



NEW YORK CITY COMPTROLLER
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Audit Report on the Department of Citywide Administrative Services' Compliance with Local Law 45

SE20-100A | April 24, 2023



THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER
BRAD LANDER

April 24, 2023

To the Residents of the City of New York,

My office has audited the New York City Department of Citywide Administrative Services (DCAS) to determine whether DCAS complied with Local Law 45 of 2018 (LL45) reporting requirements, which required the agency to annually report on electricity and fossil fuel usage, real-time meter (RTM) installation, and the assessment of and improvement made to the building envelopes of covered facilities. We also assessed the accuracy and completeness of the published reports.

The audit found multiple errors and discrepancies in DCAS' reported energy usage information and identified internal control weaknesses in data collection and data integrity, which indicate that all four published LL45 annual reports are unreliable. Discrepancies were found in reported ownership status (i.e., whether a facility was City-owned or leased) for dozens of facilities. Consequently, all reported annual fossil fuel and steam usage data and trends were distorted. In addition, DCAS' RTM installation data was not always complete, and its Building Envelope Assessment and Improvement reporting was insufficient.

To address these findings, the audit makes eight recommendations that, if implemented, will enhance DCAS' data collection, record-keeping, and reporting processes for electricity, fossil fuel, and steam usage, RTM installation status, and Building Envelope Assessment and Improvement status; ensure DCAS provides reliable LL45 annual reports to the public, City Council, and Mayor, and ensure the agency assesses any potential negative impacts caused by inaccurate information from past LL45 reporting including on other systems and critical tasks.

I am pleased to report that DCAS has prepared and posted the corrected reports and errata on its website. However, we are unable to fully express judgment on the correctness or completeness of the reported information.

The results of the audit have been discussed with DCAS officials, and their comments have been considered in preparing this report. DCAS' complete written response is attached to this report.

If you have any questions concerning this report, please email my Audit Bureau at audit@comptroller.nyc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Lander", written in a cursive style.

Brad Lander
New York City Comptroller

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AUDIT IMPACT

Summary of Findings

The audit found multiple errors and discrepancies in DCAS' reported energy usage information and identified internal control weaknesses in data collection and data integrity which indicate that all four published Local Law 45 (LL45) annual reports are unreliable. The audit found discrepancies in reported ownership status (i.e., whether a facility was City-owned or leased) for dozens of facilities. Consequently, all reported annual fossil fuel and steam usage data and trends were distorted. In addition, DCAS' real-time meter (RTM) installation data was not always complete, and its Building Envelope Assessment and Improvement reporting was insufficient.

After the auditors shared the preliminary audit findings and subsequently met with DCAS officials, the agency informed the auditors that it had reissued FY18 and FY19 LL45 annual reports and errata for all four reports in October 2022. However, DCAS did not inform the auditors about the revised reports and corrections before the Exit Conference meeting on February 1, 2023.¹

For this audit, the auditors did not assess the revised LL45 reports with errata released by DCAS. Consequently, the auditors are unable to express any judgment on the correctness or entirety of the modified LL45 annual reports or the revisions made.

Additionally, DCAS claimed that the errors in the LL45 reports do not reflect any errors in DCAS' underlying data or affect the accuracy of fossil fuel data collection regardless of ownership of a facility. DCAS also stated that the data used for the LL45 reporting was/is not used for any other purposes, including GHG emissions reporting, nor does it affect DCAS policy development. However, DCAS did not furnish any proof for its assertions.

Intended Benefits

The audit identified ways DCAS can enhance its data collection, record-keeping, and reporting processes for electricity, fossil fuel, and steam usage, RTM installations status, and Building Envelope Assessment and Improvement status, provide reliable LL45 annual reports to the public, City Council, and Mayor, and assess any potential negative impacts caused by inaccurate information from past LL45 reporting.

Additionally, by improving its data management, DCAS can effectively and efficiently manage its \$800 million annual energy supply budget and \$2.7 billion, 10-year capital budget to reduce greenhouse gas (GHG) emissions by 80% by 2050. Finally, enhanced data accuracy and reliability will mitigate potential reputational risks for DCAS.

¹ DCAS' public-facing Local Law Required Reports are posted on their website (<https://www.nyc.gov/site/dcas/reports/Local-Law-Required-Reports.page>). However, the revised LL45 annual reports are posted in an archive folder on their website (<https://www.nyc.gov/site/dcas/agencies/energy-archive.page>).

INTRODUCTION

Background

Local Law 45 of 2018 (LL45) arose from a 2015 New York City Comptroller's audit report that identified deficiencies in DCAS' implementation, tracking, and reporting of the City's energy efficiency efforts in City-owned buildings and its oversight of the City's goal of reducing municipal GHG emissions.² The law requires DCAS to report on annual electricity usage and RTM installations for City-owned and leased buildings and, for City-owned buildings, fossil fuel usage, as well as assessments of and improvements to building envelopes at covered facilities for four years, as part of the City's efforts to address climate change.³

DCAS' Division of Energy Management (DEM) leads the City's energy conservation and sustainability efforts and administers LL45 monitoring and reporting. DEM oversees more than 10,000 utility accounts for City government agencies across 4,000 public buildings. It implements solutions to reduce energy consumption and promote energy efficiency in public buildings, and to generate clean energy on City-owned properties. DEM manages a \$800 million annual energy supply budget and a \$2.7 billion, 10-year capital budget to develop and implement programs to achieve the City's mandated 80% reduction of GHG emissions by 2050.

Per LL45, DCAS was required to submit annual reports to the Speaker of the City Council and the Mayor for four consecutive years (Fiscal Years 2018–2021) and to make them publicly available on its website no later than December 31.⁴ In addition to reporting on electricity and fossil fuel usage, DCAS was required to report on certain efficiency measures, including RTMs and building envelope assessments and improvements.⁵

Per DCAS, its LL45 annual report drafting process included written steps for preparing, reviewing, and revising the various sections of the annual report. These steps included developing and revising the report outline, executive summary, data analyses sections, and narrative sections. The collection of relevant data, the performance of necessary analyses and statistics, and the preparation of the reports were carried out by a DEM senior analyst. Additional checks included reviews and approvals by higher-level DCAS officials such as the Chief of Staff, Assistant Commissioners, and the DEM Deputy Commissioner.

The annual reports for each fiscal year included only those facilities that qualified as covered facilities in that reporting year. Therefore, the specific covered facilities and the total number of covered facilities vary in each annual report. According to the FY18 report, there were 680 covered facilities. There were 759 covered facilities in FY19, 677 in FY20, and 572 in FY21. Each LL45 annual report is a standalone report, and the reported five-year usage trend represents

² *Audit Report on the Department of Citywide Administrative Services' Energy Conservation Efforts (7E14-120A)*

³ LL45 defines a covered facility as a City-owned or leased facility for which the City is responsible for paying electric utility bills, and where at least one electricity account exists for which demand was at least 300 kilowatts (kW) during the previous fiscal year.

⁴ Under the law, DCAS is no longer required to issue any additional LL45 annual reports after the FY21 report. DCAS is still responsible for monitoring electricity and fossil fuel usage, RTM installations, and training agency personnel.

⁵ An RTM (also known as telemetry equipment) allows electricity to be measured and reported in near-real time. A building envelope includes the building's exterior walls, foundation, roof, windows, and doors that separate the indoors from the outdoors which facilitate climate control.

change in energy usage over the last five fiscal years or periods of time such facility was a covered facility.

Objective

The objective of this audit was to determine whether DCAS complied with Local Law 45 reporting requirements, which required reporting on electricity and fossil fuel usage, real-time metering, and assessments of and improvements made to the envelopes of covered facilities.

Discussion of Audit Results with DCAS

The matters covered in this report were discussed with DCAS officials during and at the conclusion of this audit. An Exit Conference Summary was sent to DCAS on January 18, 2023, and discussed with DCAS officials at an Exit Conference held on February 1, 2023. On March 10, 2023, we submitted a Draft Report to DCAS with a request for written comments. We received a written response from DCAS on March 28, 2023.

In its response to the Draft Report, DCAS acknowledged that the original FY18 and FY19 LL45 annual reports contained miscategorized ownership status for a small number of facilities. However, DCAS maintained that the errors do not impair the integrity of DCAS' underlying data or analysis of GHG emissions reduction. Although the auditors acknowledge DCAS' perspective, DCAS did not provide any evidence to support its claims. DCAS' inconsistent reporting and changing values for the same facilities in different annual reports in addition to the miscategorized ownership statuses raise doubts about the accuracy of the underlying data. DCAS' explanation of transcription errors does not seem credible. Moreover, contrary to DCAS' claim that auditors used incorrect methodology and misapplied the wrong emission coefficient to calculate GHG emissions, the auditors utilized the same methodologies used by DCAS in its LL45 annual reports.

In addition, DCAS stated that the auditors did not review the corrected data prior to issuing the Draft Report to the agency. However, considering the extent of discrepancies and errors found in the four LL45 published annual reports during this audit, a separate audit would be necessary to thoroughly review and analyze the accuracy of the corrected reports.

After receipt of DCAS' response, the auditors did review the heating fuel oil usage data for 25 facilities (shown in Appendix VIII), as reported in DCAS' corrected FY18, corrected FY19, FY20, and FY21 reports and found that they still contain discrepancies and inconsistencies. As a result, heating fuel oil usage for these 25 facilities remains either inconsistent or underreported in all four annual reports. Consequently, the information in the corrected reports cannot be relied upon, and DCAS is still not in compliance with LL45 reporting requirements.

The auditors considered DCAS' response to the findings but did not find any basis to modify the report's findings. Where relevant, changes to the audit report were made.

The full text of DCAS' response is included as an addendum to this report.

DETAILED FINDINGS

DCAS generally complied with LL45 reporting requirements in that all four annual reports generally included all required reporting areas.⁶ However, the audit found multiple errors and discrepancies in the reported information and identified internal control weaknesses in data collection and integrity which indicate that, overall, all four published annual reports are unreliable.

The auditors found inaccuracies in year-to-year usage change trends; discrepancies, errors, and insufficient information in summary tables and facility-level data; and incorrectly reported performance metrics—for example, in the FY19 annual report, a decrease in usage of heating fuel oil was overstated by 20%, an increase in natural gas usage was overstated by over 12%, and an 11% decrease in steam usage was reported as a 2% increase.

Of particular note, in the first two annual reports (FY18 and FY19), the auditors found discrepancies in reported ownership status (i.e., whether a facility was City-owned or leased) for 77 facilities. Consequently, all reported annual fossil fuel and steam usage data and trends were distorted in those two reports. In addition, the auditors' comparisons of facility ownership data over the four reporting years showed discrepancies in ownership status for an additional 80 facilities.

Finally, the audit found that DCAS' RTM installation data was not always complete and its Building Envelope Assessment and Improvement reporting was insufficient.⁷

These findings are detailed below in the following sections.

Unreliable Performance Data

The audit found that the annual reports included multiple errors and inconsistencies in reported trends, usages, changes, and calculations, as well as incorrect categorizations of ownership status of the facilities. These errors resulted in miscalculations of energy usage data, which was then compiled in the summary tables, and as a result, the overall picture of City energy use was distorted in the annual reports. The details of this finding are discussed below.

Distorted Usage Trends in FY18 and FY19 Annual Reports

Although it is DCAS' responsibility to ensure the accuracy of the reports, discrepancies were found in reported electricity and fossil fuel⁸ usage data, in year-to-year/five-year usage changes, and in trend calculations, all of which bring into question the reliability of the reported information.

⁶ Per DCAS, the FY18 report was published in February 2019, the FY19 report in February 2020, the FY20 report in August 2021, and the FY21 report in January 2022. Per DCAS, it provided the annual reports to the City Council and the Mayor. The auditors found that for public access, DCAS publishes reports required under various Local Laws on its website at <https://www.nyc.gov/site/dcas/reports/Local-Law-Required-Reports.page>. In the past, links for the FY18 and FY19 annual reports under a reporting section titled "Energy Management Local Law 45" were present. As of January 24, 2023, a link for the LL45 FY18 report "Local Law 45 Report December 2018" is present but inactive.

⁷ In addition, discrepancies and errors between title headings and underlying data made review, verification, and reconciliation difficult for the auditors.

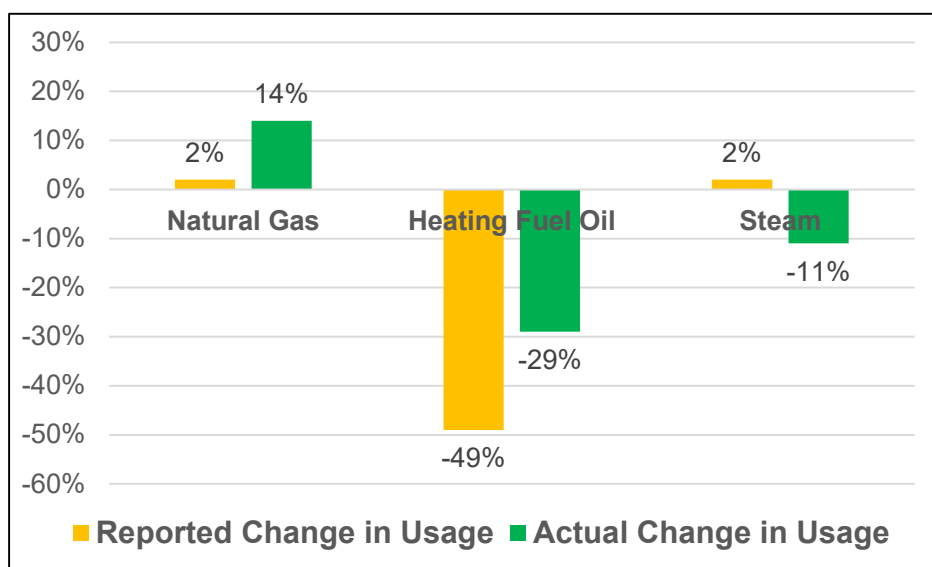
⁸ Defined by DCAS as natural gas, steam, and heating fuel oil usages. Steam is produced by the burning of fossil fuels locally.

The audit found that the heating fuel oil, natural gas, and steam usage trends were incorrectly reported in the summarized data presented in Table 3: *Fossil Fuel and Steam Usage in MMBTUs for All Covered Facilities* of the FY18 and FY19 annual reports. Increases in fossil fuel and steam usage trends were reported as decreases and vice-versa, in both reports. In addition, there were discrepancies in the titles, reported data, and calculations to track energy usage change over five FYs in both tables. DCAS attributed these errors to typos made by its publishing office, but this explanation seems unreasonable. Maintaining data integrity using formulas in the summary tables would have helped DCAS mitigate these errors.

Furthermore, the FY19 report stated that heating fuel oil usage decreased by 49%, natural gas usage increased by 14%, and steam usage increased by less than 2%. However, the auditors found that heating fuel oil usage decreased by only 29% (20% less than the reported decrease), natural gas usage increased by about 2% (12% less than the reported increase), and steam usage decreased by over 13% (an 11% decrease, as opposed to the reported 2% increase). DCAS generally attributed the misstated data to transcription errors.

These findings are illustrated in the following chart:

Inaccuracies between Reported and Actual Change in Usage (in FY19 Report)



To put these inaccuracies in perspective, the heating fuel oil usage trend was overstated by 620,866 MMBTU—equivalent to seven years of the total annual energy use at the David N. Dinkins Manhattan Municipal Building; and the increase in natural gas was understated by an amount equal to five years of energy use.⁹

⁹ Per DCAS' FY19 usage data for the Municipal Building, the total fuel + steam usage was 41,142 MMBTU per year and total electricity + solar usage was 13,667,200 kWh per year, which is equal to 46,634 MMBTU per year (based on 1 MMBTU = 293.07 kWh)—resulting in the total energy usage of 87,776 MMBTU per year.

In addition, although electricity usage changes over five fiscal years appeared to be accurate in all four annual reports,¹⁰ year-to-year usage changes were inaccurately reported in the FY18 annual report. An increase in electricity usage trend was reported as a decrease (indicated by a minus sign); likewise, a decrease was reported as an increase, in summarized data presented in the report's Table 2: *Electricity Usage Trends in kWh for All Covered Facilities, Fiscal Years 2014-2018*.

Further, in the FY19 annual report, the change in solar energy use over the last five fiscal years was calculated incorrectly. The method used by DCAS presented a larger change in solar use over the last five fiscal years, i.e., 3,187,278 kWh instead of 2,234,116 kWh. Section b.1(d) of LL45 requires difference in usage to be calculated over the last five fiscal years or the portion of such period of time that such facility was a covered facility. Accordingly, the change should have been calculated as 5th-year usage minus 2nd-year usage because no solar usage was recorded at those facilities in the first year, similar to the 5th year minus 3rd year usage calculation DCAS used to compute five-year usage differences where no solar usage was recorded for the first two years (FY18 Summary Table 2).

See Appendix I for discrepancies between reported information and corrections identified by the auditors, based on the data analyses of the summary tables and facility-level data in the LL45 report appendices.

As a result of the issues, the City Council, the Mayor, and the public cannot entirely rely upon the published annual reports.

After the auditors presented their initial findings to the agency, DCAS rejected the audit's conclusions, pointing out that the agency had corrected and revised the previously published reports.¹¹ Although DCAS acknowledged the errors and inconsistencies, it maintained that inaccurate data in the LL45 reports was not utilized for any other purposes including both reporting and policy development.¹² However, DCAS did not furnish any proof to support its assertions, leaving the auditors unable to evaluate their validity.

Incomplete and Miscategorized Facility Ownership Status

LL45 required that DCAS report all facility-level information, which DCAS included in appendices in each of the annual reports. Those appendices should have included accurate, detailed data for all City-owned and leased covered facilities, designated by ownership status (categorized in Table 1 as follows). However, in several instances, the auditors found that published usage data was incomplete or showed incorrect ownership status, resulting in further discrepancies with the reported information.

¹⁰ In the FY18 annual report, at four facilities (Port Richmond Water Resource Recovery Facility, X405 School, X475 School, and Ferry Maintenance Shop), the reported FY16 Total Electricity Usage values did not match the entries in the provided Excel file. The total electricity usage varied by over 1,000,000 kWh or 4% of the usage at those facilities in the published report compared to the usage listed in the corresponding DCAS Excel file used for the annual report.

¹¹ According to DCAS, the revised and corrected versions of the annual reports can be found in an archive folder on their website (<https://www.nyc.gov/site/dcas/agencies/energy-archive.page>). DCAS' public-facing Local Law Required Reports webpage is in a different location on their website (<https://www.nyc.gov/site/dcas/reports/Local-Law-Required-Reports.page>).

¹² Also, according to DCAS, LL45 reporting represents a minority of the over 4,000 municipal facilities for which DEM pays utility bills.

Table 1

Facility-level Detailed Data Requirements per Annual Report Appendices

Appendix A – Electricity Usage	City-owned and Leased Facilities
Appendix B – RTM Status	
Appendix C – Fossil Fuel + Steam Usage	City-owned Facilities
Appendix D – Building Envelope Assessment Status	
Appendix E – Building Envelope Improvement Status ¹³	

The number and type of facilities should match in all LL45-required appendix categories, as shown above. However, the auditors found that Appendix C in the FY18 report was incomplete and missing 174 facilities. Moreover, in the FY18, FY19, and FY21 reports, Appendix D was either incomplete or inaccurate. In addition, the facilities listed in the annual reports did not correlate with the Excel files that DCAS provided to the auditors.¹⁴ See Appendix II for the results of the auditors' analysis showing missing facilities and other discrepancies.

When asked, DCAS acknowledged the missing facilities and the omitted pages from the appendices in the FY18 and FY19 annual reports. The facilities were not numbered within individual appendices, which may have contributed to the error.

The audit also identified discrepancies between the appendices and the summary tables in the same annual report(s). Summary tables should provide overviews of the underlying data found in the respective appendices and should be verifiable and reconcilable with each other, per Comptroller's Directive #1, *Principles of Internal Control*, Section 4.3, *Control Activities under Standards of Control*. However, the audit found that the appendices and the summary tables did not always reconcile. Specifically, the reported breakdown of all covered facilities by agency affiliation and ownership status was inaccurate in the FY18 and FY19 reports.

For example, Summary Table 1 in the FY19 annual report summarized facilities by agency and ownership status. As reported, the total number of facilities in the reporting year was correct based on the facility-level data in Appendix A; however, the breakdown by agency and ownership status was inaccurate—the facilities listed as owned or occupied by DCAS, the Department of Environmental Protection (DEP), and the Department of Education (DOE) did not match the

¹³ DCAS did not report on the envelope improvement status in the FY18 or FY19 annual reports. DCAS added Appendix E starting with the FY20 annual report.

¹⁴ Appendix D in the FY18 published report contained four more entries than the Excel version of the same appendix provided by DCAS (the printed version contained 624 facilities, but the Excel file had only 620 facilities). Appendix D of the FY19 published report was missing 344 facilities (the printed version contained only 282 facilities; the Excel file 626 facilities). Appendix D in the FY21 report, both the published version and the provided Excel file, contained 571 facilities, a far greater number than the 459 facilities listed in Appendix C, which reported on City-owned facilities only. Appendix D should also have included the same 459 City-owned facilities. However, Appendix D in the FY21 report contained both City-owned and leased facilities. Only one facility was correctly omitted, Falchi Building (Agency: TLC / Ownership Status: Leased).

underlying data in the appendices of the FY19 report. See Appendix III for discrepancies in ownership status of covered facilities by agency/organization.

The accuracy of reported ownership data was also questionable. When the auditors compared agency and ownership status in the FY19 annual report with the data recorded in the FY18 annual report for the same facility, they found that ownership designations were reported differently. Dozens of facilities were misclassified or missing altogether.¹⁵ When questioned, DCAS acknowledged the mistakes and provided explanations or corrected ownership designations.

The auditors' analysis of the potential impact of these errors on the FY19 annual report found that the total fossil fuel and steam usage for FY18 had been underreported by 29.37%.¹⁶ Similarly, the auditors found additional discrepancies in ownership designations across all four annual reports.¹⁷ Therefore, the reported fossil fuel usage data would have to be adjusted in all four annual reports.

See Appendix IV for discrepancies in ownership status between the FY18 and FY19 annual reports, and Appendix V for discrepancies in ownership status over the four annual reports.

See Appendix VI for analyses of fossil fuel and steam usage adjustments resulting from ownership status discrepancies, which shows corrections to one of the five-year data presented in the report summary tables, i.e., correction to FY17 data in the FY18 annual report, and correction to FY18 data in the FY19 annual report.

DCAS did not offer any further explanations during or after the Exit Conference about discrepancies in ownership status or the errors in the reported fossil fuel usage. However, DCAS emphasized that errors that occurred during the original LL45 reports for FY18 and FY19 do not reflect errors in the underlying data and that they have corrected those errors in the revised reports and issued errata.

DCAS further stated that LL45 reporting obligations are not inputs to any other analyses, including GHG emissions reporting, and that LL45 reporting represents a minority of the over 4,000 municipal facilities for which DEM pays utility bills. Therefore, according to DCAS, the identified LL45 inaccuracies do not result in any other inaccuracies in DCAS analysis or reporting, nor do they affect DCAS policy development, as DCAS does not use LL45 reports to inform policy

¹⁵ At 77 facilities, the ownership status had changed from FY18 to FY19. At 71 facilities, the status changed from "City-owned" to "Leased," and at the remaining six facilities, it changed from "Leased" to "City-owned." When questioned, DCAS acknowledged the mistakes. Per DCAS, 26 facilities were reported as "City-owned" when in fact, they were "Leased" in the FY18 report, and 45 facilities that were reported as "Leased" were "City-owned" in the FY19. In addition, there were discrepancies in agency/organization information at 10 facilities. When questioned, DCAS acknowledged mistakes at 6 of the 10 facilities in the FY19 annual report.

¹⁶ The auditors' analysis reflects an adjustment in Total Fossil Fuel + Steam Usage after corrected ownership status, calculated for *only one of the five years* [emphasis added]. The original usage reported in Table 3 of the FY19 annual report for the FY2018 usage was 7,762,558 MMBTU. The revised usage was 10,042,620 MMBTU—a difference of 2,280,061 MMBTU or 29.37% more than the originally reported usage. It means that potentially 125,000 metric tons of GHG emissions may not have been included in the reported GHG emissions from City-owned facilities in 2018 data, as reported in the FY19 report. (This projection is based on a conversion used by DCAS in the FY19 annual report to calculate energy savings to GHG emissions avoided. DCAS reported that 67,000 MMBTU energy savings translated into approximately 3,700 metric tons of GHG emissions avoided). DCAS will need to correct the reported usages for each of the five years in each annual report, based on corrected ownership status, to compute actual corrections in the usages as well as five-year usage changes for natural gas, heating fuel oil and steam, both individually and cumulatively.

¹⁷ The auditors' comparison of ownership statuses across all four annual reports found that reported ownership status at an additional 80 facilities was not consistent year-to-year. In addition, ownership status discrepancies were present at nine other facilities which were part of the 77 facility ownership statuses DCAS already corrected. Furthermore, there is no way to determine potential discrepancies that may have been present in cases where an erroneous ownership status was used consistently over the four years.

decisions. However, the auditors cannot concur with DCAS' statements in absence of any supporting evidence.

In its response, DCAS disagreed with the audit recommendation related to this finding (#7) and stated that the owned/leased status of the facilities does not have an impact on building benchmarking nor on HLP budget preparation, so no impact needs to be evaluated.

However, imprecise ownership status may impact the City's accounting of energy usage and emissions of City-owned facilities, monitoring the City's progress towards its carbon reduction goals of 40% by 2025, 50% by 2030, and 80% by 2050, and recording expenses related to energy usage and planning for the HLP budget.

Moreover, there is a risk that classifying facilities as leased instead of owned could lead to an underreporting of fossil fuel consumption for City-owned facilities. This, in turn, would result in the underreporting of emissions for the City, creating a false impression of progress towards the City's reduction goals. As reported, the corrections in the ownership status for several facilities revealed a 29.37% underreporting of fossil fuel and steam usage for FY18 usage in the FY19 annual report, which equates to underreporting up to 125,000 metric tons of GHG.

Issues with RTM Installation Data

A real-time meter (RTM) allows electricity to be measured and reported in near real-time. LL45 required that DCAS monitor and report on RTM installation status for each City-owned and leased covered facility. The annual reports should have stated whether each facility had RTMs, and if not, whether such equipment would have been appropriate and practicable and the expected installation year.¹⁸ Accurate reporting of RTM installation statuses provides DCAS with a real understanding of its progress and ability to monitor energy usage remotely, support energy demand response, and manage energy usage load, when necessary.

DCAS reported on the RTM installation status at all covered facilities as required. However, the auditors' comparison of RTM Installation Status data (Appendix B, FY18 and FY19) showed discrepancies in the reporting. For example, the auditors found that the RTM installation status for five facilities changed between annual reports from "Completed" to a different status. When questioned, DCAS accounted for the discrepancy at one facility by stating that there had been a change in the utility account number, which resulted in the team changing the status from "Completed" to "To Be Determined." For the other four facilities, DCAS indicated that there were multiple eligible accounts associated with each facility and that the "Completed" RTM status reported in FY18 reflected only one of the accounts. The status was changed due to future determination or pending installation for the other account(s) at the same facility in the FY19 annual report.

However, because RTM status is reported at the facility level and not at the account level, the statuses were noted as "Completed" when in fact, they were not "fully" completed. After the Exit Conference, DCAS disagreed with this finding and stated that DEM tracks RTMs on an account level and only consolidated RTM installation status to the facility level by address for LL45

¹⁸ Additionally, for City-owned facilities only, in conjunction with the appropriate City agency, DCAS must coordinate the installation of RTMs where DCAS has determined that installation is appropriate and practicable; and following the installation, DCAS shall train agency personnel responsible for such facility in using the RTM to monitor electricity usage.

reporting. As such, DCAS is fully aware of which facilities have and do not have RTMs and how many are installed. However, due to this recording practice, RTM status data reported in the LL45 reports was not accurate.

In its response, DCAS reiterated that the agency is fully aware of the facilities that have RTMs as they are tracked at the account level and only consolidated on a facility basis when RTMs are installed for the entire facility. However, DCAS did not provide any evidence to support its assertions.¹⁹

Insufficient Reporting on Building Envelope Assessment and Improvement

LL45 required DCAS to report on building envelope assessments and improvements for each City-owned covered facility. However, DCAS did not report on 344 of the 626 City-owned facilities in FY19 and mistakenly included four additional facilities that were not included in the Excel file provided by DCAS for FY18. DCAS also did not report on improvements made at those facilities in the FY18 and FY19 annual reports; however, it did report on improvements in the FY20 and FY21 annual reports. (See Appendix II for the results of the auditors' analysis showing missing facilities and other discrepancies.) DCAS acknowledged its limitations in obtaining relevant reporting data. In its annual reports, DCAS explains that while DEM has access to a range of data sources about aspects of facilities' envelopes, not all of them provide the kind of detailed, standardized, and quantifiable information that is useful for LL45 reporting compliance.

DCAS added a new appendix (Appendix E) to the FY20 and FY21 annual reports, which tabulates information about building envelope improvement projects. In Appendix E of the FY20 annual report, DCAS reported on the envelope improvement statuses for assessments by FY18, FY19, and FY20. However, the reported data were inadequate.²⁰ Moreover, although the reporting was adequate in the FY21 report, the auditors identified discrepancies in facility ownership status (see "Incomplete and Miscategorized Facility Ownership Status" above), and therefore the reported statistics are inaccurate and should be revised.²¹

After the Exit Conference, DCAS stated that it published the full inventory of facilities with building envelope improvement projects from FY18 and FY19 in the FY20 LL45 report. Appendix E also contained more information on statuses of recommended envelope improvements than required by the law.

In its response to the Draft Report, DCAS stated that LL45 does not define "envelope improvement" and noted that their Energy Management energy efficiency staff experts

¹⁹ In its response, DCAS also commented on its RTM installation planning and reporting on total RTM installations under its portfolio. However, the Draft Report did not make any references to these, and it is unclear why these comments were included.

²⁰ In many instances, the reported Envelope Improvement Recommended statuses included comments such as "no envelope improvements recommended" and "still being determined" instead of a description of a recommended improvement. Similarly, for the "Status of Recommended Improvement" section, instead of "commenced," "in process" or "completed," in many instances the comments included "still under consideration," "N/A," "will be installed," "date TBD," etc.

²¹ For FY20 and FY21, the auditors did not analyze the reporting data in Appendix D and Appendix E due to issues found in the ownership status of the reported facilities.

appropriately described the improvements and their statuses in the report within their discretion, and provided more detail than what was required by LL45.

While the auditors acknowledge that LL45 does not specifically define “envelope improvement,” LL45 is clear in its directive that DCAS must report on City-owned facilities (excluding leased facilities). As detailed in Appendix II, DCAS’ LL45 reports did not provide complete information on all City-owned facilities and therefore did not meet this directive. Additionally, the law mandates reporting only on facilities where envelope improvements were “commenced, continued or completed,” and although DCAS accurately reported on 44 facilities in the FY21 Report, it reported on 174 facilities the prior year with “No envelope improvements recommended” and “N/A” included as categories.

Reporting extraneous information adds unnecessary complexity for stakeholders and the public. Although providing additional information can at times be useful, the information that DCAS added was inconsistent with the reporting requirements and presented an inaccurate account of the number of facilities with envelope assessments and improvements.

Other Weaknesses

The auditors found issues with DCAS’ fossil fuel and steam usage data collection in that the agency did not use the fossil fuel usage data as required by LL45. The auditors also identified additional data integrity issues, further weakening the reliability of the reported information in the LL45 annual reports.

Fossil Fuel and Steam Usage Reporting Lagged by One Year

When reporting fossil fuel (heating fuel oil and natural gas) and steam usage, DCAS used two-year-old usage data, contrary to the LL45 Section b.2 requirements that it report on fossil fuel usage for the prior fiscal year and on changes in usage over the last five fiscal years for each covered facility that is City-owned. Although DCAS had natural gas and steam usage data for the previous fiscal year, for consistency it used two-year-old usage data across all fossil fuel usage reporting. Consequently, the reported usage did not reflect actual use in the annual report for that fiscal year, and all year-to-year and five-fiscal-year trends were lagging by one year in all four annual reports. DCAS attributed the one-year lag to the additional time needed to audit and process heating fuel oil usage data by DEM and other DCAS divisions.²²

With the City in the process of converting various facilities from higher carbon output heating fuel oil to natural gas as part of the effort to reduce the City’s carbon emissions, accurate and timely information is necessary to help City regulators make appropriate policy decisions. Two-year-old fossil fuel usage data that also contains inaccuracies in the reported total fossil fuel usage due to incorrect ownership designations and data reconciliation does not accurately represent fossil fuel usage trends and is therefore unreliable.

After the Exit Conference, DCAS claimed that fossil fuel data is maintained separately from ownership data. DCAS also reiterated that fossil fuel data reporting was lagged by one year to

²² Per DCAS, data on natural gas and district steam usage come from monthly utility billing information. For heating fuel oil, City agencies are responsible for tracking their oil usage and reporting usage to DEM.

allow for the complete reporting of available fossil fuel data sets and stated that it provides a basis for reviewing long-term trends and fully meets the intent of the law.

Data Integrity Issues

The auditors found inconsistent facility details in the reporting that varied year-to-year, potentially due to inaccurate addresses, agency affiliations, or ownership statuses. As a result, the reliability of the reports' underlying data is in question.

In addition to the aforementioned issues with reported ownership status, the auditors identified other instances where discrepancies in data posed risks to the reliability of the reported information. As one example, the auditors found that the reported fossil fuel usage in the FY18 report at four Harlem Hospital facilities was identical at each facility in all recorded fiscal years. However, in the FY19, FY20, and FY21 annual reports, the same facilities did not show any heating fuel oil usage for the same years that were already reported on in the FY18 report. This raises the question of whether the heating fuel oil usage was erroneously reported for five consecutive fiscal years in the FY18 report.

In another example, the auditors' reconciliations of electricity usage adjustments at 10 facilities found large discrepancies (1,544,000 kWh for Q298 and 2,017,600 kWh for X420) at two school facilities between the FY18 and FY19 annual reports which, per DCAS, were due to transcription and documentation errors. Specifically, the auditors noted that usage was accounted for in the adjusted year instead of the actual year. Per DCAS, the discrepancies noted for the other eight facilities were due to adjustments resulting from differences in reporting intervals (15 min vs. 30 min). See Appendix VII for additional examples of data integrity issues identified by the auditors. Conducting data integrity checks and quality assurance of underlying data would improve the reliability of energy usage data and other information included in DCAS' LL45 annual reports.

After the Exit Conference, DCAS responded to the discrepancies and inconsistencies regarding heating fuel oil reporting and explained that since the data is based on delivery or external agency submissions, it is subject to revision as updated data is received each year. The auditors recognize this but found that the heating fuel oil data for certain facilities, such as Harlem Hospital, was not consistently reported in all four LL45 annual reports.

A comparison of the FY17²³ heating oil usage data across the four reports revealed that in the FY18 report, 25 facilities reported heating fuel oil usage, while roughly half of these facilities did not report any usage in the FY19 report. In the FY20 report, no usage was reported for any of the 25 facilities, but roughly half of them reported usage in the FY21 report.

See Appendix VIII for a list of discrepancies and inconsistencies found in the reported FY17 heating fuel oil usage data across the four reports for these 25 facilities.

Additionally, the auditors found that the total FY17 heating fuel oil usage for these 25 facilities was 348,121 MMBTU in the FY18 report. However, since no usage was reported for any of the 25 facilities in the FY20 report, the total reported heating oil usage for FY17 (1,663,225 MMBTU) did not include the 348,121 MMBTU of usage. The actual total usage for FY17 should have been

²³ As FY17 was a year included in all four reports, the heating fuel oil data (FY17 usage) for facilities that appear in all four reports should be consistent in Appendix C of the reports.

2,011,346 MMBTU (1,663,225 + 348,121), which means that the FY17 heating oil usage was underreported by 21% in the FY20 report.

The auditors found that the heating fuel oil usage data for the 25 facilities in question (shown in Appendix VIII), as reported in the DCAS' corrected FY18, corrected FY19, FY20, and FY21 reports, still contain discrepancies and inconsistencies. As a result, heating fuel oil usage for these 25 facilities remains either inconsistent or underreported in all four annual reports. Consequently, the information in the corrected reports cannot be relied upon, and DCAS is still not in compliance with LL45 reporting requirements.

RECOMMENDATIONS

To address the abovementioned findings, the auditors propose that DCAS:

1. Maintain accurate records of electricity usage, RTM installation status, fossil fuel and steam usage, and building envelope assessment and improvement status.

DCAS Response: DCAS disagreed with this recommendation. DCAS stated that it currently maintains accurate records and the inaccuracies noted in the published LL45 reports were due to transcription errors and are not reflective of inaccuracies with the underlying data collection or impact results of any other DCAS analysis and/or reporting.

Auditor Comment: DCAS' inconsistent facility details in the reporting that varied year-to-year, inaccurate addresses, agency affiliations, or ownership statuses cannot be considered transcription errors. DCAS' assertion that those errors were due to transcription errors does not seem credible and raise doubts about the accuracy of the underlying data.

2. Evaluate and revise its data collection, analysis, and review policies and procedures to prevent perpetuating the data discrepancies and errors identified by the audit.

DCAS Response: DCAS partially agreed with this recommendation. DCAS stated that Owned/Leased statuses of buildings originally published in the LL45 reports does not demonstrate DCAS has inaccurate fossil fuel usage data, and that it collects fossil fuel data from City facilities irrespective of their owned or leased status. Regardless, DCAS corrected any discrepancies in the original LL45 reports by revising and reissuing the corrected FY18 and FY19 reports with correct building owned/leased status data.

Auditor Comment: While we acknowledge and appreciate DCAS' efforts to rectify the inaccuracies in their reporting and correct errors in the ownership data, our evaluation of the reported usage data in the corrected reports for the 25 facilities (listed in the Appendix VIII) revealed that inconsistencies in heating oil reporting persist. We urge DCAS to fully reconsider the recommendation and revisit their corrective plan.

3. Improve its report preparation and review processes to ensure that all published information is complete and free of errors and inconsistencies.

DCAS Response: DCAS partially agreed with this recommendation. DCAS stated that its DEM staff pre-emptively implemented corrective actions to their reporting process to ensure all local law reports receive secondary review of the final PDF version.

4. Coordinate with all stakeholders and explore options for timely collection and verification of heating fuel oil usage information.

DCAS Response: DCAS disagreed with this recommendation but indicated that they will work with their agency partners.

5. Identify sources for complete reporting on building envelope assessment and envelope improvement status.

DCAS Response: DCAS disagreed with this recommendation. DCAS stated that the law does not require it to identify sources of building envelope assessments.

Auditor Comment: This recommendation emphasizes the importance of identifying and utilizing all available sources to obtain the required information.

6. Ensure data integrity of facility-level data, including ownership status and agency affiliation.

DCAS Response: DCAS partially agreed with this recommendation.

Auditor Comment: See the auditor comment to recommendation #1.

7. Evaluate the impact of inaccuracies in reported ownership status on other systems (such as Emission Reporting System and EPA Benchmarking) and critical tasks (such as Heat, Light, and Power (HLP) budget preparation).

DCAS Response: DCAS disagreed with the recommendation. DCAS stated that the Owned/Leased status of the facilities does not have an impact on building benchmarking nor HLP budget preparation, so no impact needs to be evaluated.

Auditor Comment: The imprecise ownership status has a significant impact on the City's different indicators and the accounting of its operations. If facilities are classified as leased instead of owned, it would lead to an underreporting of fossil fuel consumption for the City-owned facilities. This, in turn, may result in the underreporting of emissions for the City, creating a false impression of progress towards the City's reduction goals.

8. Post the revised and corrected LL45 annual reports so that they can be easily found on the agency website, with clear indication of the corrections, and notify all stakeholders, as appropriate.

DCAS Response: DCAS agreed with this recommendation.

Recommendations Follow-up

Follow-up will be conducted periodically to determine the implementation status of each recommendation contained in this report. Status updates are reported in the Audit Recommendations Tracker available here: <https://comptroller.nyc.gov/services/for-the-public/audit/audit-recommendations-tracker/>

SCOPE AND METHODOLOGY

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards (GAGAS). GAGAS requires that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions within the context of our audit objectives. This audit was conducted in accordance with the audit responsibilities of the City Comptroller as set forth in Chapter 5, §93, of the New York City Charter.

The scope of this audit was LL45 annual reports published by DCAS for the Fiscal Years 2018 through 2021.

From DCAS' website, the auditors obtained background information about DCAS' and DEM's mission to serve as the hub for energy management in City buildings. To understand DEM's policies and procedures, the auditors obtained the following documents and reviewed them.

- Local Law 45 of 2018.
- LL45 annual reports for FY18, FY19, FY20, and FY21.
- DEM organizational charts and a list of key personnel.
- Other associated offices' functions, including Energy Supply, Strategic Planning, and Operations, and their responsibilities and work plan explanations.

The auditors requested and obtained access to DCAS' EC3 (Energy Cost Control and Conservation) Portal, where all electrical usage data is maintained and tracked.²⁴

The auditors conducted virtual walkthroughs to understand DEM's processes, procedures, and relevant internal controls for preparing the annual reports. They interviewed appropriate key DEM officials, including Assistant Commissioners, Senior Advisors, and the Senior Analyst responsible for preparing the annual reports. The auditors obtained and reviewed a sample building envelope assessment and conducted additional walkthroughs to understand the collection and reporting of energy usage data, including electrical usage adjustment data. The auditors asked for further information and clarifications as necessary.

The auditors reviewed LL45 and determined the stipulated reporting items. Next, the auditors reviewed the annual reports to determine whether the reports included all the reporting areas. Subsequently, the auditors compared the results of reviews of all annual reports.

The auditors requested and obtained Excel versions of all appendices included in the annual reports. The auditors conducted a data reliability analysis of the listed information in the appendices and obtained clarifications/updates.

The auditors conducted in-depth reviews of the LL45 annual reports for FY18 and FY19 and performed assessments of the FY20 and FY21 annual reports as deemed necessary. The auditors' assessments included compliance with the LL45 requirements and accuracy, completeness, and reliability of the reported performance statements and data. The auditors tabulated the reported information and data presented in the narrative parts of the annual reports

²⁴ The auditors were provided data level access. The access granted did not include the capability to run administrative reports.

and performed validation tests on the reported information. As a part of the validation, the auditors performed various data analyses on the Excel versions of the appendices provided by DCAS to identify any discrepancies and errors in the reported information. For verification and reconciliation, as a standard, the auditors used requirements of Comptroller's Directive #1, *Principles of Internal Control*, Section 4.3, *Control Activities* under *Standards of Control*.

The auditors performed various analytics²⁵ for comparison of the FY18 and FY19 data, as well as for the four reporting years. Furthermore, they conducted additional tests to assess accuracy and consistency of the agency affiliation and ownership status information, electrical usage adjustments, and building envelope assessment and improvement status. The auditors requested additional information, clarifications, and documents from DCAS as needed during the audit and at the end of the fieldwork to ensure that the agency submitted all necessary information and substantiating documentation.

The results of the above procedures and tests provided a reasonable basis for the auditors to evaluate DCAS' compliance with LL45 reporting requirements and to form an opinion on DCAS' reporting on LL45.

²⁵ Consistency in the reported agency and ownership designations, accuracy and verification of facility name, address, and energy usages between different report appendices as well as between different annual reports, changes in RTM installation status between different annual reports, and adequacy of the information reported for building envelope assessments and improvements between different appendices in the same reporting year and in different annual reports were assessed by the auditors.

APPENDIX I

Electricity Usage – FY18 Annual Report Data Validation

As Appears in the Published Report

Table 2: Electricity Usage Trends in kWh for All Covered Facilities, Fiscal Years 2014-2018

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Change Over Last 5 FYs
Grid Electricity Usage	2,755,916,522	2,770,761,338	2,771,790,807	2,810,609,647	2,765,407,262	9,490,740
Solar Electricity Generation	-	-	1,108,467	2,354,604	4,337,839	3,229,372
Total Electricity Usage	2,755,916,522	2,770,761,338	2,772,899,274	2,812,964,251	2,769,745,101	13,828,579
Percent Change in Total Usage from Previous Fiscal Year	-	-0.54%	-0.08%	-1.44%	1.54%	*0.50%

*Percent change using Fiscal Year 2014 as base year.

Inaccuracy in the published report

As Calculated by the Auditors

Table 2: Electricity Usage Trends in kWh for All Covered Facilities, Fiscal Years 2014-2018

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Change Over Last 5 FYs
Grid Electricity Usage	2,755,916,522	2,770,761,338	2,771,790,807	2,810,609,647	2,765,407,262	9,490,740
Solar Electricity Generation	-	-	1,108,467	2,354,604	4,337,839	3,229,372
Total Electricity Usage	2,755,916,522	2,770,761,338	2,772,899,274	2,812,964,251	2,769,745,101	13,828,579
Percent Change in Total Usage from Previous Fiscal Year	-	+0.54%	+0.08%	+1.44%	-1.54%	*0.50%

*Percent change using Fiscal Year 2014 as base year.

Accurate number based on the auditors' analysis of the data in table

Electricity Usage – FY19 Annual Report Data Validation

As Appears in the Published Report

Table 2: Electricity Usage Trends in kWh for All Covered Facilities, Fiscal Years 2014-2018

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Change Over Last 5 FYs
Grid Electricity Usage	2,815,510,476	2,816,558,326	2,857,043,291	2,824,479,327	2,769,636,017	-45,874,459
Solar Electricity Generation	-	953,162	2,070,513	4,106,678	3,187,278	3,187,278
Total Electricity Usage	2,815,510,476	2,817,511,488	2,859,113,804	2,828,586,005	2,772,823,295	-42,687,181
Percent Change in Total Usage from Previous Fiscal Year	-	0.07%	1.48%	-1.07%	-1.97%	-1.52%*

*Percent change using Fiscal Year 2015 as base year.

Inaccuracy in the published report

As Calculated by the Auditors

Table 2: Electricity Usage Trends in kWh for All Covered Facilities, Fiscal Years 2015-2019

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Change Over Last 5 FYs
Grid Electricity Usage	2,815,510,476	2,816,558,326	2,857,043,291	2,824,479,327	2,769,636,017	-45,874,459
Solar Electricity Generation	-	953,162	2,070,513	4,106,678	3,187,278	2,234,116
Total Electricity Usage	2,815,510,476	2,817,511,488	2,859,113,804	2,828,586,005	2,772,823,295	-42,687,181
Percent Change in Total Usage from Previous Fiscal Year	-	0.07%	1.48%	-1.07%	-1.97%	-1.52%*

*Percent change using Fiscal Year 2015 as base year.

Accurate number based on the auditors' analysis of the data in table

Fossil Fuel Usage — FY18 Annual Report Data Validation

As Appears in the Published Report

Table 3: Fossil Fuel and Steam Usage in MMBTUs for All Covered Facilities, Fiscal Years 2014-2018

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Change Over Last 5 FYs
Natural Gas	5,246,111	5,682,153	5,796,829	5,488,729	5,959,326	713,215
Heating Fuel Oil	3,624,291	3,722,794	3,746,054	1,882,462	1,858,330	-1,765,961
Total Fossil Fuel Usage	8,870,402	9,404,947	9,542,883	7,371,191	7,817,656	-1,052,746
Steam Usage	1,780,168	2,047,894	2,178,823	1,871,773	1,811,552	31,385
Total Fossil Fuel + Steam Usage	10,650,570	11,452,841	11,721,706	9,242,964	9,629,208	-1,021,362
Total Fossil Fuel + Steam Usage Percent Change from Previous Fiscal Year	-	-7.53%	-2.35%	21.15%	-4.18%	*-9.59%

Inaccuracy in the published report

As Calculated by the Auditors

Table 3: Fossil Fuel and Steam Usage in MMBTUs for All Covered Facilities, Fiscal Years 2013-2017

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Change Over Last 5 FYs
Natural Gas	5,246,111	5,682,153	5,796,829	5,488,729	5,959,326	713,215
Heating Fuel Oil	3,624,291	3,722,794	3,746,054	1,882,462	1,858,330	-1,765,961
Total Fossil Fuel Usage	8,870,402	9,404,947	9,542,883	7,371,191	7,817,656	-1,052,746
Steam Usage	1,780,168	2,047,894	2,178,823	1,871,773	1,811,552	31,384
Total Fossil Fuel + Steam Usage	10,650,570	11,452,841	11,721,706	9,242,964	9,629,208	-1,021,362
Total Fossil Fuel + Steam Usage Percent Change from Previous Fiscal Year	-	+7.53%	+2.35%	-21.15%	+4.18%	*-9.59%

Accurate number based on the auditors' analysis of the data in table

Fossil Fuel Usage — FY19 Annual Report Data Validation

As Appears in the Published Report

Table 3: Fossil Fuel and Steam Usage in MMBTUs for All Covered Facilities, Fiscal Years 2014-2018

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Change Over Last 5 FYs
Natural Gas	4,176,468	4,247,624	3,791,637	4,250,197	4,253,235	76,767
Heating Fuel Oil	3,071,127	3,172,401	1,957,852	2,006,618	2,175,278	-900,256
Total Fossil Fuel Usage	7,247,595	7,420,025	5,749,489	5,515,159	5,587,281	-89,738
Steam Usage	1,500,550	1,589,415	1,334,392	1,264,962	1,334,046	-166,505
Total Fossil Fuel + Steam Usage	8,748,146	9,009,440	7,083,881	7,521,777	7,762,558	-989,994
Total Fossil Fuel + Steam Usage Percent Change from Previous Fiscal Year	-	-2.99%	21.37%	-6.18%	-3.20%	-11.32%*

*Percent change using Fiscal Year 2014 as base year.

Inaccuracy in the published report

As Calculated by the Auditors

Table 3: Fossil Fuel and Steam Usage in MMBTUs for All Covered Facilities, Fiscal Years 2014-2018

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Change Over Last 5 FYs
Natural Gas	4,176,468	4,247,624	3,791,637	4,250,197	4,253,235	76,767
Heating Fuel Oil	3,071,127	3,172,401	1,957,852	2,006,618	2,175,278	-895,849
Total Fossil Fuel Usage	7,247,595	7,420,025	5,749,489	6,256,815	6,428,513	-819,082
Steam Usage	1,500,550	1,589,415	1,334,392	1,264,962	1,334,046	-166,504
Total Fossil Fuel + Steam Usage	8,748,145	9,009,440	7,083,881	7,521,777	7,762,559	-985,586
Total Fossil Fuel + Steam Usage Percent Change from Previous Fiscal Year	-	+2.99%	-21.37%	+6.18%	+3.20%	-11.27%*

*Percent change using Fiscal Year 2014 as base year.

Accurate number based on the auditors' analysis of the data in table

APPENDIX II

Summary of Discrepancies in the Number of Listed Facilities between Published Reports and Corresponding Excel Files

FY18 Annual Report	Number of Reported Facilities in FY18			Additional Notes
	In Published Annual Report	Official DCAS Records	Discrepancy in Reported Number of Facilities	
Appendix/Title				
Appendix A - Covered Facilities' Electricity Usage	680	680	0	
Appendix B - RTM Status	680	680	0	
Appendix C - City-Owned Facilities' Fossil Fuel Usage	446	620	-174	Appendix missing 174 Facilities
Appendix D - City-Owned Facilities Building Envelope Status	624	620	+4	Appendix has 4 extra entries

FY19 Annual Report	Number of Reported Facilities in FY19			Additional Notes
	In Published Annual Report	Official DCAS Records	Discrepancy in Reported Number of Facilities	
Appendix/Title				
Appendix A - Covered Facilities' Electricity Usage	759	759	0	
Appendix B - RTM Status	759	759	0	
Appendix C - City-Owned Facilities' Fossil Fuel Usage	626	626	0	
Appendix D - City-Owned Facilities Building Envelope Status	282	626	-344	Appendix missing 344 Facilities

FY20 Annual Report	Number of Reported Facilities in FY20			Additional Notes
	In Published Annual Report	Official DCAS Records	Discrepancy in Reported Number of Facilities	
Appendix/Title				
Appendix A - Covered Facilities' Electricity Usage	677	677	0	
Appendix B - RTM Status	677	677	0	
Appendix C - City-Owned Facilities' Fossil Fuel Usage	551	551	0	
Appendix D - City-Owned Facilities Building Envelope Assessment Status	551	551	0	
Appendix E - City-Owned Facilities Building Envelope Improvement Status	174	174	0	

FY21 Annual Report	Number of Reported Facilities in FY21			Additional Notes
	In Published Annual Report	Official DCAS Records	Discrepancy in Reported Number of Facilities	
Appendix/Title				
Appendix A - Covered Facilities' Electricity Usage	572	572	0	
Appendix B - RTM Status	572	572	0	
Appendix C - City-Owned Facilities' Fossil Fuel Usage	459	459	0	
Appendix D - City-Owned Facilities Building Envelope Assessment Status	571	571	0	Both documents contained city-owned and leased facilities. See Note 1.
Appendix E - City-Owned Facilities Building Envelope Improvement Status	44	44	0	No Discrepancy

Note 1: Appendix C and Appendix D should only report on City-Owned Facilities per LL45. Since Appendix C contained only 459 entries, same number of facilities should have been reported on in Appendix D. However, DCAS reported on 571 facilities instead, which also included all Leased facilities from Appendices A and B, except for Falchi Building (Agency: TLC / Ownership Status: Leased).

APPENDIX III

Discrepancies in Ownership Status of Covered Facilities by Agency/Organization (Table 1 - FY18 Report)

Agencies/Organizations	As Appears in FY18 Published Report			Revised Number of Facilities Per Clarifications Provided by DCAS		
	Owned	Leased	Total	Owned	Leased	Total
DOE	403	12	415	396	19	415
DEP	40	2	42	31	11	42
DCAS	30	2	32	30	2	32
H+H	27	1	28	24	4	28
Cultural Institutions (DCLA)	22	2	24	21	3	24
HRA	3	16	19	3	16	19
DSNY	16	0	16	14	2	16
DPR	14	0	14	14	0	14
DOC	13	0	13	12	1	13
CUNY	11	1	12	11	1	12
ACS	2	8	10	2	8	10
NYPD	8	1	9	8	1	9
NYPL	5	2	7	4	3	7
DOT	5	1	6	5	1	6
Other	1	2	3	1	2	3
DOF	1	3	4	1	3	4
DHS	4	0	4	4	0	4
FDNY	3	1	4	3	1	4
DOHMH	2	1	3	2	1	3
QPL	2	0	2	2	0	2
OCME	2	0	2	2	0	2
DOITT	1	1	2	1	1	2
FIT	2	0	2	1	1	2
OEM	1	0	1	1	0	1
BPL	1	0	1	1	0	1
DFTA	0	1	1	0	1	1
EDC	1	0	1	1	0	1
Law Department	0	1	1	0	1	1
DDC	0	1	1	0	1	1
FISA	0	1	1	0	1	1
Total	620	60	680	595	85	680

Inaccuracy in the published report

Accurate number based on the auditors' analysis of the data in table

Discrepancies in Ownership Status of Covered Facilities by Agency/Organization (Table 1 – FY19 Report)

Agencies/Organizations	As Appears in FY19 Published Report			Revised Number of Facilities Per Clarifications Provided by DCAS		
	Owned	Leased	Total	Owned	Leased	Total
ACS	2	4	6	2	4	6
BPL	1	0	1	1	0	1
Cultural Institutions (DCLA)	18	3	21	21	3	24
CUNY	11	1	12	11	1	12
DCAS	32*	6	38*	32	2	34
DDC	0	1	1	0	1	1
DEP	21*	23	44*	32	12	44
DFTA	0	1	1	0	1	1
DHS	5	0	5	4	0	4
DOC	12	1	13	12	1	13
DOE	464*	26	490*	462	30	492
DOF	0	3	3	1	3	4
DOHMH	3	1	4	3	1	4
DOITT	0	2	2	1	1	2
DOT	4	1	5	4	1	5
DPR	13	3	16	13	0	13
DSNY	13	2	15	15	2	17
EDC	1	1	2	1	1	2
FDNY	3	1	4	3	1	4
FISA	0	1	1	0	1	1
FIT	1	1	2	1	1	2
H+H	0	29	29	24	5	29
HRA	3	16	19	3	16	19
Law Department	0	1	1	0	1	1
NYPD	8	2	10	9	1	10
NYPL	3	3	6	3	3	6
OCME	2	0	2	2	0	2
OEM	1	0	1	1	0	1
Other	1	1	2	1	1	2
QPL	2	0	2	2	0	2
TLC	0	1	1	0	1	1
Total	624	135	759	664	95	759

*Note: Reported numbers in Table 1 of the FY19 published report indicated by an "asterisk" did not match the totals calculated by the auditors at the facility level supported by data contained in the Excel files provided by DCAS.

	Inaccuracy in the published report
	Accurate number based on the auditors' analysis of the data in table

APPENDIX IV

Discrepancies in Ownership Status between the FY18 and FY19 Annual Reports

#	Facility	Address	Agency / Organization in FY18 Report	City-Owned or Leased In Published Report		Correct Status	
				FY18	FY19	FY18	FY19
1	Bellevue Hospital	462 1st Ave	H+H	Owned	Leased	Owned	Owned
2	Bronx Library Center	310 E Kingdbridge Rd	NYPL	Owned	Leased	Leased	Leased
3	Bronx Municipal Hospital	1910 Seminole Ave	H+H	Owned	Leased	Owned	Owned
4	Bronx Municipal Hospital Jacobi	1400 Pelham Pkwy S	H+H	Owned	Leased	Owned	Owned
5	Bronx Municipal Hospital Seminole	1910 Seminole Ave	H+H	Owned	Leased	Owned	Owned
6	Brooklyn Municipal Building	210 Joralemon St	DCAS	Owned	Leased	Owned	Owned
7	Brooklyn Supreme & Family Court	330 Jay St	DCAS	Owned	Leased	Owned	Owned
8	Coler-Goldwater Hospital	900 Main St	H+H	Owned	Leased	Owned	Owned
9	Coney Island Hospital	2601 Ocean Pkwy	H+H	Owned	Leased	Owned	Owned
10	Conner St Pumping Station	3200 Conner St	DEP	Owned	Leased	Owned	Owned
11	Cumberland Diagnostic & Treatment Center	100 N Portland Ave	H+H	Owned	Leased	Owned	Owned
12	DOF Facility	345 Adams St	DOF	Owned	Leased	Owned	Owned
13	Dr. S.S. McKinney Nursing & Rehab Center	594 Albany Ave	H+H	Owned	Leased	Owned	Owned
14	Elmhurst Hospital Center	79-01 Broadway	H+H	Owned	Leased	Owned	Owned
15	Eltingville Pumping Station	102 Glencoe St	DEP	Owned	Leased	Owned	Owned
16	Fresh Kills Gas Facility	75 Muldoon Ave	DSNY	Owned	Leased	Leased	Leased
17	Gouverneur Health Care Services	227 Madison St	H+H	Owned	Leased	Owned	Owned
18	Gowanus Pumping Station	201 Douglass St	DEP	Owned	Leased	Owned	Owned
19	H+H Central Office	55 Water St	H+H	Owned	Leased	Leased	Leased
20	Hannah St Pumping Station	10 Murray Hulbert Ave	DEP	Owned	Leased	Owned	Owned
21	Harlem Hospital K Building	3-13 W 136th St	H+H	Owned	Leased	Owned	Owned
22	Harlem Hospital New Patient Pavilion	512 Lenox Ave	H+H	Owned	Leased	Owned	Owned
23	Harlem Hospital Ron Brown Pavilion	46 W 137th St	H+H	Owned	Leased	Owned	Owned
24	Harlem Hospital Women's Pavilion	15 W 136th St	H+H	Owned	Leased	Owned	Owned
25	Henry J. Carter Skilled Nursing Facility	1752 Park Ave	H+H	Owned	Leased	Leased	Leased
26	Home Life Building	253 Broadway	DCAS	Owned	Leased	Owned	Owned
27	Howard Beach Pumping Station	155-01 100th St	DEP	Owned	Leased	Leased	Leased
28	K338	21 Hincley Pl	DOE	Owned	Leased	Leased	Leased
29	Kaufman Hall Dormitory	406 W 31st St	FIT	Owned	Leased	Leased	Leased
30	Kings County Hospital Buildings A, B, C	451 Clarkson Ave	H+H	Owned	Leased	Owned	Owned
31	Kings County Hospital Buildings T, U, Z	383-597 Clarkson Ave	H+H	Owned	Leased	Owned	Owned
32	Kings County Hospital Food Service	599 Kingston Ave	H+H	Owned	Leased	Owned	Owned
33	Kingston Office	71 Smith Ave	DEP	Owned	Leased	Leased	Leased
34	Lincoln Hospital	234 E 149th St	H+H	Owned	Leased	Owned	Owned
35	M343	1 Peck Slip	DOE	Owned	Leased	Leased	Leased
36	M868	10 E 15th St	DOE	Owned	Leased	Leased	Leased
37	M912	521 W 43rd St	DOE	Owned	Leased	Leased	Leased
38	Manhattan Sewage Pump Station	184 Ave D	DEP	Owned	Leased	Owned	Owned
39	Mersereau Ave Pump Station	349 Mersereau Ave	DEP	Owned	Leased	Leased	Leased
40	Metropolitan Hospital Center	1901 1st Ave	H+H	Owned	Leased	Owned	Owned
41	Morrisania DTC Center	1225 Gerard Ave	H+H	Owned	Leased	Owned	Owned
42	N Central Bronx Hospital	3424 Kossuth Ave	H+H	Owned	Leased	Owned	Owned
43	North General Hospital	1879 Madison Ave	H+H	Owned	Leased	Leased	Leased
44	NYPD Firearms & Tactics Range	1016 City Island Rd	NYPD	Owned	Leased	Owned	Owned

#	Facility	Address	Agency / Organization in FY18 Report	City-Owned or Leased In Published Report		Correct Status	
				FY18	FY19	FY18	FY19
45	Ocean Breeze	625 Fr. Capodanno Blvd	DPR	Owned	Leased	Owned	Owned
46	Olmsted Center	Flushing Meadows-Corona Park	DPR	Owned	Leased	Owned	Owned
47	Paerdegat CSO	1887 Ralph Ave	DEP	Owned	Leased	Owned	Owned
48	Paerdegat Sewage Pumping Station	Flatlands & Ralph Ave	DEP	Owned	Leased	Owned	Owned
49	Pole	90 Muldoon Ave	DSNY	Owned	Leased	Leased	Leased
50	PSAC 2	350 Marconi St	DOITT	Owned	Leased	Owned	Owned
51	Pumping Station	503 W 179th St	DEP	Owned	Leased	Leased	Leased
52	Q298	50-51 98th Street*	DOE	Owned	Leased	Leased	Leased
53	Q314	88-08 164th St	DOE	Owned	Leased	Leased	Leased
54	Q315	43-18 97th Pl	DOE	Owned	Leased	Leased	Leased
55	Q320	360 Seneca Ave	DOE	Owned	Leased	Leased	Leased
56	Q721	41-15 104th St	DOE	Owned	Leased	Owned	Owned
57	Queens Hospital Center	82-70 164th St	H+H	Owned	Leased	Owned	Owned
58	Randall's Island	10 Randall's Island	DPR	Owned	Leased	Owned	Owned
59	Rikers Vernon C. Bain Center	1 Halleck St	DOC	Owned	Leased	Leased	Leased
60	Roosevelt Island Pumping and AVAC	728 Main St	DSNY	Owned	Leased	Owned	Owned
61	Seaview Hospital	460 Brielle Ave	H+H	Owned	Leased	Owned	Owned
62	Sewage Pumping Station	84 Ave V	DEP	Owned	Leased	Owned	Owned
63	Support Facility	Watershed Area	DEP	Owned	Leased	Owned	Owned
64	Support Facility	Watershed Area	DEP	Owned	Leased	Leased	Leased
65	Support Facility	Watershed Area	DEP	Owned	Leased	Leased	Leased
66	Support Facility	Watershed Area	DEP	Owned	Leased	Leased	Leased
67	Support Facility	Watershed Area	DEP	Owned	Leased	Leased	Leased
68	Support Facility	Watershed Area	DEP	Owned	Leased	Leased	Leased
69	The Cloisters, Fort Tryon Park / MET	799 Ft Washington Ave	DCLA	Owned	Leased	Leased	Leased
70	Throgs Neck Sewage Pumping Station	Zerega Ave & Lafayette Ave	DEP	Owned	Leased	Owned	Owned
71	Woodhull Hospital	760 Broadway	H+H	Owned	Leased	Owned	Owned

SUMMARY	FY18 Report	FY19 Report	Correct FY18	Correct FY19
Total "City-Owned"	71	0	45	45
Total "Leased"	0	71	26	26
Total	71	71	71	71

*Note: Address for Q298 School was incorrectly reported as 229-02 137th Ave in FY18 and FY19 Reports.

#	Facility	Address	Agency / Organization in FY18 Report	City-Owned or Leased In Published Report		Correct Status	
				FY18	FY19	FY18	FY19
1	K987	1396 Broadway	DOE	Leased	Owned	Leased	Leased
2	M896	26 Broadway	DOE	Leased	Owned	Leased	Leased
3	Q735	30-20 Thomson Ave	DOE	Leased	Owned	Leased	Leased
4	Q891	47-07 30th Pl	DOE	Leased	Owned	Leased	Leased
5	X240	1501 Jerome Ave	DOE	Leased	Owned	Owned	Owned
6	X392	928 Simpson St	DOE	Leased	Owned	Leased	Leased

SUMMARY	FY18 Report	FY19 Report	Correct FY18	Correct FY19
Total "City-Owned"	0	6	1	1
Total "Leased"	6	0	5	5
Total	6	6	6	6

- Inaccuracy in the published report
- Correct Ownership Status (corrected by DCAS during Audit)

Discrepancies in Agency/Organization Status between the FY18 and FY19 Annual Reports

#	Facility	Address	Agency / Organization In Published Report		Correct Agency / Organization in FY19
			FY18	FY19	
1	44 Beaver St	44 Beaver St	DSNY	DHS	DSNY
2	Barrett Park Zoo	614 Broadway	DCLA	DPR	DCLA
3	Bronx Zoo	E 180th St & Devoe Ave	DCLA	DPR	DCLA
4	DOF Facility	345 Adams St	DOF	DCAS	DOF
5	Ezekiel Rivers Learning Center	200 W Tremont Ave	ACS	DOE	DOE
6	New York Aquarium	W 8th St & Surf Ave	DCLA	DPR	DCLA
7	Rockaway Blvd Day Care/Senior Center	123-10 143rd St	ACS	DOE	DOE
8	Roosevelt Island Pumping and AVAC	728 Main St	DSNY	DEP	DSNY
9	Roundtable Day Care Center	1175 Gates Ave	ACS	DOE	DOE
10	Scopetta Center	492 1st Ave	ACS	DOE	DOE

Inaccuracy in the published report

Correct Agency/Organization (corrected by DCAS during Audit)

APPENDIX V

Discrepancies in Ownership Status between the FY18, FY19, FY20 and FY21 Annual Reports

#	Facility	Address	Agency / Organization	City-Owned or Leased Status			
				As reported in FY18 and FY19 reports or as corrected by DCAS during Audit		As reported in FY20 and FY21 reports	
				FY18	FY19	FY20	FY21
1	Bronx C.C. Quadrangle Bldgs	145 W 180th St	CUNY	Owned	Owned	Leased	Leased
2	Bronx C.C. Silver Hall	2254 Sedgwick Ave	CUNY	Owned	Owned	Leased	Leased
3	Bronx County Hall of Justice	265 E 161st St	DCAS	Owned	Owned	Leased	Leased
4	Bronx Housing Court	1118 Grand Concourse	DCAS	Owned	Owned	Leased	Leased
5	Brooklyn Army Terminal	140 58th St	DCAS	Leased	-	Owned	Owned
6	Brooklyn Cruise Terminal Pier 11	Conover St & Summit St	EDC	Owned	Owned	Leased	Leased
7	Brooklyn Municipal Building **	210 Joralemon St	DCAS	Owned	Owned	Owned	Leased
8	Brooklyn Supreme & Family Court **	330 Jay St	DCAS	Owned	Owned	Owned	Leased
9	City Planning Building	22 Reade St	DCAS	Owned	Owned	Owned	Leased
10	Court Square Building	2-8 Lafayette St	DCAS	Owned	Owned	Owned	Leased
11	DA - Kings County	350 Jay St	Other	Leased	-	-	Owned
12	David H. Koch Theater	20 Lincoln Ctr	DCLA	Leased	Leased	Owned	Owned
13	Fire Headquarters	9 Metrotech	FDNY	Leased	Leased	Leased	Owned
14	Flushing Bay Combined Sewage Overflow	131-15 Fowler Ave	DEP	Leased	Leased	Owned	Owned
15	Fresh Kills Gas Facility *	75 Muldoon Ave	DSNY	Leased	Leased	Owned	Owned
16	Health Building	125 Worth St	DCAS	Owned	Owned	Owned	Leased
17	Henry J. Carter Skilled Nursing Facility *	1752 Park Ave	H+H	Leased	Leased	Owned	Owned
18	Home Life Building **	253 Broadway	DCAS	Owned	Owned	Owned	Leased
19	Hostos Community College	460 Grand Concourse	CUNY	Owned	Owned	Leased	Leased
20	K237	36 Ave P	DOE	Owned	Owned	Leased	Leased
21	K331	7002 4th Ave	DOE	Owned	Owned	Leased	Leased
22	K564	153 35th St	DOE	Owned	Owned	Leased	Leased
23	K590	1186 Carroll St	DOE	Owned	Owned	Leased	Leased
24	K914	77 Clinton Ave	DOE	Owned	Owned	Leased	Leased
25	Kingsborough CC T Bldgs	2001 Oriental Blvd	CUNY	Owned	Owned	Leased	Leased
26	Kingsborough Community College	2001 Oriental Blvd	CUNY	Owned	Owned	Leased	Leased
27	Kingston Office *	71 Smith Ave	DEP	Leased	Leased	Owned	Owned
28	LaGuardia CC	29-10 Thomson Ave	CUNY	Owned	Owned	Leased	Leased
29	LaGuardia Community Coll	31-10 Thomson Ave	CUNY	Owned	Owned	Leased	Leased
30	Louis J. Lefkowitz Building	80 Centre St	DCAS	Owned	Owned	Leased	Leased
31	M089	201 Warren St	DOE	Owned	Owned	Leased	Leased
32	M114	331 E 91st St	M114	Owned	Owned	Leased	Leased
33	M124	40 Division St	DOE	Owned	Owned	Leased	Leased
34	M169	110 E 88th St	DOE	Owned	Owned	Leased	Leased
35	M195	625 W 133rd St	DOE	Owned	Owned	Leased	Leased
36	M263	202 Sherman Ave	DOE	Owned	Owned	Leased	Leased
37	M276	55 Battery Pl	DOE	Owned	Owned	Leased	Leased
38	M281	425 E 35th St	DOE	Owned	Owned	Leased	Leased
39	M477	345 Chambers St	DOE	Owned	Owned	Leased	Leased
40	M488	231 E 56th St	DOE	Owned	Owned	Leased	Leased
41	M520	411 Pearl St	DOE	Owned	Owned	Leased	Leased
42	M535	525 W 50th St	DOE	Owned	Owned	Leased	Leased
43	M620	111 E 33rd St	DOE	Owned	Owned	Leased	Leased
44	M791	12 Spruce St	DOE	Owned	Owned	Leased	Leased
45	M814	504 W 158th St	DOE	Owned	Owned	Leased	Leased

#	Facility	Address	Agency / Organization	City-Owned or Leased Status			
				As reported in FY18 and FY19 reports or as corrected by DCAS during Audit		As reported in FY20 and FY21 reports	
				FY18	FY19	FY20	FY21
46	M833	100 Trinity Pl	DOE	Owned	Owned	Leased	-
47	M834	444 W 56th St	DOE	Owned	Owned	Leased	Leased
48	M855	411 E 76th St	DOE	-	Owned	Leased	-
49	M970	200-214 W 135th St	DOE	Owned	Owned	Leased	Leased
50	Manhattan Civil Court	111 Centre St	DCAS	Owned	Owned	Owned	Leased
51	Manhattan Criminal Court	100 Centre St	DCAS	Owned	Owned	Owned	Leased
52	Manhattan Family Court	60 Lafayette St	DCAS	Owned	Owned	Owned	Leased
53	Manhattan Supreme Court	60 Centre St	DCAS	Owned	Owned	Owned	Leased
54	MICSA HOME CARE Services Office	151-20 Jamaica Ave	HRA	Owned	Owned	Leased	Leased
55	Museum of Jewish Heritage	36 Battery Pl	DCLA	Owned	Owned	Leased	Leased
56	New Fulton Fish Market	800 Food Center Dr	EDC	-	Leased	Owned	Owned
57	North General Hospital *	1879 Madison Ave	H+H	Leased	Leased	Owned	Owned
58	Office Building	130 Stuyvesant Pl	DCAS	Owned	Owned	Leased	Owned
59	Pumping Station *	503 W 179th St	DEP	Leased	Leased	Owned	Owned
60	Q058	72-24 Grand Ave	DOE	Owned	Owned	Leased	Leased
61	Q254	84-40 101st St	DOE	Owned	Owned	Leased	Leased
62	Q277	153-27 88th Ave	DOE	Owned	Owned	Leased	Leased
63	Q290	55-20 Metropolitan Ave	DOE	Owned	Owned	Leased	Leased
64	Q311	97-11 44th Ave	DOE	Owned	Owned	Leased	-
65	Q312	46-08 5th St	Q312	Owned	Owned	Leased	Leased
66	Q313	45-45 42nd St	DOE	-	Owned	Leased	-
67	Q499	148-20 Reeves Ave	DOE	Owned	Owned	Leased	Leased
68	Q520	45-35 Van Dam St	DOE	Owned	Owned	Leased	Leased
69	Q570	35-12 35th Ave	DOE	Owned	Owned	Leased	Leased
70	Q585	54-40 74th St	DOE	Owned	Owned	Leased	Leased
71	Q744	45-10 94th St	DOE	Owned	Owned	Leased	Leased
72	Queens Borough Hall	120-55 Queens Blvd	DCAS	Owned	Owned	Owned	Leased
73	Queens Civil Court	89-17 Sutphin Blvd	DCAS	Owned	Owned	Owned	Leased
74	Queens Family Court	152-02 Jamaica Ave	DCAS	Owned	Owned	Leased	Leased
75	Queensborough Comm Coll	Kenilworth Dr & Cloverdale Blvd	CUNY	Owned	Owned	Leased	Leased
76	R071	Targee St	DOE	Owned	Owned	Leased	Leased
77	Rikers Vernon C. Bain Center *	1 Halleck St	DOC	Leased	Leased	Owned	Owned
78	S J Hines Health Complex	475 Grand Concourse	CUNY	Owned	Owned	Leased	Leased
79	Samaritan Forbell Residence	338-344 Forbell St	DHS	Owned	Owned	Leased	Leased
80	Scopetta Center	492 1st Avenue	ACS	Leased	Leased	Owned	Owned
81	Technology Center	11 Metrotech Ctr	DOITT	Leased	Leased	Leased	Owned
82	X177	3177 Webster Ave	DOE	Owned	Owned	Leased	Leased
83	X189	3441 Steenwick Ave	DOE	Owned	Owned	Leased	Leased
84	X229	275 Harlem River Park Bridge	DOE	Owned	Owned	Leased	Leased
85	X285	200 W 167th St	DOE	Owned	Owned	Leased	-
86	X338	1740 Macombs Rd	DOE	Owned	Owned	-	Leased
87	X362	921 E 228th St	DOE	Owned	Owned	Leased	Leased
88	X884	350 Gerard Ave	DOE	Owned	Owned	Leased	Leased
89	X973	1716 Southern Blvd	DOE	Owned	Owned	Leased	-

Notes:

* In FY18 Report appeared as "Owned". However, when asked why this facility appeared as "Leased" in FY19 Report, DCAS responded that it was "Incorrectly listed as Owned in FY18 report, actually considered leased in that fiscal year".

** In FY19 Report appeared as "Leased". However, when asked why this facility appeared as "Owned" in FY18 Report, DCAS responded that it was "Incorrectly listed as Leased in FY19 report, actually considered owned in that fiscal year".

A dash "-" in ownership status columns indicates that this facility was not reported on in the corresponding year.

 Nine facilities where DCAS had already corrected ownership information for FY18 and FY19 reports (see Notes above)

APPENDIX VI

Auditors' Calculated Adjustments to Fossil Fuel and Steam Usage Resulting from Ownership Issues in Table 3 of the FY18 and FY19 Reports

Adjustments to Table 3: Fossil Fuel and Steam Usage in MMBTUs for All Covered Facilities in the FY18 Published Report for FY2017 Usage Data (only) based on Corrected Ownership Status and Additional Data provided by DCAS during the audit.					
Category	Natural Gas (FY 2017)	Heating Fuel Oil (FY 2017)	Total Fossil Fuel Usage (FY 2017)	Steam Usage (FY 2017)	Total Fossil Fuel + Steam Usage (FY 2017)
As Reported in Table 3 of the FY18 Published Report	5,959,326	1,858,330	7,817,656	1,811,552	9,629,208
Adjustments Calculated by the Auditors					
Category	Natural Gas (FY 2017)	Heating Fuel Oil (FY 2017)	Total Fossil Fuel Usage (FY 2017)	Steam Usage (FY 2017)	Total Fossil Fuel + Steam Usage (FY 2017)
Subtract at 26 Facilities	-61,704	0	-61,704	0	-61,704
Add at 1 Facility	4,999	0	4,999	0	4,999
Net Change	-56,705	0	-56,705	0	-56,705
New Calculated Total Usage	5,902,621	1,858,330	7,760,951	1,811,552	9,572,503
Difference in % From Original Value Reported in Published Report and Values Recalculated by Auditors	-0.95%	0.00%	-0.73%	0.00%	-0.59%

Adjustments to Table 3: Fossil Fuel and Steam Usage in MMBTUs for All Covered Facilities in the FY19 Published Report for FY2018 Usage Data (only) based on Corrected Ownership Status and Additional Data provided by DCAS during the audit.					
Category	Natural Gas (FY 2018)	Heating Fuel Oil (FY 2018)	Total Fossil Fuel Usage (FY 2018)*	Steam Usage (FY 2018)	Total Fossil Fuel + Steam Usage (FY 2018)*
As Reported in Table 3 of the FY19 Published Report	4,253,235	2,175,278	5,587,281	1,334,046	7,762,558
ADJUSTMENTS CALCULATED BY AUDITORS					
Category	Natural Gas (FY 2018)	Heating Fuel Oil (FY 2018)	Total Fossil Fuel Usage (FY 2018)*	Steam Usage (FY 2018)	Total Fossil Fuel + Steam Usage (FY 2018)
Subtract at 5 Facilities	-7,531	-46	-7,577	0	-7,577
Add at 43 Facilities**	1,909,871	24,972	1,934,843	352,795	2,287,638
Net Change	1,902,340	24,926	1,927,266	352,795	2,280,061
New Calculated Total Usage	6,155,575	2,200,204	8,355,779	1,686,841	10,042,620
Difference in % From Original Value Reported in Published Report and Values Recalculated by Auditors	44.73%	1.15%	49.55%	26.45%	29.37%

* **Note:** Table 3 in the published report contained an incorrect entry - a number of 5,587,281 was entered. However, the Total Fossil Fuel Usage should have been 6,428,513 MMBTU (Natural Gas + Heating Fuel Oil) (4,253,235 + 2,175,278 = 6,428,513). If the correct value of 6,428,513 was entered in the original published report, the new recalculated % difference for Total Fossil Fuel Usage would have been 29.98% $((8,355,779 - 6,428,513) / 6,428,513) * 100$ as opposed to 49.55%. As a result, the fossil fuel usage was underreported by 2,280,061 MMBTU or by 20%.

** 45 facilities were incorrectly classified as "Leased" in FY19 (shown in Appendix IV). However, the auditors noted that fossil fuel usages for two facilities (Brooklyn Municipal Building and Olmsted Center) were already counted for in the published report even though they were misclassified as "Leased". Therefore, the auditors only added fossil fuel usages for the remaining 43 facilities (i.e., 45-2 = 43).

APPENDIX VII

Additional Examples of Data Integrity Issues Identified by the Auditors

Example #1 – Pumping Station at 503 West 179th Street

A DEP facility listed as “Pumping Station” was reported as a “City-owned” facility located at 503 W 179th St in Manhattan in the FY18 annual report. In the FY19 report, the status was changed to “Leased,” and this facility did not appear in either Appendix C (fossil fuel usage) or Appendix D (building envelope assessment). When questioned, DCAS responded that this facility was “Incorrectly listed as Owned in FY18 report, actually [was] considered leased in that fiscal year.” However, in FY20 and FY21 annual reports, the ownership status was reverted to “City-owned,” and relevant data reappeared in Appendices C and D. When the auditors reviewed City's financial and property records, they found that 503 W 179th St is a five-story mixed-use building with stores on the ground level and residential apartments on the upper floors. According to DCAS' Local Law 1 of 2007 report, which DCAS' DEM published in December 2018 (same month and year as the FY18 LL45 annual report), dealing with “certain clean on-site power generation technologies,” it lists a facility named “179th Street Pumping Station” with an address of 2405 Amsterdam Ave, New York, NY. This address is across the street from 503 W 179th St. Per public records, 2405 Amsterdam Ave is a city-owned property.

Based on the preceding, questions arise about whether 503 W 179th Street is a correct or incorrect address and whether DCAS' explanation that this facility was “Incorrectly listed as Owned in FY18 report” but was a leased facility was correct. In addition, whether its ownership status (reverted to owned) as reported in the FY20 and FY21 reports was accurate.

Example #2 – East 91st St MTS at 1740 York Ave / HRA Facility at 4055 10th Ave

In the FY20 annual report, DCAS reported on East 91st St MTS (Marine Transfer Station) located at 1740 York Ave in Manhattan under DSNY (i.e., NYC Department of Sanitation) jurisdiction and as a “City-owned” facility. The same facility appeared in the FY21 annual report, also under DSNY and city-owned, but now under a different address – 4055 10th Ave in Manhattan in Appendices A and B. However, the same facility in Appendices C and D was listed under HRA (Human Resources Administration). In the FY20 annual report, Appendices A and B did list a facility under HRA at 4055 10th Ave, but the facility name was “FIA Services,” and it was “Leased.” The FY18 annual report listed a “Leased” HRA “Office” at 4055 Tenth Ave in Appendices A and B. FY19 annual report had a “blank” (space) for the facility name. Still, it did show it as a “Leased” HRA facility at 4055 Tenth Ave in Appendices A and B. The two addresses are approximately 6.5 miles apart.

Based on the preceding, questions arise why there were address discrepancies between the appendices in the same and different year annual reports and whether the reported data was provided for the correct facility.

APPENDIX VIII

Discrepancies and Inconsistencies in the FY17 Heating Fuel Oil Usage Reporting in the Annual Reports Identified by the Auditors

#	Facility	Address	Agency/ Organization	Reported FY17 Heating Fuel Oil Usage in MMBTUs from the Annual Reports			
				FY18 Annual Report	FY19 Annual Report	FY20 Annual Report	FY21 Annual Report
1	Bronx Municipal Hospital	1910 Seminole Ave	H+H	4,490	Not Reported	-	-
2	Bronx Municipal Hospital Jacobi	1400 Pelham Pkwy S	H+H	4,490	Not Reported	-	-
3	Bronx Municipal Hospital Seminole	1910 Seminole Ave	H+H	4,490	Not Reported	-	-
4	Cumberland Diagnostic & Treatment Center	100 N Portland Ave	H+H	12,026	Not Reported	-	-
5	Elmhurst Hospital Center	79-01 Broadway	H+H	16,556	Not Reported	-	-
6	Harlem Hospital K Building	3-13 W 136th St	H+H	2,719	Not Reported	-	-
7	Harlem Hospital New Patient Pavilion	512 Lenox Ave	H+H	2,719	Not Reported	-	-
8	Harlem Hospital Ron Brown Pavilion	46 W 137th St	H+H	2,719	Not Reported	-	-
9	Harlem Hospital Women's Pavilion	15 W 136th St	H+H	2,719	Not Reported	-	-
10	Hunts Point Water Resource Recovery Facility	1270 Ryawa Ave	DEP	982	969	-	969
11	Jamaica Water Resource Recovery Facility	150-20 134th St	DEP	126	125	-	141
12	Metropolitan Hospital Center	1901 1st Ave	H+H	25,207	Not Reported	-	-
13	N Central Bronx Hospital	3424 Kossuth Ave	H+H	4,182	Not Reported	-	-
14	Newtown Creek Water Resource Recovery Facility	301 Greenpoint Ave	DEP	8,721	8,602	-	8,602
15	North River Water Resource Recovery Facility	725 W 135th St	DEP	143,892	141,931	-	141,931
16	Oakwood Beach Water Resource Recovery Facility	751 Mill Rd	DEP	255	252	-	366
17	Owl's Head Water Resource Recovery Facility	6700 Shore Rd	DEP	29,316	28,916	-	28,916
18	Port Richmond Water Resource Recovery Facility	1795 Richmond Ter	DEP	351	347	-	347
19	Red Hook Water Resource Recovery Facility	18 Little St	DEP	429	423	-	423
20	Rikers Cogeneration Plant	17-19 Hazen St	DOC	3,720	-	-	-
21	Rikers R-1	16-27 Hazen St	DOC	3,720	-	-	5,448
22	Rikers R-2	19-27 Hazen St	DOC	3,720	-	-	-
23	Tallman Island Water Resource Recovery Facility	127-01 Powells Cove Blvd	DEP	476	470	-	470
24	Wards Island Water Resource Recovery Facility	Wards Island	DEP	65,383	64,491	-	64,491
25	Woodhull Hospital	760 Broadway	H+H	4,713	Not Reported	-	-
Totals				348,121	246,526	0	252,104



Dawn M. Pinnock
Commissioner

March 28, 2023

Sandra Abeles
Executive Deputy Comptroller
Office of the New York City Comptroller
1 Centre Street, Room 1100
New York, NY 10007

Re: NYC Comptroller's Audit Report on the Department of Citywide Administrative Services' Compliance with Local Law 45 of 2018 (SE20-100A)

Dear Ms. Abeles:

Thank you for sharing the draft report for the above audit. We reviewed the referenced report, and, while DCAS does not fully agree with many of the findings and recommendations noted in the report, we appreciate the effort your office has invested in this review.

As we previously explained during the course of the audit, Local Law 45 of 2015 (LL45) reporting had unique requirements. A detailed explanation, information on how the LL45 reports were generated, the uniqueness of the LL45 report methodology, and how, in particular, the reporting is unrelated to and does not impact DCAS's GHG emissions and other analyses was shared with the Comptroller's team. The auditors did not request any additional information nor did they indicate that the information DCAS provided was insufficient. Accordingly, the assertion made in the draft audit report that DCAS did not provide any proof to support this claim is misleading.

Errors in the LL45 reports for FY 18 and FY 19 do not impair the integrity of DCAS's underlying data on or analyses of GHG emissions reduction. DCAS acknowledges that the original FY18 and FY19 LL45 reports covered by this report miscategorized ownership status for a small number of facilities (i.e., leased or owned status). However, that error did not affect the GHG data, as the reporting was based on DCAS's fuel consumption data. Whether a building was leased or owned did not change the consumption data, it was merely an artifact of the statute's reporting scheme.

Nevertheless, in October 2022, well-before the completion of the audit, DCAS reissued and published corrected FY18 and FY19 LL45 reports along with the accompanying errata on DCAS's webpage. DCAS pointed out that the corrected data was available to the auditors at the exit meeting held on February 1, 2023. Inexplicably, the auditors refused to review the corrected reports which have been publicly available for nearly six months. Moreover, in attempting to demonstrate that LL45 reporting is connected to and distorts DCAS's GHG emission analyses, the auditors made serious mistakes. They utilized an incorrect methodology that, among other deficiencies, repeatedly misapplied the wrong emission coefficient to the

energy types to calculate GHG emissions that result from using specific energy types for a particular year.

Similarly, the auditors applied the incorrect methodology for calculating the kWh change over five fiscal years in the electricity usage trend analysis report for solar energy. The correct methodology involves subtracting the first year's zero usage for 2015, not the second year's usage from the fifth year's usage as the auditors did. For FY15, there was zero usage; for FY19 the result was 3,178,278 kWh, which represents the change over the last five year as stated in DCAS's report.

DCAS also would like to address the following findings:

Finding: Issues with RTM Installation Data

With regards to real-time meter (RTM) installation, DCAS reports yearly on whether such installation will occur, and provides a timeline over the next four fiscal years when the installation is expected to be completed. DCAS is fully aware of the facilities that have RTMs, as they are tracked at the account-level, and only consolidated on a facility basis when RTMs are installed for the entire facility. LL45 reporting does not require accounting of all of DCAS' RTM installations, only those covered buildings subject to LL45. DCAS noted 460 RTM installations in the report to put reported installations in context of DCAS' RTM portfolio at that point in time.

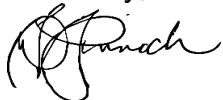
Finding: Insufficient Reporting on Building Envelope Assessment and Improvement

While the Comptroller's draft audit report claims that DCAS did not provide adequate data describing building envelope for facilities that underwent an envelope assessment, it ignores that LL45 does not define an envelope improvement. DCAS's Energy Management energy efficiency staff experts appropriately describe the improvements and their statuses in the report within their discretion, and as acknowledged by the auditors, provided more detail than what was required by LL45, including improvement projects not yet commenced, continued, not completed but under consideration, and facilities that underwent an assessment that did not recommend improvements. As such, the Comptroller's draft audit report is contradictory, since DCAS provided more information than what was required by LL45.

DCAS remains committed to ensuring that our agency is in compliance with all applicable laws, rules and regulations.

Attached please find the Agency's Corrective Action Plan to the draft audit report on the Department of Citywide Administrative Services' compliance with Local Law 45 of 2018 (SE20-100A). Should you have any questions, please contact Sonia Lamrhari, Executive Director of DCAS's Audit and Compliance Services at 212-386-6266.

Sincerely,



Dawn M. Pinnock
Commissioner

Enclosure

c: Josefina Soto
Pravin Gohel
Faige Hornung
Marjorie Landa
Doug Giuliano
Kathleen Schmid
Emily Poorvin
Sonia Lamrhari

NYC DEPARTMENT OF CITYWIDE ADMINISTRATIVE SERVICES
Corrective Action Plan (CAP) Response

Audit Name: NYC Comptroller’s Audit Report on the Department of Citywide Administrative Services’ Compliance with Local Law 45 (SE20-100A) Date: March 28, 2023

Audit Recommendations	Agency Response	Corrective Action	Target Date
1. Maintain accurate records of electricity usage, RTM installation status, fossil fuel and steam usage, and building envelope assessment and improvement status.	<p>DCAS disagrees with the recommendation.</p> <p>DCAS currently maintains accurate records of electricity usage, RTM installation status, fossil fuel and steam usage, and building envelope and improvement status. As previously stated, the inaccuracies noted in the published LL45 reports were due to transcription errors and are not reflective of inaccuracies with the underlying data collection or impact results of any other DCAS analysis and/or reporting.</p> <p>In addition, the auditors applied the incorrect methodology for calculating the five fiscal year’s change in the Electricity usage trend analysis report for solar energy. The correct methodology should be to subtract the first year’s usage from the fifth years usage; For FY15, there was zero usage; for FY19 the result was 3,178,278 kWh, which represents the change over the last five year as stated in DCAS’s report. See page 17, table 2 of audit report.</p> <p>Furthermore, inaccuracies related to buildings’ leased or owned does not demonstrate DCAS has inaccurate fossil fuel usage data. DCAS collects fossil fuel data from other City facilities irrespective of their owned or leased status and only used facility owned/leased status for the purposes of LL45 reporting</p>	None	N/A

Audit Recommendations	Agency Response	Corrective Action	Target Date
<p>2. Evaluate and revise its data collection, analysis, and review policies and procedures to prevent perpetuating the data discrepancies and errors identified by the audit.</p>	<p>DCAS partially agrees with this recommendation</p> <p>Owned/Leased status of a building that was originally published in the LL45 reports does not demonstrate DCAS has inaccurate fossil fuel usage data. DCAS collects fossil fuel data from City facilities irrespective of their owned or leased status. Regardless, DCAS corrected any discrepancies in the original LL45 reports by revising and reissuing the corrected FY18 and FY19 LL45 reports with correct building owned/leased status data.</p> <p>Also refer to response recommendation #1.</p>	<p>None. DEM staff pre-emptively implemented corrective actions to our reporting process to ensure all local law reports receive secondary review of the final PDF version.</p> <p>DCAS pre-emptively revised and reissued the LL45 reports and errata in October 2022. They are posted in DCAS Energy Management's Reports and Publications website.</p>	<p>N/A</p>
<p>3. Improve its report preparation and review processes to ensure that all published information is complete and free of errors and inconsistencies.</p>	<p>DCAS partially agrees with this recommendation</p> <p>Refer to recommendation response #2 above</p>	<p>None</p>	<p>N/A</p>
<p>4. Coordinate with all stakeholders and explore options for timely collection and verification of heating fuel oil usage information.</p>	<p>DCAS disagrees with this recommendation.</p> <p>DCAS receives heating oil data from external agencies on a six-month lag after the end of the fiscal year because external agencies individually procure and report consumption of heating oil (in contrast with the centralized way DCAS receives utility energy data directly from utilities). Given that DCAS is not the sole source of this information and relies on our agency partners to provide accurate heating oil information, these data are subject to revision as agencies receive invoices from their vendors, and DCAS subsequently updates the data as it is received. Nevertheless, DCAS will continue to work with our agency partners.</p>	<p>None</p>	<p>N/A</p>

Audit Recommendations	Agency Response	Corrective Action	Target Date
<p>5. Identify sources for complete reporting on building envelope assessment and envelope improvement status.</p>	<p>DCAS disagrees with this recommendation.</p> <p>The law does not require DCAS to identify sources of building envelope assessments. <i>See LL45 section 2d for envelope assessment requirements.</i></p> <p>DCAS did not report on envelope improvement projects in the FY18 and FY19 reports since most projects identified from assessments over those years were not evaluated nor completed until FY20. However, DCAS published the full inventory of facilities that had commenced, continued, or completed a building envelope improvement project from FY18 and FY19 in the FY20 LL45 report.</p> <p>Assessments are conducted as appropriate for project development and DCAS records regarding building envelope assessments and improvement status are well maintained.</p>	<p>None</p>	<p>N/A</p>
<p>6. Ensure data integrity of facility-level data, including ownership status and agency affiliation.</p>	<p>DCAS partially agrees with this recommendation.</p> <p>Owned/Leased status of a building that was originally published in the LL45 reports does not demonstrate DCAS has inaccurate fossil fuel usage data. DCAS collects fossil fuel data from City facilities irrespective of their owned or leased status. DCAS has corrected the ownership status and agency affiliation information during the course of the audit, and reissued report and errata issued in October 2022.</p> <p>DCAS already maintains accurate records of electricity usage, RTM installation status, fossil fuel and steam usage, and building envelope and improvement status. However, the owned/leased status of the facilities does not affect DCAS's collection of fossil fuel data as fossil fuel data is maintained separately from ownership data.</p>	<p>None. DCAS pre-emptively revised and reissued the LL45 reports and errata in October 2022. They are posted in DCAS' Energy Management's Reports and Publications website</p>	<p>N/A</p>

Audit Recommendations	Agency Response	Corrective Action	Target Date
7. Evaluate the impact of inaccuracies in reported ownership status on other systems (such as Emission Reporting System and EPA Benchmarking) and critical tasks (such as Heat, Light, and Power (HLP) budget preparation).	DCAS disagrees with this recommendation. As explained previously, the owned/leased status of the facilities does not have an impact on building benchmarking nor HLP budget preparation, so no impact needs to be evaluated.	None	N/A
8. Post the revised and corrected LL45 annual reports so that they can be easily found on the agency website, with clear indication of the corrections, and notify all stakeholders, as appropriate.	DCAS agrees with this recommendation. DCAS pre-emptively issued corrected reports and errata in October 2022. They are posted in DCAS' Energy Management's Reports and Publications website.	None	N/A



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