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August 2015

Charles Cardillo, Superintendent of Schools  
Members of the Board of Education  
Manhasset Union Free School District  
200 Memorial Place  
Manhasset, NY 11030

Report Number: P7-15-41

Dear Superintendent Cardillo 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 Manhasset Union Free 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 June 1, 2005 through March 31, 2013. 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 specific to the District. We discussed the results of our audit with District officials and considered their comments, which appear in Appendix A, in preparing this report. Except as indicated in Appendix A, District officials generally agreed with our audit results. Appendix B contains our comments on issues raised in the District's response. 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 \$7.16 million over the life of the EPC, while the total expenditures are approximately \$4.13 million, resulting in a net savings of approximately \$3.03 million. When grants and rebates are included, the District is projected to save a total of almost \$3.05 million. As a result of the 14 energy improvement measures installed in the District's three buildings,<sup>1</sup> electricity consumption has decreased, while consumption of natural gas increased due to increased use of the buildings. For example, an analysis of all three of the District's buildings shows that use of electricity decreased by 8 percent, partly due to temperatures experienced that year requiring less energy to cool the buildings. Natural gas use, however, increased by 19 percent 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. More than a quarter of the District's cost savings are 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 as 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 energy cost savings.<sup>2</sup> 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 the cost savings achieved by the EPCs.

The District is located in Nassau County and operates three buildings. It has approximately 3,400 students and its general fund expenditures for the 2013-14 fiscal year totaled approximately \$86.2 million. The District is governed by a five-member Board of Education (Board). The Board is responsible for conducting the business of the District within the State's laws and New York State Commissioner of Education's regulations.

In November 2007, the Board entered into an EPC with an 18-year contract term from April 2012 through March 2030. The State Education Department approved the project in February 2009 and the related project work, completed in March 2012, involved 14 facility improvement measures in three District buildings, including several upgrades to the District's boilers, lighting, heating and air controls. The ESCO guaranteed an energy cost savings of almost \$7.2 million over the life of the EPC. The capital project cost of this EPC, excluding financing and ongoing maintenance and

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<sup>1</sup> One combined high school/middle school and two elementary schools

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

verification costs, totaled over \$3.3 million; these costs will be recovered through the energy cost savings within approximately 10 years.

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 June 2005 through May 2006. 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. We then compared our calculations to the ESCO’s first-year measuring and verification report to ensure what the ESCO had reported as actual 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 actual 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 cost<sup>3</sup> savings of almost \$7.2 million<sup>4</sup> over the life of the EPC, as shown in Figure 1. The ESCO did not guarantee the associated energy consumption savings.<sup>5</sup>

Projected Energy Cost Savings	\$7,161,031
Less: Capital Costs Including Lease Interest	(\$4,103,574)
Less: Ongoing Maintenance and Verification Costs	(\$23,182)
<b>Net Savings Before Grants and Rebates</b>	<b>\$3,034,275</b>
Add: Grants Received	\$0
Add: Rebates Received	\$13,900
<b>Net Savings With Grants and Rebates</b>	<b>\$3,048,175</b>

<sup>3</sup> Energy cost is the amount the District pays for energy (i.e., electricity and natural gas).

<sup>4</sup> The ESCO also guaranteed an additional \$13,900 of savings from a rebate.

<sup>5</sup> 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.

District expenditures to implement the EPC’s terms totaled approximately \$4.13 million, for a net gain to the District of approximately \$3.03 million before any grants or rebates. With the receipt of grants and rebates,<sup>6</sup> the total savings will increase by \$13,900. 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.

<b>Figure 2: Comparison of Projected Utility Costs<sup>a</sup></b>			
	<b>Electricity</b>	<b>Natural Gas</b>	<b>Total</b>
Costs – No EPC (2012-2030)	\$10,761,141	\$8,237,812	\$18,998,953
Costs – Post-EPC (2012-2030)	\$8,432,578	\$5,268,528	\$13,701,106
<b>Cost Savings From EPC</b>	<b>\$2,328,563</b>	<b>\$2,969,284</b>	<b>\$5,297,847</b>
<sup>a</sup> 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, partly due to an 8 percent decrease in cooling days.<sup>7</sup> However, due to increased usage of the school buildings for extracurricular and community activities, along with a 7 percent increase in heating days, natural gas consumption increased. For example, by looking at all three of the District’s buildings, the EPC resulted in an 8 percent decrease in electricity consumption, while the District’s natural gas consumption increased by 19 percent. The District was still able to reduce its natural gas costs by using a Nassau County contract, which resulted in a significantly lower price per therm. The improvements to just the District’s light fixtures accounted for approximately 28 percent of the District’s first-year cost savings.

The District has implemented effective monitoring procedures to ensure it achieves, at a minimum, its guaranteed energy cost savings. The District’s Building and Facilities Director, who is an engineer, and the Treasurer, who is a CPA with experience in the construction field, review the ESCO’s annual verification reports to ensure that the reported energy costs and consumption are accurate and that the guaranteed energy savings are being achieved. Through this process, the District identified an error in the annual verification report that required the ESCO to perform additional work at the District, in accordance with the cost savings guarantee.

<sup>6</sup> This amount does not include any State aid that the District might have received because Education Law specifically excludes State building aid attributable to the project from the calculation of cost savings under the EPC.

<sup>7</sup> 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.

We thank the officials and staff of the Manhasset Union Free 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 pages.



# Manhasset Public Schools

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Charles Cardillo  
Superintendent of Schools

May 20, 2015

Mr. Ira McCracken  
Chief Examiner  
Office of the State Comptroller  
Division of Local Government and School Accountability  
Hauppauge Regional Office  
NYS Office Building, Room 3A 10  
250 Veteran Memorial Highway  
Hauppauge, New York 11788-5533

Dear Mr. McCracken:

We respectfully offer the following comments to the preliminary draft Report of Examination P7-15-41, in connection with your audit of the Manhasset Union Free School District's Energy Performance Contract:

**Background and Methodology Section:**

This section of the report includes the following statement: "EPCs are not subject to voter approval or competitive bidding requirements." While this sentence is technically correct, we are concerned that the reader may conclude that the District's EPC procurement process was in some way deficient.

NYSSSED Regulations state that a third party financing agreement entered into in conjunction with an energy performance contract is exempt from voter approval. In addition, the referendum requirement contained in General Municipal Section 109-b does not apply if a school district has issued a RFP in accordance with Section 9-103(6) of the Energy Law under a procurement policy adopted pursuant to Section 104-b of the General Municipal Law. The District issued a Request for Proposal to secure its EPC, in accordance with NYSSSED regulations. Is it possible to amend the report to reflect this clarification?

**Audit Results Section:**

The opening paragraph of this section states that the District's EPC is projected to achieve the guaranteed energy cost savings of almost \$7.2 million over the life of the EPC. The paragraph continues, "The ESCO did not guarantee the

associated energy consumption savings". We appreciate that the report is attempting to distinguish cost savings from consumption savings, but are concerned that the reader may conclude that the District's EPC was in some way deficient with regards to the structure of the guarantee.

See  
Note 1  
Page 9

Pursuant to Chapter 436 of the Laws of 1997 which amended the energy law in relation to energy performance contracts, "the energy performance contractor shall guarantee recovery of contract costs from energy savings realized by the school district".

The District's EPC was structured to conform to this guarantee of recovery of contract costs from energy savings, which are, of course, derived from a reduction in energy consumption as a result of the EPC. Is it possible to amend the report to reflect this clarification?

See  
Note 2  
Page 9

We would like to thank the Office of the State Comptroller for this opportunity to submit this letter in response to your preliminary draft report. In addition, we would like to thank the staff of the Regional Hauppauge Office.

Sincerely,

Charles Cardillo  
Superintendent



## **APPENDIX B**

### **OSC COMMENTS ON THE DISTRICT'S RESPONSE**

#### Note 1

As acknowledged in our report, while the ultimate goal of an EPC is to reduce energy consumption, the ESCO did not include in the EPC a guarantee that consumption would decrease by a specific number of kilowatts or therms.

#### Note 2

We have amended the report for clarification.