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STATE OF NEW YORK  
OFFICE OF THE STATE COMPTROLLER

September 9, 2019

Ms. RoAnn M. Destito  
Commissioner  
Office of General Services  
Corning Tower, 36th Floor  
Albany, NY 12242

Re: Compliance With Executive Order  
88: Energy Efficiency of State  
Buildings  
Report 2018-S-62

Dear Commissioner Destito:

Pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law, we conducted an audit of the Office of General Services (OGS) to determine if OGS has developed targets and plans to effectively meet its contributions toward Executive Order 88 (EO 88) and complied with EO 88 Guidelines. The audit covered the period from April 1, 2014 through May 13, 2019.

**Background**

EO 88, issued on December 28, 2012, is the centerpiece of BuildSmart NY – the Executive'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. EO 88 is intended to accomplish broader State policy goals, such as reducing State government utility expenses, fostering investment in smart buildings, protecting the environment and public health by reducing the emissions of greenhouse gases and other pollutants, and supporting economic growth by creating green jobs and stimulating the marketplace for clean energy and energy-efficient products and services.

EO 88 mandated a 20 percent collective improvement in the energy performance of all covered agencies and authorities (collectively referred to as Affected State Entities, or ASEs) by April 1, 2020. This reduction is calculated from a 2010-11 State fiscal year baseline. The New York Power Authority (NYPA), administrator of EO 88, coordinates and monitors ASEs' compliance and performance toward the collective 20 percent target. NYPA established a Central Management and Implementation Team (CMIT) whose responsibilities include: ensuring ASEs are complying with requirements, developing

annual milestones, and providing strategic and technical assistance.

OGS' Division of Utilities Management (Division) provides support and assistance to the statewide regional buildings and is an advisor to NYPA. The Division also maintains all heating, ventilation, and air conditioning systems and all auxiliary mechanical equipment associated with approximately 14.5 million square feet of OGS-owned office space in the Capital Region. OGS currently has six employees whose job duties relate to EO 88. Employees are assigned to data management, reporting, and energy efficiency projects. OGS is responsible for 19 buildings and two campuses. Of the 19 buildings, 11 are exempt from EO 88 because of their Energy Star designation.

EO 88 set minimum requirements for annual reporting, benchmarking, energy audits, submetering, and capital projects. It also required that the CMIT create Guidelines detailing the requirements established in EO 88. According to the Guidelines, the lowest-performing buildings were required to have an energy audit performed or scheduled by December 31, 2015. The energy audits identify cost-effective recommendations for energy conservation measures and opportunities for retrocommissioning – studies that review how and why a building's systems are operated and maintained as they are, and then identify ways to improve overall building performance. OGS was required to have its remaining non-exempt buildings retrocommissioned by June 30, 2019.

The Guidelines require ASEs to implement a cost-effective portfolio of measures identified and recommended in the energy audits (e.g., no-cost and low-cost operational improvements, retrocommissioning, capital energy efficiency retrofits, on-site renewable energy generation, and high-efficiency combined heat and power technologies). These projects are considered "committed projects" after the final design has been completed and are included in EO 88's energy reduction reported results.

Furthermore, the Guidelines require ASEs to report their energy usage to NYPA annually. The ASEs must also develop an operations and maintenance plan that addresses, at a minimum, energy management, training, organizational structure, and the development and updating of operating procedures and preventive maintenance schedules. The Guidelines also require ASEs to submeter buildings greater than 100,000 gross square feet and use a monitoring and control system capable of real-time monitoring of energy use for electricity and primary heating fuels and providing alerts to facility staff.

### **Results of Audit**

Generally, OGS has developed targets and plans to contribute toward EO 88 and complied with the Guidelines. However, OGS relied on one capital project to provide the majority of its energy savings. This project has met with criticism from environmental and community advocates, and its implementation is currently in doubt. Should the project fail to move forward, even after developing plans, it is unlikely that OGS will meet its goal of reducing energy usage by 20 percent.

#### ***Energy Audits and Retrocommissioning Studies***

OGS submitted an energy audit plan, approved by NYPA, identifying the three

lowest-performing buildings: Hampton Plaza and Ten Eyck State Office in Albany and the Binghamton State Office Building. The energy audits of these three lowest-performing buildings were completed in 2014, ahead of the December 31, 2015 requirement, and made 14 recommendations for cost-effective energy conservation measures. Moreover, the energy audit plan identified two OGS buildings (Adam Clayton Powell and 44 Holland Avenue) and two campuses (Harriman Campus and the Empire State Plaza) in Albany that required retrocommissioning. OGS met the retrocommissioning requirement by conducting energy audits at the two buildings in 2015 and completing retrocommissioning studies in 2017 at the two campuses. As of December 2018, OGS had begun retrocommissioning 44 Holland Avenue and Adam Clayton Powell.

### ***Capital Projects***

Of the 14 energy audit recommendations, OGS has substantially completed 4 (29 percent) capital projects. Upon completion, the 4 capital projects, which include a boiler replacement and lighting modifications, are expected to contribute to OGS' energy savings by 1 percent.

Additionally, OGS has, at a minimum, begun 31 other capital energy efficiency projects, further contributing to its EO 88 energy reduction requirements. These capital projects have been conducted at OGS buildings across the State and include, for example, the installation of LED lighting and chiller upgrades. OGS officials stated that building priorities and available funding determine which projects are implemented first.

Of the 35 capital projects, the Sheridan Avenue Project (SAP) was expected to make the largest contribution to OGS' energy savings – reducing energy use by an estimated 6 to 9 percent, depending on the scale of implementation. Announced in May 2017, the SAP would upgrade the Sheridan Avenue Steam Plant to a co-generation facility and power the Empire State Plaza through the burning of natural gas to generate electricity and steam. The SAP was expected to supply 90 percent of the power for the Empire State Plaza and save more than \$2.7 million in annual energy costs. By late 2017, however, community members and environmental advocates were questioning the SAP because of health concerns related to the burning of natural gas, and wanted OGS to invest in renewable energy instead. Construction was halted on this project in February 2018 while NYPA held technical review sessions with the intent of developing next steps for the proposed project. As of March 2019, NYPA officials stated they were still reviewing comments collected during these sessions.

As it is unlikely that the SAP will move forward, we question whether OGS will meet the 20 percent milestone. Although the 20 percent reduction in energy usage is a collective milestone for all ASEs, six State entities, including OGS, are responsible for more than 90 percent of the State's building space, making OGS a major contributor to the EO 88 goal. NYPA has removed the SAP as a committed project from its 2018 BuildSmart NY annual report calculations for overall EO 88 compliance, dropping OGS' energy reduction from committed projects from 23.3 percent in 2017 to 12.7 percent in 2018. The removal of the SAP as a committed project could potentially put the State in jeopardy of not meeting this requirement.

When asked about backup plans if the SAP is not implemented, OGS officials stated they do not have backup plans that would account for the expected 9 percent energy reduction. However, they have added projects to other buildings, which are predicted to save an additional 3 percent: LED lighting and HVAC efficiency at the Binghamton State Office Building, Hampton Plaza, and Harriman Campus.

### ***Other Requirements***

OGS has been reporting its energy usage to NYPA annually, as required. OGS also created an operations and maintenance plan in 2013, which was approved by NYPA. Furthermore, OGS began submetering its two campuses, the Empire State Plaza and Harriman Campus, in 2016. Submetering allows OGS to have a more targeted analysis of energy usage and identify the best opportunities for energy savings. OGS also implemented the Web Enabled Advanced Monitoring (WEAM) system, a monitoring and control system that is capable of real-time monitoring of energy usage. The WEAM system provides OGS with the ability to identify consumption increases, compare similar buildings, and help reduce the load during peak demands.

### **Recommendations**

1. Develop a contingency plan to replace the SAP.
2. Continue implementing capital projects that reduce energy usage.
3. Continue developing energy-saving capital projects to contribute toward the collective 20 percent energy reduction of ASEs.

### **Audit Scope, Objectives, and Methodology**

The objectives of this audit were to determine if OGS has developed targets and plans to effectively meet its contributions toward EO 88 and complied with EO 88 Guidelines. The audit covered the period from April 1, 2014 through May 13, 2019.

To accomplish our audit objectives, we became familiar with and evaluated the adequacy of OGS' internal controls as they relate to this performance audit. We interviewed officials from OGS and NYPA and reviewed EO 88 and the Guidelines. We obtained and examined energy audit reports, retrocommissioning studies, and capital project plans. We performed tests to compare the recommendations made in the energy audit reports against OGS' capital plan. We conducted site visits to the Ten Eyck Building and Harriman Campus and reviewed invoices to confirm energy capital projects were completed.

In addition, we observed OGS' WEAM system. We requested and reviewed OGS' operations and maintenance plan, three years of OGS' utility bills sent to NYPA, and NYPA's BuildSmart NY annual reports for the years 2013 through 2018.

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. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions, and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these functions do not affect our ability to conduct independent audits of program performance.

### **Reporting Requirements**

We provided a draft copy of this report to OGS officials for their review and formal comment. We considered their comments in preparing this final report, and they are attached to the end of it. Although OGS officials contend the report's findings do not fully consider the gains made in energy reduction, they agreed with each recommendation.

Within 90 days after the final release of this report, as required by Section 170 of the Executive Law, the Commissioner of the Office of General Services shall report to the Governor, 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 the recommendations were not implemented, the reasons why.

Major contributors to this report were Bob Mainello, Theresa Podagrosi, Michele Krill, Brendan Reilly, and Jason Getman.

We wish to thank the management and staff of the Office of General Services for the courtesies and cooperation extended to our auditors during this audit.

Very truly yours,

Brian Reilly  
Audit Director

cc: Theresa Bonneau, OGS Director of Internal Audit  
David DeMott, OGS Executive Director Real Property

# Agency Comments



**ANDREW M. CUOMO**  
Governor

**ROANN M. DESTITO**  
Commissioner

August 16, 2019

Mr. Brian Reilly, Audit Director  
Office of the State Comptroller  
Division of State Government Accountability  
110 State Street, 11<sup>th</sup> Floor  
Albany, NY 12236-0001

Re: Audit Draft Report-2018-S-62, Issued 07/17/2019

Dear Mr. Reilly:

OGS has reviewed the Office of the State Comptroller's (OSC) above-referenced draft report relating to Audit Report Number 2018-S-62 titled Compliance with Executive Order 88: Energy Efficiency of State Buildings. We partially agree with the audit findings. OGS contends that the findings of this audit do not fully consider the gains made in energy reduction, or the timeline of large-scale capital planning and construction.

OGS has a long history of stewardship and innovation in energy reduction and building management. Currently, OGS has achieved DOE Energy Star Ratings in 9 of the 21 buildings associated with the EO88 portfolio (the Empire State Plaza and the Harriman Campus are each considered one building in this portfolio). Under a previous energy reduction order, Executive Order 111, agencies were directed to achieve a 35% reduction in energy consumption in all buildings they own, lease or operate by 2010. Under Executive Order 111, OGS exceeded the goal and reduced agency-wide energy consumption from 1990 levels by 36.5%. With the introduction of EO88 in 2012, the Agency was tasked to improve energy performance by a further 20% by 2020.

To date OGS has reached nearly 13% of the 20% goal. When OGS meets the goal of EO88, it will have reduced energy consumption throughout its portfolio by over 55% since 1990 levels. In addition, these achievements do not account for additional facilities added to the OGS portfolio, or increased building occupancy levels achieved through the Governor's restacking initiative, which moved State agencies from private leases to State-owned properties. Despite these additions and increased draw on energy loads, OGS continued to reduce its overall consumption.

Response to Recommendations:

OSC Recommendation (1): Develop a contingency plan to replace the SAP.

OGS Response: We agree that a contingency plan should be in place, but we disagree with the presumption that OGS does not have a contingency plan to meet the EO88 goals. Given the Agency's background in

accomplished reductions, it was necessary to explore larger, and more expansive energy projects to achieve the goals set forth in EO88. One of the most efficient options to reach the energy goals was the Sheridan Avenue Project (SAP) noted by OSC. While OSC found that OGS should develop a contingency plan for this project, OGS contends that large-scale capital projects typically take multiple years to plan and design, a year to bid and procure, and several years of construction. As a control agency, OSC is well versed in this process, and is a key player in the approval of these types of projects. The ability to quickly change direction is nearly impossible. Nevertheless, during the time period of the audit, the creation of a contingency plan was in action, but such a shift in planning takes time to redirect projects and resources. OGS is not at liberty to disclose details of the contingency plan at this time because the plan has not been formally approved. The project components of the contingency plan, together with projects currently underway, would allow OGS to meet the EO88 goal of a 20% energy reduction.

In addition, OGS would like to note that although the concerns raised by community members and environmental advocates were a catalyst for the review of alternative solutions to the SAP, the evolution of the State's energy policy has also played a significant part in the decision to direct NYPA and OGS to review the possibility of using renewable energy.

OSC Recommendation (2): Continue implementing capital projects that reduce energy usage.

OGS Response: We agree with this recommendation. Currently, although there is no decision on the SAP, OGS has added projects in Binghamton, Hampton Plaza, and Harriman Buildings 18 and 21, which are predicted to save an additional 3%.

OSC Recommendation (3): Continue developing energy-saving capital projects to contribute toward the collective 20 percent energy reduction of ASEs.

OGS Response: We agree with this recommendation. OGS is working with NYPA on projects to achieve the 20% reduction goal of EO88 by having the projects approved for design before the sunset date of EO88.

Sincerely,

*Theresa Bonneau*

Director of Internal Audit

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