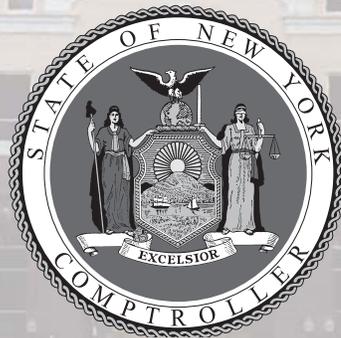




School Districts' Energy Performance Contracts

2013-MR-1



Thomas P. DiNapoli

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State of New York Office of the State Comptroller

Division of Local Government and School Accountability

April 2014

Dear School District Officials:

A top priority of the Office of the State Comptroller is to help school district officials manage their district resources efficiently and effectively and, by so doing, provide accountability for tax dollars spent to support district operations. The Comptroller oversees the fiscal affairs of districts statewide, as well as districts' 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 district operations and Board of Education governance. Audits also can identify strategies to reduce costs and to strengthen controls intended to safeguard district assets.

Following is a report of our audit entitled School Districts' Energy Performance Contracts. 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 General Municipal Law.

This audit's results and recommendations are resources for district officials to use in effectively managing operations and in meeting the expectations of their constituents. If you have questions about this report, please feel free to contact the local regional office for your county, as listed at the end of this report.

Respectfully submitted,

*Office of the State Comptroller
Division of Local Government
and School Accountability*



State of New York Office of the State Comptroller

EXECUTIVE SUMMARY

An energy performance contract (EPC) is an agreement with an energy service company (ESCO) for 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. An EPC can provide a school district (district) with an alternative to financing energy projects without requiring the issuance of bonds or notes. Additionally, EPCs are not subject to voter approval or competitive bidding requirements.

The ESCO guarantees energy consumption savings and/or cost savings over the life of the EPC. The ESCO may agree to guarantee that the improvements will generate cost savings sufficient to pay for the project over the term of the EPC; however, cost savings are not a requirement for a successful contract. Once an EPC project is completed, the district should ensure monitoring of the energy savings is occurring. Typically, the ESCO will perform measurements and verify the actual energy and/or cost savings and prepare a report for the district. After the EPC ends, the district may continue to realize additional cost savings as a result of the improvements.

The eight districts included in this audit (Downsville Central School District, Eldred Central School District, Fallsburg Central School District, Johnson City School District, Middleburgh Central School District, Lansing Central School District, Monticello Central School District and Schoharie Central School District) had nine EPCs¹ that were initiated between February 2002 and August 2012 with total capital project costs of approximately \$20.6 million.

Scope and Objective

The objective of our audit was to review the projected cost and/or energy savings achieved by EPCs entered into by these districts for the period of October 1, 1998 through August 21, 2013. Our audit addressed the following related question:

- Did the EPCs entered into by the districts achieve the cost and/or energy savings projected by the ESCO who executed the contract?

¹ Eldred Central School District had two EPCs within our audit scope.

Audit Results

Seven of the nine EPCs we reviewed will achieve projected net actual savings but only six² of the seven will meet the guaranteed energy consumption or cost savings projected by the ESCOs. However, most of the savings will be the result of grants or State aid received to help finance the acquisition and installation of the capital equipment and assets used in the projects. Among the districts that met the guaranteed savings, a common factor was that district officials monitored the performance of their projects independently from the ESCOs' reconciliation of the project outcomes. The districts that did not achieve the guaranteed savings did not have monitoring procedures in place.

Comments of Local Officials

The results of our audit and recommendations have been discussed with district officials and their comments, which appear in Appendix A, have been considered in preparing this report.

² The six districts that will meet the ESCOs' guaranteed savings are: Johnson City, Eldred 1, Lansing, Fallsburg, Middleburgh and Schoharie. Although Monticello is projected to have net actual savings, it is not projected to meet the savings guaranteed by the ESCO.

Introduction

Background

An energy performance contract (EPC) is an agreement with an energy service company (ESCO) for 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. Article 9 of the Energy Law establishes procedures to be used by school districts (districts) and Boards of Cooperative Educational Services (BOCES) in initiating and administering EPCs. An EPC can provide districts with an alternative to financing energy projects without requiring the issuance of bonds or notes. Additionally, EPCs are not subject to voter approval or competitive bidding requirements.

In conjunction with an ESCO, a district is required to obtain a comprehensive energy audit to identify improvements that will save energy at the district's facilities. Using the results of the energy audit, a district determines which improvements to make and applies for the EPC. The ESCO guarantees energy consumption savings and/or cost savings over the life of the EPC. An EPC must not exceed the useful life of the building which the New York State Education Department (SED) has established at 18 years. The ESCO may guarantee that the improvements will generate cost savings sufficient to pay for the project over the term of the EPC; however, cost savings are not a requirement for a successful contract. Additionally, EPCs should have a clause that obligates the ESCO to pay the difference if at any time the savings fall short of the guarantee. The EPC may have annual maintenance and performance verification costs stipulated in the contract; however, the district may cancel these if it chooses to. The EPC may also specify strict operating protocols for the facility as well. The ESCO typically performs the capital improvements to the buildings.

Article 9 of the Energy Law requires that SED establish procedures to monitor EPCs. SED's review consists of ensuring compliance with building codes and determining whether the projected cost savings will occur within 18 years. Once an EPC project is completed, the district should ensure monitoring of the energy savings is occurring. Typically, the ESCO will perform measurements and verify the actual energy and/or cost savings and prepare a report for the district. The ESCO typically prepares this report on an annual basis for at least the first five years after

the project is complete, but this depends on the EPC between the ESCO and the district. The report should detail the actual savings realized relating to the EPC, the guaranteed savings and any explanations as to why the guarantee was not met, if applicable. After the EPC ends, the district may continue to realize additional cost savings as a result of the improvements.

According to SED data, from December 1995 through January 2013, there were over 1,200 EPC-related capital projects approved for over 200 districts and BOCES, totaling almost \$734 million. The average project cost during this time was over \$600,000. We audited all eight districts³ within the region⁴ with EPCs approved by SED between December 1995 and January 2013. The eight districts had nine EPCs⁵ that were initiated between February 2002 and August 2012 with total capital project costs of approximately \$20.6 million. Of these nine EPCs, eight guaranteed a total energy and operational cost savings of \$17.8 million, while there were three that guaranteed energy consumption savings of 2.7 million kilowatt hours, 5,408 kilowatts, 133,238 therms, 17,000 gallons of water, 33,568 gallons of fuel oil and an additional energy consumption of 144 gallons of propane.⁶

Objective

The objective of our audit was to review the projected cost and/or energy savings achieved by EPCs entered into by these districts. Our audit addressed the following related question:

- Did the EPCs entered into by the districts achieve the cost and/or energy savings projected by the ESCO who executed the contract?

³ We audited Johnson City School District within Broome County; Downsville Central School District within Delaware County; Middleburgh Central School District and Schoharie Central School District within Schoharie County; Eldred Central School District, Fallsburg Central School District and Monticello Central School District within Sullivan County; and Lansing Central School District within Tompkins County.

⁴ The region encompasses the nine counties serviced by the New York State Comptroller's Local Government and School Accountability Binghamton Regional Office: Broome, Chenango, Cortland, Delaware, Otsego, Schoharie, Sullivan, Tioga and Tompkins Counties.

⁵ Eldred Central School District had two EPCs within our audit scope.

⁶ The EPCs in Fallsburg Central School District and Middleburgh Central School District guaranteed both cost and energy consumption savings.

Scope and Methodology

For the period of October 1, 1998 through August 21, 2013, we interviewed district officials, energy managers and representatives from the ESCOs. We also reviewed the EPCs for information, including the guaranteed energy and operational savings and the base-year utility data (e.g., consumption, cost and rates), and reviewed any supporting documentation related to the EPCs.⁷ We used this information to verify the reasonableness of the ESCOs' figures and to project the net savings over the lives of the EPCs.

We conducted our audit in accordance with generally accepted government auditing standards (GAGAS). More information on such standards and the methodology used in performing this audit is included in Appendix B of this report.

Comments of District Officials

The results of our audit and recommendations have been discussed with district officials and their comments, which appear in Appendix A, have been considered in preparing this report.

⁷ Due to a lack of records available at the Eldred Central School District, we could not verify the reasonableness of the ESCOs' base-year calculations and could not corroborate lease payments over the life of the contracts or grants and State aid received.

Energy Performance Contracts

Energy performance contracts (EPC) should generate cost savings over the life of the EPC that cover or exceed the cost of the energy upgrades without the benefit of grants or State aid. District officials should perform a cost-benefit analysis to make this determination prior to initiating an EPC. After the related project work is completed, district officials should monitor the energy consumption and costs and use that data to ensure that the district is realizing the energy and/or cost savings guaranteed by the ESCO. If the ESCO prepares an annual reconciliation report for the district stating whether the guaranteed savings were met or not, district officials should use their own data to confirm whether the ESCO's reconciliation report is accurate. District officials should also ensure that the EPC states what recourse is available to the district if the guaranteed energy or cost savings are not realized.

We reviewed nine EPCs⁸ that were initiated between February 2002 and August 2012 with total capital project costs of approximately \$20.6 million. Seven of the nine EPCs will achieve projected net actual savings but only six⁹ of the seven will meet the guaranteed energy consumption and/or cost savings projected by the ESCOs (see Table 1). However, most of the savings will be the result of grants and/or State aid received to help finance the acquisition and installation of the capital equipment and assets used in the projects. The Johnson City and Schoharie EPCs will likely achieve cost savings without considering the grants and State aid contributions. Five EPCs (Eldred 1, Lansing, Fallsburg, Middleburgh and Monticello) will achieve projected net actual savings after the costs of the capital projects are considered only if grants and State aid are factored in. The Eldred 2 and Downsville EPCs are not projected to achieve any net actual savings.

⁸ The Eldred Central School District had two EPCs within our audit scope.

⁹ The six EPCs that will meet the ESCOs' guaranteed savings are: Johnson City, Eldred 1, Lansing, Fallsburg, Middleburgh and Schoharie. Although Monticello is projected to have net actual savings, it is not projected to meet the savings guaranteed by the ESCO.

Table 1: Performance of EPCs

| District | Projected Energy and Operational Cost Savings | Projected Cost of EPC ^a | Savings Without Grants and State Aid | Projected Grants and State Aid Received | Projected Net Actual Savings |
|---------------|---|------------------------------------|--------------------------------------|---|------------------------------|
| Downsville | (\$221,911) | \$216,527 | (\$438,438) | \$0 | (\$438,438) |
| Eldred 1 | \$615,055 | \$686,593 | (\$71,538) | \$119,221 | \$47,683 |
| Eldred 2 | \$415,224 | \$830,295 | (\$415,071) | \$225,030 | (\$190,041) |
| Fallsburg | \$3,137,862 | \$3,450,591 | (\$312,729) | \$1,164,214 | \$851,485 |
| Johnson City | \$8,091,827 | \$7,987,950 | \$103,877 | \$4,821,955 | \$4,925,832 |
| Lansing | \$5,669,548 | \$6,500,148 | (\$830,600) | \$4,623,660 | \$3,793,060 |
| Middleburgh | \$1,517,818 | \$2,142,586 | (\$624,768) | \$1,125,333 | \$500,565 |
| Monticello | \$3,975,624 | \$5,666,503 | (\$1,690,879) | \$1,938,647 | \$247,768 |
| Schoharie | \$2,943,803 | \$2,469,302 | \$474,501 | \$1,715,219 | \$2,189,720 |
| Totals | \$26,144,850 | \$29,950,495 | (\$3,805,645) | \$15,733,279 | \$11,927,634 |

^a Includes capital project costs, lease payments including interest, and ongoing maintenance and monitoring costs.

In addition to examining the projected net savings over the life of each EPC, district officials should also monitor the annual energy consumption and costs and use that data to ensure that their district is realizing the energy or cost savings guaranteed by the ESCO. We found that several districts that are projected to meet the guaranteed savings share a common factor: district officials monitored the performance of their projects independently from the ESCO’s reconciliation of the project outcome. For example:

- The Fallsburg Central School District’s Business Manager monitors the energy consumption and costs monthly by recording the cost and consumption from the energy bills into a spreadsheet. He reviews changes as they occur month to month for any large increases or decreases. The ESCO also has prepared a measurement and verification report for the first completed year. The Business Manager plans on reviewing the report and comparing the data used by the ESCO to the data he has been capturing.
- The Johnson City Central School District and the Lansing Central School District each have an energy manager who monitors the energy consumption and costs using a utility management program that tracks bills and helps find utility billing problems and energy waste and inefficiencies. These energy managers also work with the ESCOs to ensure that the guaranteed energy savings are achieved.

- Electricity, heating oil and propane consumption and costs, all of which are included as part of the energy savings of the EPC, are monitored at the Schoharie Central School District. Officials review utility invoices and compile consumption and cost information for year-to-year comparisons.

The districts that did not achieve the guaranteed savings did not have monitoring procedures in place. In addition, officials at these districts could not offer any concrete insight or reasons for the projects' failures. For example:

- Downsville Central School District officials stated that their EPC may have appeared to not meet the guaranteed savings because additional capital projects during the same time period and over the life of the EPC could have led to the increased energy consumption. However, had this district monitored the EPC-related project, officials would have known exactly why the savings were not achieved.
- At the Eldred Central School District, officials did not perform monitoring of the energy consumption and cost. There had been turnover in staff and the current officials were not involved in the EPC; therefore, they didn't have any insight as to why it didn't meet the guaranteed savings.

The nine EPCs reviewed included language identifying the recourse that would be available to the districts if the guaranteed energy or cost savings were not realized. However, two ESCOs involved in the Eldred 2 and Downsville EPCs have ceased doing business, providing limited recourse for the districts to recover their shortfalls. At another district, officials are being proactive. Officials at the Monticello Central School District, which currently is not projected to meet the guaranteed energy savings for the first year, have requested that the ESCO complete the overdue reconciliation report. District officials believe the reconciliation report may provide information or insight into why the cost savings are not materializing as planned. Depending on the information provided, the Monticello Central School District officials will determine what, if any, recourse steps will need to be taken in the future.

The districts that did not achieve cost savings after considering capital costs were not required to under the program guidelines established by SED. Because State aid is not guaranteed, the cost

of the project should be covered by the energy and/or operational cost savings of the project to ensure that net savings are achieved.

Recommendations

School district officials should:

1. Implement monitoring procedures to include timely reviews of their district's energy consumption and the related costs and compare these reviews to the EPC's annual guaranteed energy cost savings (to ensure those guarantees are being met) or to the ESCO's annual reconciliation reports, if available.
2. Consult their district's legal counsel, if the guaranteed savings have not been met, to determine whether action should be taken to recoup the difference between the amount of cost savings that was guaranteed by the ESCO and the district's actual savings/losses.

APPENDIX A

RESPONSES FROM DISTRICT OFFICIALS

We provided a draft copy of this global report to the eight districts we audited and requested responses. We received a response letter from one district. We also provided a draft version of the respective individual letter reports to each of the eight districts. We received responses from seven districts. The districts generally agreed with our audit report; however, one district had comments that we respond to within this Appendix.

The following comments were excerpted from the seven responses.

Overall Comments

Johnson City School District officials said: “Your evaluation and findings proved to support our decision to go forward with a project of this nature. Your report confirms what we anticipated and it is gratifying to know that your findings confirm our expectations.”

Lansing Central School District officials said: “In response to the report we must indicate how pleased we are with the overall findings.”

Middleburgh Central School District officials said: “The District currently collaborates with the Capital Area BOCES in an energy savings program. As part of the collaboration, the District reviews all electric and fuel consumption on a regular basis. As a result of the recommendation in the draft audit, the District will expand this process to include the monitoring of the ESCO’s annual verification reports.”

Fallsburg Central School District officials “would like to thank the audit team from your office for their diligent work in analyzing the costs and benefits of the EPC and the helpful suggestions they provide to us to improve our operations.”

Monticello Central School District officials said: “The district concurs with the findings and will take the necessary steps to ensure the taxpayers of the Monticello Central School District the cost savings the ESCO stated at time of contract.”

Schoharie Central School District officials said: “Our review of the data supports the conclusions of the auditors; therefore the District is in agreement with the findings stated in the report.”

Downsville Central School District officials “disagree(s) with the NYS Comptroller’s assertion that it sustained a net loss of \$438,400 by entering into an Energy Performance Contract (EPC) in 2002. We do not believe that the effects of the 2010 capital project were incorporated into the NYS Comptroller’s calculation of energy used.”

OSC Response

We agree with the Downsville Central School District officials that the 2010 capital project may not have been taken into account; however, due to the District's lack of monitoring, we were unable to incorporate adjustments for these capital projects.

APPENDIX B

AUDIT METHODOLOGY AND STANDARDS

Our overall goal was to evaluate whether the districts were meeting the cost or consumption savings guaranteed by the EPCs and whether districts were netting a cost savings over the life of the EPCs after considering the cost of the project. To accomplish our audit objective and obtain valid audit evidence, our procedures included the following:

- We interviewed officials and employees at all eight districts, energy managers from two districts, and representatives from the related ESCOs at five districts.
- We reviewed the various EPCs to obtain the scope of the work, the cost of the project, the length of the contract, the contracted ongoing maintenance and verification costs and the guaranteed energy, operational cost or consumption savings over the life of the various EPCs.
- We obtained utility data including the consumption and rates for the nine base years and verified the reasonableness of the various ESCOs' base-year calculations.¹⁰
- We verified whether the various ESCOs' projected increases in utility rates were reasonable by calculating 10-year annual average of utility costs prior to the various base years for New York State utilizing data from the U.S. Energy Information Administration.
- We obtained the various current monitoring years' actual utility consumption and costs for all the districts and compared the consumption to the base-year consumption. We determined the consumption savings for all EPCs and calculated the annual energy cost savings for all EPCs by multiplying the consumption savings by the various base-year utility rates increased by the various ESCOs' annual increases in utility rates.
- In districts where the ESCO had performed a reconciliation report, we compared our calculations to their reports to ensure what the various ESCOs' had reported as actual savings were reasonable. If determined to be reasonable, we used the ESCOs' reported energy and operational savings from the reconciliation reports for the completed years. If there were no ESCO reconciliation reports, we used our figures, as calculated in the bullet above.
- If we found that in the prior years the EPCs were meeting or exceeding the guaranteed savings, we used the guaranteed savings and the ESCOs' annual increase in utility rates to project out over the life of the EPCs the remaining years' energy and operational cost savings.

¹⁰ We were unable to verify Eldred Central School District's two ESCOs' base-year consumptions, costs and utility rates; the EPCs' lease payments or capital payments; one ESCO's reconciliation reports; and grants and State aid received or projected to be received, due to a lack of records available at the district.

- If we did not find the EPCs were meeting the annual guaranteed savings, we used the most recent completed years' actual savings and the ESCOs' annual increase in utility rates to project out over the life of the EPCs the remaining years' energy cost savings.
- We obtained the lease payment schedules or payments made to the ESCOs for all EPCs to document the lease payments or total capital payments made over the life of the contracts.¹¹
- We subtracted all the expenditures related to the nine EPCs, including monitoring and verification, maintenance and lease or capital payments, from the total energy and operational cost savings calculated to identify any potential cost savings without considering grants or State aid.
- We obtained any documentation supporting grants received or expected to be received from the various districts, such as canceled checks and grant applications.
- We considered State aid received or to be received relating to the nine EPCs by obtaining State aid reports from the eight districts.¹²
- We added the grants and State aid received and projected to be received over the life of the nine EPCs and added this to the cost savings after the expenditures were considered to get an overall potential cost savings for all EPCs.

We conducted this performance audit in accordance with 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹¹ Ibid.

¹² Ibid.

APPENDIX C

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