduction without overrides	39	51	-6			45	28

Total Zone J

	Hour ending	First 2 hour	Avorago				
	9:00 PM	10:00 PM	11:00 PM			Average	Average
Total kW load reduction	298	886	-244			592	314
Participating Thermostats	2,218	2,218	2,218			2218	2218
Per unit kW reduction with overrides	0.135	0.399	-0.110			0.267	0.141

COMBINED LEGACY, DI WiFi

Event Date:Friday, August 12, 2016Event Start:8:20 PMEvent End:12:20 AMEvent Refresh:noneResources Included:Duty CycleCurtailment Strategy:50% Cycling

SUMMARY REPORT - Network Fresh Kills (83)

<u>Residential</u>							
	inconclusive						
	Hour ending	Hour ending	Hour ending	Hour ending	Hour ending	Hour ending	Average
	9:00 PM	10:00 PM	11:00 PM	12:00 AM		-	Average
Total kW load reduction	7	362	536	307			303
Participating Thermostats	2,774	2,774	2,774	2,774			2774
Per unit kW reduction with overrides	0.002	0.131	0.193	0.111			

Commercial

	inconclusive									
	Hour ending	Hour ending	Hour ending	Hour ending	Hour ending	Hour ending				
	9:00 PM	10:00 PM	11:00 PM	12:00 AM			Average			
Total kW load reduction	-58	-10	-12	-16			-24			
Participating Thermostats	138	138	138	138			138			
Per unit kW reduction with overrides	-0.421	-0.070	-0.083	-0.117						

<u>Total</u>

	inconclusive	nconclusive									
	Hour ending	Hour ending	Hour ending	Hour ending	Hour ending	Hour ending	A				
	9:00 PM	10:00 PM	11:00 PM	12:00 AM			Average				
Total kW load reduction	-52	353	524	291			279				
Participating Thermostats	2,912	2,912	2,912	2,912			2912				
Per unit kW reduction with overrides	-0.018	0.121	0.180	0.100			0.096				

SUMMARY REPORT - BY ZONES

<u>Zone J</u>

Residential Zone J

	Hour ending	Average					
	9:00 PM	10:00 PM	11:00 PM	12:00 AM			Average
Total kW load reduction	7	362	536	307			303
Participating Thermostats	2,774	2,774	2,774	2,774			2,774
Per unit kW reduction with overrides	0.002	0.131	0.193	0.111			0.109
Cumulative Overrides	1.8%	5.6%	10.0%	13.7%			7.8%
Per unit kW reduction without overrides	0.002	0.138	0.215	0.128			0.121
Total kW load reduction without overrides	7	384	595	356			335

Commercial Zone J

	Hour ending	A					
	9:00 PM	10:00 PM	11:00 PM	12:00 AM			Average
Total kW load reduction	-58	-10	-12	-16			-24
Participating Thermostats	138	138	138	138			138
Per unit kW reduction with overrides	-0.421	-0.070	-0.083	-0.117			-0.173
Cumulative Overrides	1.1%	2.2%	2.5%	3.3%			2.3%
Per unit kW reduction without overrides	-0.426	-0.072	-0.086	-0.121			-0.176
Total kW load reduction without overrides	-59	-10	-12	-17			-24

Total Zone J

	Hour ending	A					
	9:00 PM	10:00 PM	11:00 PM	12:00 AM			Average
Total kW load reduction	-52	353	524	291			279
Participating Thermostats	2,912	2,912	2,912	2,912			2,912
Per unit kW reduction with overrides	-0.018	0.121	0.180	0.100			0.096

COMBINED LEGACY, DI WiFi

Event Date:	Saturday, August 13, 2016					
Event Start:	3:00 PM					
Event End:	9:00 PM					
Event Refresh:	6:00 PM	for Legacy, DI WiFi				
Resources Included:	Duty Cycle					
Curtailment Strategy :	50% Cycling					

SUMMARY REPORT - BQ Group

Hour ending Hour ending Hour ending Hour ending Hour ending Hour ending Average 4:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM 9:00 PM Total kW load reduction 457 378 280 271 272 205 310 Participating Thermostats 649 649 649 649 649 649 649 Per unit kW reduction with overrides 0.704 0.582 0.431 0.418 0.419 0.316 0.478

Commercial

Residential

	Hour ending 4:00 PM	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Hour ending 9:00 PM	Average
Total kW load reduction	364	350	272	253	307	188	289
Participating Thermostats	407	407	407	407	407	407	407
Per unit kW reduction with overrides	0.895	0.860	0.669	0.621	0.754	0.461	0.710

<u>Total</u>

	Hour ending	Average					
	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	Average
Total kW load reduction	821	728	552	524	579	393	599
Participating Thermostats	1,056	1,056	1,056	1,056	1,056	1,056	1,056
Per unit kW reduction with overrides	0.777	0.689	0.523	0.496	0.548	0.372	0.568

SUMMARY REPORT - BY ZONES

<u>Zone J</u>

Residential Zone J

	Hour ending	Average					
	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	Average
Total kW load reduction	457	378	280	271	272	205	310
Participating Thermostats	649	649	649	649	649	649	649
Per unit kW reduction with overrides	0.704	0.582	0.431	0.418	0.419	0.316	0.478
Cumulative Overrides	2.8%	8.0%	12.7%	2.5%	2.6%	10.4%	6.5%
Per unit kW reduction without overrides	0.724	0.633	0.494	0.428	0.430	0.353	0.510
Total kW load reduction without overrides	470	411	321	278	279	229	331

Commercial Zone J

	Hour ending	A					
	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	Average
Total kW load reduction	364	350	272	253	307	188	289
Participating Thermostats	407	407	407	407	407	407	407
Per unit kW reduction with overrides	0.895	0.860	0.669	0.621	0.754	0.461	0.710
Cumulative Overrides	6.1%	13.9%	16.2%	1.6%	4.5%	6.0%	8.0%
Per unit kW reduction without overrides	0.953	0.999	0.798	0.631	0.790	0.491	0.777
Total kW load reduction without overrides	388	407	325	257	322	200	316

Total Zone J

	Hour ending	A					
	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	Average
Total kW load reduction	821	728	552	524	579	393	599
Participating Thermostats	1,056	1,056	1,056	1,056	1,056	1,056	1,056
Per unit kW reduction with overrides	0.777	0.689	0.523	0.496	0.548	0.372	0.568

COMBINED LEGACY, DI WiFi, BYOT

Event Date:	Saturday, August 13, 2016					
Event Start:	2:00 PM					
Event End:	8:00 PM					
Event Refresh:	5:00 PM	for Legacy, DI WiFi only				
Resources Included:	Duty Cycle					
Curtailment Strategy :	50% Cycling					

Residential

SUMMARY REPORT - Fox Hills, Fresh Kills

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	5,134	5,055	4,356	4,823	3,554	2,644	4,261
Participating Thermostats	5,016	5,016	5,016	5,016	5,016	5,016	5,016
Per unit kW reduction with overrides	1.023	1.008	0.868	0.962	0.709	0.527	0.849

Commercial

	Hour ending 3:00 PM	Hour ending 4:00 PM	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Average
Total kW load reduction	355	276	249	250	183	121	239
Participating Thermostats	273	273	273	273	273	273	273
Per unit kW reduction with overrides	1.301	1.010	0.911	0.914	0.670	0.445	0.875

<u>Total</u>

	Hour ending	Avorago					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Avenuge
Total kW load reduction	5,489	5,331	4,605	5,073	3,737	2,765	4,500
Participating Thermostats	5,289	5,289	5,289	5,289	5,289	5,289	5,289
Per unit kW reduction with overrides	1.038	1.008	0.871	0.959	0.707	0.523	0.851

SUMMARY REPORT - BY ZONES

<u>Zone J</u>

Residential Zone J

	Hour ending	A.v					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	5,134	5,055	4,356	4,823	3,554	2,644	4,261
Participating Thermostats	5,016	5,016	5,016	5,016	5,016	5,016	5,016
Per unit kW reduction with overrides	1.023	1.008	0.868	0.962	0.709	0.527	0.849
Cumulative Overrides	8.1%	15.2%	20.8%	11.0%	5.9%	19.8%	13.5%
Per unit kW reduction without overrides	1.113	1.188	1.097	1.080	0.753	0.657	0.981
Total kW load reduction without overrides	5,584	5,958	5,503	5,419	3,777	3,298	4,923

Commercial Zone J

	Hour ending	í .					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	355	276	249	250	183	121	239
Participating Thermostats	273	273	273	273	273	273	273
Per unit kW reduction with overrides	1.301	1.010	0.911	0.914	0.670	0.445	0.875
Cumulative Overrides	7.2%	18.3%	22.8%	2.8%	8.0%	12.0%	11.8%
Per unit kW reduction without overrides	1.402	1.235	1.181	0.940	0.728	0.505	0.998
Total kW load reduction without overrides	383	337	322	257	199	138	273

Total Zone J

	Hour ending	A					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	Average
Total kW load reduction	5,489	5,331	4,605	5,073	3,737	2,765	4,500
Participating Thermostats	5,289	5,289	5,289	5,289	5,289	5,289	5,289
Per unit kW reduction with overrides	1.038	1.008	0.871	0.959	0.707	0.523	0.851

COMBINED LEGACY, DI WiFi, BYOT

 Event Date:
 Saturday, August 13, 2016

 Event Start:
 4:00 PM

 Event End:
 10:00 PM

 Event Refresh:
 7:00 PM
 for Legacy, DI WiFi only

 Resources Included:
 Duty Cycle

 Curtailment Strategy:
 50% Cycling

Residential

SUMMARY REPORT - Sheepshead Bay (24)

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	331	268	231	192	153	69	207
Participating Thermostats	359	359	359	359	359	359	359
Per unit kW reduction with overrides	0.923	0.746	0.643	0.534	0.426	0.192	0.577

Commercial

	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Hour ending 9:00 PM	Hour ending 10:00 PM	Average
Total kW load reduction	104	86	83	87	84	19	77
Participating Thermostats	137	137	137	137	137	137	137
Per unit kW reduction with overrides	0.759	0.629	0.604	0.632	0.614	0.137	0.563

<u>Total</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Avenuge
Total kW load reduction	435	354	313	278	237	88	284
Participating Thermostats	496	496	496	496	496	496	496
Per unit kW reduction with overrides	0.878	0.714	0.632	0.561	0.478	0.177	0.573

SUMMARY REPORT - BY ZONES

Zone J Residential Zone J

	Hour ending	A.v.070.00					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Avelage
Total kW load reduction	331	268	231	192	153	69	207
Participating Thermostats	359	359	359	359	359	359	359
Per unit kW reduction with overrides	0.923	0.746	0.643	0.534	0.426	0.192	0.577
Cumulative Overrides	2.1%	4.9%	7.2%	2.2%	1.3%	11.8%	4.9%
Per unit kW reduction without overrides	0.943	0.784	0.692	0.546	0.432	0.217	0.602
Total kW load reduction without overrides	339	281	249	196	155	78	216

Commercial Zone J

	Hour ending	A.v.ora.go					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	104	86	83	87	84	19	77
Participating Thermostats	137	137	137	137	137	137	137
Per unit kW reduction with overrides	0.759	0.629	0.604	0.632	0.614	0.137	0.563
Cumulative Overrides	4.0%	9.4%	10.8%	2.1%	5.2%	7.5%	6.5%
Per unit kW reduction without overrides	0.791	0.695	0.677	0.645	0.648	0.148	0.601
Total kW load reduction without overrides	108	95	93	88	89	20	82

<u>Total Zone J</u>

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	435	354	313	278	237	88	284
Participating Thermostats	496	496	496	496	496	496	496
Per unit kW reduction with overrides	0.878	0.714	0.632	0.561	0.478	0.177	0.573

COMBINED LEGACY, DI WiFi, BYOT

 Event Date:
 Saturday, August 13, 2016

 Event Start:
 4:40 PM

 Event End:
 10:40 PM

 Event Refresh:
 7:40 PM

 Gesources Included:
 Duty Cycle

 Curtailment Strategy :
 50% Cycling

SUMMARY REPORT - Rockview (97)

	Hour ending	Average						
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	446	1,015	899	858	883	767	226	728
Participating Thermostats	964	964	964	964	964	964	964	964
Per unit kW reduction with overrides	0.463	1.053	0.933	0.890	0.916	0.796	0.234	0.755

Commercial

Residential

	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Hour ending 9:00 PM	Hour ending 10:00 PM	Hour ending 11:00 PM	Average
Total kW load reduction	22	26	23	16	7	7	-7	13
Participating Thermostats	28	28	28	28	28	28	28	28
Per unit kW reduction with overrides	0.790	0.939	0.809	0.586	0.250	0.240	-0.262	0.479

Total

	Hour ending	A						
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	469	1,042	922	875	890	774	218	741
Participating Thermostats	992	992	992	992	992	992	992	992
Per unit kW reduction with overrides	0.472	1.050	0.929	0.882	0.897	0.780	0.220	0.747

SUMMARY REPORT - BY ZONES

<u>Zone I</u>

Residential Zone I

	Hour ending	Avorago						
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	446	1,015	899	858	883	767	226	728
Participating Thermostats	964	964	964	964	964	964	964	964
Per unit kW reduction with overrides	0.463	1.053	0.933	0.890	0.916	0.796	0.234	0.755
Cumulative Overrides	1.4%	5.6%	9.8%	10.8%	0.6%	2.3%	10.1%	5.8%
Per unit kW reduction without overrides	0.470	1.115	1.034	0.998	0.921	0.815	0.260	0.802
Total kW load reduction without overrides	453	1,075	997	962	888	785	251	773

Commercial Zone I

	Hour ending	A						
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	22	26	23	16	7	7	-7	13
Participating Thermostats	28	28	28	28	28	28	28	28
Per unit kW reduction with overrides	0.790	0.939	0.809	0.586	0.250	0.240	-0.262	0.479
Cumulative Overrides	0.0%	8.9%	19.6%	21.4%	1.2%	3.6%	3.6%	8.3%
Per unit kW reduction without overrides	0.790	1.031	1.007	0.746	0.253	0.249	-0.272	0.543
Total kW load reduction without overrides	22	29	28	21	7	7	-8	15

Total Zone I

	Hour ending	Avorago						
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Average
Total kW load reduction	469	1,042	922	875	890	774	218	741
Participating Thermostats	992	992	992	992	992	992	992	992
Per unit kW reduction with overrides	0.472	1.050	0.929	0.882	0.897	0.780	0.220	0.747

COMBINED LEGACY, DI WiFi

 Event Date:
 Sunday, August 14, 2016

 Event Start:
 4:00 PM

 Event End:
 10:00 PM

 Event Refresh:
 None
 for Legacy, DI WiFi

 Resources Included:
 Duty Cycle

 Curtailment Strategy:
 50% Cycling

SUMMARY REPORT - BQ Group

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	601	438	284	129	191	193	306
Participating Thermostats	649	649	649	649	649	649	649
Per unit kW reduction with overrides	0.926	0.674	0.437	0.198	0.295	0.298	0.471

Commercial

Residential

	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Hour ending 9:00 PM	Hour ending 10:00 PM	Average
Total kW load reduction	388	314	265	169	101	102	223
Participating Thermostats	410	410	410	410	410	410	410
Per unit kW reduction with overrides	0.947	0.765	0.646	0.411	0.246	0.250	0.544

<u>Total</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	990	751	549	297	292	296	529
Participating Thermostats	1,059	1,059	1,059	1,059	1,059	1,059	1,059
Per unit kW reduction with overrides	0.934	0.709	0.518	0.281	0.276	0.279	0.500

SUMMARY REPORT - BY ZONES

Zone J Residential Zone J

	Hour ending	A.v.ora #0					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	601	438	284	129	191	193	306
Participating Thermostats	649	649	649	649	649	649	649
Per unit kW reduction with overrides	0.926	0.674	0.437	0.198	0.295	0.298	0.471
Cumulative Overrides	3.4%	9.0%	12.9%	16.6%	7.2%	25.0%	12.3%
Per unit kW reduction without overrides	0.959	0.741	0.502	0.238	0.317	0.397	0.526
Total kW load reduction without overrides	622	481	326	154	206	258	341

Commercial Zone J

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	, it cluge
Total kW load reduction	388	314	265	169	101	102	223
Participating Thermostats	410	410	410	410	410	410	410
Per unit kW reduction with overrides	0.947	0.765	0.646	0.411	0.246	0.250	0.544
Cumulative Overrides	4.4%	9.7%	10.8%	11.5%	11.8%	12.0%	10.1%
Per unit kW reduction without overrides	0.992	0.847	0.724	0.464	0.279	0.284	0.598
Total kW load reduction without overrides	407	347	297	190	114	116	245

<u>Total Zone J</u>

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	990	751	549	297	292	296	529
Participating Thermostats	1,059	1,059	1,059	1,059	1,059	1,059	1,059
Per unit kW reduction with overrides	0.934	0.709	0.518	0.281	0.276	0.279	0.500

COMBINED LEGACY, DI WiFi

Event Date: Sunday, August 14, 2016 Event Start: 2:00 PM Event End: 7:00 PM Event Refresh: None for Legacy, DI WiFi Resources Included: Duty Cycle - Daytime Network Group Curtailment Strategy : 50% Cycling

SUMMARY REPORT - Daytime Group

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM		Average
Total kW load reduction	3,299	3,047	3,049	2,517	1,897		2,762
Participating Thermostats	3,710	3,710	3,710	3,710	3,710		3,710
Per unit kW reduction with overrides	0.889	0.821	0.822	0.678	0.511		0.744

Commercial

Residential

	Hour ending 3:00 PM	Hour ending 4:00 PM	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending	Average
Total kW load reduction	507	416	373	340	309		389
Participating Thermostats	532	532	532	532	532		532
Per unit kW reduction with overrides	0.954	0.782	0.700	0.638	0.582		0.731

<u>Total</u>

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM		Average
Total kW load reduction	3,806	3,463	3,422	2,856	2,207		3,151
Participating Thermostats	4,242	4,242	4,242	4,242	4,242		4,242
Per unit kW reduction with overrides	0.897	0.816	0.807	0.673	0.520		0.743

SUMMARY REPORT - BY ZONES

Zone I Residential Zone I

	Hour ending	A					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM		Average
Total kW load reduction	2,894	2,679	2,655	2,198	1,785		2,442
Participating Thermostats	3,073	3,073	3,073	3,073	3,073		3,073
Per unit kW reduction with overrides	0.942	0.872	0.864	0.715	0.581		0.795
Cumulative Overrides	2.4%	7.4%	12.0%	16.1%	0.0%		7.6%
Per unit kW reduction without overrides	0.965	0.942	0.982	0.853	0.581		0.864
Total kW load reduction without overrides	2,965	2,894	3,019	2,620	1,785		2,657

Commercial Zone I

	Hour ending	A					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM		Average
Total kW load reduction	114	92	59	30	21		63
Participating Thermostats	100	100	100	100	100		100
Per unit kW reduction with overrides	1.135	0.917	0.590	0.305	0.205		0.630
Cumulative Overrides	5.0%	12.0%	15.5%	17.5%	0.0%		10.0%
Per unit kW reduction without overrides	1.195	1.042	0.698	0.370	0.205		0.702
Total kW load reduction without overrides	120	104	70	37	21		70

<u>Total Zone I</u>

	Hour ending	Avorago					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM		Average
Total kW load reduction	3,008	2,771	2,714	2,228	1,805		2,505
Participating Thermostats	3,173	3,173	3,173	3,173	3,173		3,173
Per unit kW reduction with overrides	0.948	0.873	0.855	0.702	0.569		0.790

<u>Zone J</u>

Residential Zone J

	Hour ending	A.v.or.2.00					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM		Average
Total kW load reduction	405	368	394	319	113		320
Participating Thermostats	637	637	637	637	637		637
Per unit kW reduction with overrides	0.635	0.578	0.618	0.501	0.177		0.502
Cumulative Overrides	4.4%	10.7%	14.5%	17.8%	7.1%		10.9%
Per unit kW reduction without overrides	0.665	0.647	0.723	0.609	0.191		0.567
Total kW load reduction without overrides	423	412	461	388	121		361

Commercial Zone J

	Hour ending	Average					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM		Average
Total kW load reduction	394	324	314	309	289		326
Participating Thermostats	432	432	432	432	432		432
Per unit kW reduction with overrides	0.912	0.751	0.726	0.716	0.669		0.755
Cumulative Overrides	4.2%	10.5%	13.2%	14.1%	14.6%		11.3%
Per unit kW reduction without overrides	0.952	0.838	0.836	0.833	0.783		0.849
Total kW load reduction without overrides	411	362	361	360	338		367

<u>Total Zone J</u>

	Hour ending	Avorago					
	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM		Average
Total kW load reduction	799	692	707	628	402		646
Participating Thermostats	1,069	1,069	1,069	1,069	1,069		1,069
Per unit kW reduction with overrides	0.747	0.648	0.662	0.588	0.376		0.604

COMBINED LEGACY, DI WiFi, BYOT

 Event Date:
 Sunday, August 14, 2016

 Event Start:
 4:00 PM

 Event End:
 9:00 PM

 Event Refresh:
 None
 for Legacy, DI WiFi

 Resources Included:
 Duty Cycle - Nighttime Network Group

 Curtailment Strategy:
 50% Cycling

SUMMARY REPORT - Daytime Group

Hour ending Hour ending Hour ending Hour ending Hour ending Hour ending 5:00 PM 6:00 PM 7:00 PM 8:00 PM 9:00 PM Total kW load reduction 23,347 18,192 13,853 10,567 8,722 Participating Thermostats 23,221 23,221 23,221 23,221 23,221 Per unit kW reduction with overrides 1.005 0.783 0.597 0.455 0.376

Commercial

Residential

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM		Average
Total kW load reduction	3,830	2,720	2,429	2,012	1,519		2,502
Participating Thermostats	3,851	3,851	3,851	3,851	3,851		3,851
Per unit kW reduction with overrides	0.994	0.706	0.631	0.522	0.394		0.650

<u>Total</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM		Average
Total kW load reduction	27,177	20,911	16,282	12,578	10,241		17,438
Participating Thermostats	27,072	27,072	27,072	27,072	27,072		27,072
Per unit kW reduction with overrides	1.004	0.772	0.601	0.465	0.378		0.644

1:00

Average

14,936

23,221

0.643

SUMMARY REPORT - BY ZONES

Zone H Residential Zone H

	Hour ending						
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	J	Average
Total kW load reduction	2,719	2,208	1,701	1,483	1,279		1,878
Participating Thermostats	2,534	2,534	2,534	2,534	2,534		2,534
Per unit kW reduction with overrides	1.073	0.871	0.671	0.585	0.505		0.741
Cumulative Overrides	2.6%	7.8%	12.4%	15.9%	0.0%		7.7%
Per unit kW reduction without overrides	1.102	0.945	0.766	0.696	0.505		0.802
Total kW load reduction without overrides	2,791	2,395	1,940	1,762	1,279		2,033

Commercial Zone H

	Hour ending	A.v.ora.go					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM		Average
Total kW load reduction	44	32	39	37	38		38
Participating Thermostats	69	69	69	69	69		69
Per unit kW reduction with overrides	0.638	0.461	0.560	0.538	0.550		0.549
Cumulative Overrides	5.8%	14.5%	18.8%	21.0%	0.0%		12.0%
Per unit kW reduction without overrides	0.677	0.539	0.690	0.682	0.550		0.628
Total kW load reduction without overrides	47	37	48	47	38		43

Total Zone H

	Hour ending	A.v.ora #0					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM		Average
Total kW load reduction	2,763	2,240	1,739	1,520	1,317		1,916
Participating Thermostats	2,603	2,603	2,603	2,603	2,603		2,603
Per unit kW reduction with overrides	1.061	0.860	0.668	0.584	0.506		0.736

<u>Zone I</u>

Residential Zone I

	Hour ending	A.v.or.2.00					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM		Average
Total kW load reduction	4,802	4,035	3,265	2,867	2,481		3,490
Participating Thermostats	4,386	4,386	4,386	4,386	4,386		4,386
Per unit kW reduction with overrides	1.095	0.920	0.744	0.654	0.566		0.796
Cumulative Overrides	3.0%	8.4%	13.2%	17.9%	0.0%		8.5%
Per unit kW reduction without overrides	1.129	1.005	0.857	0.796	0.566		0.870
Total kW load reduction without overrides	4,950	4,407	3,759	3,490	2,481		3,817

Commercial Zone I

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM		Average
Total kW load reduction	531	408	364	274	226		361
Participating Thermostats	449	449	449	449	449		449
Per unit kW reduction with overrides	1.182	0.908	0.811	0.610	0.503		0.803
Cumulative Overrides	2.5%	6.7%	8.5%	8.6%	0.0%		5.3%
Per unit kW reduction without overrides	1.213	0.973	0.886	0.668	0.503		0.849
Total kW load reduction without overrides	545	437	398	300	226		381

<u>Total Zone I</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM		Average
Total kW load reduction	5,333	4,443	3,629	3,141	2,707		3,850
Participating Thermostats	4,835	4,835	4,835	4,835	4,835		4,835
Per unit kW reduction with overrides	1.103	0.919	0.751	0.650	0.560		0.796

Zone J Residential Zone J

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM		Average
Total kW load reduction	15,826	11,949	8,888	6,217	4,962		9,568
Participating Thermostats	16,301	16,301	16,301	16,301	16,301		16,301
Per unit kW reduction with overrides	0.971	0.733	0.545	0.381	0.304		0.587
Cumulative Overrides	4.2%	11.4%	17.1%	22.1%	10.1%		13.0%
Per unit kW reduction without overrides	1.013	0.828	0.658	0.490	0.339		0.666
Total kW load reduction without overrides	16,521	13,492	10,722	7,986	5,522		10,849

Commercial Zone J

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM		Average
Total kW load reduction	3,255	2,280	2,026	1,700	1,255		2,103
Participating Thermostats	3,333	3,333	3,333	3,333	3,333		3,333
Per unit kW reduction with overrides	0.976	0.684	0.608	0.510	0.377		0.631
Cumulative Overrides	4.1%	9.8%	11.9%	13.3%	14.3%		10.7%
Per unit kW reduction without overrides	1.019	0.758	0.690	0.589	0.439		0.699
Total kW load reduction without overrides	3,395	2,527	2,301	1,962	1,465		2,330

<u>Total Zone J</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM		Average
Total kW load reduction	19,081	14,229	10,914	7,918	6,217		11,672
Participating Thermostats	19,634	19,634	19,634	19,634	19,634		19,634
Per unit kW reduction with overrides	0.972	0.725	0.556	0.403	0.317		0.594

COMBINED LEGACY, DI WiFi

 Event Date:
 Monday, August 15, 2016

 Event Start:
 11:00 AM

 Event End:
 3:00 PM

 Event Refresh:
 None

 Resources Included:
 Duty Cycle

 Curtailment Strategy :
 50% Cycling

SUMMARY REPORT - Daytime Groups

Hour ending Hour ending Hour ending Hour ending Hour ending Hour ending Average 12:00 PM 1:00 PM 2:00 PM 3:00 PM Total kW load reduction 1,226 1,872 1,096 2,704 2,460 Participating Thermostats 3,460 3,460 3,460 3,460 3,460 Per unit kW reduction with overrides 0.354 0.317 0.782 0.711 0.541

Commercial

Residential

	Hour ending 12:00 PM	Hour ending 1:00 PM	Hour ending 2:00 PM	Hour ending 3:00 PM	Hour ending	Hour ending	Average
Total kW load reduction	1,080	792	780	632			821
Participating Thermostats	1,126	1,126	1,126	1,126			1,126
Per unit kW reduction with overrides	0.959	0.703	0.692	0.561			0.729

<u>Total</u>

	Hour ending	Average					
	12:00 PM	1:00 PM	2:00 PM	3:00 PM			Average
Total kW load reduction	2,306	1,888	3,484	3,092			2,692
Participating Thermostats	4,586	4,586	4,586	4,586			4,586
Per unit kW reduction with overrides	0.503	0.412	0.760	0.674			0.587

SUMMARY REPORT - BY ZONES

Zone I Residential Zone I

	Hour ending	A					
	12:00 PM	1:00 PM	2:00 PM	3:00 PM			Average
Total kW load reduction	1,070	978	2,350	2,261			1,665
Participating Thermostats	2,962	2,962	2,962	2,962			2,962
Per unit kW reduction with overrides	0.361	0.330	0.793	0.763			0.562
Cumulative Overrides	0.8%	2.4%	3.8%	5.2%			3.0%
Per unit kW reduction without overrides	0.364	0.338	0.825	0.805			0.583
Total kW load reduction without overrides	1,079	1,001	2,443	2,385			1,727

Commercial Zone I

	Hour ending	Avorago					
	12:00 PM	1:00 PM	2:00 PM	3:00 PM			Average
Total kW load reduction	200	119	147	92			140
Participating Thermostats	198	198	198	198			198
Per unit kW reduction with overrides	1.011	0.599	0.744	0.465			0.705
Cumulative Overrides	6.7%	15.9%	20.0%	22.5%			16.3%
Per unit kW reduction without overrides	1.083	0.713	0.930	0.600			0.831
Total kW load reduction without overrides	215	141	184	119			165

<u>Total Zone I</u>

	Hour ending	Average					
	12:00 PM	1:00 PM	2:00 PM	3:00 PM			Average
Total kW load reduction	1,271	1,097	2,497	2,353			1,804
Participating Thermostats	3,160	3,160	3,160	3,160			3,160
Per unit kW reduction with overrides	0.402	0.347	0.790	0.745			0.571

Zone J Residential Zone J

	Hour ending	A					
	12:00 PM	1:00 PM	2:00 PM	3:00 PM			Average
Total kW load reduction	156	118	354	199			207
Participating Thermostats	498	498	498	498			498
Per unit kW reduction with overrides	0.312	0.237	0.712	0.400			0.415
Cumulative Overrides	0.7%	2.3%	4.7%	6.7%			3.6%
Per unit kW reduction without overrides	0.314	0.242	0.747	0.429			0.433
Total kW load reduction without overrides	157	121	372	214			216

Commercial Zone J

	Hour ending	A					
	12:00 PM	1:00 PM	2:00 PM	3:00 PM			Average
Total kW load reduction	880	673	632	540			681
Participating Thermostats	928	928	928	928			928
Per unit kW reduction with overrides	0.948	0.726	0.681	0.582			0.734
Cumulative Overrides	6.4%	14.7%	18.0%	20.0%			14.7%
Per unit kW reduction without overrides	1.012	0.850	0.831	0.727			0.855
Total kW load reduction without overrides	939	789	771	674			793

<u>Total Zone J</u>

	Hour ending	Average					
	12:00 PM	1:00 PM	2:00 PM	3:00 PM			Average
Total kW load reduction	1,035	791	987	739			888
Participating Thermostats	1,426	1,426	1,426	1,426			1,426
Per unit kW reduction with overrides	0.726	0.555	0.692	0.518			0.623

COMBINED LEGACY, DI WiFi

 Event Date:
 Monday, August 15, 2016

 Event Start:
 3:00 PM

 Event End:
 9:00 PM

 Event Refresh:
 None
 for Legacy, DI WiFi

 Resources Included:
 Duty Cycle

 Curtailment Strategy:
 50% Cycling

SUMMARY REPORT - BQ Group

	Hour ending	Average					
	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	Average
Total kW load reduction	242	326	392	325	228	136	275
Participating Thermostats	648	648	648	648	648	648	648
Per unit kW reduction with overrides	0.373	0.503	0.605	0.502	0.352	0.209	0.424

Commercial

Residential

	Hour ending 4:00 PM	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Hour ending 9:00 PM	Average
Total kW load reduction	350	485	365	258	239	165	310
Participating Thermostats	413	413	413	413	413	413	413
Per unit kW reduction with overrides	0.849	1.174	0.884	0.625	0.578	0.400	0.752

<u>Total</u>

	Hour ending	Average					
	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	Avelage
Total kW load reduction	592	810	757	584	467	301	585
Participating Thermostats	1,061	1,061	1,061	1,061	1,061	1,061	1,061
Per unit kW reduction with overrides	0.558	0.764	0.714	0.550	0.440	0.284	0.552

SUMMARY REPORT - BY ZONES

Zone J Residential Zone J

	Hour ending	A.v.ora.go					
	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	Average
Total kW load reduction	242	326	392	325	228	136	275
Participating Thermostats	648	648	648	648	648	648	648
Per unit kW reduction with overrides	0.373	0.503	0.605	0.502	0.352	0.209	0.424
Cumulative Overrides	1.7%	5.5%	9.5%	13.8%	6.5%	21.5%	9.8%
Per unit kW reduction without overrides	0.379	0.532	0.669	0.583	0.377	0.266	0.468
Total kW load reduction without overrides	246	345	433	378	244	173	303

Commercial Zone J

	Hour ending	A.v.ora #0					
	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	Average
Total kW load reduction	350	485	365	258	239	165	310
Participating Thermostats	413	413	413	413	413	413	413
Per unit kW reduction with overrides	0.849	1.174	0.884	0.625	0.578	0.400	0.752
Cumulative Overrides	3.7%	10.3%	14.4%	16.5%	17.7%	18.9%	13.6%
Per unit kW reduction without overrides	0.881	1.308	1.032	0.749	0.702	0.494	0.861
Total kW load reduction without overrides	364	540	426	309	290	204	356

<u>Total Zone J</u>

	Hour ending	A					
	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	Average
Total kW load reduction	592	810	757	584	467	301	585
Participating Thermostats	1,061	1,061	1,061	1,061	1,061	1,061	1,061
Per unit kW reduction with overrides	0.558	0.764	0.714	0.550	0.440	0.284	0.552

COMBINED LEGACY, DI WiFi, BYOT

Event Date: Monday, August 15, 2016 Event Start: 4:00 PM Event End: 8:00 PM Event Refresh: None Resources Included: Duty Cycle Curtailment Strategy: 50% Cycling

Residential

SUMMARY REPORT - Nighttime Groups

	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Hour ending	Hour ending	Average
Total kW load reduction	17,267	13,897	10,443	6,427			12,008
Participating Thermostats	23,433	23,433	23,433	23,433			23,433
Per unit kW reduction with overrides	0.737	0.593	0.446	0.274			0.512

Commercial

	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Hour ending	Hour ending	Average
Total kW load reduction	5,000	3,294	2,511	2,220			3,256
Participating Thermostats	3,892	3,892	3,892	3,892			3,892
Per unit kW reduction with overrides	1.285	0.846	0.645	0.570			0.837

<u>Total</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	22,267	17,190	12,953	8,647			15,264
Participating Thermostats	27,325	27,325	27,325	27,325			27,325
Per unit kW reduction with overrides	0.815	0.629	0.474	0.316			0.559

SUMMARY REPORT - BY ZONES

Zone H

Residential Zone H

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	2,130	1,768	1,277	910			1,522
Participating Thermostats	2,526	2,526	2,526	2,526			2,526
Per unit kW reduction with overrides	0.843	0.700	0.506	0.360			0.602
Cumulative Overrides	1.8%	5.8%	10.4%	14.4%			8.1%
Per unit kW reduction without overrides	0.859	0.743	0.565	0.421			0.647
Total kW load reduction without overrides	2,170	1,878	1,426	1,063			1,634

Commercial Zone H

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	92	72	40	52			64
Participating Thermostats	70	70	70	70			70
Per unit kW reduction with overrides	1.315	1.024	0.569	0.741			0.912
Cumulative Overrides	8.6%	21.4%	25.7%	25.7%			20.4%
Per unit kW reduction without overrides	1.438	1.303	0.766	0.997			1.126
Total kW load reduction without overrides	101	91	54	70			79

<u>Total Zone H</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	2,222	1,840	1,317	962			1,585
Participating Thermostats	2,596	2,596	2,596	2,596			2,596
Per unit kW reduction with overrides	0.856	0.709	0.507	0.371			0.611

Zone I Residential Zone I

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	3,959	3,407	2,592	1,748			2,926
Participating Thermostats	5,000	5,000	5,000	5,000			5,000
Per unit kW reduction with overrides	0.792	0.681	0.518	0.350			0.585
Cumulative Overrides	2.1%	6.5%	11.0%	15.1%			8.6%
Per unit kW reduction without overrides	0.809	0.728	0.582	0.412			0.633
Total kW load reduction without overrides	4,043	3,642	2,912	2,058			3,164

Commercial Zone I

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	690	540	411	401			511
Participating Thermostats	479	479	479	479			479
Per unit kW reduction with overrides	1.441	1.127	0.858	0.837			1.066
Cumulative Overrides	5.0%	11.8%	14.1%	15.3%			11.6%
Per unit kW reduction without overrides	1.518	1.279	0.999	0.988			1.196
Total kW load reduction without overrides	727	613	479	473			573

Total Zone I

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	4,649	3,946	3,003	2,149			3,437
Participating Thermostats	5,479	5,479	5,479	5,479			5,479
Per unit kW reduction with overrides	0.849	0.720	0.548	0.392			0.627

<u>Zone J</u>

Residential Zone J

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	11,178	8,722	6,574	3,768			7,560
Participating Thermostats	15,907	15,907	15,907	15,907			15,907
Per unit kW reduction with overrides	0.703	0.548	0.413	0.237			0.475
Cumulative Overrides	3.3%	9.7%	15.7%	21.0%			12.4%
Per unit kW reduction without overrides	0.727	0.607	0.490	0.300			0.531
Total kW load reduction without overrides	11,557	9,659	7,799	4,768			8,446

Commercial Zone J

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	4,217	2,682	2,060	1,767			2,682
Participating Thermostats	3,343	3,343	3,343	3,343			3,343
Per unit kW reduction with overrides	1.262	0.802	0.616	0.529			0.802
Cumulative Overrides	7.2%	17.1%	21.2%	23.6%			17.3%
Per unit kW reduction without overrides	1.359	0.967	0.782	0.692			0.950
Total kW load reduction without overrides	4,544	3,234	2,615	2,312			3,176

<u>Total Zone J</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM			Average
Total kW load reduction	15,396	11,404	8,634	5,535			10,242
Participating Thermostats	19,250	19,250	19,250	19,250			19,250
Per unit kW reduction with overrides	0.800	0.592	0.448	0.288			0.532

COMBINED LEGACY, DI WiFi, BYOT

 Event Date:
 Tuesday, August 16, 2016

 Event State:
 4:00 PM

 Event End:
 10:00 PM

 Event Refresh:
 None
 for Legacy, DI WiFi

 Resources Included:
 Duty Cycle

 Curtailment Strategy:
 50% Cycling

SUMMARY REPORT - BQ Group

	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Hour ending 9:00 PM	Hour ending 10:00 PM	Average
Total kW load reduction	485	484	399	306	195	167	339
Participating Thermostats	647	647	647	647	647	647	647
Per unit kW reduction with overrides	0.750	0.747	0.617	0.472	0.302	0.258	0.524

Commercial

Residential

	Hour ending 5:00 PM	Hour ending 6:00 PM	Hour ending 7:00 PM	Hour ending 8:00 PM	Hour ending 9:00 PM	Hour ending 10:00 PM	Average
Total kW load reduction	572	399	290	259	239	232	332
Participating Thermostats	411	411	411	411	411	411	411
Per unit kW reduction with overrides	1.392	0.970	0.705	0.631	0.582	0.564	0.807

<u>Total</u>

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	1,058	882	689	565	435	399	671
Participating Thermostats	1,058	1,058	1,058	1,058	1,058	1,058	1,058
Per unit kW reduction with overrides	1.000	0.834	0.651	0.534	0.411	0.377	0.634

Zone J Residential Zone J

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	485	484	399	306	195	167	339
Participating Thermostats	647	647	647	647	647	647	647
Per unit kW reduction with overrides	0.750	0.747	0.617	0.472	0.302	0.258	0.524
Cumulative Overrides	3.4%	8.6%	11.8%	15.5%	7.6%	23.7%	11.7%
Per unit kW reduction without overrides	0.776	0.818	0.699	0.559	0.327	0.338	0.586
Total kW load reduction without overrides	502	529	452	362	211	219	379

Commercial Zone J

	Hour ending	A					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	572	399	290	259	239	232	332
Participating Thermostats	411	411	411	411	411	411	411
Per unit kW reduction with overrides	1.392	0.970	0.705	0.631	0.582	0.564	0.807
Cumulative Overrides	7.8%	17.6%	20.3%	20.9%	20.9%	21.2%	18.1%
Per unit kW reduction without overrides	1.509	1.177	0.885	0.798	0.736	0.715	0.970
Total kW load reduction without overrides	620	484	364	328	303	294	399

Total Zone J

	Hour ending	Average					
	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	Average
Total kW load reduction	1,058	882	689	565	435	399	671
Participating Thermostats	1,058	1,058	1,058	1,058	1,058	1,058	1,058
Per unit kW reduction with overrides	1.000	0.834	0.651	0.534	0.411	0.377	0.634

Event Information

Energy partner	Con Edison
Created on	Jul 13, 2016, 3:34 PM
Event date	Jul 13, 2016
Preconditioning start time	4:30 PM
Event start time	5:30 PM
Event end time	9:30 PM
Number of devices	4,051
Number of households	2,434

Participation Summary

	Device Count	Percentage
Sent	4,051	100.0%
Received	3,914	96.6%
Started	3,315	81.8%

	Device Count	Percentage
Started	3,315	100.0%
Completed	2,029	61.2%
Achieved Participation		79.2%

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Baseline HVAC Runtime				
Sum of cooling stages	1,885	103.0 mins	147.4 mins	3,235.7 hours
Actual HVAC Runtime				
Sum of cooling stages	1,885	48.4 mins	69.3 mins	1,521.0 hours
Duty Cycle Reduction				
Sum of cooling stages	1,885	42.0%	42.3%	53.0%
Energy Reduction				
Sum of cooling stages	1,885	4.2 kWh	6.0 kWh	7.9 MWh
Average Power Reduction				

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Sum of cooling stages	1,885	1.05 kW	1.50 kW	1.97 MW

Event Information

Energy partner	Con Edison
Created on	Jul 24, 2016, 1:13 PM
Event date	Jul 25, 2016
Preconditioning start time	4:30 PM
Event start time	5:30 PM
Event end time	9:30 PM
Number of devices	4,174
Number of households	2,508

Participation Summary

	Device Count	Percentage
Sent	4,174	100.0%
Received	4,025	96.4%
Started	3,614	86.6%

	Device Count	Percentage
Started	3,614	100.0%
Completed	2,026	56.1%
Achieved Participation		74.8%

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Baseline HVAC Runtime				
Sum of cooling stages	2,175	103.0 mins	142.8 mins	3,733.5 hours
Actual HVAC Runtime				
Sum of cooling stages	2,175	66.6 mins	92.4 mins	2,415.1 hours
Duty Cycle Reduction				

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Sum of cooling stages	2,175	35.3%	35.3%	35.3%
Energy Reduction				
Sum of cooling stages	2,175	2.8 kWh	3.9 kWh	6.1 MWh
Average Power Reduction				
Sum of cooling stages	2,175	0.70 kW	0.97 kW	1.52 MW

Event Information

Energy partner	Con Edison
Created on	Jul 25, 2016, 3:41 PM
Event date Jul 26, 2016	
Preconditioning start time	4:30 PM
Event start time	5:30 PM
Event end time	9:30 PM
Number of devices	4,174
Number of households	2,508

Participation Summary

	Device Count	Percentage
Sent	4,174	100.0%
Received	4,040	96.8%
Started	3,611	86.5%

	Device Count	Percentage
Started	3,611	100.0%
Completed	2,051	56.8%
Achieved Participation		75.7%

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Baseline HVAC Runtime				
Sum of cooling stages	2,675	103.0 mins	151.7 mins	4,591.7 hours
Actual HVAC Runtime				
Sum of cooling stages	2,675	77.8 mins	114.6 mins	3,468.6 hours
Duty Cycle Reduction				

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Sum of cooling stages	2,675	24.5%	24.5%	24.5%
Energy Reduction				
Sum of cooling stages	2,675	1.9 kWh	2.8 kWh	5.2 MWh
Average Power Reduction				
Sum of cooling stages	2,675	0.48 kW	0.71 kW	1.29 MW

Event Information

Energy partner	Con Edison
Created on	Aug 11, 2016, 12:01 PM
Event date	Aug 11, 2016
Preconditioning start time	4:30 PM
Event start time	5:30 PM
Event end time	9:30 PM
Number of devices	112
Number of households	86

Participation Summary

	Device Count	Percentage
Sent	112	100.0%
Received	106	94.6%
Started	89	79.5%

	Device Count	Percentage
Started	89	100.0%
Completed 56		62.9%
Achieved Participation		78.9%

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Baseline HVAC Runtime				
Sum of cooling stages	57	111.6 mins	129.8 mins	106.0 hours
Actual HVAC Runtime				
Sum of cooling stages	57	55.5 mins	64.5 mins	52.7 hours
Duty Cycle Reduction				
Sum of cooling stages	57	40.2%	39.3%	50.3%
Energy Reduction				
Sum of cooling stages	57	4.3 kWh	5.0 kWh	245.1 kWh
Average Power Reduction				

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Sum of cooling stages	57	1.08 kW	1.25 kW	61.28 kW

Event Information

Energy partner	Con Edison
Created on	Aug 11, 2016, 12:01 PM
Event date	Aug 11, 2016
Preconditioning start time	4:30 PM
Event start time	5:30 PM
Event end time	9:30 PM
Number of devices	112
Number of households	86

Participation Summary

	Device Count	Percentage
Sent	112	100.0%
Received	106	94.6%
Started	89	79.5%

	Device Count	Percentage
Started	89	100.0%
Completed	56	62.9%
Achieved Participation		78.9%

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Baseline HVAC Runtime				
Sum of cooling stages	57	111.6 mins	129.8 mins	106.0 hours
Actual HVAC Runtime				
Sum of cooling stages	57	55.5 mins	64.5 mins	52.7 hours
Duty Cycle Reduction				
Sum of cooling stages	57	40.2%	39.3%	50.3%
Energy Reduction				
Sum of cooling stages	57	4.3 kWh	5.0 kWh	245.1 kWh
Average Power Reduction				

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Sum of cooling stages	2,678	1.03 kW	1.53 kW	2.76 MW

Event Information

Energy partner	Con Edison
Created on	Aug 14, 2016, 3:53 PM
Event date	Aug 14, 2016
Preconditioning start time	4:08 PM
Event start time	4:08 PM
Event end time	8:08 PM
Number of devices	4,272
Number of households	2,566

Participation Summary

	Device Count	Percentage
Sent	4,272	100.0%
Received	4,133	96.7%
Started	3,680	86.1%
	Device Count	Percentage
Started	3,680	100.0%
Completed	2,187	59.4%
Achieved Participation		71 9%

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Baseline HVAC Runtime				
Sum of cooling stages	2,769	145.1 mins	214.3 mins	6,697.0 hours
Actual HVAC Runtime				
Sum of cooling stages	2,769	102.9 mins	152.0 mins	4,751.0 hours
Duty Cycle Reduction				
Sum of cooling stages	2,769	14.7%	15.0%	29.1%
Energy Reduction				
Sum of cooling stages	2,769	3.2 kWh	4.8 kWh	9.0 MWh
Average Power Reduction				

	Device Count	Avg. Per Device	Avg. Per Household	Aggregate
Sum of cooling stages	2,769	0.81 kW	1.19 kW	2.24 MW

2016 EnergyHub Event Reports

View Messages View Events Create Events Create New Message Cooling Event Activity #4583 MW % ₿ ± Data may be delayed by up to 30 minutes. All times Eastern Time (U.S. & Can.). Event Duration Activity Adjusted Baseline Event Start: 15:57 - End: 20:58 600 Load (kW) 400 200 08:00 12:00 16:00 20:00 00:00 04:00 *Activity excludes data for: Alarm Panel

Devices		Load Shed	
Crasted by Simkho Zirkiyev on Sun Aug 14, 2016 15:57 EDT Organization Con Edison, X - E - Northeast Bronx, X - E - Southeast Bronx, B - E - Ceean Parkway, B - E - Sheepshead Bay, B - E - Flatbush, B - D - Crown Heights, B - D - Ridgewood, B - D - Bay Ridge, B - E - Park Slope, B - E - Prospect Park, B - E - Williamsburgh, Q - E - Richmood Hill, Q - E -	Average Shed 64.00 kW Max Shed 166.35 kW at Total Energy Savings 319.93 kWh *Totals do not include data for: Alarm Par	: Sun Aug 14, 2016 16:30 EDT	
	Flushing, Q. E. Jackson Heights, Q. E. Rogo Park, Q. E. Maspeth, Q. E. Jamalca, S. E. Fox, Hills, S. E. Frosh_Kills, S. E. Wainwright, S. E. Willowbrook, S. E. Woodrow, W. E. Buchanan, W. E. Elmsford_No.2, W. E. Granite_Hill, W. E. Grasslands, W. E. Harrison, W. E. Millwood_West, W. E. Ossining_West, W.	Participation Statistics	283
Devices	- 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 - E - Washington Heights, M - D - Chelsea 283	Participating Not Participating - Incompatible mode Not Participating - Offline Opted Out Waiting for Dispatch	52 18.4% 107 37.8% 54 19.1% 70 24.7% 0 0.0%
		tae Enter Farbipeton Totals (.cor)	
Time		Email Participation Intervals (.CSV	
Event Start Time Event Duration Event End Time	Sun Aug 14, 2016 15:57 EDT* 4 hours, 59 minutes* Sun Aug 14, 2016 20:56 EDT* *Subject to randomization		



Appendix F: (CDP 2016 Demand	Response Event	Performance
---------------	-----------------	----------------	-------------

Event Date	Method	Outdoor Temp.	Relative Demand Reduction	Average Aggregate Reduction (W/AC)	smartAC kits Online	Average kW Reduced	Opt out rates
9-Sep	+3, +5, +7	High 91.°F, Avg. 78°F	0.53	170	8766	1494	16%
15-Aug	+3, +5, +7	High 92.°F, Avg. 83°F	0.30	97	6210	602	22%
12-Aug	+3, +5, +7	High 93.°F, Avg. 83°F	0.39	124	5522	687	16%
26-Jul	+3, +5, +7	High 89.°F, Avg. 84°F	0.40	118	7083	835	13%
25-Jul	+3, +5, +7	High 93°F <i>,</i> Avg. 84°F	0.37	101	6952	705	14%
7-Jul	Cycling	High 89.°F, Avg. 84°F	0.44	116	4065	473	10%

July 7, 2pm to 6pm

Cohort	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
+3°F	54	85	0.26	636	5%
+5°F	77	122	0.39	631	8%
+7°F	118	186	0.52	634	7%

July 7, 7pm to 11pm

Cohort	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
+3°F	62	84	31%	742	12%
+5°F	62	90	30%	686	12%
+7°F	99	135	46%	736	13%

July 25, 2pm to 6pm

Cohort	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
+3°F	78	82	23%	278	12%
+5°F	33	106	32%	312	14%
+7°F	33	116	33%	287	11%

July 25, 7pm to 11pm

Cohort	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
+3°F	152	77	30%	1,961	10%
+5°F	221	104	37%	2,133	15%
+7°F	242	122	46%	1,981	17%

July 26, 2pm to 6pm

Cohort	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
+3°F	43	109	29%	390	5%
+5°F	57	148	39%	381	9%
+7°F	69	178	45%	389	11%

July 26, 7pm to 11pm

Cohort	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
+3°F	120	61	22%	1,961	10%
+5°F	239	112	41%	2,133	15%
+7°F	324	164	58%	1,981	17%

August 12, 2pm to 6pm

Cohort	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
+3°F	43	109	29%	390	5%
+5°F	57	148	39%	381	9%
+7°F	69	178	45%	389	11%
August 12, 7pm to 11pm

Cohort	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
+3°F	226	112	37%	2,010	14%
+5°F	253	126	39%	2,000	18%
+7°F	79	182	58%	436	20%

August 15, 7pm to 11pm

Cohort	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
+3°F	98	46	16%	2,143	16%
+5°F	209	102	31%	2,052	23%
+7°F	294	146	44%	2,015	28%

September 9, 2pm to 6pm

Cohort	Average kW Reduced	Average W/AC Reduced	Relative Reduction	smartAC kits Online	Opt Out Rate
+5°F	24	82	24%	290	18%
+7°F	30	104	31%	291	20%
+0°F, 50% cycle	322	154	47%	2,083	12%
+5°F, 50% cycle	385	189	59%	2,036	17%
+7°F, 50% cycle	406	200	61%	2,028	18%
0°F, 50% cycle	318	156	47%	2,038	16%

Appendix G: 2016 – 2011 Con Edison Demand Response Event Review

NYISO TDRP - Borough/Network/Subzone												
Borough	Network	Subzone		Borough	Network	Subzone						
BK	Bay Ridge	J3		MN	Madison Square	J7						
BK	Boro Hall	J8		MN	Park Place	J7						
BK	Brighton Beach	J3		MN	Pennsylvania	Je						
BK	Crown Heights	18		MN	Plaza	J6						
BK	Flatbush	J3		MN	Randalls Island	J2						
BK	Ocean Parkway	J3		MN	Rockefeller Center	J6						
BK	Park Slope	J3		MN	Roosevelt	J2						
BK	Prospect Park	18		MN	Sheridan Square	J7						
BK	Ridgewood	18		MN	Sutton	J2						
BK	Sheepshead Bay	J3		MN	Times Square	J6						
BK	Williamsburg	18		MN	Triboro	18						
BX	Central Bronx	18		MN	Turtle Bay	J2						
BX	Fordham	J1		MN	Washington Hgts	J1						
BX	Northeast Bronx	J1		MN	Yorkville	J2						
BX	Riverdale	J1		QN	Borden	J3						
BX	Southeast Bronx	J1		QN	Flushing	J5						
BX	West Bronx	J2		QN	Jackson Heights	J5						
MN	Battery Park City	18		QN	Jamaica	J5						
MN	Beekman	J3		QN	Long Island City	J5						
MN	Bowling Green	J8		QN	Maspeth	13						
MN	Canal	J7		QN	Rego Park	J5						
MN	Central Park	J8		QN	Richmond Hill	18						
MN	Chelsea	J7		QN	Sunnyside	13						
MN	City Hall	J7		SI	Fox Hills	J4						
MN	Columbus Circle	J6		SI	Fresh Kills	J4						
MN	Cooper Square	J7		SI	Wainwright	J4						
MN	Cortlandt	18		SI	Willowbrook	J4						
MN	Empire	J3		SI	Woodrow	J4						
MN	Fashion	J3		WS	Buchanan	Н						
MN	Freedom	18		WS	Cedar Street	Ι						
MN	Fulton	18		WS	Elmsford No. 2	Ι						
MN	Grand Central	J3		WS	Granite Hill	Ι						
MN	Greeley Square	J7		WS	Grasslands	Ι						
MN	Greenwich	J7		WS	Harrison	Ι						
MN	Harlem	18		WS	Millwood West	Н						
MN	Herald Square	J6		WS	Mohansic	Н						
MN	Hudson	J6		WS	Ossining West	Н						
MN	Hunter	J2		WS	Pleasantville	Ι						
MN	Kips Bay	J7		WS	Rockview	I						
MN	Lenox Hill	18		WS	Washington Street	I						
MN	Lincoln Square	J6		WS	White Plains	Ι						

As of September 30, 2016

Event Date	Administrator	<u>Program</u>	Time Start	<u>Time End</u>	ent Duratio	Zone/Network	Event/Test
7/13/2016	Con Edison	DLRP	4:00 PM	5:00 PM	1:00	All	Test
7/13/2016	Con Edison	DLC	4:00 PM	5:00 PM	1:00	All	Test
7/15/2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Fresh Kills	Immediate
7/15/2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Fresh Kills	Immediate
7/22/2016	Con Edison	DLRP	5:00 PM	11:00 PM	6:00	Fox Hills	Immediate
7/22/2016	Con Edison	DLC	5:00 PM	11:00 PM	6:00	Fox Hills	Immediate
7/23/2016	Con Edison	DLRP	8:00 PM	12:00 AM	2:00	Triboro	Immediate
7/23/2016	Con Edison	DLC	8:25 PM	12:00 AM	3:45	Triboro	Immediate
7/24/2016	Con Edison	DLRP	6:00 AM	10:00 AM	4:00	Riverdale	Contingency
7/24/2016	Con Edison	DLC	6:19 AM	10:00 AM	3:41	Riverdale	Contingency
7/25/2016	Con Edison	CSRP	11:00 AM	3:00 PM	4:00	All	Planned
7/25/2016	Con Edison	CSRP	2:00 PM	6:00 PM	4:00	All	Planned
7/25/2016	Con Edison	CSRP	4:00 PM	8:00 PM	4:00	All	Planned
7/25/2016	Con Edison	CSRP	7:00 PM	11:00 PM	4:00	All	Planned
7/25/2016	Con Edison	CDP	2:00 PM	6:00 PM	4:00	J1, J2, J3, J4, J5,	Planned
7/25/2016	Con Edison	CDP	7:00 PM	11:00 PM	4:00	J6, J7, J8	Planned
7/25/2016	NYISO	TDRP	1:00 PM	7:00 PM	6:00	Zone J	Immediate
7/25/2016	Con Edison	DLC	11:40 AM	3:40 PM	4:00	Daytime Networks	Planned
7/25/2016	Con Edison	DLC	4:00 PM	8:00 PM	4:00	Nighttime Networks	Planned
7/26/2016	Con Edison	CSRP	11:00 AM	3:00 PM	4:00	All	Planned
7/26/2016	Con Edison	CSRP	2:00 PM	6:00 PM	4:00	All	Planned
7/26/2016	Con Edison	CSRP	4:00 PM	8:00 PM	4:00	All	Planned
7/26/2016	Con Edison	CSRP	7:00 PM	11:00 PM	4:00	All	Planned
7/26/2016	Con Edison	CDP	2:00 PM	6:00 PM	4:00	J1, J2, J3, J4, J5,	Planned
7/26/2016	Con Edison	CDP	7:00 PM	11:00 PM	4:00	J6, J7, J8	Planned
7/26/2016	Con Edison	DLC	11:00 AM	3:00 PM	4:00	Daytime Networks	Planned
7/26/2016	Con Edison	DLC	4:00 PM	8:00 PM	4:00	Nighttime Networks	Planned
8/11/2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Crown Heights	Contingency
8/11/2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Ridgewood	Contingency
8/11/2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Richmond Hill	Contingency
8/11/2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Crown Heights	Contingency
8/11/2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Ridgewood	Contingency
8/11/2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Richmond Hill	Contingency
8/12/2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Crown Heights	Contingency
8/12/2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Ridgewood	Contingency
8/12/2016	Con Edison	DLRP	2:00 PM	8:00 PM	6:00	Richmond Hill	Contingency
8/12/2016	Con Edison	DLRP	5:00 PM	11:00 PM	6:00	Fox Hills	Immediate
8/12/2016	Con Edison	CSRP	2:00 PM	6:00 PM	4:00	All	Planned
8/12/2016	Con Edison	CSRP	4:00 PM	8:00 PM	4:00	All	Planned
8/12/2016	Con Edison	CSRP	7:00 PM	11:00 PM	4:00	All	Planned
8/12/2016	Con Edison	DLRP	4:00 PM	12:00 AM	8:00	Fresh Kills	Immediate
8/12/2016	NYISO	SCR	1:00 PM	6:00 PM	5:00	All	Event
8/12/2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Crown Heights	Contingency
8/12/2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Ridgewood	Contingency

÷								
I	Event Date	Administrator	Program	Time Start	<u>Time End</u>	ent Duratio	Zone/Network	Event/Test
I	8/12/2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Richmond Hill	Contingency
1	8/12/2016	Con Edison	DLC	8:20 PM	10:20 PM	2:00	Fox Hills	Immediate
1	8/12/2016	Con Edison	DLC	8:20 PM	12:20 AM	4:00 AM	Fresh Kills	Immediate
1	8/12/2016	Con Edison	DLC	12:00 PM	4:00 PM	4:00	Daytime Networks	Planned
1	8/12/2016	Con Edison	DLC	4:00 PM	8:00 PM	4:00	Nighttime Networks	Planned
1	8/13/2016	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Crown Heights	Contingency
1	8/13/2016	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Ridgewood	Contingency
I	8/13/2016	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Richmond Hill	Contingency
1	8/13/2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Sheepshead Bay	Contingency
I	8/13/2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Fox Hills	Immediate
1	8/13/2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Fresh Kills	Immediate
1	8/13/2016	NYISO	TDRP	2:00 PM	8:00 PM	6:00	J4	Event
1	8/13/2016	NYISO	TDRP	3:00 PM	10:00 PM	7:00	J8	Event
1	8/13/2016	NYISO	TDRP	4:00 PM	8:00 PM	4:00	J3	Event
1	8/13/2016	Con Edison	DLC	3:00 PM	9:00 PM	6:00	Crown Heights	Contingency
1	8/13/2016	Con Edison	DLC	3:00 PM	9:00 PM	6:00	Ridgewood	Contingency
1	8/13/2016	Con Edison	DLC	3:00 PM	9:00 PM	6:00	Richmond Hill	Contingency
1	8/13/2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Sheepshead Bay	Contingency
1	8/13/2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Fox Hills	Immediate
İ	8/13/2016	Con Edison	DLC	2:00 PM	8:00 PM	6:00	Fresh Kills	Immediate
İ	8/13/2016	Con Edison	DLC	4:40 PM	10:40 PM	6:00	Rockview	Contingency
İ	8/14/2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Crown Heights	Contingency
İ	8/14/2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Ridgewood	Contingency
İ	8/14/2016	Con Edison	DLRP	4:00 PM	10:00 PM	6:00	Richmond Hill	Contingency
İ	8/14/2016	NYISO	TDRP	2:00 PM	10:00 PM	8:00	Zone J	Event
İ	8/14/2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Crown Heights	Contingency
İ	8/14/2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Ridgewood	Contingency
İ	8/14/2016	Con Edison	DLC	4:00 PM	10:00 PM	6:00	Richmond Hill	Contingency
t	8/14/2016	Con Edison	DLC	2:00 PM	7:00 PM	5:00	Davtime Networks	Event
t	8/14/2016	Con Edison	DLC	4:00 PM	9:00 PM	5:00	Nighttime Networks	Event
t	8/15/2016	Con Edison	DLRP	3:00 PM	9:00 PM	6:00	Crown Heights	Contingency
t	8/15/2016	Con Edison	DIRP	3:00 PM	9:00 PM	6:00	Ridgewood	Contingency
t	8/15/2016	Con Edison	DIRP	3:00 PM	9:00 PM	6:00	Richmond Hill	Contingency
ł	8/15/2016	NVISO	TDRP	2:00 PM	10:00 PM	8.00	Zone I	Event
ł	8/15/2016	Con Edison	CSRP	2:00 PM	6:00 PM	4.00	All	Planned
ł	8/15/2016	Con Edison	CSRP	4:00 PM	8:00 PM	4.00	All	Planned
ł	8/15/2016	Con Edison	CSRP	7:00 PM	11:00 PM	4.00	All	Planned
ł	8/15/2016	Con Edison	CSRP	11:00 AM	3:00 PM	4.00	All	Planned
ł	8/15/2016	Con Edison	DIC	3:00 PM	9:00 PM	6:00	Crown Heights	Contingency
ł	8/15/2016	Con Edison	DIC	3:00 PM	9:00 PM	6:00	Ridgewood	Contingency
ł	8/15/2016	Con Edison	DIC	3:00 PM	9:00 PM	6:00	Richmond Hill	Contingency
ł	8/15/2016	Con Edison	DIC	11:00 AM	3:00 PM	4:00	Davtime Networks	Planned
ł	8/15/2016	Con Edison	DIC	4:00 PM	8:00 PM	4:00	Nighttime Networks	Planned
ł	9/16/2010	Con Edison	DIPP	4:00 PM	10-00 PM	F:00	Crown Heights	Contingency
ł	8/16/2010	Con Edisor	DIPP	4:00 PM	10:00 PM	6:00	Ridgewood	Contingency
ł	8/16/2010	Con Edison	DIPP	4:00 PM	10:00 PM	6:00	Richmond Hill	Contingency
ł	9/16/2016	Con Edison	DLAF	4.00 FM	10:00 PM	6.00	Crown Heights	Contingency
ł	9/16/2016	Con Edison	DLC	4.00 FM	10:00 PM	6.00	Pidrawood	Contingency
ł	0/16/2016	Con Edison	DLC	4.00 PM	10:00 PM	0.00	Pichmond	Contingency
I	0/10/2016	Concesson	DLC	4.00 PM	10.00 PM	0.00	Kichmond Hill	contingency

Thursday, February 19, 2015

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after Derating	<u>Accounts</u>
				Zones A, B, C, D, E, F, G,			
NYISO	SCR	5:00 PM	9:00 PM	Н, I, J, K,	Event	-	-

<u>Monday, May 11, 2015</u>

Administrator	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after Derating	<u>Accounts</u>
Con Edison	DLRP	1:00 PM	7:00 PM	Beekman	Event	3.1	21
Con Edison	DLRP	1:00 PM	7:00 PM	Empire	Event	1.0	4
Con Edison	DLRP	1:00 PM	7:00 PM	Fashion	Event	0.1	5
Con Edison	DLRP	1:00 PM	7:00 PM	Grand Central	Event	4.4	36

Tuesday, May 12, 2015

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after Derating	<u>Accounts</u>
Con Edison	DLRP	1:00 PM	5:00 PM	Beekman	Event	3.1	21
Con Edison	DLRP	1:00 PM	5:00 PM	Empire	Event	1.0	4
Con Edison	DLRP	1:00 PM	5:00 PM	Fashion	Event	0.1	5
Con Edison	DLRP	1:00 PM	5:00 PM	Grand Central	Event	4.4	36
Con Edison	DLC	1:00 PM	5:00 PM	Beekman	Event	0.03	22
Con Edison	DLC	1:00 PM	5:00 PM	Empire	Event	0.02	11
Con Edison	DLC	1:00 PM	5:00 PM	Fashion	Event	0.02	11
Con Edison	DLC	1:00 PM	5:00 PM	Grand Central	Event	0.01	6

Wednesday, June 24, 2015

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after Derating	<u>Accounts</u>
Con Edison	DLRP	4:00 PM	5:00 PM	All Networks	Test	154.9	759
Con Edison	DLRP SC 11	4:00 PM	5:00 PM		Test	10	1

<u>Sunday, July 19, 2015</u>

Administrator	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after Derating	<u>Accounts</u>
Con Edison	DLRP	6:14 PM (ASAP)	12:00 AM	Fox Hills	Event	0.6	4
Con Edison	DLC	6:14 PM (ASAP)	12:00 AM	Fox Hills	Event	2.0	1627

Monday, July 20, 2015

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after Derating	<u>Accounts</u>
Con Edison	DLRP	6:00 AM	12:00 PM	Richmond Hill	Event	2.6	11
Con Edison	DLC	6:00 AM	12:00 PM	Richmond Hill	Event	0.5	386
Con Edison	DLRP	2:00 PM	8:00 PM	Fox Hills	Event	0.6	4
Con Edison	DLC	2:00 PM	8:00 PM	Fox Hills	Event	2.0	1627
Con Edison	DLRP	2:21 PM (ASAP)	9:00 PM	Fresh Kills	Event	1.6	14
Con Edison	DLC	2:21 PM (ASAP)	9:00 PM	Fresh Kills	Event	2.6	2143
Con Edison	DLRP	4:09 PM (ASAP)	11:00 PM	Harrison	Event	1.2	16
Con Edison	DLC	4:09 PM (ASAP)	11:00 PM	Harrison	Event	1.1	711
Con Edison	DLRP	4:55 PM (ASAP)	11:00 PM	Pennsylvania	Event	10.0	29
Con Edison	DLC	4:55 PM (ASAP)	11:00 PM	Pennsylvania	Event	0.0	12
Con Edison	DLRP	6:23PM		Crown Heights	Event	DR resources were not called	
Con Edison	DLRP	6:23PM		Ridgewood	Event	DR resources were not called	

<u>Tuesday, July 21, 2015</u>

Administrator	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after Derating	<u>Accounts</u>
Con Edison	DLRP	2:00 PM	8:00 PM	Fox Hills	Event	0.6	4
Con Edison	DLC	2:00 PM	8:00 PM	Fox Hills	Event	2.0	1627
Con Edison	CSRP	11:00 AM	12:00 PM	Zone J	Test	64.9	263
Con Edison	CSRP	2:00 PM	3:00 PM	Zone J	Test	15.3	59
Con Edison	CSRP SC 11	2:00 PM	3:00 PM		Test	11.9	1
Con Edison	CSRP	4:00 PM	5:00 PM	Zone J	Test	16.7	38
Con Edison	CSRP	7:00 PM	8:00 PM	Zone J	Test	19.6	51

Thursday, August 27, 2015

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after Derating	<u>Accounts</u>
NYISO	SCR	1:00 PM	2:00 PM	Zones F,G,H,I,K	Test	-	-
NYISO	SCR	2:00 PM	3:00 PM	Zone J	Test	-	-
NYISO	SCR	3:00 PM	4:00 PM	Zones B, C, D, E	Test	-	-
NYISO	SCR	4:00 PM	5:00 PM	Zone A	Test	-	-

Wednesday, September 9, 2015

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after Derating	<u>Accounts</u>
Con Edison	CSRP	11:00 AM	12:00 PM	Zone J	Test	0.67	1

Thursday, February 6, 2014

Administrator	Program	Time Start	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	DLRP - V	3:00 PM	8:00 PM	Time Square	Event	1.14	6

Thursday, February 20, 2014

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
NYISO	SCR	4:00 PM	5:00 PM	Zones J, K,	Test	-	-
NYISO	SCR	5:00 PM	6:00 PM	Zones A, B	Test	-	-
				Zones C, D, E, F, G,			
NYISO	SCR	6:00 PM	7:00 PM	H, I	Test	-	-

Tuesday, June 10, 2014

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	Modlet	1:00 PM	2:00 PM	Zone J	Test	1.5	1,510

Tuesday, June 17, 2014

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	DLC	5:30 PM	6:30 PM	Zone H	Test	2.1	1,629
Con Edison	DLC	5:30 PM	6:30 PM	Zone I	Test	6.6	4,899
Con Edison	DLC	5:30 PM	6:30 PM	Zone J	Test	17.4	13,510

Thursday, June 26, 2014

Administrator	Program	Time Start	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	DLRP	4:00 PM	5:00 PM	All Networks	Test	131.9	703
Con Edison	DLRP SC 11	4:00 PM	5:00 PM	*	Test	10	1

is an export demand response resource

			Tuesda	ay, July 8th, 2014			
Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after Derating	Accounts
Con Edison	CSRP	11:00 AM	12:00 PM	Zone J	Test	60.85	245
Con Edison	CSRP	2:00 PM	3:00 PM	Zone J	Test	26.53	46
Con Edison	CSRP SC 11	2:00 PM	3:00 PM	*	Test		1
Con Edison	CSRP	4:00 PM	5:00 PM	Zone J	Test	12.98	36
Con Edison	CSRP	7:00 PM	8:00 PM	Zone J	Test	16.59	46
		!	Tuesday	. August 10, 201	4	1	
	Descences	Time Chart	Tuesday	7, August 19, 201	4	Mar Diadaa da fiya Daastina	•
Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	www.piedged.after.Derating	Accounts
NYISO	SCR	1:00 PM	2:00 PM	Zones F,G,H,I,K	lest	-	-
NYISO	SCR	2:00 PM	3:00 PM	Zone J	Test	-	-
NYISO	SCR	3:00 PM	4:00 PM	Zones B, C, D, E	Test	-	-
NYISO	SCR	4:00 PM	5:00 PM	Zone A	Test	-	-
		1					
			Wednesd	ay, August 27, 20	014		
Administrator	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after Derating	Accounts
Con Edison	Modlet	7:00 PM	11:00 PM	Zone J	Test	-	-
			Thursday	y, August 28, 201	14		
Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after Derating	Accounts
Con Edison	Modlet	2:00 PM	6:00 PM	Zone J	Test	-	-
			Thursday,	September 4, 20	014		
Administrator	Program	Time Start	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after Derating	Accounts
Con Edison	Modlet	7:00 PM	11:00 PM	Zone J	Test	-	-

Friday, May 24, 2013								
<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts	
Con Edison	DLRP	9:25 AM (ASAP)	4:00 PM	Roosevelt	Event	0.29	3	
Con Edison	DLC	9:25 AM (ASAP)	4:00 PM	Roosevelt	Event	0.009	8	

Tuesday	/ lune	25	2013
Tuesua	y, June	J,	2010

Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	<u>Accounts</u>
Con Edison	CSRP - Day	2:00 PM	3:00 PM	Zone J	Test	54.30	113
Con Edison	CSRP - Night	7:00 PM	8:00 PM	Zone J	Test	16	67
Con Edison	CSRP - Day	2:00 PM	3:00 PM	*	Test	0.50	1
Con Edison	CSRP - Night	7:00 PM	8:00 PM	*	Test	6	1
Con Edison	DLRP	7:00 PM	12:00 AM	Flatbush	Event	0.44	3
Con Edison	DLC	7:00 PM	12:00 AM	Flatbush	Event	0.48	431

are export demand response resources

Wednesday, June 26, 2013

Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	DLRP	12:00 PM	1:00 PM	All Networks	Test	91.3	583
Con Edison	DLRP	12:00 PM	1:00 PM	*	Test	8	1

is an export demand response resource

Γ

Saturday, July 6, 2013

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	DLRP	7:00 AM	12:00 PM	Fox Hills	Event	0.45	4
Con Edison	DLC	8:00 AM	12:00 PM	Fox Hills	Event	1.688	1,802

Tuesday, July 9, 2013

Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	<u>Accounts</u>
Con Edison	Modlet	6:00 PM	7:00 PM	Zone J	Test	1.9	1,955

Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	CSRP - Day	12:00 PM	5:00 PM	Zone J	Event	30.47	150
Con Edison	CSRP - Night	5:00 PM	10:00 PM	Zone J	Event	18.48	91
Con Edison	CSRP - Day	12:00 PM	5:00 PM	*	Event	0.50	1
Con Edison	CSRP - Night	5:00 PM	10:00 PM	*	Event	6	1
Con Edison	DLC	12:00 PM	5:00 PM	Zone J	Event	4.2	3,725
Con Edison	DLC	5:00 PM	10:00 PM	Zone J	Event	21.8	20,065
Con Edison	Modlet	12:00 PM	5:00 PM	Zone J	Event	1.9	1,955
Con Edison	DLRP	5:00 PM	10:00 PM	Fox Hills	Event	0.21	4
Con Edison	DLC	5:00 PM	10:00 PM	Fox Hills	Event	1.69	1,802
Con Edison	DLRP	6:00 PM	11:00 PM	Fresh Kills	Event	1.11	8
Con Edison	DLC	6:00 PM	11:00 PM	Fresh Kills	Event	1.25	1,364
NYISO	SCR	1:00 PM	6:00 PM	Zones G, H, I, J, K	Event	363.30**	5,616
NYISO	EDRP	1:00 PM	6:00 PM	Zones G, H, I, J, K	Event	4**	92
NYISO	SCR	1:00 PM	6:00 PM	Zones A, B, C, D, E, F	Event	N/A	-
NYISO	EDRP	1:00 PM	6:00 PM	Zones A, B, C, D, E, F	Event	N/A	-

Monday, July 15, 2013

* are export demand response resources **MW's only within Con Edison's service territory; Zones H, I, & J

+

Tuesday, July 16, 2013

<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts				
Con Edison	CSRP - Day	12:00 PM	5:00 PM	Zone J	Event	30.47	150				
Con Edison	CSRP - Night	5:00 PM	10:00 PM	Zone J	Event	18.48	91				
Con Edison	CSRP - Day	12:00 PM	5:00 PM	*	Event	0.50	1				
Con Edison	CSRP - Night	5:00 PM	10:00 PM	*	Event	6	1				
Con Edison	DLC	12:00 PM	5:00 PM	Zone J	Event	4.20	3,725				
Con Edison	DLC	5:00 PM	10:00 PM	Zone J	Event	21.80	20,065				
Con Edison	Modlet	5:00 PM	10:00 PM	Zone J	Event	1.90	1,955				
NYISO	SCR	1:00 PM	6:00 PM	Zones G, H, I, J, K	Event	363.30**	5,616				
NYISO	EDRP	1:00 PM	6:00 PM	Zones G, H, I, J, K	Event	4**	92				
NYISO	SCR	1:00 PM	6:00 PM	Zones A, B, C, D, E, F	Event	N/A	-				
NYISO	EDRP	1:00 PM	6:00 PM	Zones A, B, C, D, E, F	Event	N/A	-				
,	are event demand reconnect resources										

* are export demand response resources **MW's only within Con Edison's service territory; Zones H, I, & J

Wednesday, July 17, 2013

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	CSRP - Day	12:00 PM	5:00 PM	Zone J	Event	30.47	150
Con Edison	CSRP - Night	5:00 PM	10:00 PM	Zone J	Event	18.48	91
Con Edison	CSRP - Day	12:00 PM	5:00 PM	*	Event	0.50	1
Con Edison	CSRP - Night	5:00 PM	10:00 PM	*	Event	6	1
Con Edison	DLC	12:00 PM	5:00 PM	Zone J	Event	4.20	3,725
Con Edison	DLC	5:00 PM	10:00 PM	Zone J	Event	21.80	20,065
Con Edison	Modlet	5:00 PM	10:00 PM	Zone J	Event	1.90	1,955
NYISO	SCR	1:00 PM	6:00 PM	Zones G, H, I, J, K	Event	363.30**	5,616
NYISO	EDRP	1:00 PM	6:00 PM	Zones G, H, I, J, K	Event	4**	92
NYISO	SCR	1:00 PM	6:00 PM	Zones A, B, C, D, E, F	Event	N/A	-
NYISO	EDRP	1:00 PM	6:00 PM	Zones A, B, C, D, E, F	Event	N/A	-

*MW's only within Con Edison's service territory; Zones H, I, & J

Thursday, July 18, 2013

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	CSRP - Day	12:00 PM	5:00 PM	Zone J	Event	30.47	150
Con Edison	CSRP - Night	5:00 PM	10:00 PM	Zone J	Event	18.48	91
Con Edison	CSRP - Day	12:00 PM	5:00 PM	*	Event	0.50	1
Con Edison	CSRP - Night	5:00 PM	10:00 PM	*	Event	6	1
Con Edison	DLC	12:00 PM	5:00 PM	Zone J	Event	4.20	3,725
Con Edison	DLC	5:00 PM	10:00 PM	Zone J	Event	21.80	20,065
Con Edison	Modlet	5:00 PM	10:00 PM	Zone J	Event	1.90	1,955
NYISO	SCR	1:00 PM	6:00 PM	Zones G, H, I, J, K	Event	363.30**	5,616
NYISO	EDRP	1:00 PM	6:00 PM	Zones G, H, I, J, K	Event	4**	92
NYISO	SCR	1:00 PM	6:00 PM	Zones A, B, C, D, E, F	Event	N/A	-
NYISO	EDRP	1:00 PM	6:00 PM	Zones A, B, C, D, E, F	Event	N/A	-
Con Edison	DLRP	5:00 PM (ASAP)	12:00 AM	Fresh Kills	Event	1.11	8
Con Edison	DLC	5:00 PM (ASAP)	12:00 AM	Fresh Kills	Event	1.25	1,364
Con Edison	DLRP	10:59 PM	N/A	Williamsburg	Event	DR resources were not called	-

* and are export demand response resources **MW's only within Con Edison's service territory; Zones H, I, & J

Eriday	7 Link	10	2012
FILLION	/. Jun	/ 19.	2015
	,	,	

Administrator	Program	Time Start	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts			
Con Edison	DLRP	3:00 AM	N/A	Washington Street	Event	DR resources were not called	-			
Con Edison	CSRP - Day	12:00 PM	5:00 PM	Zone J	Event	30.47	150			
Con Edison	CSRP - Night	5:00 PM	10:00 PM	Zone J	Event	18.48	91			
Con Edison	CSRP - Day	12:00 PM	5:00 PM	*	Event	0.50	1			
Con Edison	CSRP - Night	5:00 PM	10:00 PM	4	Event	6	1			
Con Edison	DLC	12:00 PM	5:00 PM	Zone J	Event	4.20	3,725			
Con Edison	DLC	5:00 PM	10:00 PM	Zone J	Event	21.80	20,065			
Con Edison	Modlet	5:00 PM	10:00 PM	Zone J	Event	1.90	1,955			
NYISO	SCR	1:00 PM	6:00 PM	Zones G, H, I, J, K	Event	363.30**	5,616			
NYISO	EDRP	1:00 PM	6:00 PM	Zones G, H, I, J, K	Event	4**	92			
NYISO	SCR	1:00 PM	6:00 PM	Zones A, B, C, D, E, F	Event	N/A	-			
NYISO	EDRP	1:00 PM	6:00 PM	Zones A, B, C, D, E, F	Event	N/A	-			
Con Edison	DLRP	11:03 PM	N/A	South East Bronx	Event	DR resources were not called	-			

* and are export demand response resources **MW's only within Con Edison's service tenitory; Zones H, I, & J

Saturday, July 20, 2013									
Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts		
Con Edison	DLRP	1:12 AM	N/A	Fordham	Event	DR resources were not called	-		

	Thursday, August 8, 2013										
Administrator	<u>Program</u>	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts				
NYISO	SCR	1:00 PM	2:00 PM	Zones B, C, D, E	Test	DR resources were not called	-				
NYISO	SCR	2:00 PM	3:00 PM	Zones A	Test	DR resources were not called	-				
NYISO	SCR	3:00 PM	4:00 PM	Zones J	Test	DR resources were not called	-				
NYISO	SCR	4:00 PM	5:00 PM	Zones F, G, H, I, K	Test	DR resources were not called	-				

Thursday, October 17, 2013									
Administrator	Program	Time Start	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts		
NYISO	SCR	3:00 PM	4:00 PM	Zones J	Test	DR resources were not called	-		

Wednesday, October 30, 2013									
<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after De-rating	<u>Accounts</u>		
Con Edison	DLRP	6:58 PM	7:52 PM	Brighton Beach	Event	DR resources were not called	-		
Con Edison	DLRP	6:58 PM	7:52 PM	Flatbush	Event	DR resources were not called	-		

Tuesday, May 29, 2012											
<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	<u>Accounts</u>				
NYISO	SCR	1:00 PM	6:00 PM	Zones A, B, C, D, E, F, G, H, I, J, K	Event	436.09*	2,517				

*MW's only within Con Edison's service territory; Zones H, I, & J

Wednesday, June 20, 2012

Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	DLRP	4:57 PM (ASAP)	12:00 AM	Williamsburg	Event	2.95	19
Con Edison	DLRP	4:57 PM (ASAP)	12:00 AM	Sheepshead Bay	Event	1.53	8
Con Edison	DLRP	4:57 PM (ASAP)	12:00 AM	Jamaica	Event	2.72	19
Con Edison	DLC	4:57 PM (ASAP)	12:00 AM	Williamsburg	Event	0.48	357
Con Edison	DLC	4:57 PM (ASAP)	12:00 AM	Sheepshead Bay	Event	0.38	288
Con Edison	DLC	4:57 PM (ASAP)	12:00 AM	Jamaica	Event	0.75	664
Con Edison	DLRP	5:18 PM (ASAP)	1:00 AM	Maspeth	Event	1.46	21
Con Edison	DLC	5:18 PM (ASAP)	1:00 AM	Maspeth	Event	0.42	322
Con Edison	DLRP	6:18 PM (ASAP)	2:00 AM	Richmond Hill	Event	1.36	14
Con Edison	DLC	6:18 PM (ASAP)	2:00 AM	Richmond Hill	Event	0.51	433
NYISO	SCR	2:00 PM	6:00 PM	Zones C,G,H,I,J	Event	436.09*	2,517
NYISO	EDRP	2:00 PM	6:00 PM	Zones C,G,H,I,J	Event	58.97*	55

*MW's only within Con Edison's service territory; Zones H, I, & J

Thursday, June 21, 2012

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/Test	MW Pledged after De-rating	Accounts
Con Edison	CSRP - Day	12:00 PM	5:00 PM	Zone J	Event	50.20	230
Con Edison	CSRP - Night	5:00 PM	10:00 PM	Zone J	Event	11.93	66
Con Edison	DLC	12:00 PM	5:00 PM	Zone J	Event	3.47	1,995
Con Edison	DLC	5:00 PM	10:00 PM	Zone J	Event	31.64	22,609
Con Edison	CSRP - Night	5:00 PM	10:00 PM	**	Event	11.40	1
Con Edison	RSAP	5:00 PM	10:00 PM	Zone J	Event	0.14	145
Con Edison	DLRP	8:00 AM	3:00 PM	Flushing Network	Event	3.52	20
Con Edison	DLRP	8:00 PM	3:00 AM	Park Slope	Event	1.27	21
Con Edison	DLRP	9:00 PM	4:00 AM	Sheepshead Bay	Event	1.53	8
Con Edison	Modlet	5:00 PM	10:00 PM	Zone J	Event	0.38	966
NYISO	SCR	1:00 PM	6:00 PM	Zones A,B,C,D,E,F,G,H,I,J,K	Event	436.09*	2,517
NYISO	EDRP	1:00 PM	6:00 PM	Zones A,B,C,D,E,F,G,H,I,J,K	Event	58.97*	55

MW's only within Con Edison's service territory; Zones H, I, & J
is an export demand response resource

Friday, June 22, 2012

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	DLRP	7:00 AM	2:00 PM	Flatbush	Event	1.07	9
Con Edison	DLRP	5:00 PM	10:00 PM	Williamsburg	Event	2.95	19
Con Edison	DLRP	12:00 PM	1:00 PM	All Networks	Test	132.50	806
Con Edison	DLRP	12:00 PM	1:00 PM	**	Test	11.40	1
NYISO	SCR	1:00 PM	6:00 PM	Zones G,H,I,J,K	Event	436.09*	2,517
NYISO	EDRP	1:00 PM	6:00 PM	Zones G,H,I,J,K	Event	58.97*	55

•MW's only within Con Edison's service territory; Zones H, I, & J •• is an export demand response resource

Wednesday, July 04, 2012

Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after De-rating	Accounts
Con Edison	DLRP	9:06 PM (ASAP)	2:00 AM	Flatbush	Event	1.07	9

Thursday, July 05, 2012

Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/Test	MW Pledged after De-rating	Accounts
Con Edison	DLRP	3:00 PM	8:00 PM	Crown Heights Network	Event	1.16	9
Con Edison	DLRP	10:30 PM	N/A	South East Bronx	Event	DR resources were not called	-

				Friday, July 06, 2012			
Administrator	Program	Time Start	<u>Time End</u>	Zone/Network	Event/Test	MW Pledged after De-rating	Accounts
Con Edison	Modlet	6:00 PM	10:00 PM	Zone J	Event	0.38	966
NYISO	TDRP	3:00 PM	11:00 PM	J1, J3, J8	Event	Program was on standby but not called	-
NYISO	DLC	4:00 PM	5:00 PM	Zones I,J	Test	21.68	18,067

Saturday, July 07, 2012

Administrator	Program	Time Start	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	Modlet	6:00 PM	10:00 PM	Zone J	Event	0.38	966
NYISO	TDRP	3:00 PM	11:00 PM	J1, J3, J8	Event	Program was on standby but not called	-

Monday, July 16, 2012

<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	<u>Event/ Test</u>	MW Pledged after De-rating	<u>Accounts</u>
NYISO	TDRP	3:00 PM	11:00 PM	J3	Event	Program was on standby but not called	-
Con Edison	DLRP	1:20 PM (ASAP)	9:00 PM	Turtle Bay	Event	1.61	16

Tuesday, July 17, 2012

<u>Administrator</u>	Program	Time Start	<u>Time End</u>	Zone/Network	Event/Test	MW Pledged after De-rating	Accounts
NYISO	TDRP	6:00 PM	11:00 PM	J3	Event	55.00*	Not Available
NYISO	TDRP	6:00 PM	11:00 PM	81	Event	Program was on standby but not called	-
NYISO	SCR	1:00 PM	7:00 PM	Zones A, B, C, D, E, F, G, H, I, J, K	Event	Program was on standby but not called	-
Con Edison	DLC	3:00 PM	8:00 PM	Bay Ridge, Fashion, Empire, Grand Central, Borden	Event	0.34 - Network Initiated Peak Shaving	255
Con Edison	DLC	5:00 PM	10:00 PM	Brighton Beach, Flatbush, Ocean Parkway, Park Slope, Sheepshead Bay, Beekman, Maspeth, Sunnyside	Event	2.46 - Network Initiated Peak Shaving	1,891
Con Edison	Modlet	5:00 PM	10:00 PM	Zone J	Event	0.38	966

*J3 MW's may not be indicative of actual demand reduction due to voluntary basis and as large commercial customer base called outside general commercial hours.

Wednesday, July 18, 2012

Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/Test	MW Pledged after De-rating	Accounts
Con Edison	DLRP	7:09 AM (ASAP)	3:00 PM	Sutton	Event	4.59	21
Con Edison	CSRP-Day	12:00 PM	5:00 PM	Zone J	Event	50.20	230
Con Edison	CSRP - Night	5:00 PM	10:00 PM	Zone J	Event	11.93	66
Con Edison	CSRP - Night	5:00 PM	10:00 PM	**	Event	11.40	1
Con Edison	RSAP	5:00 PM	10:00 PM	Zone J	Event	0.14	145
Con Edison	DLRP	5:09 PM (ASAP)	12:30 AM	Ocean Parkway	Event	1.39	12
Con Edison	DLRP	9:00 PM	N/A	Flushing	Event	DR resources were not called	-
NYISO	SCR	2:10 PM	6:00 PM	Zones G, H, I, K	Event	48.09*	126
NYISO	SCR	1:00 PM	6:00 PM	Zone J	Event	388.00	2,391
NYISO	TDRP	6:00 PM	10:00 PM	J3	Event	55.00***	Not Available

• <u>MW's only w</u>ithin Con Edison's service territory; Zones H, I, & J

** is an export demand response resource

***J3 MW's may not be indicative of actual demand reduction due to voluntary basis and as large commercial customer base called outside general commercial hours.

				Tuesday, July 24, 2012			
<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
NYISO	TDRP	3:00 PM	10:00 PM	J3	Event	Program was on standby but not called	-
				Thursday, July 26, 2012			
Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/Test	MW Pledged after De-rating	Accounts
Administrator NYISO	Program TDRP	<u>Time Start</u> 3:00 PM	<u>Time End</u> 10:00 PM	Zone/Network	Event/Test Event	<u>MW Pledged after De-rating</u> Program was on standby but not called	Accounts -
Administrator NYISO	Program TDRP	<u>Time Start</u> 3:00 PM	Time End 10:00 PM	Zone/Network J3	Event/Test Event	MW Pledged after De-rating Program was on standby but not called	<u>Accounts</u>
Administrator NYISO	Program TDRP	<u>Time Start</u> 3:00 PM	<u>Time End</u> 10:00 PM	J3 Friday, July 27, 2012	Event/Test Event	MW Pledged after De-rating Program was on standby but not called	<u>Accounts</u> -

<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/Test	MW Pledged after De-rating	Accounts
NYISO	TDRP	3:00 PM	10:00 PM	J3	Event	Program was on standby but not called	-

Thursday, August 02, 2012									
<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/Test	MW Pledged after De-rating	Accounts		
Con Edison	DLRP	12:00 PM	5:00 PM	Riverdale	Event	1.40	11		
NYISO	SCR	4:00 PM	5:00 PM	E, F, G, H, I	Test	48.09*	126		
NYISO	SCR	5:00 PM	6:00 PM	J,K	Test	388.00*	2,391		
•MW's only within ("on Edizon's con	rice territory: Zones H	1.4.1						

*MW's only within Con Edison's service territory; Zones H, I, & J

Thursday, August 09, 2012

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	DLRP	1:00 AM	N/A	Sheridan Square	Event	DR resources were not called	-

Wednesday, August 15, 2012

<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	<u>Accounts</u>
Con Edison	DLRP	5:00 PM	N/A	Sheepshead Bay	Event	DR resources were not called	-
Con Edison	Modlet	5:00 PM	10:00 PM	Zone J	Event	0.38	966

Friday, August 24, 2012

<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
Con Edison	DLRP	11:00 AM	N/A	West Bronx	Event	DR resources were not called	-

				Thuay, August 51, 2017	<u> </u>		
Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	<u>Accounts</u>
Con Edison	DLRP	5:30 AM	N/A	Central Park	Event	DR resources were not called	-

Friday, August 31, 2012

Sunday, September 16, 2012

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Pledged after De-rating	<u>Accounts</u>
Con Edison	DLRP	10:48 AM (ASAP)	7:00 PM	Brighton Beach	Event	1.17	8
Con Edison	DLRP	10:48 AM (ASAP)	7:00 PM	Flatbush	Event	1.07	9

Wednesday, June 08, 2011

Administrator	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Reduction Achieved	<u>Accounts</u>
Con Edison	DLRP	3:00 P.M.	4:00 P.M.	All	Test	127.62	701
Con Edison	DLC	3:00 P.M.	4:00 P.M.	All	Test	28.63	20,442
Con Edison	RSAP	4:00 P.M.	5:00 P.M.	J	Test	0.01	110

Thursday, June 09, 2011

<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Reduction Achieved	Accounts
Con Edison	CSRP	2:00 P.M.	3:00 P.M.	All	Test	17.04	115
Con Edison	CSRP	5:00 P.M.	6:00 P.M.	All	Test	4.16	30

Tuesday, July 19, 2011

<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/Test	MW Reduction Achieved	Accounts
NYISO	SCR (ICAP)	3:00 P.M.	4:00 P.M.	H&I	Test	42.20	84
NYISO	SCR (ICAP)	4:00 P.M.	5:00 P.M.	J	Test	473.53	1,346

Thursday, July 21, 2011

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/Test	MW Reduction Achieved	Accounts
Con Edison	RSAP	11:00 A.M.	7:00 P.M.	l	Event	0.01	110
Con Edison	CSRP - Day	12:00 P.M.	5:00 P.M.	l	Event	21.40	115
Con Edison	CSRP - Night	5:00 P.M.	10:00 P.M.	l	Event	6.20	30
Con Edison	DLC	1:00 P.M.	6:00 P.M.	All	Event	32.38	20,442
NYISO	SCR (ICAP)	1:00 P.M.	6:00 P.M.	All	Event	515.73	1,430
NYISO	EDRP	1:00 P.M.	6:00 P.M.	All	Event	65.55	48

<u>Administrator</u>	<u>Program</u>	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Reduction Achieved	<u>Accounts</u>
Con Edison	CSRP - Day	12:00 P.M.	5:00 P.M.	J	Event	29.52	115
Con Edison	CSRP - Night	5:00 P.M.	10:00 P.M.	J	Event	6.72	30
Con Edison	DLRP	7:00 A.M.	3:00 P.M.	Elmsford	Event	0.30	9
Con Edison	DLC	7:00 A.M.	3:00 P.M.	Elmsford	Event	0.78	809
Con Edison	DLRP	7:00 A.M.	3:00 P.M.	Maspeth	Event	2.66	18
Con Edison	DLC	7:00 A.M.	3:00 P.M.	Maspeth	Event	0.37	275
Con Edison	DLRP	6:00 P.M.	11:00 P.M.	Richmond Hill	Event	1.98	14
Con Edison	DLC	6:00 P.M.	11:00 P.M.	Richmond Hill	Event	0.34	163
Con Edison	DLRP	6:00 P.M.	11:00 P.M.	Fox Hills	Event	0.79	5
Con Edison	DLC	6:00 P.M.	11:00 P.M.	Fox Hills	Event	1.66	1,493
Con Edison	DLC	6:00 P.M.	11:00 P.M.	Ossining West	Event	0.50	384
Con Edison	DLRP	6:00 P.M.	11:00 P.M.	Sheepshead Bay	Event	3.20	8
Con Edison	DLC	6:00 P.M.	11:00 P.M.	Sheepshead Bay	Event	0.27	249
Con Edison	DLRP	7:31 P.M. (ASAP)	11:00 P.M.	Granite Hill	Event	0.90	4
Con Edison	DLC	7:31 P.M. (ASAP)	11:00 P.M.	Granite Hill	Event	0.63	590
Con Edison	DLRP	8:19 P.M. (ASAP)	11:00 P.M.	Buchanan	Event	-0.01	1
Con Edison	DLC	8:19 P.M. (ASAP)	11:00 P.M.	Buchanan	Event	0.70	653
Con Edison	DLRP	9:03 P.M. (ASAP)	6:00 A.M.	Ridgewood	Event	-0.12	9
Con Edison	DLC	9:03 P.M. (ASAP)	6:00 A.M.	Ridgewood	Event	0.08	143
Con Edison	DLRP	9:03 P.M. (ASAP)	6:00 A.M.	Rego Park	Event	0.23	12
Con Edison	DLC	9:03 P.M. (ASAP)	6:00 A.M.	Rego Park	Event	0.43	526
NYISO	SCR (ICAP)	12:00 P.M.	6:00 P.M.	J	Event	473.53	1,346
NYISO	EDRP	12:00 P.M.	6:00 P.M.	J	Event	61.85	39
NYISO	SCR (ICAP)	1:00 P.M.	6:00 P.M.	H&I	Event	42.20	84
NYISO	EDRP	1:00 P.M.	6:00 P.M.	H&I	Event	3.70	9

Friday July 22, 2011

Saturday, July 30, 2011

<u>Administrator</u>	Program	<u>Time Start</u>	<u>Time End</u>	Zone/Network	Event/ Test	MW Reduction Achieved	<u>Accounts</u>
Con Edison	DLRP	12:00PM	12:00 A.M.	Central Park	Event	0.21	8