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

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. EVALUATION OF PROGRAM PERFORMANCE AND COST EFFECTIVENESS OF DEMAND RESPONSE PROGRAMS

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1. INTRODUCTION

Consolidated Edison Company of New York, Inc. ("Con Edison" or the "Company") submits this evaluation of its peak load shaving demand response programs pursuant to the New York 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* (the "October Order") requiring the Company to conduct an assessment of the peak load shaving programs and to submit a report to the Commission by December 1 of each year.[1]

The Company is also submitting an evaluation of its Rider U – Distributed Load Relief Program ("Rider U Program" or "DLRP").

In addition, the Company submits an evaluation of its Rider L - Direct Load Control Program ("DLC" or "DLC Program") pursuant to the Commission's September 22, 2010 order in Case No. 10-E-0229 requiring the Company to perform an assessment of the DLC Program along with its other demand response programs, and to submit the report to the Commission by December 1 of each year.[2]

This evaluation covers the cost components and program performance associated with the 2012 program year, November 1, 2011 through October 31, 2012, for the peak load shaving programs and DLRP; for DLC the evaluation covers performance for the January 1, 2012 through December 31, 2012 program period.

Con Edison has essentially two types of demand response programs, contingency and peak shaving, which focus on supporting reliability and reducing costs of operating the electric distribution system. The programs operate during the prescribed summer period of May 1 through October 31 and are summarized in the table below:

Contingency programs;

Program	Acronym	Purpose	Incentive
Distribution Load Relief Program – (NYC and Westchester County)	**DLRP**	Activated by Con Edison in system critical situations (condition yellow or voltage reduction). Customers have two hours notice to begin response for five hour event duration. Premium paid for customers who pre-commit load.	Customers receive a reservation payment of $6.00 or $3.00 per kW pledged and performed, depending on location, and energy payments equal to $0.50 per kWh reduced. Energy only option available for those who do not pre-commit kW.
Direct Load Control – (NYC and Westchester County)	**DLC**	Activated by Con Edison in system critical situations. 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 will 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.

[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] 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.

Peak Shaving programs;

Program	Acronym	Purpose	Incentive
Commercial System Relief Program – (NYC only)	**CSRP**	Event activated when day-ahead forecast is 96% or greater of forecasted summer system peak to relieve system peak load. Premium paid for customers who pre-commit load.	Customers receive a reservation payment of $5/kW pledged and performed. Energy Payment equal to $.50 per kWh for each kW reduced during an event. Customers who do not pre-commit load receive an energy payment equal to $1.50 for each kWh reduced.
Residential Smart Appliance Program – (NYC only) [Pilot program]	**RSAP**	Event activated when day-ahead forecast is 96% or greater of forecasted summer system peak to relieve system peak load. Con Edison will have ability to turn off enrolled home electrical equipment when an event is called. Available to Con Edison residential customers with a minimum of two window or wall A/C units, an AMR meter and broadband connection.	Participants receive a free home energy management system with installation and participation in 80% of all event hour's results in an incentive payment of $10 for each wall or window A/C unit enrolled and $10 for the combination of other enrolled appliances.
Residential Smart Appliance Program (NYC only) [Pilot program]	**CoolNYC**	Event activated when day-ahead forecast is 96% or greater of forecasted summer system peak to relieve system peak load. Con Edison will have ability to turn off window or wall A/Cs when an event is called. Available to Con Edison residential customers with window or wall A/C units and broadband connection.	Participants receive a free smart modern outlet (modlet), remote thermostat and gateway device allowing control via a web portal and smartphones. Participation in event hours results in an incentive payment of $25.
Direct Load Control – (NYC and Westchester County)	**DLC**	Activated by Con Edison in system critical situations. 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 will 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.

While the demand response programs are divided by application type, contingency or peak-shaving, the programs are also divided by customer type. The Company operates programs which are designed for larger commercial customers (DLRP and CSRP) with the ability to reduce their load by at least 50 kW during events and programs for smaller commercial and residential customers (DLC and RSAP). The segmentation by customer type is important as each requires specific operational process, equipment, communication and education. With such differences in mind the presentation of program evaluation is provided by this segmentation.

COMMERCIAL DEMAND RESPONSE PROGRAMS

2. DISTRIBUTION LOAD RELIEF PROGRAM ("DLRP")

DLRP is a network contingency demand response program, applicable to individual customers who can reduce demand by greater than 50 kW during an event or to CSPs who aggregate greater than 100 kW of demand reduction.

DLRP has two program options, mandatory and voluntary. The mandatory option of the DLRP is also referred to as the Summer Reservation Payments option. This option was added in 2007 to help mitigate network damage, and provide a greater margin of protection against major customer service interruptions. The voluntary program option has been offered in the Company's service territory to commercial customers since 2001.

The DLRP may be called by the Company to reduce strain on local distribution lines within specific networks and load areas when contingencies occur. The level of the Summer Reservation Payment is $3.00 per kW-month in Tier 1 networks and load areas, and $6.00 per kW-month, in Tier 2 networks. Tier 1 payments apply to participation in the majority of the Company's networks and load areas, and Tier 2 payments apply to load reductions in areas that are identified as higher priority and in need of additional demand reduction resources. Energy payments are $0.50 per kWh in both Tier 1 and Tier 2 networks. Mandatory participants can receive both summer reservation payments and energy payments. Voluntary participants only receive energy payments.

DLRP Program Costs

The following are a representation of the costs associated with DLRP. It should be noted that effective July 1, 2012 the Company implemented a comprehensive Oracle Enterprise Resource Planning ("ERP") tool. This tool required the re-characterization of some cost elements as recorded in the prior financial system and as a consequence the allocations below may be subject to later correction.

Table 1: DLRP Cost Components for 2012 Program Year

DLRP Program Costs December 2011 through November 2012		
Component	**Cost**	**Percentage**
Customer Incentives	$ 2,716,027	68%
Program Administration Con Ed	$ 537,941	14%
Program Administration Vendor	-	-
Program Equipment	$ 127,472	3%
Program Marketing	$ 64,756	2%
M&V	$ 526,383	13%
Total Program Costs	***$ 3,972,579***	***100%***

Customer Incentives

Customer incentives consist of energy and summer reservation payments paid to customers for their participation and performance in events and tests. The voluntary customers enrolled in DLRP are not tested. The cumulative total of customer incentives (energy payment plus summer reservation payments) amounted to $2,716,027 (68 percent of the total program cost).

Program Administration – Con Edison

Program Administration – Con Edison consists of Company staff salary and overhead associated with DLRP management and support. This includes (but is not limited to) work performed by program managers, specialists, marketing staff, and legal support team. For 2012, the costs associated with program administration are $537,941 (14 percent of the total program cost) and calculated using a percentage time allocation of staff and support personnel to DLRP activities, with their associated salaries, overhead, and A&S costs.

Program Administration – Vendor

Costs in the category normally include expenses related to administrative functions performed by Con Edison vendors. For the CSRP program all administration is performed by Con Edison personnel and the M&V vendors. There were no program costs in this category during the program period.

Program Equipment

Program equipment costs typically refer to the metering and data acquisition equipment required to be installed on a customer's premises to collect interval load data. The Company's commercial demand response programs require BIMs to collect interval load data. The costs associated with BIM installation and maintenance are covered by Con Edison's Mandatory Hourly Pricing and Reactive Power Programs, for customers with demands over 500 kW, or by the program participant, and are therefore not charged to the demand response accounts. This year the Company had to perform extra work to enable the presentation of 15 minutes data on a near real-time basis and these costs are included in the Program Equipment category. Total equipment costs are $127,472, which is 3 percent of the total program cost.

Program Marketing

Marketing costs include all costs associated with the marketing initiatives required to inform and involve customers in the programs. The costs include, but are not limited to, the promotional video and the green button initiatives. In the 2012 program year, the costs associated with program marketing were $64,756 (2 percent of the total program cost.) This program's marketing cost component does not include Con Edison staff salary associated with time spent on marketing events and marketing material design, which are included in the Program Administration – Con Edison category.

It is important to note that the vast majority of program marketing is executed by third parties not under the control of the Company. However, the Company will continue to provide "background" customer education on the concept to support the third party sales process.

Measurement and Verification

Costs included in this category are associated with the performance analysis conducted by outside consultants for the DLRP program. The Company has contracted with an outside vendor to calculate both individual and aggregate results for events and tests, and to generate various reports as necessary. These demand reduction results are used to determine appropriate payment for customers, and the aggregate effect on the Con Edison system. The workload for the vendor increased considerably this year due to the high number of events, the complexity of the late June events resulting from the atypical weather pattern, the inclusion of an export load customer for the first time and the growth in participant volume. In 2012, the costs to the system were

generally operation and maintenance and amounted to $526,383 (13 percent of the total program cost).

Cost Effectiveness Summary

DLRP Utility Cost Test

The Company applies the utility cost test ("UCT") to determine the cost effectiveness of DLRP. UCT is applied by comparing the utility's costs and estimated benefits, in this case the benefits of avoiding the cost of mobilizing emergency generators in a network or load area emergency as compared to the cost of operating the program.[3] The Company calculated the program benefits as equal to the costs it avoided by customers' participation in DLRP based on past events requiring the use of a mobile generator, including the costs of renting, dispatching and preparing the generator for use.

As indicated on Table 1, the total 2012 cost of the program was $3,972,579. This is equivalent to $5.13/kW/month, up from $4.42/kW/month in 2011. This value was calculated by dividing the total program costs by the kW achieved in the program. It was then divided by the six months in the capability period. The kW achieved is assessed using the CBL methodology for mandatory kW achieved (129 MW). The kW achieved is the difference between the CBL and the actual load reduction curve during the test event.

The UCT analysis establishes the ratio of the value of the program benefits to the program costs. In this evaluation, the cost component is the sum of utility-incurred costs related to the DLRP for the 2012 program year. The benefit component is based on the avoidance of emergency generator costs of $3/kW-month that were deemed applicable in the June 2007 Order.[4]

Total costs for DLRP during the 2012 program year were $3,972,579; the total available kW for the program was 129 MW and 15 MW of voluntary enrollments. The DLRP benefit to cost ratio is 0.58. The benefit component of the cost-effectiveness test for DLRP is currently established at $3/kW.[5] The benefit to cost ratio is likely understated, since it doesn't capture some of the benefits of the operational flexibility that DLRP provides address network contingencies and mitigate system outages. Moreover, operational flexibility can allow the company to reduce costs, which also is not accounted for in the benefit to cost ratio of $3/kW. The Company intends to initiate an analysis to further develop the cost-benefit evaluations used for its programs.

[3] As specified in the Memorandum Order issued June 21, 2007, in Case 07-E-0392 pp. 11-12.

[4] As specified in the Memorandum Order issued June 21, 2007, in Case 07-E-0392 (pp. 11-12).

[5] Tariff filing of Consolidated Edison Company of New York, Inc. to Modify Rider U- Distribution Load Relief Program, pp. 11-12: "Staff proposed a reservation payment based on the assumption that a mobile generator would need to be rented for a total period of one month, but at various times over the six month period. Therefore, the mobile generator cost of $18.62/kW- month provided by the company equates to a monthly reservation payment of approximately $3/kW- month, spreading the cost over six months."

DLRP Test and Event Performance and Network Impacts

This section focuses on three major areas: evaluation of performance, evaluation of impacts by network, and an assessment of program growth.

The goal of DLRP is to reduce the impact of network and load area contingencies by inducing customer load reductions prior to or at the time of an event. The achieved performance in tests and events 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 2012 Summer Capability Period, one DLRP test and eighteen DLRP events were initiated. The performance of mandatory participants during the test event and the eighteen DLRP events that occurred in 2012 is assessed in this section.[6]

Test and Event Summary

Performance of all mandatory customers 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 90 percent of 2012 total DLRP enrollment.

While the overall performance factor on the June 22 DLRP test was 69 percent, the performance factors across the eighteen DLRP events ranged from approximately 123 percent to -62 percent. The -62 percent performance factor in the Brighton Beach network means that some customers increased consumption during the event. The test is a more complete assessment of DLRP performance as it is system wide, but the events can shed light onto characteristics of program performance under specific conditions. Performance data is summarized in Table 2 below and more detailed DLRP test and event data can be found at the end of the document in Appendix II. Note that the performance data shown in Table 2 is based on raw performance. This may differ from the load reductions used to calculate participant payments, which are capped at 100 percent or 0 percent of their individual pledged levels.

[6] Voluntary customers were enrolled in five of the networks in which DLRP events were called. Performance factor is not calculated for the DLRP voluntary customers because they do not participate in the Test event. Voluntary enrollment represents approximately 10 percent of 2012 total DLRP enrollment.

Table 2: 2012 Summary of DLRP Test & Events

Test or Event	Date	Event/Test Hours	MW Enrolled	MW Reduction Achieved	Performance Factor Achieved	Test Event Network or Zone
Event	6/20/2012	4:57 PM - 12:00 AM	4,330	1,784.660	0.41	Williamburg
Event	6/20/2012	4:57 PM - 12:00 AM	2,258	1,966.571	0.87	Sheepshead Bay
Event	6/20/2012	4:57 PM - 12:00 AM	4,061	2,498.680	0.62	Jamaica
Event	6/20/2012	4:57 PM - 12:00 AM	1,875	1,621.867	0.86	Maspeth
Event	6/20/2012	6:18 PM - 2:00 AM	2,035	1,181.441	0.58	Richmond Hill
Event	6/21/2012	8:00 AM - 3:00 PM	5,957	4,753.037	0.80	Flushing
Event	6/21/2012	8:00 PM - 3:00 AM	1,875	389.370	0.21	Park Slope
Event	6/21/2012	9:00 PM - 4:00 AM	2,258	1,966.571	0.87	Sheepshead Bay
Event	6/22/2012	7:00 AM - 2:00 PM	1,599	1,964.477	1.23	Flatbush
Event	6/22/2012	5:00 PM - 10:00 PM	4,330	1,784.660	0.41	Williamburg
Test	6/22/2012	12:00 PM - 1:00 PM	187,161	128,701.392	0.69	All Networks
Event	7/4/2012	9:06 PM - 2:00 AM	1,599	392.987	0.25	Flatbush
Event	7/5/2012	3:00 PM - 8:00 PM	1,725	259.490	0.15	Crown Heights
Event	7/16/2012	1:20 PM - 9:00 PM	2,402	999.306	0.42	Turtle Bay
Event	7/18/2012	7:09 AM - 3:00 PM	6,849	4,817.606	0.70	Sutton
Event	7/18/2012	5:09 PM - 12:30 AM	2,068	1,396.597	0.68	Ocean Parkway
Event	8/2/2012	12:00 PM - 5:00 PM	1,931	457.578	0.24	Riverdale
Event	9/16/2012	10:48 AM - 7:00 PM	1,758	-1,083.337	-0.62	Brighton Beach
Event	9/16/2012	10:48 AM - 7:00 PM	1,599	564.950	0.35	Flatbush

The DLRP test was conducted on June 22, 2012 and included all mandatory customers participating in the DLRP program at the time. Out of approximately 187 MW pledged, approximately 129 MW were curtailed, which established a 69 percent performance factor. This is a little higher than the performance factor for the 2011 DLRP test, which was approximately 67 percent. Testing the entire DLRP portfolio provides the best insight possible at this time into how demand response customers would perform over a large sample. The test provides slightly different insights than CSRP, because mandatory DLRP customers are not penalized for non-performance. In DLRP only derating is applied. This means that in subsequent months after the test or event customers with less than 100 percent performance will be paid a capacity payment based on actual performance. As the Company continues the integration of demand response into operational planning, understanding and expectations of resource performance grows and gains greater importance.

DLRP event performance is less predictable than test performance, as events deal with smaller subsets of customers in different situations (locations and call windows) in each event. The fact that a DLRP event can be called on weekends and night-time hours, which generally are low demand and low staffing times, makes the load reduction achieved less reliable for weekend and night time events. Participants in DLRP tend to pledge more conservatively because of this, and

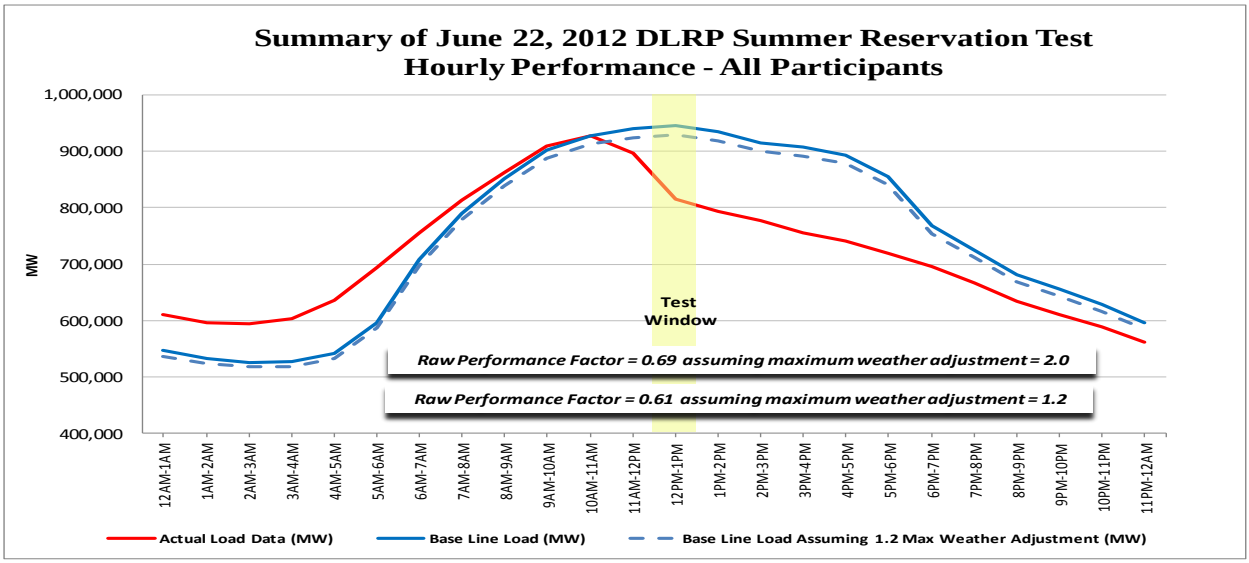
this impinges on the ability of the Company to attract greater load reduction during peak load times when it is most needed.

When viewing the summary of DLRP performance in the above table, it is important to note that the performance during events can be very heavily swayed by the particular subset of participants and their relative MW pledged in the event. A customer with a very high pledged amount, if it performs well during an event, will influence a higher performance factor for the network as a whole. Similarly, low performing large accounts have a significant negative network impact and small accounts may have minimal overall impact. This effect is lessened in DLRP tests as there are significantly more customers participating.

Customer fatigue can also play a part in the low DLRP event performance. With multiple demand response events being initiated from June 20 to June 22 (DLRP, CSRP and NYISO SCR), customers participating in multiple programs may have experienced fatigue or may have consciously decided to only participate in the programs with relatively high payments, that enact penalties or are more convenient for their operations. The DLRP events initiated on June 20 were called after the NYISO SCR program was initiated. With the NYISO SCR program paying a higher amount and having penalties for non-performance, it is likely that performance in that program, as opposed to DLRP, would be the priority of any customer that is enrolled in both. In addition, customers have the first and foremost priority of operating their core business. This is the demand response participant's essential difference to a commercial generator. When participating in multiple events begins to impinge on business operations, the customer will most likely reduce demand response participation.

DLRP Measurement and Methodology

As explained in further detail under the CSRP section, the hot weather on the day of the June 21, 2012 CSRP event was not typical of the cooler weather that was experienced for the majority of June. This was also true for the DLRP events and test that were initiated during the course of that week. As a consequence, we applied the same principles described for the June 21 CSRP event to the DLRP events and tests. This resulted in the performance factor for the DLRP test event being increased from 60 to 69 percent.



DLRP Network Impacts

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

Assessment of Network Impacts

Table 3 below shows a summary of performance data for Tiers 1, 2 and system-wide. Appendix II details program performance and network impacts as a percentage of network peaks for enrolled, anticipated and achieved reductions. The average achieved load reduction of network peaks is approximately 1.1 percent, which may be taken to indicate that DLRP has a limited impact. This will be perceived to be the case when customers are dispersed over approximately 80 networks. The key issue is to be able to continue growth which will assist in increasing the operational importance of DLRP.

Table 3: Summary of Enrolled, Anticipated, and Achieved Impact

	Enrollment & Average Impact				Total Average Impact	
	Enrolled DLRP Mandatory	DLRP Mandatory Impact	Enrolled DLRP Voluntary	DLRP Voluntary Impact	Enrolled Mandatory DLRP + Enrolled Voluntary DLRP	Performance Adjusted Mandatory DLRP + Performance Adjusted Voluntary DLRP
Tier 1 Network	166	1.66%	16.43	0.16%	1.82%	1.15%
Tier 2 Network	23	0.93%	3.80	0.16%	1.09%	0.79%
All Networks/ Load Areas	189	1.52%	20.23	0.16%	1.68%	1.08%

Assessment of DLRP Program Growth

While 2012 saw a modest increase in the number of customers participating, the enrolled kW per customer was reduced. This resulted in an overall reduction in the total MW available in 2012 as compared with 2011, with the exception of growth in the higher paying Tier 2 networks. The reduction in the total MW enrolled is a concern, but the increase in the number of participants gives hope that with the correct incentives the customers may increase the level of their participation in the program.

Table 4: DLRP Mandatory Enrollment by Tier and System-Wide

	2011 MW Enrolled	*2011 MW with Derating **	*2012 MW Enrolled*	*2012 MW with Derating **	*2012 vs. 2011 Change in MW Enrolled % Increase (Decrease)*	*2012 vs. 2011 Change in MW with Derating % Increase (Decrease)*
Tier 1 Networks	178	114	166	110	-7%	-4%
Tier 2 Networks	26	16	23	20	-12%	25%
All Networks/ Load Areas	204	130	189	130	-7%	0%

*** Derating based on Performance Factor (Values 0 to 1.0) and Voluntary enrollees excluded from table**

Table 5: DLRP Overall Enrollment by Tier and System-Wide

	2011 MW Enrolled	2011 MW with Derating *	2012 MW Enrolled	2012 MW with Derating *	2012 vs. 2011 Change in MW Enrolled % Increase (Decrease)	2012 vs. 2011 Change in MW with Derating % Increase (Decrease)
Tier 1 Networks	199	129	182	111	-9%	-14%
Tier 2 Networks	30	19	27	21	-11%	13%
All Networks/ Load Areas	229	148	209	132	-9%	-11%

*** Derating based on Performance Factor (Values 0 to 1.0). Voluntary enrollees are included in table, however; because they did not participate in DLRP test, they have not been derated**

Currently the customers have to manage their enrollment in DLRP based on the fact that they may be called to participate in events at any time. This is particularly problematic for customers with low load levels and available response staff in the overnight hours. It is generally assumed to be the case that customers who do participate in DLRP enroll a kW amount that is less than they would be able to provide at a peak consumption time in order to cater for what they are able to provide during a lower consumption time, such as overnight. This assumption has been validated by conversations with stakeholders.

The Company has considered how to maximize the benefits of DLRP resources. When a contingency event occurs the Company generally tries to maximize the impact of any demand response resources by requesting a customer response that coincides with the period of most demand on the network in question. Network events which occur over-night, for example loss of feeders, generally do not result in the immediate call of customer resources. Instead, the resources are called later in the day to coincide with network peak. This results in maximum network impact.

While there are situations where any immediate response may be helpful, we believe that requiring the customer to be able to respond during over-night hours is a barrier to program growth and as such it is our intent to change the requirements of DLRP such that calls to customers will not be initiated after 11 pm or before 6 am. This seven hour restriction leaves seventeen hours which are the hours that generally when customers are better able to have a greater impact on the distribution system. We believe this is a commonsense approach which will prove beneficial to customers and will result in growth of the available network reduction during times of most need.

3. COMMERCIAL SYSTEM RELIEF PROGRAM ("CSRP")

CSRP ("Rider S") is open to participants in Zone J (predominantly the five boroughs of New York City) 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 ("CSPs") who aggregate greater than 100 kW of demand reduction with a minimum of 21 hours notice before a planned event. A Planned Event refers to the Company's request for Load Relief when the day-ahead forecasted load level is at least 96 percent of the Company's forecasted summer system peak. In 2012 the program was expanded to allow participation by service classification SC11 customers who can increase export load to the system during events.[7]

Participants enrolled in the mandatory option of CSRP receive monthly reservation payments of $5 per kW per month. During summer periods that include five or more events, the reservation payment is $10 per kW per month. The customer is required to respond to a CSRP event for a five hour period, with the time of the event dependent on whether the customer is located in a daytime or nighttime peaking network. Customers in daytime peaking networks are called from 12pm to 5pm and customers in nighttime peaking networks are called from 5pm to 10pm. In addition to the reservation payment, participants in the mandatory option receive an energy payment that is equal to $0.50 per kWh reduced during an event. The participants in the voluntary option received $1.50 per kWh reduced during an event.

CSRP has environmental and performance requirements, including a 20 percent cap on the program resources enrolled via the use of on-site diesel or gas-turbine generation. Participation by diesel electric generating equipment must have an engine of model year vintage 2000 or newer. Enrollment by such generators is accepted on a first come, first served basis. All other electric generating equipment is limited to the following: natural gas-fired rich burn electric generating equipment that incorporates three-way catalyst emission controls; natural gas lean-burn electric generating equipment with an engine of model year vintage 2000 or newer; or electric generating equipment that has a NOx emissions level of no more than 2.96 lb/MWh.

CSRP Program Costs

The following is a representation of the costs associated with CSRP[8].

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

[8] It should be noted that effective July 1, 2012 the Company implemented a comprehensive Oracle Enterprise Resource Planning ("ERP") tool. This tool required the re-characterization of some cost elements as recorded in the prior financial system and as a consequence the allocations below may be subject to later correction.

Table 6: CSRP Program Costs

CSRP Program Costs November 2011 through October 2012		
Component	**Cost**	**Percentage**
Customer Incentives	$ 1,427,926	56%
Program Administration Con Ed	$ 440,382	17%
Program Administration Vendor		-
Program Equipment	$ 128,822	5%
Program Marketing	$ 64,756	3%
M&V	$ 469,851	19%
Total Program Costs	***$ 2,531,737***	***100%***

Customer Incentives

Customer incentives consist of energy and summer reservation payments paid to customers for their participation and performance in events and tests. Table 7 below provides information about the number of events called for CSRP in 2012. The cumulative total of customer incentives (energy payment plus summer reservation payments) amounted to $1,427,926 (56 percent of the total program cost).

Program Administration – Con Edison

Costs in this category consist of Company staff salary and overhead associated with CSRP management and support. This includes (but is not limited to) work performed by program managers, specialists and marketing staff. For 2012, the costs associated with program administration are $440,382 (seventeen percent of the total program cost.) calculated using a percentage time allocation of staff and support personnel to CSRP activities, with their associated salaries, overheads and Administrative & Supervisory ("A&S") costs.

Program Administration – Vendor

Costs in the category normally include expenses related to administrative functions performed by Con Edison vendors. For the CSRP program all administration is performed by Con Edison personnel and the M&V vendors. There were no program costs in this category during the program period.

Program Equipment

Program equipment costs typically refer to the metering and data acquisition equipment required to be installed on a customer's premises to collect interval load data. The Company's commercial demand response programs require Billing Interval Meters ("BIMs") to collect interval load data. The costs associated with BIM installation and maintenance are covered by Con Edison's Mandatory Hourly Pricing and Reactive Power Programs for customers with demands over 500 kW, or by the program participant, and are therefore not charged to the demand response accounts. This year the Company had to perform extra work to enable the presentation of 15 minutes data on a near real-time basis and these costs are included in the Program Equipment category. For 2012, Program Equipment costs amounted to $128,822 (5 percent of the total program cost).

Program Marketing

Marketing costs include all costs associated with the marketing initiatives required to inform and involve customers in the programs. In the 2012 program year, the costs associated with program

marketing were $64,756 (3 percent of the total program cost.) This program's marketing cost component does not include Con Edison staff salary associated with time spent on marketing events and marketing material design, which is included in the Program Administration – Con Edison category.

It is important to note that program marketing is also executed by third parties not under the control of the Company. However, the Company continues to provide "background" customer education of the concept to support the third party sales process. A key initiative in this regard this year was the "Load Shaping" video which provided education on how customers may better control their energy load.

Measurement and Verification
Costs included in this category are associated with the performance analysis conducted by outside consultants for the CSRP program. The Company has contracted with an outside vendor to calculate both individual and aggregate results for events and tests, and to generate various reports as necessary. These demand reduction results are used to determine appropriate payment for customers, and the aggregate effect on the Con Edison system. The workload for the vendor increased considerably this year due to the complexity of the June 21 event resulting from an atypical weather pattern, the inclusion of an export load customer for the first time, and due to the growth in participant volume. In 2012, the costs to the system were generally operation and maintenance and amounted to $469,851 (19 percent of the total program cost).

CSRP Cost Summary
Total costs for the CSRP during the 2012 program year were $2,531,737. This is an increase in costs from $1,207,406 in 2011 due to growth in participation from 2011, increase in program complexity (atypical weather calculations and export load) and as the result of costs associated with the near real time provision of the 15 minute meter data. Given the costs stated above and the benefits of 60.75 MW, the Total Resource Cost ("TRC") test value is 1.33 for the program.

CSRP Test and Event Performance

The purpose of CSRP is to reduce energy demand when the day-ahead forecast exceeds 96 percent of the forecasted summer system-wide peak. Program participants are notified at least 21 hours before the 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 customer baseline ("CBL") for the day of an event is the estimate of the customer's load level had there been no event.[9] The difference between the CBL and the actual load is used to determine the achieved performance.

Test and Event Summary
During the 2012 program year, Con Edison called two peak load shaving events. The events were on June 21 and July 18. The event duration for both events was 5 hours for both the daytime and the nighttime peaking networks. The daytime peaking network participants were called to perform between 12 pm and 5 pm and the nighttime peaking network participants were

[9] The CBL is described in more detail *infra* at p. 12.

called to perform between 5 pm and 10 pm, as per the program tariff. A summary of the event results is shown in Table 7 below. The mandatory participants produced 56.5 MW of response during the June 21, 2012 event. This response of 56.5 MW is the combination of 28.2 MW during the daytime peaking period and 28.3 MW during the night time peaking period. During the July 18, 2012 event, participants located in the daytime peaking networks produced 31 MW of response and the participants located in the night time peaking networks produced 27.3 MW of response, for a total non-coincidental response of 58.3 MW. No test event was called in 2012, since all the enrolled CSRP accounts were called for the June 21 event before a suitable test day became available.

Table 7: 2012 Summary of CSRP Test & Events

CSRP			MW Enrolled			MW Reduction Achieved			
Test or Event	Date	Event/Test Hours	Day	Night	Total	Day	Night	Total	Test Event Network or Zone
Event	6/21/2012	12 p.m. - 5 p.m. 5 p.m. - 10 p.m.	48.4	24.0	72.4	28.2	28.3	56.5	Day/Night Peaking Networks
Event	7/18/2012	12 p.m. - 5 p.m. 5 p.m. - 10 p.m.	48.4	24.0	72.4	31.0	27.3	58.3	Day/Night Peaking Networks

It is important to note that the performance data shown in Table 7 is based on achieved kW performance. Achieved performance captures the MW performance as seen by the system operator. This may differ from the load performance used to calculate participant payments, which is capped between 0 to 100 percent of the customer's network pledged level. The performance data is used to calculate a 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.

Performance of 2012 peak shaving daytime resources was in line with previous year's performance metrics. The performance factor for June 21 was 78 percent and on July 18 the performance factor was 81 percent. This is in line with 2011's average performance factor of approximately 80 percent.

Participants enrolled in 2012's night time peaking networks performed over at over 100 percent compared to 2011's 34 percent performance factor. The performance of nighttime resources increased compared to the previous year because of the high performance of a significant (~11 MW) SC11 export demand response participant.

The voluntary CSRP customers were called on June 21 and July 18, 2012. The MW enrolled and reduced is shown below in Table 8. Performance was significantly lower for the voluntary customers compared to the mandatory and the nighttime peaking networks received no reduction from the voluntary CSRP customers. It is not surprising that commercial customers find nighttime response more difficult, as their load is already low and they have limited staffing available to respond to events. While there was a reduction in voluntary participation from 2011 to 2012, a positive note is that nearly 5 MW of response was provided during the July 18 event with only an energy payment motivating the customers.

Table 8: 2012 Summary of CSRP Voluntary Test & Events

CSRPV			MW Enrolled			MW Reduction Achieved			
Test or Event	Date	Event/Test Hours	Day	Night	Total	Day	Night	Total	Test Event Network or Zone
Event	6/21/2012	12 p.m. - 5 p.m. 5 p.m. - 10 p.m.	11.37	2.40	13.77	1.53	-0.01	1.53	Day/Night Peaking Networks
Event	7/18/2012	12 p.m. - 5 p.m. 5 p.m. - 10 p.m.	11.37	2.40	13.77	4.74	0.08	4.81	Day/Night Peaking Networks

CSRP Measurement and Methodology

The CBL used to evaluate performance is critically important when analyzing demand response program performance. A CBL is a representation of a customer's average hourly consumption based on the top five similar days of energy usage within the 30-day period prior to an event. The CBL is used to calculate a customer's demand response performance during an event by taking the difference of the CBL and the customer's actual load on the event day. Customer have the choice of selecting an average day or weather adjusted CBL depending on how they believe their load is normally impacted by changes in the weather (usually heat). 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.

This methodology has proven to be effective in measuring customer performance during demand response events. However, when the methodology was applied to the June 21, 2012 event a significant under performance by the vast majority of customers was identified. It quickly became apparent that while customers had taken steps to respond to the demand response event, the customers' actions were not being fully recognized.

We took steps to study this event, and the subsequent July events for comparison, and concluded that there was a case to be made for the weather adjustment cap being overly restrictive based on the very specific and unusual weather circumstance of this event. In this case the weather for the month of June leading up to the event was, on average, over 20 degrees cooler than the actual event day.

Identifying the anomalous nature of the event proved to be the easy part. Our challenge was to establish an objective standard for determining when the weather adjustment is overly restrictive, since it is important to not set a poor precedent by making what could be considered an arbitrary change to the cap.

As a first step the Company created heat and humidity models in order to confirm the suspected unusual circumstance, but these only give it an indication of an anomaly, they did not serve to quantify the range of load impact. For this reason the Company developed a control group by taking its original data set of meter readings for these customers and filtering out customers with data gaps, resulting in 140 diverse customer types (commercial buildings, residential buildings, etc.) which the Company knows did not participate in any demand response events (NYISO or Con Edison). The Company then ran baselines against this control group to determine the load variation for this group against the average day baseline methodology. The chart below shows a

variation factor of 2.0, as opposed to the standard weather adjustment cap of 1.2. Also included below is a chart using the same control group for the July 18 event to confirm that the 1.2 was appropriate for that "normal" event.

While the Company intend to do further work to develop a more robust control panel methodology, this pool of customers allows us to have 95 percent level of confidence in a seven percent variation potential from the results that may be expected from the full population. As we did not want to delay responding to the aggregators and their customers on this matter, we felt it was appropriate to move forward based on this analysis.

The Company advised Department of Public Service Staff of our belief that the tariff grants us leave to amend the baseline where appropriate. The specific tariff language is as follows:

> *When the weather-adjusted CBL methodology is used and the weather adjustment falls outside of the NYISO defined ranges (i.e. the weather is atypical on the day of the Planned Event, Contingency Event, or Test Event), the Company may review and revise a participant's baseline based on the Customer's historical load data.*[10]

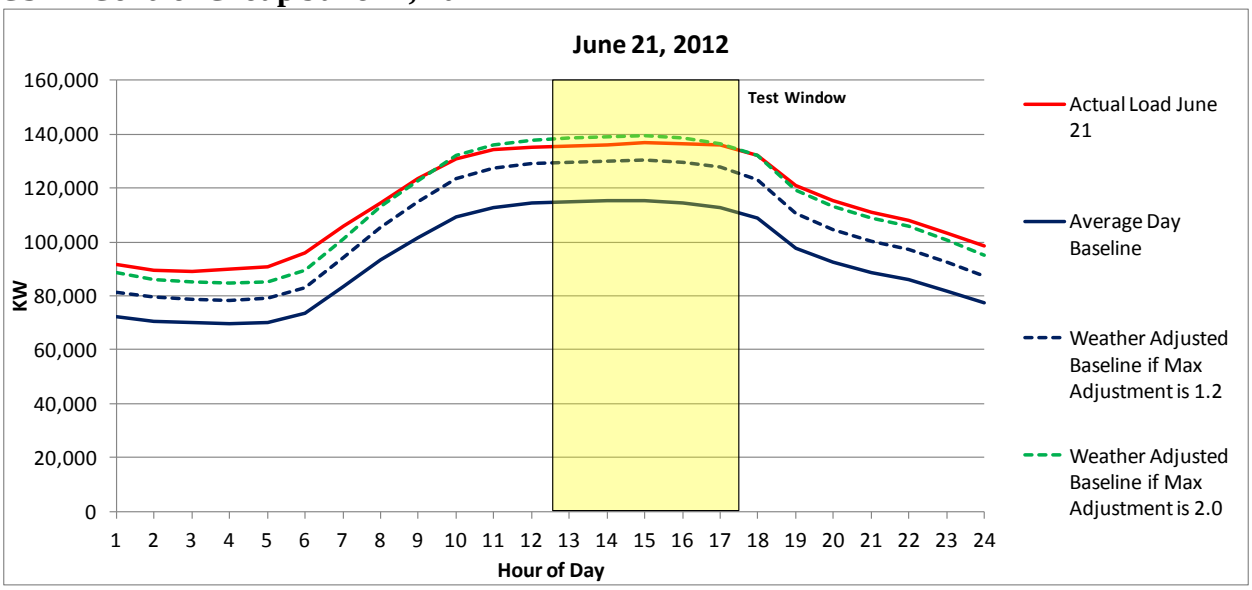
The tariff provides the Company with no guidelines as to how to revise a participant's baseline, other than stating that it must be based upon the participant's historical load data. As a consequence we raised the weather adjustment cap for the June event from 1.2 to 2.0 based upon the variation factor discussed above and then followed the normal performance calculation process. For example, where a specific customer had an adjustment level of 1.48, instead of being capped at 1.2 we calculated performance at 1.48. This decision was important as it had an impact on the performance calculation for all subsequent months.

The Company notes that under normal circumstance, on average, 97 percent of customers are covered by the 1.20 weather adjustment level, whereas under the June event only 59 percent were covered. The variation up to 2.0 will result in 98 percent of customers being covered. Obviously customers who had selected the average day baseline, with no weather adjustment, were not impacted.

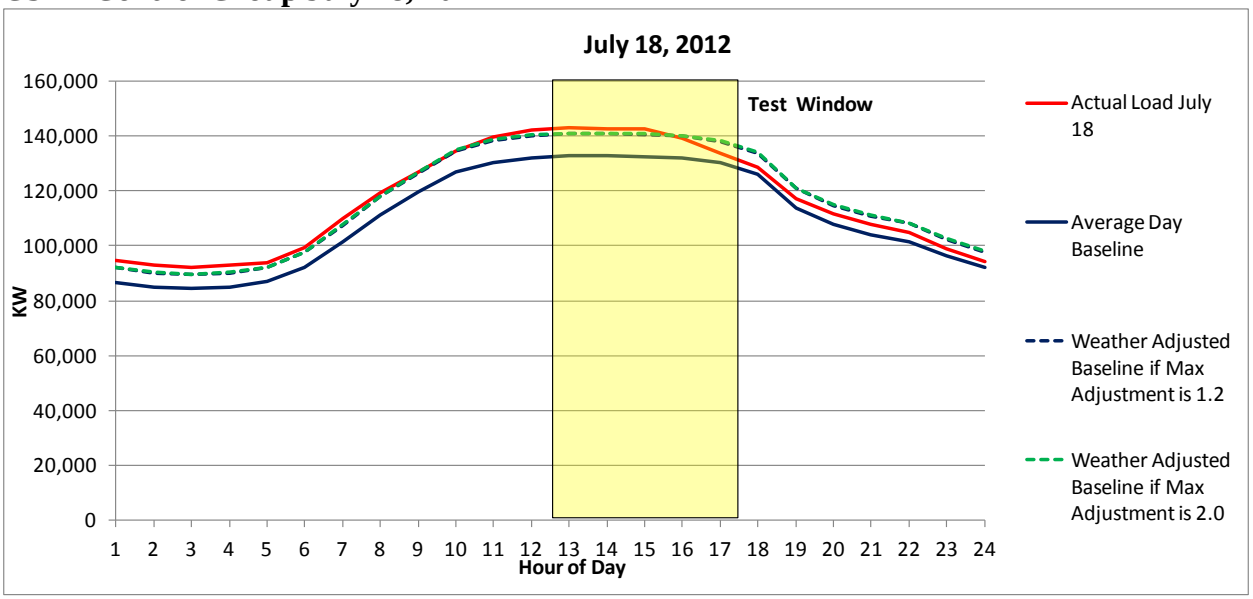
[10] Rider S (Leaf 255).

The following charts provide a representation of the analysis discussed above.

CSRP Control Group June 21, 2012



CSRP Control Group July 18, 2012



CSRP System Impacts

The goal of the Company's peak shaving programs is to reduce the level of system peak so that more flexibility may be enabled in network design with the associated benefit of reduced customer costs. While the peak shaving programs are in the early stages of development, as illustrated in Table 9 below we already are seeing growth in the impact of the programs on the network peaks. The average network impact of 0.51 percent for 2012 is a significant increase over the 2011 level of 0.25 percent. Full performance data for all networks is presented in the appendices at the end of this report.

Table 9: Summary of Enrolled Anticipated and Achieved Impact

CSRP	Enrollment & Average Impact				Total Average Impact	
Test or Event	Enrolled CSRP Summer Reservation	CSRP Summer Reservation Impact	Enrolled CSRP Voluntary	CSRP Voluntary Impact	Enrolled CSRP Summer Reservation & CSRP Voluntary	Performance Adjusted CSRP Summer Reservation & CSRP Voluntary
Day Peaking Networks	48.4	0.89%	10.9	0.20%	1.10%	0.66%
Night Peaking Networks	24	0.34%	2.9	0.04%	0.38%	0.39%
All Networks/ Load Areas	72.4	0.58%	13.8	0.11%	0.69%	0.51%

Enrolled is defined as the total pledged MWs in a network, without adjusting for performance factor.
Performance Adjusted is defined as the total pledged MWs in a network, adjusting for performance factor.

Assessment of CSRP Program Growth

For the mandatory option of CSRP, enrollment in both the day and nighttime peaking networks has significantly increased in 2012. Much of the increase is the result of the continued favorable response to the program changes implemented in 2011 and 2012. CSRP had a very low 0.5 MW enrolled for summer 2010 and has now grown to 72.4 MW. An analysis of Con Edison's DLRP shows that only 38 percent of its resources have enrolled in CSRP, which suggests there may be potential to enroll more of these customers in CSRP.

In addition to the growth in enrollment in CSRP, it is also encouraging to see increased participant understanding of how the program operates, which will hopefully drive confidence for customers to commit more load and for aggregators to enroll more customers.

The Company is pleased that participation in CSRP continues to grow and that customer understanding is improving. The program is at a relatively early stage of growth and must continue along this path to capitalize on the investments made thus far.

The Company continues to investigate additional channels to market for CSRP, not least is the need to combine education of demand response offerings such as CSRP with broader customer energy discussions. The Company also understands that the economics and ease of operation must be as compelling to the market as it is operationally and economically viable at this stage of program growth.

Increased enrollment in CSRP indicates that the effort to simplify the program offering beginning in 2011 has been effective. However, the program is still considered to be in its early stages of growth in 2012, with total enrolled peak shaving capacity at about a half of one percent of the system peak demand. The Company recognizes that substantial additional enrollment growth is necessary for the commercial peak shaving to have any significant positive impact on the costs of operating the distribution system. The Company believes that while further program evolution can be expected, CSRP serves as an effective vehicle to market commercial peak shaving and that operation of this program should continue.

4. UPDATE ON METER DATA ACCESS PLAN

In its Order issued and effective July 14th, 2011, the Commission approved the Company's Plan for Providing Commercial Demand Response Participants with Access to Meter Data in a Manner that Supports Market Requirements and Customer Needs ("Plan"). The Plan provides commercial customers with 15-minute interval data on a close to real time basis during the Company's demand response events.

The Company has contracted with Itron, the Company's current meter data access and MDMS provider, to provide a solution using Itron equipment which is embedded within the Company's meter reading and data presentation application. At the end of the 2012 summer period, a user activity assessment of the 15 minute interval data application was made. The results were that there were approximately 900 customers and customer representatives configured in the application. Of these 900 users, 53 users specifically accessed application reports during the period, however, there was not a high correlation of system access by the users with actual event times. Two reports were predominantly accessed, the Monitoring Report used to view interval consumption data during demand response events and the Event Report used to view event results after the event is complete. The hope is that as the programs develop and more users become familiar with the application, usage will increase and the application will become a more widely accessed tool during events for participants to better manage their commitment in the program.

5. SC 11 CUSTOMERS - EXPORT DEMAND RESPONSE

In accordance with the Company's SC 11 tariff, demand response export capacity was accepted as load relief during peak shaving and contingency events in 2012. One large customer participated during the summer with a total demand response export capacity of 11.4 MW. This resource was called to perform for a contingency program test, and called for the two peak shaving program events. Performance was over 100 percent.

The Company believes that this resource is essentially a supply resource, rather than a demand resource, but in compliance with Commission requirements, the Company allows such resources to participate in its demand response programs. The Company believes that supply solutions should be serviced via the bulk supply market based products rather than distribution demand response products.

However, the Company recognizes the need to consider and support alternative solutions and as such is committed to further investigating the operational opportunities for resources such as those provided by the SC11 export customers.

6. COMMERCIAL PROGRAM CONCLUSIONS

The DLRP continues to be the Company's largest demand response program by MW volume. Many participants have been enrolled in the program for multiple years and it is the platform participants use to explore other demand side management opportunities that the Company offers. However, the program has not grown over recent times by MW enrolled. Growth of this program is important in order to have the required operational impact on the networks to the level to justify the continuation of the program.

The CSRP has seen steady growth since its inception three years ago. The growth is positive but with the vast majority of the participants being customers that were already enrolled in DLRP, CSRP has not brought new customers to demand response. Like DLRP significant CSRP volume growth is required to garner operational benefit.

The value of demand response in the context of network operations is not linear. Small percentages of load reduction do not change how the company must respond to a network contingency. In this context growth is important for the viability of the program. Two key aspects of program growth are financial incentive and ease of participation for customers and other market actors (aggregators/curtailment services providers, building managers, etc.). The Company continues to investigate the opportunity for greater financial incentives for both DLRP and CSRP to determine whether increases may prudently be applied.

In regard to ease of use the Company intends filing to change DLRP so customers are not called to participate after 11pm or before 6am. As discussed in the DLRP section the assumption is that this will encourage more customers to participate in the program and will allow for larger load commitment during the responding hours.

The Company looks forward to driving further growth in these programs in the coming years.

RESIDENTIAL DEMAND RESPONSE PROGRAMS

7. DIRECT LOAD CONTROL PROGRAM ("DLC")

The DLC program is comprised of two program components, the Residential Direct Load Control Component (the "Residential" or "Residential Component") and the Business Direct Load Control Component (the "Business" or "Business Component"). These DLC program components were designed to support electric system reliability and reduce operational costs in the Company's service territory. At times of critical system need, the DLC program provides electric load reductions from central air conditioners operated by residential and small business customers. The DLC program allows the Company to remotely curtail system demand utilizing radio communication enabled thermostats that control participants' central air conditioning units. These communication enabled thermostats are provided to customers by the Company and also enable customers to remotely control their central air conditioning units. Customers have the ability at all times to over-ride any control condition the Company has applied to their air conditioning unit. DLC participants are able to program their thermostats via the Internet or a smart phone.

The thermostats that are installed for both DLC program components use the Carrier ComfortChoice ^{SM} technology. One of the major benefits of this technology is the thermostat's ability to store seven days of compressor run-time data and temperatures. When combined with connected load information catalogued at the time of installation (adjusted to reflect maximum kW draw), this data can be used to produce an accurate estimate of hourly load reductions during curtailment events.

Customers apply to participate in the DLC Program either by calling the toll-free customer information service ("Infoline") or by visiting the DLC section of the Company's website. Residential participants receive a $25 incentive, and businesses receive $50, per unique address after their thermostats are successfully installed. When programmed properly, the thermostats provide customers with energy efficiency benefits by enabling them to program and adjust their temperature settings either manually or remotely via the Internet or mobile phone. Because the Carrier thermostats are equipped with two-way communicating technology, the Company can quantify energy efficiency benefits with certainty.

During the 2012 summer peak period, the DLC program was triggered by a Company declared test event, nine contingency events called by the NYISO, and 20 networks events called by the Company. During the 2011 summer capability period, the Company noticed that after the NYISO called its events to alleviate stress on the transmission system during the day in some of our night peaking networks, the power used by those customers spiked after the event ended and increased the network peak in an already stressed network. To minimize this effect in the night time peaking networks, Con Edison withdrew some of its nighttime peaking resources located in Staten Island and Westchester from the NYISO SCR program and instead cycled load after the NYISO events. The results of this strategy were positive and the negative impact of the NYISO events was reduced.

Program Highlights and Activities

The DLC Program has been in existence since 2002, with a high level of customer retention, and while a successful platform has been created continuation and growth of the program will require

strategic decisions in the short-term as equipment warranties reach completion and new technologies (communication and equipment) create new challenges and opportunities. Key aspects of the program are discussed further below.

Program Enrollment

Program enrollment has proved challenging in 2012. By December 31, 2012, the Company expects that of its Business Component goal of 500 thermostats, a total of 411 thermostats (89 thermostats or 12 percent less than goal) will have been installed. Against the Residential goal of 3,000 thermostats, a total of 1,051 thermostats (1,949 thermostats or 65 percent less than goal) will have been installed. A key driver for the reduced customer enrollment was the decision to deploy a new targeted marketing approach which did not result in the cost-effective benefits and outcomes that had been projected.

The Company projects that 1,197 residential and business thermostats will be removed from the Program, or 3.8 percent attrition, which is slightly higher than Program expectations. The primary reasons for increased attrition is that the Company was able to resolve and close-out a number of thermostats previously reported as non-communicating but remained unresolved. Natural attrition outside of this set of devices totaled 310 or one percent attrition, which is below the industry average of three percent and in-line with the Company's expectations.

At year-end of 2012, the Company expects to have a total of 30,400 thermostats installed, 23,056 residential thermostats and 7,345 business thermostats. These thermostats represent approximately 34.3 MW of potential load reduction.

Program Marketing

There are two key elements of the marketing approach for this program. These are how we target customers to contact and then the type of material we send to these customers. This year the Company deployed a new marketing algorithm which was hoped to better identify and target customers. This targeting did not achieve the expected success and as a consequence the Company is working to re-design this algorithm and subsequent customer targeting.

On a more positive note the Company developed and deployed new marketing material this year which we believe will serve as the basis for the further enhancement of our approach to customers. A key development has been material targeted to key market segments within the greater potential population. Initial reaction to this targeted material has been positive in a number of customer segments and we will use this response to inform the approach in the other segments.

The development of the new marketing strategy delayed the customer approach, which resulted in a shorter communication period prior to the optimum enrollment period.

In the context of program performance, marketing materials and communication with customers remain key areas of focus. Customer education and awareness are required to maintain existing customer engagement in the DLC program, while also enabling the recruitment of new customers into the program.

The marketing approach focuses on the customers' preferences based on their demographics. The potential customers were segmented into four categories based on their preferences or motivations. The motivation categories were; desire for new technology; environmental improvement; financial reward or general category[11].

The greatest number of leads came from the customers who are motivated by financial reward. The financial reward in question is both the initial program payment and the savings the customer is able to secure by using the technology effectively to manage their energy consumption.

The marketing messages always emphasize the benefits of enrolling in the DLC Program, including the free thermostat and installation, a $300 value, and a thank you gift of $25 for a residential customer and $50 for a business customer. In addition the materials highlight the economic benefits to the customers of gaining better control of their air conditioning and stopping or reducing air conditioning use at appropriate times.

Direct mail generates significant customer interest and leads for the program. Based on leads received through September, we estimate over 850 of those who are sent direct mail will apply for the program. The number of applicants who self-report applying due to receipt of a ground mail piece, is slightly higher. This may be attributed to customers receiving mail a prior year and converting to leads based on repeated messaging from multiple channels. This year we conducted more email marketing for the program. Almost 300 applicants indicated that they replied in response to an email solicitation.

Based on the new algorithm, direct mail was sent to approximately 152,630 potential participants, a 45 percent decrease from the previous year, to target our customers more efficiently. Based on year-end projected lead totals, the cost effective for both program segments declined. The residential customer campaign went from $73.62 per lead to $91.77 per lead, the business customer campaign went from $83.34 per lead to $114.55 per lead. The Company believes there are several reasons for the business customer segment becoming less cost effective. Possibly the most challenging and impactful is that the material does not reach the key business decision maker. We are confident improvements can be made to more effectively reach the decision makers in small business via a more robust cross marketing campaign between the DLC and energy efficiency programs and by targeting industry events.

A separate program flyer was developed to generate customer interest at public events. The flyer is distributed at trade shows, various presentations and provided to the Company's Economic Development staff for distribution to each borough. The focus of the flyer is the free thermostat and installation, new technology, managing energy use and reliable power within the community. The flyer provides customer program and enrollment information and includes the DLC Program toll-free number and website address.

DLC Program staff communicates with participants throughout the year. In May 2012, a pre-season direct mailer was sent out to all participants of the DLC Program. The mailing reminds customers to have their air filters replaced before the season starts and that they can program the

[11] This category represents the customers with a range of discrete motivators.

thermostat by the internet or their mobile phone feature. Participants were also invited to receive a program bonus if they refer a new participant to the program. Residential customers who refer a new customer were provided a $5 Amazon gift code and commercial customers were provided a $10 gift code.

Other marketing pathways include; social media (Facebook); other Company Energy Efficiency events and media; and bill messaging.

Technical Turndown

A technical turndown occurs when a customer signs up for the program and schedules an installation appointment, but after arriving at the customer's location the installer is unable to complete the installation for reasons related to the customer's air conditioning system or equipment. The professional installer will identify the problem with air conditioning equipment so the customer may have the equipment repaired as needed. During the scheduling process, customers are asked a series of screening questions designed to detect circumstances that have the potential to result in technical turndowns and therefore avoid the visit of an installer when the work cannot be completed. The most common reasons for technical turndowns are incompatible wiring, customer central air conditioning system malfunctions, and customer equipment inaccessibility.

There were 149 residential customers technically turned down and there were 71 businesses technically turned down in 2012.

Program Attrition

Customers leave the program or choose to have their thermostats removed for a variety of reasons. A thermostat that stops communicating with the system for an extended period of time is assigned a Non-Responding Thermostat ("NRT") status. The DLC Program administrator will then undertake efforts to contact the customer to determine why the thermostat is not communicating.

If the administrator is unable to contact the customer after multiple attempts, the customer is classified as a "dropout" and is considered removed through attrition. If one of these customers calls the vendor Infoline 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, it may be determined that the customer had the thermostat removed by its own contractor without notifying the program administrator or the Company. In these cases, the thermostat and customer are noted as dropping out of the DLC Program, ("Dropouts"). Although the thermostat is the customer's property, whenever possible the thermostat is recovered from the customer and recycled back into the Program.

In some cases customers may contact the DLC program administrator and request that their thermostats be removed. When this occurs, the Program administrator will attempt to determine if there is a problem that can be resolved, including a service visit if needed. If there is no resolution acceptable to the customer, a technician is sent to remove the thermostat. The

thermostat and customer are then classified as de-installed. The table following summarizes program activity.

Table 10: DLC 2012 Program Attrition*

Activity	Residential	Business
Drop Out	492	543
De-Installs	108	54
Total Thermostats Removed	**600**	**597**

*** Includes estimates for Oct, Nov, Dec**

We project that a total of 600 thermostats will be removed from the Residential Component and 597 from the Business Component in 2012. The overall attrition rate is just under four percent but the attrition rate in the Business Component, at 7.4 percent, is of concern. Mitigating this Business Component attrition will be a focus for the program going forward. A majority of the customers who drop out of the program did so because of a non-communicating thermostat. The Company's is investigating potential options for mitigating thermostat communication issues, such as different equipment and communication pathways (broadband, cellular), which it is hoped will reduce customer de-installs.

Customer Service

The vendor Infoline was established to provide a wide spectrum of customer service for the residential and business customers, including, but not limited to, helping customers apply for the DLC Program, answering scheduling questions, and handling incentive check inquiries.

The Infoline is available 24 hours a day, seven days a week. During 2012 we estimate that 9,478 calls will be received. The DLC Infoline coordinates with the Company's Energy Efficiency call centers and will continue these efforts.

Following are the most frequently received calls to the Infoline;

- Application Leads – Submitting an application by phone, or asking general questions about the program before applying.
- Equipment – Any calls related to equipment operations are grouped within this category, including the most common calls, "No air conditioning" or "No heat." When these calls occur, the first step is to review the settings of the thermostat to make sure it is properly set for heating or cooling. If the thermostat has no display (blank screen), the customer is asked to check all circuit breakers and switches. If the thermostat appears to be working correctly, the Infoline staff explains that this was not a thermostat issue, advising the customer to call his or her own service company. If the issue appears to be thermostat-related, the customer's information is given to the program contractor to schedule a service visit.
- Thermostat issues – The Infoline representative explains how to use the thermostat, and guides the participant through the programming features.
- Internet feature – Customers are taken step-by-step through the process of programming their thermostats through the Internet or their mobile phone. Passwords are reset for those who have forgotten them. One very important part of the internet

feature is the ability to assist customers who are unable to see the display clearly, unable to physically get to the thermostat, and, while not at home, have their heat or central air conditioning turned on/off or set point adjusted.

- De-install requests – Any participant who is not satisfied with the thermostat or the DLC Program, and contacts the Infoline, is asked why he or she is dissatisfied, and an attempt is made to resolve the issue. The thermostat features and operation are reviewed. If the customer still wants the thermostat removed, a service visit is scheduled for the removal of the equipment. The customer must have a replacement thermostat at time of the de-install, which is generally not an issue because the installers leave the old thermostat with the participant when they perform the initial install.

Program Events

During the 2012 summer period the DLC program was called on more occasions than has historically been the case. While some of this was due to increased activity in peak shaving events, the main driver was due to the region experiencing the hottest July on record. However, on average, Con Edison achieved the expected per thermostat reductions.

The Company has mitigated aspects of the DLC costs by taking advantage of payments from the New York Independent System Operator ("NYISO") Small Customer Aggregation Portfolio. The DLC Program was activated seven times during the 2012 summer period in response to NYISO requests on May 29, June 20, June 21, June 22, July 17, and July 18. A system wide test curtailment event was called on July 6.

Con Edison also called a total of twenty network contingency events, seven in the daytime and thirteen in the evening, over 10 separate days in the 2012 summer period.

On June 20, Con Edison called four network events, with all four in the evening. On June 21, Con Edison called four network events, one in the daytime and three in the evening. On June 22, Con Edison called three network events, two in the daytime and one in the evening. On July 4, Con Edison called one network event in the evening. On July 5, Con Edison called one network event in the evening. On July 16, Con Edison called one network event in the daytime. On July 17, Con Edison called three network events, with all three in the evening. On July 18, Con Edison called one network event in the daytime. On August 2, Con Edison called one network event in the daytime. On September 16, Con Edison called one network event in the daytime. The performance details for each event are identified in Figures contained in the pages at the end of the document.

The NYISO directed Con Edison to initiate two curtailment events in Zones H, I and J, one on July 21, 2012 and the second on July 22, 2012. Con Edison had participation in Zones I and J. On average, Con Edison achieved its estimated1.0 and 1.4 kW reduction per thermostat.

Con Edison initiated nine contingency network events during the evening on the same day as the NYISO curtailment events on July 22, 2012 in which the DLC Program participated.

The summer 2012 event book, further detailing all program events, can be found in the appendices.

DLC Program Costs

The following are a representation of the costs associated with DLC[12].

As indicated on Table 11 below, the total program costs incurred in 2012 are expected to be under the $4 million allocated budget. It should be noted that the Company's internal program administration costs are not included in the budget of $4 million as they are not funded via the Monthly Adjustment Clause ("MAC"). However, these costs are included in the TRC benefit cost analysis.

The Company has mitigated aspects of the DLC costs with payments from the NYISO Small Customer Aggregation Portfolio and NYSERDA for agreed equipment subsidies.

Table 11: DLC Program Costs 2012

DLC Program Costs			
Component	**Cost**		**Percentage**
Program Implementation Vendor/ Other	$	1,771,711	64%
Program Equipment	$	901,568	32%
Program Marketing	$	86,203	3%
Program Administrative Con Ed	$	-	-
Customer Incentives	$	26,076	1%
Total Program Costs	***$***	***2,785,558***	***100%***

Program Implementation – Vendor/Other
Costs in this category include expenses related to administrative functions performed by Con Edison's vendors. The costs in this category amounted to $1,771,711.

Equipment
Program equipment costs refer to the thermostat and other equipment related to installing the thermostat, website hosting and communication fees. The costs in this category amounted to $901,568.

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, literature direct mailings, website development, and promotional events. The costs in this category amounted to $86,203.

Program Administration – Con Edison
Program administration - Con Edison includes, but is not limited to, one Con Edison program manager, a program specialist, and an estimate for program marketing, legal, 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 budget numbers presented. However, these

[12] It should be noted that effective July 1, 2012 the Company implemented a comprehensive Oracle Enterprise Resource Planning ("ERP") tool. This tool required the re-characterization of some cost elements as recorded in the prior financial system and as a consequence the allocations below may be subject to later correction.

costs are included in the total resources cost test for this program. Costs for this category were $230,000 for DLC this year.

Customer Incentives
Customer incentives consist of all payments to customers for program participation based on program design. Costs for this category totaled $26,075.

DLC Cost Effectiveness

The 2012 DLC Program was determined by the Company to be cost effective by applying the TRC test to the residential component, business component, and combined residential and business.

In order to perform the TRC analysis, the following assumptions were made:

- This analysis includes actual benefits and costs from January through September and estimated figures for the months of October, November, and December 2012.

- Thermostats are estimated to have a 10-year life. Thus, the benefits and costs of the program were calculated over 10 years for thermostats installed in 2012. Costs and benefits for thermostats installed prior to 2012 were assessed using a reasonable estimate for average remaining useful life of six years.

- TRC calculations include administration, implementation, maintenance and marketing costs. Installation costs were calculated using 2012 adjusted installation and equipment costs. Maintenance costs were calculated using 2012 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 each of the three TRC calculations included capacity and energy benefits derived from the Long Range Avoided Costs ("LRACs") published by the Commission in its January 16th 2009 *Order Approving "Fast Track" Utility-Administered Electric Energy Efficiency Programs with Modifications* in Case 08-E-1007.

- Energy benefits were revised to reflect energy prices during peak hours, due to the focus on peak reduction of demand response.

- The calculation for the kW reduction per thermostat is 1.0 kW for residential customers and 1.4 kW for business customers.

- The capacity benefits were based on the LRACs, but exclude the 16.5 percent capacity reserve margin in order to be consistent with the NYISO; NYISO excludes this factor for DLC enrollment in its SCR program. Capacity savings are based on tests and events conducted and analyses of potential reductions conducted by the Applied Energy Group ("AEG"), the Company's implementation contractor for the DLC program.

- Energy savings are an estimate of the MWhs resulting from 2012 tests and events. Estimated level of energy savings is assumed for each year going forward.

No monitoring or verification of energy efficiency benefits from such customer programming has been conducted to date, since encouraging energy efficiency is not the focus of the program. Any benefits resulting from such customer programming would be difficult to retroactively quantify. However, any such benefits are additional to the measured and verified benefits resulting from the program and would, therefore, strengthen the TRCs for the Program.

For the program year 2012, if energy savings were calculated based on customer thermostats' settings, the TRC benefits would increase to 2.25 from 1.67.

Cost Effectiveness Summary

As in previous years, Company has determined that the DLC program has proven to be cost effective based on the TRC test, by having a benefit/cost ratio over one.

The Business Component is more cost effective than the residential. One of the reasons for this is that the Company gets a larger kW reduction from the Business Component than the Residential Component. The Company continues to analyze and refine its marketing as necessary.

Table 12: DLC Residential TRC's

Residential Component		
Costs of the Program	$	3,379,532
Benefits of the Program	$	5,219,664
Net Present Value of the Total Resource Costs	$	1,840,133
Benefit-Cost Ration of the Total Resource Costs		1.54

Table 13: DLC Small Business TRC's

Small Business Component		
Costs of the Program	$	1,535,282
Benefits of the Program	$	2,995,529
Net Present Value of the Total Resource Costs	$	1,460,347
Benefit-Cost Ration of the Total Resource Costs		1.95

Table 14: DLC Residential and Small Business TRC's

Total: Residential Component + Small Business Component		
Costs of the Program	$	4,914,813
Benefits of the Program	$	8,215,193
Net Present Value of the Total Resource Costs	$	3,300,380
Benefit-Cost Ration of the Total Resource Costs		1.67

Customer Satisfaction

After the summer season a customer satisfaction survey is sent to 500 residential and business participants. The results of the 2011 survey were not available until after the 2011 version of this evaluation report was issued. Some key outcomes of 2011 survey are:

- A wide majority of those surveyed report being satisfied with the program (93% Residential and 89% Business)
- The most common reasons to participate in the program were: the free thermostat (79% and 66%), managing energy use (56% and 53%), helping ensure reliable power for their community (47% and 43%), and the incentive (43% and 41%).
- A minority of participants have used the internet programming feature (15% and 24%), and even less have used the mobile phone programming feature (5% and 5%). The primary reasons were lack of awareness (23% and 28%), non-interest (25% and 14%) for the Internet feature. A similar pattern emerged for not using the mobile phone features.
- A significant portion of participants reported overriding their thermostat during at least one curtailment event during the year (30% and 49%) with the primary reason being comfort issues for excessive heat.
- A small number of participants reported contacting the Infoline (3% and 2%) but the majority of those that contacted the Infoline reported that the Infoline was helpful (84% and 82%).

In this year's survey we intend to ask similar questions with the addition of a question asking whether homes/businesses have broadband internet access to inform our plans regarding emerging technology.

The Company's DLC website, www.coned.com/cool, acts as an essential component of the DLC program's marketing and customer information. The site provides eligibility information, program benefits, enrollment application and frequently asked questions, and is a source of lead generation.

DLC Program Summary

In its most recent filing to the PSC in late 2012, Con Edison has requested an expansion of the DLC program and permission to upgrade program equipment and communications technology, with increased funding. In brief summary, the issues are: first, the earliest thermostats have come to the end of their calculated life span. Although there is no correlation between thermostat lifespan and failure and need for replacement, this is an important factor to consider in planning for the future of the program. Also, the communication technology, pager signal, is having increased competition from the broadband and cellular communication providers and may be rendered obsolete. Our counterparts in other utilities and our thermostat manufacturer, Carrier, are making investments in broadband technology. Con Edison has requested funding from the PSC to begin replacing current paging technology and installing new technology with broader application.

Other challenges that the Company are working to overcome are misconceptions about demand response (e.g. customer comfort impacts) and existing penetration of competing programmable thermostats in the market.

In 2011, Con Edison was given authority under the September 22, 2010 Commission Order to pilot DLC technology in big box stores. Con Edison has piloted with one big box store with two locations in the Bronx with installations in 2012 to test technology. The technology worked as it was intended. The stores achieved the expected load management, energy efficiency and demand response reductions. Moving forward, the Company will continue discussions with the vendor to discuss the best fit for the placement of the technology within energy efficiency and demand response offerings.

8. RESIDENTIAL SMART APPLIANCE PROGRAM ("RSAP")

Historically the Company has only operated one residential demand response program, the DLC Program, focused on system contingency situations and providing customers with a free thermostat and $25 or $50, for residential or business customers respectively, after thermostat installation, in exchange for allowing the Company to cycle central air conditioning equipment. The original motivation for RSAP was to extend demand response to a broader population with the next most significant plug load in the home - the room air conditioner.[13] The Company investigated technology available at the time to enable control of room air conditioners for participation in demand response and developed potential program economics. At the time of program design, there were no smart appliances widely deployed in the market with the "smart technology" built into the appliance. Recognizing this market condition, the Company developed a plan to incent penetration of smart appliances and networking solutions to control household devices, with a specific focus on room air conditioners. To accurately measure customer performance, the Company initially targeted customers with Automated Meter Reading ("AMR") meters.

RSAP participants receive a free home energy management system with installation and technology that supports participants to manage and reduce energy demand. Eligible participants must have an AMR meter, a minimum of two room air conditioners and broadband. In exchange for the free equipment and the ability to monitor and manage energy use, customers allow Con Edison to have direct control of their enrolled appliances, which are cycled on and off during a load reduction event. For their personal comfort and convenience, participants can manually override Con Edison's request during these events. Participants that do not override in all test hours, and at least 80 percent of event hours, will receive an end of season payment in the amount of $10 for each enrolled room air conditioner and $10 for the combination of other enrolled appliances.

RSAP targets peak shaving demand response from a wide cross-section of residential customers with room air conditioners in the New York City (NYISO Zone J) service territory. The program is activated by Con Edison when the day ahead forecast is 96 percent (or greater) of the forecasted summer peak demand.

RSAP completed its third and final year of the pilot program in 2012. The focus of the 2012 program year was to increase enrollment, engage and educate participants in the demand response technology, and improve program performance. The program grew 50 percent from the prior summer (2011), ending with 165 participants. The Company used an email campaign to keep customers engaged throughout the winter and summer periods. The end of year survey provided positive feedback and usage information regarding the technology. The program performed as expected, with an additional effort of the program management to remedy any communication/connection issues with the technology installed in participant's homes.

[13] RSAP was approved as a two-year pilot program for 2010 and 2011. A third year was added and approved so that the program currently runs through the end of 2012.

RSAP Program Costs

The following are a representation of the costs associated with RSAP[14].

Table 15: RSAP Program Costs

RSAP Program Costs November 2011 through October 2012		
Component	**Cost**	**Percentage**
Customer Incentives	$ 2,750	1%
Program Administration Con ED	$ 98,052	30%
Program Administration Vendor	$ 154,694	48%
Program Equipment	$ 29,970	9%
Program Marketing	$ -	0%
Measurement & Verification	$ 37,302	12%
2012 Program Costs	**$ 322,768**	**100%**
Total Program Costs - YTD	***$ 1,785,794***	***81%***

Customer Incentives

Customers receive incentive payments for their participation in events, tests and surveys. For the 2012 program year, incentive payments were made to customers for their participation in the peak load shaving events called on June 21 and July 18, and for their response to the end of year survey. The cumulative customer incentives amounted to $2,750. While customer incentives increased from last year, in direct relation to the number of enrolled appliances, they continue to be the lowest component of program costs. Monetary incentives are not the driving force for RSAP participation.

Program Administration – Con Edison

Program Administration – Con Edison consists of Company staff salary and overheads associated with RSAP management and support. The costs associated with program administration are $98,052. The program administration costs remain relatively the same during the three year period.

Program Administration – Vendor

Program Implementation Vendor/Other are the expenses associated with consultants contracted by Con Edison, mainly Tendril Inc. ("Tendril"), the RSAP program implementation vendor. Tendril provides the energy management technology and associated services. In 2012, these costs amounted to $154,694 and include administration, installation support, and customer care.

Program Equipment

Program equipment costs include the hardware for the home energy management system, installation costs, installer training and monthly software licensing fees. The cumulative program equipment costs amounted to $29,970. These program equipment costs were very low as they only covered installation; a majority of the hardware was purchased last year.

[14] It should be noted that effective July 1, 2012 the Company implemented a comprehensive Oracle Enterprise Resource Planning ("ERP") tool. This tool required the re-characterization of some cost elements as recorded in the prior financial system and as a consequence the allocations below may be subject to later correction.

The Company contracted Tendril to provide the technology solution and implementation support for the RSAP program. The technology provides a platform that allows the Company to actively engage with its customers, control load at the appliance level, and execute load control programs.

The technology also provides the Company with detailed information on how its residential customers consume energy. Additionally, through the Home Area Network ("HAN") supported by a website portal, the customers can remotely view, manage and control their enrolled appliances. An important feature is that the HAN also provides whole-home consumption to the customer, since it reads interval data from the meter.

As of October 31, 2012, the program technology was installed in 165 residences. The maximum number of participants was set at 300, with marketing campaigns that were designed to increase enrollment through the remainder of 2011 and prior to the summer period of 2012. There have been continuous improvements to the technology through system updates as follows:

- New version of customer and utility portal;
- Continued automatic programming of smart plug devices, which allowed staggered cycling of room ACs to keep customers more comfortable; and
- Added mobile app support for iPhone.

Program Marketing

Marketing costs include all costs associated with the marketing initiatives required to inform and involve customers in the programs. These costs include, but are not limited to: RSAP literature, email blasts and program enrollment website. Since the same email templates and enrollment website were used from last year, there were no marketing costs incurred for the 2012 program year. The only costs incurred for these activities were the distribution of the emails, which fell under Program Administration – Vendor.

The 2012 recruitment program began with email campaigns to AMR-metered customers with an email address (approximately 47,000 customers) and customer engagement emails to existing participants. In March, Con Edison used the database segmentation, the top four segmentation groupings and unique email messaging from last year to do an email blast to potential customers for the 2012 program year. This was sent to 15,000 customers three distinct times (over a three-week period) and yielded 119 applicants (less than a 1 percent response rate). In May, Con Edison combined efforts with its operational group and did another email blast to Bronx customers who were upgraded to an AMR meter. The email blast went out to 32,500 customers and yielded 479 applicants (1.5 percent response rate). The customer engagement emails were tailored for the current RSAP participants, who received Company newsletters, energy saving tips and reminders to connect and set their smart plugs when they installed their room air conditioners for the summer. The purpose of the customer engagement emails was to keep ongoing communications with customers throughout the summer off-season in hopes of continued participation in RSAP. A number of current participants had opted-out of receiving emails from the program. The program manger directly emailed those participants inviting them to opt-in and receive important emails about the program, incentives and year-end surveys. The implementation vendor also had the Technical Support staff reach out to customers via phone and email when the installed energy management equipment was not reporting back properly or there were meter communication issues.

RSAP relies heavily on the website and email blasts to provide awareness of the program. Upon installation, the customer is left with an introduction folder that includes a "welcome" letter, Frequently Asked Questions ("FAQs") and a Getting Started guide for quick reference. Additionally, the vendor supports a dedicated toll-free Technical Support line to field questions regarding the program offer or post-installation questions.

From this 2012 marketing effort and associated enrollments, an additional 64 customers out of 236 who were initially accepted (27 percent) were registered and installed into the program. Potential participants were eliminated for several reasons, including:

- The meter was not within three floors of the home;
- There was not an open port on the router;
- There was no broadband;
- Account standing/poor credit rating;
- Unable to schedule for installation because participant did not reply to contact attempts;
- Potential participant lost interest in program; and
- Potential participant had 220v air-conditioners.

At the end of the pilot, email campaigns proved to be more successful and more cost effective than direct mail campaigns. The pilot met 55 percent of the 0.300 enrolled MW or 300 customer goal, with enrollment growing 50 percent every year. However, the eligibility requirements of the RSAP severely limited participation in the program. The requirement for AMR metering, broadband connection and a minimum of two room air conditioners limited the available population.

Measurement and Verification

Costs included in this category are associated with the performance analyses conducted by outside consultants. The Company has contracted with outside vendors to calculate the individual results of RSAP customers for events and tests, and to generate reports as necessary. These demand reduction results are used to determine appropriate payment for RSAP customers, and the aggregate effect on the Con Edison system. For 2012, program costs in this category amounted to $37,302.

RSAP Program Cost and Benefits Summary

Total cost for RSAP during the 2012 program year equaled $322,768. The total program costs to date are $1,785,794. The 2012 costs are reflective of program's third and final year, where the Company focused on recruitment and performance, with large start-up and equipment costs covered in previous years.

Given the costs stated above and the benefits of 0.165 MW total enrolled, the TRC test value is 0.98 for the program. The TRC value is an assessment of the program's cost effectiveness from inception in 2010 to 2018.

RSAP Evaluation

Assessment of RSAP Performance

The goal of RSAP and the peak load shaving programs is to reduce the forecasted system peak. The peak load shaving programs were designed to be called in a predictable way (i.e. at 96 percent or greater of the forecasted summer system peak). Accordingly, one of the secondary goals of RSAP is to determine the actual reductions and compare them to the estimated 1kW reduction per customer.

Event Summary

During the 2012 program year, Con Edison called two events. On June 21 and July 18, night-time peaking events were called for five hours each night and average load reductions of 0.247kW and 0.653 kW per participant were achieved, respectively.

In order to analyze the performance of the RSAP participants, it is important to understand the nature of the interval consumption data being used. The achieved kW of load reductions was the actual results from participants that had quality interval data. There were 132 participants in the program at the time of the events, however, there were several specific data issues identified with a majority of the population which resulted in low kW reductions achieved. Internet gateways or broadband connections were either turned off or out of service. Another reason, which the Company has addressed this year through follow-up visits, was the number of gateways that were too far from the meter to receive a signal.

Table 16: 2012 Summary of RSAP Events

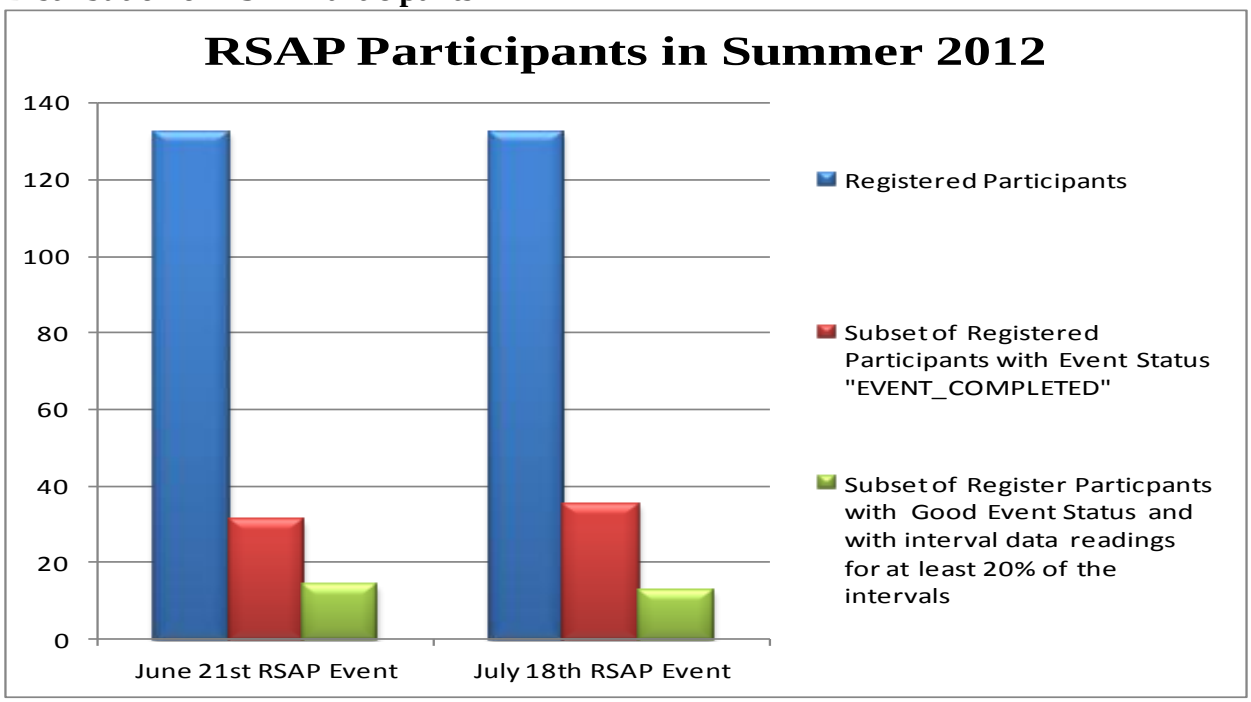
Event / Test	Date	Test Hours	Participants Enrolled	kW Reduction Achieved*
Event	6/21/2012	5-10 pm	132	0.247
Event	7/18/2012	5-10 pm	132	0.653

***kW Achieved for the accounts that had quality interval data**

Overview and Comparison of Results

For the June event, only 31 participants had a status for the event of "Event Completed." Only 14 of these participants had interval data in 20 percent or more of the intervals. The Company focused the analysis on these 14 accounts. The distribution of participants was very similar for the July event as illustrated in the figure below.

Distribution of RSAP Participants



The figure above shows the distribution of RSAP participants during the Peak Load Shaving Events.

For both the June and July events, a baseline was calculated for each participant using the NYISO CBL methodology. The baselines are weather adjusted and used 2.0 as the maximum weather adjustment factor for June (similar to the Commercial DLRP and CSRP programs because of the atypical weather pattern). The standard maximum weather adjustment of 1.2 was used for the event in July. Also, because of the volatility of the RSAP participant loads, the calculated weather adjustment was based upon a four hour window instead of the standard two hour window.

The June 21 event resulted in an average load relief of 0.247 kW per participant for the 14 accounts with reasonable data. The graph of the net participant actual load and the baseline for the 14 accounts is illustrated below in Figure 6.

The results for the July 18 event were similar in customer participation, if with a slightly larger average load relief of 0.653 kW per participant for the 13 accounts with reasonable data. The graph of the net participant actual load and the baseline for the 13 accounts is in Figure 7.

The load relief for these two events (0.247 kW and 0.653 kW) is similar to the load relief observed last year. Last year, in the test event, the load relief was 0.64 kW per participant, and in the two subsequent events the load relief was 0.34 kW per participant and 0.10 kW per participant.

Survey Results

Con Edison and Tendril conducted a tracking survey at the end of every capability period, with a 30 percent response rate. The survey continued to reveal the theme that a majority of the participants agreed to be a part of the program to save money on energy bills and have control of their energy usage. Most of the participants were satisfied with the execution of the pilot. The following are high-level insights into the demographics of the RSAP population, participation in the program and response to DR technology:

- Close to 90 percent of the respondents indicated that saving money on energy bills is the most important reason they agreed to participate in the program.
- The survey showed the most valuable features of the technology are viewing their estimated monthly bill and conserving energy through control of their appliances.
- A majority of the respondents were very satisfied with the overall event experience.
- Over 75 percent of the respondents indicated that compared to other things in their life, reducing energy use at home is very important.
- Percentage of single family homes is close to multi-dwelling buildings. (In 2012 the multi-dwelling number grew a little due to a large enrollment increase from customers in the Bronx).
- Over 60 percent of the population own their home.
- Over 20 percent of users logged in every week to monitor energy usage.
- As expected, more participants viewed the In-Home Display weekly, than the web portal.
- Nearly 30 percent viewed their estimated energy bills monthly.

Customers who willingly participated in the program and the DR events were motivated to save money on their energy bills by the importance of saving energy and to try new technology. Those who opted out of the event did so because they were home and did not want to be uncomfortable, or the temperature got too hot.

9. RSAP EXTENSION - COOLNYC

There are over six million room air conditioners in the Company's service territory representing approximately 2,500 MW of peak load. Company forecasts suggest that as many as another one million room air conditioning units will be deployed over the next five years. Enabling customers to better manage these devices will be very beneficial for customers, while at the same time providing a significant opportunity for their integration into demand response programs. This is especially pertinent as we continue to see load growth in networks which are predominantly residential.

Until the recent advent of home area networks ("HANs") and smart grid technologies, there were no cost-effective technologies available to control room air conditioners for peak shaving and demand response purposes. Although HANs provide the means to control room air conditioners on command, this technology is generally not a popular option with customers because the temperature in the room is not regulated while the room air conditioners are turned off and the HAN technology remains relatively expensive and complex. However, the Company intends to stay involved in solving some of these issues via the RSAP pilot.
Another alternative is to have smart technology built directly into the room air conditioner appliance, but this solution is still in development. Even with the expectation that these smarter appliances are coming to the market in the near future, the replacement rate of the six million existing room air conditioning means this option will not be widely available in the short-term. Furthermore, the ability of new connected room air conditioners to form a single in-home demand response network in conjunction with the tenants' older room air conditioners remains in question.

In 2010, as part of an initiative to manage the room air conditioning load, the Company filed a patent application covering a peak reduction and demand response technology that allows the Company to remotely turn on or off room air conditioning loads either (1) on command or (2) in response to an ambient room temperature sensor, and also (3) allow residents to set modes of use based on their lifestyle and schedule. The ambient room temperature sensor directly empowers customers to intelligently manage their room air conditioners remotely, using software such as mobile phone applications. The motivation behind this patent is to provide a significant added benefit to the customer for allowing the Company to introduce a peak reduction and demand response technology into the customers' private residences or businesses. Another benefit of the technology is that it could reduce the peak load for master metered buildings where residents do not pay their electric bills directly.

Working with NYC-based ThinkEco and building on top of its patented smart-plug Modlet (modern outlet) platform, the Company and ThinkEco jointly developed a patent-pending prototype of this room air conditioning demand response technology and in the summer of 2011conducted a proof of concept pilot. ThinkEco's Modlet is a self-installable plug-load management solution with hardware and software; the addition of the room air conditioning technology onto its platform now enables the Company to conduct real-time tracking and control of (a) room air conditioning energy use and (b) ambient room temperature.

The Company received regulatory approval and funding in March 2012 to expand the 2011 proof-of-concept pilot.[15] The first goal of the 2012 pilot was to accomplish a 10,000 unit deployment, with a focus on customers in the Greenwood load pocket. Unlike other options, the Modlet is not restricted by metering needs, such as the availability of AMR, so the Company was able to focus on areas of high priority. The second goal was to market test the retail, partially-rebated concept for the Modlet SmartAC product. Finally, the third goal was to test the reliability of an always-on gateway solution, as opposed to the USB solution and the associated dependence on the computer. The 2012 program started recruitment April 26, 2012 and completed distribution of the 10,000th Modlet on August 31, 2012. As of October 15, 2012, 3,916 Modlets have been installed by NYC residents (discussed further under "Assessment of Program Grow" below). In addition to the Company's distribution, between Memorial Day and Labor Day, the Modlet SmartAC kit was also available in eight select Best Buy stores in the NYC metro-area. As part of its planned technology expansion, starting in August, the program deployed over 1,000 Ethernet gateway solutions that do not require the customer's computer to be powered on, and 100 cellular gateway solutions that do not require the customer to have broadband access.

The end of year survey provided positive feedback and usage information regarding the technology. The program performed as expected, with identified areas of future optimization, including streamlining which connectivity options are available to which customers (e.g. USB vs. Ethernet gateway vs. 3G gateway), simplifying the plug-type identification process by customers, and kicking off program recruitment efforts earlier in the calendar year.

To support the technology deployment and facilitate program management, Con Edison, in partnership with ThinkEco, implemented an innovative marketing and recruitment campaign under the pilot program co-branded identity, CoolNYC.

CoolNYC Program Costs

The following are a representation of the costs associated with the CoolNYC program[16].

[15] 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, pp. 9-10.

[16] It should be noted that effective July 1, 2012 the Company implemented a comprehensive Oracle Enterprise Resource Planning ("ERP") tool. This tool required the re-characterization of some cost elements as recorded in the prior financial system and as a consequence the allocations below may be subject to later correction.

Table 17: CoolNYC Program Costs

CoolNYC Program Costs through October 2012			
Component	**Cost**		**Percentage**
Customer Incentives	$	60,000.00	3%
Program Administration Con ED	$	32,808.96	2%
Program Administration Vendor	$	497,410.00	26%
Program Equipment	$	1,149,840.00	61%
Program Marketing	$	100,900.00	5%
MV&E	$	53,160.00	3%
Total Program Costs - YTD		***$1,894,119***	***100%***

Customer Incentives

Customers receive incentive payments for their participation in events and tests. For the 2012 program year, incentive payments were made to customers for their participation in the peak load shaving and contingency events called on June 21, July 6, July 7 and August 17. The cumulative customer incentives amounted to $60,000. While customer incentives increased from last year, in direct relation to the number of enrolled units (400 vs 10,000) they continue to be one of the lowest components of program costs. Monetary incentives are not the driving force for CoolNYC participation.

Program Administration – Con Edison

Program Administration – Con Edison consists of Company staff salary and overheads associated with CoolNYC management and support. The costs associated with program administration are $32,809.

Program Administration – Vendor

Program Implementation Vendor/Other are the expenses associated with consultants contracted by Con Edison, mainly ThinkEco Inc. the CoolNYC program implementation vendor. ThinkEco provides the energy management technology and associated services. In 2012, these costs amounted to $497,410 and include administration, installation support, software hosting, online engagement and customer care.

Shipment of Modlet kits are handled from ThinkEco warehouses in New Jersey. In total, 39 large shipments to participating master metered buildings took place this summer, and 2,961 individual packages were sent out to NYC residents in targeted neighborhoods who signed up to the program on their own. In addition, over 500 kits were sent to eight Best Buy stores for retail sales.

On the software side, the Modlet SmartAC technology can be used as a do-it-yourself energy-efficiency tool from any browser or smartphone, provided the end customer is engaged to do so. Statistics around customer engagement and usage patterns from this year were as follows:

- 1,246 iPhone app downloads and 1,376 Android app downloads;
- 32 percent of participants set up an energy-saving schedule this year [Note that this energy-efficiency application was not an advertised feature of the CoolNYC program this year, as all efforts were focused on educating consumers about the importance of demand response, or conservation, events]; and

- On average, 35 percent of participants logged into their accounts within the past week.

In terms of customer education and servicing, CoolNYC relies on its website and email blasts to proactively educate prospective participants about the program, as well as provide self-help information on how to set up a Modlet and other educational resources. Each Modlet SmartAC kit also comes with a user guide for quick reference. Additionally, the vendor supports a dedicated toll-free customer service line to field questions regarding the program offer or installation questions. During the peak months of July and August, daily average call volume was 15 calls per day, and daily average email volume was 11 emails per day, totaling an average of 25 support cases per day. Of all support cases, the most common issue was participants requesting a different product type because the Modlet plug that they were initially sent did not match the plug on the room air conditioner. The CoolNYC program supports 4 different plug types (120V/15A, 120V/20A, 220V/15A, 220V/20A) and prospects are asked to provide their plug types upon sign up, but many did not realize that different room air conditioners in their apartments may have different plug types.

Program Equipment

Program equipment costs include the hardware and software for the Modlet SmartAC technology. The cumulative program equipment costs amounted to $1,149,840. These program equipment costs per unit are low, at $ as this is a self-installed technology.

The Company contracted ThinkEco to provide the technology solution and implementation support for the CoolNYC program. The technology provides a platform that allows the Company to actively engage with its customers, control load at the room AC level, and execute load control programs.

The technology also provides the Company with detailed information on how its residential customers consume energy. Additionally, through the HAN supported by a website portal and smartphone app, the customers can remotely view, manage and control their enrolled ACs.

The program technology was installed on 3,916 room air conditioner units. The maximum number of units for 2012 is set at 10,000. Initial recruitment campaigns were kicked off April 26, 2012, delivery of product occurred between June 17, 2012 through August 31, 2012, and ongoing marketing campaigns designed to encourage installations through the remainder of 2012 were initiated September 10, 2012.

There have been continuous improvements to the technology through system updates as follows:

New customer dashboard that provides remote control of their air conditioners with community features to reinforce energy efficient behaviors (May 2012);

- Improved customer messaging to address common installation & product use questions (May 2012);
- Addition of Con Edison Green Team Energy Efficiency messaging on the consumer dashboard (June 2012);
- Updates to support the release of new Apple OSX releases (Mountain Lion) and rare backwards compatibility issues with old Windows OS versions (e.g., Windows 98, Windows XP) (May 2012-July 2012);

- Back-office dashboards to support live customer support & recruitment efforts (May 2012-July 2012);
- Ability to send subpopulation-specific demand response signals (June 2012); and
- New and improved installation flow for gateways (both Ethernet & 3G) based on user feedback & field testing (June 2012).

Program Marketing

Marketing costs include all costs associated with the marketing initiatives required to inform and involve customers in the programs. These costs include, but are not limited to: CoolNYC literature, email blasts, cold-calling, table recruitment, program enrollment website and educational videos. For 2012, marketing costs totaled $100,900.

Con Edison in partnership with ThinkEco implemented an innovative marketing and recruitment campaign under the pilot program co-branded identity, CoolNYC. The campaign was successful is engaging customers and other stakeholders in a way which made the benefits of utilization of the ModLet and participation in the program accessible. The campaign "buzz" also generated considerable media interest which created an additional path to customers. A selection of media coverage is included in Appendix III.

The 2012 recruitment program began with recruitment to master-metered buildings, via phone calls to building management, followed by table set-ups in the common areas of the buildings. This initiative was kicked off April 26, 2012 and continued through June 30, 2012, resulting in 5,800 room air conditioner sign-ups.

Starting on July 6, 2012, email recruitment campaigns were kicked off to single to four family residential customers in Brooklyn with an available email address (approximately 800,000 customers). For the month of July, 69,286 emails sent out to prospective Brooklyn participants generated 2,700 room air conditioner sign-ups, or a 3.9 percent yield. Based on an analysis of the July campaigns, it was determined that "CoolNYC: Control Your A/C Unit with your Smartphone!" worked better than messages about being green or getting free technology. As a result, campaigns were optimized for August, when 36,500 new emails generated 2,550 additional room air conditioner sign-ups, resulting in a seven percent yield for the month. In total, the July and August email campaigns generated 5,250 room air conditioner sign-ups and were deemed much more cost effective than the in-person recruitment efforts in May and June.

In addition to email recruitment, emails were used as a customer engagement and program notification vehicle to existing participants. Two emails in June, each to 177 participants, notified them of the upcoming June 21 demand response event, 24 hours and 2 hours prior to the event. Four emails in July, each to 852 participants, notified them of the 2 upcoming demand response events (July 6 and July 7), 24 hours and 2 hours prior to the events. Finally, two emails in August, each to 2,615 participants, notified them of the upcoming August 17 demand response event, 24 hours and 2 hours prior to the event. A program newsletter with interesting facts and tips was distributed via email to 3,191 participants in August, followed by a second similar newsletter in September to 3,788 participants.

Measurement and Verification

Costs included in this category are associated with the performance analyses conducted by the program implementation vendor. The Company has contracted with outside vendors to calculate

the individual results of CoolNYC customers for events and to generate reports as necessary. These demand reduction results are used to determine the aggregate effect on the Con Edison system. For 2012, program costs in this category amounted to $53,160.

CoolNYC Program Cost and Benefits Summary

Total cost for CoolNYC during the 2012 program year equaled $1,894,119 (105 percent of the projected $1.8 million). Although CoolNYC went over its projected amount (due to Con Edison program administration being greater than the projection and higher than expected demand for the gateway option), RSAP (including RSAP – Extension) did not go above its $4.0 million budget.

Given the 2012 costs stated above and the benefits of 8.2 MW total enrolled, the TRC test value is 1.70 for the program. The TRC value is an assessment of the program's cost effectiveness from inception in 2012 to 2018. The 2012 costs are reflective of program start-up and equipment costs but are relatively low since it is a self-installable technology. The TRC value is high because of the efficient program costs; the benefit of running the program outweighs the costs of running the program.

ThinkEco also performed a ten year cost benefit analysis on the program from inception in 2012 to 2021 and calculated an ROI value of 1.07. The ThinkEco analysis only included DR benefits and did not reflect the value and savings of providing customers with control of their appliances and the ability to set energy savings scheduled through the air-conditioning season. When including energy efficiency benefits, the ROI increases to 1.28.[17]

CoolNYC Evaluation

Assessment of CoolNYC Performance

The goal of CoolNYC and the peak load shaving programs is to reduce the forecasted system peak. The peakload shaving programs were designed to be called in a predictable way (i.e. at 96 percent or greater of the forecasted summer system peak). Accordingly, one of the secondary goals of residential peak load shaving programs is to determine the actual reductions and compare them to the estimated 1kW reduction per customer.

The process by which energy demand is reduced is referred to as temperature offset. During an event either the target temperature is increased by a number of degrees or the thermostat is set to a specific temperature. For example, one customer may prefer a two degree variation to whatever their current temperature setting is whereas another customer may set a capped temperature of 78 degrees. In the 2011 proof of concept we used the temperature increase model. In 2012 we used the set temperature model. Analysis showed no difference in customer response based on the methodology selected.

Event Summary

During the 2012 program year, Con Edison called four events. On June 21, July 6, July 7 and August 17, night-time peaking events were called for four to five hours each night with average

[17] Inputs were coordinated with Company personnel and the New York Standard Approach for Estimating Energy Savings from Energy Efficiency Programs (PSC Tech Manual).

load reductions of 0.402kW per participating AC. For more details see figures 8-11 in appendix I.

- All reductions were achieved through temperature offsets, with the first three events at 80 degrees and the last event at 82 degrees.
- In watts, the average demand reduction observed was 402W per AC actively participating in events (equivalent to shaving 36% of the ACs max load);.
- With an average of 2.36 ACs per home, 402W per AC actively participating equated to 945W demand reduction potential per home, close to the estimated 1KW reduction per customer
- Opt out per event ranged from 21 to 31 percent with no participant opting out of greater than two events.
- The percent of ACs that were on during events varied between 28 and 49 percent (higher on hotter days).
- Combination of above three factors resulted in the four-event average of 24.25 percent demand reduction across all ACs under management.

Table 18: 2012 Summary of CoolNYC Events

Event	Date	Event Hours	Participants Enrolled*	kW Reduction Achieved
Event	6/21/2012	5-10 pm	272	46.5
Event	7/06/2012	6-10 pm	722	68.3
Event	7/07/2012	6-10 pm	728	75.5
Event	8/17/2012	5-10 pm	1,541	208.6

*** Participants enrolled includes only those that had not actively opted out of the event before its start**

CoolNYC – Participant Feedback

In October 2012, a program survey was mailed out to all participants and yielded a 29 percent response rate. Results were as follows.

- Ease of setup: 95 percent of participants successfully set up their Modlets on their own.
- Demand response feedback: 94 percent of participants were satisfied with their incentive amount; 77 percent liked having a choice of gift cards; 71 percent thought that a 24-hour event notice was sufficient; and 89 percent said that they would have been willing to participate in one or more additional demand response events.
- Energy efficiency awareness benefit: as a result of enrolling in CoolNYC, 51 percent of participants said they consciously used their room air conditioners less this summer; 60 percent said they now turn off or unplug their electronic devices when not in use; 22 percent said they use their lights less; and 18 percent told their friends to save energy.
- Overall program satisfaction: 95 percent want to reenroll again next year and 93 percent want an additional Modlet kit if they purchase a new room air conditioner.

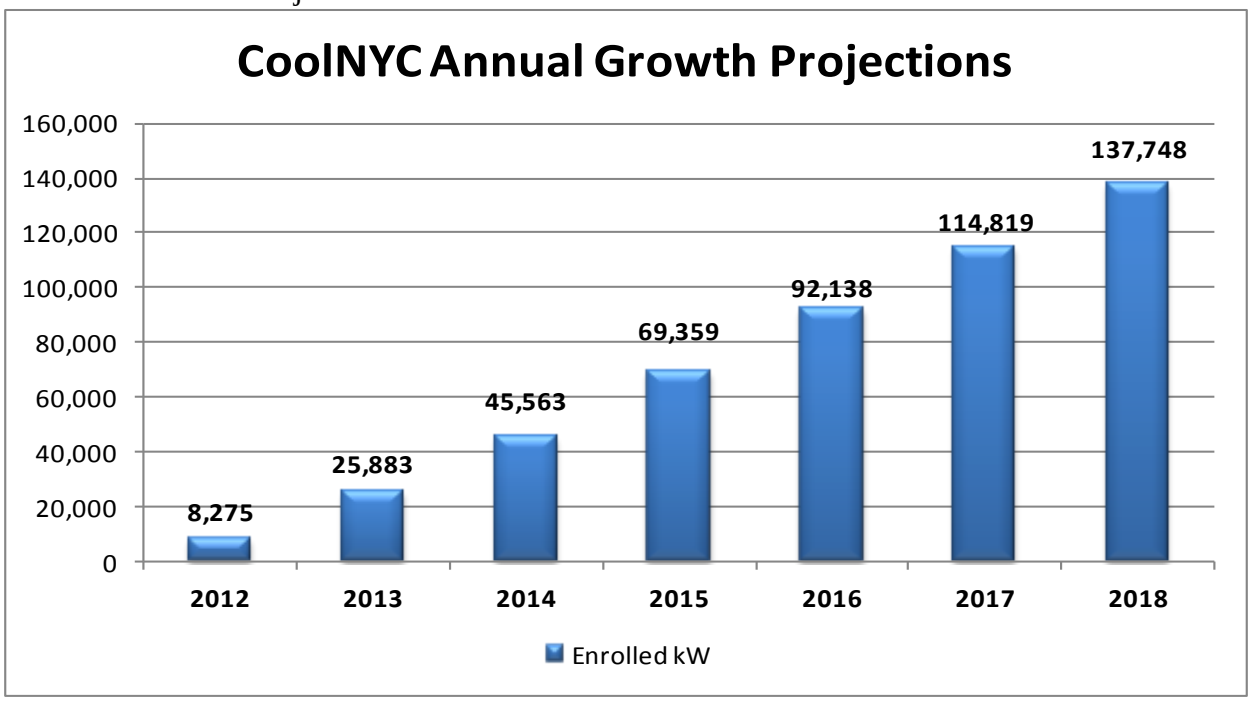
Assessment of CoolNYC Program Growth

Confidence in future program growth is high. The 2011 proof-of-concept pilot was successfully expanded from 400 enrolled units to over 10,000 this year. Of the 10,000 deployed, 3,916 were self-installed. An additional 2,000 units are with customers who have not self-installed at the end of 2012, but have re-confirmed that they plan to install the devices and participate in the program next year. We continue to work to engage the customers with the remaining 4,000 units to pursue their engagement for 2013. In an effort to improve on the 60 percent install rate next year,

the Company will target a majority of direct customers, as opposed to the 2012 marketing effort that focused on indirect (or master-metered) customers. In general the installation rate has been stronger with direct customers, as opposed to indirect customers. Apart from directing more units to direct customers, the Company will continue to work with master-metered building managers to determine how we may motivate greater customer participation.

Overall potential of the program going forward is significant and largely untapped. The installed base can increase dramatically because of a high expected return rate of this year's participants (greater than 50 percent), and the fact that most of Zone J and all of Westchester remains available for recruitment. Continuing with this momentum for the next few years will aid in achieving load reduction during the night peaking network hours of 5pm to 10pm. Demand reduction potential is noteworthy; if just five percent of six million room ACs participated in CoolNYC, the Company could expect conservatively 40MW of demand reduction per event.

CoolNYC Growth Projections



RSAP Conclusion

RSAP, including RSAP – Extension, is cost effective and passes the TRC test, which included refined and revised costs based on actual monies spent. After three years, the RSAP design has been streamlined, and processes and procedures are in place to allow participants to effectively comply when called to participate. The operational effectiveness is evident in the estimated and actual kW demand reductions close to 1 kW per residential customer. The following key factors were tested during the RSAP pilot and succeeded in meeting the goals:

1. Assessed new Tendril and ThinkEco technologies for functionality, ability to provide cost effective load reduction, and suitability for Con Edison's service territory;

2. Validated existing technologies through a Request for Proposal ("RFP") for their effectiveness in new program designs;

3. Assessed customer willingness to participate in DR programs and identified through tracking surveys the main reasons customers chose not to participate;

4. Determined average kW reductions per event for RSAP customers;

5. Determined in detail and with greater clarity, than possible to derive from the 2011 proof of concept, program costs, including vendor costs, Con Edison administrative costs, and equipment costs in order to refine cost benefit analyses; and

6. Determined going-forward requirements and actions necessary to expand to full scale program deployment.[18]

[18] Outlined in Company filed December 14 petition to the Commission for additional changes to its Demand Response programs.

10. RESIDENTIAL PROGRAMS CONCLUSIONS

With the load growth seen in certain residential networks over the last few years, load control opportunities in residential markets is extremely important and is in many ways more challenging than the commercial market. It takes more effort to reach and engage residential demand response customers in the first instance and to retain them over time. With load growth and density in residential networks, innovative solutions are required to empower residential customers to better manage their load and participate in demand response opportunities.

The Company's DLC program has reached a level of maturity but requires innovation for the program to advance to the next stage. With approximately 25,000 customers representing 35 MW of load reduction capacity enrolled, the program has shown that opportunity exists in this customer space for this product type. However the program is facing technology uncertainty and the future operation of the program requires careful planning and funding decisions. In order to protect the current status and continue the program's growth, the Company is planning to upgrade communication technologies and phase in new thermostats with multiple communication pathways. In addition, the Company is planning to expand the program to include all residential and small business air-conditioning systems, room and central.

During the three-year RSAP Assessment Period, the Company evaluated and determined the program to be both cost effective and operationally effective. However, the ModLet from ThinkEco, with its direct communication options and self-installable technology, is clearly a more effective solution than the option of trying to communicate via AMR meters, which are not designed for real-time interval control. The step taken in 2012 to a 10,000 point ModLet pilot has been important in creating the scale and momentum needed for continued growth and success.

The Company achieved all RSAP goals as outlined and looks to expand the pilot to a full scale program.

It is important to note that the Company sees very little differentiation between window air conditioning and central air conditioning when it comes to helping residential and small business customers better manage their load and participate in demand response options. With this in mind, this year we also included the central air conditioning DLC program in peak shaving events at a greater scale. More detail on this was provided in the DLC section of this report.

Based on the success of both the ModLet and DLC programs, in the context of residential demand response, it is our intent to expand the DLC tariff to allow for the inclusion of various technologies to better support residential and small business air conditioning solutions.

11. NETWORK RELIEF PROGRAM

NRP was designed to target specific networks that have a particular need for constraint relief. As proposed, the program anticipates issuing RFPs to the market (individual customers, aggregators/curtailment services providers, building managers, etc.) to provide specific quantities of MW relief during certain hours, for an agreed number of years. The purpose of the program is to obtain long-term commitments for load shed during regular peak periods (day or night) on specific networks. Successful implementation of NRP would allow the Company to incorporate reduced customer energy demand into its resource planning and defer network capacity upgrades that would otherwise be required. Additionally, NRP could function as an extra layer of relief in networks already being addressed by the Company's Targeted Demand Side Management ("TDSM") program, which defers infrastructure projects, and related capital spending, through the implementation of permanent energy efficiency measures to reduce network peak demand at customers' homes and businesses.

The Company initiated an RFP under the NRP in late 2010 for load relief in the Cooper Square network for a two year period, but received no formal responses. Subsequent investigation determined that the Company and the market needed greater confidence in continuation of the opportunity and performance in order to potentially secure financially viable results.

In late 2011 the Company filed a petition to, *inter alia*, allow it to secure contracts under the NRP for periods that it anticipates being longer than the two year period for which NRP was originally approved. In March 2012 the Commission extended the NRP for two years so that RFPs may be issued to potential participants and contracts may be entered into between the Company and enrollees. [19] The Commission specified that while the enrollment period has a defined period, contracts could be entered into that go beyond that period.

While the Company currently has limited needs in the short-term which are suitable for the application of the NRP, the Company is currently developing an RFP to deploy a comprehensive market research investigation into the viability of a portfolio of options for bringing relief to networks with different operational characteristics. It is expected that the results of this RFP, expected mid-2013, will inform the future deployment of NRP.

[19] Case 09-E-0115, *Order Adopting with Modifications Tariff and Amendments Related to Demand Response Programs*, issued and effective March 15, 2012, p. 10.

12. CON EDISON'S DEMAND RESPONSE PROGRAMS – REPORT CONCLUSION

The Company believes that this evaluation report confirms the continued interest in demand response and the potential for this type of customer sided solution. There are clearly exciting opportunities for innovation, particularly in regard to empowering residential customers to better manage their load, to help them reduce costs, and to enable them to participate in demand response programs.

While the programs continue to move forward, more work is required. As previously stated, the value of demand response is not linear in the context of network operations. While the Company intends to conduct further investigation into the most appropriate valuation of demand response solutions, it is clear that MW volume needs to be grown to gain effective operational benefit. Such growth is the goal of the changes requested in the Company's recent filing in regard to the demand response programs.

The Company believes that customers of all categories must be encouraged to increase the efficiency and controllability of their energy consuming equipment. Solutions around efficiency, communication and control remain at the fore of the Company's approach to customers. All of these aspects must be supported by a strong education process which is not segmented into niche areas (energy efficiency, demand response) but which speaks to customers where they are, in a holistic fashion.

The Company has developed exciting new market messages and is supporting the kinds of technology innovation which will best enable our customers in New York City and Westchester County to better manage their energy consumption to benefit of all stakeholders. These initiatives are receiving positive response as confirmed by the media coverage shown in Appendix IV.

The Company looks forward to continuing to work with all stakeholders to provide an exciting and comprehensive range of demand response opportunities to our customers.

13. Appendices

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Appendix I

Peak Load Shaving
Programs Performance Charts

Peak Load Shaving Programs (Appendix I)

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Figure 12: CSRP Summer Reservation and Voluntary Programs – Enrolled and Achieved System Impacts 65

Figure 1: CBL Graph of CSRP Portfolio

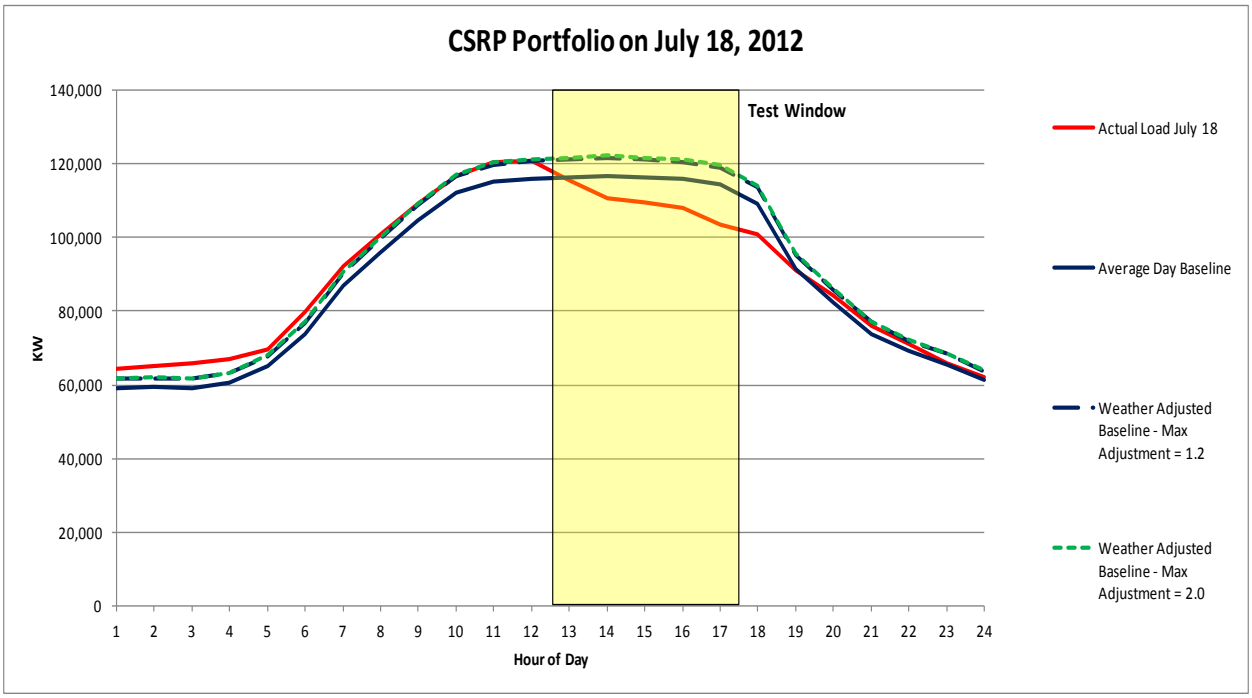

Figure 2: RSAP Participants in Summer 2012

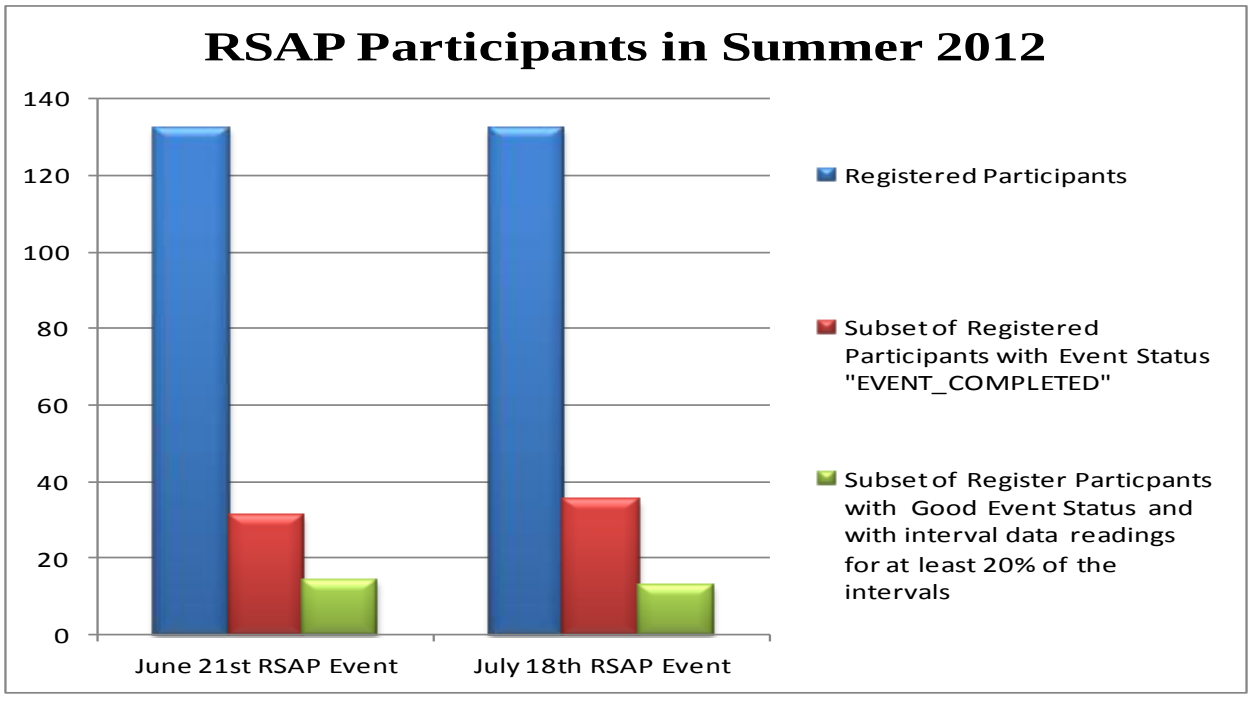

Figure 3: Distribution of RSAP Participants

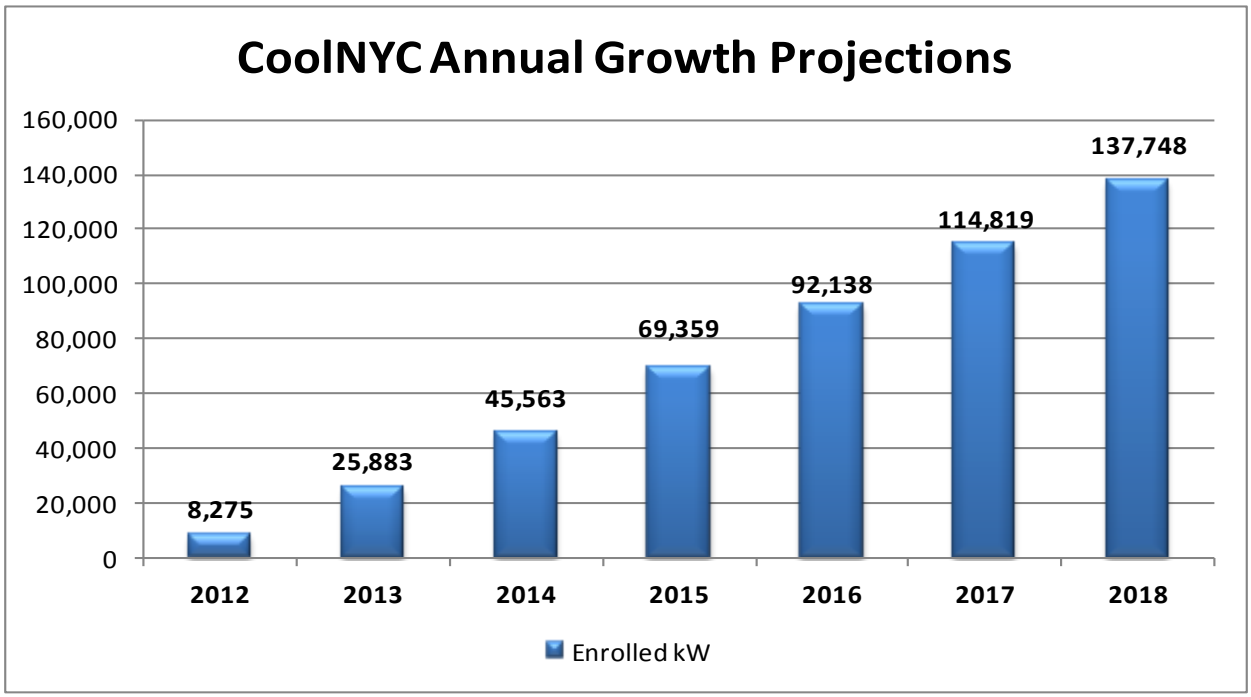

Figure 4: CSRP Summary of System-Wide Event

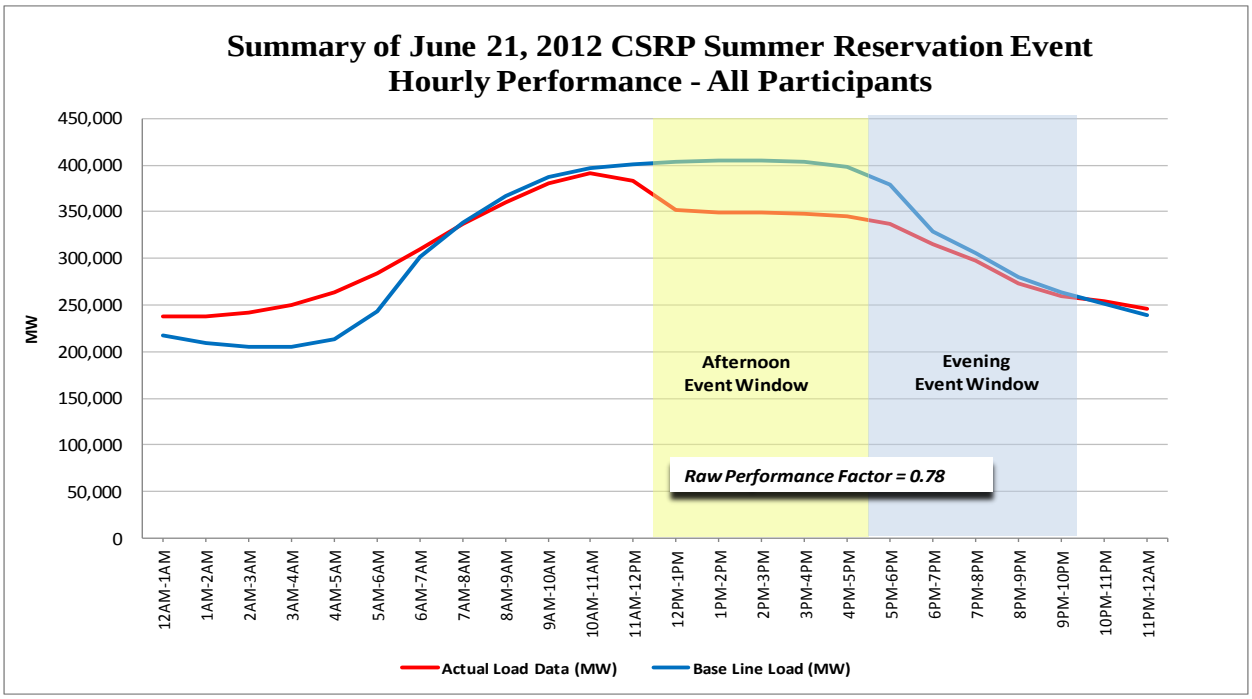

Figure 5: CSRP Summary of System-Wide Event

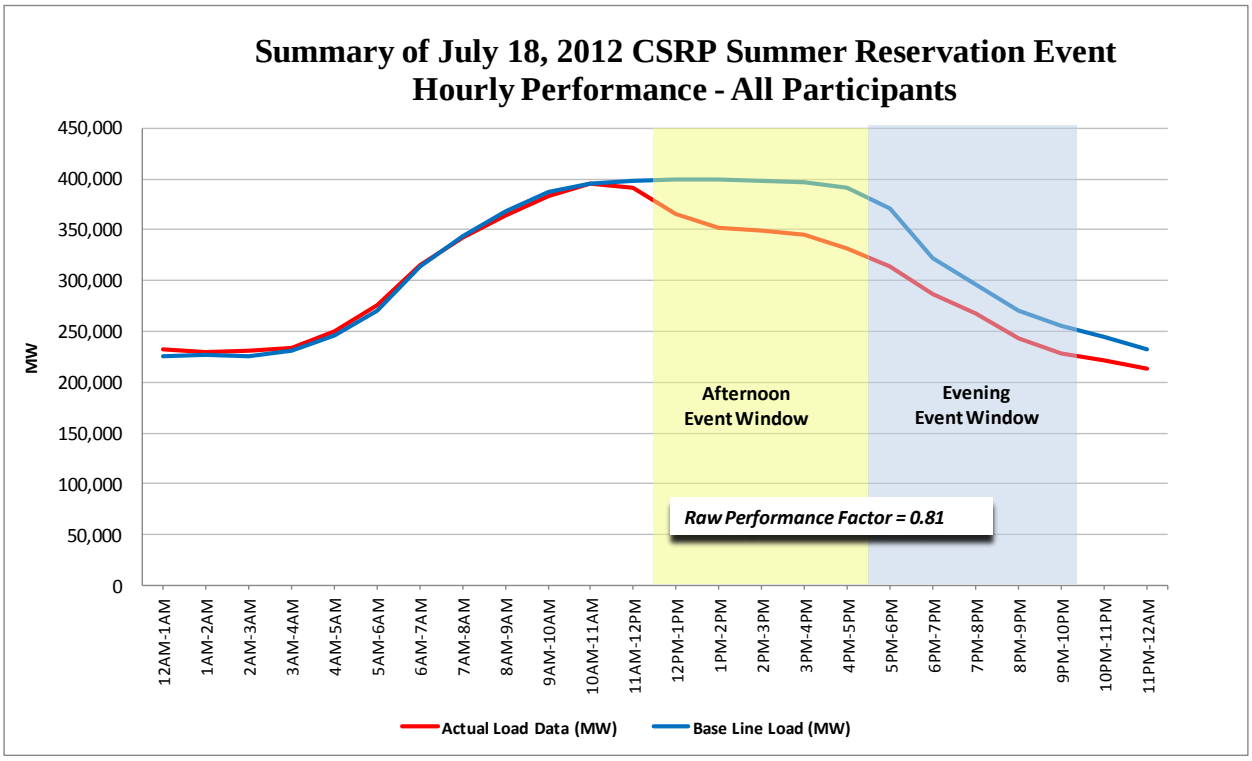

Figure 6: Graph of RSAP Event

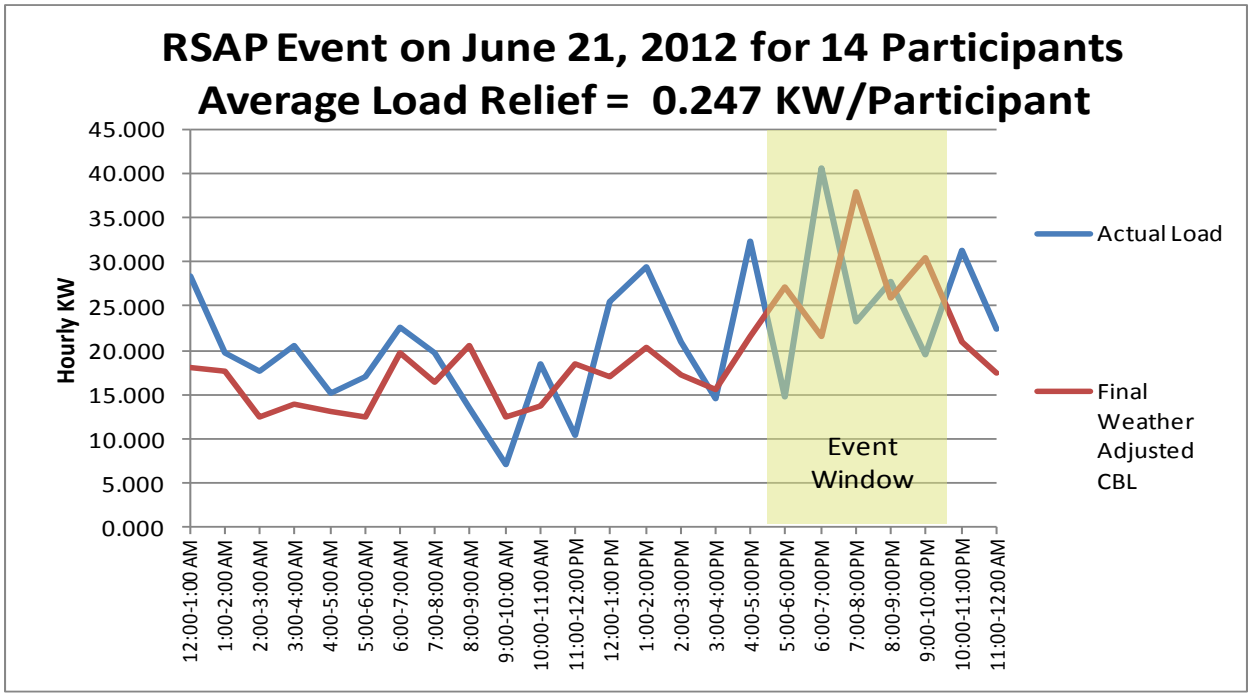

Figure 7: Graph of RSAP Event

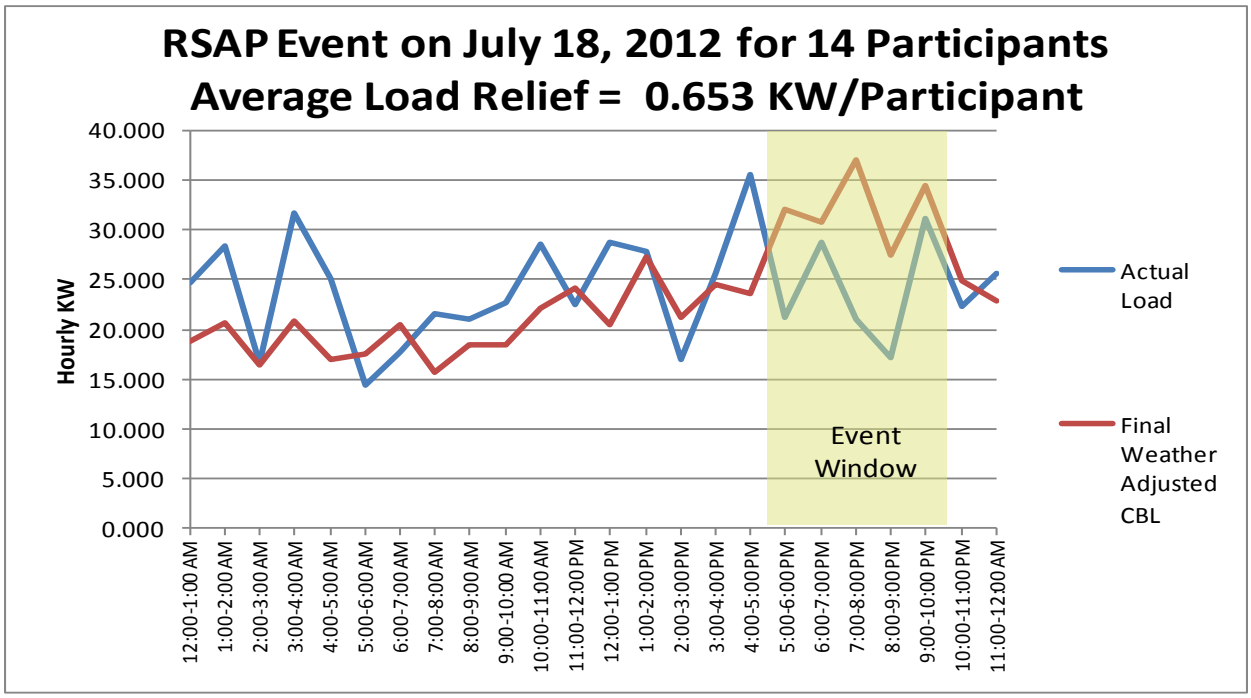

Figure 8: Graph of CoolNYC Event

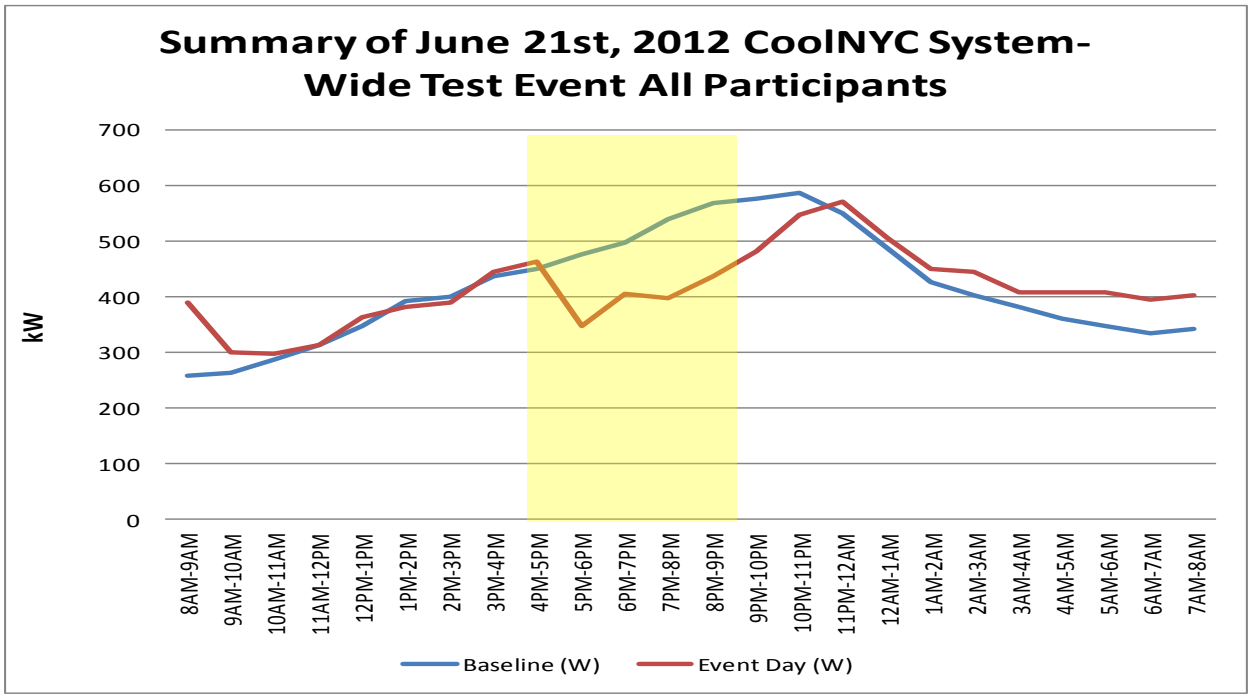

Figure 9: Graph of CoolNYC Event

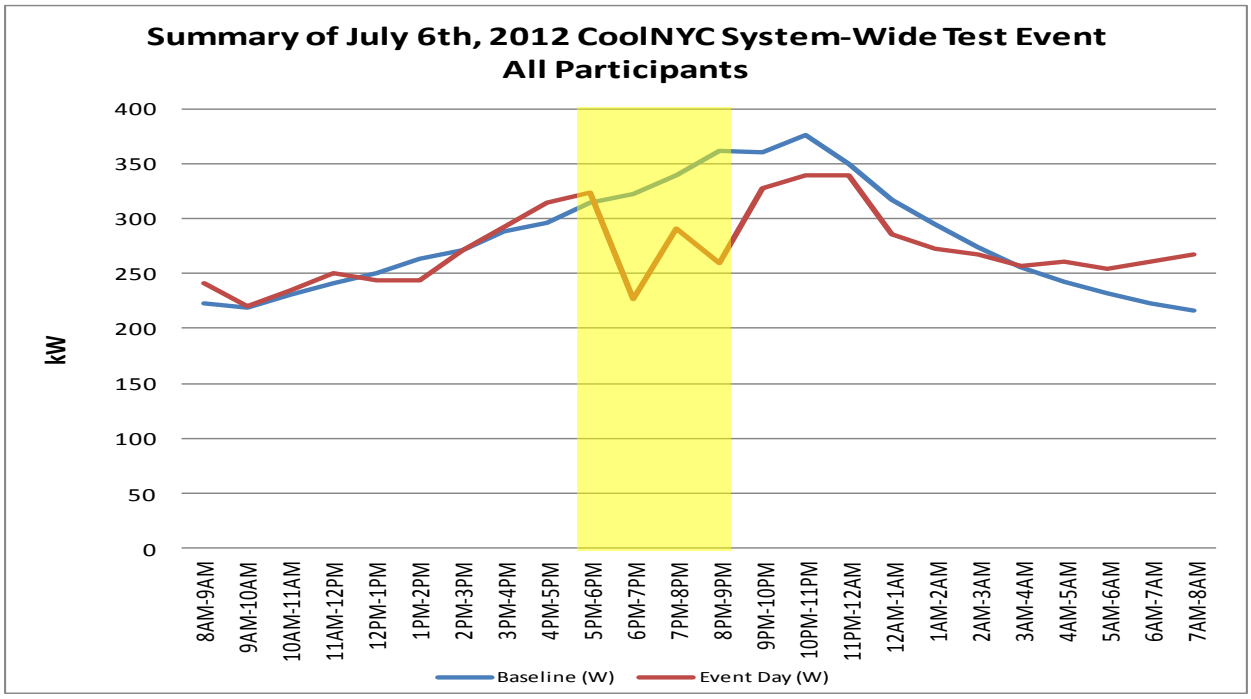

Figure 10: Graph of CoolNYC Event

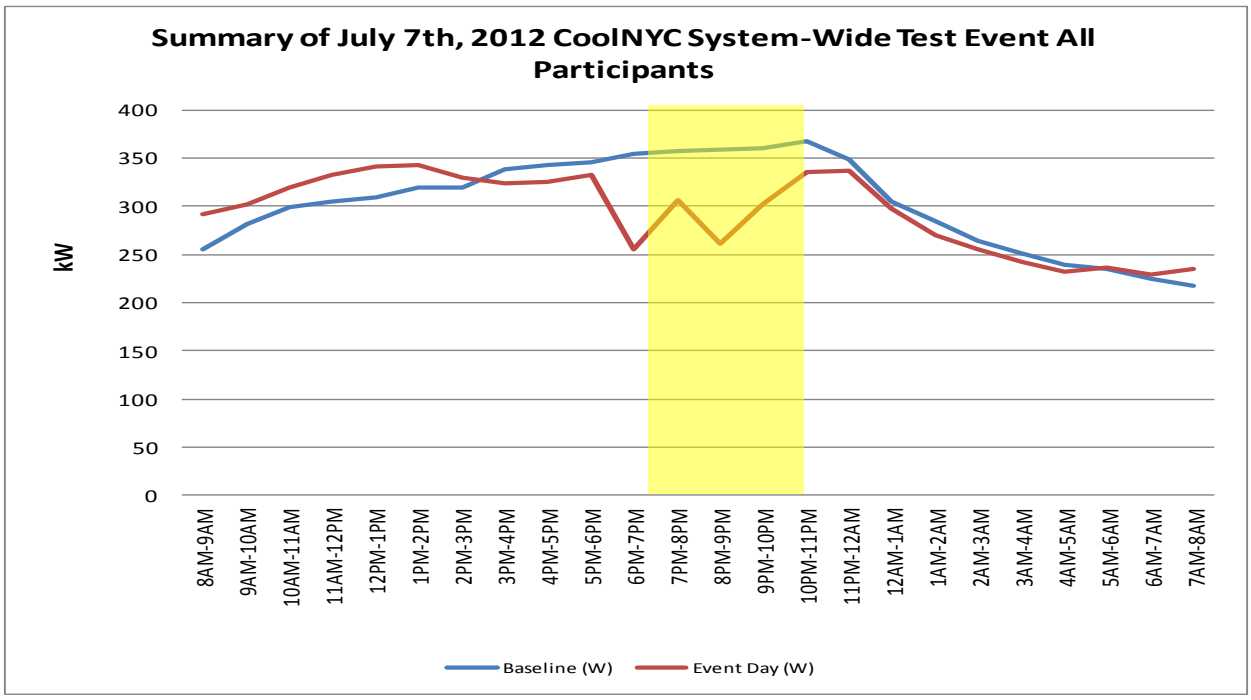

Figure 11: Graph of CoolNYC Event

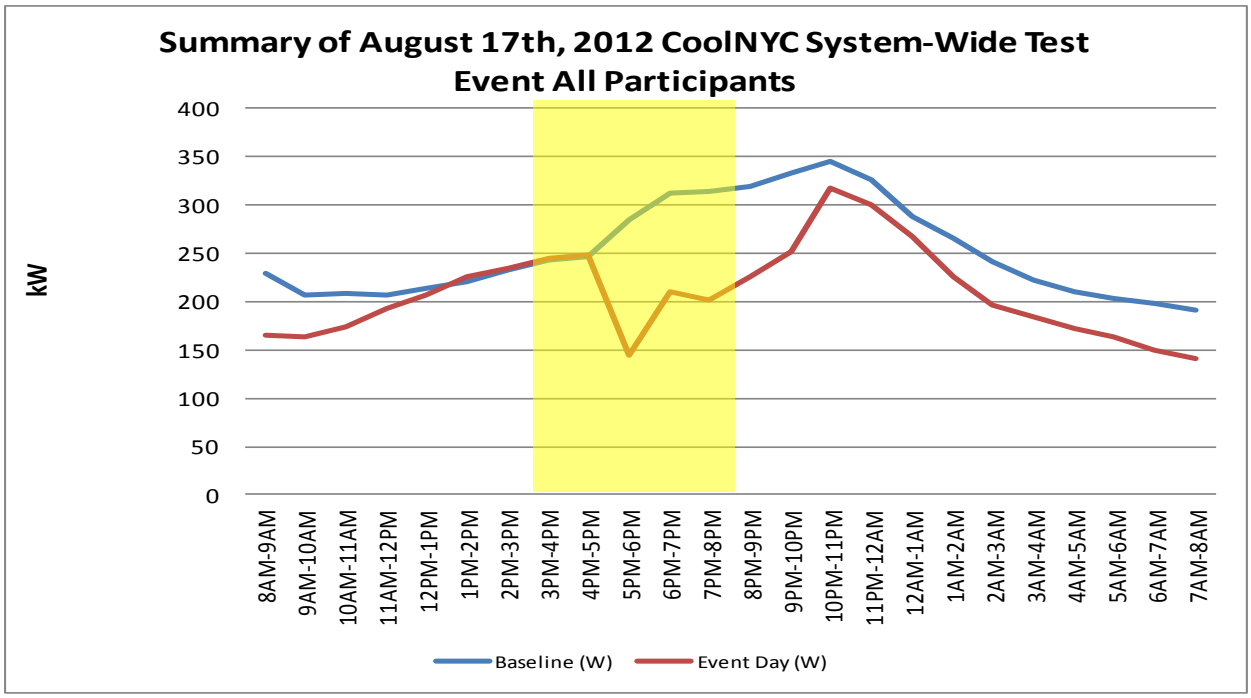

Figure 12:
CSRP Summer Reservation and Voluntary Programs - Enrolled and Achieved System Impacts
2012 CSRP Evaluation by Network

			Demand Impacts (KW)						Demand Impact (% of Network Peak)			
Day or Night	Network	2012 Network Peak Demand (KW)	Enrolled CSRP Summer Reservation	Achieved CSRP Summer Reservation Reduction (Most Recent Event - July 18)	Enrolled CSRP Voluntary	Achieved CSRP Voluntary Reduction (Most Recent Event - July 18)	Total Enrolled CSRP Summer Reservation and Voluntary	Total Achieved CSRP Summer Reservation and Voluntary Reduction (Most Recent Event - July	Enrolled CSRP Summer Reservation	Enrolled CSRP Voluntary	Total Enrolled CSRP Summer Reservation and Voluntary	Total Achieved CSRP Summer Reservation and Voluntary Reduction (Most Recent Event - July 18)
DAY	Battery Park City	67,074	1,650	3,127	1,600	600	3,250	3,727	2.5%	2.4%	4.8%	5.6%
DAY	Bay Ridge	222,216	2,086	1,329	0	0	2,086	1,329	0.9%	0.0%	0.9%	0.6%
DAY	Beekman	130,000	1,370	1,510	490	-75	1,860	1,435	1.1%	0.4%	1.4%	1.1%
DAY	Borden	102,228	575	475	50	6	625	481	0.6%	0.0%	0.6%	0.5%
DAY	Boro Hall	279,269	2,465	1,278	100	2	2,565	1,280	0.9%	0.0%	0.9%	0.5%
DAY	Bowling Green	115,412	7,400	1,740	2,450	2,250	9,850	3,991	6.4%	2.1%	8.5%	3.5%
DAY	Canal	98,961	40	1	0	0	40	1	0.0%	0.0%	0.0%	0.0%
DAY	Central Bronx	150,483	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
DAY	Chelsea	220,968	330	367	15	16	345	384	0.1%	0.0%	0.2%	0.2%
DAY	City Hall	144,063	2,050	1,198	50	-603	2,100	596	1.4%	0.0%	1.5%	0.4%
DAY	Columbus Circle	123,935	1,220	853	100	59	1,320	912	1.0%	0.1%	1.1%	0.7%
DAY	Cooper Square	239,898	710	238	0	0	710	238	0.3%	0.0%	0.3%	0.1%
DAY	Cortlandt	64,688	475	209	0	0	475	209	0.7%	0.0%	0.7%	0.3%
DAY	Crown Heights	199,652	495	512	0	0	495	512	0.2%	0.0%	0.2%	0.3%
DAY	Empire	59,573	570	170	0	0	570	170	1.0%	0.0%	1.0%	0.3%
DAY	Fashion	65,796	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
DAY	Freedom	4,225	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
DAY	Fulton	109,812	1,875	276	650	280	2,525	556	1.7%	0.6%	2.3%	0.5%
DAY	Grand Central	191,412	3,640	2,432	300	987	3,940	3,418	1.9%	0.2%	2.1%	1.8%
DAY	Greeley Square	61,424	20	-5	50	-28	70	-33	0.0%	0.1%	0.1%	-0.1%
DAY	Greenwich	49,648	455	475	0	0	455	475	0.9%	0.0%	0.9%	1.0%
DAY	Herald Square	100,128	1,075	852	20	40	1,095	893	1.1%	0.0%	1.1%	0.9%
DAY	Hudson	52,000	200	440	0	0	200	440	0.4%	0.0%	0.4%	0.8%
DAY	Hunter	73,729	650	467	0	0	650	467	0.9%	0.0%	0.9%	0.6%
DAY	Kips Bay	119,007	500	360	0	0	500	360	0.4%	0.0%	0.4%	0.3%
DAY	Lenox Hill	250,398	595	151	0	0	595	151	0.2%	0.0%	0.2%	0.1%
DAY	Long Island City	221,958	375	275	350	47	725	322	0.2%	0.2%	0.3%	0.1%
DAY	Madison Square	238,280	898	795	775	640	1,673	1,435	0.4%	0.3%	0.7%	0.6%
DAY	Park Place	82,028	510	151	0	0	510	151	0.6%	0.0%	0.6%	0.2%
DAY	Pennsylvania	213,880	3,555	2,900	295	167	3,850	3,068	1.7%	0.1%	1.8%	1.4%
DAY	Plaza	148,001	3,165	2,333	400	-11	3,565	2,322	2.1%	0.3%	2.4%	1.6%
DAY	Ridgewood	200,025	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
DAY	Rockefeller Center	83,984	675	726	0	0	675	726	0.8%	0.0%	0.8%	0.9%
DAY	Roosevelt	80,834	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
DAY	Sheridan Square	151,960	525	122	0	0	525	122	0.3%	0.0%	0.3%	0.1%
DAY	Sunnyside	75,097	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
DAY	Sutton	135,163	3,706	2,910	1,025	277	4,731	3,187	2.7%	0.8%	3.5%	2.4%
DAY	Times Square	150,000	3,155	1,795	1,750	-322	4,905	1,473	2.1%	1.2%	3.3%	1.0%
DAY	Turtle Bay	121,665	1,375	569	450	430	1,825	999	1.1%	0.4%	1.5%	0.8%
DAY	West bronx	215,603	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%

CSRP Summer Reservation and Voluntary Programs - Enrolled and Achieved System Impacts (cont.)
2012 CSRP Evaluation by Network

			Demand Impacts (KW)						Demand Impact (% of Network Peak)			
Day or Night	Network	2012 Network Peak Demand (KW)	Enrolled CSRP Summer Reservation	Achieved CSRP Summer Reservation Reduction (Most Recent Event - July 18)	Enrolled CSRP Voluntary	Achieved CSRP Voluntary Reduction (Most Recent Event - July 18)	Total Enrolled CSRP Summer Reservation and Voluntary	Total Achieved CSRP Summer Reservation and Voluntary Reduction (Most Recent Event - July	Enrolled CSRP Summer Reservation	Enrolled CSRP Voluntary	Total Enrolled CSRP Summer Reservation and Voluntary	Total Achieved CSRP Summer Reservation and Voluntary Reduction (Most Recent Event - July 18)
NIGHT	Brighton Beach	100,085	75	24	0	0	75	24	0.1%	0.0%	0.1%	0.0%
NIGHT	Buchanan	116,528	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Cedar Street	97,769	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Central Park	212,504	40	28	0	0	40	28	0.0%	0.0%	0.0%	0.0%
NIGHT	Elmsford	161,113	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Flatbush	253,890	100	186	0	0	100	186	0.0%	0.0%	0.0%	0.1%
NIGHT	Flushing	350,042	3,085	5,518	0	0	3,085	5,518	0.9%	0.0%	0.9%	1.6%
NIGHT	Fordham	240,164	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Fox Hills	204,099	305	328	0	0	305	328	0.1%	0.0%	0.1%	0.2%
NIGHT	Fresh Kills	190,252	0	0	50	12	50	12	0.0%	0.0%	0.0%	0.0%
NIGHT	Granite Hill	208,012	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Grasslands	108,359	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Harlem	180,932	1,845	1,549	0	0	1,845	1,549	1.0%	0.0%	1.0%	0.9%
NIGHT	Harrison	221,429	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Jackson Heights	180,724	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Jamaica	425,931	1,295	1,251	0	0	1,295	1,251	0.3%	0.0%	0.3%	0.3%
NIGHT	Lincoln Square	149,838	320	434	0	0	320	434	0.2%	0.0%	0.2%	0.3%
NIGHT	Maspeth	236,635	185	178	0	0	185	178	0.1%	0.0%	0.1%	0.1%
NIGHT	Millwood West	79,894	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Mohansic	8,000	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Northeast Bronx	106,318	195	610	100	5	295	615	0.2%	0.1%	0.3%	0.6%
NIGHT	Ocean Parkway	162,796	55	58	0	0	55	58	0.0%	0.0%	0.0%	0.0%
NIGHT	Ossining West	70,854	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Park Slope	216,752	645	555	0	0	645	555	0.3%	0.0%	0.3%	0.3%
NIGHT	Pleasantville	76,245	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Prospect Park	57,373	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Randall's Island	22,561	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Rego Park	222,959	800	583	100	-13	900	570	0.4%	0.0%	0.4%	0.3%
NIGHT	Richmond Hill	316,415	1,360	563	0	0	1,360	563	0.4%	0.0%	0.4%	0.2%
NIGHT	Riverdale	94,985	530	265	0	0	530	265	0.6%	0.0%	0.6%	0.3%
NIGHT	Rockview	81,059	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Sheepshead Bay	159,217	110	45	0	0	110	45	0.1%	0.0%	0.1%	0.0%
NIGHT	Southeast Bronx	202,700	11,400	11,572	0	0	11,400	11,572	5.6%	0.0%	5.6%	5.7%
NIGHT	Triboro	129,222	340	374	0	0	340	374	0.3%	0.0%	0.3%	0.3%
NIGHT	Wainwright	88,039	0	0	400	15	400	15	0.0%	0.5%	0.5%	0.0%
NIGHT	Washington Heights	176,732	950	2,946	0	0	950	2,946	0.5%	0.0%	0.5%	1.7%
NIGHT	Washington Street	195,327	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	White Plains	226,355	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Williamsburg	241,971	340	260	2,200	31	2,540	292	0.1%	0.9%	1.0%	0.1%
NIGHT	Willowbrook	84,140	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Woodrow	110,994	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
NIGHT	Yorkville	289,274	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
	DAY (% impacts are weighted average)	5,414,476	48,385	31,032	10,920	4,762	59,305	35,795	0.89%	0.20%	1.10%	0.66%
	NIGHT (% impacts are weighted average)	7,058,488	23,975	27,327	2,850	52	26,825	27,378	0.34%	0.04%	0.38%	0.39%
	ALL (% impacts are weighted average)	12,472,963	72,360	58,359	13,770	4,814	86,130	63,173	0.58%	0.11%	0.69%	0.51%
	Raw Performance Factor for ALL =			0.81		0.35		0.73				

Appendix II

Contingency Programs
Performance Charts

Contingency Programs (Appendix II)

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Figure 13: DLRP System-Wide – All Participants with % of Load to CBL

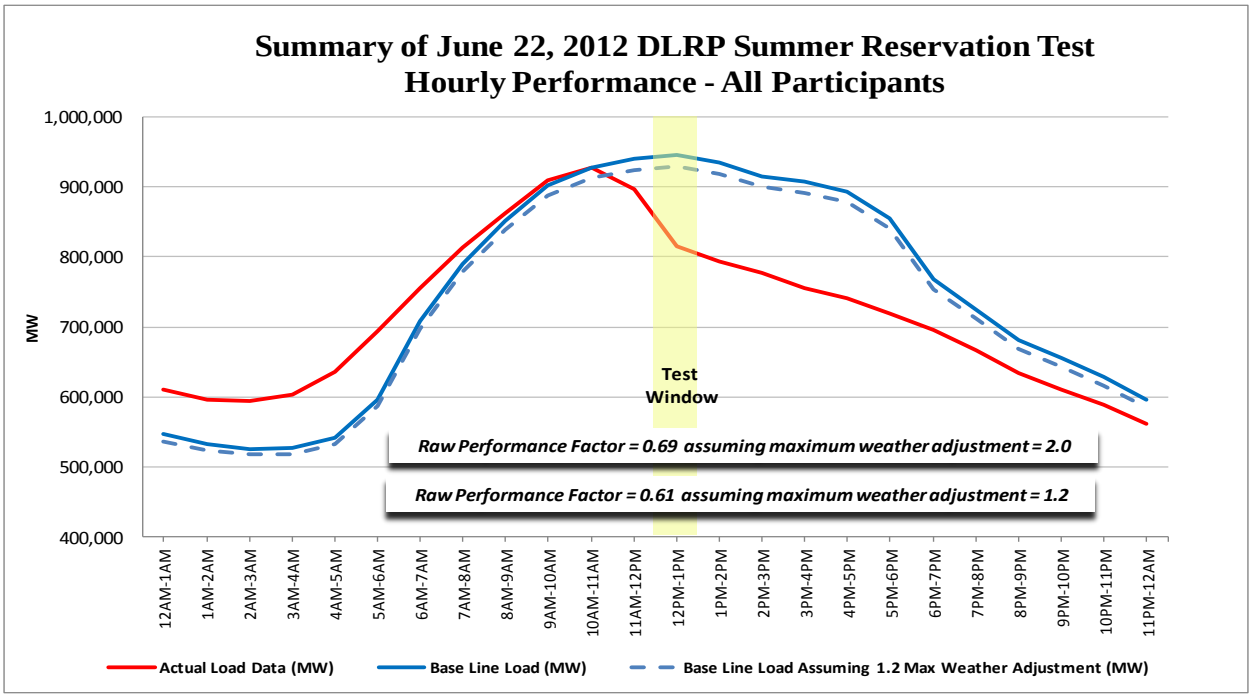


Figure 14: DLRP Summary of Williamsburg Network Event - All Participants

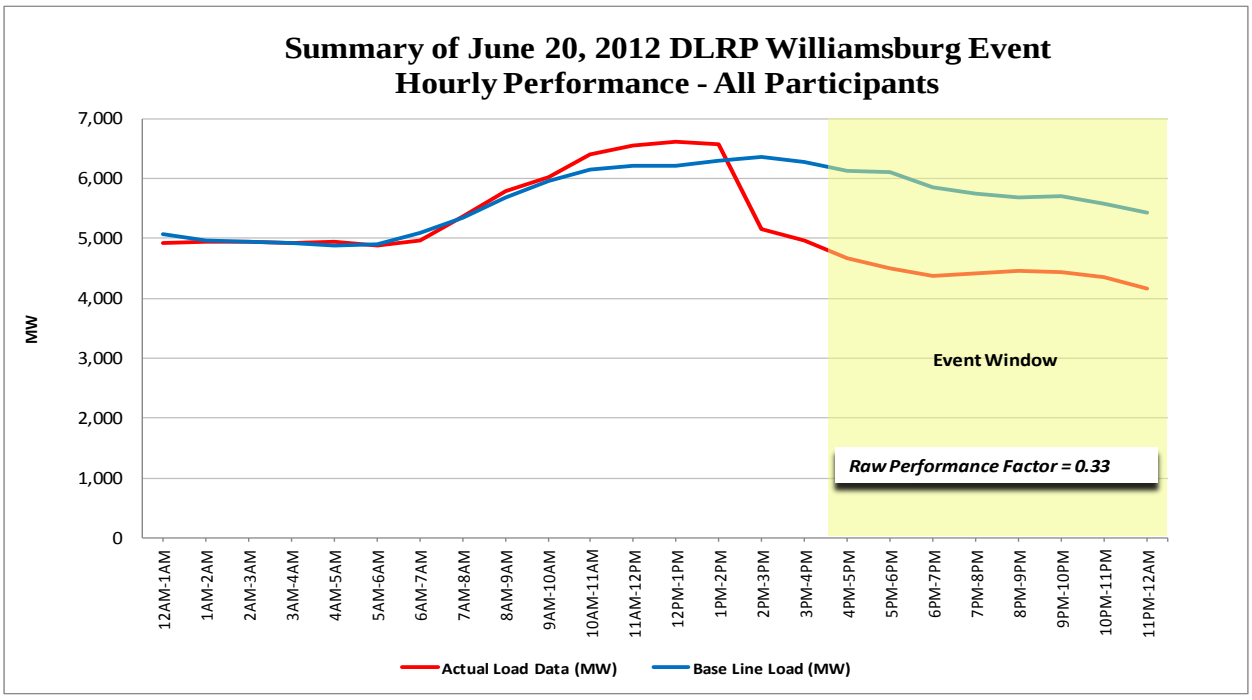


Figure 15: DLRP Summary of Jamaica Network Event – All Participants

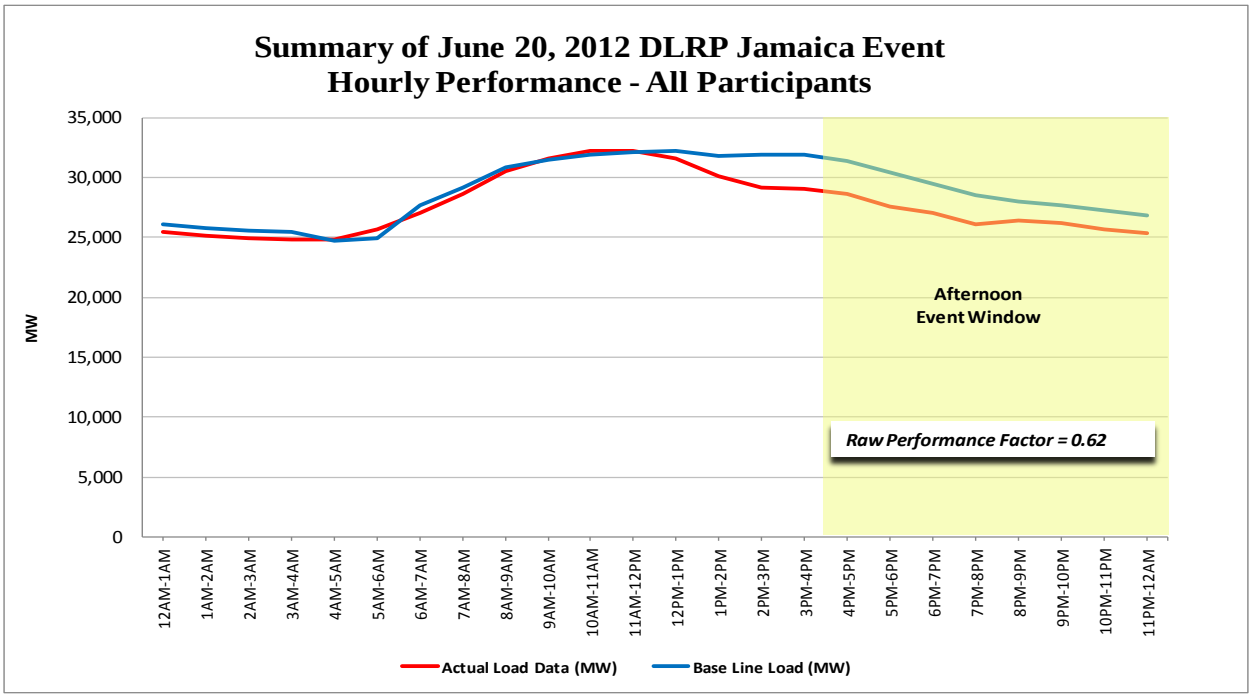


Figure 16: DLRP Summary of Maspeth Network Event – All Participants

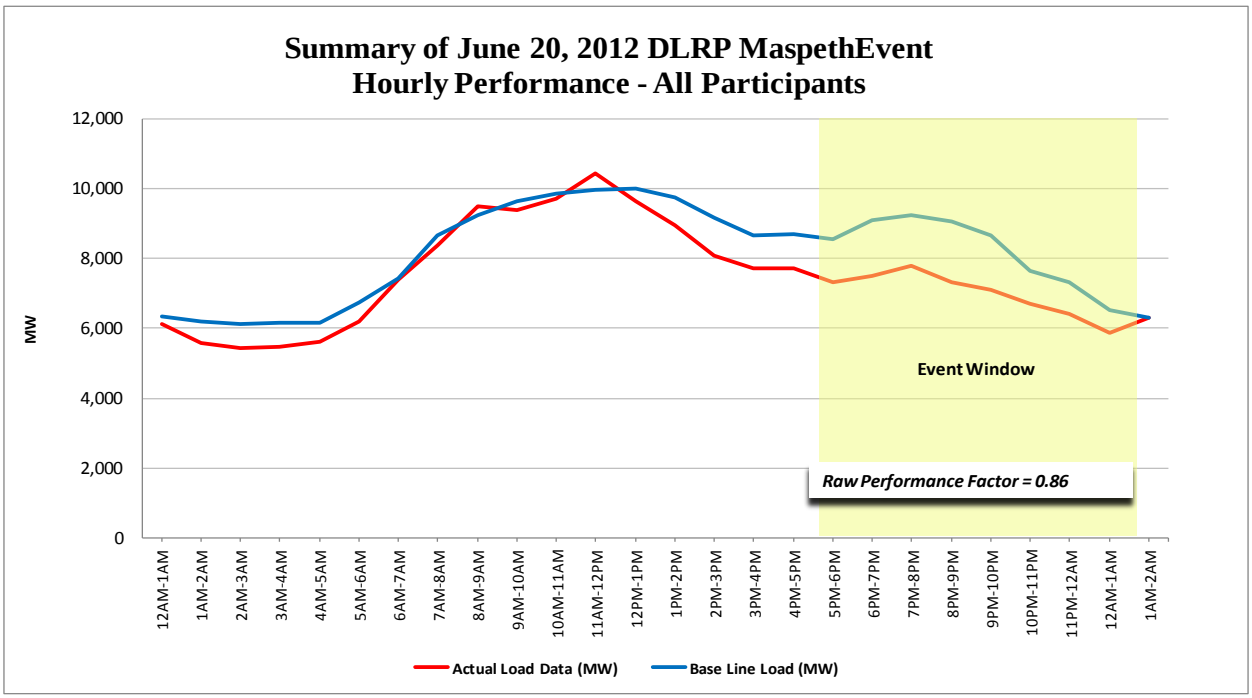


Figure 17: DLRP Summary of Richmond Hill Network Event - All Participants

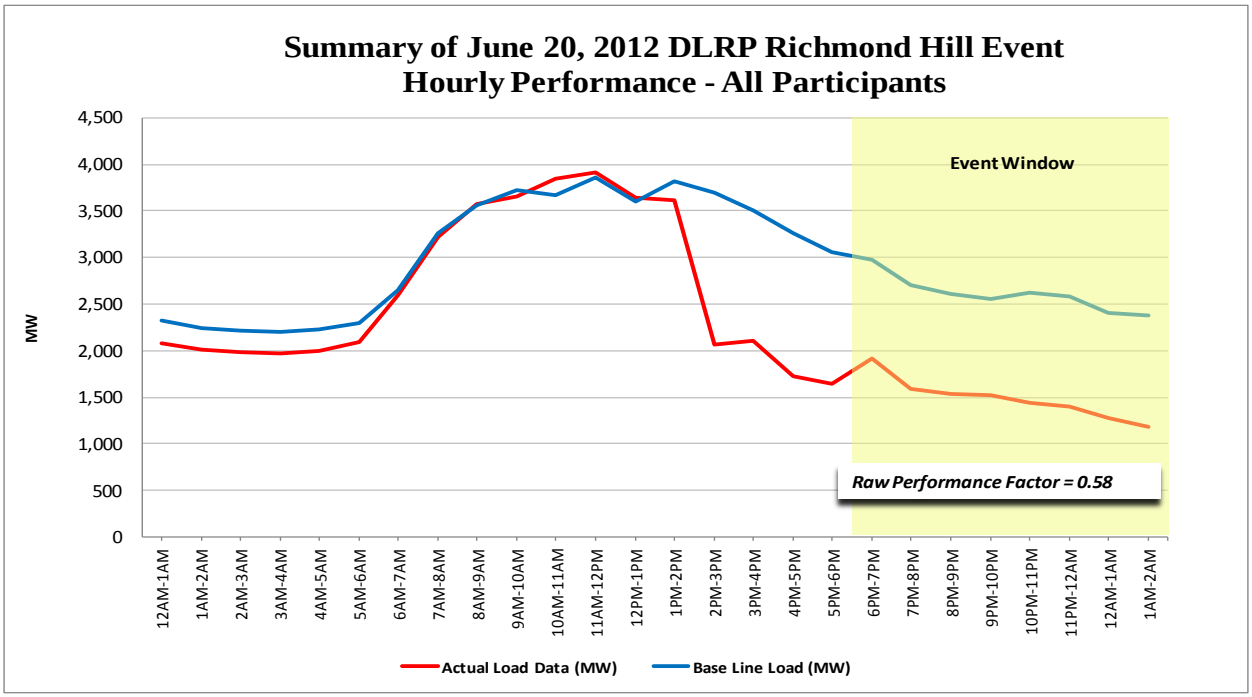


Figure 18: DLRP Summary of Sheepshead Bay Network Event – All Participants

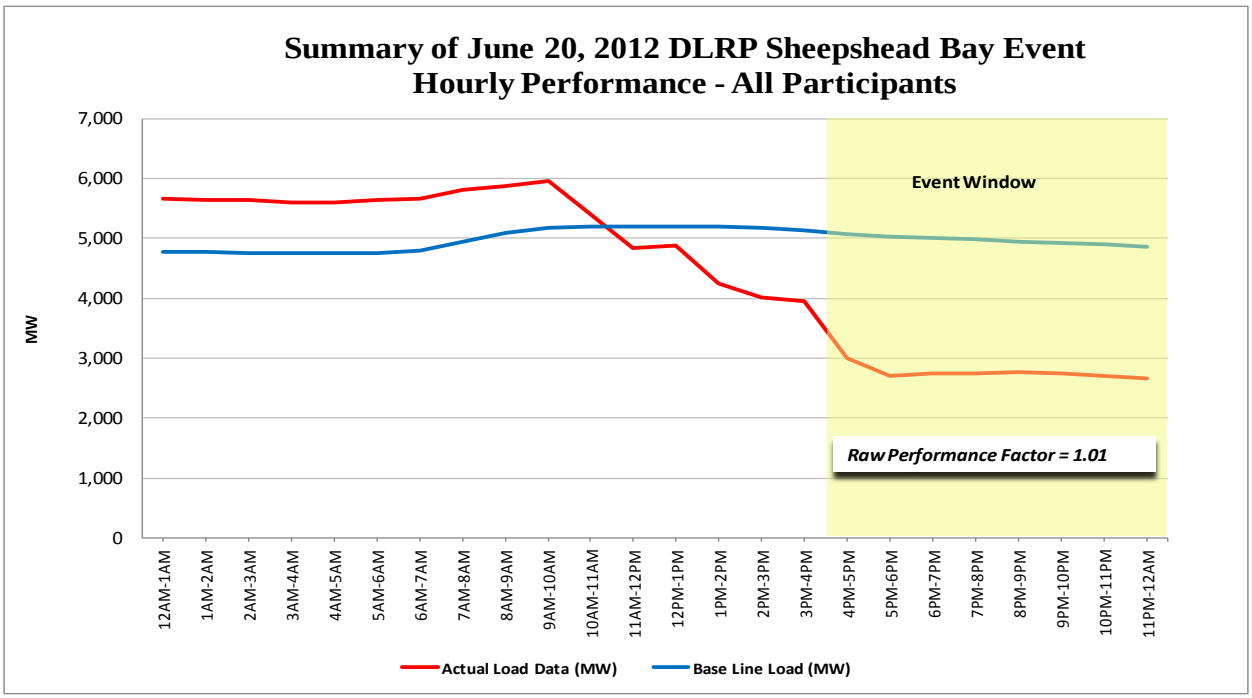


Figure 19: DLRP Summary of Flushing Network Event – All Participants

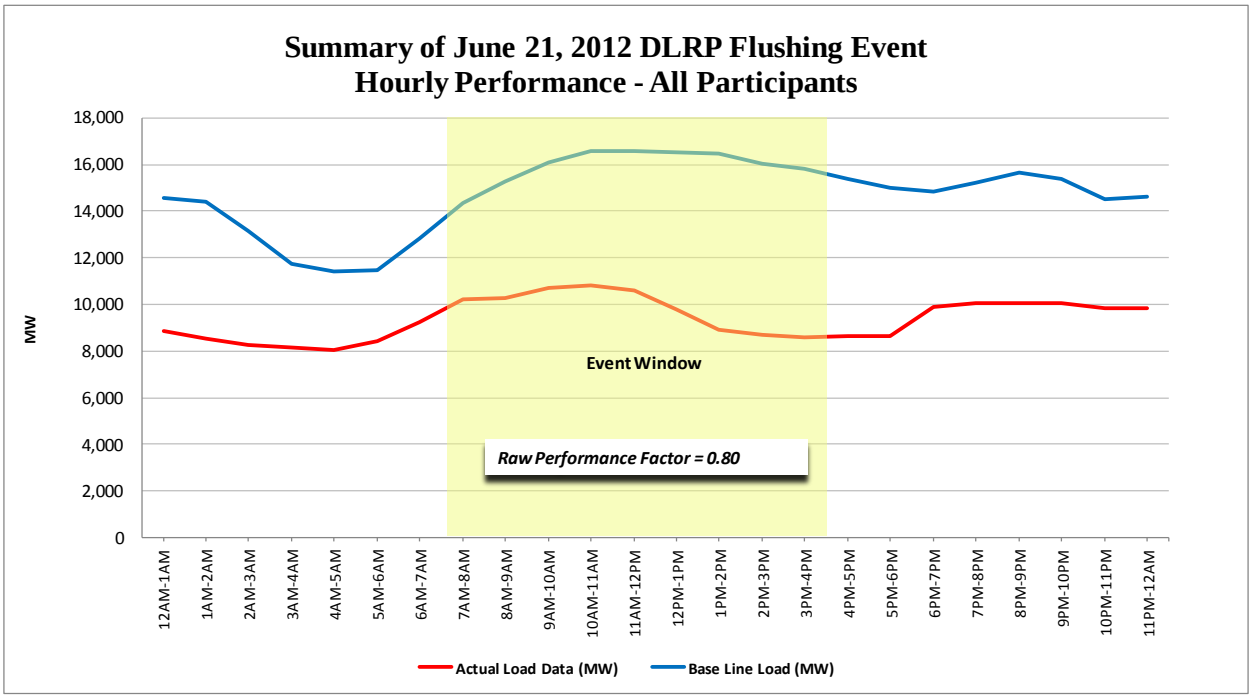


Figure 20: DLRP Summary of Park Slope Network Event – All Participants

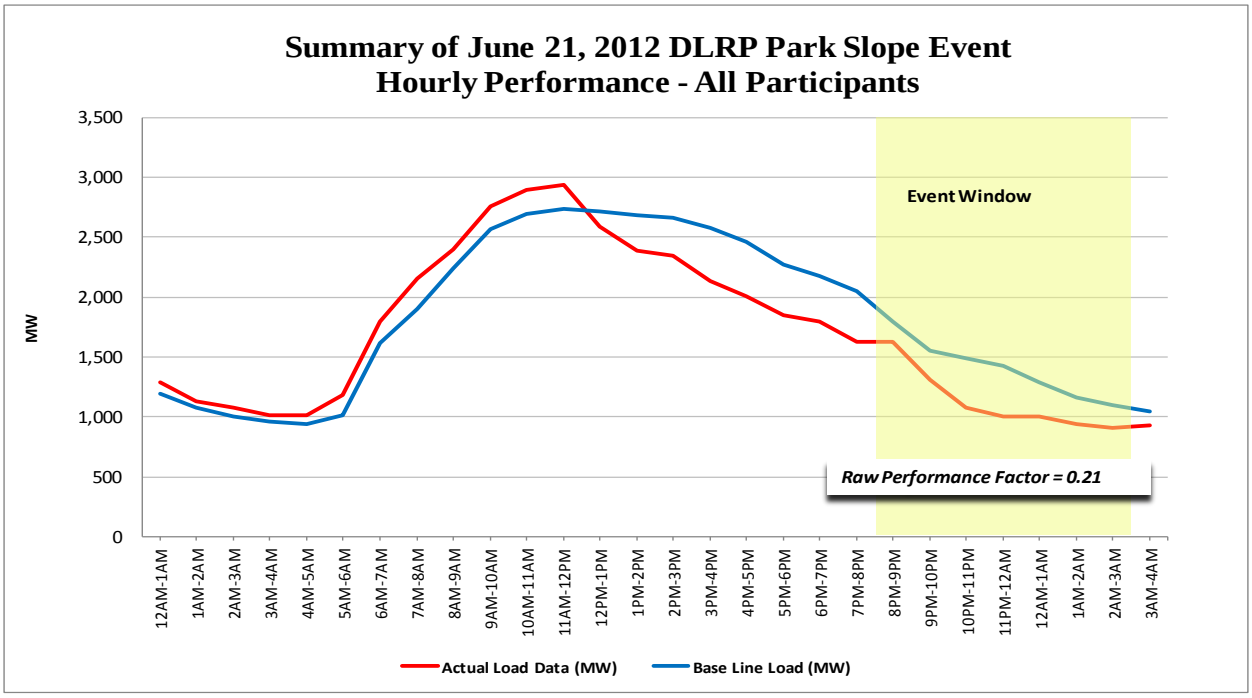


Figure 21: DLRP Summary of Sheepshead Bay Event – All Participants

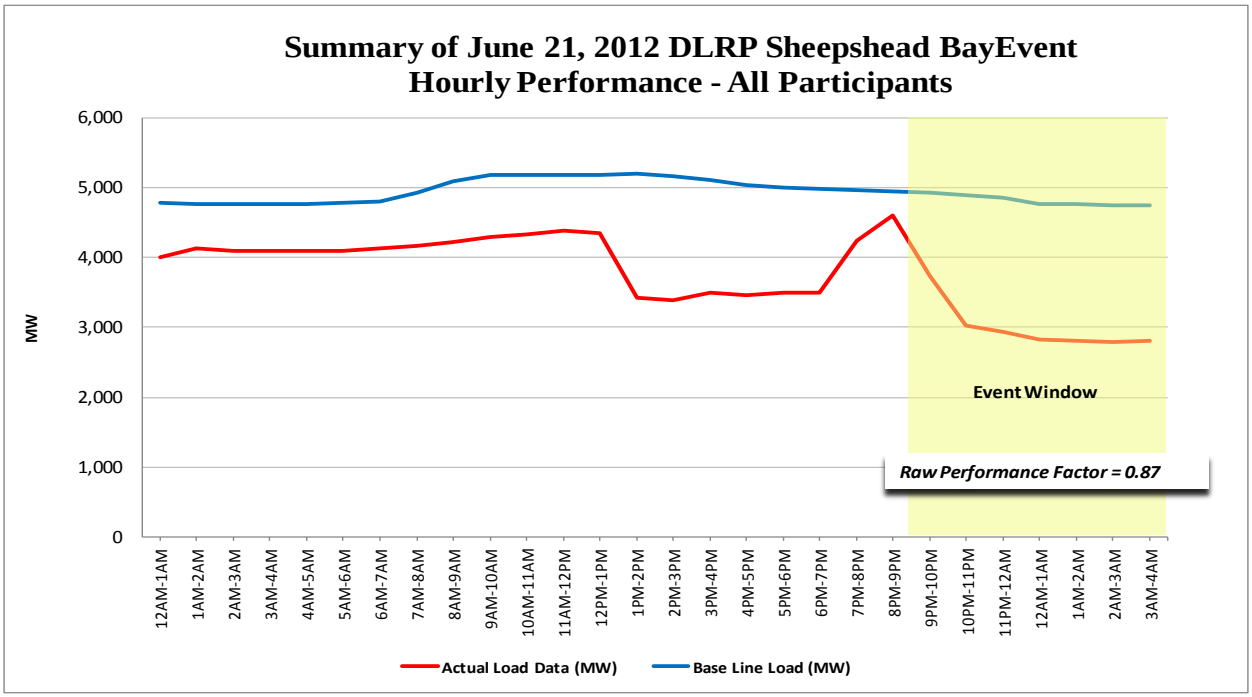


Figure 22: DLRP Summary of Flatbush Network Event – All Participants

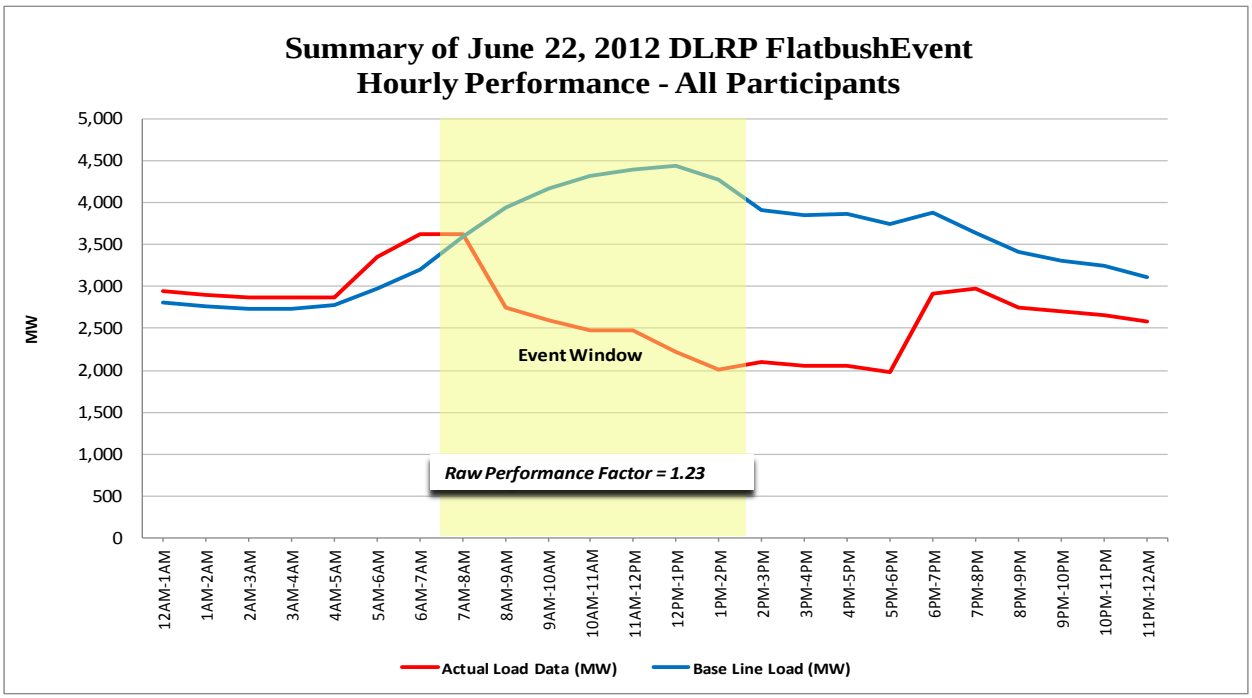


Figure 23: DLRP Summary of Network Test Event – All Participants

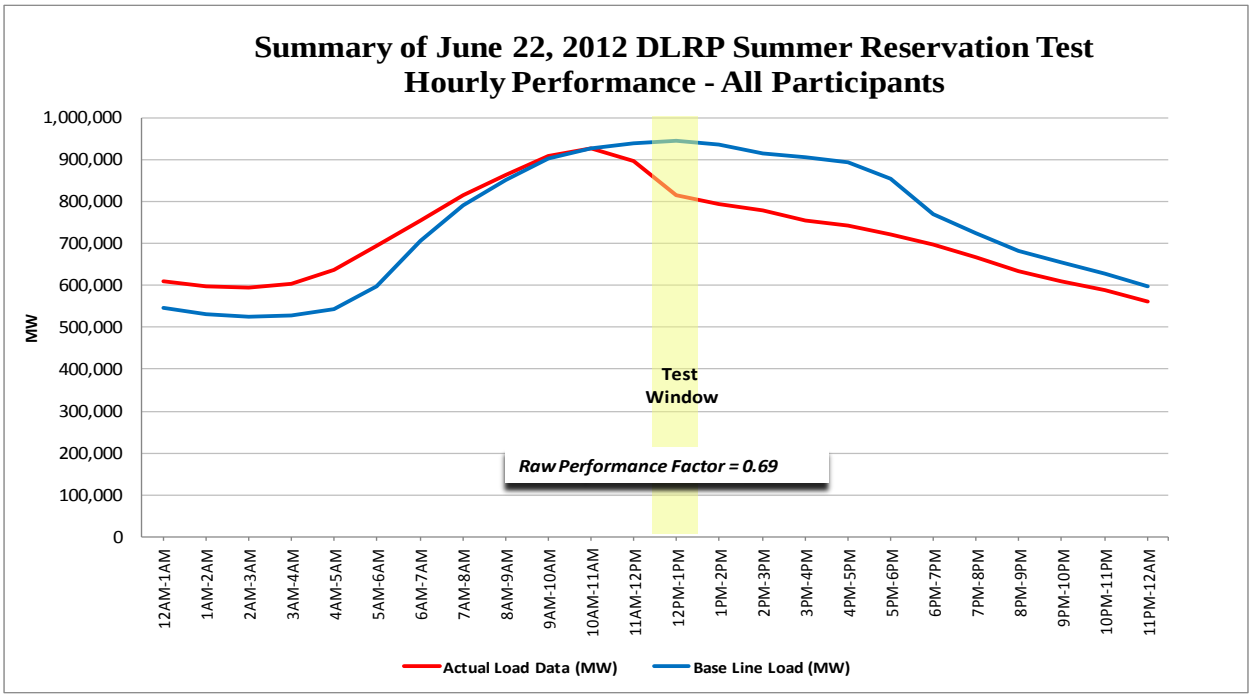


Figure 24: DLRP Summary of Williamsburg Network Event – All Participants

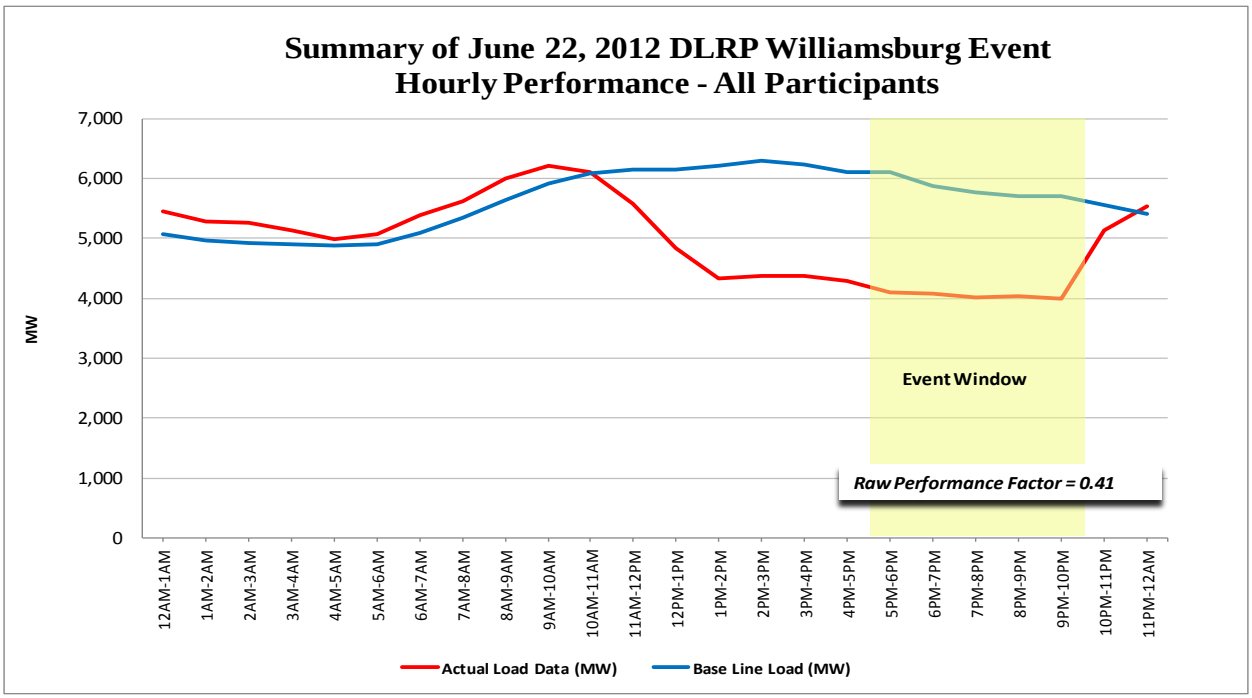


Figure 25: DLRP Summary of Flatbush Network Event – All Participants

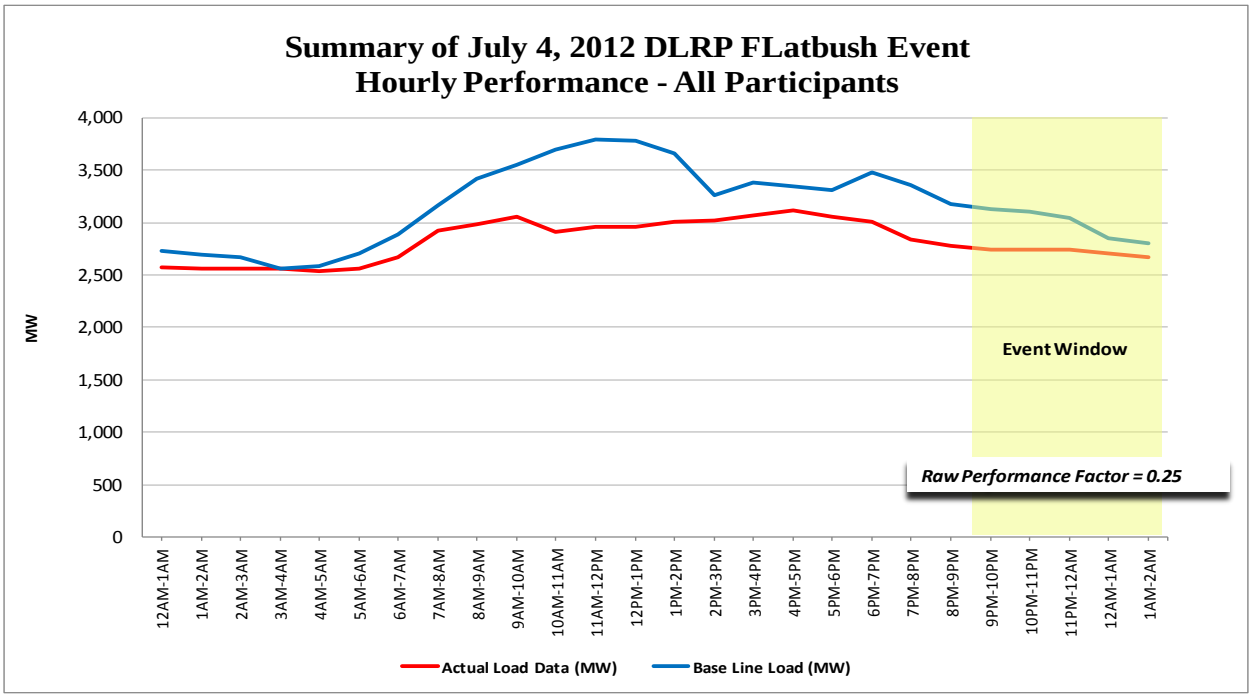


Figure 26: DLRP Summary of Crown Heights Network Event – All Participants

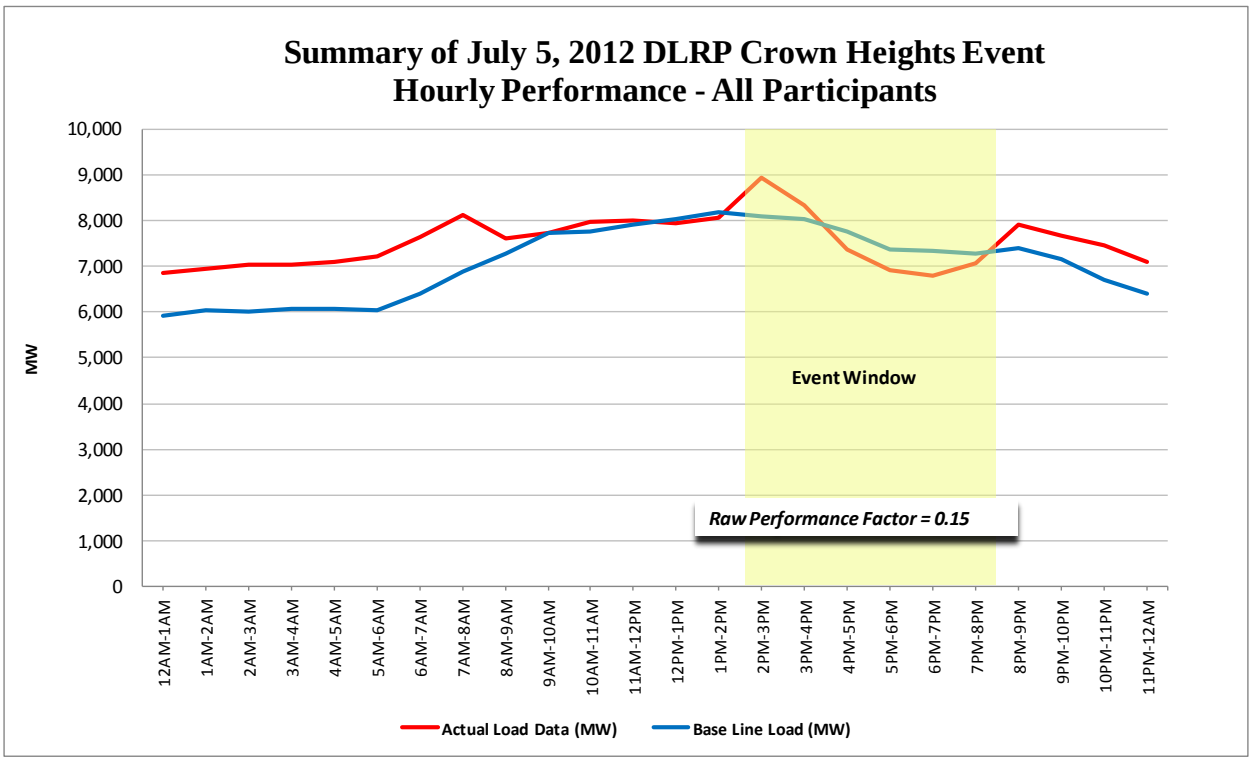


Figure 27: DLRP Summary of Turtle Bay Network Event – All Participants

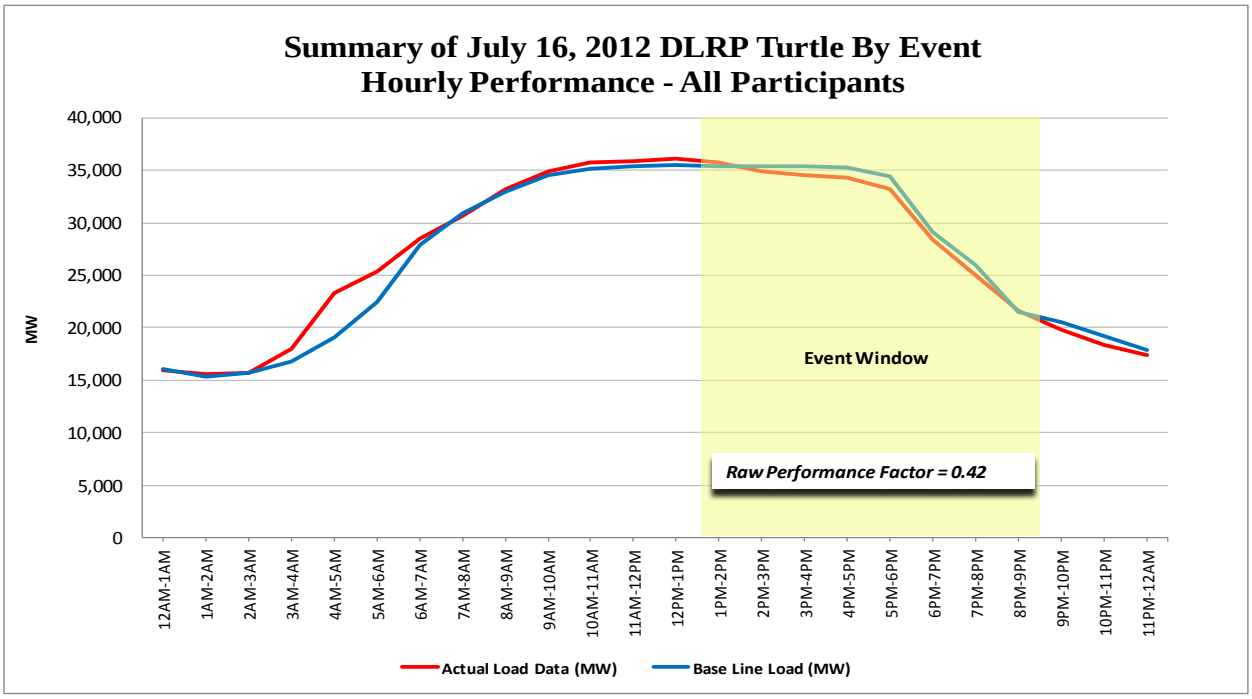


Figure 28: DLRP Summary of Sutton Network Event – All Participants

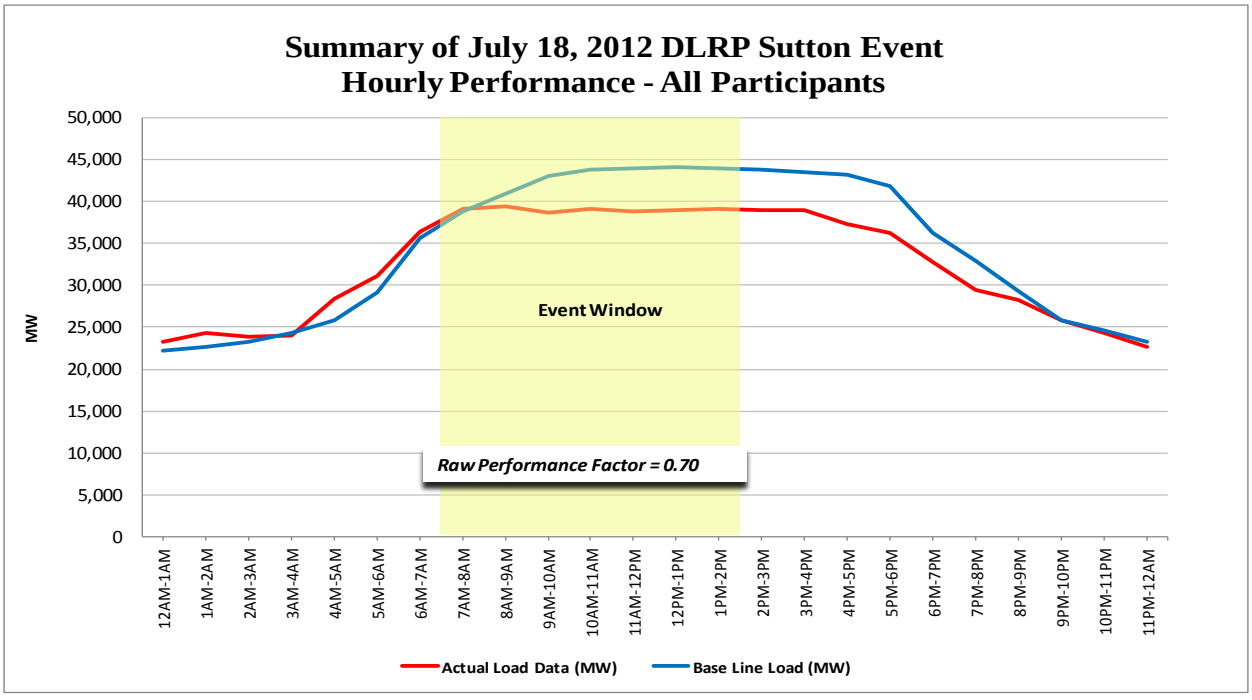


Figure 29: DLRP Summary of Ocean Parkway Network Event – All Participants

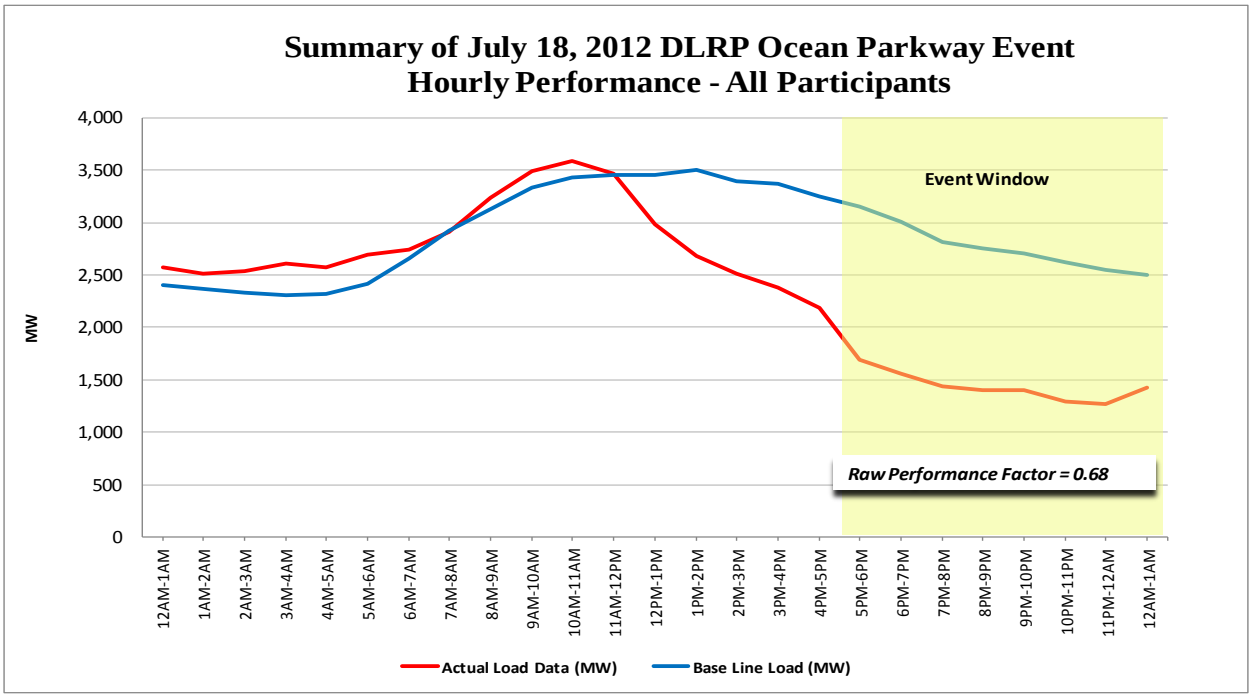


Figure 30: DLRP Summary of Riverdale Network Event – All Participants

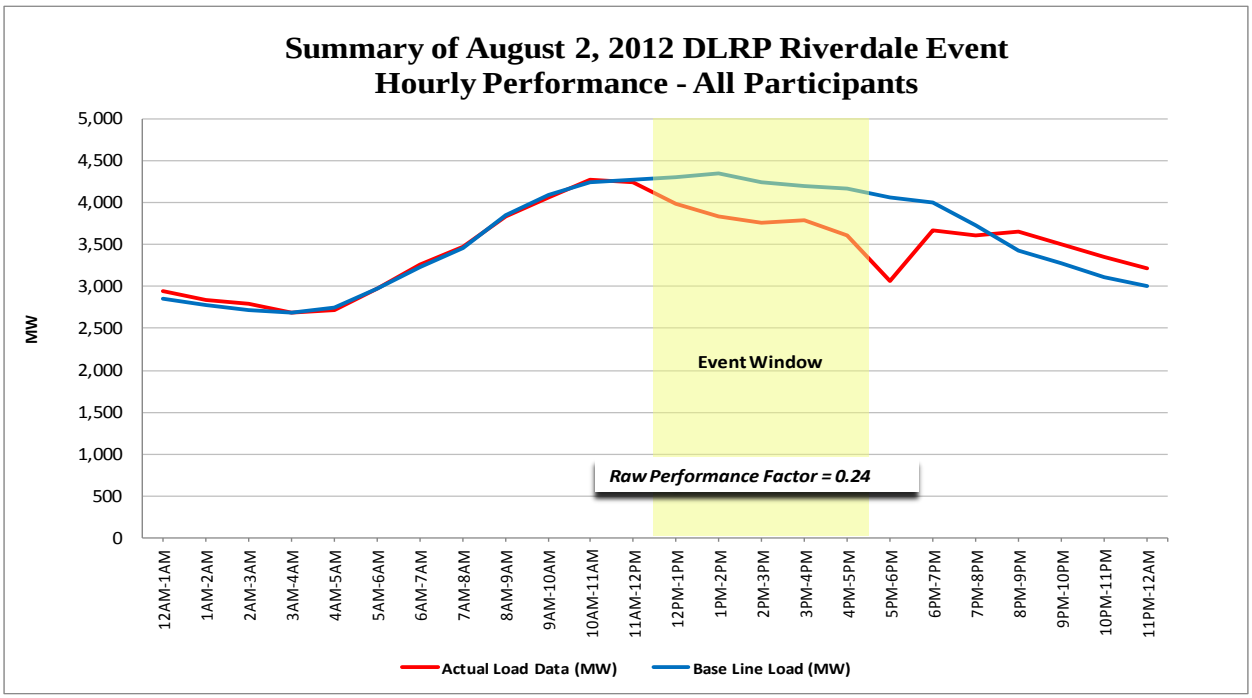


Figure 31: DLRP Summary of Brighton Beach Network Event – All Participants

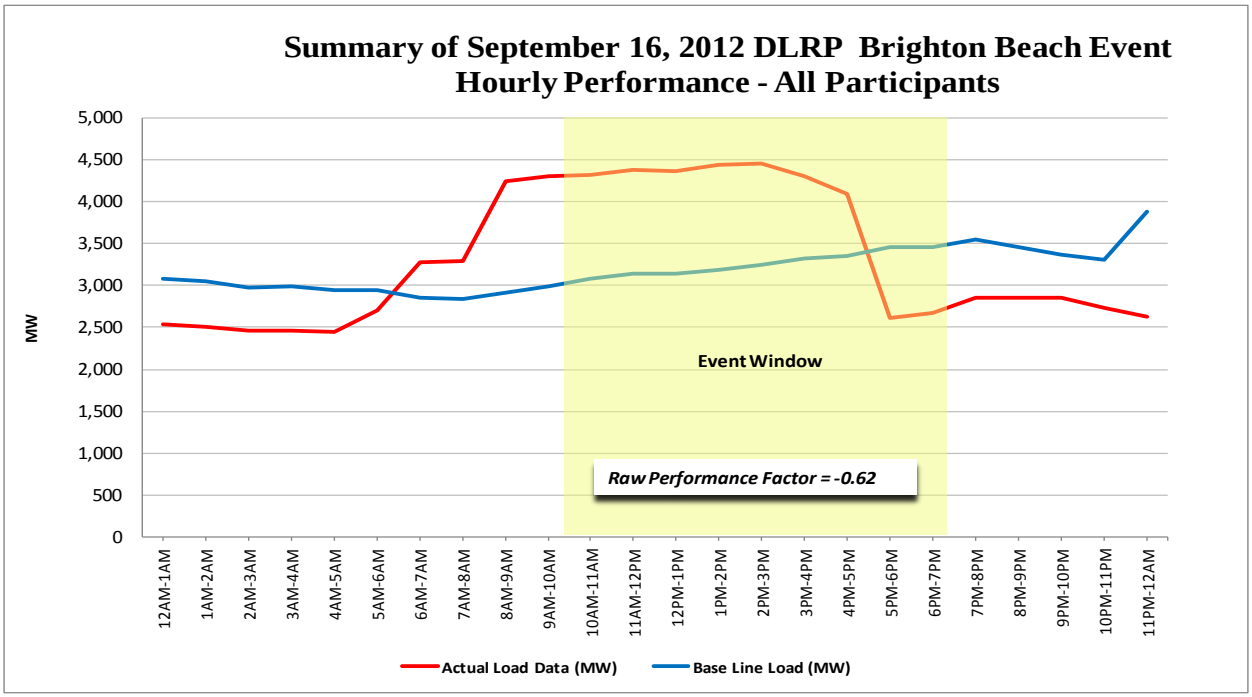


Figure 32: DLRP Summary of Flatbush Network Event – All Participants

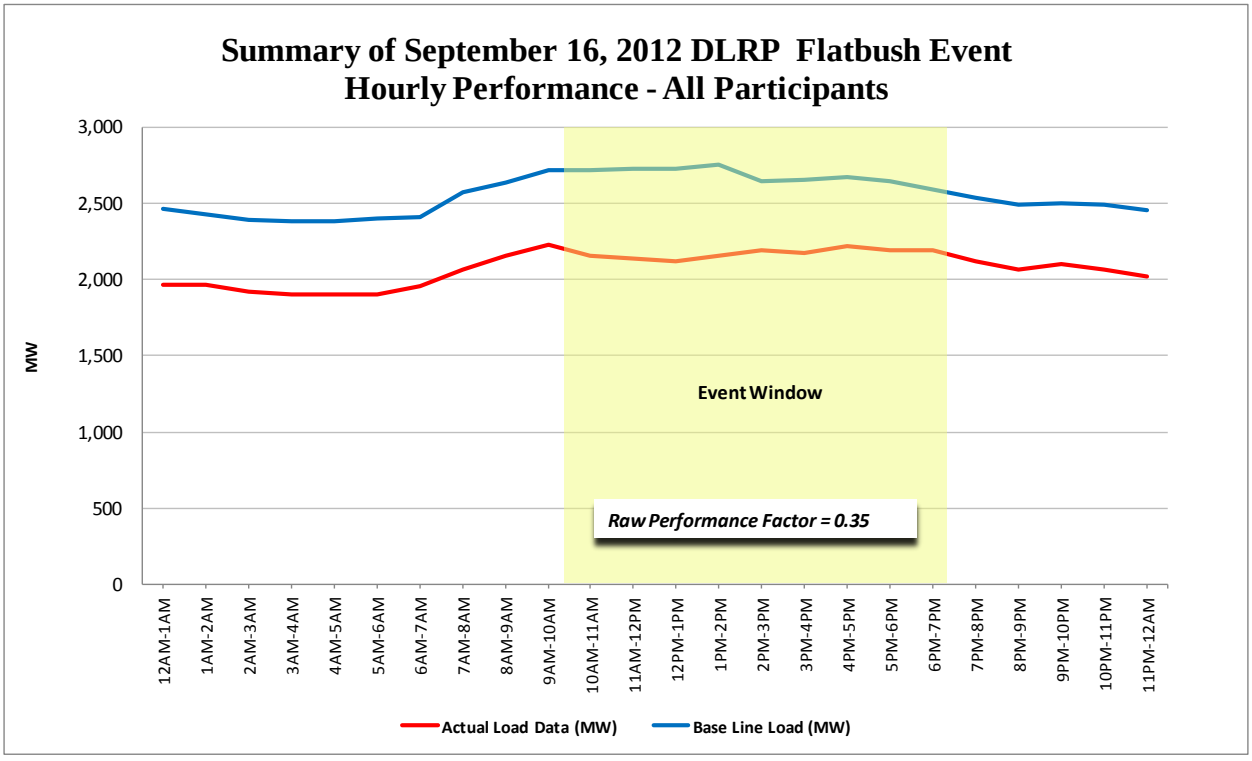


Figure 33: Residential Curtailment Event May 29, 2012 – Westchester Only

May 29, 2012 Curtailment Event (Westchester only)
1 p.m. to 6 p.m.: 50% Cycle

Residential Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **7,000**					
Net per unit kW load reductions	0.568	0.562	0.609	0.694	0.651
Net total kW load reductions with overrides	3,974	3,935	4,261	4,861	4,560
Cumulative overrides	2.00%	6.46%	11.78%	4.66%	13.52%

May 29, 2012 (1 p.m. to 6 p.m.)

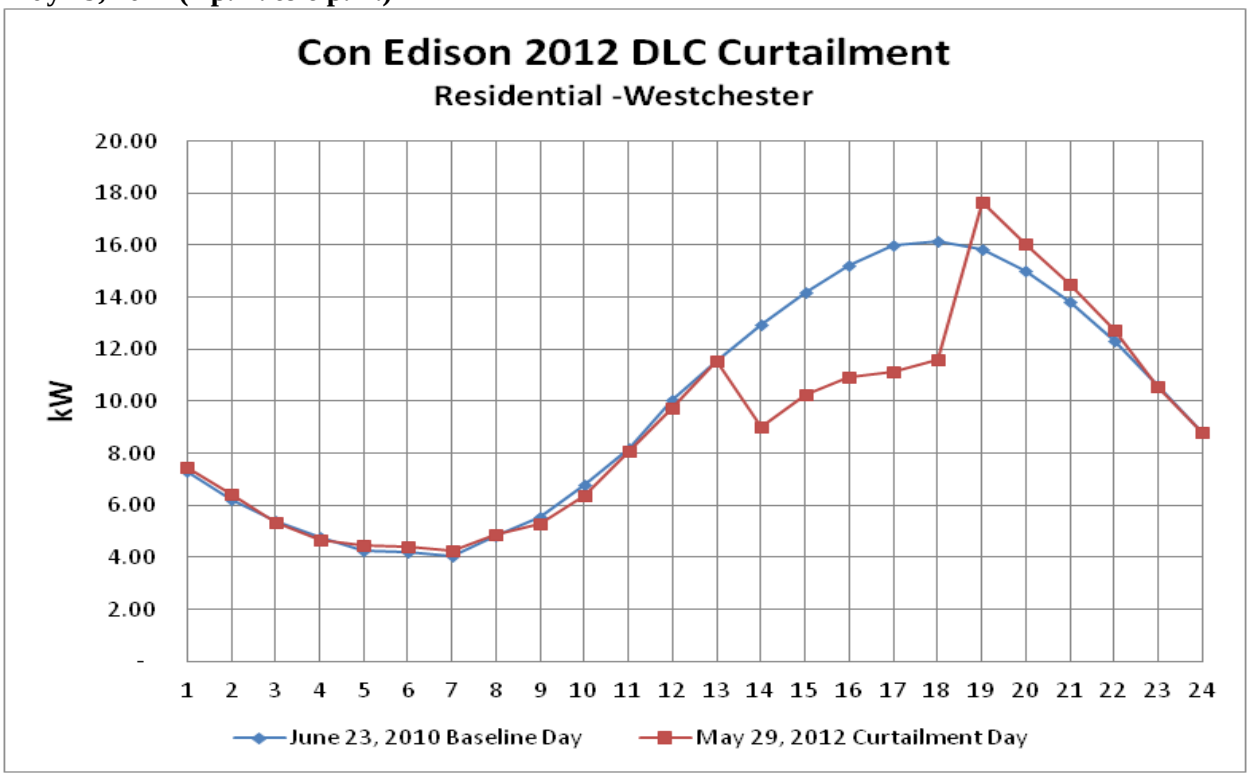


Figure 34: Residential Curtailment Event May 29, 2012 – NYC Only

May 29, 2012 Curtailment Event (NYC only)
1 p.m. to 6 p.m.: 50% Cycle

Residential Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **8,002**					
Net per unit kW load reductions	0.405	0.350	0.388	0.478	0.431
Net total kW load reductions with overrides	3,245	2,801	3,108	3,825	3,450
Cumulative overrides	2.00%	6.46%	11.78%	4.66%	13.52%

May 29, 2012 (1 p.m. to 6 p.m.)

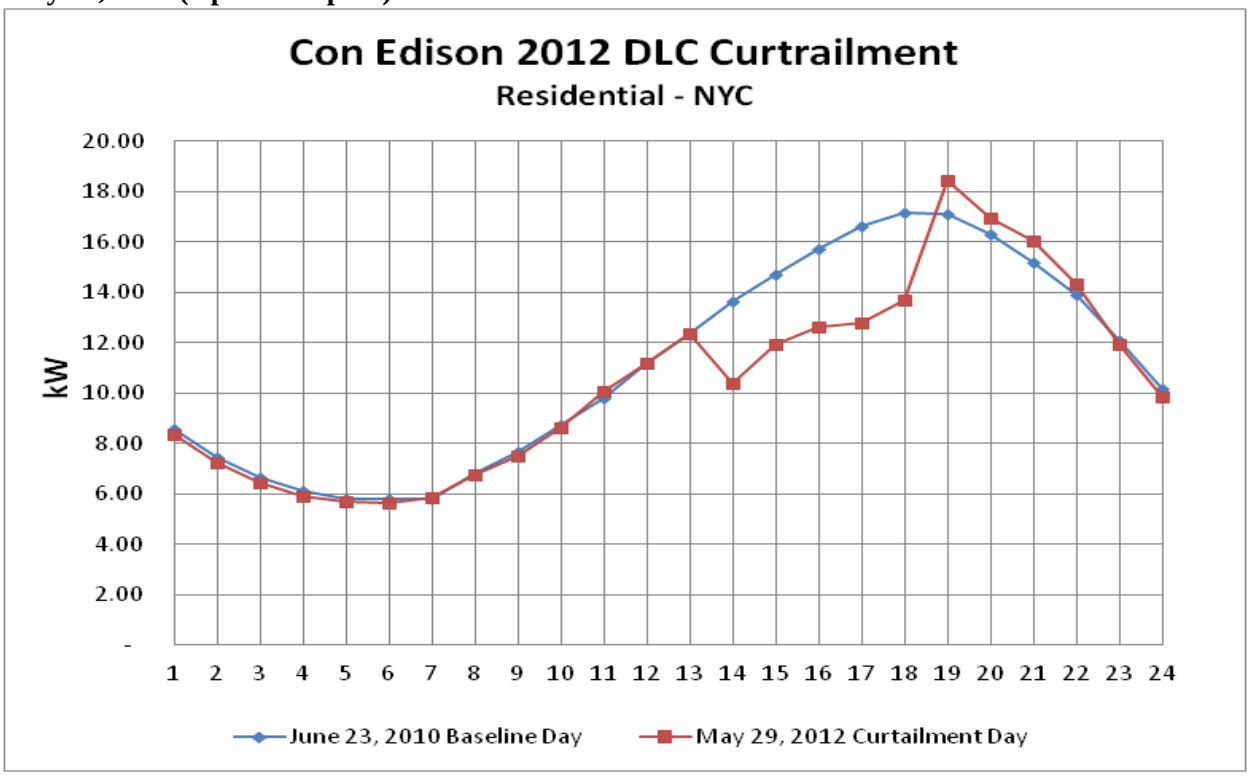


Figure 35: Small Business Curtailment Event May 29, 2012 – Westchester Only

May 29, 2012 Curtailment Event (Westchester only)
1 p.m. to 6 p.m.: 50% Cycle

Business Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **1,019**					
Net per unit kW load reductions	0.989	0.831	0.793	1.083	0.863
Net total kW load reductions with overrides	1,008	847	808	1,104	879
Cumulative overrides	8.01%	21.23%	30.38%	9.15%	22.41%

May 29, 2012 (1 p.m. to 6 p.m.)

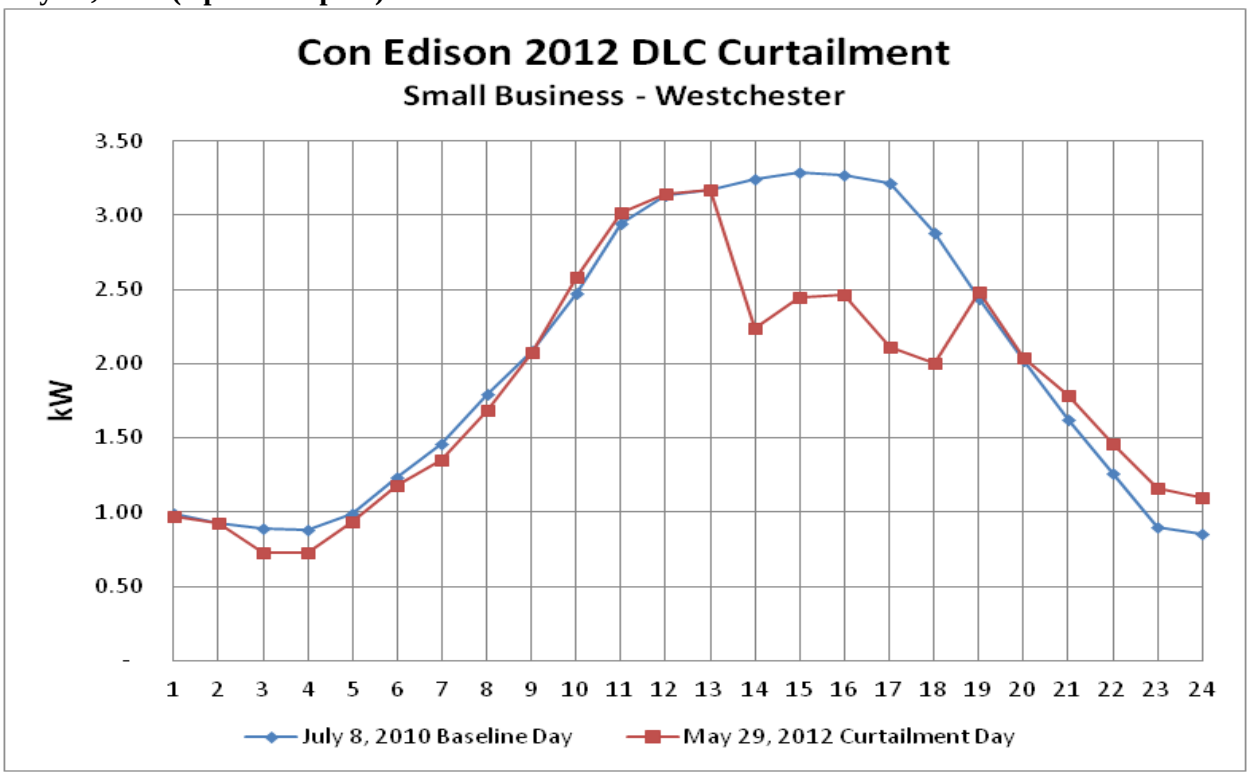


Figure 36: Small Business Curtailment Event May 29, 2012 – NYC Only

May 29, 2012 Curtailment Event (NYC only)
1 p.m. to 6 p.m.: 50% Cycle

Business Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **5,572**					
Net per unit kW load reductions	0.936	0.871	0.861	1.021	0.868
Net total kW load reductions with overrides	5,213	4,853	4,796	5,689	4,835
Cumulative overrides	8.01%	21.23%	30.38%	9.15%	22.41%

May 29, 2012 (1 p.m. to 6 p.m.)

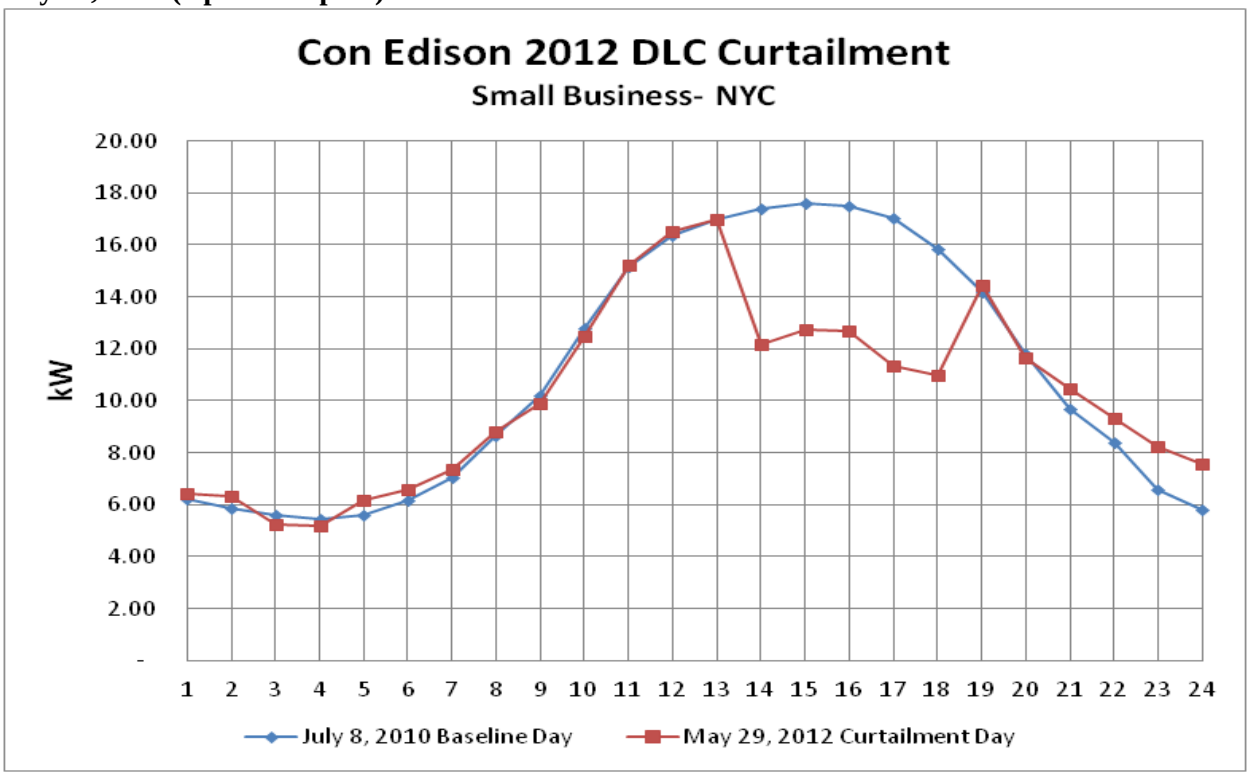


Figure 37: Small Business Curtailment Event June 20, 2012 – Maspeth

June 20, 2012 DLC Network Event (Maspeth)
5:30 p.m. to 1 a.m.: 50% Cycle

Business Component	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m.	Hour ending 10:00p.m.	Hour ending 11:00p.m.	Hour ending 12:00a.m.	Hour ending 1:00a.m.
Participating Thermostats **269**							
Net per unit kW load reductions	0.376	0.316	0.091	0.038	0.032	0.043	0.038
Net total kW load reductions with overrides	101	85	25	10	9	12	10
Cumulative overrides	5.92%	9.28%	11.52%	11.84%	12.64%	12.96%	13.12%

June 20, 2012 (5:30 p.m. to 1 a.m.)

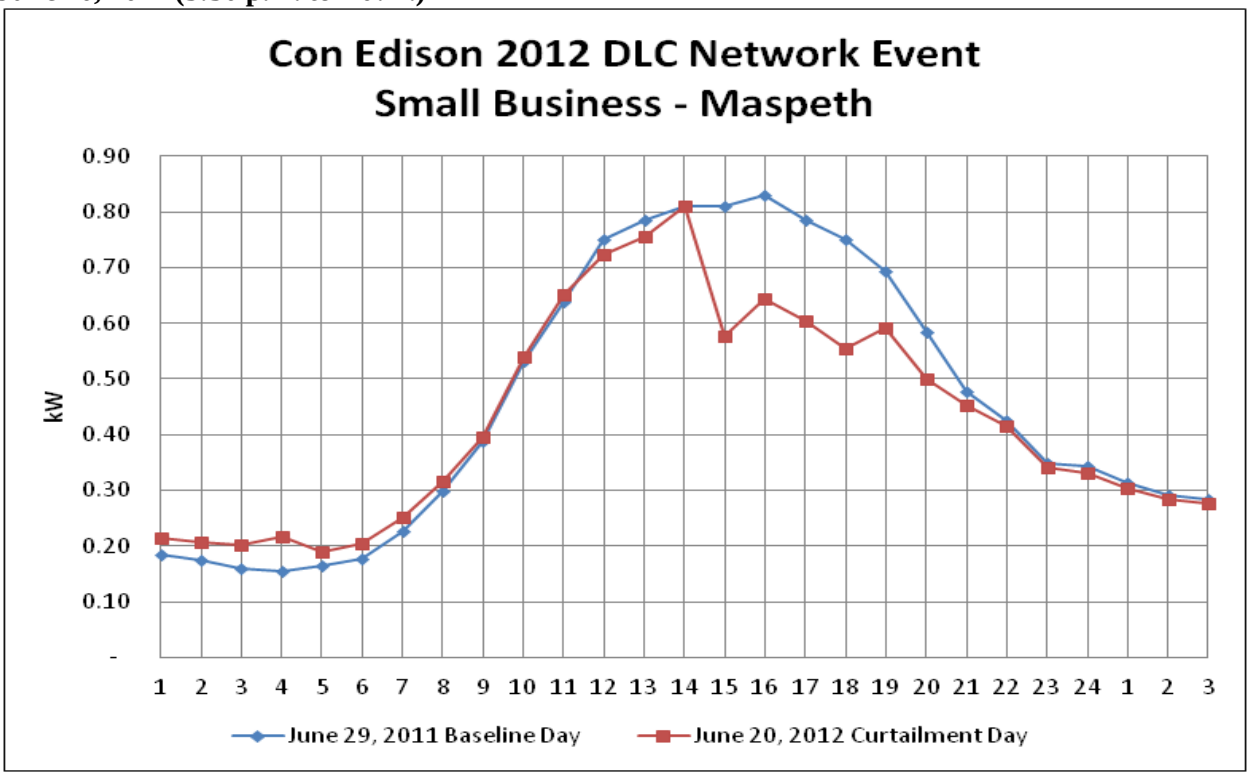


Figure 38: Residential Curtailment Event June 20, 2012 – Maspeth

June 20, 2012 DLC Network Event (Maspeth)
5:30 p.m. to 1 a.m.: 50% Cycle

Residential Component	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m.	Hour ending 10:00p.m.	Hour ending 11:00p.m.	Hour ending 12:00a.m.	Hour ending 1:00a.m.
Participating Thermostats **117**							
Net per unit kW load reductions	0.563	0.627	0.516	0.487	0.277	0.081	0.077
Net total kW load reductions with overrides	66	73	60	57	32	9	9
Cumulative overrides	7.06%	14.38%	21.31%	26.70%	30.55%	32.61%	32.86%

June 20, 2012 (5:30 p.m. to 1 a.m.)

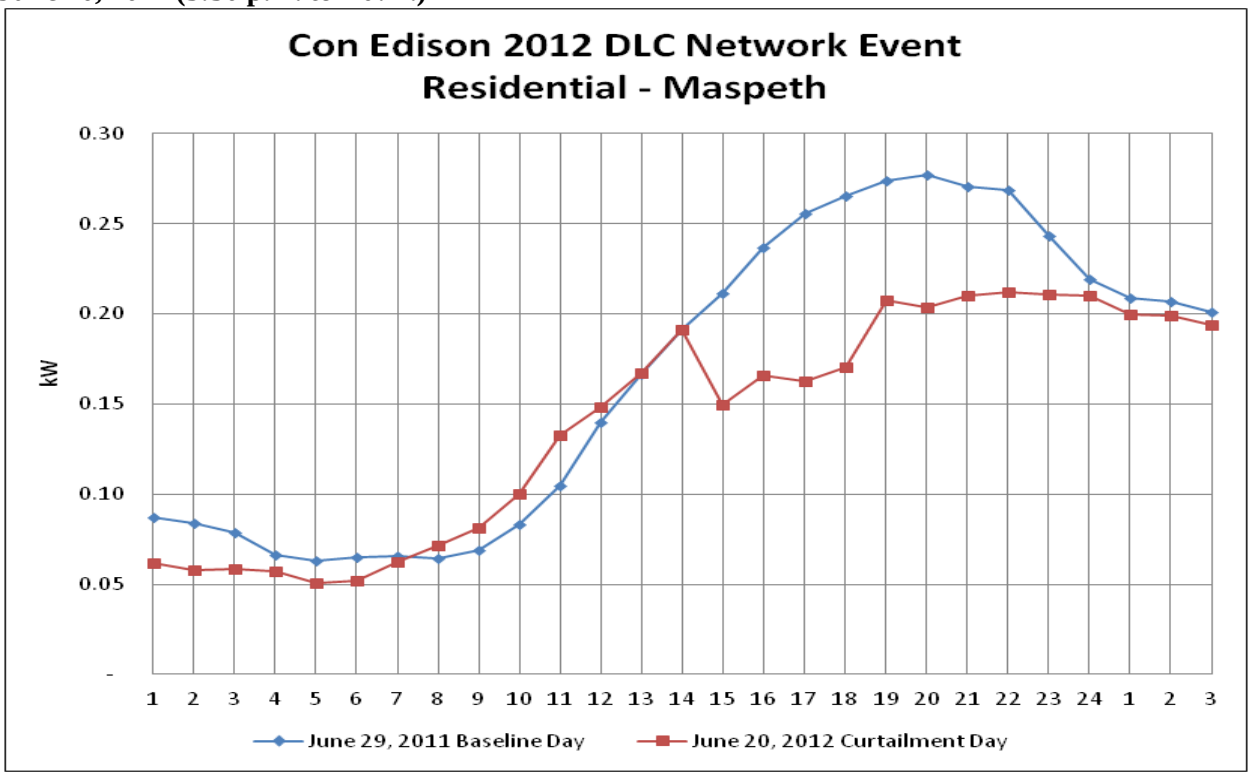


Figure 39: Residential Curtailment Event June 20, 2012 – Richmond Hill

June 20, 2012 DLC Network Event (Richmond Hill)
7 p.m. to 2 a.m.: 50% Cycle

Residential Component	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m.	Hour ending 10:00p.m.	Hour ending 11:00p.m.	Hour ending 12:00a.m.	Hour ending 1:00a.m.	Hour ending 2:00a.m.
Participating Thermostats **270**								
Net per unit kW load reductions	0.563	0.627	0.516	0.487	0.277	0.081	0.077	0.068
Net total kW load reductions with overrides	152	170	140	132	75	22	21	18
Cumulative overrides	7.06%	14.38%	21.31%	26.70%	30.55%	32.61%	32.86%	32.86%

June 20, 2012 (7 p.m. to 2 a.m.)

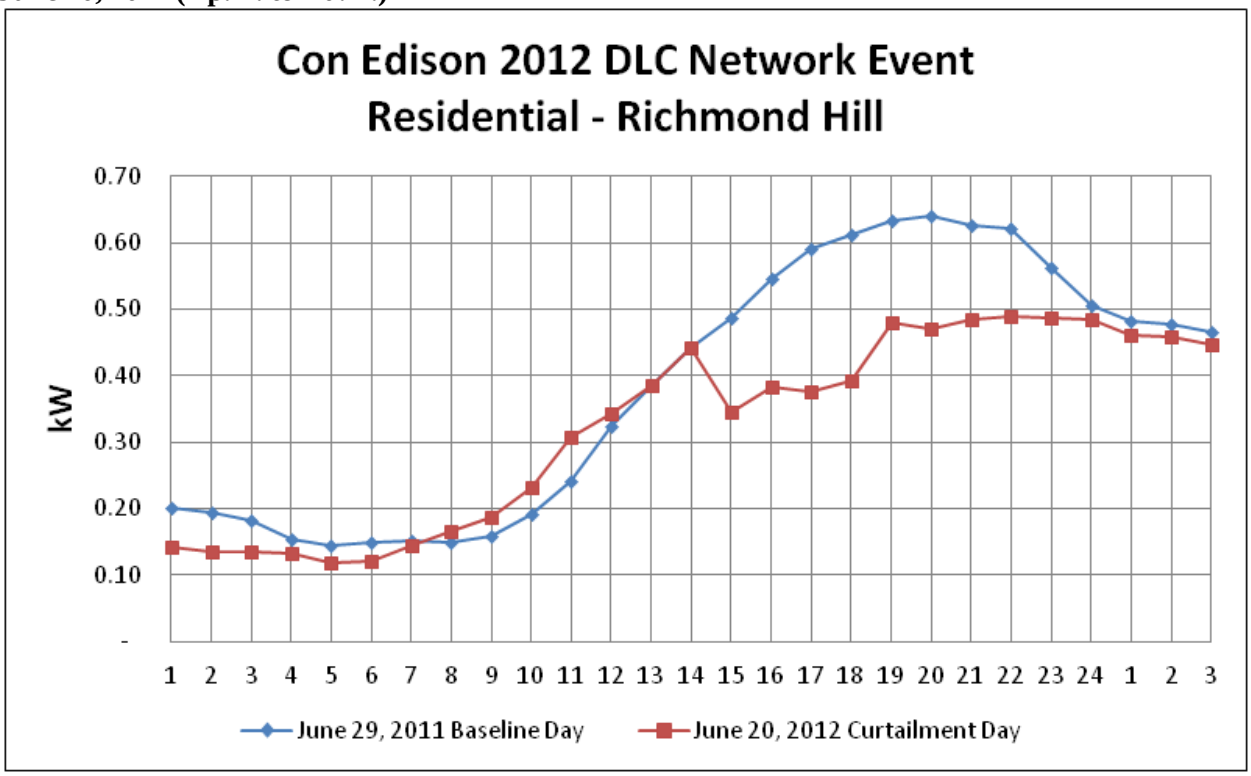


Figure 40: Small Business Curtailment Event June 20, 2012 – Richmond Hill

June 20, 2012 DLC Network Event (Richmond Hill)
7 p.m. to 2 a.m.: 50% Cycle

Business Component	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m.	Hour ending 10:00p.m.	Hour ending 11:00p.m.	Hour ending 12:00a.m.	Hour ending 1:00a.m.	Hour ending 2:00a.m.
Participating Thermostats **267**								
Net per unit kW load reductions	0.376	0.316	0.091	0.038	0.032	0.043	0.038	0.027
Net total kW load reductions with overrides	100	84	24	10	9	11	10	7
Cumulative overrides	5.92%	9.28%	11.52%	11.84%	12.64%	12.96%	13.12%	13.12%

June 20, 2012 (7 p.m. to 2 a.m.)

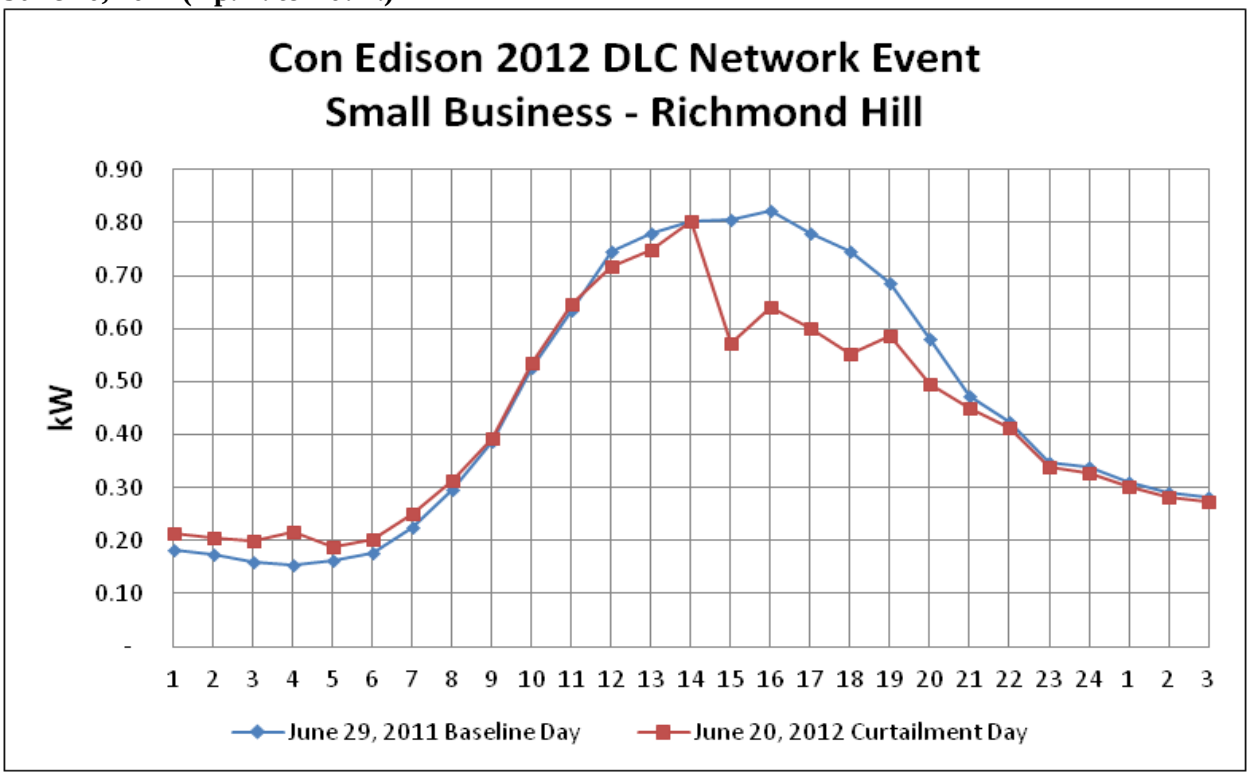


Figure 41: Residential Curtailment Event June 20, 2012 – Williamsburg, Sheepshead Bay, Jamaica

June 20, 2012 DLC Network Event (Williamsburg, Sheepshead, Jamaica)
6 p.m. to 12 a.m.: 50% Cycle

Residential Component	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m.	Hour ending 10:00p.m.	Hour ending 11:00p.m.	Hour ending 12:00a.m.
Participating Thermostats **946**						
Net per unit kW load reductions	0.563	0.627	0.516	0.487	0.277	0.081
Net total kW load reductions with overrides	533	594	489	460	263	77
Cumulative overrides	7.06%	14.38%	21.31%	26.70%	30.55%	32.61%

June 20, 2012 (6 p.m. to 12 a.m.)

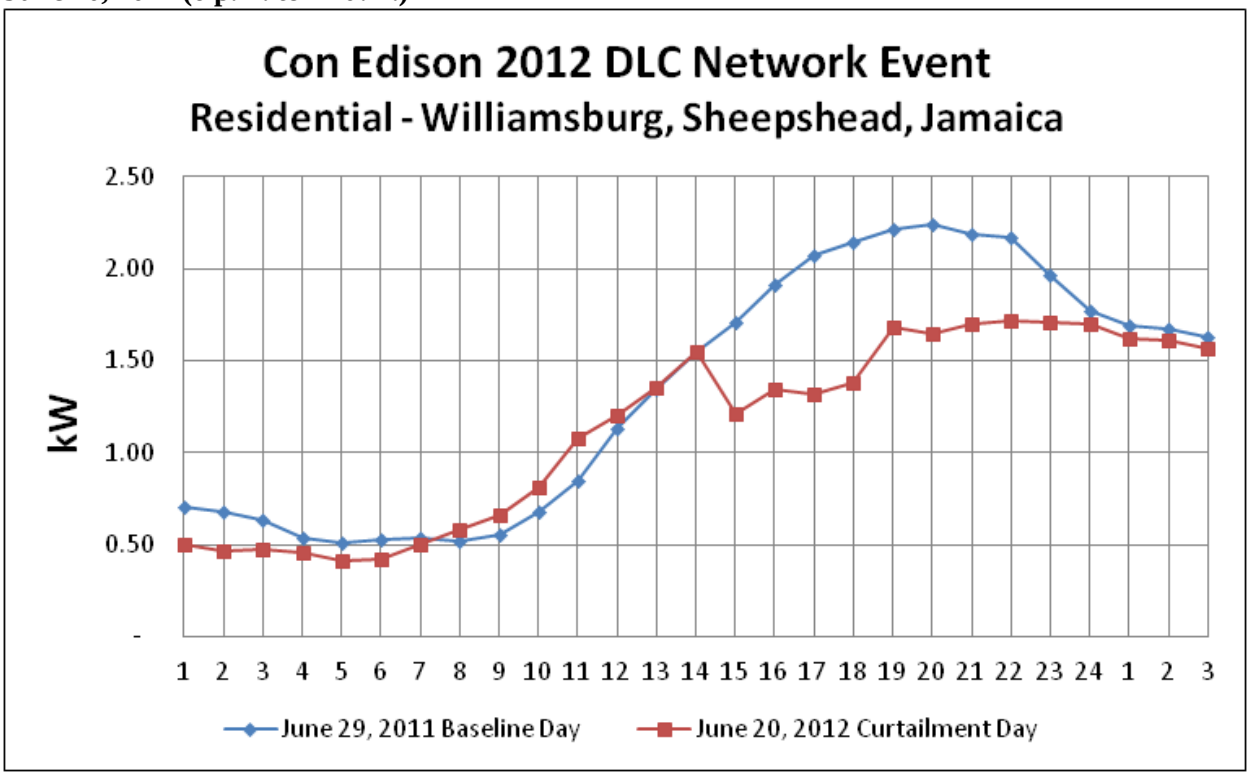


Figure 42: Small Business Curtailment Event June, 20, 2012 – Williamsburg, Sheepshead Bay, Jamaica

June 20, 2012 DLC Network Event (Williamsburg, Sheepshead, Jamaica)
6 p.m. to 12 a.m.: 50% Cycle

Business Component	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m.	Hour ending 10:00p.m.	Hour ending 11:00p.m.	Hour ending 12:00a.m.
Participating Thermostats **719**						
Net per unit kW load reductions	0.376	0.316	0.091	0.038	0.032	0.043
Net total kW load reductions with overrides	271	227	66	27	23	31
Cumulative overrides	5.92%	9.28%	11.52%	11.84%	12.64%	12.96%

June 20, 2012 (6 p.m. to 12 a.m.)

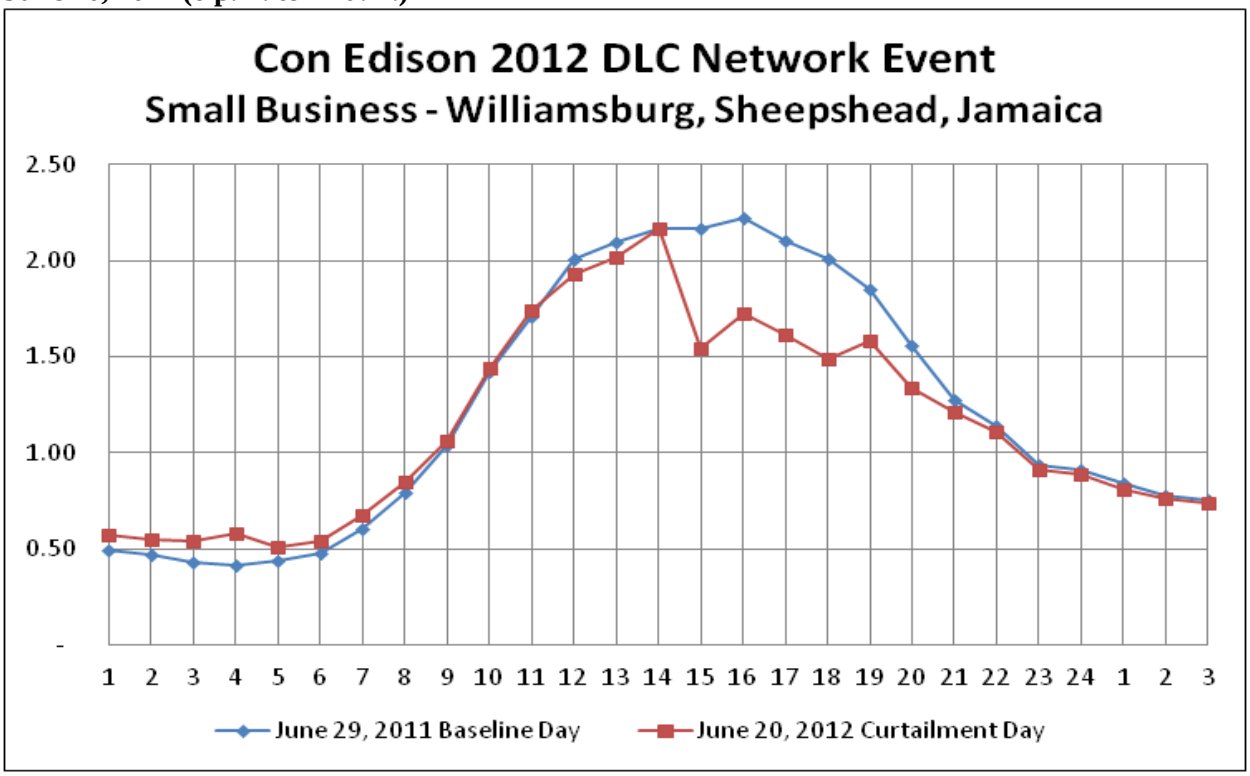


Figure 43: Small Business Curtailment Event June 21, 2012 – NYC Only

June 21, 2012 Curtailment Event (NYC only)
12 p.m. to 6 p.m.: 50% Cycle

Business Component	Hour ending 1:00p.m.	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m.	Hour ending 6:00p.m.
Participating Thermostats **5,625**				(refresh)		
Net per unit kW load reductions	1.394	1.079	1.174	1.121	1.330	1.043
Net total kW load reductions with overrides	7,841	6,071	6,606	6,307	7,482	5,866
Cumulative overrides	8.95%	18.35%	22.76%	27.72%	5.37%	13.32%

June 21, 2012 (12 p.m. to 6 p.m.)

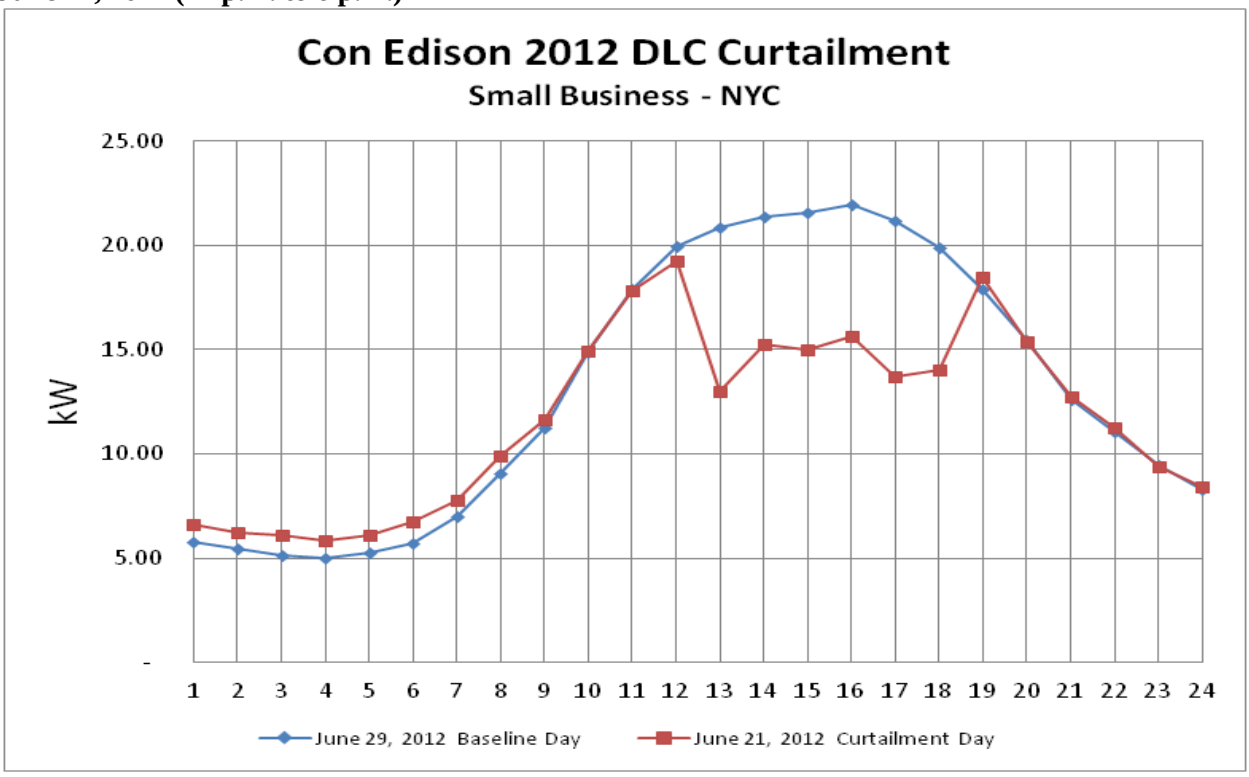


Figure 44: Residential Curtailment Event June 21, 2012 – NYC Only

June 21, 2012 Curtailment Event (NYC only)
12 p.m. to 6 p.m.: 50% Cycle

Residential Component	Hour ending 1:00p.m.	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m.	Hour ending 6:00p.m.
Participating Thermostats **7,985**				(refresh)		
Net per unit kW load reductions	0.627	0.582	0.757	0.829	0.987	0.924
Net total kW load reductions with overrides	5,004	4,645	6,047	6,619	7,883	7,381
Cumulative overrides	3.14%	6.68%	9.41%	12.80%	4.30%	11.01%

June 21, 2012 (12 p.m. to 6 p.m.)

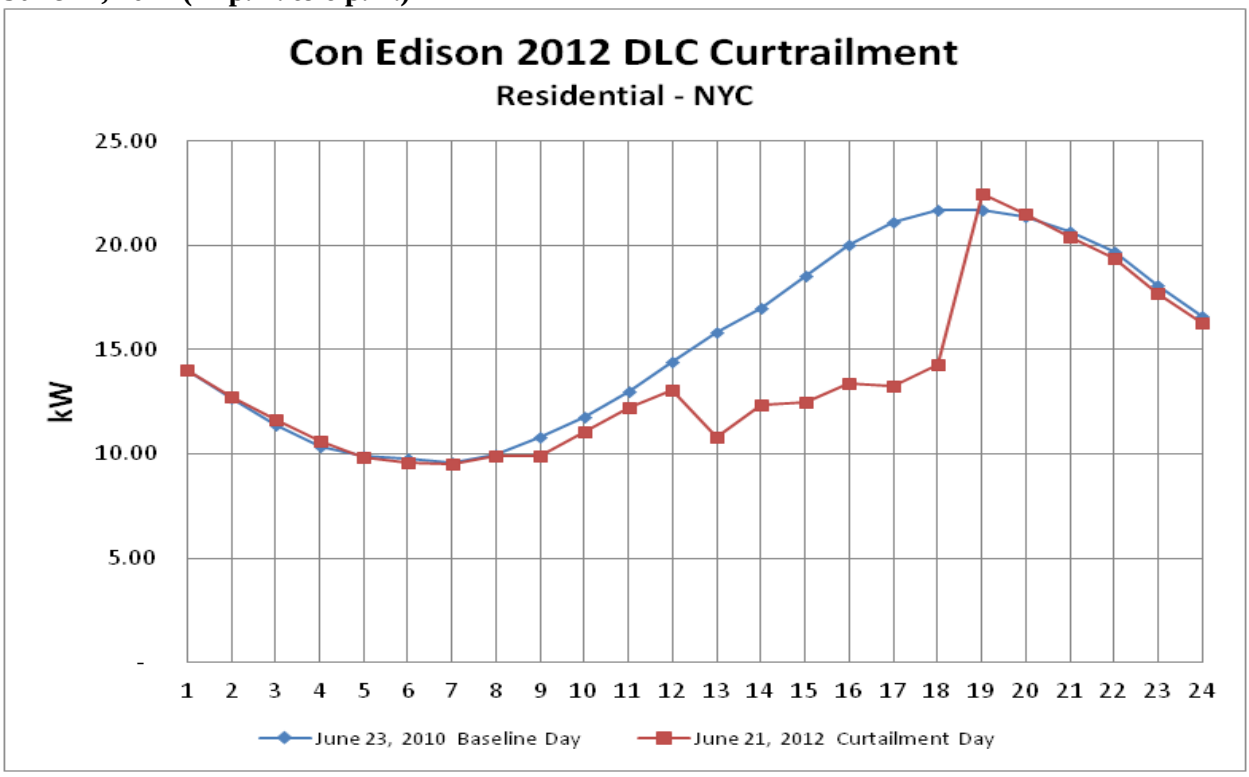


Figure 45: Residential Curtailment Event June 21, 2012 – Westchester Only

June 21, 2012 Curtailment Event (Westchester only)
1 p.m. to 6 p.m.: 50% Cycle

Residential Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **6,805**					
Net per unit kW load reductions	0.995	0.986	1.024	1.135	1.119
Net total kW load reductions with overrides	6,767	6,712	6,971	7,723	7,615
Cumulative overrides	1.73%	5.53%	10.04%	2.55%	9.22%

June 21, 2012 (1 p.m. to 6 p.m.)

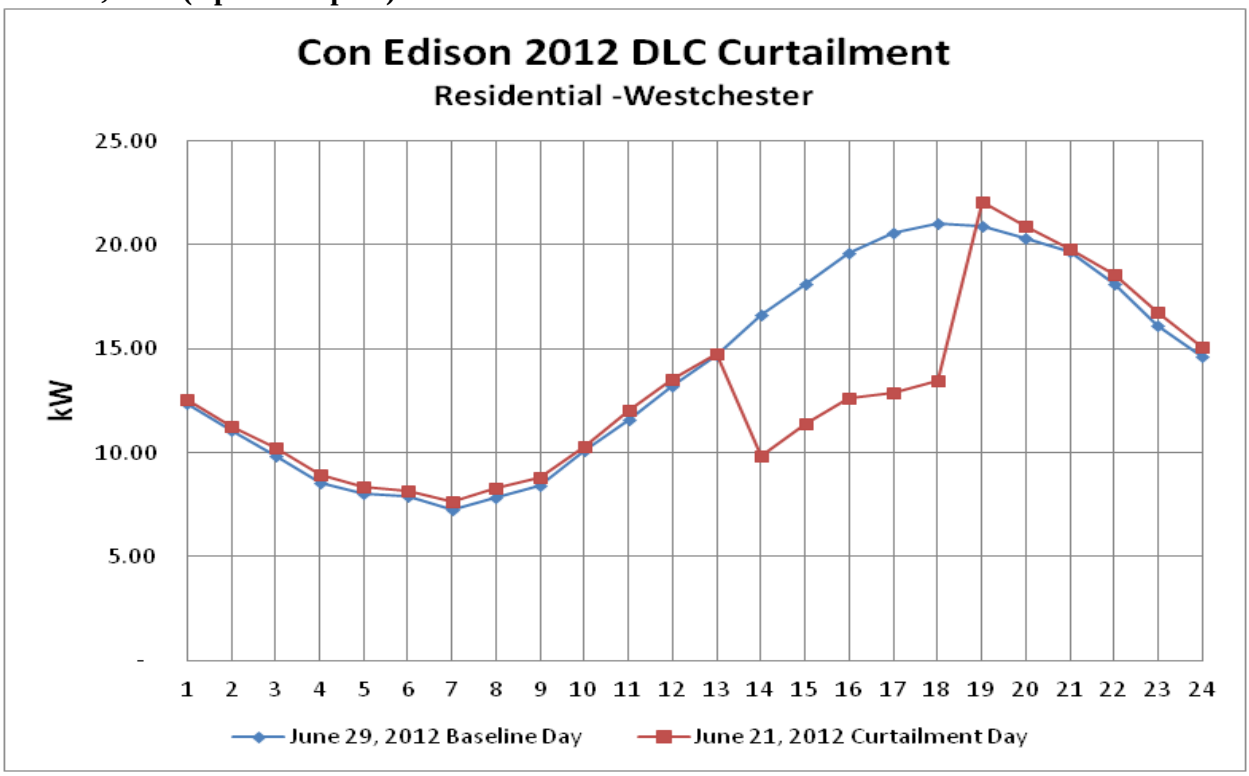


Figure 46: Small Business Curtailment Event June 21, 2012 – Westchester Only

June 21, 2012 Curtailment Event (Westchester only)
1 p.m. to 6 p.m.: 50% Cycle

Business Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **962**					
Net per unit kW load reductions	1.382	1.160	0.960	1.134	0.865
Net total kW load reductions with overrides	1,329	1,115	871	1,091	832
Cumulative overrides	4.29%	11.94%	17.96%	2.35%	8.16%

June 21, 2012 (1 p.m. to 6 p.m.)

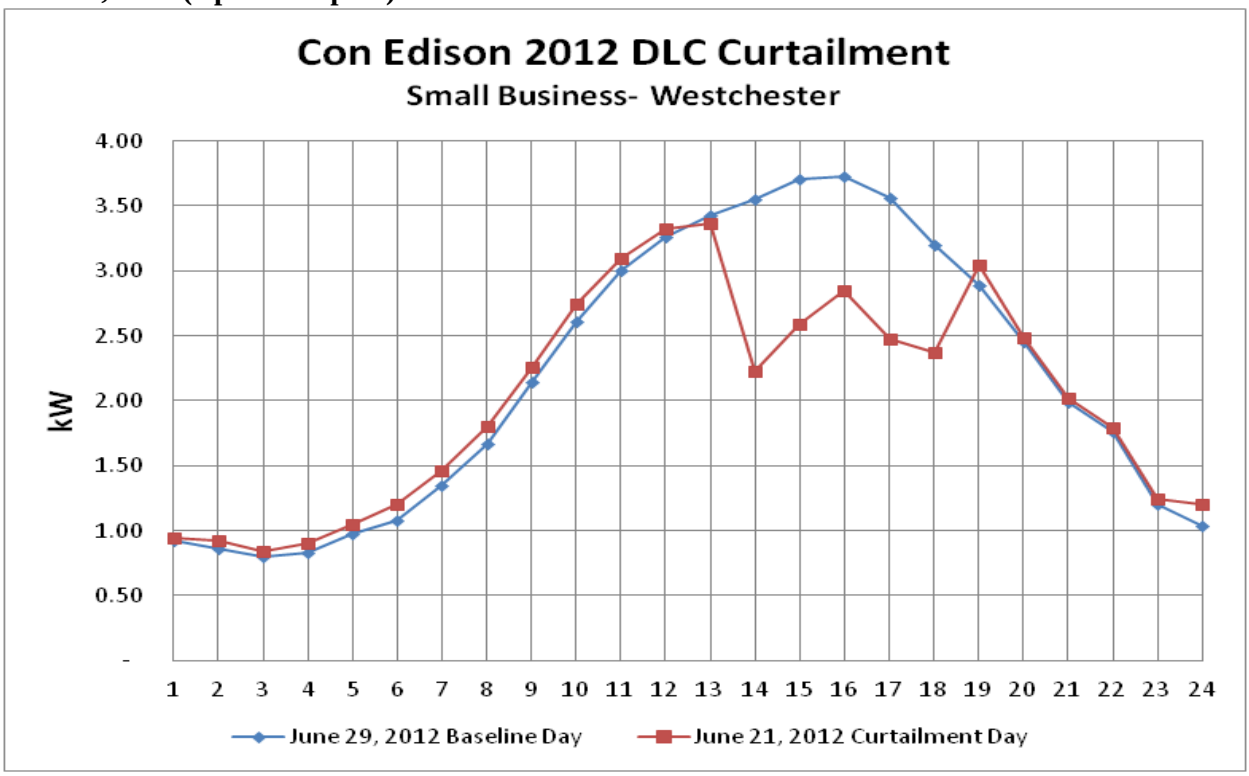


Figure 47: Residential Curtailment Event June 21, 2012 – Westchester Only

June 21, 2012 Curtailment Event (Westchester only)
5 p.m. to 10 p.m.: 50% Cycle

Residential Component	Hour ending 6:00p.m.	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m. (refresh)	Hour ending 10:00p.m.
Participating Thermostats **1,525**					
Net per unit kW load reductions	1.114	0.865	0.937	0.755	0.585
Net total kW load reductions with overrides	1,699	1,319	1,428	1,152	891
Cumulative overrides	2.58%	8.80%	5.21%	14.56%	22.09%

June 21, 2012 (5 p.m. to 10 p.m.)

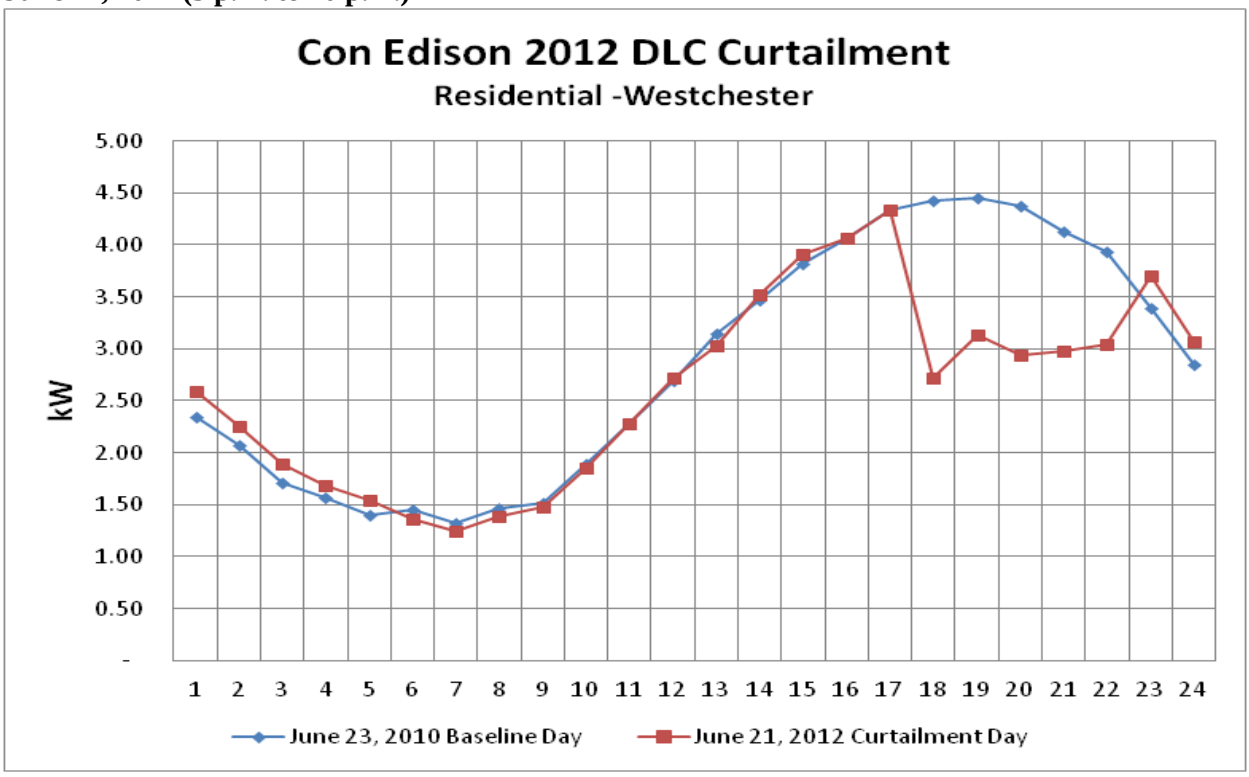


Figure 48: Residential Curtailment Event June 21, 2012 – NYC Only

June 21, 2012 Curtailment Event (NYC only)
5 p.m. to 10 p.m.: 50% Cycle

Residential Component	Hour ending 6:00p.m.	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m. (refresh)	Hour ending 10:00p.m.
Participating Thermostats **5,491**					
Net per unit kW load reductions	1.067	0.807	0.862	0.820	0.619
Net total kW load reductions with overrides	5,859	4,429	4,734	4,500	3,398
Cumulative overrides	2.76%	7.85%	4.77%	14.26%	22.59%

June 21, 2012 (5 p.m. to 10 p.m.)

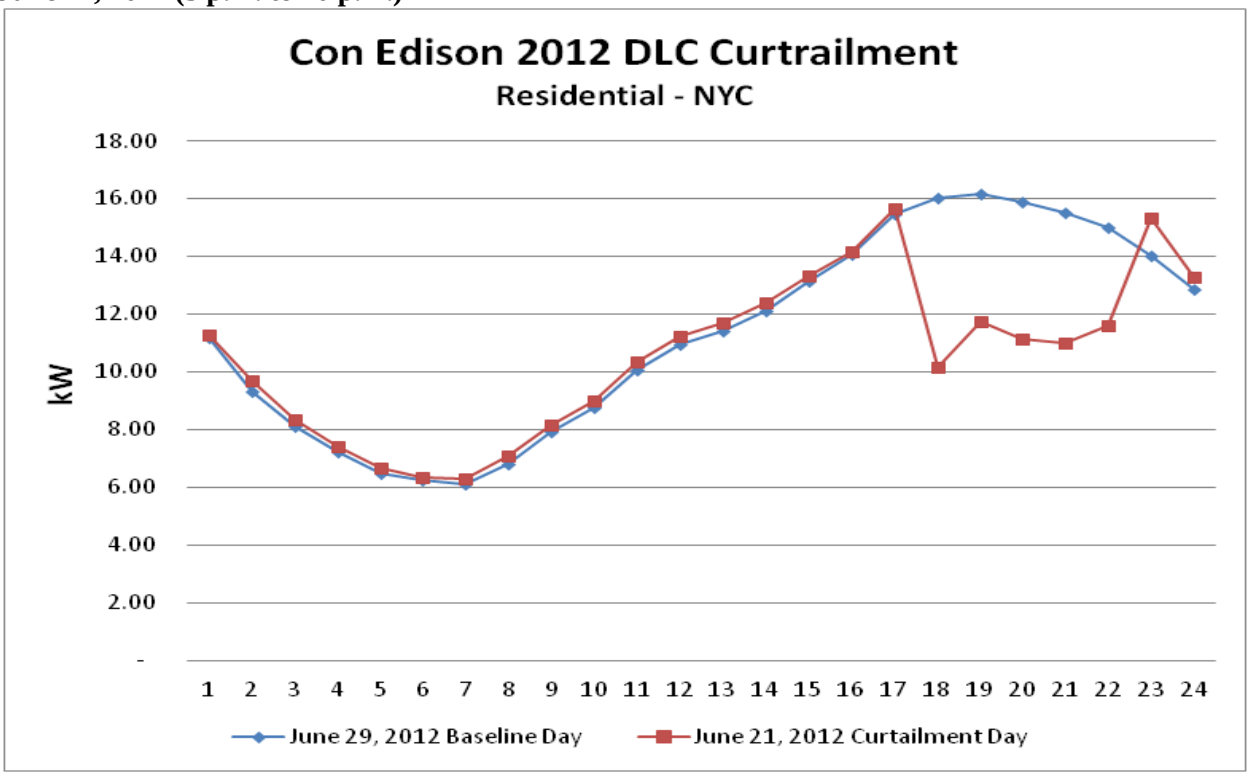


Figure 49: Small Business Curtailment Event June 21, 2012 – Westchester Only

June 21, 2012 Curtailment Event (Westchester only)
5 p.m. to 10 p.m.: 50% Cycle

Business Component	Hour ending 6:00p.m.	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m. (refresh)	Hour ending 10:00p.m.
Participating Thermostats **176**					
Net per unit kW load reductions	1.253	0.502	0.360	0.134	0.070
Net total kW load reductions with overrides	220	88	63	24	12
Cumulative overrides	2.84%	8.52%	1.70%	5.11%	7.95%

June 21, 2012 (5 p.m. to 10 p.m.)

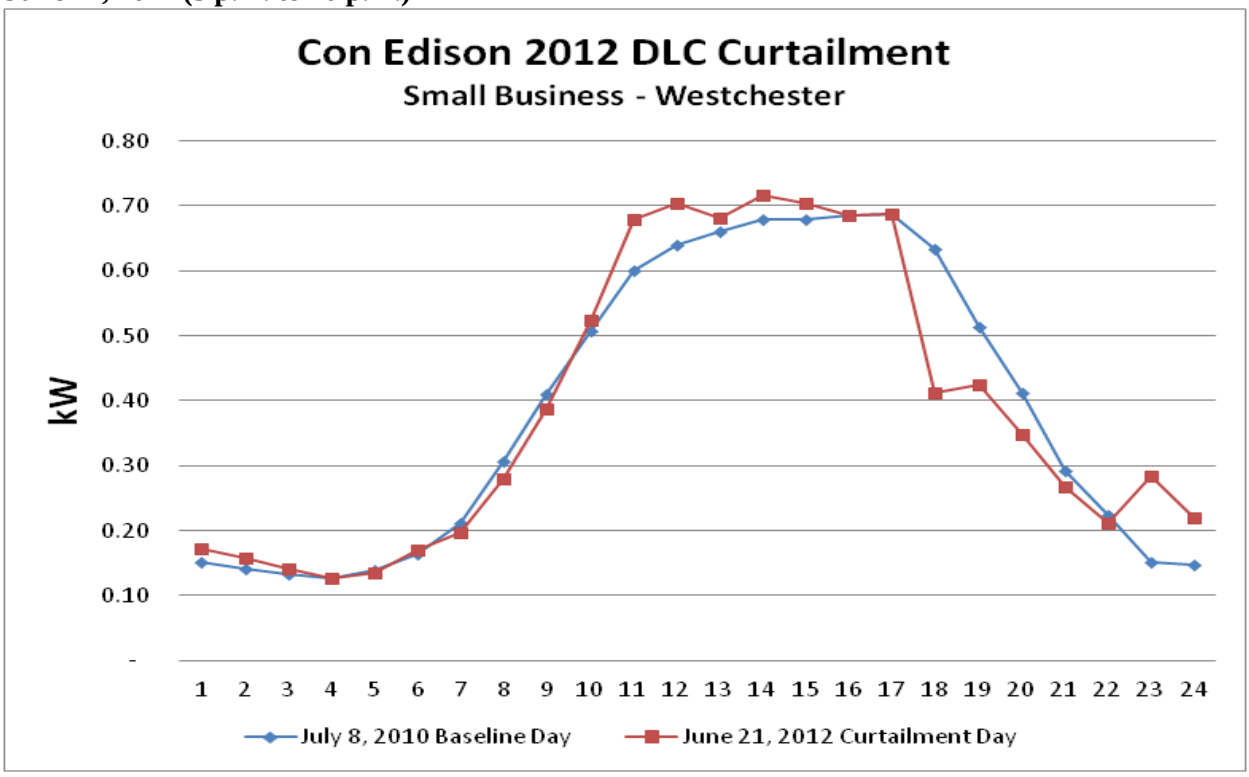


Figure 50: Small Business Curtailment Event June 21, 2012 - NYC Only

June 21, 2012 Curtailment Event (NYC only)
5 p.m. to 10 p.m.: 50% Cycle

Business Component	Hour ending 6:00p.m.	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m. (refresh)	Hour ending 10:00p.m.
Participating Thermostats **258**					
Net per unit kW load reductions	0.893	0.466	0.497	0.425	0.199
Net total kW load reductions with overrides	230	120	128	110	51
Cumulative overrides	3.52%	8.20%	3.13%	6.64%	8.98%

June 21, 2012 (5 p.m. to 10 p.m.)

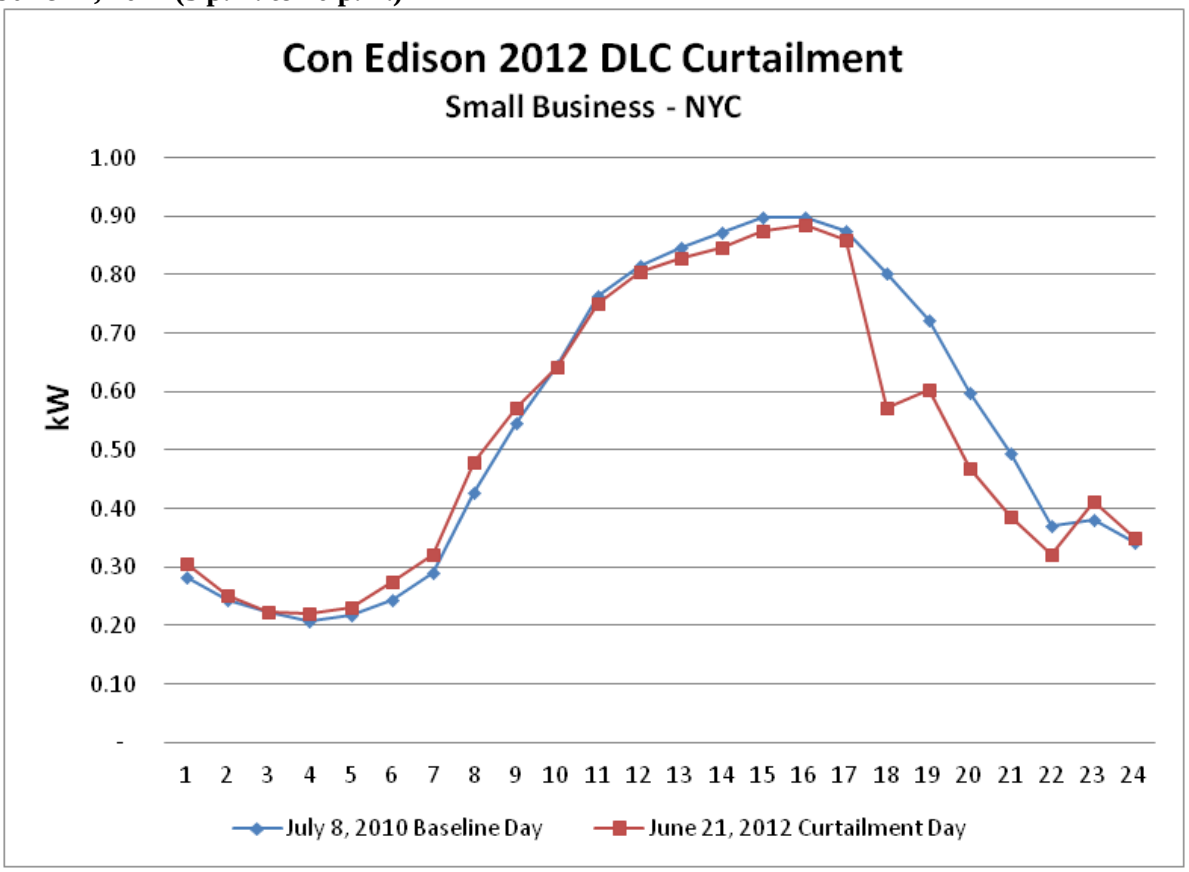


Figure 51: Small Business Curtailment Event June 22, 2012 – Westchester Only

June 22, 2012 Curtailment Event (Westchester only)
1 p.m. to 6 p.m.: 50% Cycle

Residential Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **1,525**					
Net per unit kW load reductions	0.837	0.123	0.190	0.286	0.404
Net total kW load reductions with overrides	4,319	632	983	1,474	2,085
Cumulative overrides	0.00%	14.60%	23.85%	0.00%	13.01%

June 22, 2012 (1 p.m. to 6 p.m.)

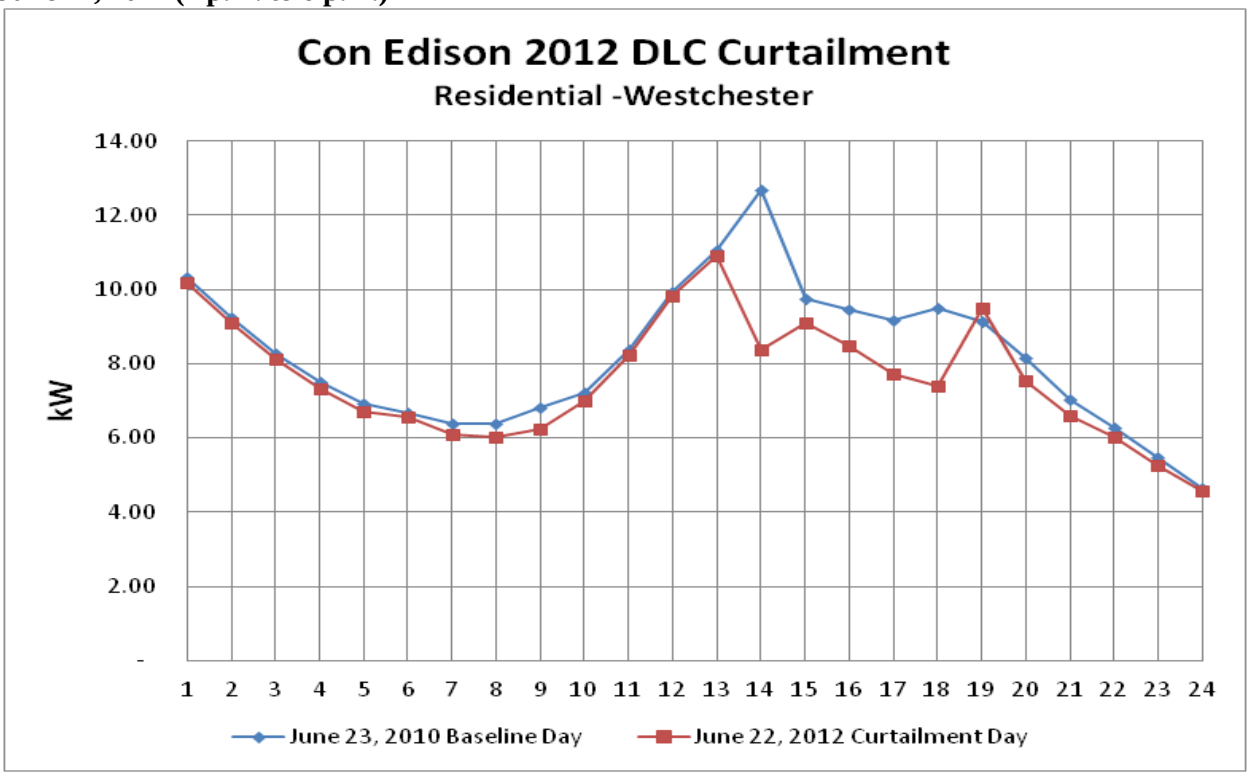


Figure 52: Residential Curtailment Event June 22, 2012 – NYC Only

June 22, 2012 Curtailment Event (NYC only)
1 p.m. to 6 p.m.: 50% Cycle

Residential Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **9,789**					
Net per unit kW load reductions	0.636	0.077	0.128	0.384	0.333
Net total kW load reductions with overrides	6,226	752	1,254	3,761	3,259
Cumulative overrides	0.96%	2.58%	4.08%	1.65%	4.86%

June 22, 2012 (1 p.m. to 6 p.m.)

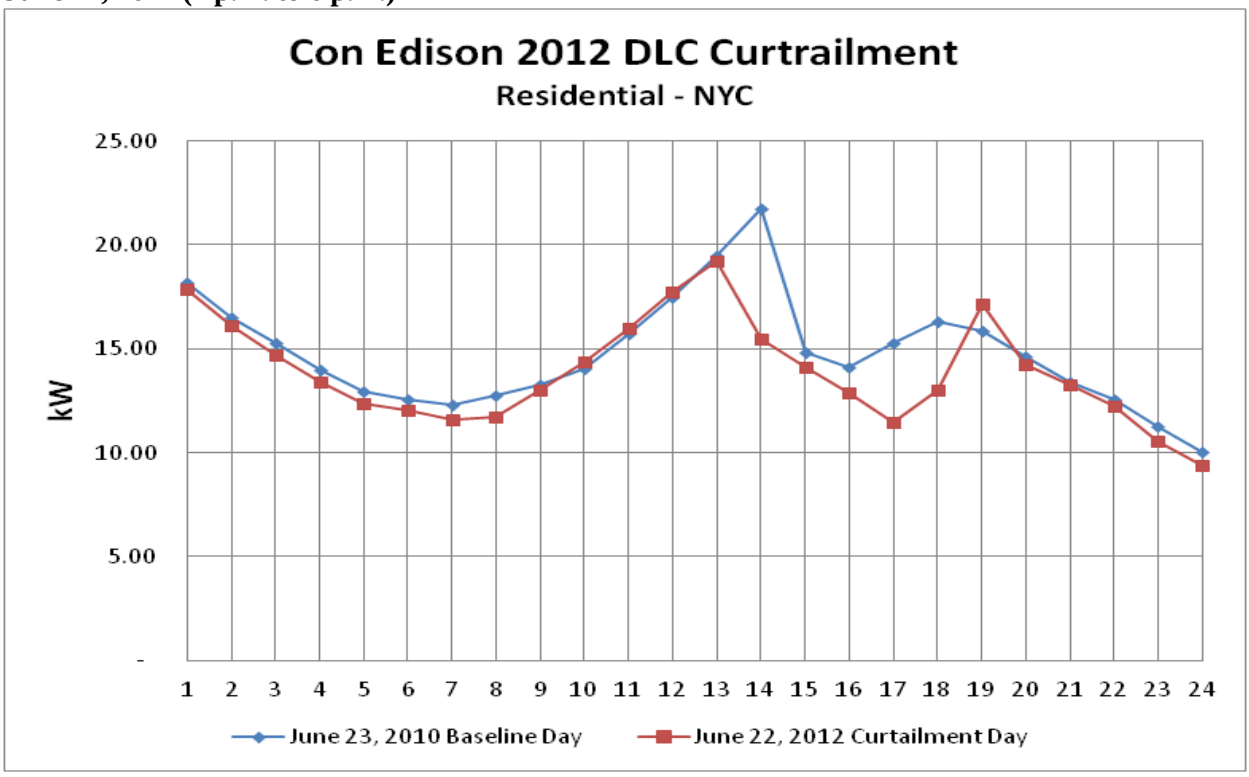


Figure 53: Small Business Curtailment Event June 22, 2012 – Westchester Only

June 22, 2012 Curtailment Event (Westchester only)
1 p.m. to 6 p.m.: 50% Cycle

Business Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **1,021**					
Net per unit kW load reductions	1.296	0.195	0.156	0.644	0.403
Net total kW load reductions with overrides	1,323	199	160	657	411
Cumulative overrides	3.75%	10.55%	15.78%	3.65%	8.38%

June 22, 2012 (1 p.m. to 6 p.m.)

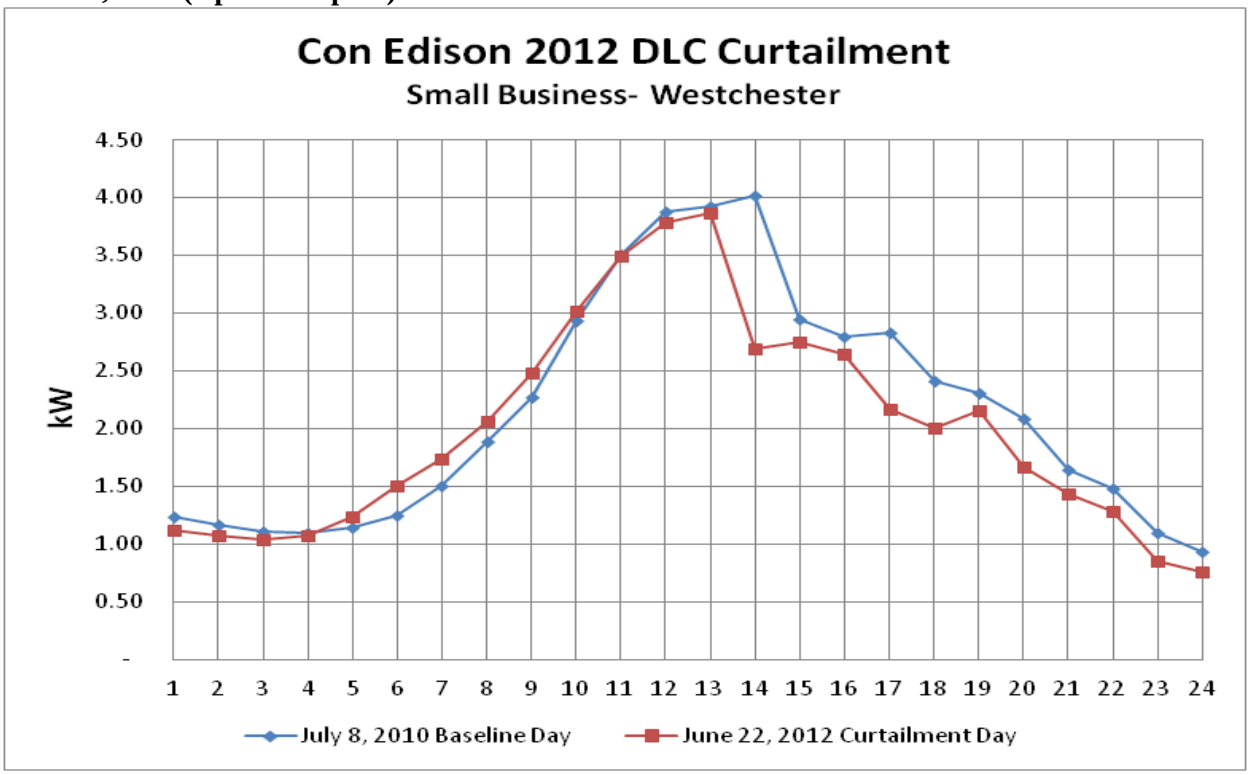


Figure 54: Small Business Curtailment Event June 22, 2012 – NYC Only

June 22, 2012 Curtailment Event (NYC only)
1 p.m. to 6 p.m.: 50% Cycle

Residential Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **5,625**					
Net per unit kW load reductions	1.097	0.149	0.106	0.599	0.389
Net total kW load reductions with overrides	6,170	838	596	3,372	2,190
Cumulative overrides	4.40%	11.70%	16.55%	4.48%	10.99%

June 22, 2012 (1 p.m. to 6 p.m.)

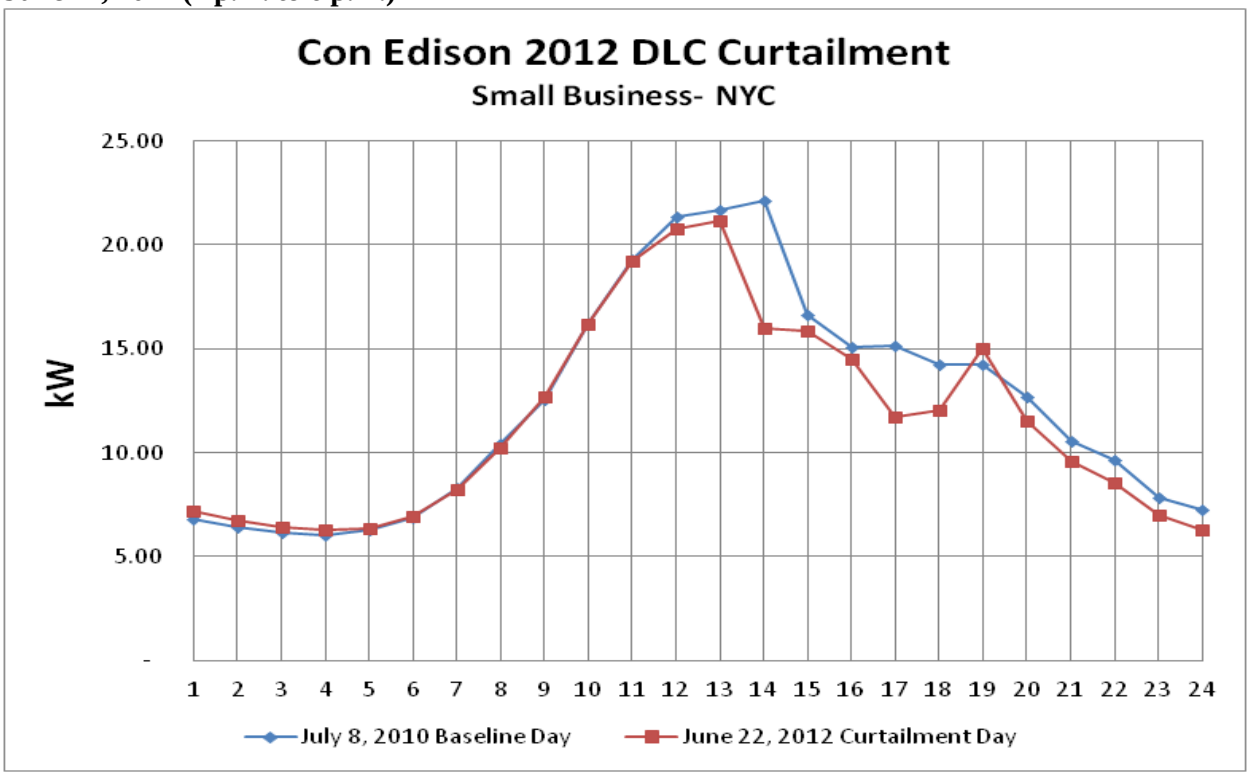


Figure 55: Residential Test Event July 6, 2012 – Westchester Only

July 6, 2012 Test Event (Westchester only)
4 p.m. to 5 p.m.: 50% Cycle

Residential Component		Hour ending 5:00 p.m.
Participating Thermostats	**6,955**	
Net per unit kW load reductions		0.863
Net total kW load reductions with overrides		6,006
Cumulative overrides		3.1%

July 6, 2012 (4 p.m. to 5 p.m.)

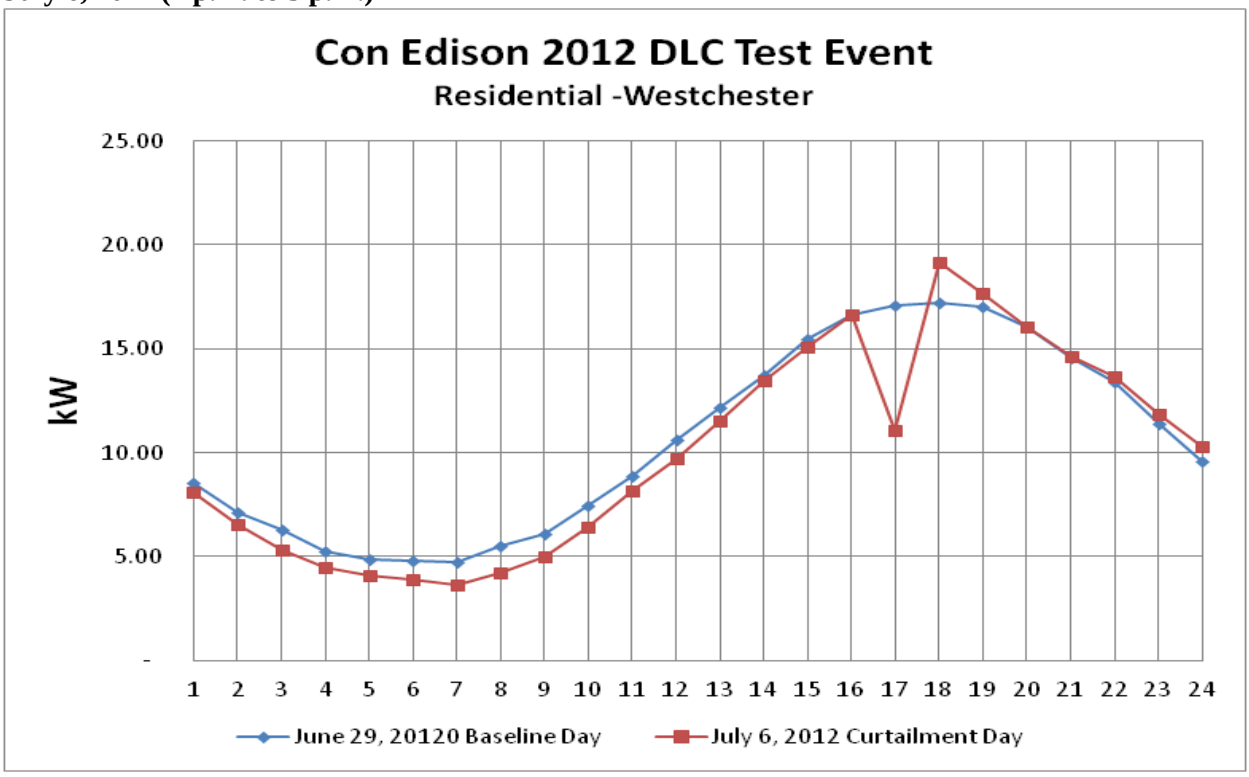


Figure 56: Residential Test Event July 6, 2012 – NYC Only

July 6, 2012 Test Event (NYC only)
4 p.m. to 5 p.m.: 50% Cycle

Residential Component		Hour ending 5:00 p.m.
Participating Thermostats	**13,458**	
Net per unit kW load reductions		0.832
Net total kW load reductions with overrides		11,201
Cumulative overrides		3.4%

July 6, 2012 (4 p.m. to 5 p.m.)

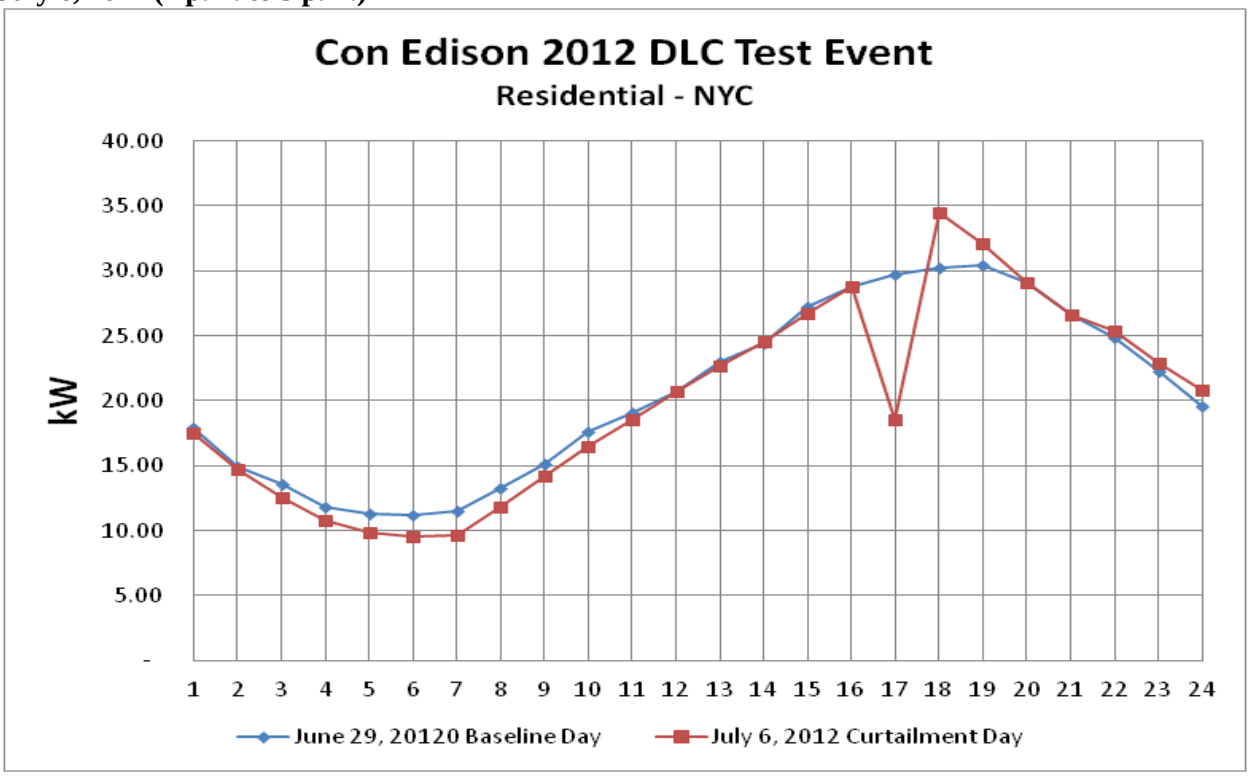


Figure 57: Small Business Test Event July 6, 2012 – Westchester Only

July 6, 2012 Test Event (NYC only)
4 p.m. to 5 p.m.: 50% Cycle

Business Component		Hour ending 5:00 p.m.
Participating Thermostats	**1,015**	
Net per unit kW load reductions		1.239
Net total kW load reductions with overrides		1,257
Cumulative overrides		7.7%

July 6, 2012 (4 p.m. to 5 p.m.)

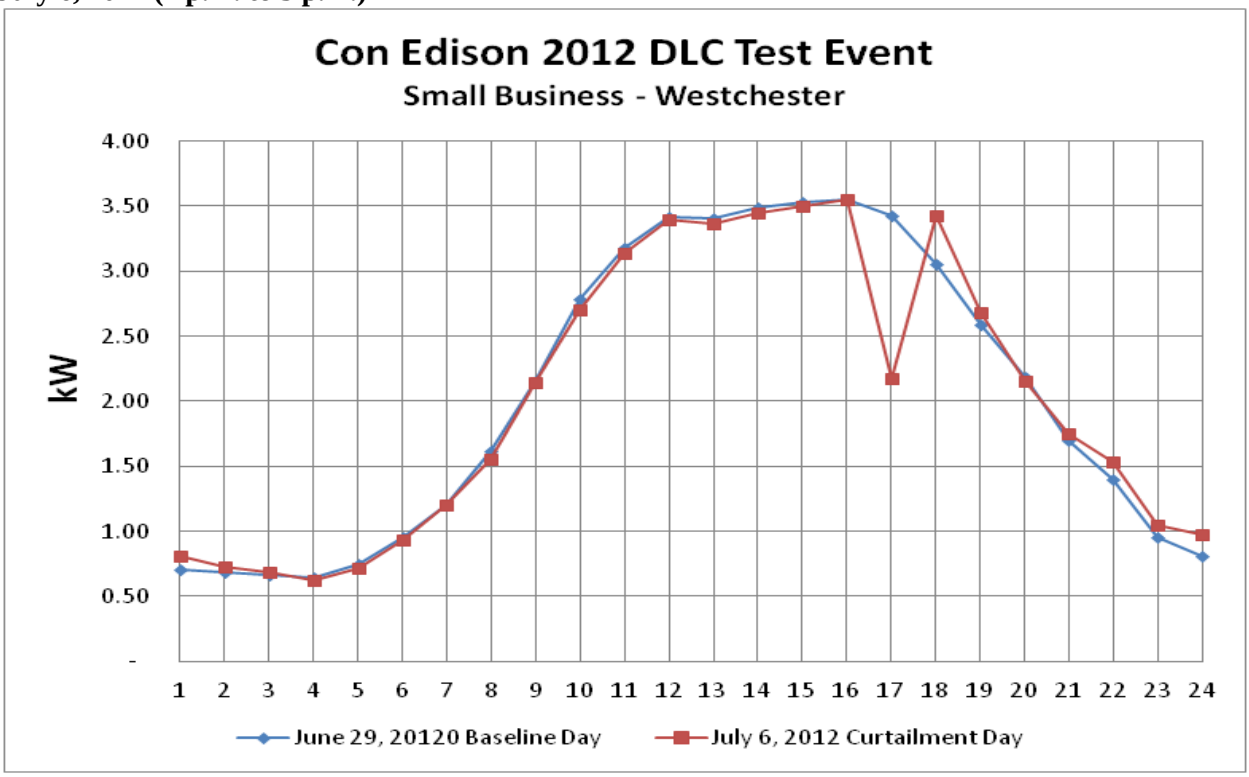


Figure 58: Small Business Test Event July 6, 2012 – NYC Only

July 6, 2012 Test Event (NYC only)
4 p.m. to 5 p.m.: 50% Cycle

Business Component	Hour ending 5:00 p.m.
Participating Thermostats **5,846**	
Net per unit kW load reductions	1.379
Net total kW load reductions with overrides	8,062
Cumulative overrides	8.4%

July 6, 2012 (4 p.m. to 5 p.m.)

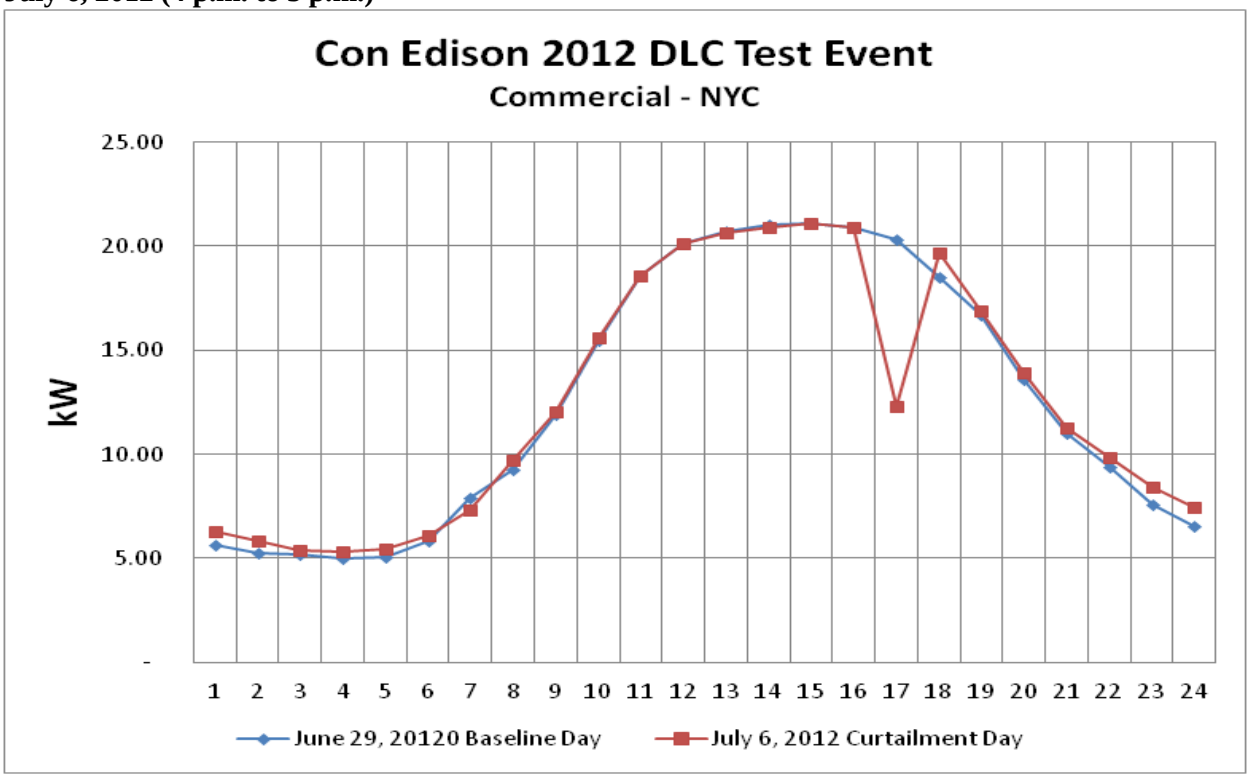


Figure 59: Residential Curtailment Event July 17, 2012 – NYC Only

July 17, 2012 Curtailment Event (NYC only)
3 p.m. to 8 p.m.: 50% Cycle

Residential Component	Hour ending 4:00p.m.	Hour ending 5:00p.m.	Hour ending 6:00p.m	Hour ending 7:00p.m. (refresh)	Hour ending 8:00p.m.
Participating Thermostats **507**					
Net per unit kW load reductions	0.841	0.747	0.785	0.790	0623
Net total kW load reductions with overrides	426	378	398	400	316
Cumulative overrides	2.37%	6.78%	4.43%	7.63%	11.69%

July 17, 2012 (3 p.m. to 8 p.m.)

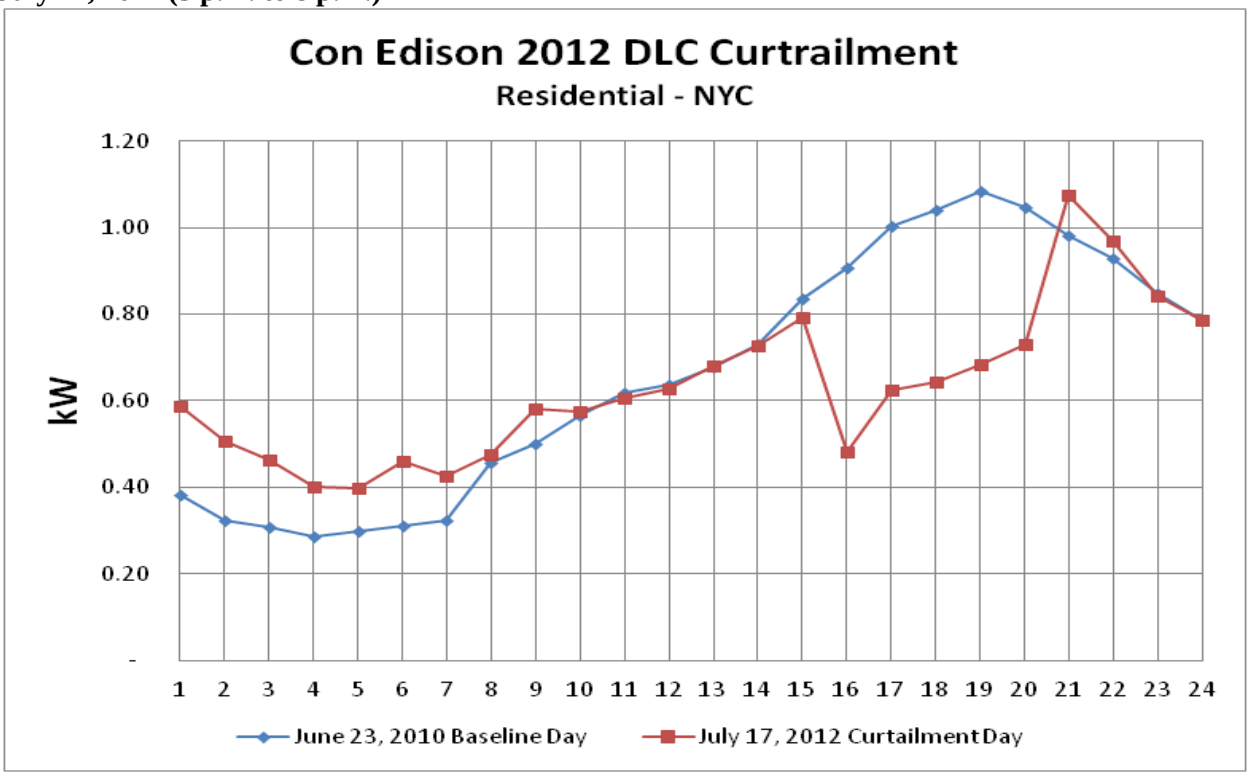


Figure 60: Small Business Curtailment Event July 17, 2012 – NYC Only

July 17, 2012 Curtailment Event (NYC only)
3 p.m. to 8 p.m.: 50% Cycle

Business Component	Hour ending 4:00p.m.	Hour ending 5:00p.m.	Hour ending 6:00p.m.	Hour ending 7:00p.m. (refresh)	Hour ending 8:00p.m.
Participating Thermostats **1,046**					
Net per unit kW load reductions	1.465	1.112	1.002	0.865	0.545
Net total kW load reductions with overrides	1,532	1,163	1,048	905	570
Cumulative overrides	8.38%	21.90%	7.57%	11.14%	16.19%

July 17, 2012 (3 p.m. to 8 p.m.)

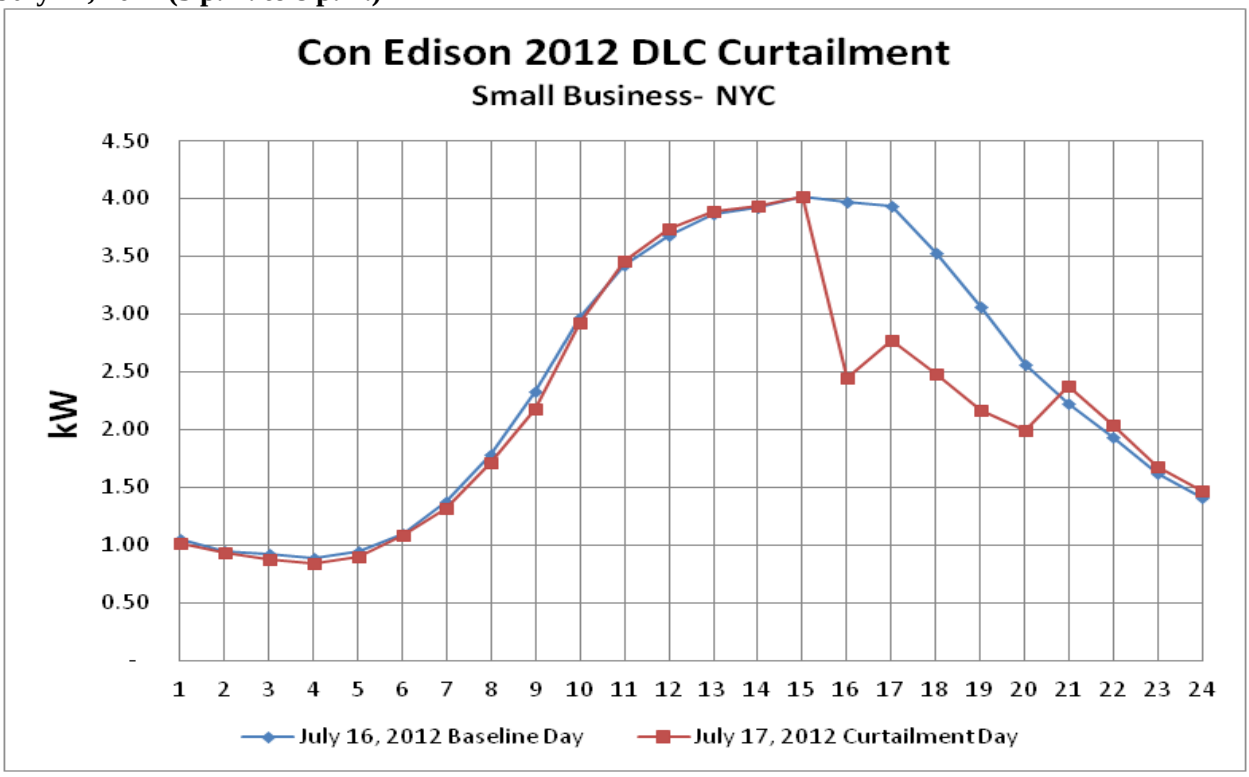


Figure 61: Residential Curtailment Event July 17, 2012 – NYC Only

July 17, 2012 Curtailment Event (NYC only)
5 p.m. to 10 p.m.: 50% Cycle

Residential Component	Hour ending 6:00p.m.	Hour ending 7:00p.m.	Hour ending 8:00p.m	Hour ending 9:00p.m. (refresh)	Hour ending 10:00p.m.
Participating Thermostats **539**					
Net per unit kW load reductions	0.777	0.696	0.657	0.559	0.414
Net total kW load reductions with overrides	419	375	354	301	223
Cumulative overrides	2.34%	7.19%	6.78%	16.72%	20.16%

July 17, 2012 (5 p.m. to 10 p.m.)

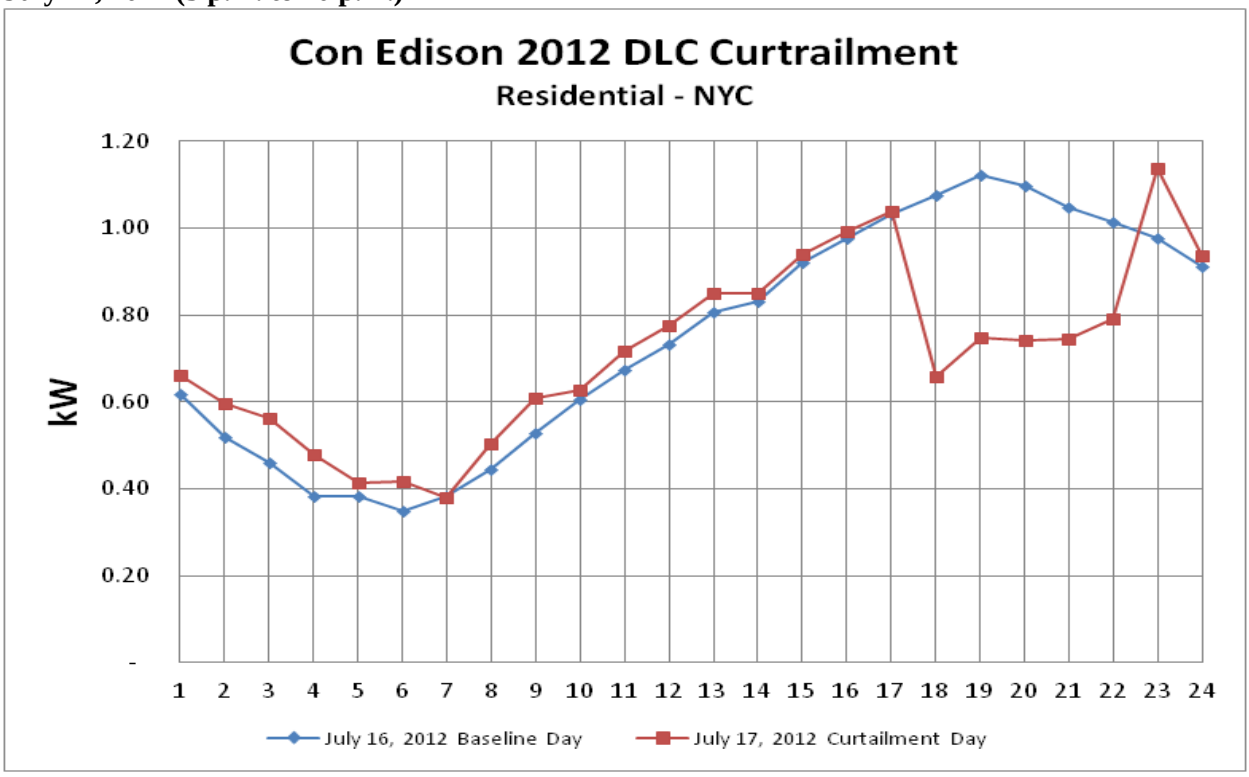


Figure 62: Small Business Curtailment Event July 17, 2012 – NYC Only

July 17, 2012 Curtailment Event (NYC only)
5 p.m. to 10 p.m.: 50% Cycle

Business Component	Hour ending 6:00p.m.	Hour ending 7:00p.m.	Hour ending 8:00p.m	Hour ending 9:00p.m. (refresh)	Hour ending 10:00p.m.
Participating Thermostats **555**					
Net per unit kW load reductions	1.114	0.632	0.521	0.489	0.392
Net total kW load reductions with overrides	618	350	289	271	218
Cumulative overrides	6.97%	16.72%	9.23%	13.59%	12.37%

July 17, 2012 (5 p.m. to 10 p.m.)

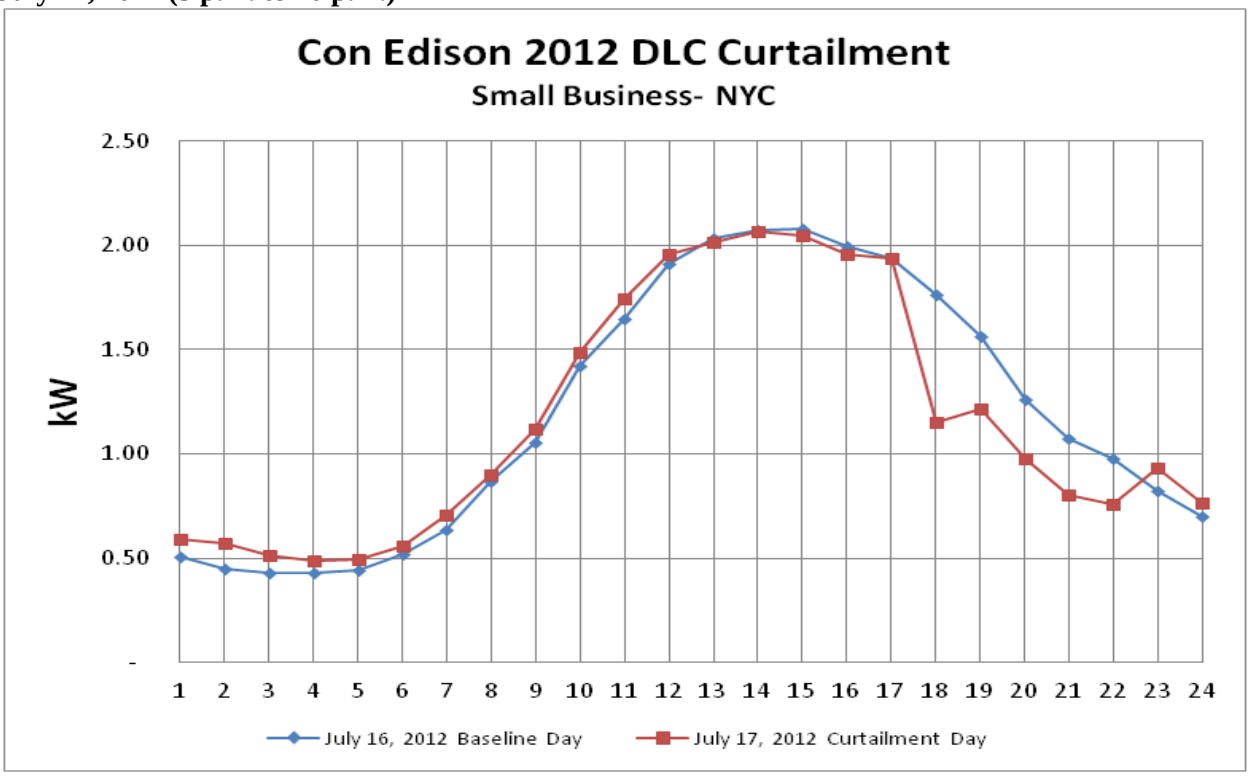


Figure 63: Residential Curtailment Event July 17, 2012 – NYC Only

July 17, 2012 Curtailment Event (NYC only)
6 p.m. to 11 p.m.: 50% Cycle

Residential Component	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m	Hour ending 10:00p.m. (refresh)	Hour ending 11:00p.m.
Participating Thermostats **539**					
Net per unit kW load reductions	0.738	0.499	0.465	0.354	0.295
Net total kW load reductions with overrides	1,074	727	677	515	429
Cumulative overrides	4.08%	11.92%	8.53%	15.28%	17.13%

July 17, 2012 (6 p.m. to 11 p.m.)

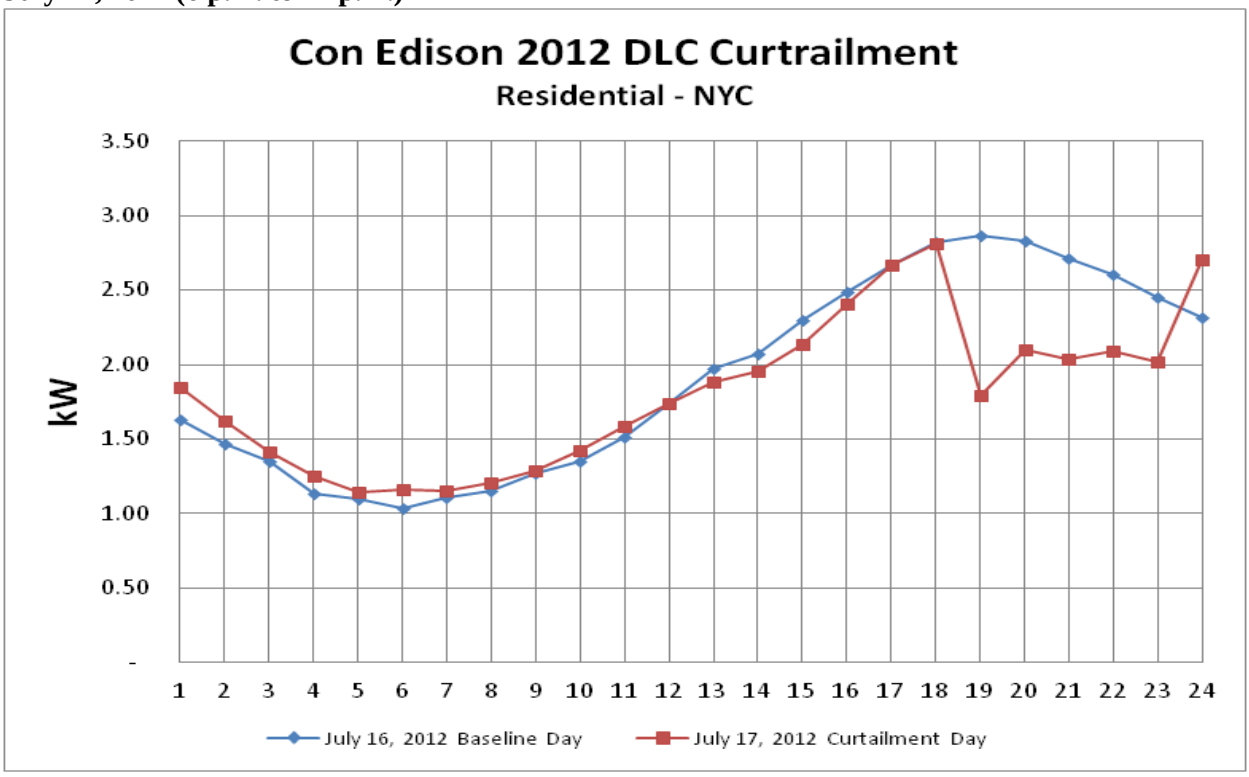


Figure 64: Small Business Curtailment Event July 17, 2012 – NYC Only

July 17, 2012 Curtailment Event (NYC only)
6 p.m. to 11 p.m.: 50% Cycle

Business Component	Hour ending 7:00p.m.	Hour ending 8:00p.m.	Hour ending 9:00p.m	Hour ending 10:00p.m. (refresh)	Hour ending 11:00p.m.
Participating Thermostats **1,053**					
Net per unit kW load reductions	1.011	0.605	0.532	0.473	0.280
Net total kW load reductions with overrides	1,065	637	560	498	294
Cumulative overrides	7.54%	17.21%	9.74%	5.71%	6.67%

July 17, 2012 (6 p.m. to 11 p.m.)

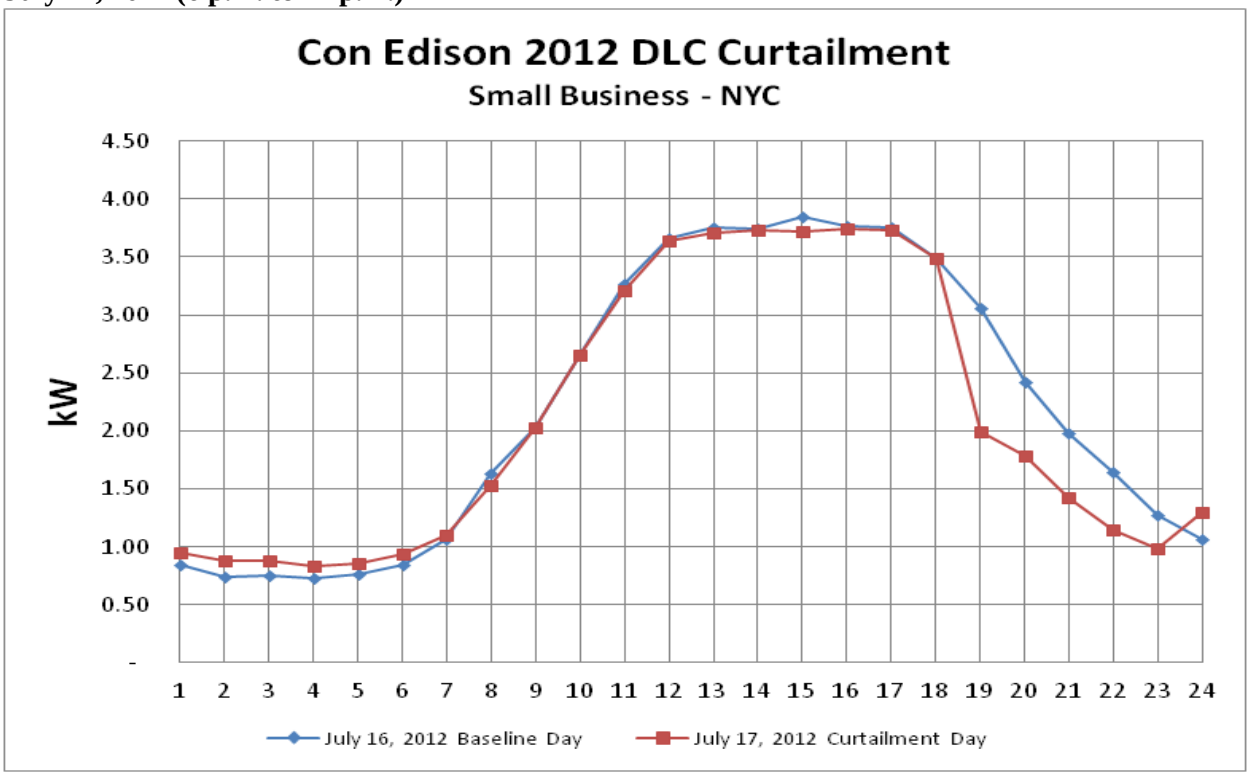


Figure 65: Residential Curtailment Event July 18, 2012 – NYC Only

July 18, 2012 Curtailment Event (NYC only)
12 p.m. to 6 p.m.: 50% Cycle

Residential Component	Hour ending 1:00p.m.	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m.	Hour ending 6:00p.m.
Participating Thermostats **677**				(refresh)		
Net per unit kW load reductions	0.645	0.585	0.521	0.516	0.619	0.615
Net total kW load reductions with overrides	436	396	353	350	419	416
Cumulative overrides	3.32%	8.95%	13.30%	17.14%	1.53%	5.75%

July 18, 2012 (12 p.m. to 6 p.m.)

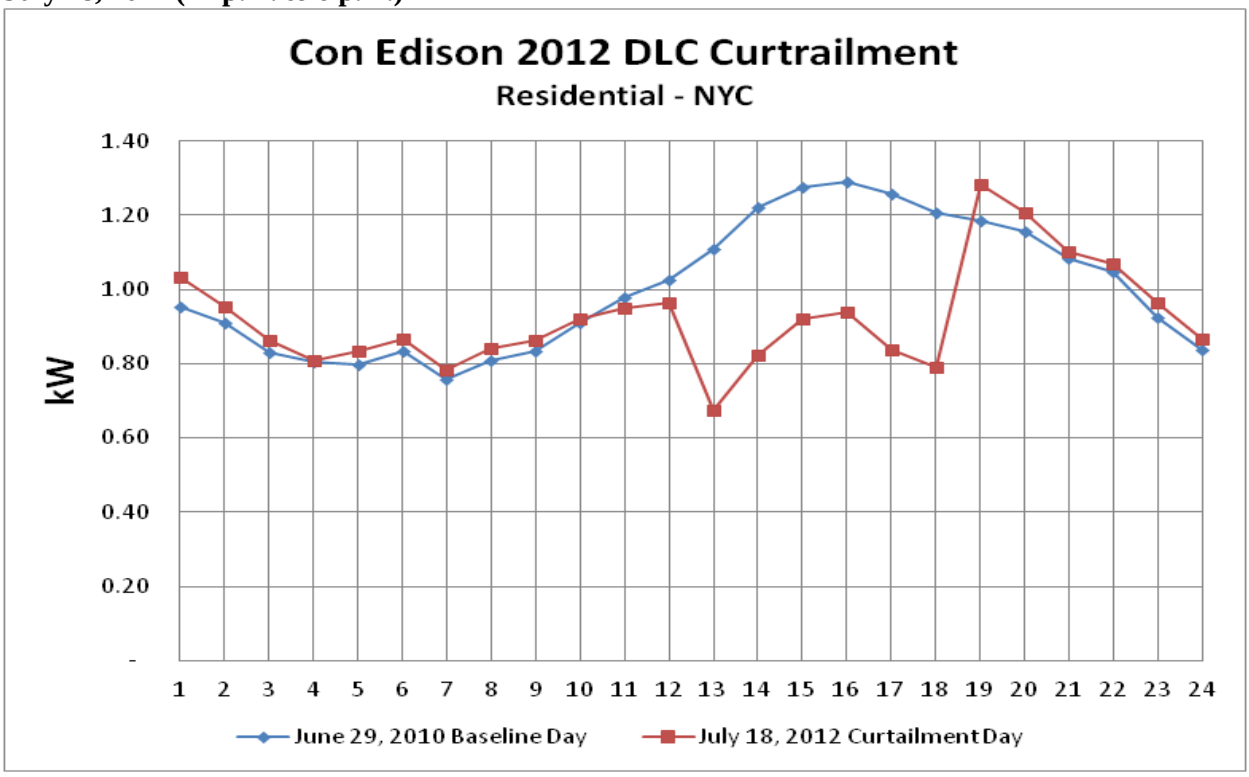


Figure 66: Small Business Curtailment Event July 18, 2012 – NYC Only

July 18, 2012 Curtailment Event (NYC only)
12 p.m. to 6 p.m.: 50% Cycle

Business Component	Hour ending 1:00p.m.	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m.	Hour ending 6:00p.m.
Participating Thermostats **1,783**				(refresh)		
Net per unit kW load reductions	1.495	1.054	0.922	0.841	1.172	0.903
Net total kW load reductions with overrides	2,665	1,879	1,643	1,500	2,090	1,610
Cumulative overrides	13.33%	31.56%	39.55%	44.56%	2.13%	8.58%

July, 18 2012 (12 p.m. to 6 p.m.)

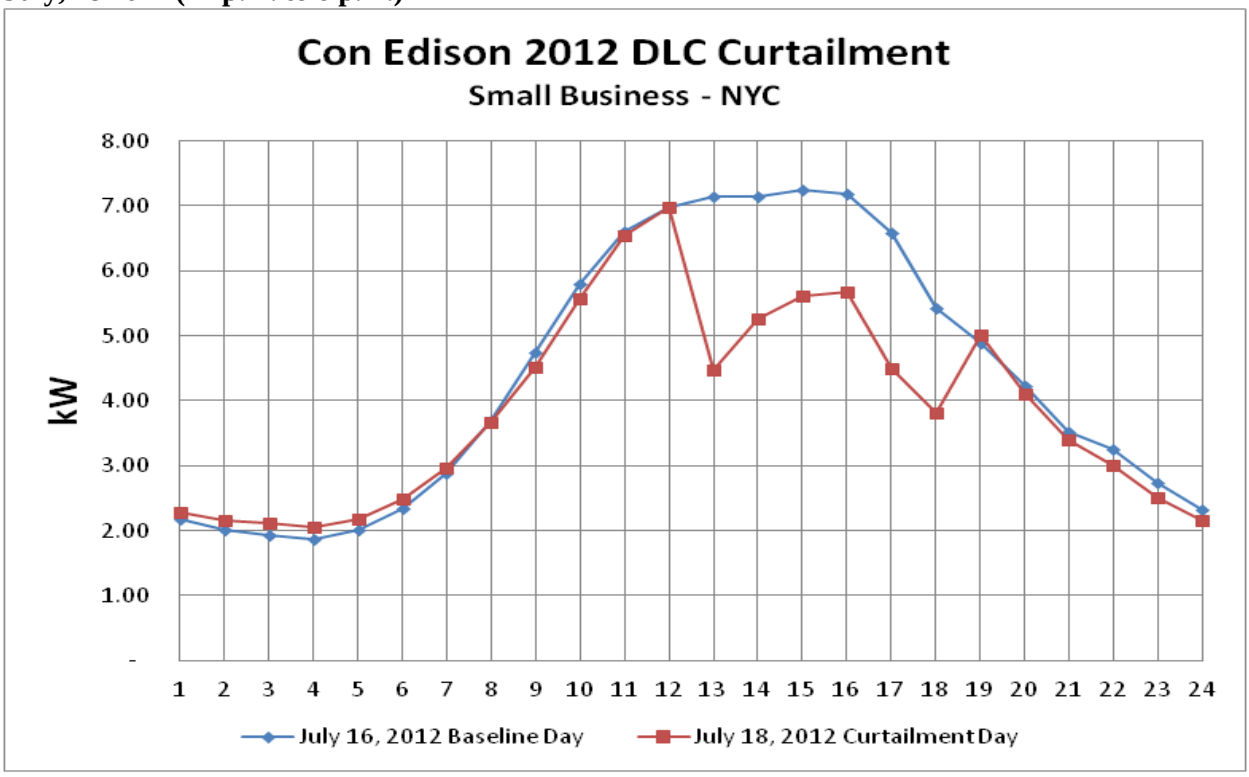


Figure 67: Residential Curtailment Event July 18, 2012 – NYC

July 18, 2012 Curtailment Event (NYC only)
1 p.m. to 6 p.m.: 50% Cycle

Residential Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **7,302**					
Net per unit kW load reductions	0.888	0.781	0.738	0.922	0.824
Net total kW load reductions with overrides	6,483	5,704	5,392	6,732	6,015
Cumulative overrides	3.17%	8.83%	13.26%	2.36%	7.09%

July 18, 2012 (1 p.m. to 6 p.m.)

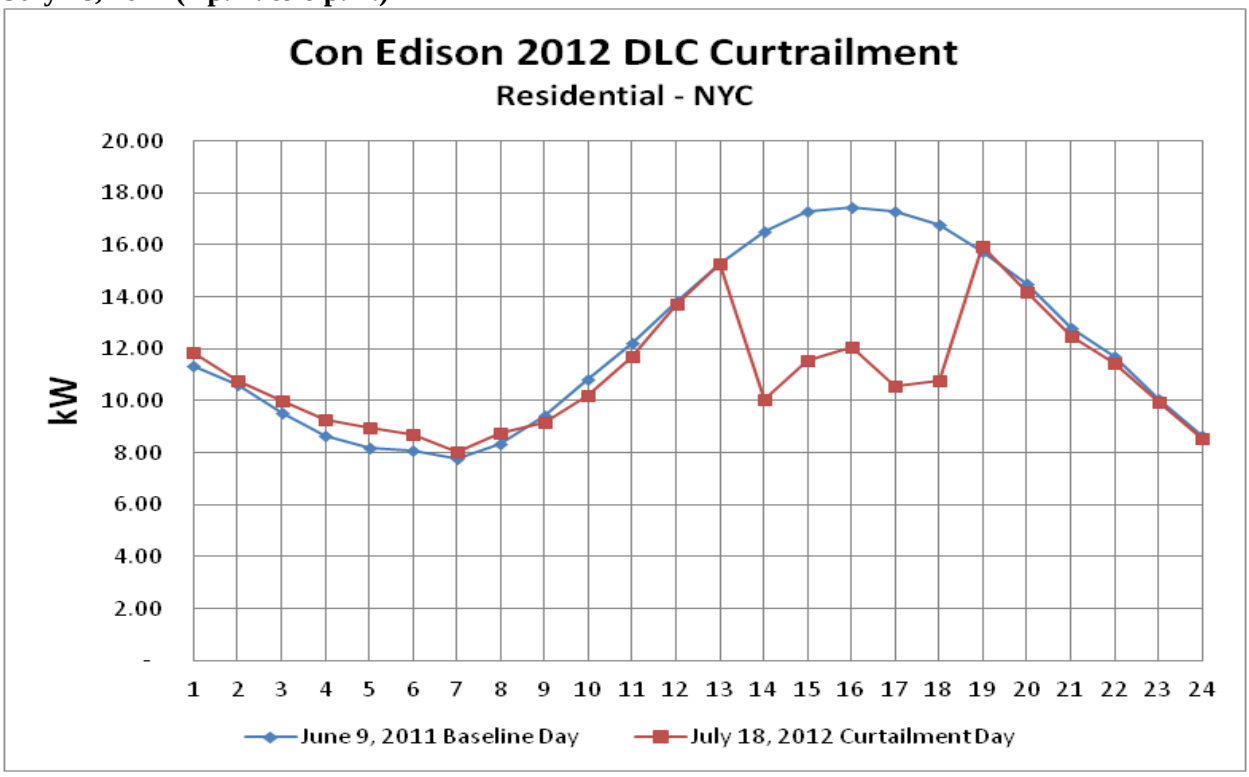


Figure 68: Small Business Curtailment Event July 18, 2012 – NYC Only

July 18, 2012 Curtailment Event (NYC only)
1 p.m. to 6 p.m.: 50% Cycle

Business Component	Hour ending 2:00p.m.	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m. (refresh)	Hour ending 6:00p.m.
Participating Thermostats **3,826**					
Net per unit kW load reductions	1.559	1.094	0.767	1.131	0.960
Net total kW load reductions with overrides	5,965	4,186	2,933	4,328	3,672
Cumulative overrides	12.23%	29.50%	37.26%	3.20	8.70%

July 18, 2012 (1 p.m. to 6 p.m.)

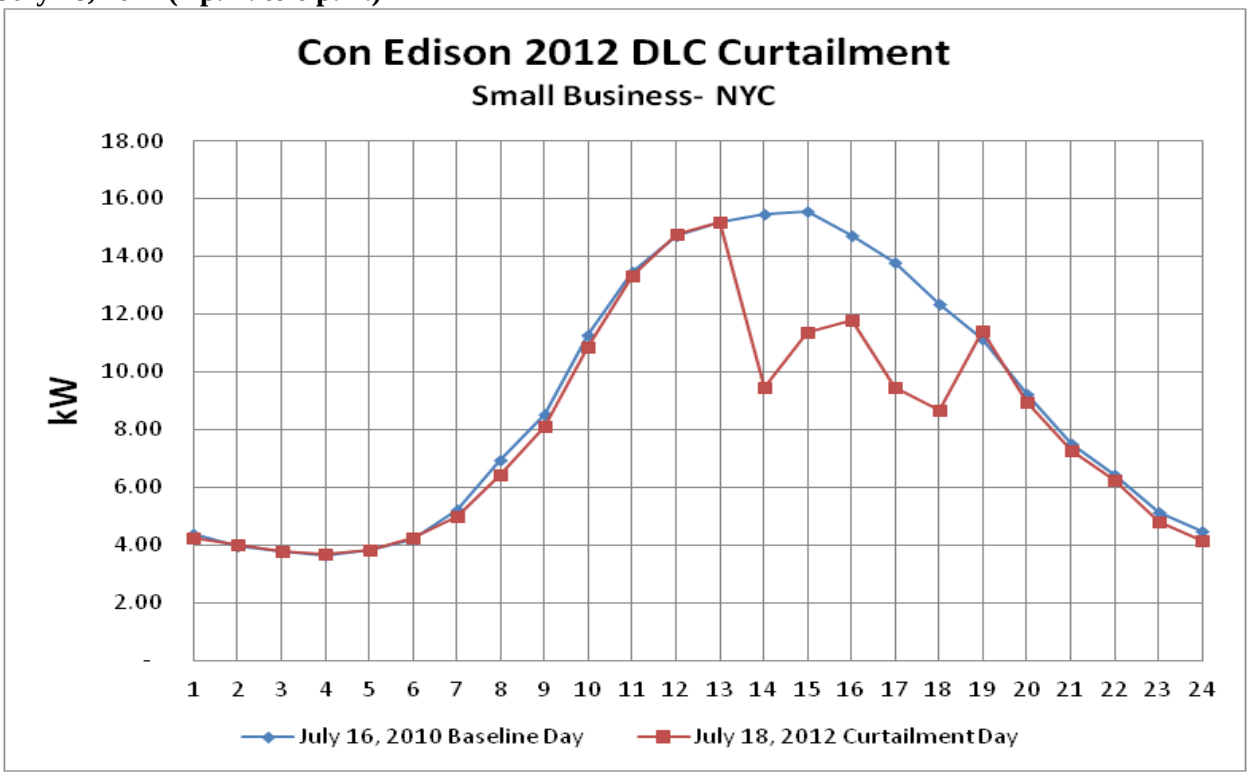


Figure 69: Residential Curtailment Event July 18, 2012 – Westchester Only

July 18, 2012 Curtailment Event (Westchester only)
2:30 p.m. to 6 p.m.: 50% Cycle

Residential Component	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m	Hour ending 6:00p.m.
Participating Thermostats **539**				
Net per unit kW load reductions	0.738	0.499	0.465	0.354
Net total kW load reductions with overrides	1,074	727	677	515
Cumulative overrides	4.08%	11.92%	8.53%	15.28%

July 18, 2012 (2:30 p.m. to 6 p.m.)

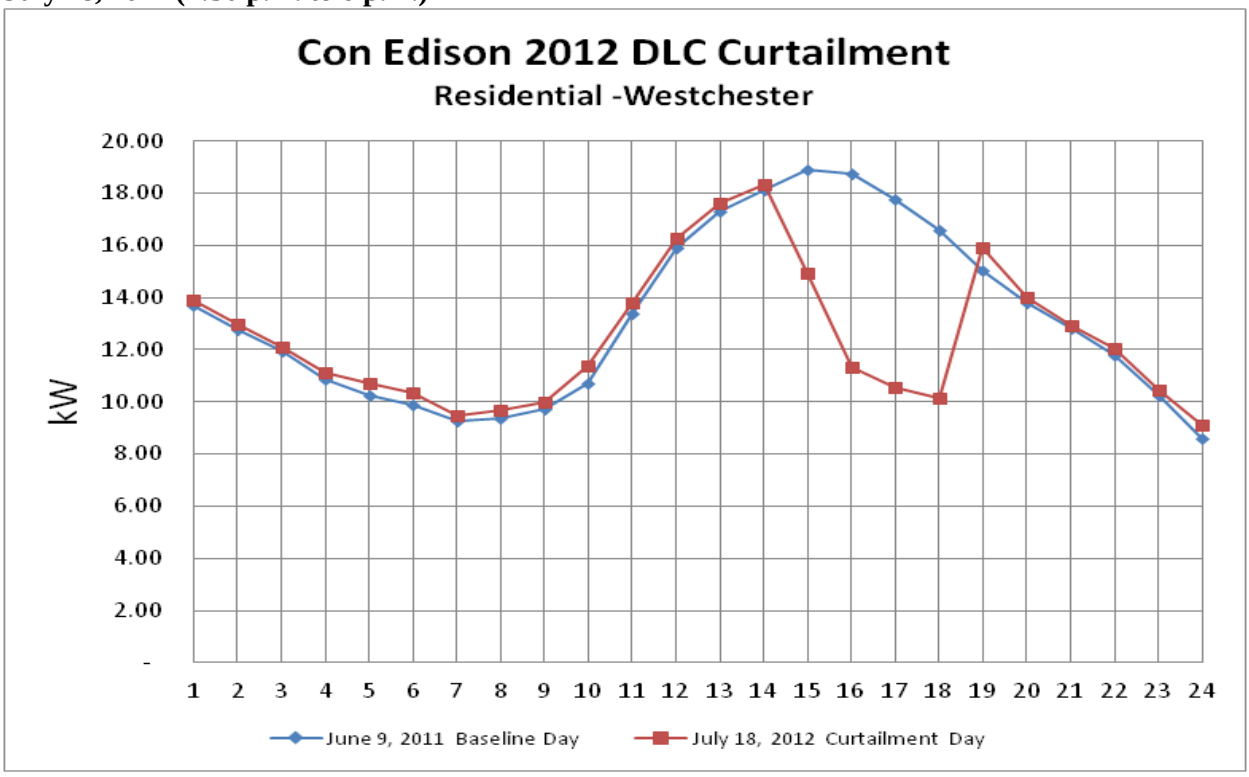


Figure 70: Small Business Curtailment Event July 18, 2012 – Westchester Only

July 18, 2012 Curtailment Event (Westchester only)
2:30 p.m. to 6 p.m.: 50% Cycle

Business Component	Hour ending 3:00p.m.	Hour ending 4:00p.m.	Hour ending 5:00p.m	Hour ending 6:00p.m.
Participating Thermostats **1,004**				
Net per unit kW load reductions	0.468	1.112	1.038	0.910
Net total kW load reductions with overrides	470	1,116	1,042	914
Cumulative overrides	6.46%	11.78%	4.66%	13.52%

July 18, 2012 (2:30 p.m. to 6 p.m.)

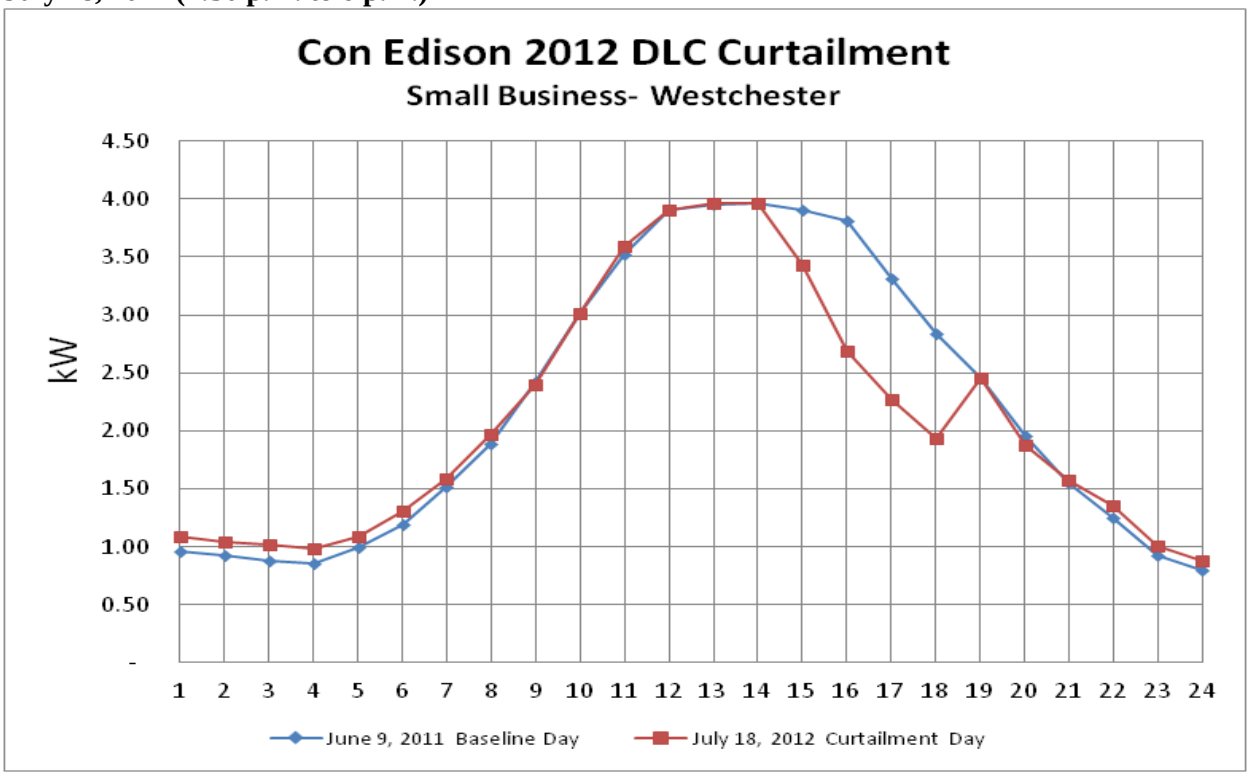


Figure 71: Residential Curtailment Event August 2, 2012 – NYC

August 2, 2012 Curtailment Event (NYC only)
12 p.m. to 5 p.m.: 50% Cycle

Residential Component	Hour ending 1:00p.m.	Hour ending 2:00p.m.	Hour ending 3:00p.m	Hour ending 4:00p.m.	Hour ending 5:00p.m.
Participating Thermostats **51**				(refresh)	
Net per unit kW load reductions	0.401	0.265	0.196	0.201	0.363
Net total kW load reductions with overrides	20	13	10	10	18
Cumulative overrides	2.27%	6.82%	6.82%	6.82%	11.36%

August 2, 2012 (12 p.m. to 5 p.m.)

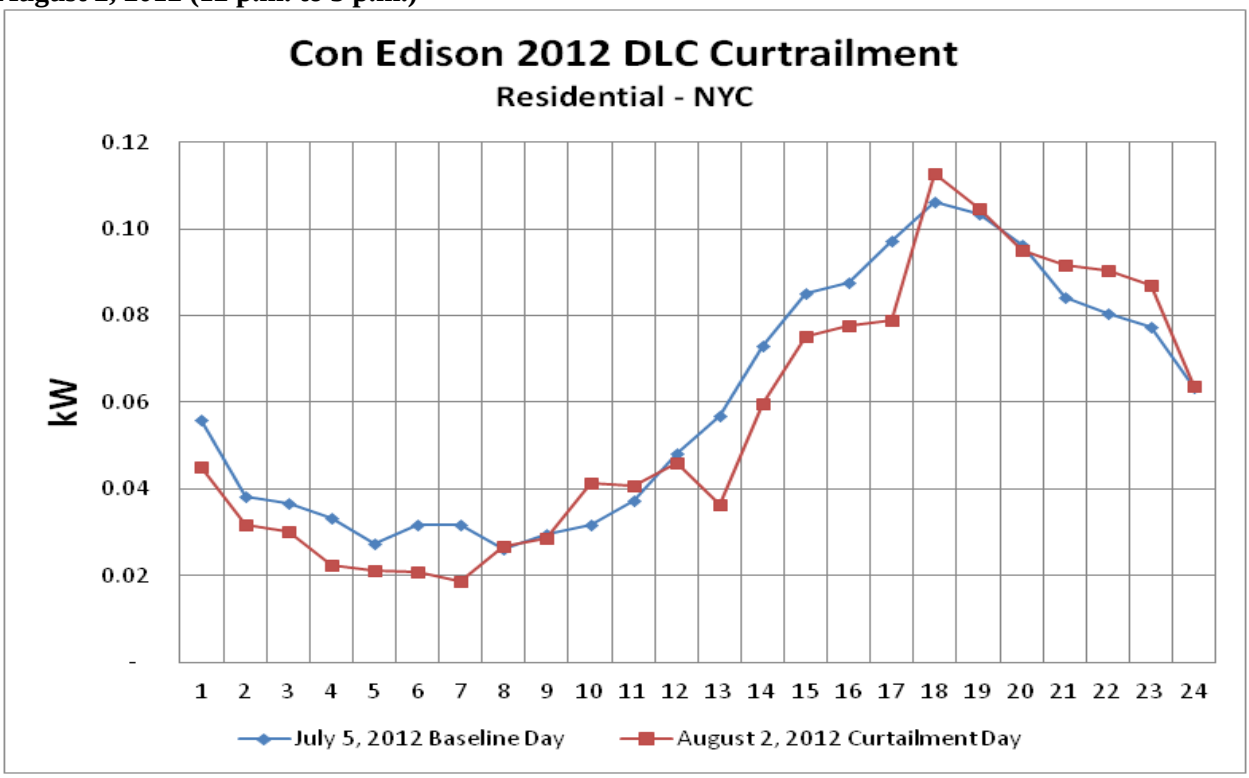


Figure 72: Small Business Curtailment Event August 2, 2012 – NYC Only

August 2, 2012 Curtailment Event (NYC only)
12 p.m. to 5 p.m.: 50% Cycle

Business Component	Hour ending 1:00p.m.	Hour ending 2:00p.m.	Hour ending 3:00p.m	Hour ending 4:00p.m. (refresh)	Hour ending 5:00p.m.
Participating Thermostats **56**					
Net per unit kW load reductions	1.387	0.828	0.679	0.660	0.403
Net total kW load reductions with overrides	77	46	38	37	22
Cumulative overrides	8.89%	22.22%	26.67%	28.89%	33.33%

August 2, 2012 (12 p.m. to 5 p.m.)

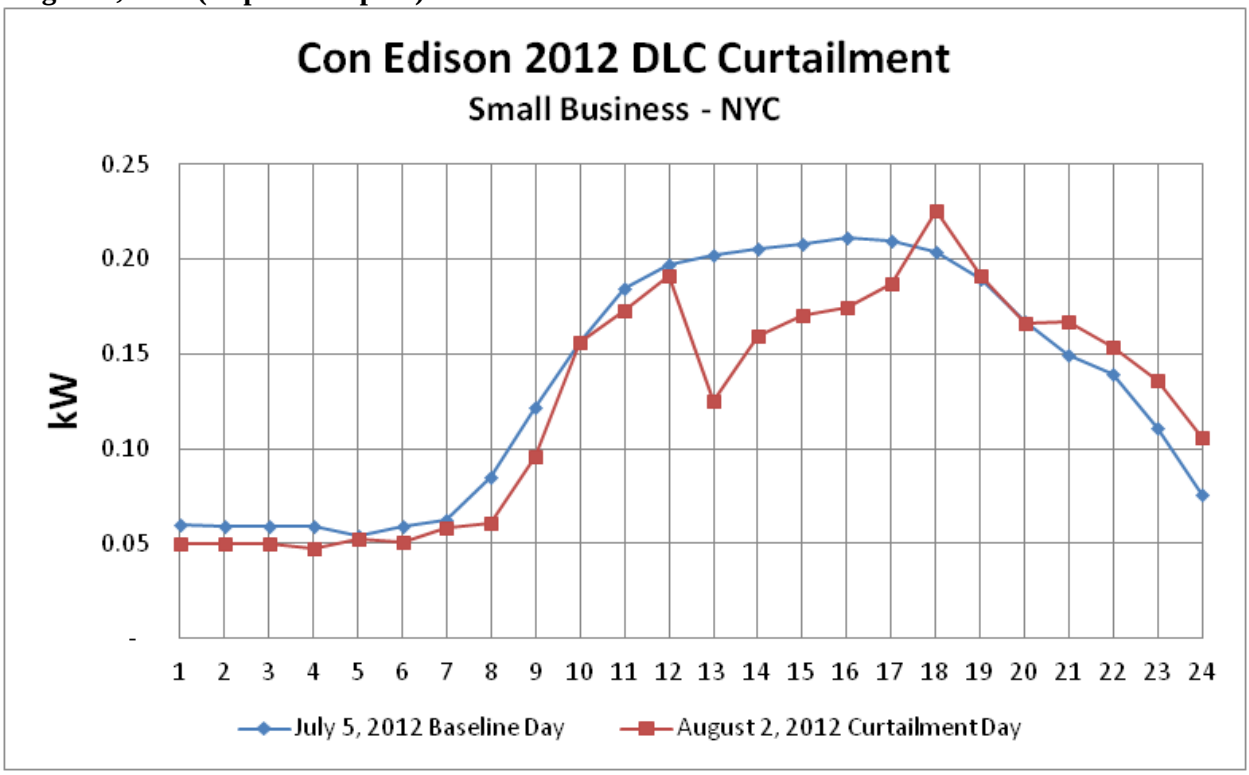


Figure 73:
DLRP Summer Reservation and Voluntary Programs - Enrolled and Achieved System Impacts
2012 DLRP Evaluation by Network

			Demand Impacts (KW)						Demand Impact (% of Network Peak)			
Tier	Network	2012 Network Peak Demand (KW)	Enrolled DLRP Summer Reservation	Achieved DLRP Summer Reservation Reduction (Test Event or Most Recent Event)	Enrolled DLRP Voluntary	Achieved DLRP Voluntary Reduction (Most Recent Event or Use Average2012 Voluntary Performance If No 2012 Event)	Total Enrolled DLRP Summer Reservation and Voluntary	Total Achieved DLRP Summer Reservation and Voluntary Reduction (Most Recent Event)	Enrolled DLRP Summer Reservation	Enrolled DLRP Voluntary	Total Enrolled DLRP Summer Reservation and Voluntary	Total Achieved DLRP Summer Reservation and Voluntary Reduction (Most Recent Event)
1	Battery Park City	67,074	3,172	3,551	1,700	476	4,872	4,027	4.7%	2.5%	7.3%	6.0%
1	Bay Ridge	222,216	4,412	2,352	500	140	4,912	2,492	2.0%	0.2%	2.2%	1.1%
1	Beekman	130,000	2,911	2,177	275	77	3,186	2,254	2.2%	0.2%	2.5%	1.7%
1	Borden	102,228	3,498	2,392	50	14	3,548	2,406	3.4%	0.0%	3.5%	2.4%
1	Bowling Green	115,412	10,453	6,160	2,350	658	12,803	6,818	9.1%	2.0%	11.1%	5.9%
1	Brighton Beach	100,085	1,758	-1,083	0	0	1,758	-1,083	1.8%	0.0%	1.8%	-1.1%
1	Buchanan	116,528	820	471	0	0	820	471	0.7%	0.0%	0.7%	0.4%
1	Canal	98,961	12,170	10,572	0	0	12,170	10,572	12.3%	0.0%	12.3%	10.7%
1	Cedar Street	97,769	245	15	0	0	245	15	0.3%	0.0%	0.3%	0.0%
1	Central Bronx	150,483	2,160	1,069	850	238	3,010	1,307	1.4%	0.6%	2.0%	0.9%
1	Central Park	212,504	720	724	0	0	720	724	0.3%	0.0%	0.3%	0.3%
1	Chelsea	220,968	4,274	1,129	0	0	4,274	1,129	1.9%	0.0%	1.9%	0.5%
1	City Hall	144,063	1,630	360	0	0	1,630	360	1.1%	0.0%	1.1%	0.2%
1	Columbus Circle	123,935	2,430	3,380	100	28	2,530	3,408	2.0%	0.1%	2.0%	2.8%
1	Cooper Square	239,898	878	311	0	0	878	311	0.4%	0.0%	0.4%	0.1%
1	Cortlandt	64,688	1,136	370	0	0	1,136	370	1.8%	0.0%	1.8%	0.6%
1	Elmsford	161,113	685	227	600	168	1,285	395	0.4%	0.4%	0.8%	0.2%
1	Empire	59,573	507	271	0	0	507	271	0.9%	0.0%	0.9%	0.5%
1	Fashion	65,796	379	697	0	0	379	697	0.6%	0.0%	0.6%	1.1%
1	Fordham	240,164	2,846	2,150	0	0	2,846	2,150	1.2%	0.0%	1.2%	0.9%
1	Fox Hills	204,099	610	281	0	0	610	281	0.3%	0.0%	0.3%	0.1%
1	Freedom	4,225	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
1	Fresh Kills	190,252	1,650	1,414	50	14	1,700	1,428	0.9%	0.0%	0.9%	0.8%
1	Fulton	109,812	2,337	357	600	168	2,937	525	2.1%	0.5%	2.7%	0.5%
1	Grand Central	191,412	6,238	2,373	250	70	6,488	2,443	3.3%	0.1%	3.4%	1.3%
1	Granite Hill	208,012	509	2,367	100	28	609	2,395	0.2%	0.0%	0.3%	1.2%
1	Grasslands	108,359	2,033	272	310	87	2,343	359	1.9%	0.3%	2.2%	0.3%
1	Greeley Square	61,424	236	103	0	0	236	103	0.4%	0.0%	0.4%	0.2%
1	Greenwich	49,648	612	423	0	0	612	423	1.2%	0.0%	1.2%	0.9%
1	Harlem	180,932	2,152	2,125	0	0	2,152	2,125	1.2%	0.0%	1.2%	1.2%
1	Harrison	221,429	1,534	21	100	28	1,634	49	0.7%	0.0%	0.7%	0.0%
1	Herald Square	100,128	1,775	2,108	0	0	1,775	2,108	1.8%	0.0%	1.8%	2.1%
1	Hudson	52,000	3,500	2,840	0	0	3,500	2,840	6.7%	0.0%	6.7%	5.5%
1	Hunter	73,729	1,402	864	0	0	1,402	864	1.9%	0.0%	1.9%	1.2%
1	Jackson Heights	180,724	2,784	1,200	0	0	2,784	1,200	1.5%	0.0%	1.5%	0.7%
1	Jamaica	425,931	4,061	2,704	0	0	4,061	2,704	1.0%	0.0%	1.0%	0.6%
1	Kips Bay	119,007	4,462	2,610	0	0	4,462	2,610	3.7%	0.0%	3.7%	2.2%
1	Lenox Hill	250,398	1,276	490	0	0	1,276	490	0.5%	0.0%	0.5%	0.2%
1	Lincoln Square	149,838	2,845	2,520	0	0	2,845	2,520	1.9%	0.0%	1.9%	1.7%
1	Long Island City	221,958	1,547	732	350	98	1,897	830	0.7%	0.2%	0.9%	0.4%

DLRP Summer Reservation and Voluntary Programs - Enrolled and Achieved System Impacts (cont.)
2012 DLRP Evaluation by Network

			Demand Impacts (KW)						Demand Impact (% of Network Peak)			
Tier	Network	2012 Network Peak Demand (KW)	Enrolled DLRP Summer Reservation	Achieved DLRP Summer Reservation Reduction (Test Event or Most Recent Event)	Enrolled DLRP Voluntary	Achieved DLRP Voluntary Reduction (Most Recent Event or Use Average2012 Voluntary Performance If No 2012 Event)	Total Enrolled DLRP Summer Reservation and Voluntary	Total Achieved DLRP Summer Reservation and Voluntary Reduction (Most Recent Event)	Enrolled DLRP Summer Reservation	Enrolled DLRP Voluntary	Total Enrolled DLRP Summer Reservation and Voluntary	Total Achieved DLRP Summer Reservation and Voluntary Reduction (Most Recent Event)
1	Madison Square	238,280	1,108	2,104	750	210	1,858	2,314	0.5%	0.3%	0.8%	1.0%
1	Maspeth	236,635	2,175	1,692	0	0	2,175	1,692	0.9%	0.0%	0.9%	0.7%
1	Millwood West	79,894	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
1	Mohansic	8,000	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
1	Northeast Bronx	106,318	2,313	1,734	100	28	2,413	1,762	2.2%	0.1%	2.3%	1.7%
1	Ocean Parkway	162,796	2,068	1,397	0	0	2,068	1,397	1.3%	0.0%	1.3%	0.9%
1	Ossining West	70,854	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
1	Park Place	82,028	4,540	3,332	0	0	4,540	3,332	5.5%	0.0%	5.5%	4.1%
1	Pennsylvania	213,880	5,990	3,579	15	4	6,005	3,583	2.8%	0.0%	2.8%	1.7%
1	Plaza	148,001	3,735	1,546	400	112	4,135	1,658	2.5%	0.3%	2.8%	1.1%
1	Pleasantville	76,245	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
1	Prospect Park	57,373	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
1	Randall's Island	22,561	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
1	Riverdale	94,985	1,131	411	800	47	1,931	458	1.2%	0.8%	2.0%	0.5%
1	Rockefeller Center	83,984	2,275	2,433	0	0	2,275	2,433	2.7%	0.0%	2.7%	2.9%
1	Rockview	81,059	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%
1	Roosevelt	80,834	2,227	207	0	0	2,227	207	2.8%	0.0%	2.8%	0.3%
1	Sheridan Square	151,960	707	44	0	0	707	44	0.5%	0.0%	0.5%	0.0%
1	Southeast Bronx	202,700	13,079	14,480	0	0	13,079	14,480	6.5%	0.0%	6.5%	7.1%
1	Sunnyside	75,097	18	103	0	0	18	103	0.0%	0.0%	0.0%	0.1%
1	Sutton	135,163	5,824	4,025	1,025	793	6,849	4,818	4.3%	0.8%	5.1%	3.6%
1	Times Square	150,000	5,444	507	1,450	406	6,894	913	3.6%	1.0%	4.6%	0.6%
1	Triboro	129,222	360	470	0	0	360	470	0.3%	0.0%	0.3%	0.4%
1	Turtle Bay	121,665	1,952	787	450	213	2,402	999	1.6%	0.4%	2.0%	0.8%
1	Wainwright	88,039	400	351	400	112	800	463	0.5%	0.5%	0.9%	0.5%
1	Washington Heights	176,732	2,795	1,582	0	0	2,795	1,582	1.6%	0.0%	1.6%	0.9%
1	Washington Street	195,327	585	9	0	0	585	9	0.3%	0.0%	0.3%	0.0%
1	West bronx	215,603	3,597	2,311	0	0	3,597	2,311	1.7%	0.0%	1.7%	1.1%
1	White Plains	226,355	2,605	1,728	2,750	770	5,355	2,498	1.2%	1.2%	2.4%	1.1%
1	Willowbrook	84,140	75	64	0	0	75	64	0.1%	0.0%	0.1%	0.1%
1	Woodrow	110,994	430	527	0	0	430	527	0.4%	0.0%	0.4%	0.5%
1	Yorkville	289,274	2,287	1,560	0	0	2,287	1,560	0.8%	0.0%	0.8%	0.5%
2	Boro Hall	279,269	3,607	2,917	100	28	3,707	2,945	1.3%	0.0%	1.3%	1.1%
2	Crown Heights	199,652	1,725	259	0	0	1,725	259	0.9%	0.0%	0.9%	0.1%
2	Flatbush	253,890	1,599	565	0	0	1,599	565	0.6%	0.0%	0.6%	0.2%
2	Flushing	350,042	5,957	6,661	0	0	5,957	6,661	1.7%	0.0%	1.7%	1.9%
2	Park Slope	216,752	895	607	1,000	20	1,895	627	0.4%	0.5%	0.9%	0.3%
2	Rego Park	222,959	2,045	1,896	100	28	2,145	1,924	0.9%	0.0%	1.0%	0.9%
2	Richmond Hill	316,415	2,035	2,157	0	0	2,035	2,157	0.6%	0.0%	0.6%	0.7%
2	Ridgewood	200,025	980	220	0	0	980	220	0.5%	0.0%	0.5%	0.1%
2	Sheepshead Bay	159,217	1,758	1,654	500	487	2,258	2,141	1.1%	0.3%	1.4%	1.3%
2	Williamsburg	241,971	2,205	1,778	2,200	39	4,405	1,817	0.9%	0.9%	1.8%	0.8%
	Tier 1 (% impacts are weighted average)	10,032,771	166,367	110,078	16,325	4,986	182,692	115,064	1.66%	0.16%	1.82%	1.15%
	Tier 2 (% impacts are weighted average)	2,440,193	22,806	18,715	3,900	602	26,706	19,317	0.93%	0.16%	1.09%	0.79%
	Tier 1 & 2 (% impacts are weighted average)	12,472,963	189,173	128,793	20,225	5,588	209,398	134,381	1.52%	0.16%	1.68%	1.08%
	Raw Performance Factor for ALL =			0.68		0.28		0.64				

Appendix III

DLC Impact Analysis

DLC Impact Analysis

During all events, the DLC Program participants had their central air conditioner compressors cycled off for 30 minutes each hour. As observed during past curtailment events, the number of customer overrides increased over time, and was directly related to the length of each event. The Company has the ability to refresh (reset) compressor cycling and overcome customer overrides of the Company's direct load control. The Company refreshed the events at various times for each event. In an attempt to decrease customer fatigue and further de-installations, the Company did not refresh thirteen out of the twenty-nine events.

Impacts for these events were determined based on run-time data collected from participant thermostats. The run-time data (minutes per hour) is converted to duty cycle percentages and used to measure the percent of time that compressors were on. The data was then compared to a similar non-controlled (baseline) day. Connected load data (nameplate rating) was collected from a sample of participants. This data was adjusted downward from the stated nameplate connected load by applying an adjustment factor (15 percent), as determined from metered amperage readings for a sample of units during hot days. This adjusted connected load kW or maximum kW draw was the basis for converting the run-time to kW impacts.

Curtailment impacts, which included the effect of overrides, were comparable to prior experience at the applicable temperatures.

The communication system for the program operated well, with an overall average confirmation level of over 95 percent on available devices during curtailment days.

Net Impact Analysis

A baseline condition is defined for DLC purposes as the energy use of a central air conditioning system during peak operating hours that are *similar* in time and weather conditions to a test or event curtailment day. Calculating Program impacts for each of the 2011 events required selecting a comparable baseline day using cooling degree-days and reported weather conditions. The selection of each specific baseline day considered the following key factors;

- Comparable cooling degree days (temperature and humidity levels),
- Comparable heat build-up of consecutive 90+ degree days,
- Comparable day of week (midweek versus beginning or end of week) and
- Day within a few weeks of the curtailment, as cooling usage patterns typically vary across the season.

In cases where the candidate for best baseline day did not sufficiently match the curtailment event day, the baseline day was adjusted, typically using the hours just prior to the curtailment event on both the baseline and curtailment event day to judge the best match and required scaling adjustments.

The adjusted connected load data for the central air conditioning system, coupled with the run-time data collected for each unit, is used to produce a baseline load shape. The baseline load shape will vary for

specific customers depending upon the type of equipment, the way in which the equipment is sized, and how the customer operates the equipment. The aggregate baseline load shapes represent the hourly kW load for a typical customer's air conditioner compressor during a comparable summer day (24 hours).

Demand Saving Methodology

The methodology designed to calculate net demand savings is as follows;

- Obtain run-time data for participants on baseline and control days.
- Select baseline days comparable to control days, primarily from cooling degree days, using LaGuardia Airport weather.
- Compute weather adjustment for baseline, if necessary. Multiply baseline day run-times for each hour and participant by weather adjustment factor. This is at 100 percent run-time for any given hour. If necessary, use comparison of Duty Cycle between baseline and curtailment day for additional small adjustments using pre-curtailment hour data.
- Controlled Duty Cycle is determined by averaging the run-time data for all participants during each hour of control during the curtailment day. This run-time data includes the effect of overrides.
- Duty Cycle reduction is determined by subtracting the curtailment event day Duty Cycle from the baseline Duty Cycle.
- Per unit kW reductions are determined by first multiplying the baseline Duty Cycle and controlled Day Duty Cycle by the estimated adjusted connected load[20] , with transmission and distribution line losses applied to both. This will result in kW per hour for both baseline and control days. The per unit kW reduction is the result of subtracting the controlled day kW from the baseline day kW. Total kW reduction is determined by multiplying the per unit kW reduction by the number of units under control.

Mathematically, the net impact is calculated as follows;

$$Duty\ Cycle\ Reduction = Baseline\ Duty\ Cycle_i - Controlled\ Duty\ Cycle_i$$

Multiply duty cycles by estimated adjusted connected load

$$Per\ Unit\ kW\ Reduction_i = Baseline\ kW_i - Control\ Day\ kW_i$$

$$Total\ kW\ Reduction_i = Per\ Unit\ kW\ Reduction_i * Number\ of\ Units$$

Where i = the average of the curtailment period.

The following assumptions support the business net load impact analysis;

Connected load	5.87 kW
• Amp meter adjustment	15.0%
• Adjusted connected load	4.99 kW
• Line losses at system peak	7.2% [21]

[20] The connected load (kW draw) is based on nameplate data for all participants, adjusted based on results of spot metering from a randomly selected sample of units to develop the ratio of actual maximum kW load draw to connected load. The spot metering includes the use of a power meter/power harmonics analyzer that measures voltage, sign wave, harmonics, power, wattage, and power factor.

[21] Line losses were reduced to 7.2% as per Order EEPS order

Connected load with incorporated line losses **5.80 kW**

The following assumptions support the residential net load impact analysis;

- Connected load[22] 4.66 kW
- Amp meter adjustment[23] 15.0%
- Adjusted connected load 3.96 kW
- Line losses at system peak 14.0%

Connected load with incorporated line losses **4.61 kW**

When interpreting the impacts, the following definitions should be understood;

- Participating thermostats are defined as thermostats that received the control signal from the two-way paging network.
- Net impacts are the impacts derived directly from run-time data. These impacts include the effects of customers who override the control signal.
- Gross impacts are the impacts that would have occurred had customers not been allowed to override the control signal in order to show full potential. These impacts are calculated by removing the effects of overrides from the net impacts.

[22] Based on nameplate data collected for CAC systems participating in the Program.

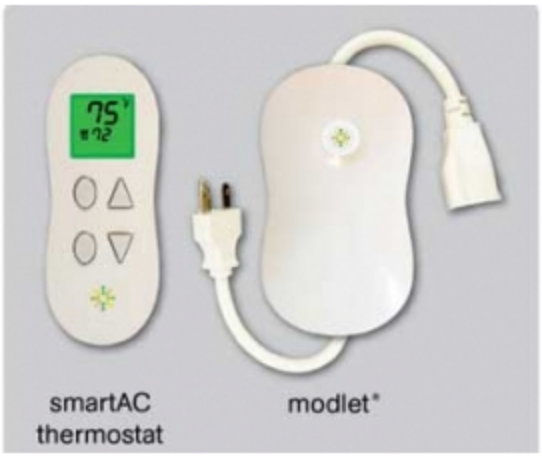
[23] Based on spot metering for sampling of participating CAC systems.

Appendix IV

Media Coverage

Media Coverage 1: Greentech Media, Inc.
http://www.greentechmedia.com/articles/read/coned-taps-10000-window-ac-units-for-demand-response

ConEd Taps 10,000 Window AC Units for Demand Response



10,000 down, more than 6 million to go in New York City

KATHERINE TWEED: MAY 10, 2012

Last summer, when peak temperatures -- and peak electricity load -- hit New York City, there was a call from Mayor Bloomberg for people to turn down their air conditioners to no lower than 79 degrees.

One of the many problems with his plea was that he announced it on his weekly radio broadcast, which is slotted to be aired around 11 a.m. when most people are far away from their home air conditioners (not to mention that New Yorkers don't tune in in droves for the Mayor's radio program).

For at least a fraction of New York City residents, 2012 will be different. To combat peak demand, Consolidated Edison has an expanded pilot this summer to tackle a small portion of the city's unique energy hogs: window and wall air conditioning units.

ConEd will equip 10,000 window AC units in several large apartment buildings with ThinkEco's modlet smart plug and a smartAC thermostat, which will essentially turn the room AC unit into something that can be controlled via the internet or smart phone. The utility will take applicants from across the city's five boroughs, but will primarily focus on load pockets that are most strained during summer months.

New York City is unique in its penetration of window AC units. In many other areas of the country, the prevalence of these units is related to income. About a third of households below the poverty line have room AC, rather than central, compared to about 15 percent of those that have an income above $100,000, according to EIA. In New York City, however, there are about six million room AC units.

The voluntary residential demand response program, which will shed 5 megawatts during peak, is not the first for New York. The city already has 34 megawatts of DR from 25,000 central AC customers, about 80 percent of which are residential. ConEd has about 500 megawatts total enrolled in all of its demand response programs.

Residential DR is still in its infancy for most utilities. Many have pilots or old-school programs that cycle off hot water heaters or AC units with little to no control on the homeowner's end. Oklahoma Gas & Electric, however, is moving into 150,000 homes in the coming years to cut peak demand to offset new generation. For utilities that need to offset upgrades, the cost of a little technology in select homes is far cheaper than new power plants or other significant grid investment.

For the pilot in New York, applicants will be taken both from individuals who pay their bill directly and people who live in buildings where the electricity bill is rolled into their mortgage or maintenance charges, according to Adrienne Ortizo, program manager for the program, CoolNYC. The cost of the modlets and smartAC thermostats is about $200 per installation.

In last year's pilot, there was an average 26 percent savings across the 500 units during peak events. For the program, customers will get the modlet and thermostat for free, along with a $25 gift card in exchange for allowing the utility to cycle down their AC during peak events, which there will probably be just a few of during the summer.

ConEd was not specific about how high it would set the AC units, but last year's pilot found that the AC could go to about 72 before people noticed a change in temperature. Each event will be based around the number of participants and average room temperature.

The modlet is a tool used not only to reach a large swath of residential units in older cities, such as New York, Philadelphia and Boston, also to help utilities access peak reduction in some lower-income neighborhoods that have a larger number of window AC units. The problem, however, is that for demand response programs, households must also have internet, which has a lower penetration in lower-income neighborhoods. Ortizo acknowledged that having a computer and internet requirement was somewhat limiting for enrollment in CoolNYC as it expands.

The program has had about 1,300 applicants so far, according to Ortizo, and the utility is reaching out to building tenants and managers in the target buildings to fill out the program by mid-June. The technology is key to the DR program, but the website will also provide tips and suggestions for people to get the most out of their AC settings.

The pilot is significantly larger than last year, but Ortizo said it was unclear how much it would scale in following years, although it will continue. Ideally, she said, it would be streamlined with the other central AC demand response program.

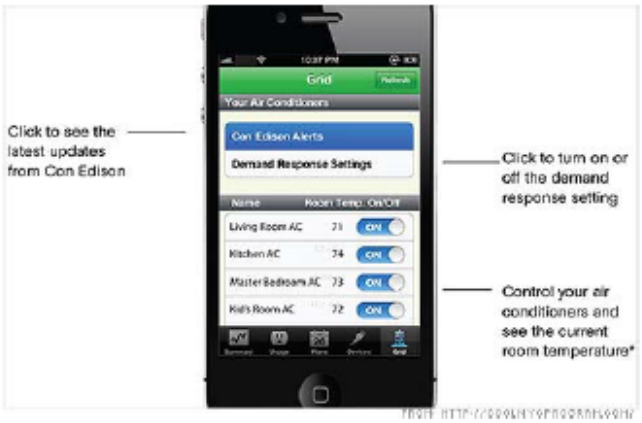
For now, the utility is still squarely in the pilot phase when it comes to residents and DR, although a successful run this year could earn ConEd a green light from the New York Public Service Commission down the road.

Media Coverage 2: CNN Money - A Service of CNN, Fortune & Money
http://money.cnn.com/2012/07/20/technology/startups/coolnyc-thinkeco/index.htm

CNNMoney A Service of CNN, Fortune & Money | FORTUNE | Money

Control your air conditioner from your phone

By Erin Kim @CNNMoneyTech July 20, 2012: 12:33 PM ET



CoolNYC allows users to control their air conditioner units from a smartphone app.

NEW YORK (CNNMoney) -- In this record hot summer, it can be difficult to stay cool while keeping green. Now there's a way for New Yorkers to do both, right from their phones.

CoolNYC, an energy-monitoring initiative from New York electric utility Con Edison (ED, Fortune 500) and startup ThinkEco, is helping thousands of Big Apple residents control their window air conditioners through smartphone apps and the Web.

"The idea of CoolNYC is to bring this technology to everybody so that people can be smart about the way they use their window air conditioners and save energy by doing so," said Mei Shibata, co-founder of New York-based ThinkEco.

The program is giving away and selling 10,000 "smart plugs" this summer. About three quarters of the devices will be doled out for free to residents of large apartment buildings throughout New York, and the rest will be put on sale at some New York Best Buy (BBY, Fortune 500) stores for $70. (A $25 rebate is available.)

Here's how it works: Users plug their window air conditioners into the smart plug, which controls the flow of electricity to the a/c and wirelessly connects to the Internet.

The device's on-board thermostat allows users to remotely set a temperature for their apartment. When the room falls below that temperature, the smart plug shuts the air off, then turns the unit back on if it gets too hot.

The initiative was set up is to prevent air conditioners from running all day -- a common practice during these sweltering months.

With the smart plugs, Con Ed customers can remotely turn their a/c units off from work if they accidentally left them on in the morning. They can also turn their air on a few minutes before returning home.

By going online or in the app, users can also see just how much energy their air conditioner units use and how much they can save by adjusting their usage. An optional setting encourages users to help conserve the city's power during the busiest hours by raising their temperature by a degree or two.

CoolNYC said 7,000 customers have already signed up for the offer. Last year, when the program first launched, it had about 300 participants, Shibata said. The partners hope to further expand the program next year.

The effort only scratches the surface of the 6 million window air conditioners in the city, but even a small number of smart plugs will help relieve Con Ed of some of its customers' soaring energy demands.

"We're definitely crossing over into segments of the population that normally did not care about energy efficiency, being drawn into it because it's a cool product," Shibata said. "It leaves a permanent impression, to the point where we hear about it from the consumer. It's been a great education tool for people." ■

Media Coverage 3: Scientific American
http://www.scientificamerican.com/article.cfm?id=pogue-control-your-home-from-your-smart-phone

SCIENTIFIC AMERICAN™

Permanent Address: http://www.scientificamerican.com/article.cfm?id=pogue-control-your-home-from-your-smart-phone

Control Your Home from Your Smart Phone

New services are offering ways to precisely monitor and control your home energy use inside your house--and from afar

By David Pogue | Thursday, September 20, 2012 | 3

In my *Scientific American* column this month, I wrote about an innovative electric utility program that's designed to keep costs down and avoid blackouts. New York City's Con Edison power utility is distributing free Internet-connected thermostats that you can control even while you're away from your house. In exchange, you give the company permission to override your temperature setting on the hottest, highest-demand days of summer.

Con Ed's online thermostats are interesting, and it's the first company to offer a remote-control module for *window* air conditioners, which fill New York apartments by the millions. But Con Ed isn't the only game in town. Smart thermostats are cropping up all over the country. Here are some of the other online thermostats that could be hanging soon on a wall near you.

Nest: This $250 thermostat was designed by the guy who designed the iPod. It's one beautiful thermostat.

It has wi-fi, so it's online. You can control it and review its activity from a phone app or on a Web site. Most remarkably, this thermostat has near- and far-field sensors that detect people's presence in the room. By observing the room and taking note of when you adjust the temperature manually, the Nest learns your schedule—and programs itself.

Verizon: Verizon's Home Monitoring and Control program also offers remote-controllable thermostats—and enough other home-control hardware to make you an honorary Jetson. Through a phone app or Web site, you can turn appliances on and off, lock and unlock your doors, fiddle with the temperature, check in on video cameras and so on—for only about $10 a month. The $90 starter kit includes one camera, one lamp plug-in module and the base unit. (AT&T's Digital Life is similar. It's being tested in two cities this summer.)

Lowe's: The Lowe's home-improvement chain offers Iris, a similar whole-house automation system. It includes thermostats, door locks, lighting and appliances, plus video cameras and sensors for doors, motion and fire—all under the control of your phone or a Web site.

Media Coverage 4: CBS Interactive Inc.
http://www.cbsnews.com/8301-3445_162-57491629/dialing-the-thermostat-into-the-digital-age/

Dialing the thermostat into the digital age

(CBS News) *Whatever the weather, keeping your home comfortable is a matter of degrees - and a job for your thermostat. Now, after many an unchanging year, some say the time is right for a thermostat makeover. Our Cover Story is reported by David Pogue of The New York Times.*

Sooner or later, just about everything goes digital. The book. The TV. The phone.

But one of the world's most commonplace gadgets has been stuck in time for 40 years: the humble thermostat. There's probably one on your wall right now, beige and boring-and probably wasting money.

"Today, only 10 percent of thermostats, a quarter billion thermostats in the U.S., are actually programmed to saving energy," said Silicon Valley inventor Tony Fadell. "That's because they've been too confusing, too cumbersome to program."

Fadell is trying to change all that, but you're probably more familiar with his earlier pet project: designing the iPod.

"After doing, you know, 18 generations of the iPod, I was like, okay, maybe there's something else to go after and look at. So I took some time off," Fadell said.

He was designing a dream home in Lake Tahoe: Ultra-modern, ultra-green.

"Someone in the design team said, 'here are the thermostats you're going to use in this house.' I looked at them, and they all looked like '90s beige computers. So I just said, I'm gonna start designing one myself," Fadell said.

He came up with the Nest thermostat.

"I can just turn it on with just waving my hand. This is actually a simpler interface than the IPod. All we have is a ring, a dial and one button," he said.

Fadell demonstrated how to turn up the heat.

"Here we go. And there, the screen turns red orange to say it's starting to heat," he said.

In the summertime, when you turn it to cool, it turns blue.

But here's where things get interesting. You can also adjust the thermostat when you're not home using an app on your phone. For example, you might want your house to be comfortable by the time you get home from a trip.

But maybe the most interesting part of all is that this thermostat can program *itself*.

The thermostat has sensors that help it see if anybody's actually home.

"We're testing the far field activity sensor," Fadell explained. "It scans out into the room. This is actually simulating a person walking by it."

By observing the room and taking note of when you adjust the temperature manually, the Nest learns your schedule and programs itself. Now, all of this tech goodness will cost you $250. But Fadell says you'll still come out ahead.

"If you think about a thermostat and its life, you're spending between $12,000 and $15,000 worth of fuel on that - consumed by that thermostat and the heating and cooling system," Fadell said. "So what if you could actually just save five or 10 percent of that over the life of that thermostat? You can quickly pay back for the thermostat and reward yourself every year for making a good decision."

Tony Fadell isn't the only one bringing the thermostat into the digital age. Around the country, electric companies like Con Edison in New York City are putting the same idea to work-on a massive scale.

Summertime brings the highest spikes in energy use. In one of the company's local distribution system centers, Con Ed managers watch out for imminent blackouts, like the terrible one of 2003.

To avoid drastic events like that, Adrianne Ortizo manages a Con Ed program that uses new thermostats to help keep demand from red-lining.

"It's a two-way communicating thermostat," Ortizo said. "You can control it via a web portal as well as a smartphone."

Like the Nest, Con Ed's thermostats can be controlled remotely by phone or computer. You can even send commands to a window air conditioner, a room air conditioner, or a fan.

Unlike the Nest, Con Ed is giving these thermostats away free. But as you might guess, there's a catch: You're not the only one who gets remote control of your thermostat.

"When, you know, there are times of peak energy use on our system, Con Edison will call upon these participants to actually, you know, be part of a demand-reduction event," said Ortizo, who said the company would raise a customer's temperature by two to three degrees.

Apparently, New Yorkers don't mind that Big Brother is cooling them.

"As long as I don't sweat, I don't care," said one resident.

So why would an electric company try to get its customers to use *less* of its product?

"What's in it for the company is that, you know, we don't have to build more infrastructure or we can at least delay it for a couple more years," Ortizo said. "So, that's less lines in the ground, or overhead. You know, maybe not building a substation."

And is it possible that cumulatively, these efforts could prevent a brownout or a blackout?

"Yes, it definitely adds to the reliability of the system," Ortizo said.

If you find the notion of smart thermostats just a little bit creepy, well, don't look now. If Verizon has its way, thermostats will be only one part of your house that's online.

Ann Shaub isn't just an executive for Verizon's connected home services. She's also a guinea pig. Her home is a showcase for the company's new home automation services - including remote-controlled lights.

Shaub can turn on lights and lock doors with the click of a button.

Now, the goals of all of this are lofty: save energy, save money, save effort. But with great technology, comes great glitchiness.

Even Mr. iPod himself, Tony Fadell, says there's more work to be done.

"These are definitely complicated products and there may be bugs from time to time," Fadell said.

Fortunately, all of these remote-controlled, interconnected, artificially intelligent thermostats have one really great feature: When all else fails, you can still use them the old-fashioned way - turning them up or down with your hand.

Media Coverage 5: Intelligent Utility

http://www.intelligentutility.com/article/12/08/new-york-city-aggregating-tiny-loads

New York City: aggregating tiny loads

Sub Title:
Customers control window ACs by smartphone
Phil Carson [1]
dreamstime_s_6431955.jpg [2]

While industry talk often focuses on the "home area network,' which could connect myriad devices in the home, the urban apartment dweller has a window AC unit and a fridge. Con Edison has made it possible to control that AC unit by smartphone. And millions of these tiny loads add up to big relief for constrained circuits.

New York's Consolidated Edison [3], or Con Edison, is looking for the proverbial low-hanging fruit, not in a street vendor's offering but in energy efficiency. And Con Edison wants the customer to pick and enjoy that fruit, with secondary benefits for the utility.

"I firmly believe that there has to be an obvious customer benefit from which the utility gains a resulting, secondary benefit, not the reverse," Colin Smart, section manager for commercial customer solutions in Con Edison's energy efficiency and demand management programs, told me recently. "Our approach is to try to take the conversation to customer empowerment and control."

That conversation, which primarily involves energy efficiency and demand response, encompasses four customer classes: commercial/industrial, small business, residential and multi-family dwellings. Because Con Edison is a transmission and distribution company, its main concerns focus on flattening the load curve and deferring capital investment on capacity-constrained circuits, Smart said.

"It's down to what we call the network level, running out of a substation," Smart added. "The size of those networks can run from 60 MW up to about 250 MW and there are about 70 substations in our service territory."

Of course, there are other drivers. New York state regulators also have established an energy efficiency portfolio standard [4] in association with the state goal of "15 by 15," which means cutting 15 percent of the state's carbon emissions by 2015. That requires cutting peak use as well as overall use.

Smart had responsibility for commercial, residential and multi-dwelling demand response programs until last year, when he took over the utility's efforts in the commercial/industrial energy efficiency and demand response sector. He described programs in all these areas, but the "multi-dwelling" (read: apartments) were the most interesting.

In the residential and multi-dwelling sector, the "pull" rather than "push" strategy is particularly important, as price signals that might otherwise move customers to shave peak load and flatten the load profile on key circuits are "deafened" by aspects of life in New York City.

High real estate values—and thus, high rents—and high salaries, relative to the cost of electricity bills, tend to undercut messages such as "saving money" on electricity bills, Smart told me.

"While we are in the early stages of this type of engagement, in New York we have seen real price signal-type solutions have minimal, if any impact," Smart told me. "I do not believe this is surprising. I have my thoughts on price elasticity and I believe the price signal conversation is best left to a machine to machine conversation. The economics of such a solution, in most cases, is still a ways off. For humans, talking about price signals only makes the energy subject less interesting."

Instead, in a relatively new program, Con Edison's message to apartment dwellers, for instance, is that the utility can provide the tools to control their window air conditioners and thus manage electricity use and costs. This is through CoolNYC, a Con Edison program in partnership with ThinkEco [5], and it involves some "cool" technology, pun intended.

The CoolNYC program is most interesting, to me, because it illustrates the power of aggregating small loads and the innovation that makes addressing those small loads possible.

New York City has about 6.3 million window AC units, with another million expected over the next five years, according to Smart. Individually they don't consume much. Together, however, operating at the same time, a few million of them consume about one-fifth of the city's peak load.

Traditionally, window AC units have been hard to address. But a start-up called ThinkEco came up with a remote-controlled "Modlet," or "modern outlet." Between the appliance and the wall socket is a device that controls the AC setting that customers can manipulate from an app on their smartphones. Formerly they'd leave the AC on high all day because of lack of control. The suggested notion is that the customer can set the temperature up, lowering the AC draw, during the day, and turn the temperature setting down before returning home from work. A smart thermostat is positioned elsewhere in the room, so it's unaffected by the heat from the AC unit.

Con Edison can control the smart thermostat as part of a demand response agreement, though customers can override that command as needed. Con Edison connects to the thermostat via broadband wireless to the customer's Internet router. The utility is pursuing a "carrier solution," meaning that the signal would be picked up by a major carrier's cellular coverage rather than the router.

During a demand response event, or period of high demand, Con Edison turns the unit on or off, until the ambient temperature set by the company is reached. This differs from traditional plug load management where units are turned on and off based on time, with a set temperature. Thus, customers are more

comfortable during an event. So there's a range and Con Edison uses on/off to hit the high or low end of the range during a demand response event. At all other times the customer sets their own control choices or makes decisions based on their day and/or planned and unplanned activities, so that rooms are only cooled when they need to be cooled.

"We are in the process of deploying 10,000 `smartAC Modlets' from ThinkEco as part of our pilot," Smart told me. "A version of the Modlet is also being sold at retail via select Best Buy stores."

Around the country, Smart added, people talk about 2,000, 3,000-square foot houses. In New York City, people live in 500-square foot apartments with two big devices: a window air conditioner and a fridge.

"And they won't let me near their fridge," Smart said, chuckling. "So we have to adapt to our unique environment."

In a house you have more choices because you have a better economy of solution, Smart pointed out. You might have several options for curtailment in a home with a 1, 2, maybe 3 kilowatt load. A window AC unit might represent a load of perhaps a half-kW.

How will Con Edison measure results?

A power chip, bascially a semiconductor, measures electrical current and voltage, via a reader in the Modlet to know exactly how the AC unit is behaving.

"We're learning a lot about how people use window air conditioners," Smart said.

"The customer engagement piece is all about empowering the customer. It's not about what Con Edison needs. Give the customer some control and choice and make it sexy and fun. That's what the customer is drawn to—being able to control that unit and save some money," Smart concluded.

"My philosophy is that we (the utility) have to look at getting secondary benefits, not the primary benefit," he added. "Because it's too hard to sell that to the customer. Electricity by its nature is an enablement tool. And when you take away enablement, I think it's very difficult to really partner with them (the customers). You have to create a pull instead of pushing it."

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Appendix V

2012 – 2011
Con Edison Event Review

2012 – 2011

Con Edison Demand Response Event Review

As of November 6, 2012

Contingency Programs;

Program	Acronym	Purpose	Incentive
Distribution Load Relief Program (NYC and Westchester County)	**DLRP**	Activated by Con Edison in system critical situations (condition yellow or voltage reduction). Customers have two hours notice to begin response for five hour event duration. Premium paid for customers who pre-commit load.	Customers receive a reservation payment of $6.00 or $3.00 per kW pledged and performed, depending on location, and energy payments equal to $0.50 per kWh reduced. Energy only option available for those who do not pre-commit kW.
Direct Load Control (NYC and Westchester County)	**DLC**	Activated by Con Edison in system critical situations (condition yellow or voltage reduction). 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 will 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.

Peak Shaving Programs;

Program	Acronym	Purpose	Incentive
Commercial System Relief Program (NYC only)	**CSRP**	Event activated when day-ahead forecast is 96% or greater of forecasted summer system peak to relieve system peak load. Premium paid for customers who pre-commit load.	Customers who pre-commit kW receive a reservation payment of $5/kW pledged and performed. Energy Payment equal to $.50 per kWh for each kW reduced during an event. Customers who do not pre-commit load receive an energy payment equal to $1.50 for each kWh reduced.
Residential Smart Appliance Program Extension: CoolNYC (NYC only) [Pilot program]	**CoolNYC**	Event activated when day-ahead forecast is 96% or greater of forecasted summer system peak to relieve system peak load. Con Edison will have ability to turn off window or wall A/Cs when an event is called. Available to Con Edison residential customers with window or wall A/C units and broadband connection.	Participants receive a free smart modern outlet (modlet), remote thermostat and gateway device allowing control via a web portal and smartphones. Participation in event hours results in an incentive payment of $25.
Residential Smart Appliance Program (NYC only) [Pilot program]	**RSAP**	Event activated when day-ahead forecast is 96% or greater of forecasted summer system peak to relieve system peak load. Con Edison will have ability to turn off enrolled home electrical equipment when an event is called. Available to Con Edison residential customers with a minimum of two window or wall A/C units, an AMR meter and broadband connection.	Participants receive a free home energy management system with installation and participation in 80% of all event hour's results in an incentive payment of $10 for each wall or window A/C unit enrolled and $10 for the combination of other enrolled appliances.

NYISO Programs;

Program	Acronym	Purpose	Incentive
Emergency Demand Response Program	**EDRP**	Deployed in energy shortage situations to maintain the reliability of the bulk of power grid. EDRP is a voluntary program.	Energy Payment: Equal to the greater of $.50 for each kWh curtailed, or the real-time zonal locational-based marginal price, but no less than $.50 per kWh curtailed paid to curtailment service provider/aggregator.
ICAP Special Case Resource	**SCR**	Deployed in energy shortage situations to maintain the reliability of the bulk power grid. SCR are paid for a commitment.	Energy Payment: Equal to the greater of $.50 for each kWh curtailed, or the real-time zonal locational-based marginal price for an event, but no less than $.50 per kWh curtailed paid to RIP Reservation (capacity): Monthly Capacity payment based on ICAP auction clearing price. (2012 Approximately $11 per kW)
Targeted Demand Response Program	**TDRP**	Deployed in targeted areas within Load Zone J under certain specific conditions and in response to a request for assistance from the Transmission Owner. There are 9 sub-load pockets within Zone J. While TDRP targets SCR customers, participation is completely voluntary.	Energy Payment: Equal to the greater of $.50 for each kWh curtailed, or the real-time zonal locational-based marginal price, but no less than $.50 per kWh curtailed paid to curtailment service provider/aggregator

NYISO TDRP – County/Network/Subzone

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

County	Network	Subzone
MN	Madison Square	J7
MN	Park Place	J7
MN	Pennsylvania	J6
MN	Plaza	J6
MN	Randalls Island	J2
MN	Rockefeller Cen	J6
MN	Roosevelt	J2
MN	Sheridan Square	J7
MN	Sutton	J2
MN	Times Square	J6
MN	Triboro	J8
MN	Turtle Bay	J2
MN	Washington Hgts	J1
MN	Yorkville	J2
QN	Borden	J3
QN	Flushing	J5
QN	Jackson Heights	J5
QN	Jamaica	J5
QN	Long Island Cit	J5
QN	Maspeth	J3
QN	Rego Park	J5
QN	Richmond Hill -	J8
QN	Sunnyside	J3
SI	Fox Hills	J4
SI	Fresh Kills	J4
SI	Wainwright	J4
SI	Willowbrook	J4
SI	Woodrow	J4
WS	Buchanan	H
WS	Cedar Street	I
WS	Elmsford	I
WS	Granite Hill	I
WS	Grasslands	I
WS	Harrison	I
WS	Millwood West	H
WS	Mohansic	H
WS	Ossining West	H
WS	Pleasantville	I
WS	Rockview	I
WS	Washington	I
WS	White Plains	I

2012 Demand Response Program Activity

Tuesday, May 29, 2012

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
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	Time Start	Time End	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

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	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	Southeast Bronx**	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

**This customer is an export demand response resource

*** 2 hour notification was not sent

2012 Demand Response Program Activity (cont.)

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	South East Bronx**	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

**This customer is an export demand response resource

Wednesday, July 04, 2012

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	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	Time Start	Time End	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	Time End	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****

****Estimated by dividing the total number of DLC MW's enrolled in the NYISO SCR program by the average 1.2 kW reduction per thermostat.

Saturday, July 07, 2012

Administrator	Program	Time Start	Time End	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	-

2012 Demand Response Program Activity (cont.)

Monday, July 16, 2012

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
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

Administrator	Program	Time Start	Time End	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	J8	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	Time Start	Time End	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	Southeast Bronx**	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

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

**This customer 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.

Thursday, July 19, 2012

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
NYISO	TDRP	6:00 PM	10:00 PM	J3	Event	Program was on standby but not called	-

2012 Demand Response Program Activity (cont.)

Tuesday, July 24, 2012

Administrator	Program	Time Start	Time End	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	Time Start	Time End	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	-

Friday, July 27, 2012

Administrator	Program	Time Start	Time End	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

Administrator	Program	Time Start	Time End	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 Con Edison's service territory; Zones H, I, & J

Thursday, August 09, 2012

Administrator	Program	Time Start	Time End	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

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
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

Administrator	Program	Time Start	Time End	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	-

2012 Demand Response Program Activity (cont.)

Friday, August 31, 2012

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

Sunday, September 16, 2012

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Pledged after De-rating	Accounts
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

2011 Demand Response Program Activity

Wednesday, June 08, 2011

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Reduction Achieved	Accounts
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

Administrator	Program	Time Start	Time End	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

Administrator	Program	Time Start	Time End	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

Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Reduction Achieved	Accounts
Con Edison	RSAP	11:00 A.M.	7:00 P.M.	J	Event	0.01	110
Con Edison	CSRP - Day	12:00 P.M.	5:00 P.M.	J	Event	21.40	115
Con Edison	CSRP - Night	5:00 P.M.	10:00 P.M.	J	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

2011 Demand Response Program Activity (cont.)

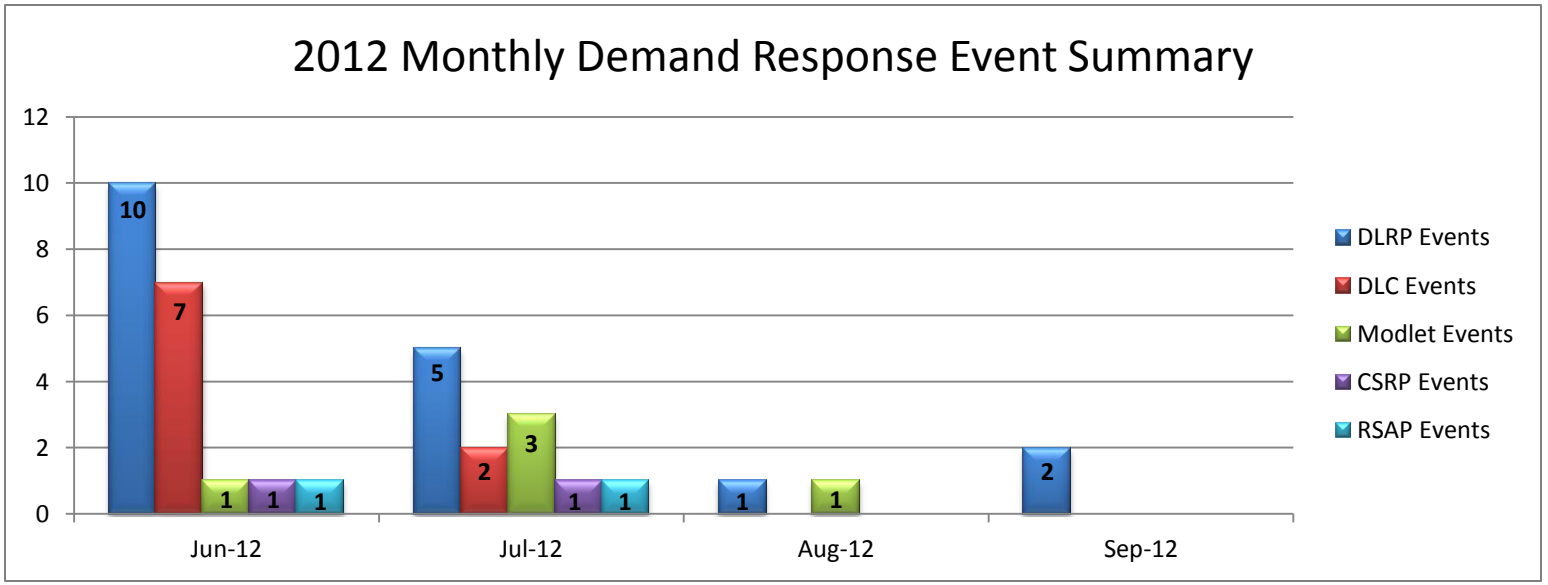
Friday July 22, 2011

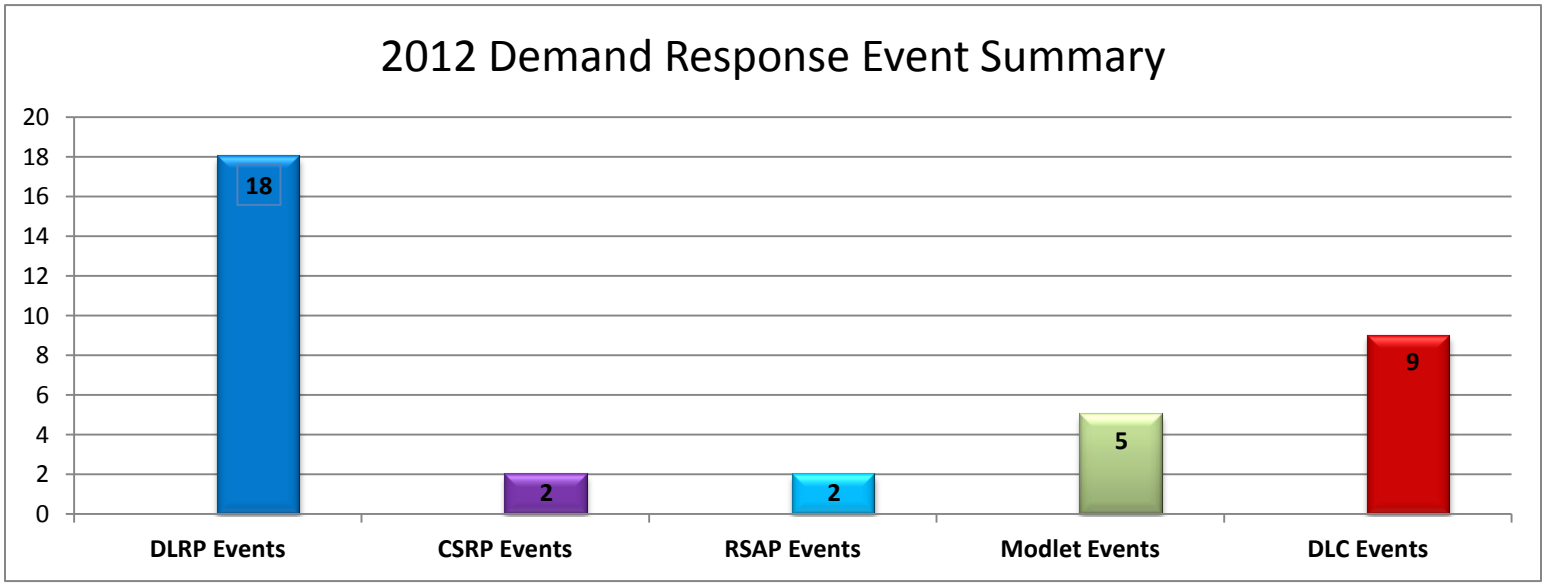
Administrator	Program	Time Start	Time End	Zone/Network	Event/ Test	MW Reduction Achieved	Accounts
Con Edison	CSRP - Day	12:00 P.M.	5:00 P.M.	J	Event	29.52	115
Con Edison	CSRP - Night	5:00 P.M.	10:00 P.M.	J	Event	6.72	30
Con Edison	DLRP	7:00 A.M.	3:00 P.M.	Elmsford	Event	0.30	9
Con Edison	DLC	7:00 A.M.	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

Saturday, July 30, 2011

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

2012 Demand Response Program Activity Summary





2011 Demand Response Program Activity Summary