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**OFFICE OF THE
NEW YORK STATE COMPTROLLER**

**DIVISION OF STATE
GOVERNMENT ACCOUNTABILITY**

**DIVISION OF MILITARY
AND NAVAL AFFAIRS**

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

Report 2008-S-79

AUDIT OBJECTIVE

The objective of our audit was to determine whether the Division of Military and Naval Affairs (Division) is meeting the current 10 percent target for purchasing power from renewable sources, increasing to a 20 percent level by 2010, as specified in Executive Order 111.

AUDIT RESULTS - SUMMARY

We found the Division did not meet the 10 percent target for renewable energy procurements but does have a plan in place to meet the 20 percent target by 2010.

Executive Order 111 (Order) was issued in June 2001 and requires that by 2005 all State agencies and certain public authorities seek to purchase sufficient quantities of electricity produced by certain specified renewable technologies so that 10 percent of the overall annual electric energy consumption of the buildings they own, operate or 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 a Renewable Energy Certificate.

We found the Division attempted to purchase renewable electricity during State fiscal year 2005-06. However, based on our analysis of Division records, the amounts the Division requested to purchase, and actually purchased were not sufficient to meet 10 percent of its actual usage. Therefore, it was not in compliance with the Order.

The Division was also required to submit Annual Energy Reports to the New York State Energy Research and Development Authority (NYSERDA), which is the lead

agency responsible for coordinating implementation of the Order. When we began our audit in April 2008, the Division had not submitted all of the required Annual Energy Reports to NYSERDA.

Division officials did take immediate steps to comply with the Order after our audit commenced. In May 2008, the Division approved the purchase of renewable energy credits through OGS to comply with the Order. Under the contract, the Division will purchase an increasing amount of renewable energy credits annually to meet the required 20 percent of estimated electrical power by State fiscal year 2010-11.

Our audit report contains four recommendations directed toward improving implementation of Executive Order 111. Division officials agreed with our recommendations and have taken action to implement them.

This report, dated November 6, 2008, is available on our website at: <http://www.osc.state.ny.us>.

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Office of the State Comptroller
Division of State Government Accountability
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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 its overall annual electric energy consumption of the buildings it owns, operates or leases would come from renewable sources. The target percentage increases to 20 percent by 2010. Guidelines issued by NYSERDA in December 2004, generally require 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, photovoltaic's, sustainably managed biomass, tidal, geothermal, methane waste and fuel cells.

The Order designates the New York State Energy Research and Development Authority (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. 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 Credits.

The Division is a State agency that functions as the headquarters for 16,300 members (as of July 2008) of the Army and Air National Guard, the New York Guard and the New York Naval Militia. The Division performs Federal functions required to support the various military and naval forces. It supports soldiers in New York State, whether they are on emergency status as authorized by the Governor, or on a military mission as authorized by the President.

The Division owns 58 armories across the State, many of which are older garrison type buildings, and is responsible for the operation and maintenance of an additional 216 buildings including Facility Maintenance Shops, Army Air Flight facilities, New York Air National Guard facilities, combined support maintenance shops, and motor vehicle storage buildings. The Division pays for the utilities for all of the facilities, but is reimbursed by the National Guard Bureau for the expenses paid on facilities serving the New York Guard under an agreement with the Federal government. The Division also pays the utility bills for two United States Military owned facilities (Fort Drum and the Watervliet Arsenal), and is reimbursed by the Federal government for these facilities. The Watervliet Arsenal manufactures weapons and Fort Drum provides security and intelligence supporting antiterrorism and force protection.

To assist agencies in meeting the 10 percent goal, the Office of General Services (OGS) established a planned Invitation for Bid to

procure renewable energy for agencies that opted to participate. The Division participated in this contract.

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.

According to documentation submitted to NYSERDA, in February 2005, the Division requested to purchase 2,197,793 kWhs through OGS' contract. At that time, the Division indicated its estimated usage was

21,977,930 kWhs for fiscal year 2005-06. We attempted to verify the Division's actual usage for 2005-06. However, the Division did not submit its 2006 Annual Energy Report to NYSERDA showing its total usage or retain sufficient records to demonstrate its total electrical usage for this time period.

During our audit, the Division gave us a download it created of all electricity purchased for fiscal year 2005-06. During this time, there were 1,423 purchases which showed a total of 20,680,467 kWhs was used (less than the 21,977,930 kWhs that was estimated for the OGS contract). To test the accuracy of the download, we traced a judgmental sample of 62 of the 1,423 purchases from the download to bills in Division files to determine if the kWhs in the download agreed with the bills. We found that all 62 purchases in the download were accurate.

We then selected a judgmental sample of 12 electricity purchases from Division files and compared them to the download to determine if the download was complete and accurate. We found that six of the 12 purchases totaling 3,319,305 kWhs of electricity were not in the download. All six transactions were for Air National Guard bases. Division officials told us the download excluded the five Air National Guard bases because the bases retain their own electrical usage records. Therefore, the download excludes a total of 60 monthly bills for the Air Guard bases. We also found that the download included 2,068,450 kWhs of electricity for the two Federal facilities, Fort Drum and the Watervliet Arsenal. However, Division officials told us the two facilities should have been excluded because they are owned and paid for by the Federal government. Since the Air Guard bases kWh usage is so large, the download substantially understated the Division's usage for 2005-06, even if the two Federal facilities were

excluded. During our audit, Division officials determined the annual usage for all facilities was about 41.6 million kWhs, not the 21,977,930 that was earlier claimed. Since the Division only sought to purchase 2,197,793 kWhs of renewable energy for 2005-06, (about 5 percent of 41,600,000 kWhs), we conclude that it was not sufficient to meet the 10 percent target.

We note that the OGS contract did not go into effect until November 2005, which was beyond the control of the Division. On December 1, 2005, OGS began monthly purchases of renewable power for nine participating agencies, including the Division. The renewable energy consisted of 26 percent sustained managed biomass and 74 percent methane waste, both of which comply with the Order. The Division purchases totaled 732,896 kWhs during the four months ended March 31, 2006, 2,198,688 kWhs during fiscal year 2006-07, and 1,649,016 kWhs during the nine months ended December 31, 2007, when the contract expired. We conclude that the 2,198,688 purchased in fiscal year 2006-07 was also insufficient to meet the 10 percent target, due to the understated usage amounts previously mentioned.

Subsequent to this contract, OGS negotiated a new contract with another renewable energy provider. However, the Division did not participate in the subsequent contract or purchase from another source, and therefore, was not in compliance with the Order when we began our audit. We determined the Division's participation lapsed because its Energy Manager, who was responsible for compliance with the Order retired in April 2007. The position was filled in July 2007 but vacated again in November 2007, and has remained unfilled as of July 2008. We note that the turnover and vacancies occurred when the new contract was being processed.

The new contract bid opening was October 30, 2007 and the contract was issued December 17, 2007. Division officials told us it has been difficult to fill the position in a competitive market, and that offers to three candidates have been turned down. Furthermore, the duties were not reassigned to other employees in the interim. The position responsible for supervising the Energy Manager was also vacant for a period of time and was not replaced until October 2007. As a result, Division officials were not aware of the Division's non-compliance with the Order until our audit began in April 2008.

In May 2008, Division officials sought to procure renewable energy through the new OGS contract. The Division received approval to purchase renewable energy credits through the contract through fiscal year 2010-11, and retroactively purchased credits for 1,249,192 kWhs for the three months ended March 31, 2008.

To meet the Order's renewable energy goal of 20 percent by 2010, NYSERDA's guidelines encourage entities to increase renewable energy use each year. State agencies are required to note their efficient energy strategies on their Annual Energy Reports. According to the current OGS contract, the Division will gradually increase its procurement of renewable energy credits until it procures 20 percent of its estimated electricity usage from renewable energy in 2010.

The Division more recently revised its estimated annual electrical usage for State fiscal years 2007-08 through 2010-11 at 41,639,709 kWhs. Based on that estimate, the Division's planned purchases of renewable energy credits are for 6,245,956 kWhs in 2008-09, 7,495,148 kWhs in 2009-10, and 8,327,942 kWhs in 2010-11. In total, the Division will purchase 23,318,238 kWhs of

renewable energy credits (including the 1,249,192 kWhs for the last three months of 2007-08) at a cost of \$163,228. We note the Division experienced a higher cost of \$7 per megawatt hour (\$52,466), compared to the original price of \$4.75 per megawatt hour, because it entered into the contract at a later date.

Reporting Requirements

The NYSEERDA's guidelines require an Annual Energy Report to NYSEERDA by December 1st following the close of the each fiscal year. The first Annual Energy Report was due December 1, 2002 for the period April 1, 2001 through March 31, 2002. The guidelines also require each agency to designate a person responsible to submit the report to NYSEERDA and be used as a point of contact for follow-up questions and information distribution.

The purpose of the Annual Energy Report is 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 energy goal in 2010, as well as whether they met the previous goal of 10 percent in 2005.

We found the Division submitted only two of the six required Annual Energy Reports (fiscal years 2001-02 and 2003-04) to NYSEERDA, both of which were on time. The Division did not submit the remaining reports.

In addition, the Order allows for certain exemptions from the renewable energy purchasing requirements. For example, buildings of less than 5,000 square feet, and those loads defined as process loads by each

State agency can be reported to NYSEERDA as exemptions. The Division has not reported any exemptions, but according to one Division official, the Division does have substantial process loads. For example, Division officials told us that some facilities are air hangars and repair shops where helicopters and vehicles are repaired, and that it is possible that these could be exempt. The Division should make this evaluation and then report any exemptions to NYSEERDA.

Recommendations

1. Monitor the level of compliance with the Order to determine if any corrective actions are necessary to achieve full compliance.
2. Compile and retain data for accurate reporting of electrical consumption on the Annual Energy Reports submitted to NYSEERDA.
3. Submit Annual Energy Reports to NYSEERDA on time as required by the Order.
4. Review current buildings to determine if they qualify to be listed as exemptions from the Order.

AUDIT SCOPE AND METHODOLOGY

We conducted our audit in accordance with generally accepted government auditing standards. We audited the Division's procurement of renewable energy, as required by the Order. Our audit covered the period April 1, 2005 through June 25, 2008.

To accomplish our objectives, we met with Division officials to gain an understanding of the number and types of facilities owned by the Division and obtained and reviewed the two completed Annual Energy Reports for

2002 and 2004. We also obtained documentation on the purchase of renewable energy from the Division and supporting documents from NYSERDA and OGS. We also reviewed a download of the Divisions electricity purchases for the 2005-06 State fiscal year. We tested the completeness and accuracy of the download. We selected a judgmental sample of 25 transactions with utility providers from Division procurement records and traced the transactions to the download. We suspended the test after finding that six of the first 12 were not in the download. We also selected a judgmental sample of 100 of 1,423 purchases from the download to trace to the bills in Division files to determine if the kWhs in the download agreed with the bills. We prorated the 100 among all electricity providers based on the number of total transactions for each provider, and selected transactions with large kilowatt hours. We excluded 38 of the 100 transactions for the following reasons (24 were journal transfers for payments to NYPA, 5 were for the two United States military facilities, and 4 were not available because they were either paid in the following fiscal year or were misfiled). Therefore, our sample was 62 purchases.

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

This audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section I 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 Division officials for their review and comment. Their comments were considered in preparing this final report and are included as Appendix A.

Within 90 days after the final release of this report, as required by Section 170 of the Executive Law, The Adjutant General of the Division 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 Steve Sossei, Sheila Emminger, Steve Goss, Kathy Hotaling and Benjamin Felts.

APPENDIX A – AUDITEE RESPONSE



STATE OF NEW YORK
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DAVID A. PATERSON
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OCT 02 2008

JOSEPH J. TALUTO
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THE ADJUTANT GENERAL

Mr. Steven E. Sossei
Audit Director
Office of the State Comptroller
Division of State Government Accountability
110 State Street, 11th Floor
Albany, NY 12236

Dear Mr. Sossei:

Division of Military and Naval Affairs (DMNA) has reviewed the State Comptroller's draft report, *Compliance With Executive Order 111 Requirements To Purchase Power From Renewable Sources – Report 2008-S-79*. Thank you for the opportunity to respond to the draft report.

DMNA fully accepts the recommendations and findings of the draft report. As indicated in the report, DMNA took immediate action to ensure we are purchasing enough renewable energy credits in order to be in compliance with Executive Order 111. In addition, we have temporarily assigned the duties of the Energy Manager until the vacancy is fulfilled with a full time employee. DMNA has attempted, on several occasions, to fulfill this position. We regret to inform you that as of the date of this letter, this position remains vacant. Nonetheless, we remain committed to the requirements of Executive Order 111.

The following are our specific responses to the draft report recommendations:

Audit Recommendation #1 - DMNA concurs. The agency will continue to assertively monitor the compliance requirements for Executive Order 111 through the assignment of specific duties to several staff members. The status of the compliance will be reported directly to the Director of Facilities Management and Engineering.

Audit Recommendation #2 - DMNA concurs. The agency has established a computer based tracking and data input system with an assigned staff person who is responsible for data maintenance.

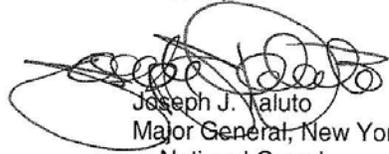
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Audit Recommendation #3 - DMNA concurs. DMNA has submitted the Annual Energy Report for 2007 to New York State Energy Research and Development Authority (NYSERDA). For future reports, DMNA will abide by the required submission date per Executive Order 111.

Audit Recommendation #4 - DMNA concurs. The agency has met with NYSERDA to establish our "process load" exemption criteria for buildings. DMNA is assertively working with its five Air National Guard bases, numerous Army National Guard Field Maintenance Shops and three Army National Guard Flight Facilities to collect the appropriate data. A review of the collected data will be performed in order to exempt certain buildings based on their "process load."

Once again, we thank you for the opportunity to respond to the draft report. DMNA will continue to monitor the level of compliance with Executive Order 111. If you have any questions, or would like additional information, please contact Mr. Paul McDonald, Director of Facilities Management and Engineering at (518) 786-4561.

Sincerely,



Joseph J. Taluto
Major General, New York Army
National Guard
The Adjutant General

Copy Furnished:

Mr. Paul McDonald
Mr. Thomas Lukacs
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