

# New York Power Authority

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## Selected Management and Operations Practices – BuildSmart NY/Executive Order 88

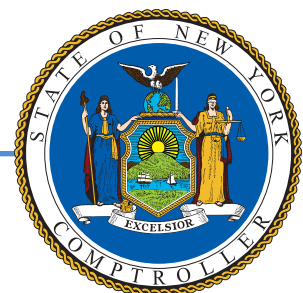
Report 2023-S-27 | September 2023

OFFICE OF THE NEW YORK STATE COMPTROLLER

Thomas P. DiNapoli, State Comptroller

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Division of State Government Accountability



# Audit Highlights

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## Objectives

To determine whether the 20% reduction in energy use required by Executive Order 88 was achieved by April 1, 2020, and whether the New York Power Authority (NYPA) provided the required oversight to the Affected State Entities (ASEs) in line with Executive Order 88 Guidelines. The audit covered the period from April 2010 through June 2021.

## About the Program

NYPA is a public authority created in 1931 by Title 1 of Article 5 of the Public Authorities Law. NYPA's mission through December 8, 2020 was to provide clean, low-cost, and reliable energy consistent with its commitment to the environment and safety, while promoting economic development. On December 9, 2020, NYPA revised its mission statement as follows: "Lead the transition to a carbon-free, economically vibrant New York through customer partnerships, innovative energy solutions, and the responsible supply of affordable, clean, and reliable electricity." NYPA acts through a Board of Trustees (Board) and its Trustees are appointed by the Executive with the advice and consent of the State Senate. NYPA is a fiscally independent public corporation that does not receive State funds or tax revenues or credits for its operations. Chapter 469 of the Laws of 1989 requires the State Comptroller to audit NYPA's management and operations at least once every 5 years.

NYPA is authorized by the Power Authority Act to help provide a continuous and adequate supply of dependable electricity to the people of the State. It generates, transmits, and sells electricity. NYPA's primary customers are investor-owned utilities, municipal and rural electric cooperatives, high load factor industrial customers, and commercial/industrial and other not-for-profit businesses located throughout New York State. In addition, customers include various public corporations located in Southeastern New York within the metropolitan area of New York City and certain out-of-state customers.

BuildSmart NY is the program created to carry out Executive Order 88 (Executive Order or EO 88). The Executive Order, which was issued on December 28, 2012, mandated a 20% improvement in the energy efficiency performance of State government buildings by April 2020. The organizations subject to EO 88 – Affected State Entities (ASEs) – include "(i) all State Entities and departments over which the Governor has Executive Authority, and (ii) all public-benefit corporations, public authorities and commissions, for which the Governor appoints the Chair, the Chief Executive, or the majority of Board Members, except for the Port Authority of New York and New Jersey."

This Executive Order set a goal to reduce the average Source Energy Use Intensity (EUI) by at least 20% from the baseline State fiscal year (SFY) 2010-11.

On April 1, 2020, New York introduced the BuildSmart 2025 program, which expands upon the original program and sets new objectives equivalent to a 34% reduction in energy usage from the baseline year of SFY 2014-15.

On September 20, 2022, Executive Order 22 (EO 22) was issued to ensure that State agencies follow best practices in green purchasing and in their operations by issuing new green purchasing specifications and operational directives. EO 22 further builds upon EO 88 with a goal of 11 trillion BTUs of energy savings to be achieved by 2025 through the BuildSmart 2025 program. Each ASE shall work with NYPA to achieve their allotted portion of the overall savings targeted by 2025.

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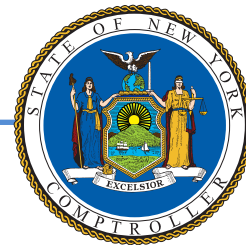
## Key Findings

- NYPA's 2020 Final Report shows the State did not reach the EO 88 goal of 20% reduction in EUI by April 2020. The actual EUI reduction reported was 14.4%, and when committed projects (incomplete) are added, the reduction in EUI is 22.6%. However, NYPA's EO 88 Final Report Executive Summary includes 123 projects of 158 that are not scheduled to be completed until as late as 2024.
- NYPA engaged a consultant because it realized it would not meet the goals of the program. Based on its consultant's advice, NYPA adjusted the baseline data. For example, NYPA made STEM (Science, Technology, Engineering, and Mathematics) adjustments to the State University of New York (SUNY) but not to the City University of New York (CUNY).
- Despite being the administrator of the Executive Order, NYPA did not believe it had the authority to require an ASE to implement the recommendations from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Level II audits the entities funded.
- NYPA's Central Management and Implementation Team did not document its efforts at monitoring ASE compliance with EO 88 and NYPA guidelines. NYPA provided a fact sheet containing data for the ASEs and their projects. NYPA did not provide minutes of meetings with the ASEs, nor was NYPA able to provide all the Quarterly Reports the EO 88 Guidelines require. Additionally, when NYPA annually reported the status of the program, officials shied away from identifying the deficiencies in ASE non-compliance and asserted that they had no recourse to enforce EO 88.

## Key Recommendations

Although the audited program has concluded, the lessons learned can provide valuable insights for successor programs such as BuildSmart 2025:

- Ensure that reports of results are based on the actual performance of the program, and clearly disclose the status of the projects that have been completed and those that are in other stages of the process.
- Disclose any adjustments to baseline or annual energy usage that impact the results being reported.
- Meet with agencies and document agency responses to the recommendations from the ASHRAE Level II audits they paid for. This includes the reasons given for any recommendations the entity decides not to implement.



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## Office of the New York State Comptroller Division of State Government Accountability

September 28, 2023

John R. Koelmel  
Chair, Board of Trustees  
New York Power Authority  
123 Main Street  
White Plains, NY 10601-3104

Dear Mr. Koelmel:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage their resources efficiently and effectively. By so doing, it provides accountability for the tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities, and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

The following is a report of our audit entitled *Selected Management and Operations Practices – BuildSmart NY/Executive Order 88*. This audit was performed pursuant to the State Comptroller's authority under Article X, Section 5 of the State Constitution, Section 2803 of the Public Authorities Law, and Chapter 469 of the Laws of 1989.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

*Division of State Government Accountability*

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# Glossary of Terms

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<b>Term</b>	<b>Description</b>	<b>Identifier</b>
NYPA	New York Power Authority	<i>Auditee</i>
APA	Adirondack Park Agency	<i>Agency</i>
ASEs	Affected State Entities	<i>Key Term</i>
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers	<i>Key Term</i>
ASHRAE Level II Audit	Basic Building Energy Audit of past energy bills and operational costs	<i>Key Term</i>
Board	NYPA Board of Trustees	<i>Key Term</i>
BuildSmart NY	Program to implement Executive Order 88	<i>Program</i>
CMIT	Central Management and Implementation Team	<i>Key Term</i>
CUNY	City University of New York	<i>Agency</i>
DASNY	Dormitory Authority of the State of New York	<i>Agency</i>
DOL	New York State Department of Labor	<i>Agency</i>
DOT	New York State Department of Transportation	<i>Agency</i>
EO 22	Executive Order 22	<i>Key Term</i>
EO 88 or Executive Order	Executive Order 88	<i>Key Term</i>
EUI	Energy Use Intensity (a measure of energy use as a function of building size)	<i>Key Term</i>
MTA	Metropolitan Transportation Authority	<i>Public Authority</i>
NFTA	Niagara Frontier Transportation Authority	<i>Agency</i>
NYCCOC	New York Convention Center Operating Corporation	<i>Public Authority</i>
NYEM	NY Energy Manager	<i>Key Term</i>
SIR	Savings to Investment Ratio rating	<i>Key Term</i>
SUNY	State University of New York	<i>Agency</i>
UNDC	United Nations Development Corporation	<i>Agency</i>

# Background

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The New York Power Authority (NYPA) is a public authority created in 1931 by Title 1 of Article 5 of the Public Authorities Law. NYPA's mission through December 8, 2020 was to provide clean, low-cost, and reliable energy consistent with its commitment to the environment and safety, while promoting economic development. On December 9, 2020, NYPA revised its mission statement as follows: "Lead the transition to a carbon-free, economically vibrant New York through customer partnerships, innovative energy solutions, and the responsible supply of affordable, clean, and reliable electricity." NYPA acts through a Board of Trustees (Board). NYPA's Trustees are appointed by the Executive with the advice and consent of the State Senate. NYPA is a fiscally independent public corporation that does not receive State funds or tax revenues or credits for its operations. Chapter 469 of the Laws of 1989 requires the State Comptroller to audit NYPA's management and operations at least once every 5 years.

NYPA is authorized by the Power Authority Act to help provide a continuous and adequate supply of dependable electricity to the people of the State. It generates, transmits, and sells electricity principally wholesale. NYPA's primary customers are investor-owned utilities, municipal and rural electric cooperatives, high load factor industrial customers, and commercial/industrial and other not-for-profit businesses located throughout New York State. In addition, customers include various public corporations located in Southeastern New York within the metropolitan area of New York City and certain out-of-state customers.

BuildSmart NY is the State's program for pursuing energy efficiency in certain New York State government buildings while advancing economic growth, environmental protection, and energy security in the State. The centerpiece of BuildSmart NY is Executive Order 88 (Executive Order or EO 88). The Executive Order, which was issued on December 28, 2012, requires that "by April 1, 2020, all Affected State Entities shall collectively reduce the average EUI [Energy Use Intensity] in State-owned and managed buildings by at least 20%" from a baseline of the average EUI of such buildings in State fiscal year (SFY) 2010-11. The organizations subject to EO 88 – Affected State Entities (ASEs) – are "(i) all State Entities and departments over which the Governor has Executive Authority, and (ii) all public-benefit corporations, public authorities and commissions, for which the Governor appoints the Chair, the Chief Executive, or the majority of Board Members, except for the Port Authority of New York and New Jersey."

NYPA was tasked with administering EO 88 by establishing a Central Management and Implementation Team (CMIT). The duties of this team include: establishing guidelines within 9 months of EO 88 to assist the ASEs with the requirements; provide strategic, technical, and other assistance to support the implementation of EO 88; develop annual milestones to achieve the target within the 7 years; develop reporting requirements to document the progress of these entities toward meeting the target; develop a comprehensive operations and maintenance plan for the State's building portfolio to help achieve no-cost and low-cost efficiency improvements and ensure that efficiency savings are sustained; and submit an annual report to the Executive by January 15 of each year (starting 2014) detailing the overall progress the entities are making toward meeting the target.

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NY Energy Manager (NYEM), described as a customer support unit of NYPA, designs customized energy management strategies for individual facilities or entire building portfolios. Insights and services are offered and priced based on the level of data collected and advisory services; packages are fully customizable. NYEM's online energy management platform is available free to all NYPA customers. NYPA officials indicated that the NYEM system was used to validate, review, and store the data submitted by the ASEs under EO 88. The original BuildSmart program concluded on April 1, 2020 and was immediately succeeded by New York's BuildSmart 2025 program. Building upon the foundations of the original program, BuildSmart 2025 aims for a 34% reduction in energy consumption compared to the baseline year of SFY 2014-15.

On September 20, 2022, Executive Order 22 (EO 22) was issued to ensure that State agencies follow best practices in green purchasing and in their operations by issuing new green purchasing specifications and operational directives. EO 22 further builds upon EO 88 with a goal of 11 trillion BTUs of energy savings to be achieved by 2025 through the BuildSmart 2025 program. Each ASE shall work with NYPA to achieve their allotted portion of the overall savings targeted by 2025. EO 22 will be administered by the GreenNY Council, a multi-agency working group co-chaired by the Department of Environmental Conservation, Division of the Budget, Office of General Services, New York State Energy Research and Development Authority, and NYPA. GreenNY Council is responsible for surveying ASEs annually on their progress toward meeting their goals and submitting an annual report to the Executive on this information as well as the GreenNY Council's own progress toward implementation of EO 22.



# Audit Findings and Recommendations

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NYPA's Final Report shows it did not reach the EO 88 goal of 20% reduction in EUI by April 2020. The actual EUI reduction reported was 14.4%, and when committed projects (incomplete) are added, the reduction in EUI is 22.6%. However, NYPA's EO 88 Final Report Executive Summary includes 123 projects of 158 that are not scheduled to be completed until as late as 2024.

The CMIT was tasked in the Executive Order with administering the program for the ASEs. Those responsibilities include developing annual milestones to achieve the 20% target; engaging stakeholders to refine policy and assess and mitigate risk; providing strategic and technical assistance and oversight to State Agencies and Authorities subject to EO 88 (i.e., ASEs); reporting progress results to the Executive's Office and the public; and creating a guidelines document to clarify and specify requirements and facilitate EO 88 compliance.

We met with the CMIT members to determine whether the team had performed any of the tasks. CMIT provided a fact sheet containing data from the ASEs and information on their projects. NYPA did not provide minutes of meetings with the ASEs or details pertaining to the strategic and technical assistance provided; nor was NYPA able to provide all the Quarterly Reports the EO 88 Guidelines require. Additionally, when NYPA annually reported the status of the BuildSmart NY program, officials shied away from identifying the deficiencies in ASE non-compliance and instead asserted that they had no ability to enforce EO 88.

## Annual Reports

As part of its requirement to report progress to the Executive's Office and the public, NYPA initially published an annual report starting in 2013. However, NYPA only publicly provided executive summaries and did not supply the underlying reports for 2017, 2018, 2019, and 2020. An executive summary implies there is a report to summarize, as evidenced by the annual reports for 2013 through 2016. Previous years included topics such as top-performing buildings in 2016, energy auditing, submetering (2015), and various informational graphics (2016). Without a full report, the reader is not provided with a complete understanding of the progress made under this Executive Order and the results are less transparent.

NYPA, as of January 13, 2022, has not issued its 2020 annual report publicly. However, the auditors obtained a copy. In its EO 88 Final Report Executive Summary, NYPA reported that the program resulted in an actual reduction of EUI of only 14.4% since the SFY 2010-11 base year. However, if projects that are committed are included, the results increase to 22.6%. In the same executive summary, NYPA claims that there has been a savings of \$514 million in avoided energy costs since the program began. In April 2022, the EO 88 Final Report was published by the GreenNY Council in its 10th "Greening New York State Report."

## Committed Projects

NYPA included both 205 completed and 158 committed projects in its EO 88 Final Report Executive Summary. EO 88 states that by "April 1, 2020, all Affected State

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Entities shall collectively reduce the average EUI in State-owned and managed buildings by at least 20%” from the established baseline. It does not contemplate the inclusion of committed projects. However, without inclusion of these projects, NYPA will not reach its 20% reduction goal by the deadline required. Almost half of the projects, 43.5%, that NYPA has listed to meet the goals of the EO 88 program are committed projects. However, some of these projects are not expected to be completed until as late as 2024.

## Baseline Data

Additionally, we have concerns related to the reliability of the data that the annual reports are based upon. NYPA engaged a consultant when it realized it would not meet the goals of the program. Based on the consultant’s advice, NYPA adjusted the baseline data. We obtained copies of the NYEM baseline data set and the NYPA ASE baseline data set to compare and to determine whether they contained the same information. NYEM is NYPA’s energy management software, which, according to NYPA, “helps you simplify energy management for your organization – by using the power of data to improve building energy performance, reduce environmental impact, and manage energy costs.” However, while the data theoretically should match, we found differences in the ASEs that were included in the data sets as well as differences in the underlying data provided.

## Number of ASEs

The two data sets did not have the same number of ASEs. The NYEM data set included data for 28 ASEs (the total number ultimately in the program) while the NYPA data set only included data for 22 ASEs, with two having incomplete data. Thus, while NYPA reported on 26 ASEs in the 2013 BuildSmart NY Annual Progress Report, it only provided complete baseline data for 20 ASEs. The six entities that were missing from the NYPA data set were: Dormitory Authority of the State of New York (DASNY), Niagara Frontier Transportation Authority (NFTA), NYPA, New York State Energy Research and Development Authority (NYSERDA), United Nations Development Corporation (UNDC), and New York City Henry Truman High School (PS 180).

## Aggregate Energy Use

When we compared data in the two data sets, we found differences. Even after adjusting for data overlaps in SFY 2010-11, and eliminating the two ASEs with incomplete data, differences remained for the 20 ASEs. For instance, a comparison of both raw and prorated data found more units of energy in the NYEM system than the NYPA data.

NYEM Aggregate Prorated Energy Data:	2,645,233,531 units of energy
NYPA Aggregate Prorated Energy Data:	2,222,563,515 units of energy
Difference (NYEM vs. NYPA):	422,670,016 units of energy

We further compared the data within the two data sets for five ASEs. We matched the total number of buildings, fuel types per building, and bills for the selected five ASEs. We also compared the use and cost for each fuel type per building. The five ASEs selected were: Adirondack Park Agency (APA), City University of New York (CUNY), New York Convention Center Operating Corporation (NYCCOC), New York State Department of Transportation (DOT), and State University of New York (SUNY). For the chosen five ASEs, three had minimal differences in the aggregate data for SFY 2010-11 (APA, CUNY, and NYCCOC). The data for two ASEs – DOT and SUNY – had numerous differences when the NYEM and NYPA files were compared. For instance, DOT differed on all selected metrics (as shown in the table below).

**Differences in NYEM vs. NYPA Raw Data for DOT for SFY 2010-11**

Item	NYEM Data	NYPA Data	Difference (+) NYEM Higher Than NYPA
Number of Buildings	18	5	13
Number of Building/Fuel Type Combinations*	40	9	31
Total Energy Units	4,340,736.90	202,230.00	4,138,506.90
Total Cost	\$993,127.67	\$46,332.78	\$946,794.89
Number of Bills	449	20	429
Total of Number of Billing Days	14,269	1,359	12,910

\*Buildings can use multiple types of energy. For example, a building may have gas for hot water, fuel oil for heating, and electricity for lights.

We also found discrepancies in the underlying data such as the data appearing to be incomplete and not including all the billing information for the entire year as well as duplicate billings in both data sets.

**ASHRAE Level II Audits**

Moreover, it was unclear how projects were selected and monitored. Each ASE covered under EO 88 is required to have ASHRAE Level II audits conducted of its buildings that fall into the bottom quarter of energy efficiency. We asked for and received a list of these ASEs and the buildings that these ASHRAE Level II audits were conducted on. NYPA completed 119 ASHRAE Level II audits for 28 ASEs. We chose a sample of six of these entities and asked for copies of the ASHRAE audits that were conducted. These totaled 52 audits.

The ASHRAE Level II audit’s purpose is to identify energy savings opportunities to meet the reduction in EUI. The ASEs decided which recommendations to implement with NYPA’s input. We reviewed the ASHRAE Level II audit reports and then met with NYPA to determine the actions that were taken to implement the suggested recommendations from the reports.

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## ASHRAE Reports

NYPA provided 50 out of the 52 requested reports, each containing recommendations for the ASEs, identifying projects as well as their Savings to Investment Ratio (SIR) rating. The EO 88 Guidelines specified a minimum SIR rating of 1.2 for project recommendation, and noted that these projects may not be the most cost effective. However, projects with lower or no SIRs were often chosen over those that met the minimum rating. The rationale behind these decisions remains unclear. For instance:

- SUNY had ASHRAE projects worth \$368,532,973 across 13 SUNY campuses, with annual savings of \$15,085,031 and lifetime savings of \$252,086,337. Out of 85 projects with a SIR rating greater than 1.2, SUNY implemented only two. Meanwhile, 73 out of 186 projects without a SIR rating were implemented.
- The Metropolitan Transportation Authority (MTA) had 78 ASHRAE projects worth \$15,590,925 for 13 MTA facilities, with annual savings of \$2,904,779 and lifetime savings of \$24,404,803. All 78 projects had SIR ratings, with 46 above the minimum. The MTA implemented 19 of these projects, with costs over the life of the project of \$4,578,036 and total savings of \$7,843,463. Additionally, 16 projects with a SIR rating below 1.2 were also implemented, costing \$2,764,343 over the life of the project and lifetime savings of \$4,146,423.
- NYPA had 69 ASHRAE recommendations worth \$6,147,576 for 10 facilities, with annual savings of \$283,045 and total savings over the payback period of \$5,481,747. Among the 69 recommendations, 53 had a SIR rating and 16 did not. Of the 53 with ratings, seven (13%) had a rating at 1.2 or higher, costing \$409,153 (7%), while the remaining 46 had a SIR rating below 1.2. Including the 16 with no rating, 62 ASHRAE recommendations accounted for \$5,738,423 (93%) in costs but offered limited value to NYPA.

Although the audited program (BuildSmart NY) has concluded, the lessons learned can provide valuable insights for successor programs such as BuildSmart 2025.

## Recommendations

1. Ensure that reports of results are based on the actual performance of the program and clearly disclose the status of the projects that have been completed and those that are in other stages of the process.
2. Disclose any adjustments to baseline or annual energy usage that impact the results being reported.
3. Meet with agencies and document agency responses to the recommendations from the ASHRAE Level II audits they paid for. This includes the reasons given for any recommendations the entity decides not to implement.

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## Energy Projects

We also attempted to determine NYPA actions to ensure EO 88 compliance from each agency in our sample by examining 94 projects at the six sampled ASEs.

NYPA had information and/or documentation for 74 of the 94 projects. However, it did not provide information or documentation for 20 projects, including three where we did not meet with the NYPA project managers or other NYPA representatives for the projects.

While NYPA acted in most of the cases, it did not appear to document critical information necessary to effectively monitor these efforts. For instance, three of the ASEs did not provide information about the estimated energy or cost savings from the projects selected to NYPA.

## Recommendation

4. Develop a system to capture key communications between NYPA officials and their customers.

## EO 88 Quarterly Reports

According to the EO 88 Guidelines, all ASEs participating in the program were required to submit Quarterly Reports for the period January 2014 (fourth quarter of SFY 2014) through July 2019 (first quarter of SFY 2019). The reports are used to update NYPA of the progress each ASE has accomplished in the preceding 3 months and to outline plans for future periods.

Quarterly Reports should include a list of completed energy audits, energy efficiency projects, progress in operations and maintenance or retro-commissioning activities, progress toward meeting EO 88 submetering requirements, and other relevant activities.

We determined NYPA did not collect 42% of the required Quarterly Reports from the ASEs as specified by the EO 88 Guidelines. While 616 reports were required, our analysis determined that NYPA only received 358 reports from 28 ASEs for the period January 2014 through July 2019 – a deficit of 258 Quarterly Reports.

Without NYPA receiving the Quarterly Reports from the ASEs, it is unclear how NYPA was monitoring progress of the initiative and whether the annual report based on these reports was accurate and complete.

## Recommendation

5. Ensure all required reports are filed as required by the program and follow up where the reports are not received, including escalating the issue to the next level of executive management for corrective action.

# Audit Scope, Objectives, and Methodology

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The objectives of this audit were to determine whether the 20% reduction in energy use required by EO 88 was achieved by April 1, 2020, and whether NYPA provided the required oversight to the ASEs in line with EO 88 Guidelines. The audit covered the period from April 2010 through June 2021.

To accomplish our objectives and to evaluate internal controls relevant to EO 88, we interviewed NYPA management, reviewed records provided to support the implementation of EO 88, and selected a judgmental sample of six ASEs. The agencies were selected based on size, geographic location, and number of completed projects. We included NYPA because it is the agency that provided oversight for the EO 88 program. Our samples were not intended to be projected to the population. We tested the data used to select our samples and conducted audit work and determined it was sufficiently reliable for the purpose of our audit objectives.

We contacted five agencies/authorities to confirm information NYPA provided from these agencies to ascertain compliance with EO 88. Of the six ASEs in our sample, five had received ASHRAE II audits. We requested 52 of the 119 completed audit reports and received 50. They were selected from the six ASEs sampled as well as from three other agencies chosen at random. MTA had 27 audit reports and we reviewed 13.

We reviewed the baseline data for five ASEs in the NYPA data set to the same five in the NYEM data set to compare the data reported by each. The two data sets we compared did not match because they did not have the same number of ASEs or matching composition. NYEM supplied data for 28 ASEs, including New York City Henry Truman High School (PS 180), and did not include DOL. The NYPA data set only included 22 ASEs. The six entities missing were: DASNY, NFTA, NYPA, NYSERDA, UNDC, and New York City Henry Truman High School (PS 180).

We selected five ASEs to perform a more detailed comparison between data in the agency file and the NYEM file: APA and NYCCOC had minimal-use data; CUNY and SUNY were in the top six with significant-use data; and DOT's energy use was in the middle of the range.

We selected a judgmental sample from the projects referenced in the ASHRAE II reports for a total of 94 projects selected to determine what information and/or documentation NYPA had as evidence of monitoring of the projects recommended at the ASE.

During the period, 358 reports were received from the 28 ASEs, out of the 616 that should have been received for the period January 2014 through June 2019.

# Statutory Requirements

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## Authority

The audit was performed pursuant to the State Comptroller's authority as set forth in Article X, Section 5 of the State Constitution and Section 2803 of the Public Authorities Law. Additionally, Chapter 469 of the Laws of 1989 requires the State Comptroller to conduct an audit of NYPA's management and operations at least once every 5 years. The most recent audit covered two areas. The first area, NYPA's electric vehicle initiatives and programs (Report [2020-S-38](#)), was issued on February 4, 2022.

We conducted our performance audit in accordance with generally accepted government auditing standards. Those standards require 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 based on our audit objectives.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State, including some duties on behalf of public authorities. For the New York Power Authority, these include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. These duties could be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our professional judgment, these duties do not affect our ability to conduct this independent audit of NYPA's oversight and administration of operations and management related to BuildSmart NY/EO 88.

## Reporting Requirements

We provided a draft copy of this report to NYPA officials for their review and formal comment. Their comments were considered in preparing this final report and are attached in their entirety at the end of it. Our response to certain NYPA comments are included as State Comptroller's Comments.

In response to our draft report, NYPA officials stated that they recognize the audit process as valuable in improving NYPA's programs. They agree with some of the recommendations but disagree with others, and address their response to recommendations applicable to NYPA's implementation of BuildSmart 2025. While BuildSmart NY reports show that ASEs did reduce their EUIs, they did not reach the 20% reduction by April 1, 2020. As stated in its response, since the end of EO 88, NYPA has completed 70 projects that were committed. We are pleased that the CMIT has implemented better controls to monitor and account for the results of BuildSmart 2025.

Within 180 days after final release of this report, as required by Section 170 of the Executive Law, the Chair of New York Power Authority shall report to the Governor,

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the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.



# Agency Comments and State Comptroller's Comments

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KATHY HOCHUL  
Governor

**NY Power  
Authority**

JOHN R. KOELMEL  
Chairman

JUSTIN E. DRISCOLL  
President and Chief Executive Officer

September 7, 2023

Ms. Carmen Maldonado  
Office of the State Comptroller  
Division of State Government Accountability  
59 Maiden Lane - 21st Floor  
New York, NY 10038

Dear Ms. Maldonado:

Below is the management response of the New York Power Authority (NYPA) to the draft 2023-S-27 audit report (Report) entitled: *New York Power Authority – Selected Management and Operations Practices*, issued by the Office of the State Comptroller (OSC). The OSC's Report provided conclusions and recommendations for NYPA's management and operational practices of its BuildSmart NY program, based on OSC's stated audit objectives "to determine whether the 20% reduction in energy use required by Executive Order 88 was achieved by April 1, 2020, and whether NYPA provided the required oversight to the Affected State Entities (ASEs) in line with Executive Order 88 Guidelines."

NYPA values the lessons learned from OSC's auditing of its programs and recognizes its staff's work throughout the audit process as valuable toward improving NYPA's programs. As the audited program has concluded, NYPA agrees with OSC that the audit provides insights for NYPA's implementation of successor programs, such as BuildSmart 2025. In accordance with Executive Order 22 (EO 22), NYPA will continue its work with ASEs to achieve their allocated energy usage reduction goals toward a statewide goal of 11 trillion British thermal units (TBTu) of energy savings to be achieved by 2025 through the BuildSmart 2025 program. NYPA agrees with some of OSC's recommendations, but disagrees with others and addresses its responses to those recommendations as applicable toward NYPA's implementation of BuildSmart 2025.

NYPA demonstrated its commitment to leading, partnering, and contributing to the overall success of the BuildSmart NY program.

NYPA's Central Management and Implementation Team (CMIT) administered the BuildSmart program and drove results by advising and counseling ASEs on best practices and project specific advice as follows:

- Developed a behavioral based toolkit to provide a collection of best practices and program offerings.
- Developed a Measure Facilities Auditing Tool (MFAT) for ASEs to use in evaluating energy efficiency measures and to track which ones would move into implementation and contribute to their goals.

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- Developed and funded an Operations and Maintenance Acceleration Program (OMAP) for ASEs to identify and implement measures to contribute to their energy efficiency goals more efficiently.
  - Worked with ASEs to go above and beyond the energy auditing requirement by completing all audits required by EO 88, as well as several additional studies, marking a significant accomplishment in meeting the order's goals.

NYPA's Customer Project Delivery (CPD) team worked with ASEs on projects contributing to energy savings by completing 205 projects. NYPA also offered long term financing to help facilitate project implementation.

To lead by example, as an ASE, NYPA's own achievement of reduction in EUI was 24.7%.

The progress under the BuildSmart NY program is the foundation of continued success under the BuildSmart 2025 program. Since the end of EO 88, NYPA has completed 70 projects that were committed under EO 88 to further energy usage reduction achieved and has helped ASEs reach 68% of the 11 TBTu goal under BuildSmart 2025. NYPA will continue its role in maintaining transparency and accountability from ASE's toward achieving their allotments under BuildSmart 2025.

NYPA's response below corresponds to the specific sections and recommendations in OSC's report. As discussed below, NYPA already has processes in place that address certain OSC recommendations, some of which were implemented with NYPA's BuildSmart 2025 program and provide improved management oversight.

#### Annual Reports

OSC misunderstood NYPA's titling of its annual reports "Executive Summary" to imply that there is another "underlying report" that NYPA created but did not provide to the OSC or the public. However, there is no underlying report. The Executive Summaries provided to the OSC and published publicly for 2017 through 2020 were titled "Executive Summary" as the report was drawn from data annually reported by the ASEs and other data sources and its analysis. NYPA does not agree with the OSC that the annual reports for those years were not full reports or that those reports failed to provide transparency of the progress made under EO 88. To the contrary, those annual reports succinctly and clearly provided information relevant to public understanding of the EO 88 implementation status and fulfilled NYPA's responsibility as CMIT. Additionally, NYPA's final annual report was submitted to the Governor's Office and incorporated into and published by the GreenNY Council as part of its EO 166 reporting.

**State Comptroller's Comment** – The stand-alone Executive Summary used in 4 of the 7 years provides limited information for the public to understand the results of EO 88. For example, the 2019 report shows an ASE at 5.5% achieved and at 21.3% with committed projects. A year later, the same ASE is at 5.5% achieved and at 24.8% with committed projects. There is no explanation why there was no progress on the achieved results or why the ASE increased the percentage with committed projects.

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### Committed Projects

OSC interprets EO 88 to “not contemplate the inclusion of committed projects,” and accordingly concludes that NYPA should not have included reductions to be achieved through committed projects in its Final Report. NYPA does not agree with this premise. Using committed to projects in energy efficiency reporting is common in the industry. The New York State Public Service Commission’s energy efficiency portfolio standard (EEPS), through multiple iterations, required all program administrators (Con Edison, NYSEG, NYSEDA, National Grid, etc.) to include committed projects in their reporting.

**State Comptroller’s Comment** – NYPA stated it is appropriate to include the committed projects to report that the 20% reduction by the end of BuildSmart NY was achieved. However, EO 88 and the Guidelines issued by the CMIT state that the target of 20% reduction is required by April 2020 – the end of BuildSmart NY. The “Executive Order 88 Master Timeline” in the Guidelines shows the following milestones: all parts such as Operations and Maintenance Plans for each ASE will be final by March 31, 2014 and implemented by June 30, 2015; ASHRAE II audits of the lowest-performing buildings will be completed by December 31, 2015 and cost-effective projects found in the required energy audits will be implemented by December 31, 2017. NYPA officials told us that the ASEs were not required to implement the projects from the ASHRAE audits. However, the target still had to be achieved by April 2020. As a result, the 14.4% that was reported as completed represents the results of BuildSmart NY. As NYPA pointed out in its response, the 70 projects completed since the end of EO 88 have helped ASEs reach the goal under BuildSmart 2025.

Notably, when auditing OGS and DOCCS as ASEs for EO88 compliance, OSC acknowledged without noting any concern that both entities reported on committed projects toward their implementation of EO88.

**State Comptroller’s Comment** – NYPA’s reference to the two audits leaves out important details. For example, the initial audit report (2018-S-62) found that OGS relied on one capital project to provide the majority of its energy savings and recommended it develop a contingency plan to replace that capital project. The follow-up, which refers to committed projects, clearly states “These [committed] projects contributed to meeting the 20 percent collective ASE improvement in energy performance by the April 1, 2020 deadline.” However, NYPA’s Final Report shows results as of the deadline was 14.4%. The DOCCS audit report (2019-S-33) states that, as of October 2019, it had achieved 1.57% reduction and has 97 committed projects that, when completed, will bring DOCCS to 23.05%. However, in the Final Report, DOCCS’ achieved result was 5.5%.

As OSC acknowledges, NYPA was fully transparent and clearly identified in the Final Report that the actual EUI reduction was 14.4% and that BuildSmart exceeded the 20% goal when committed projects<sup>1</sup> were included. NYPA’s inclusion of committed projects was an update to EO 88 to capture advancement toward achieving the energy use reduction goal based on ASEs’ ability to commit to and progress that may not be recognized through just using the results of completed projects evidenced by utility bills. The reasoning for inclusion of committed projects was conveyed to and accepted by the Governor’s Office in January 2017, and subsequently reflected in annual reporting as “Achieved Results + Committed Projects”. Achieved results are based on utility bills and committed projects are based on engineering savings calculations.

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<sup>1</sup> A committed project is defined by contract commitments and design work completed by the respective agency. To qualify, the project had to be at 90% design and included in the ASE’s capital plan.

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Committed projects were included because of the development time associated with a typical energy efficiency project. With an average of one year for an audit, one year for the design, and one year for construction, more complex projects have at least an estimated three-year timeline from the initiation of the audit to the completion of construction. EUI is a backward-looking metric (a year of post-completion utility bills are needed for its calculation), so another year would be needed to demonstrate energy use reduction. That would have significantly compressed the time for ASE to select, implement and fund projects to meet the EO 88 goal (achieved results had to be reflected on utility invoices no later than for April 2018).

**State Comptroller's Comment** – The Guidelines state that the target of 20% reduction is required by April 2020 – the end of BuildSmart NY. It does not contemplate the inclusion of committed projects.

#### Baseline Data

The OSC appears to have misunderstood the circumstances surrounding NYPA's use of a consultant and NYPA's calculation of baseline data.

In 2017, NYPA engaged a consultant in response to SUNY's concerns about converting classrooms to higher energy intensity to support STEM class offerings. This conversion could have significant impact to the EUI of the space. SUNY and CUNY should not have their energy efficiency progress toward EO 88 diminished by their efforts toward enhancing education opportunities for their students and faculties. Accordingly, NYPA's consultant investigated a methodology for properly accounting for retrofitting existing building square footage into STEM space after the creation of the baseline was established. Notably, and contrary to OSC's conclusion in its report, this methodology did not change the baseline; rather an adjustment was made to the EUI calculation for the change to STEM space, which is more energy intensive use, but was designed to be energy efficient. NYPA made appropriate STEM adjustments for both SUNY and CUNY using the same methodology provided by the consultant. NYPA also notified ASEs of the ability to adjust EUI for retrofitting of existing space to STEM space. Both before and after hiring the consultant, for establishing a baseline, NYPA calculated EUI for in-scope buildings (i.e., owned and managed by ASEs) based on utility data and building square footage provided by the ASEs.

**State Comptroller's Comment** – NYPA engaged the consultant in 2017 because, at that time, the State had achieved about 8% from the State fiscal year 2010-11 baseline and was not on track to meet the required 20% target by 2020.

Although NYPA did not change the baseline, NYPA reserved the ability to make changes as set forth in NYPA's EO 88 Guidelines. The guidelines gave NYPA the flexibility to make changes to the program "to address the changing landscape of energy efficiency and any issues or opportunities that arise during program administration" and "to advance the State toward the larger goals of Build Smart NY in a practical manner".

OSC's conclusions regarding EO 88 baseline data are flawed due to errors in its attempt to validate the baseline. NYPA's baseline was created from templates submitted by ASEs and data from NYSERDA's EO 111 program for ASEs that did not submit templates. NYPA staff demonstrated how the data sets (i.e., NYEM baseline and source templates) can be reconciled with the exception of one ASE (the wrong year's data was used for creating Division of Military and Naval Affairs' baseline). Based on NYPA's review of information that OSC extracted from NYEM, NYPA found that the OSC pulled information for the ASEs from months outside of the baseline year used by NYPA. In other instances, the data for one of the ASEs that the OSC

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extracted needed to be converted to a same energy unit basis (i.e., MWh to kWh) used in the baseline. When presenting this information to the OSC, NYPA staff demonstrated 99.85% accuracy between the data sets.

**State Comptroller's Comment** – NYPA did not provide complete information for the 28 ASEs or support the summary information it provided. In addition, NYPA's current explanation as to how it arrived at the baseline differs from what it had previously provided.

#### ASHRAE Level II Audits

All ASEs completed ASHRAE Level II audits or equivalent as required by EO 88 and provided documentation to NYPA as the CMIT. ASEs are allowed under EO 88 to decide which projects they would implement. After the ASE provided NYPA its audit report, NYPA's CMIT met with the ASE and reviewed the measures identified in the audit. This preceded the identification by the ASE of projects that would be implemented. If the ASE requested NYPA to assist in the implementation of energy efficiency projects, NYPA's Customer Project Delivery group (CDP) would be engaged. Otherwise, the ASE would either proceed with non-NYPA resources to implement the project (whether ASE self-implemented or used a contractor) or decline implementation of the measure. For many ASEs, NYPA requested and received the decisions made on each of the audit measure recommendations from the ASE. For those measures that the ASE agreed to implement, the ASE was asked by NYPA to document progress in the quarterly reporting. For measures that the ASE did not agree to implement at that time, NYPA did not require written justification detailing the ASE's decision. However, NYPA continued to be engaged with the ASEs to encourage implementation when feasible to improve progress toward the ASE's contribution toward EO 88's energy use reduction goal.

**State Comptroller's Comment** – Despite repeated requests, NYPA's CMIT did not provide support for the actions stated in its response to our draft report.

#### Recommendations

1. *Ensure that reports of results are based on the actual performance of the program, and clearly disclose the status of the projects that have been completed and those that are in other stages of the process.*

NYPA will continue to provide transparency in its reporting of achieved results and committed to projects, which may include project status or the basis for which the project is reported as "committed to". For BuildSmart 2025 annual reports, NYPA lists both achieved and committed to projects. As projects are completed and project savings are achieved, the project status transitions from "committed to" to "achieved" for that reporting year.

2. *Disclose any adjustments to baseline or annual energy usage that impact the results being reported.*

While NYPA did not adjust the baseline or annual energy usage, NYPA agrees that such adjustments or changes in methodology that impact reported results should be disclosed to ensure transparency and reporting integrity.

3. *Meet with agencies, and document agency responses to the recommendations from the ASHRAE Level II audits they paid for. This includes the reasons given for any recommendations the entity decides not to implement.*

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NYPA will continue to meet with the ASEs to review audit results and recommended measures. The ASEs advise NYPA which measures are moving forward. NYPA had only been recording measures for which CPD would implement. While this may not lead to improved performance toward a program goal, NYPA will take steps to include in its records, measures which the ASEs plan to implement on their own or with a third party, and NYPA will inquire of the ASE as to the reason(s) for not implementing a measure(s). This information would be useful to NYPA in its monitoring and oversight of ASE compliance.

#### Energy Projects

OSC sampled a group of ASEs by examining implemented projects to determine adequacy of NYPA's actions to ensure EO 88 compliance by the ASEs and achievement of EO 88's energy use reduction goal. In doing so, the OSC noted that "while NYPA acted in most of the cases, it did not appear to document critical information necessary to effectively monitor these efforts". NYPA acknowledges that certain documentation may not have been included in CPD's project implementation records; however, NYPA would not characterize such information as critical to NYPA's role as CMIT for EO88 to "effectively monitor" ASEs' compliance efforts and/or the validity of ASEs' estimated energy savings for projects used for reporting toward EO 88's energy use reduction goal.

**State Comptroller's Comment** – Documentation involves preserving evidence to substantiate a decision, event, transaction, or system and is part of a strong system of internal control. In this case, CMIT could not support how it monitored the progress of 28 ASEs over 7 years because its documentation was insufficient.

#### Recommendation

4. *Develop a system to capture key communications between NYPA officials and their customers.*

In performing its function in support of the BuildSmart 2025 program, NYPA documents its monitoring and oversight of ASE compliance with the program, as well as its due diligence in reviewing ASE reporting submissions. BuildSmart 2025 compliance is based on ASE's energy efficiency project savings, for which NYPA uses NYEM as a system of record to track all projects contributing to the program's energy savings goal. For NYPA implemented projects, NYPA has linked its project management system (Primavera) directly to NYEM. For non-NYPA projects, NYPA developed a project module in NYEM that the ASEs are responsible for submitting and updating project data. NYPA periodically reviews ASE submissions for quality control.

#### EO 88 Quarterly Reports

NYPA made efforts to collect the Quarterly Reports from all ASEs. NYPA considered the submission of quarterly reports by ASEs as a monitoring and oversight control. This was a best practice adopted in NYPA's BuildSmart NY guidelines and not by EO 88, which required only submission of annual reports by ASEs. Notably, every ASE did submit an annual report each year for 100% compliance with the EO 88 requirement. While some quarterly reports were not submitted, OSC miscalculated the percentage of reports not provided as 358 out of 616, or less than 60%, which inflated the number of reports that were due. OSC's total of 616 reports should be reduced to reflect the lack of a fourth quarter report each year, which was the annual report, and be further reduced for ASEs that did not participate from the beginning of the program. As

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NYPA explained during the audit, each ASE was required to provide three quarterly reports and an annual report, which obviated the need for the final quarterly report for that fiscal year. It appears OSC's calculation assumed a fourth quarterly report in addition to an annual report. In addition, some ASEs that OSC characterizes as failing to submit quarterly reports were in fact not added until after the initial implementation of quarterly reports. Accordingly, NYPA's receipt of 358 reports, as acknowledged by OSC, reflects a response rate of 79%. Importantly, the largest of the ASEs, which account for approximately 92% of State source energy consumption, completed 88 of the requested 102 Quarterly Reports. Since no annual reports were missed by ASEs, the missed quarterly reports did not have any meaningful impact on NYPA's CMIT role to monitor and oversee ASEs compliance with EO 88, and certainly was not correlated with a negative impact on achievement of EO 88's energy usage reduction goal.

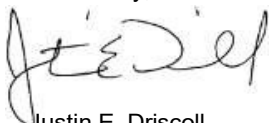
Recommendation

5. *Ensure all required reports are filed as required by the program and follow up where the reports are not received, including escalating the issue to the next level of executive management for corrective action.*

NYPA will continue to ensure that ASEs comply with reporting requirements under BuildSmart 2025. The quarterly reporting process under BuildSmart NY is not required as a monitoring and oversight control by the current EO. For the annual reporting obligation for each ASE, NYPA provides for a reporting structure and deadlines to readily identify potential delinquent reports and take steps to ensure timely submission of ASE annual reports by October of each year, such that NYPA has adequate time to prepare its annual reports to the Governor's Office by January.

If you have any questions, please do not hesitate to contact us.

Yours truly,



Justin E. Driscoll  
President and Chief Executive Officer

# Contributors to Report

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## Executive Team

**Andrea C. Miller** - *Executive Deputy Comptroller*

**Tina Kim** - *Deputy Comptroller*

**Stephen C. Lynch** - *Assistant Comptroller*

## Audit Team

**Carmen Maldonado** - *Audit Director*

**Robert C. Mehrhoff** - *Audit Manager*

**Joseph F. Smith** - *Audit Supervisor*

**Danielle Marciano** - *Examiner-in-Charge*

**Celedonia Deaver** - *Senior Examiner*

**Kimberly Emmanuel** - *Staff Examiner*

## Contact Information

(518) 474-3271

[StateGovernmentAccountability@osc.ny.gov](mailto:StateGovernmentAccountability@osc.ny.gov)

Office of the New York State Comptroller  
Division of State Government Accountability  
110 State Street, 11th Floor  
Albany, NY 12236

