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August 2015

Roberta A. Gerold, Superintendent of Schools
Members of the Board of Education
Middle Country Central School District
Eight 43rd Street
Centereach, NY 11720

Report Number: P7-15-42

Dear Dr. Gerold and Members of the Board of Education:

The Office of the State Comptroller works to help school district officials manage their resources efficiently and effectively and, by so doing, provides accountability for tax dollars spent to support district operations. The Comptroller oversees the fiscal affairs of districts statewide, as well as compliance with relevant statutes and observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations and Board of Education governance. Audits also can identify strategies to reduce costs and to strengthen controls intended to safeguard district assets.

In accordance with these goals, we conducted an audit of five school districts in Nassau and Suffolk Counties. The objective of our audit was to determine whether energy performance contracts (EPCs) entered into by school districts achieved the cost and/or energy savings projected by the vendor who executed the contract. We included the Middle Country Central School District (District) in this audit. Within the scope of this audit, we examined the District's EPC and reviewed energy consumption and costs for the period April 1, 2007 through June 30, 2014. This audit was conducted pursuant to Article V, Section 1 of the State Constitution and the State Comptroller's authority as set forth in Article 3 of the New York State General Municipal Law.

This report of examination letter contains our findings and recommendations specific to the District. We discussed the results of our audit and recommendations with District officials and considered their comments, which appear in Appendix A, in preparing this report. District officials generally agreed with our recommendations and indicated they have implemented corrective action. At the completion of our audit of the five school districts, we prepared a global report that summarizes the significant issues we identified at all of the districts audited.

Summary of Findings

The District will likely achieve the energy cost savings projected and guaranteed by the energy service company (ESCO) that executed the EPC. The energy cost savings are projected to total approximately \$17.8 million over the life of the EPC, while total project expenditures are approximately \$17.7 million, resulting in a net savings of approximately \$66,000. When grants and rebates are included, the District is projected to save a total of almost \$1.9 million. As a result of 22 energy improvement measures installed in 20 buildings, the District's consumption of electricity has decreased, while its natural gas consumption has increased. For example, an analysis of just four of the District's 20 buildings shows the use of electricity decreased by 33 percent, even though temperatures experienced that year required more energy to cool the buildings. Natural gas use, however, increased by 13 percent in the first year after completion of the EPC, due to increased use of the buildings for extracurricular and community activities, along with temperatures requiring a greater need for energy to heat the buildings than in the base year. Nearly a third of the District's cost savings are projected¹ to be a direct result of improvements to its light fixtures.

Background and Methodology

New York State Energy Law establishes procedures to be used by school districts in initiating and administering EPCs. An EPC is an agreement by an ESCO for the provision of energy services in which energy systems are installed, maintained or managed to improve the energy efficiency of, or produce energy for, a facility in exchange for a portion of the energy savings or revenues. EPCs are not subject to voter approval or competitive bidding requirements, and the length of the contract must not exceed the useful life of the equipment (which the New York State Education Department has established at 18 years). New York State Education Law (Education Law) requires that the ESCO agree to guarantee that the improvements will generate cost savings sufficient to pay for the project over the term of the EPC. This payback period is calculated using the simple payback method, which divides the total project cost by the projected first year cost savings.² The simple payback method does not take into account the time value of money, which discounts the value of future dollars relative to today's dollars in order to properly compare the economic benefits of competing long-range upgrade projects. Furthermore, the simple payback method does not take into account additional cost savings that a school district may continue to realize after the EPC ends as a result of the energy improvements. For this reason, school districts should establish procedures to monitor to cost savings achieved by EPCs.

The District is located in Suffolk County and operates 20 buildings. It has approximately 10,000 students and its general fund expenditures for the 2013-14 fiscal year totaled approximately \$207.1 million. The District is governed by a nine-member Board of Education (Board). The Board is responsible for conducting the business of the District within the State's laws and the New York State Commissioner of Education's regulations.

¹ The ESCO was required to provide its first year measuring and verification report to the District by January 10, 2015, within 60 days of the end of the EPC's first year after substantial completion. As of April 10, 2015, the District had not received this report. Therefore, all savings and the portion attributed to light fixture improvements are projections based on the original ESCO estimates made in the base year.

² Education Law specifies that any State building aid attributable to the project cannot be included in the determination of cost savings.

In September 2009, the Board entered into an EPC with an 18-year contract term from November 2014 through October 2032. The State Education Department approved the project in April 2011 and the related project work, completed in November 2014, involved 22 facility improvement measures in 20 District buildings, including several upgrades to the District's boilers, lighting, heating, ventilation and air controls. The ESCO guaranteed an energy cost savings of about \$17.9 million over the life of the EPC. The capital project cost of this EPC, excluding financing and ongoing maintenance and verification costs,³ totaled approximately \$13.6 million.

To accomplish our objective, we interviewed District officials. We also reviewed the EPC to obtain the work scope, project cost, contract length, contracted ongoing maintenance and verification costs and guaranteed energy cost savings over the life of the project. We obtained utility data, including consumption, costs and rates for the EPC's base year, which was April 2007 through March 2008. We also obtained utility data for the first year after substantial completion of the EPC and compared the consumption and costs for this year to that of the base year to determine the first-year consumption and cost savings for the EPC. As of April 10, 2015, the ESCO had not provided the District with its first-year measuring and verification report, which was due by January 10, 2015; therefore, we could not determine whether the ESCO's determination of first-year savings was reasonable. Using the U.S. Department of Commerce's prescribed formula for projecting present value cost savings, we applied the U.S. Department of Energy's utility price indices to the base year and first-year energy costs to project the District's potential cost savings over the life of the EPC. We compared our projection to that which the ESCO had made using engineering industry standards to determine if the ESCO's projections appeared reasonable. We used our professional judgment to determine the reasonableness of the difference between our projection and the ESCO's, considering the differing calculation methods used. We also documented the lease payments to be made over the life of the contract. We determined the expenditures related to the EPC and subtracted them from the total cost savings calculated to identify any potential savings.

We conducted our audit in accordance with generally accepted government auditing standards (GAGAS). 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Audit Results

The District's EPC is projected to achieve the guaranteed energy cost⁴ savings of about \$17.8 million⁵ over the life of the EPC, as shown in Figure 1. The ESCO did not guarantee the associated energy consumption savings.⁶

³ Maintenance and verification costs totaled \$76,284 for the first three years of the contract.

⁴ Energy cost is the amount the District pays for energy (i.e., electricity and natural gas).

⁵ The ESCO also guaranteed an additional \$75,148 of savings from a rebate.

⁶ Energy consumption savings would be a reduction in the quantity of energy (i.e., kilowatts of electricity or therms of natural gas) that the District uses. While the goal of the EPC is to reduce consumption, the ESCO did not guarantee that consumption would decrease by a specific number of kilowatts or therms.

Figure 1: Projected Energy Cost Savings Over the Life of the EPC	
Projected Energy Cost Savings	\$17,805,519
Less: Capital Costs Including Lease Interest	(\$17,663,900)
Less: Ongoing Maintenance and Verification Costs	(\$75,148)
Net Savings Before Grants and Rebates	\$66,471
Add: Grants Received	\$1,725,439
Add: Rebates Received	\$75,148
Net Savings With Grants and Rebates	\$1,867,058

District expenditures to implement the EPC’s terms totaled approximately \$17.7 million, for a net gain to the District of approximately \$66,000 before any grants or rebates. With the receipt of grants and rebates,⁷ the total savings will amount to approximately \$1.9 million. To further illustrate the energy cost savings achieved through the EPC, Figure 2 compares a projection of what utility costs would be over the 18-year contract period had the EPC not been undertaken to a projection of post-EPC utility costs for the 18-year term of the EPC.

Figure 2: Comparison of Projected Utility Costs^a			
	Electricity	Natural Gas	Total
Costs – No EPC (2014-2032)	\$31,985,494	\$20,655,657	\$52,641,151
Costs – Post-EPC (2014-2032)	\$19,075,729	\$13,312,462	\$32,388,191
Cost Savings From EPC	\$12,909,765	\$7,343,195	\$20,252,960
^a Projections made using U.S. Department of Commerce formula for projecting present value of future cost savings using U.S. Department of Energy utility price indices. This yielded a projection reasonably close to the energy cost savings projected by the ESCO using engineering industry standards.			

Related to the projected energy cost savings, the District will also realize electricity consumption savings, despite a 9 percent increase in cooling days.⁸ However, due to increased usage of the District buildings for extracurricular and community activities, along with a 7 percent increase in heating days, natural gas consumption increased. For example, by looking at just four⁹ of the District’s 20 buildings, the EPC resulted in a 33 percent decrease in electricity consumption, while natural gas consumption increased by 13 percent.¹⁰ The District was still able to reduce its natural gas costs by using a Suffolk County contract, which resulted in a significantly lower price per therm. The improvements to just the District’s light fixtures are projected to account for approximately 32 percent of the District’s first-year cost savings.

Although the District is guaranteed to realize a certain amount of energy cost savings, and it is projected to achieve energy consumption savings, the District has no effective monitoring

⁷ This amount does not include approximately \$8.9 million of State aid that the District received because Education Law specifically excludes State building aid attributable to the project from the calculation of cost savings under the EPC.

⁸ Heating and cooling days are a way to relate each day’s temperatures to the demand for energy to heat or cool buildings. To calculate the heating degree days for a particular day, find the day’s average temperature by adding the day’s high and low temperatures and dividing by two. If the number is above 65, there are no heating degree days that day. If the number is less than 65, subtract it from 65 to find the number of heating degree days. Cooling degree days are also based on the day’s average minus 65.

⁹ Two high schools, one middle school and an elementary school

¹⁰ We excluded oil from our calculations as it accounted for less than 2 percent of total energy costs and consumption.

procedures in place to ensure that those savings are achieved. The District has yet to receive an annual verification report which would state whether they have been achieving the guaranteed savings; therefore, no one at the District has been able to implement procedures to verify the accuracy of the ESCO's annual verification reports or ensure that the guaranteed energy savings are being achieved. As a result, District officials have limited assurance that the guaranteed savings have truly been achieved and that they do not, therefore, need to seek recourse for any difference.

Recommendations

District officials should:

1. Obtain the ESCO's overdue first-year report and ensure that the ESCO provides all future reports within 60 days of the reporting year-end, as required by the EPC.
2. Implement monitoring procedures to ensure the actual cost savings presented by the ESCO are verified and supporting calculations are reviewed. If the guaranteed cost savings are not achieved, District officials should seek recourse, in accordance with the terms of their EPC.

The Board has the responsibility to initiate corrective action. Pursuant to Section 35 of General Municipal Law, Section 2116-a (3)(c) of Education Law and Section 170.12 of the Regulations of the Commissioner of Education, a written corrective action plan (CAP) that addresses the findings and recommendations in this report must be prepared and forwarded to our office within 90 days. To the extent practicable, implementation of the CAP must begin by the end of the next fiscal year. For more information on preparing and filing your CAP, please refer to our brochure, *Responding to an OSC Audit Report*, which you received with the draft audit report. The Board should make the CAP available for public review in the District Clerk's office.

We thank the officials and staff of the Middle Country Central School District for the courtesies and cooperation extended to our auditors during this audit.

Sincerely,

Gabriel F. Deyo
Deputy Comptroller

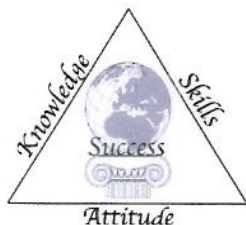
APPENDIX A

RESPONSE FROM DISTRICT OFFICIALS

The District officials' response to this audit can be found on the following page.

MIDDLE COUNTRY CENTRAL SCHOOL DISTRICT
AT CENTEREACH

EIGHT 43RD STREET • CENTEREACH, NY 11720
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Roberta A. Gerold, Ed.D., Superintendent of Schools
Francine McMahon, Deputy Superintendent for Instruction
Herbert B. Chessler, Asst. Superintendent for Business
James G. Donovan, Asst. Superintendent for Human Resources

May 18, 2015

Ira McCracken, Chief Examiner
Office of the State Comptroller
NYS Office Building, Room 3A10
250 Veterans Memorial Highway
Hauppauge, New York 11788-5533

Dear Mr. McCracken,

Please allow this letter to serve as both our response to the audit findings in Report P7-15-42 as well as our plan of corrective actions.

We are in agreement with both of the audit findings listed in the report. As to finding number 1, the District diligently attempted on several occasions to obtain the first year M & V report. We were told on those occasions that it was being worked on and/or reviewed and would be sent shortly. During the time between the culmination of the audit and the draft report being issued the District did receive the report from the ESCO. As to finding number 2, the District is in agreement that an independent third party be utilized to conduct and monitor the project to ensure the actual savings presented by the ESCO are verified.

Corrective Actions

- 1- The District diligently pursued receipt of the report and as of this response has received the report from the ESCO.
- 2- Going forward the District will utilize an independent third party to verify the savings presented by the ESCO are realized and that if the savings are not realized, the District will seek recourse in accordance with the terms of the EPC.

Sincerely,

Herbert B. Chessler
Assistant Superintendent for Business

cc: R. Gerold
S. Larkin

The mission of the MCCSD is to empower and inspire all students to apply the knowledge, skills, and attitudes necessary to be creative problem solvers, to achieve personal success, and to contribute responsibly in a diverse and dynamic world.