



# Local Law 87 Annual Report

## Fiscal Year 2015

December 23, 2015

## **DCAS Energy Management – Local Law 87 Annual Report**

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Local Law 87 of 2009 (LL 87) calls for energy auditing and retro-commissioning of public and private sector buildings over 50,000 gross square feet to aid the City in meeting its greenhouse gas emissions reduction goals as reflected in OneNYC and One City: Built to Last. The law has enabled the New York City Department of Citywide Administrative Services (DCAS) to identify and realize substantial greenhouse gas emissions reduction opportunities.

DCAS Energy Management (DEM) commissions qualified energy consultants to prepare Energy Efficiency Reports (EERs) for City buildings, as part of the City's compliance with LL 87. As of June 30, 2015, DEM has filed a total of 165 EERs with the Department of Buildings (DOB). Six (6) EERs for school buildings were filed in Fiscal Year (FY) 2015, the period covered by this report; the remaining 159 EERs were filed in FY 2014. This report provides the FY 2015 EERs, and summarizes the following: 1) the analysis of the most common EER improvements recommended by the energy audits for these buildings; 2) the analysis of the accuracy of such energy audits in predicting costs of the recommended capital improvements; 3) the post-installation analysis of the accuracy with which such audits predicted the actual savings achieved by the capital improvements; and recommendations as to appropriate legislative or administrative actions.

This Annual Report is submitted to the speaker of the city council and the mayor pursuant to LL 87's requirement for reporting on capital improvements to base building systems for the period July 1, 2014 through June 30, 2015 (FY 2015).

### **Reasonable Energy Conservation Measures (ECMs)**

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LL 87 calls for an energy audit to identify, "at a minimum, all reasonable measures including capital improvements that would, if implemented, reduce energy use and/or the cost of operating the building." Furthermore the law stipulates that "reasonable capital improvements to the building's base building systems that are recommended in the building's energy audit shall be completed including, at a minimum, all those improvements of the base building systems having a simple payback of not more than seven years..."

In compliance with LL 87, the City has implemented all reasonable measures with a simple seven (7) year payback or less. These reasonable measures are termed Energy Conservation Measures (ECMs) in the EER, as opposed to Retro-Commissioning Measures or Operations and Maintenance Measures, as set forth in the definition of "simple payback" contained in LL 87. The City has done so through its energy efficiency capital improvement programs, where measures meet the capital eligibility requirements set forth in the New York City Comptroller's Directive 10 and are confirmed by the Office of Management and Budget. Where reasonable measures do not meet capital eligibility requirements, the City seeks to fund those measures through its expense-funded program in coordination with retro-commissioning measure implementation. Henceforth, for the purpose of this report, these reasonable measures will be referred to as ECMs.

### **Energy Efficiency Reports Submitted Pursuant to LL 87**

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## EERs by City Agency

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<b>Agency</b>	<b>Agency Acronym</b>	<b># of EERs</b>
Brooklyn Public Library	BPL	2
Department of Citywide Administrative Services	DCAS	25
Department of Homeless Services	DHS	9
Department of Correction	DOC	7
Department of Education	DOE	86
Department of Health and Mental Hygiene	DOHMH	1
Department of Transportation	DOT	2
Department of Parks and Recreation	DPR	7
Department of Sanitation	DSNY	9
New York Fire Department	FDNY	2
Human Resources Administration	HRA	2
New York Police Department	NYPD	11
New York Public Library	NYPL	1
Taxi and Limousine Commission	TLC	1
<b>Total EERs Submitted to DOB as of 06/30/2015</b>		<b>165</b>

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A list of these reports is included in the Appendix. Actual reports are provided by DCAS to DOB upon DOB's request.

## Most Common EER Improvement Recommendations

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Of the 165 EERs filed with the DOB in FY 2014 and 2015, roughly 45% included recommendations of ECMs meeting the seven (7) year simple payback criteria for mandatory implementation for City buildings. The most common improvements to base building systems recommended in EERs including the six (6) EERs for schools completed in FY 2015, fell into three categories:

- Lighting Upgrades and Controls
- Heating/Boiler Controls
- Building Management Systems (BMS)/HVAC Controls

Other measures that were recommended with less frequency included:

- Roll-Up Doors
- Steam Traps
- Variable Frequency Drives (VFD)
- Thermostats

## Accuracy in Predicting Costs and Savings

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To analyze the accuracy of the energy audit in predicting both the installed cost of an ECM and the savings achieved one year after an ECM's installation, DEM selected a sample of projects which represent common

building types and ECMs. For each sample project, DEM analyzed the estimated cost at each project milestone beginning with the energy audit and ending with the actual installed cost per the construction contract. In addition, DEM collaborated with the City University of New York (CUNY)'s Building Performance Lab to analyze energy consumption data at the whole building level for select retrofit projects completed over one year ago. Energy consumption data was provided to CUNY in the form of a .csv file that contained billing data by meter for all utility accounts at each facility. This data was reviewed for gaps and outliers, and prepared for savings analysis.

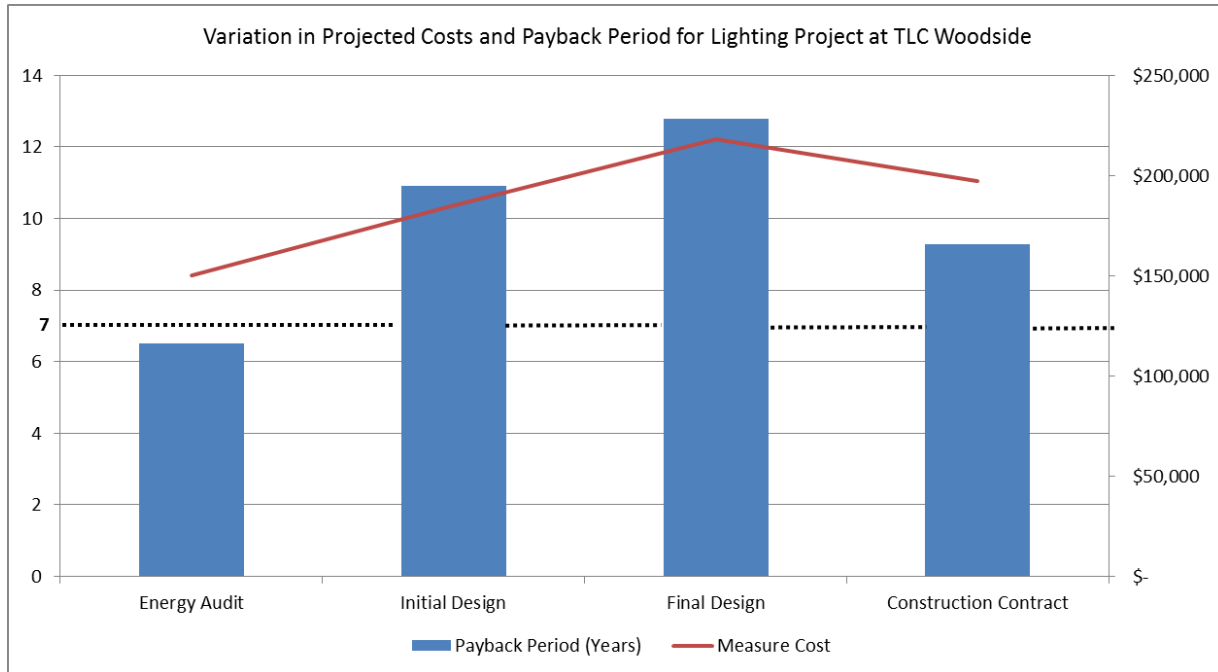
The savings analysis conducted by CUNY follows the Efficiency Valuation Organization's International Performance Measurement and Verification Protocol (IPMVP) Option C Whole Building Measurement and Verification (M&V) approach based on the monthly energy use data collected from the utility bills. This M&V approach requires that an empirical energy model between energy use and its main influencing parameter, which is weather, be developed to model baseline period energy use. The baseline period is defined as the year immediately preceding implementation of the ECMs in the building. This model is then adjusted to post-installation conditions, using weather data from the post-installation period. The result is an estimate of what the baseline energy use would have been, had no measures been installed in the building. Savings are the difference between the adjusted baseline use and the measured energy use for the post-installation period.

### **Case Study #1: Lighting and Controls Upgrade at TLC Inspection Facility**

In 2009, DCAS completed an ASHRAE Level II Energy Audit of the Taxi and Limousine Commission (TLC)'s Inspection Facility at 24-55 Brooklyn Queens Expressway (TLC Woodside). The Energy Audit report identified two ECMs with payback periods of less than seven (7) years. The first measure, a lighting and controls retrofit, was completed by DCAS in June 2012. Based on the initial Energy Audit, this measure was projected to cost \$150,000 and yield annual energy savings of \$23,172, suggesting a 6.5 year payback period. The change in project costs between different phases (Audit, Initial Design, Final Design, and Construction Contract) demonstrates the challenge associated with relying solely on the Energy Audit (or Energy Efficiency Report) to determine whether a project should proceed.

Chart 1 illustrates how the costs of the lighting and controls retrofit changed across key project milestones, and the impact these fluctuations had on the projected payback period. A baseline of seven (7) years, the LL87 threshold, is included for comparison.

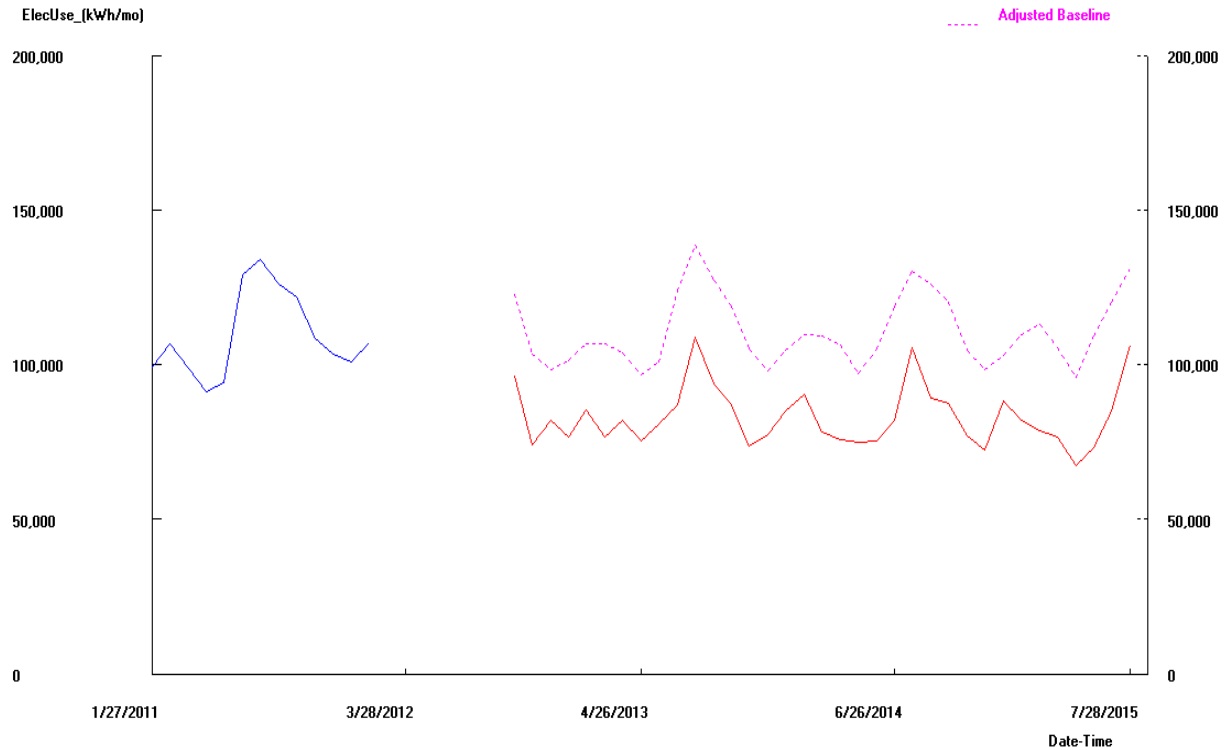
Chart 1: Lighting and Controls Costs and Payback at TLC Woodside



The second measure that was identified in the energy audit, the insulation of the facility’s chilled and hot water piping and steam distribution system was projected to cost \$1,500 and yield \$463 in annual savings, indicating a payback period of 3.2 years. A subsequent Retro-Commissioning report, completed in February 2012, indicated that the pipe insulation was compliant. The conflicting findings in the two studies demonstrate the importance of completing the Energy Audit and Retro-Commissioning Report simultaneously as an EER, a change that DEM made in 2013. In preparing this case study, DEM learned that a new boiler was recently installed at the facility. DEM is following up with TLC to confirm that the piping system is properly insulated to ensure efficient operation.

An analysis of the electricity usage at TLC Woodside indicates that the lighting and controls retrofit coupled with the installation of an air curtain, occupancy sensors, and a 30-ton rooftop AHU replacement led to significant savings. According to Graph 1 below, which illustrates pre-installation baseline usage (blue line), actual post-installation usage (red line) and adjusted baseline usage (dotted pink line), and the retrofit construction period as the gap in between, the electric savings over the 35-month post-installation period (through 07/28/2015) were 965,258 kWh (± 6.5%).

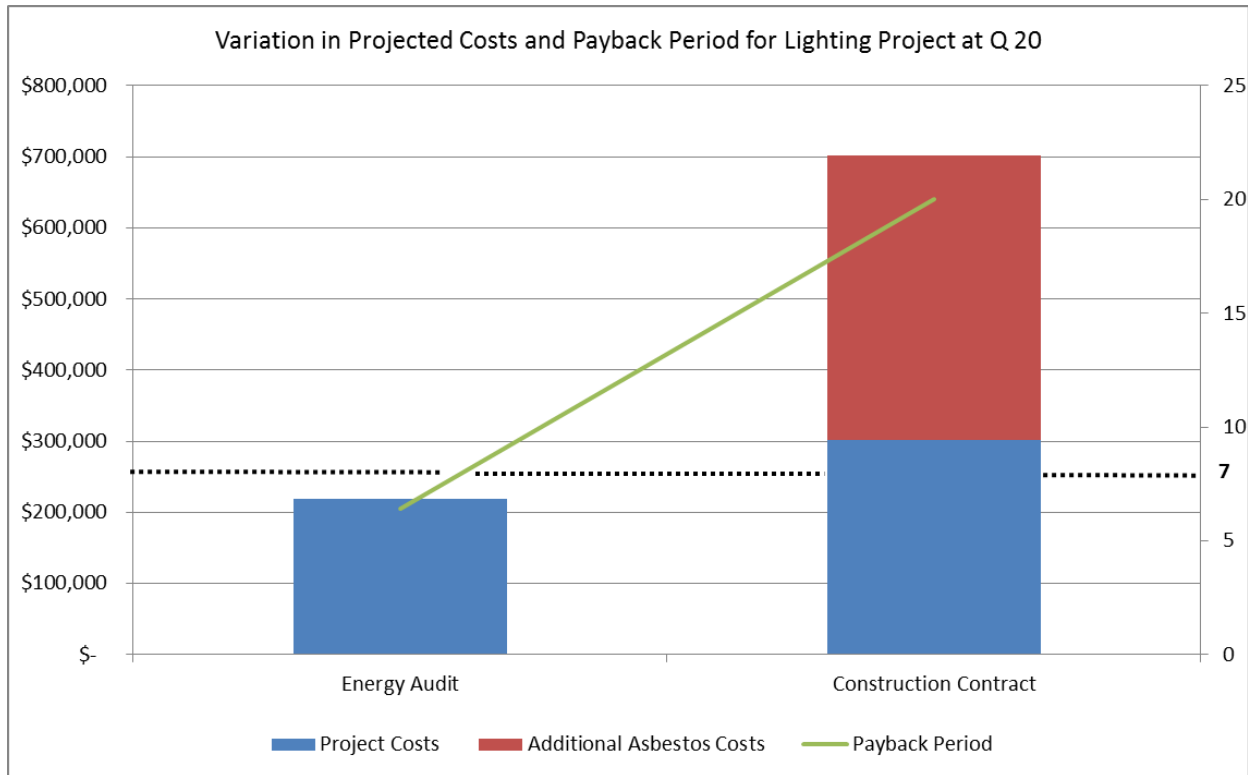
Graph 1: Electricity Usage at TLC Woodside



### Case Study #2: Lighting Upgrade at John Bowne Public School 20 in Queens

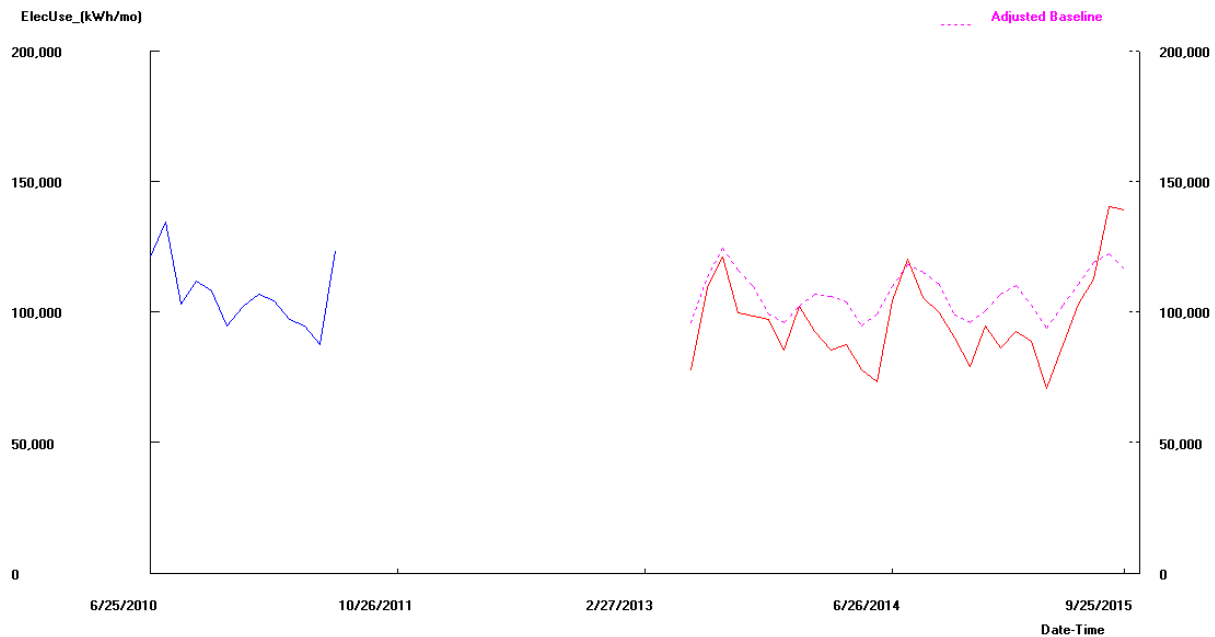
In January 2011, DCAS completed an ASHRAE Level II energy audit of John Bowne Public School 20 in Queens (Q 20). The audit report indicated that the replacement of all T12 lighting fixtures with more efficient T8 fixtures would lead to annual electricity cost savings of \$34,259. As shown in Chart 2, the initial cost estimate of \$218,719 indicated a projected payback period of 6.4 years. Between the audit and the Construction Contract, the project costs and payback period increased to \$702,400 and 20 years respectively. The increase, which was largely due to \$400,298 in asbestos abatement and monitoring costs, demonstrates the potential for significant disparities between the projected costs in the audit and the actual costs.

Chart 2: Lighting and Controls Costs and Payback at Public School Q 20



An analysis of the electricity usage at Q 20 demonstrates that the lighting project succeeded in producing significant electricity savings. The electricity graph below, which illustrates pre-installation baseline usage (blue line), actual post-installation usage (red line) and adjusted baseline usage (dotted pink line); and the retrofit construction period as the gap in between, indicates electricity savings of 277,943 kWh ( $\pm 34.8\%$ ) over the 29-month post-installation period (through September 2015). The reduced electricity usage indicates that the project impacted electric baseload, while the high degree of uncertainty can likely be explained by occupancy patterns in New York City public schools where building usage can be unpredictable as a result of summer programs.

Graph 2: Electricity Usage at Public School Q 20



### Case Study #3: Lighting and Equipment Upgrade at DPR St Mary’s

In July 2008, an ASHRAE Level II Energy Audit Report of the Department of Parks and Recreation (DPR)’s St. Mary’s Recreation Center at 450 St. Ann’s Avenue in the Bronx (DPR St. Mary’s) was completed by DCAS. The Report identified several Phase I ECMs with payback periods of less than seven years, including motor replacements, occupancy sensors, daylighting, new entrance doors, and a pool cover. The daylighting was subsequently deemed suitable for certain portions of this facility, and it was completed with a more limited scope. A second phase of ECMs included the installation of a condensing summer boiler and a central building maintenance system. The summer boiler, which had an estimated cost of \$335,000 and a 4.6 year payback was completed by the agency, and the facility was determined not to have the staff necessary to implement a building maintenance system.

Charts 3 and 4 illustrate how the costs of the ECMs identified in Phase I changed between key project milestones (Audit, Initial Design, and Construction Contract), and the impact these fluctuations had on the projected payback period. A baseline of seven (7) years, the LL87 threshold, is included for comparison. For the purpose of this analysis the occupancy sensors, which had an estimated payback period of 3.4 years was combined with a lighting retrofit that had an initial cost of \$110,000 and payback of 10.9 years.

Chart 3: Projected Costs for ECMs at DPR St. Mary's

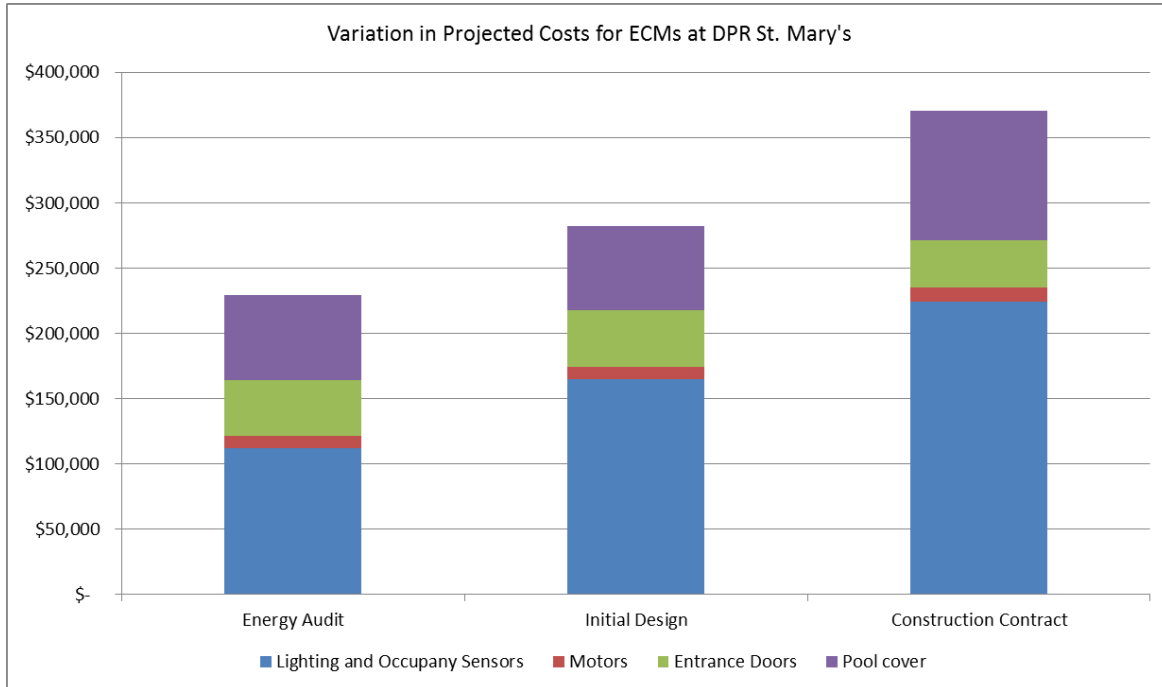
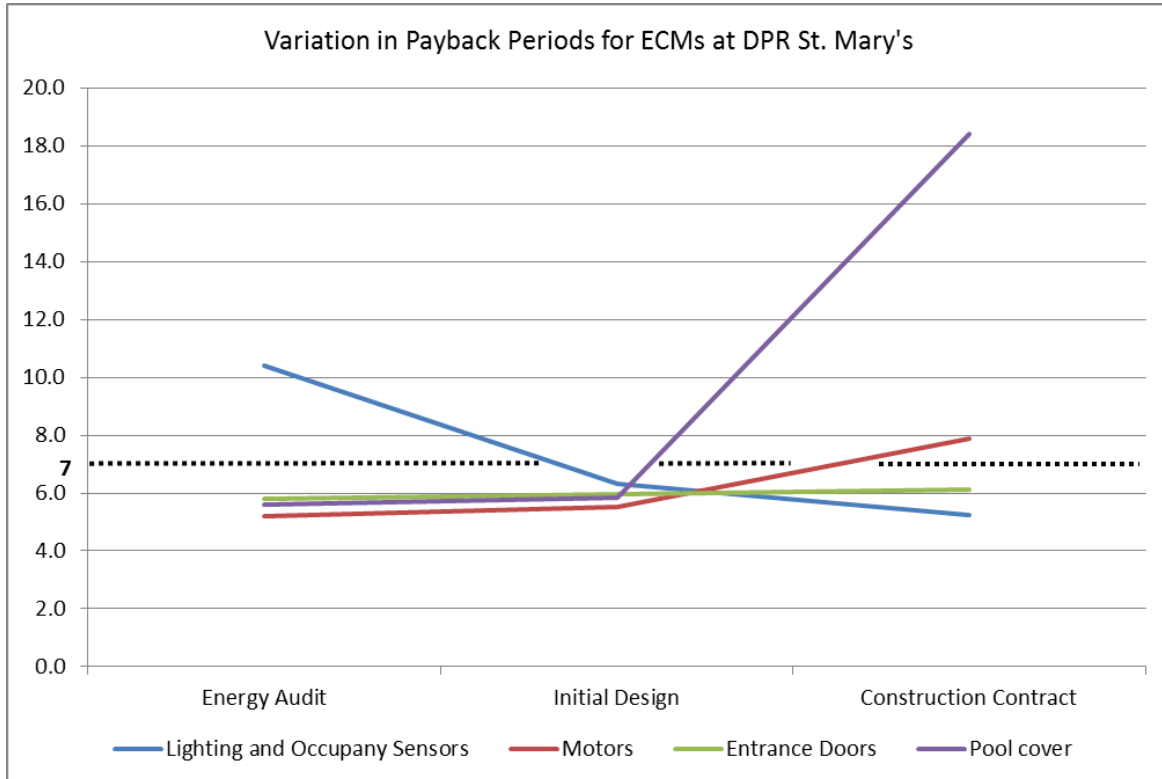
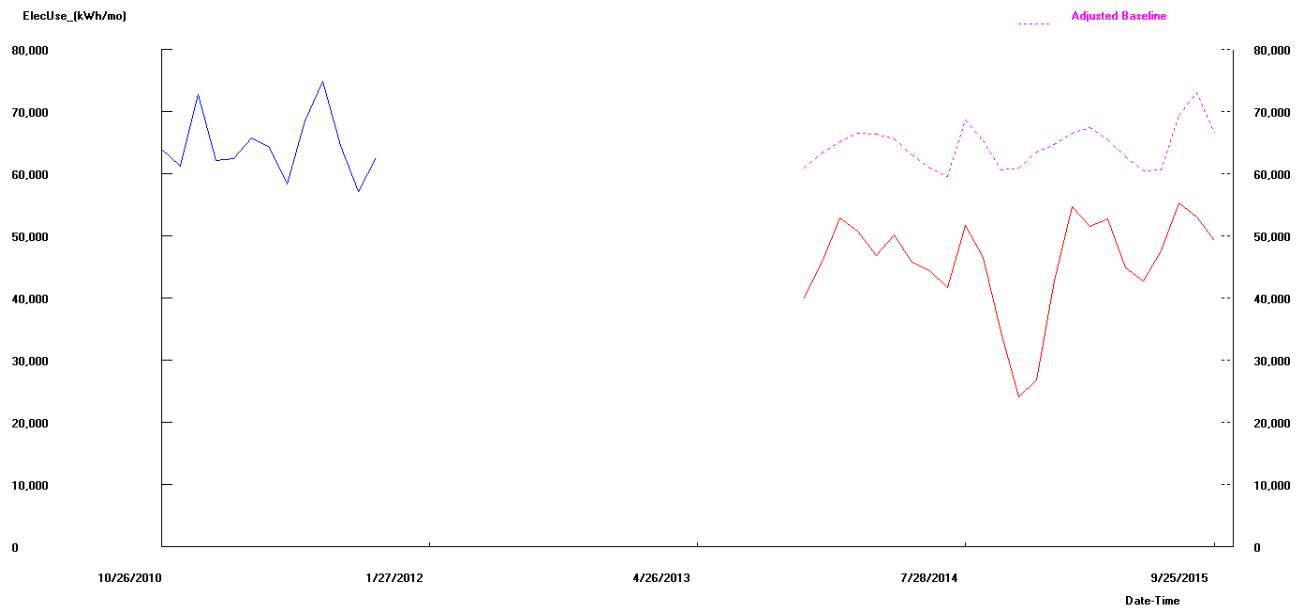


Chart 4: Payback for ECMs at DPR St. Mary's



An analysis of electricity usage at St. Mary’s demonstrates that the ECMs completed succeeded in reducing electricity consumption. Graph 5 below, illustrates pre-installation baseline usage (blue line), actual post-installation usage (red line) and adjusted baseline usage (dotted pink line), and the retrofit construction period as the gap in between. According to this model, the electric usage reduction over the 24-month post-installation period (through September 2015) was 451,136 kWh ( $\pm 9.7\%$ ). The model also indicates that the electricity reduction is most evident in baseline usage. Further, the model suggests that summer peaks at the facility have the same magnitude as they would have had, had the ECMs not been completed. These findings are consistent with the fact that the facility features a swimming pool that is used year-round.

*Graph 3: Electricity Usage Graph at DPR St. Mary’s*



**General Findings -- Accuracy of EERs in predicting costs:**

Estimated costs by ECM reflected in EERs are not congruent with construction industry standard practices used for bids and therefore do not accurately predict the actual cost of ECM implementation. In the early years of LL87 compliance, it was common to find ECM cost estimates based on material and labor costs alone. Another factor that contributes to EERs understating the actual costs associated with capital measures is the omission from EERs of costs associated with:

- Design and/or construction management fees
- Overhead and profit
- Asbestos/PCB (environmental) remediation costs
- Field conditions
- Scope changes

To resolve this issue, DEM has worked with consultants to ensure that all relevant estimated costs are incorporated into the simple payback calculation in EERs. As a result, the accuracy of cost estimates in recent reports has improved. However, costs reported in the EER are still likely to vary compared to actual installed cost because cost estimates for ASHRAE Level II Energy Audit are not required to be bid-level construction cost estimates.

***General Findings -- Accuracy of EERs in predicting savings:***

The data demonstrates reduced energy usage where energy retrofit projects were completed, indicating that retrofits do yield reduced energy consumption and lower energy costs. The energy audit is an adequate tool for identifying measures that will yield energy savings. However, the report's accuracy in predicting the amount of savings is difficult to determine. A precise comparison of audit estimates for energy reductions and actual energy reductions is not possible as energy usage is measured at the building level and not by individual ECMs. There are other variables that impact energy use at a building including but not limited to its hours of occupancy, use, existing building equipment, and changes to plug loads, which makes it difficult to isolate the precise impact of an ECM. Despite these uncertainties, it is clear that building energy use decreased because ECMs were installed.

## **Recommended LL 87 of 2009 Legislative or Administrative Actions**

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The drafters of this legislation had the foresight to anticipate that recommendations for legislative or administrative changes to LL 87 might be necessary, as real-world execution is not always consistent with the well-intentioned requirements of the law. Since the passage of LL 87, DCAS has gained significant practical experience with the benefits and challenges of compliance with the law. Based on this experience, DCAS proposes the following legislative and/or administrative changes:

1. Provide flexibility for the City Building compliance requirement for energy audits at ASHRAE Level II standard since the uniformity of the recommended ECMs suggests that a less detailed analysis (i.e., ASHRAE Level I energy audit) would suffice. Moreover, an ASHRAE Level I energy audit costs approximately 15% - 25% less than an ASHRAE Level II energy audit, and would reduce the City's costs of compliance with LL 87.
  - a) Support remote energy auditing as an alternative to ASHRAE Level II when paired with on-site verification and testing. Remote energy auditing is a simulation-based software and cloud computing tool that allows for virtual audits of buildings without actual physical entrance by auditors into such buildings.
2. For the next 10 year compliance cycle, change ASHRAE standard from Level II to Level I or alternative method referenced in Recommendation #1, above.
3. Eliminate the time requirement to complete reasonable capital improvements in city buildings triggered by submission to the Department of Buildings under 28-308.9 – 224.2.b (page 22 of LL 87). LL 87 currently requires the City to implement ECMs with a simple payback of not more than seven years within one year of filing the EER with the DOB. Experience has demonstrated that the time required for capital approvals and project implementation almost always exceeds one year. Since the City has committed to reduce greenhouse gas emissions by 35% by 2025 and 80% by 2050, there is no need to impose deadlines on individual projects.

4. Amend LL 87 to eliminate the seven-year payback criteria for mandating ECM implementation and allow DCAS the discretion and flexibility to implement projects based on more comprehensive selection criteria including greenhouse gas emission reduction impact.
5. If Recommendation #4 is not enacted, the issue of cost escalation from estimates stated in the EER to actual total installed cost must be addressed in the following way: If cost of recommended ECM reported in the EER increases by 25% or more, or exceed the seven (7) year payback criteria, the requirement to implement will be lifted and it will be DCAS' discretion whether to move forward with implementing the ECM.
6. DCAS will also have discretion not to pursue ECMs that are deemed non-constructible or infeasible due to: 1) site conditions; 2) functionality and/or useful life of other building system components: and/or 3) capital work either planned or underway by the host Agency affecting the building system on which the ECM would be performed.
7. Amend the LL 87 annual reporting requirement on section 224.3.a to allow a list of EERs submitted to DOB accompanied by excerpts of the DOB Energy Audit data collection filing tools, as opposed to requiring actual submission of EERs.
8. System or system components that are recommended and approved for implementation as reasonable capital improvements (i.e. ECMs) shall not also be listed as RCMs.

## APPENDIX A: EERs Submitted to DOB Pursuant to Local Law 87

ITEM	Facility Name	Address	Agency	BIN	BBL	Sq Ft	EER DOB Filing Date
1	St. Mary's Recreational Ctr	450 St Anns Ave	DPR	2003692	2025570001	56,125	12/24/13
2	Murry Bergtraum HS	411 Pearl St	DOE	1001388	1001130100	305,000	12/24/13
3	PS 8	100 Lindenwood Rd	DOE	5066295	5052210001	60,000	12/20/13
4	26th Repair Shop	640 West 26th St	DSNY	1012267	1006700050	205,000	12/27/13
5	122nd Police Precinct	2320 Hylan Blvd	NYPD	5107580	5039060001	51,439	12/27/13
6	Brooklyn Central Court	120 Schermerhorn St	DCAS	3000534	3001690017	264,000	12/27/13
7	Queens Borough Hall	120-55 Queens Blvd	DCAS	4052812	4022740002	261,000	12/27/13
8	Manhattan Criminal Court	100 Centre St	DCAS	1079000	1001670001	795,700	12/27/13
9	Police Headquarters	1 Police Plz	NYPD	1079143	1001190001	751,908	12/27/13
10	Public Health Lab	455 1st Ave	DOHMH	1020610	1009320017	260,308	12/27/13
11	Humanities & Social Sc Lib	476 5th Ave	NYPL	1034194	1012570001	600,000	12/27/13
12	158th St. Fleet Svc's Shop	675 West 158th St	DOT	1087614	1021340218	94,200	12/30/13
13	100 Gold St.	100 Gold St	DCAS	1001289	1000940025	594,000	12/27/13
14	Woodside Insp. Facility	24-55 Brooklyn-Queens Expwy	TLC	4022499	4010160045	51,979	12/27/13
15	Brooklyn Heights Branch	280 Cadman Plz West	BPL	3001939	3002390016	62,917	12/27/13
16	Mario Merola /County Court	851 Grand Concourse	DCAS	2002869	2024680001	555,859	12/27/13
17	Co-op City (PS 153, 178, 180, 181 & 455)	650-850 Baychester Ave	DOE	2097470	2051410150	1,190,650	12/31/13
18	X174	456 White Plains Rd	DOE	2020580	2034780018	202,880	12/30/13
19	X129	2055 Mapes Ave	DOE	2012957	2031090001	148,475	12/31/13
20	Brooklyn Supreme Court	292-360 Adams St	DCAS	3000257	3001390020	823,584	12/30/13
21	Queens Criminal Court	125-01 Queens Blvd	DCAS	4206522	4096530001	648,000	12/30/13
22	K009	80 Underhill Ave	DOE	3028204	3011450026	139,375	12/26/13
23	Q020	142-30 Barclay Ave	DOE	4114657	4050470001	156,175	12/30/13
24	Q120	58-01 136th St	DOE	4139491	4063730001	111,725	12/30/13
25	Q125	46-02 47th Ave	DOE	4052874	4022840006	164,683	12/20/14
26	K302	350 Linwood St	DOE	3088357	3039690001	209,275	12/31/13
27	M199	270 West 70th St	DOE	1030351	1011580040	105,700	12/31/13
28	K126	424 Leonard St	DOE	3067788	3027120001	160,925	12/31/13
29	X054	2703 Webster Ave	DOE	2113630	2032780014	98,980	12/30/13

ITEM	Facility Name	Address	Agency	BIN	BBL	Sq Ft	EER DOB Filing Date
30	Q092	99-01 34 Ave	DOE	4042496	4017140018	98,130	12/24/13
31	K135	686 Linden Blvd	DOE	3102005	3046730001	72,280	12/24/13
32	K067	51 Saint Edwards St	DOE	3332507	3020390002	138,125	12/30/13
33	M721	250 West Houston St	DOE	1009757	1005810054	133,325	12/30/13
34	R080	715 Ocean Terrace	DOE	5113169	5006830001	299,200	12/30/13
35	K013	557 Pennsylvania Ave	DOE	3085070	3038230001	64,925	12/30/13
36	M217	645 Main St	DOE	1084848	1013730001	115,085	12/24/13
37	Bushwick Multi Service Ctr	1420 Bushwick Ave	HRA	3080067	3034440022	52,000	12/26/13
38	5-Boro Complex	1 Randalls Island	DPR	1085920	1018190203	59,664	12/30/13
39	M075	735 West End Avenue	DOE	1034190	1012530065	110,575	12/24/13
40	X068	4011 Monticello Avenue	DOE	2067852	2049860081	94,860	12/30/13
41	X078	1400 Needham Avenue	DOE	2060191	2047190001	109,280	12/30/13
42	X111	3740 Baychester Avenue	DOE	2065992	2049160001	105,775	12/30/13
43	X112	1925 Schieffelin Ave	DOE	2065991	2049050500	85,325	12/24/13
44	X125	1111 Pugsley Avenue	DOE	2025717	2037900040	175,325	12/31/13
45	X127	1560 Purdy Avenue	DOE	2041247	2039480055	153,725	12/24/13
46	X131	885 Bolton Avenue	DOE	2103869	2036440001	184,975	12/27/13
47	X142	3750 Baychester Avenue	DOE	2066190	2049350001	164,751	12/31/13
48	K131	4305 Fort Hamilton Parkway	DOE	3136085	3056030001	103,354	12/30/13
49	K307	209 York Street	DOE	3000158	3000560007	111,744	12/24/13
50	K318	101 Walton Street	DOE	3061328	3022460001	181,375	12/30/13
51	Q021	147-36 26th Avenue	DOE	4108665	4048030001	125,260	12/24/13
52	Q219	144-39 Gravett Road	DOE	4448708	4065070001	115,450	12/30/13
53	Q238	88-15 182nd Street	DOE	4212425	4099190006	240,055	12/20/13
54	K801	65 Court Street	DOE	3002557	3002660020	342,200	12/20/13
55	M115	586 West 117th Street	DOE	1063228	1021330040	124,900	12/30/13
56	K218	370 Fountain Avenue	DOE	3095977	3042780001	181,325	12/23/13
57	K115	1500 East 92 Street	DOE	3232559	3082560001	123,000	12/24/13
58	K181	1023 New York Avenue	DOE	3327776	3049040010	153,725	12/30/13
59	M043	509 West 129th Street	DOE	1059723	1019840033	135,000	12/24/13
60	M540 A Philip Randolph HS	443 West 135 Street	DOE	1059409	1019570078	163,000	12/30/13

ITEM	Facility Name	Address	Agency	BIN	BBL	Sq Ft	EER DOB Filing Date
61	K010	511 7th Avenue	DOE	3016509	3008690001	77,000	12/24/13
62	K033	70 Thompkins Avenue	DOE	3048517	3017430018	175,300	12/31/13
63	K081	990 Dekalb Avenue	DOE	3043248	3016020019	130,925	12/26/13
64	K220	4812 9th Avenue	DOE	3012824	3007780023	109,000	12/24/13
65	East Harlem Multi Srvce Ctr	413 East 120th St	HRA	1054888	1018080008	93,441	12/24/13
66	Roy Wilkins Recreation Ctr	Baisley Blvd & Merrick Blvd	DPR	4268835	4124060180	60,000	12/24/13
67	M099	410 East 100th Street	DOE	1052998	1016930001	115,000	12/30/13
68	M022	111 Columbia Street	DOE	1004070	1003350001	151,000	12/31/13
69	X057	2111 Crotona Ave	DOE	2012359	2030810026	91,280	12/24/13
70	X104	1449 Shakespeare Ave	DOE	2088263	2028730027	124,900	12/30/13
71	K138	760 Prospect Place	DOE	3330794	3012330026	164,525	12/31/13
72	K383	1300 Greene Avenue	DOE	3075413	3032980001	211,375	12/31/13
73	K225	1075 Ocean View Avenue	DOE	3245498	3087120056	102,000	12/24/13
74	R044	80 Maple Parkway	DOE	5027641	5012180001	116,500	12/30/13
75	M025	145 Stanton Street	DOE	1004323	1003540080	160,000	12/24/13
76	M084	32 West 92 Street	DOE	1081042	1012050006	104,525	12/31/13
77	X039	965 Longwood Avenue	DOE	2005616	2027100001	102,100	12/24/13
78	Q600	37-02 47th Avenue	DOE	4003259	4002280020	195,785	12/31/13
79	M600	225 West 24th Street	DOE	1014174	1007740019	363,130	12/31/13
80	Brooklyn Public Library	10 Grand Army Plz	BPL	3029665	301183002	350,000	2/10/14
81	Bronx Housing Court	1118 Grand Concourse	DCAS	2101266	2024620039	99,000	12/23/13
82	Bronx Concourse Plaza	198 East 161 Street	DCAS	2099027	2024430094	231,190	12/27/13
83	Bronx Bergen Building	1932 Arthur Ave	DCAS	2009911	2029470018	90,000	12/23/13
84	Mark A. Constantino Judicial Ctr	130 Stuyvesant	DCAS	5000085	5000080070	150,300	12/23/13
85	Manhattan Supreme Court	60 Centre St	DCAS	1085748	1001600021	322,300	12/27/13
86	Sun Building	280 Broadway	DCAS	1079215	1001531002	242,062	12/27/13
87	Long Island City Courthouse	25-10 Court Sq	DCAS	4000698	4000830001	59,300	12/23/13
88	Queens Civil Court	89-17 Sutphin Blvd	DCAS	4448759	4096800001	320,535	12/24/13
89	Louis J. Lefkowitz Building	80 Centre St	DCAS	1001830	1001660027	472,500	12/27/13
90	Manhattan Civil Court	111 Centre St	DCAS	1001833	1001690010	467,000	12/24/13
91	Excelsior Building	137 Centre St	DCAS	1002358	1001970017	59,000	12/24/13
92	Health Building	125 Worth St	DCAS	1001831	1001680032	406,109	12/24/13

ITEM	Facility Name	Address	Agency	BIN	BBL	Sq Ft	EER DOB Filing Date
93	Bronx Family & Criminal Court	215 East 161st St	DCAS	2002704	2024540001	490,000	12/24/13
94	Staten Island Borough Hall	10 Richmond Ter	DCAS	5000063	5000070001	81,538	12/24/13
95	Queens Supreme Court	88-11 Sutphin Blvd	DCAS	4207071	4096910001	308,200	12/24/13
96	Manhattan Family Court	60 Lafayette St	DCAS	1001842	1001710031	491,000	12/24/13
97	Off. of Emergency Mgmt. HQ	165 Cadman Plz East	DCAS	3000172	4000850006	66,245	12/27/13
98	Manhattan Appellate Court	27 Madison Ave	DCAS	1016743	1008550001	54,300	12/24/13
99	Bellevue Men's Shelter	400 East 30th Street	DHS	1087298	1009620097	277,076	12/27/13
100	Regent Hotel Shelter	2720 Broadway	DHS	1056586	1018760020	102,275	12/27/13
101	Franklin Women's Shelter	1122 Franklin Ave	DHS	2004260	2026130001	97,000	12/27/13
102	Atlantic Ave Men's Shelter	1322 Bedford Ave	DHS	3029748	3011990015	164,320	12/27/13
103	PATH Office	346 Powers Ave	DHS	2091301	2025720006	72,000	12/30/13
104	Ft Washington Arm.-Shelter	216 Ft Washington Ave	DHS	1063381	1021380079	88,519	12/24/13
105	Borden Avenue Shelter	21-10 Borden Ave	DHS	4000526	4000680002	55,000	12/24/13
106	Briarwood Residence	80-20 134th St	DHS	4314908	4096620020	50,000	12/24/13
107	Manhattan House of Detention	125 White St	DOC	1079000	1001670001	1,079,000	12/24/13
108	George R. Vierno Ctr (GRVC)	9-9 Hazen St	DOC	2096863	4026050040	458,000	12/23/13
109	Otis Bantun Correctional Ctr (OBCC)	Riker's Island	DOC	9999999	2999999999	344,632	12/23/13
110	Rose M. Singer (RMSC)	19-19 Hazen St	DOC	9999999	2999999999	291,000	12/24/13
111	George Motchan Det Ctr (GMDC)	15-15 Hazen St	DOC	2097042	4026050040	533,491	12/24/13
112	Eric M. Taylor Center (EMTC)	10-10 Hazen St	DOC	9999999	4026050040	484,407	12/24/13
113	Vernon C. Bain Center (VCBC)	1 Halleck St	DOC	2101256	2027800073	310,000	12/27/13
114	Maspeth Central Shops	58-50 57th Rd	DOT	4805470	4026750015	117,000	12/27/13
115	Chelsea Recreational Center	430 West 25th Street	DPR	1012811	1007220057	83,940	12/24/13
116	Brownsville Rec. Ctr	598 Christopher Ave	DPR	3085992	3038680002	72,000	12/23/13
117	Asphalt Green Rec. Ctr	1750 AquaCenter York Ave	DPR	1085696	1015870001	56,000	12/23/13
118	Ranaqua Shops and Garage	1900 Birchall Ave	DPR	2101004	2043330001	70,000	12/23/13
119	Queens West 2,3,4,6 DG; CRS	52-35 58th Street	DSNY	4462505	4023610268	550,000	12/27/13
120	Cioffe Borough Repair Shop	106-01 Ave D	DSNY	3252759	3038710001	75,000	12/23/13
121	SI 3 District Garage; RBS	Muldoon Ave, entrance to Fresh Kills	DSNY	5000000	5026850100	59,798	12/23/13
122	Brooklyn W11G	1824 Shore Parkway	DSNY	3378180	3069430002	75,000	12/23/13
123	Brooklyn North 1, 4 DG	157-175 Varick St	DSNY	3070545	3029620005	79,305	12/27/13

ITEM	Facility Name	Address	Agency	BIN	BBL	Sq Ft	EER DOB Filing Date
124	Manhattan 3 DG	South St Pier 36	DSNY	1805208	1002410013	55,330	12/27/13
125	Queens 7/11 DG Annex	120-15 31st Ave	DSNY	4802407	4043460075	101,930	12/23/13
126	Bronx 12 DG	1643 East 233rd St	DSNY	2090261	2049740028	117,344	12/23/13
127	Fort Totten	Various - See FDNY sheet	FDNY	9999999	4059170001	421,996	12/24/13
128	Fire Academy - Randalls	Various - See FDNY sheet	FDNY	1085640	1018190015	241,200	12/27/13
129	NYPD Command (BNN Div)	245 Glenmore Ave	NYPD	3083636	3036980032	60,000	12/23/13
130	Central Repair Shop (CRS)	53-15 58th St	NYPD	4054276	4023610150	75,400	12/27/13
131	84th Precinct & Eng Co 207	301 Gold St	NYPD	3000252	3001340006	50,000	12/23/13
132	NYPD Precinct 67th	2820 Snyder Ave	NYPD	3117400	3051110024	53,976	12/23/13
133	NYPD Precinct 72nd	830 4th Ave	NYPD	3009843	3006680029	53,600	12/24/13
134	NYPD Precinct 81st	30 Ralph Ave	NYPD	3044596	3016330039	58,745	12/27/13
135	Police Acad/13th Precinct	230 East 21st St	NYPD	1019613	1009010006	296,405	12/27/13
136	NYPD Precinct 48th	450 Cross Bronx Expwy	NYPD	2009509	2029070010	59,328	12/27/13
137	NYPD Precinct 73rd	1470 East New York Ave	NYPD	3080735	3034970002	50,020	12/24/13
138	K191	1600 Park Place	DOE	3036635	3013750012	92,480	12/31/13
139	K251	1037 E 54 St	DOE	3214729	3077580001	91,280	12/31/13
140	K276	1070 East 83rd	DOE	3225637	3080340001	282,180	12/31/13
141	K279	1070 East 104 St	DOE	3326733	3082300001	124,925	12/31/13
142	K287	50 Navy St	DOE	3000203	3001110001	98,725	12/24/13
143	K321	180 7th Ave	DOE	3337516	3009710028	109,444	12/31/13
144	K329	2929 West 30th St	DOE	3189517	3070510001	122,225	12/31/13
145	K650	257 N 6th St	DOE	3062135	3023300011	224,525	12/24/13
146	M019	185 1st Ave	DOE	1006478	1004530034	84,125	12/31/13
147	M028	475 West 155th St	DOE	1076739	1021070026	122,525	12/24/13
148	M054	103 W 107th St	DOE	1055990	1018620011	137,000	12/31/13
149	Q011	54-25 Skillman Ave	DOE	4028447	4012390001	101,260	12/31/13
150	Q191	85-15 258 St	DOE	4180083	4088010014	82,620	12/31/13
151	Q205	75-25 Bell Blvd	DOE	4164007	4077530001	120,648	12/31/13
152	Q225	190 Beach 110th St	DOE	4303853	4161810001	84,100	12/31/13
153	R031	55 Layton Ave	DOE	5001150	5000490182	92,600	12/31/13
154	R052	450 Buel Ave	DOE	5053746	5037050001	85,699	12/31/13
155	X101	2750 Lafayette Ave	DOE	2080231	2055470001	182,525	12/31/13

<b>ITEM</b>	<b>Facility Name</b>	<b>Address</b>	<b>Agency</b>	<b>BIN</b>	<b>BBL</b>	<b>Sq Ft</b>	<b>EER DOB Filing Date</b>
156	X121	2750 Throop Ave	DOE	2054253	2045260001	111,700	12/24/13
157	X135	2441 Wallace Ave	DOE	2051313	2044320001	163,300	12/31/13
158	M661	240 2nd Ave	DOE	1020416	1009210064	55,260	12/24/13
159	University Ave Res	1041 University Ave	DHS	2003496	2025270014	99,975	12/27/13
160	K022	442 St. Marks Ave	DOE	3028281	3011480050	110,400	12/30/14
161	K185	8601 Ridge Blvd	DOE	3153416	3060430001	64,800	12/23/14
162	K269	1957 Nostrand Ave	DOE	3113780	3049940023	97,200	12/30/14
163	K849	4001 18th Ave	DOE	3127692	3054160048	57,180	6/30/15
164	K902	62 Park Pl	DOE	3259250	3009410050	92,480	12/30/14
165	Q089	85-28 Britton Ave	DOE	4037370	4015140001	82,288	12/30/14