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GOVERNMENT ACCOUNTABILITY

OFFICE OF GENERAL SERVICES

COMPLIANCE WITH EXECUTIVE ORDER 111 REQUIREMENTS TO PURCHASE POWER FROM RENEWABLE SOURCES

Report 2008-S-72

AUDIT OBJECTIVES

The objectives of this audit were to determine whether the Office of General Services (OGS) is meeting the current 10 percent target for purchasing power from renewable sources, increasing to a 20 percent target level by 2010, as specified in Executive Order 111 (Order). We also determined whether OGS, as the statewide procurement agency, is assisting State agencies in procuring power from renewable sources.

AUDIT RESULTS - SUMMARY

The Order was issued in June 2001 and requires that by 2005 all State agencies, including OGS, as well as certain public authorities, shall seek to purchase sufficient quantities of electricity produced by specified renewable technologies so that 10 percent of the overall annual electric energy consumption of the buildings they own, operate, and lease would come from renewable sources. The target percentage increases to 20 percent by 2010. The agencies can acquire qualifying electric energy by generating it themselves, or by purchasing it either through their electrical supplier or through a third-party provider in the form of Renewable Energy Certificates (RECs).

In general, we found that OGS made timely efforts to purchase 10 percent of its power consumption from renewable sources, as directed by the Order. However, until 2008, these efforts have fallen just short of the Order's requirements, because OGS made its annual electrical consumption calculations and procurement plans using outdated information and also did not include all of the electrical energy consumed by its facilities. OGS officials indicated that a delay in the operation of a fuel cell installed in a Long Island state office building also contributed to their not meeting the 10 percent target in 2007. In 2008, OGS increased its REC purchases and is currently exceeding the 10 percent target.

We also examined OGS' plan to meet the 20 percent target by 2010. We found that it did not provide for the growth in electrical energy consumption that had occurred since 2005, nor did it include any plans to reduce consumption. As a result, we concluded that if OGS does not implement energy conservation measures or acquire additional qualifying energy from other sources, it risks not reaching the targeted 20 percent goal.

In response to our draft report, OGS officials stated that this year (i.e., 2008) they have undertaken wide-ranging efforts to reduce energy consumption and have documented an 8.9 percent reduction in energy use through August 2008. As a result, they indicated they have achieved 21 percent of energy use from renewable sources.

We found that OGS successfully assisted other agencies in procuring renewable electricity by establishing contracts for the purchase of RECs.

Our audit report contains three recommendations directed toward improving OGS' efforts to comply with the Order. OGS officials generally agreed with our recommendations.

This report, dated December 4, 2008, is available on our website at: http://www.osc.state.ny.us.
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BACKGROUND

Executive Order 111 (Order), issued by the Governor on June 10, 2001, sets out a broad initiative that directs State agencies and certain public authorities to be more energy efficient and environmentally proactive. The Order is divided into individual sections, each addressing a specific energy-related or environmental initiative ranging from establishing broad energy efficiency goals to instituting energy efficient and environmentally sensitive practices. We have previously audited various agencies' efforts to implement certain sections of the Order, including the procurement of clean fuel vehicles and the purchase of energy efficient products. This audit addresses implementation of the section of the Order that requires agencies to purchase power from renewable sources.

Specifically, Section IV of the Order requires that by 2005 each covered agency should have sought to purchase sufficient quantities of energy from certain specified renewable technologies so that 10 percent of the overall annual electric energy consumption of the buildings it owns, operates, and leases would come from renewable sources. The target percentage increases to 20 percent by 2010. Guidelines issued by the New York State Energy Research and Development Authority (NYSERDA) in December 2004 generally required covered agencies to apply these percentages against all facilities where their power is separately metered and billed, regardless of whether they own or lease the property. Eligible renewable technologies specified in the Order include power generated from wind, solar thermal, photovoltaics, sustainably managed biomass, tidal, geothermal, methane waste and fuel cells.

The Order designates NYSERDA as the lead agency responsible for coordinating implementation and assisting other agencies to fulfill their responsibilities. To assist NYSERDA in this role, the Order also created the State Energy Efficiency Advisory Council (Advisory Council), headed by the President of NYSERDA and composed of the heads of 13 other agencies and authorities, including the Commissioner of the Office of General Services (OGS). NYSERDA and the Advisory Council have developed guidelines that, among other things, interpret the requirements of the Order and specify criteria for periodic reporting and possible exemption of certain facilities or operations. In general, the guidelines allow agencies to acquire qualifying energy by generating it themselves or by purchasing it, either through their electrical supplier or through a third-party provider in the form of certificates referred to as Renewable Energy Certificates (RECs).

OGS was established in 1960 primarily to provide core support services for the operations of New York State government. OGS presently has about 1,700 employees and an annual budget of $498 million. OGS oversees 41 State-owned buildings with 17.7 million square feet of space and more than 600 State leases totaling 14.1 million square feet of space. OGS is responsible for ensuring that State-owned and leased buildings are in compliance with applicable laws and lease requirements. It oversees its own statewide building management activities and it services the real estate needs for other State agencies. In addition, OGS manages the procurement of more than $2 billion in supplies, materials and equipment, as well as administers service and technology contracts for State agencies, local governments, various nonprofit agencies and the general public. OGS consumed 263.5 million kilowatt-hours (kWh) of electricity during the 2005-06 fiscal year and 264.1 million kWh during 2006-07.

OGS has been designated by NYSERDA as an agency to facilitate energy-related work and purchasing for the State.

AUDIT FINDINGS AND RECOMMENDATIONS

Compliance with Order

Procurement of Renewable Energy

The Order requires State agencies and other affected entities to seek to procure 10 percent of their total electrical energy requirements by 2005 from renewable sources, and 20 percent from those renewable sources by 2010.

The Order specifies wind, solar thermal, photovoltaics, sustainably managed biomass, tidal, geothermal, methane waste, and fuel cells to be qualifying renewable sources. State agencies and other affected entities can purchase any combination of the qualifying renewable sources to meet the goals of the Order.

According to NYSERDA's guidelines, State entities can fulfill their renewable-power procurement obligations in the following ways:

- On-site generation of all renewable power requirements,
- A mix of on-site generation and open-market electricity, and
- Purchasing all renewable-power requirements from the open market.

To meet the Order's renewable energy requirements for fiscal years 2005-06 and 2006-07, OGS procured renewable energy by participating in a statewide contract with a renewable energy provider. The contract became effective on December 5, 2005. OGS purchased over 8 million kWh and almost 25 million kWh of renewable energy for fiscal years 2005-06 and 2006-07, respectively. OGS' mix of renewable energy was comprised of 26 percent sustained managed biomass and 74 percent methane waste, which meets the Order requirements for renewable sources. Although OGS did seek to purchase sufficient quantities of renewable energy, we found that it fell just short of the 10 percent renewable energy target goal established by the Order for those first two years.

We determined that OGS' renewable energy purchases totaled about 9.5 percent of its total electric consumption for each of the fiscal years 2005-06 and 2006-07. As discussed in the following section, we found OGS did not meet the Order's targeted goal because, when determining the total electricity consumed and when making its procurement plans, OGS based its electrical consumption on outdated information and also did not include all of the electric energy consumed by its facilities. However, with the advent of the newest contract established in January 2008, our analysis indicates that OGS is now purchasing about 19 percent of its electricity from renewable sources.

We also reviewed OGS' renewable energy plan for meeting the 20 percent requirement of the Order for fiscal year 2010-11 that was submitted to NYSERDA. As a part of the annual energy reporting process, agencies are to state the amount of electricity they expect to consume along with the available options to purchase renewable energy for fiscal years through 2010-11. OGS' plan is to continue to purchase RECs through participation in a statewide contract. Given the amount of RECs that OGS plans to purchase, we believe there is a risk that OGS may not meet the Order's 20 percent requirement for fiscal year 2010-11.

Our analysis indicates that OGS' current (i.e., 2008) level of RECs purchased through the statewide contract represents about 19 percent of its total annual consumption for fiscal year 2006-07. Under the statewide contract, OGS' purchasing level of RECs will remain the same through fiscal year 2011-12. OGS' plan does not provide for the growth in electrical energy consumption that has occurred since 2004-05, nor does it include any plans to reduce consumption. As a result, OGS risks not reaching the targeted 20 percent goal if it does not implement energy conservation measures or acquire additional qualifying energy from other sources. We believe OGS should formulate an estimate that accounts for potential electrical consumption increases (or decreases) for each fiscal year based on its strategic plans and future direction.

Reporting Requirements

NYSERDA's guidelines require every State agency and other affected entities to submit an Annual Energy Report to NYSERDA by December 1st following the close of each fiscal year. The first annual report was due December 1, 2002 for the period April 1, 2001 through March 31, 2002. The purpose of the Annual Energy Report is for the agencies to demonstrate progress toward achieving the goals of the Order. State agencies and other affected entities are to report their total energy usage, electrical demand, and the amount of renewable power they purchase and generate on site. They are also required to report how much renewable energy they will need to purchase to meet the 20 percent renewable energy goal in 2010, as well as if they met the previous goal of 10 percent in 2005.

We found that the OGS Annual Energy Reports submitted to NYSERDA for fiscal years 2005-06 and 2006-07 were timely, but not accurate. We verified the accuracy of the reports by tracing the reported total annual energy consumed, the total renewable energy purchased, and the breakdown of the renewable energy sources to vendor billing invoices. We found OGS' calculations of renewable energy requirements in its 2005-06 and 2006-07 reports were based on its energy usage in 2004-05, instead of on the higher current year consumption figures that were included elsewhere in the reports. OGS officials told us they mistakenly thought 2004-05 was the base year for the calculations and have since corrected the error.

The OGS Utilities Department maintains data on the total energy consumption for each building OGS owns, operates and leases. We traced the Department's records back to vendor billing invoices and found that OGS was not including the electrical consumption for one of its facilities - the East Garage parking facility. Officials told us that the East Garage figures were not counted because they assumed that the reported consumption should only include facilities that existed in 1990 (i.e., the base year for certain other energy conservation provisions of the Order). However, we confirmed with NYSERDA that power supplied to newer facilities should be counted. We, therefore, recalculated OGS' total electric consumption for 2005-06 and 2006-07, and determined that the renewable energy purchased in each year only totaled about 9.5 percent of the agency's actual consumption; slightly less than the 10 percent required by the Order.

Statewide Contract Procurement

Our review has found that OGS, as the statewide procurement agency, has taken steps to assist and support agencies' efforts to reach the Order's targeted goals for procuring renewable energy. Subsequent to the issuance of the Order, NYSERDA petitioned various agencies to determine if they were interested in participating in a statewide renewable energy contract. NYSERDA provided OGS with a listing of all interested agencies, as well as each agency's renewable energy needs to meet the 10 percent renewable energy target for fiscal year 2005-06. OGS, after completing the contract procurement process, awarded a two-year renewable energy contract that ended in December 2007. This contract included OGS and eight other affected agencies.

OGS has also developed a second statewide renewable energy contract, which became effective on January 1, 2008, and expires on March 31, 2011. OGS, along with 12 other affected agencies are participating in this contract. OGS is currently modifying the contract to include two additional affected agencies.

Recommendations

1. Develop a plan to reduce energy consumption and/or supplement renewable energy purchases to the extent necessary to meet the Order's target goal in 2010.

   (OGS officials stated that they have undertaken wide-ranging efforts to reduce energy consumption and have documented an 8.9 percent reduction in energy use through August 2008. They believe the goal set for 2010 will be met.)

2. Ensure that the annual energy reports are properly prepared to reflect actual current year energy consumption for all facilities.

   (OGS officials replied that the responsibilities for completing the annual energy reports have been assigned to a unit that is dedicated to energy purchasing, and they will ensure that the reports are completed properly for each portion of the Order.)

3. Periodically evaluate energy consumption projections based on actual usage and revise estimates as appropriate to allow for changing needs.

   (OGS officials indicated they are closely monitoring energy usage and will continue to monitor it on a real time basis.)

AUDIT SCOPE AND METHODOLOGY

We conducted our audit in accordance with generally accepted government auditing standards. Our audit determined if OGS was in compliance with Section IV of the Order by procuring at least 10 percent of its power from renewable sources starting in 2005, and increasing to 20 percent in 2010. Our audit also determined whether OGS assisted State agencies in procuring renewable energy, as specified within the Order. Our audit period was from April 1, 2005, through March 31, 2007.

To accomplish our audit objectives, we reviewed the provisions of Section IV of the Order and interviewed OGS officials to determine what steps were taken to comply with the Order. To verify the total and renewable-source electricity reported as consumed by OGS on its annual energy reports for fiscal years 2005-06 and 2006-07, we traced this information back to the actual energy bills, as well as the RECs purchased by OGS. We also assessed the reasonableness of OGS' plan to achieve the Order's renewable energy goal for fiscal year 2010-11. In addition, we examined the two statewide renewable energy contracts that OGS procured.

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.

AUTHORITY

We performed this audit 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.

REPORTING REQUIREMENTS

A draft copy of this report was provided to OGS officials for their review and comment. Their comments were considered in preparing this report, and are included as Appendix A.

Within 90 days after 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 recommendations were not implemented, the reasons therefor.

CONTRIBUTORS TO THE REPORT

Major contributors to this report include Frank Houston, John Buyce, Bob Mainello, Thalia Melendez and Clint Green.

APPENDIX A - AUDITEE RESPONSE

DAVID A. PATERSON
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STATE OF NEW YORK
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October 28, 2008

Mr. Frank J. Houston
Audit Director
Office of the State Comptroller
Division of State Government Accountability
123 William Street - 21st Floor
New York, NY 10038

Dear Mr. Houston,

This letter is in response to your draft audit report 2008-S-72 Compliance with Executive Order 111 Requirements to Purchase Power from Renewable Sources. The Office of General Services (OGS) is responsible for purchasing a percentage of its electricity from a renewable source to supply the power used by OGS building systems and tenant agencies and for meeting the goals in a fiscally responsible manner. Under the Green and Clean Guidelines, developed by the New York State Energy Research and Development Authority, and issued in December 2004 for implementing the order, "State Entities should devise a renewable power implementation plan that minimizes fiscal and administrative impacts." Energy costs make up a significant portion of OGS' budget and the agency has little control over the unit cost of the energy purchased. Because of the increased costs involved in purchasing renewable energy credits, the agency has to balance the enthusiasm for supporting renewable energy initiatives with the fiscal limitations faced by the citizens and agencies of the state. OGS is pleased that the report found that 95% of the renewable energy purchase target established for 2005 was met. Additionally, the agency is confident that the target set for the year 2010 will be met or slightly exceeded. The remainder of the response addresses items raised in your report.

OGS acknowledges that the actual purchase of renewable energy fell just short of the established target. OGS installed a fuel cell at the Perry B. Duryea Jr. State Office Building but due to an unforeseeable delay in the project, the fuel cell was not operational as early as planned. If the fuel cell had been put into operation as planned, OGS would have slightly exceeded the target for the fiscal year ending March 31, 2007.

The report speculates that OGS will not meet the target for the year 2010-11 because the renewable energy credits purchased represent only 19%, rather than the required 20% of the energy purchased in the prior year. The report also notes that OGS did not factor growth into the amount of electricity that will be used. OGS has been implementing energy efficiency projects for years in order to monitor and curtail energy use. The report notes that overall energy consumption has grown despite conservation efforts, as changes in the office environment have resulted in increases in the number of computers, copiers, and printers used in state buildings. This year, OGS has undertaken sweeping and wide ranging efforts to reduce the amount of energy consumed in state facilities. OGS staff literally monitor energy usage in real time through the use of Web-enabled Advanced Metering and have documented an 8.9%

recycled paper

reduction in energy use through August 2008. OGS is closely monitoring energy usage, and the agency is confident that the target established by the order will be met or slightly exceeded. Through August, OGS has achieved 21% of energy use from renewable sources.

OGS acknowledges that the reports completed contained some minor errors. The order has multiple requirements related to energy usage. Your audit deals with purchasing renewable energy, but the order also has provisions for reducing the energy used per square foot of conditioned facility space, as of a set base year. During this period, OGS constructed the East Parking Garage. The garage is not considered conditioned space per se, because it is not heated or air conditioned, but it does have lights and elevators that consume electricity. The energy usage should be considered for the renewable energy purchases part of the order, but it would not have been appropriate to include the East Garage usage or square footage in the reduction of energy usage per square foot calculations. In trying to comply with the order, the energy usage from the East Garage was not included in either set of calculations. The agency is in agreement that this information should have been included in the renewable energy purchase portion. However, we would like to point out that the decision making was more involved than the report explains, and further note that the energy usage at the East Garage is but a small fraction of the electrical usage at OGS operated facilities. OGS' efforts falling just short of the goal were the result of the fuel cell not being operational as planned and had very little to do with the energy use of the East Garage.

OGS believes that it is and has been doing everything contained in the recommendations. The agency has implemented steps to reduce energy consumption at OGS operated facilities, and believes that the goal set for 2010 will be met. The responsibilities for completing the annual energy reports have been assigned to a unit that is dedicated to energy purchasing, and they will ensure that the reports are completed properly for each portion of the order. OGS will continue to monitor energy consumption on a real time basis. The work to implement web enabled metering was started before the audit and is one in a number of projects designed to enable the agency to better manage energy usage. The success of OGS' efforts to monitor and reduce energy consumption is demonstrated in this year's decline in usage, and the results of these efforts are being quantified and reported to management.

OGS would like to thank the auditors for their efforts. Operating such large facilities demands constant attention to ensure that the environmental impact of our energy use is lessened and the costs to the tax payers are minimized. OGS is proud of the efforts made by its staff to save energy and reduce costs, while meeting the needs of our client agencies and the people of the State of New York. The agency is pleased that the audit indicates that OGS' efforts to date have been very close to meeting the past targets. OGS is currently meeting the new target, and is confident that continued efforts and plans will result in meeting the targets, while also minimizing the costs of all these interrelated efforts.

Sincerely,

Trina Mead

Trina Mead

c: Paul Larrabee, First Deputy Commissioner
William Hill, Deputy Commissioner, Real Property Management & Development
Franklin Hecht, Chief Financial Officer
Robert Curtin, Director, Internal Audit