
**Thomas P. DiNapoli
COMPTROLLER**



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**OFFICE OF THE
NEW YORK STATE COMPTROLLER**

**DIVISION OF STATE
GOVERNMENT ACCOUNTABILITY**

**DEPARTMENT OF
CORRECTIONAL SERVICES**

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

Report 2008-S-86

AUDIT OBJECTIVE

The objective of the audit was to determine whether the Department of Correctional Services (DOCS) 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.

AUDIT RESULTS - SUMMARY

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 energy from certain specified renewable technologies so that 10 percent of the overall annual electric energy requirements of the buildings they own, operate or lease comes from these renewable sources. The target percentage increases to 20 percent by 2010. State agencies and other affected entities 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 (REC).

We found DOCS did not meet the 10 percent purchase requirement for the entire reporting year ended March 31, 2006 because it did not buy any renewable energy from April 1, 2005 through November 30, 2005. As a result, DOCS annualized purchase was 4.10 percent. For the 2006-07 reporting period, DOCS purchased 9.99 percent of its electricity use with RECs and for the 2007-08 reporting period, it bought 9.78 percent through RECs.

The Order sets a renewable energy target of 20 percent by 2010. The New York State Energy Research and Development Authority (NYSERDA) guidelines state that to achieve the goal, State entities are encouraged to begin increasing the percent of renewable

power in advance of the target dates. DOCS began to increase its purchases in 2006. DOCS' intends to continue purchasing RECs from the statewide contract. However, we question whether DOCS will meet this goal in 2010 because its original electricity usage estimates are low, it provides for very little increase in electricity use, and DOCS' plan to build and operate eligible wind turbines has run into funding complications and possible delays. Accordingly, we recommend that DOCS develop an alternative plan to purchase sufficient renewable energy to meet the 2010 goal either within the statewide contract or through other means.

We also noted that DOCS has not applied for any exemptions. For example DOCS' records show that 2,659 of its 4,629 buildings are less than 5,000 square feet each and may qualify for size exemptions. DOCS should evaluate whether it is beneficial to apply for any exemptions.

For the two fiscal years ended March 31, 2007, DOCS' submitted its annual energy report to NYSERDA late. For example, the 2005-06 report due on December 1, 2006, was filed on March 20, 2007, 109 days late. Late filing of energy reports hampers NYSERDA from preparing their Statewide Annual Report timely and completely.

Our report contains three recommendations directed toward improving the implementation of Section IV of Executive Order 111. DOCS officials agreed with our recommendations and indicated they will take steps to implement them.

This report, dated January 16, 2009, is available on our website at:
<http://www.osc.state.ny.us>.

Add or update your mailing list address by contacting us at: (518) 474-3271 or
Office of the State Comptroller
Division of State Government Accountability
110 State Street, 11th Floor
Albany, NY 12236

BACKGROUND

Executive Order 111, 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 required covered agencies 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, 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. 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).

DOCS' has an annual budget of about \$2.5 billion. It is responsible for 69 correctional facilities and one drug treatment facility as well as several support buildings such as the training academy, CorCraft and administrative offices in Albany and New York City. The correctional facilities generally pay their own utility bills and report utility information, including electricity purchased, to the DOCS Division of Facilities Planning and Development (Division) in Albany. The Division aggregates the information and prepares Department-wide information for NYSERDA. Electricity for the leased DOCS support buildings are paid by the landlords.

Between the 1990-91 and 2007-08 fiscal years, DOCS energy usage increased by almost 50 percent from 237,662,666 kWh to

356,120,929 kWh. At the same time, the amount of square feet of DOCS building space increased 29 percent from 29,763,183 square feet in 1990-91 to 38,419,714 square feet in 2007-08. DOCS' facilities inventory records show that, as of May 31, 2008, DOCS had a total of 4,629 buildings; it pays an average of about \$0.94 per square foot for electricity.

AUDIT FINDINGS AND RECOMMENDATIONS

Compliance with Order

Procurement of Renewable Power

The Order requires State agencies and other affected entities to seek to procure 10 percent of their overall annual electric energy requirements from certain renewable sources by 2005 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 NYSEERDA'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.

We found DOCS did not purchase electricity from qualified renewable sources until December 1, 2005. Therefore, it did not meet the 10 percent target for fiscal year ended March 31, 2006.

DOCS purchased its renewable energy under an OGS-negotiated contract. By purchasing through the contract, the 10 percent renewable energy usage target would have been met, as long as actual usage was equal to or less than the estimated amount. The following table shows how much renewable power DOCS purchased each fiscal year from 2005-06 through 2007-08 as well as the associated cost.

Fiscal Year	Actual Electricity Usage (kWh)	Actual RECs Purchased (kWh)	Actual Percent Purchased	Cost of RECs
Apr'05 - Nov'05	229,339,525	0	0	0
Dec'05 - Mar'06	<u>123,816,600</u>	<u>14,476,550</u>	11.69	<u>\$ 68,473.02</u>
2005-06	353,156,125	14,476,550	4.10	\$ 68,473.02
2006-07	347,989,964	34,757,877	9.99	\$205,419.06
2007-08	356,120,929	34,835,000	9.78	\$154,064.30

As shown, DOCS did not purchase any renewable power for the first eight months of the 2005-06 reporting period because the statewide renewable energy purchase contract did not begin until December 1, 2005. While DOCS purchased nearly 12 percent of its energy from renewable sources between December 1, 2005 and March 31, 2006, its annualized percentage for the 2005-06 reporting period was only about 4 percent. Furthermore, because DOCS' actual electricity usage for 2006-07 and 2007-08 were slightly higher than estimated, the percentage of renewable energy purchased was less than the 10 percent goal.

Plan to Procure 20 Percent of Renewable Energy by 2010

According to DOCS' strategy, for the four years beginning 2007-08, it will initially purchase 10 percent of its overall annual energy estimate and will increase the percentage by 2.5 percent for 2008-09 and 2009-10 respectively. By fiscal year 2010-11, DOCS plans to increase the percentage of renewable energy by 5 percent which will bring it to the 20 percent target goal as required in the Order. DOCS estimated its electricity usage for 2007-08 and generally kept the estimated usage constant through 2010-11. To achieve its renewable energy goal DOCS plans to by erect windmills at a number of correctional facilities and purchase the balance of its needs from the statewide contract.

We reviewed DOCS' estimates and assumptions. We conclude that DOCS has likely understated its renewable energy needs and, accordingly, will likely fall short of the 20 percent goal directed in the Order unless it makes other plans to purchase additional renewable energy.

For example, DOCS projected its energy use for 2007-08 to be 348,350,000 kWh. However, we reviewed DOCS' energy consumption tracking reports for this year and found that correctional facilities reported they actually used 356,120,929 kWh of electricity, a difference of 7,770,929 kWh - 2.2 percent more than expected. Therefore, DOCS will achieve only 9.78 percent of its 10 percent goal for 2007-08 and its starting point for future estimates is understated.

The average electricity usage at DOCS facilities has increased from 7.99 kWh per square foot in 1990-91 to 9.36 kWh per square foot in 2007-08 (a 17 percent increase). However, DOCS' estimate of future electricity use is essentially constant for purposes of reporting their implementation strategy to NYSERDA - an increase of less than 0.5 percent between 2007-08 and 2010-11. DOCS believes that other aggressive energy efficiency measures will mitigate future use increases. For example, DOCS has a continuous energy efficiency plan through more energy efficient lighting and equipment. However, the DOCS implementation strategy does not account for any additional facilities that are expected to be built. For example, we noted that there is a new building currently being constructed at the Marcy Correctional Facility that does not appear to be included in DOCS future electricity use estimates.

In addition, DOCS implementation strategy includes on-site generation of 8 million kWh of renewable energy from nine wind turbines for 2009-10 and 2010-11. DOCS' officials told us the energy consumption and on-site generation estimates are conservative. However, there are questions regarding this program assumption. DOCS' officials told us that two of the wind turbine projects will not be funded through NYSERDA's EnVest program, as expected. Accordingly, DOCS will need to pursue State funding for these

capital projects instead. These two wind turbines are expected to generate 2.3 million kWh or 30 percent of the total 8 million kWh of renewable energy needed in 2009-10 and 2010-11 to achieve DOCS' 20 percent by 2010 goal. The other seven wind turbines were in the feasibility study phase as of May, 2008.

The amount of renewable power DOCS will purchase through the statewide contract is fixed because the contract will provide RECs only to the extent of DOCS' request, which is based on their estimate. DOCS' has no plans to purchase additional renewable energy should their estimates and other assumptions not materialize.

Exemptions

The Order states that no buildings will be exempt from the goals except pursuant to criteria developed by NYSERDA in consultation with the Division of the Budget, OGS and the Council. NYSERDA's guidelines require that all agency buildings, except those meeting exemption criteria, be included in the annual energy consumption numbers reported to NYSERDA.

DOCS' has not applied for any exemptions to the Order. However, the Division's inventory records of all DOCS-owned property show there are numerous buildings that might qualify for an exemption under NYSERDA's guidelines because they have an area of less than 5,000 square feet.

Department of Correctional Services Selected Building Information As of May 31, 2008		
	Square Feet	Number of Buildings
Total Buildings	38,419,714	4,629
Less Than 5,000 Sq. Ft	2,962,983	2,659

If DOCS applied for and received exemptions, it may be able to reduce the amount of RECs needed to reach its goals. DOCS should determine whether it is beneficial to identify and apply for exemptions to potentially reduce the amount of renewable energy consumption required by 2010 and beyond.

Reporting Requirements

NYSERDA's Guidelines require one person to be designated as a contact for renewable power. The Guidelines also 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.

The Division Director has been designated by DOCS as the official responsible for submitting the Annual Energy Report to NYSERDA. The Division collects and analyzes DOCS' annual energy consumption and maintains a spreadsheet to track Department-wide energy use from year to year. We found that DOCS filed its Annual Energy Report late for fiscal years 2006 and 2007. For example, the 2005-06 report was filed on March 20, 2007, 109 days late. Late filing of energy reports hampers NYSERDA

from preparing their Statewide Annual Report timely and completely.

Correctional facilities pay their own electricity bills. They are supposed to report utility information, including electric kilowatt hours used, to the Division monthly. The Division enters the reported information to a database and compiles a statewide total. This total is used to report actual energy used, and to calculate the percentage of renewable power purchased.

Recommendations

1. Develop alternative plans to acquire additional power from renewable sources to meet the 20 percent renewable energy target by 2010.
2. Determine if it is beneficial to DOCS to apply for building exemptions provided for in the Order.
3. Submit Annual Energy Reports to NYSERDA timely.

AUDIT SCOPE AND METHODOLOGY

Our audit determined if the Department of Correctional Services was in compliance with Section IV of Executive Order 111 by reporting their annual electrical energy consumption to NYSERDA, and procuring at least 10 percent of their power from renewable sources by 2005, and increasing to 20 percent in 2010. Our audit period was from April 1, 2005 through June 15, 2008.

To accomplish our objective, we interviewed DOCS officials to determine what steps were taken to comply with the Order and what plans were made to meet the 2010 requirements. We reviewed: the energy procurement reports for fiscal years 2005-06

through 2007-08; DOCS utilities report detailing the kilowatts hours of electricity used in a fiscal year (energy tracking reports); facility inventory records showing the location, number, and square footage of DOCS buildings and the current OGS renewable energy contract. We compared usage information in electric utility bills to what was reported to the Division for the Mid-Orange Correctional Facility. In addition, we obtained from NYSERDA all the reports filed by DOCS in compliance with the Order and DOCS' Renewable Electricity Implementation Strategy.

We conducted our 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.

AUTHORITY

This audit was performed 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 DOCS officials for their review and comment. Their comments were considered in preparing this final audit report, and are included as Appendix A.

Within 90 days of the final release of this report, as required by Section 170 of the Executive Law, the Commissioner of the Department of Correctional 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 why.

CONTRIBUTORS TO THE REPORT

Major contributors to this report include Carmen Maldonado, Robert Mehrhoff, Roger C. Mazula, Alexander Marshall, Bruce Brimmer, and Kathleen Garceau.

APPENDIX A - AUDITEE RESPONSE



BRIAN FISCHER
COMMISSIONER

STATE OF NEW YORK
DEPARTMENT OF CORRECTIONAL SERVICES
THE HARRIMAN STATE CAMPUS – BUILDING 2
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226-2050

December 17, 2008

Ms. Carmen Maldonado
Audit Director
Office of the State Comptroller
Division of State Government Accountability
123 William Street, 21st Floor
New York, NY 10028

RE: Draft Audit Report 2008-S-86:
Compliance with Executive Order 111
Requirement to Purchase Power from
Renewable Sources.

Dear Ms. Maldonado:

In accordance with Section 170 of the Executive Law and in response to your correspondence of November 26, 2008, attached is the Department's reply to the Draft Audit Report 2008-S-86 Compliance with Executive Order 111 Requirement to Purchase Power from Renewable Sources.

DOCS would like to acknowledge the time and effort of all employees that were involved with this audit and their desire to improve the Department's operation.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brian Fischer', written over a horizontal line.

Brian Fischer
Commissioner

Attachment



BRIAN FISCHER
COMMISSIONER

STATE OF NEW YORK
DEPARTMENT OF CORRECTIONAL SERVICES

THE HARRIMAN STATE CAMPUS – BUILDING 2

1220 WASHINGTON AVENUE

ALBANY, N.Y. 12226-2050

GAYLE HAPONIK
DEPUTY COMMISSIONER
ADMINISTRATIVE SERVICES

December 17, 2008

Ms. Carmen Maldonado
Audit Director
Office of the State Comptroller
Division of State Government Accountability
123 William Street – 21st Floor
New York, NY 10038

Re: Draft Audit Report 2008-S-86: Compliance
with Executive Order 111 Requirement to
Purchase Power from Renewable Sources.

Dear Ms. Maldonado:

We have reviewed the Draft Audit Report 2008-S-86 and offer the following comment:

The New York State Department of Correctional Services (DOCS) appreciates the Office of the State Comptroller's (OSC) recognition of our efforts to date to meet the energy targets outlined in Executive Order 111 for securing electricity from renewable energy sources and will continue to increase efforts in purchasing electricity derived directly from renewable energy sources.

Internal Control Weakness

Recommendation 1: Develop alternative plans to acquire additional power from renewable sources to meet the 20 percent renewable energy target by 2010.

Response: DOCS will work with OGS to obtain additional Renewable Energy Credits (REC) to meet our goal of 20 percent by 2010 to the maximum extent possible. If need be, DOCS will issue a Request for Proposal (RFP) directly to qualified REC marketers and suppliers to purchase the additional credits needed. We will also continue our attempt to provide electricity through wind generation.

Recommendation 2: Determine if it is beneficial to DOCS to apply for building exemptions provided for in the Order.

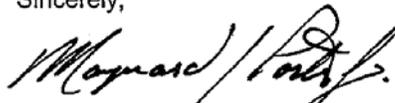
Response: The buildings less than 5,000 square feet which are eligible for exemption from the Order are not electrically sub-metered such that their electrical use can be subtracted from DOCS total electrical consumption. These buildings account for less than 8% of DOCS total square footage and are typically the lowest energy using buildings at a facility. These small electrical loads will provide a buffer against DOCS total electrical consumption when planning for future goals of electrical usage from renewable energy sources.

The Department's Corcraft Industry Program includes industrial processes and equipment which can also be considered exempt from the Executive Order 111 upon sufficient proof to the NYSERDA. DOCS will immediately initiate a project to study the effect that the electrical loads of the Corcraft Industry program has on the requirements to purchase electricity from renewable energy sources.

Recommendation 3: Submit Annual Energy Reports to NYSERDA timely.

Response: All future reports will be submitted by the December 1 deadline of each subsequent year. The DOCS' FY 07/08 Executive Order No. 111 was submitted on October 21, 2008 to the New York Research and Development Authority.

Sincerely,



Maynard J. Porter, Jr., Director
Facilities Planning & Development

MJP/KDR/tes

Attachment

cc: Gayle Haponik, Deputy Commissioner
David A. Williams, Assistant Commissioner
Deborah Coons, Director of Internal Controls
Keith D. Rupert, Supervisor of Technical Services