



# Tompkins-Seneca-Tioga Board of Cooperative Educational Services Energy Performance Contract

## Report of Examination

Period Covered:

July 1, 2014 – September 30, 2015

2015M-315



Thomas P. DiNapoli

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# State of New York Office of the State Comptroller

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## **Division of Local Government and School Accountability**

March 2016

Dear Board of Cooperative Educational Services (BOCES) Officials:

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

Following is a report of our audit of the Tompkins-Seneca-Tioga Board of Cooperative Educational Services, entitled Energy Performance Contract. 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 audit's results are resources for BOCES 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*

# Introduction

## Background

The Tompkins-Seneca-Tioga Board of Cooperative Educational Services (BOCES) is located in Tompkins County and is an association of nine component school districts governed by a nine-member Board of Education (Board) elected by the boards of the component districts. The Board is responsible for the general management and control of the financial and educational affairs. The District Superintendent is the chief executive officer and is responsible, along with other administrative staff, for the day-to-day management of the BOCES and for regional educational planning and coordination.

The BOCES operates nine buildings and serves approximately 900 students as well as 500 adult education students. The 2015-16 fiscal year budget of \$42.9 million is funded primarily by charges to school districts for services and State aid.

An energy performance contract (EPC) is an agreement with an energy service contractor (ESCO) 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 and Regulations of the State Education Department (SED) establish procedures for initiating and administering EPCs. Because EPCs are not subject to component districts' approval or competitive bidding requirements,<sup>1</sup> they provide an alternative to financing energy projects without issuing bonds or notes.

In conjunction with an EPC, SED requires a BOCES to obtain a comprehensive energy audit to identify improvements that will save energy at the BOCES' facilities. Using the results of the energy audit, a BOCES determines which improvements to make and applies for SED approval of the EPC. The ESCO typically performs the capital improvements to the buildings. 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. Pursuant to SED regulations, the ESCO must certify that it has guaranteed the recovery of contract costs from energy savings realized by BOCES during the term of the EPC. 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, BOCES may

<sup>1</sup> EPCs are subject to the written request for proposals process.

cancel these if it chooses to. SED regulations further provide that the term of the EPC may not exceed 18 years or the useful life of the equipment being installed, whichever is less.

Once an EPC project is completed, BOCES should ensure the energy savings are being monitored. Typically, the ESCO will perform measurements, verify the actual energy or cost savings and prepare a report for BOCES. 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 BOCES. The report should detail the actual savings realized, the guaranteed savings and any explanations as to why the guarantee was not met, if applicable. After the EPC ends, BOCES may continue to realize additional cost savings as a result of the improvements.

## **Objective**

The objective of our audit was to review the EPC and the projected cost and/or energy savings achieved by BOCES. Our audit addressed the following related question:

- Did the BOCES achieve the cost and/or energy savings projected by the energy service contractor who executed the EPC?

## **Scope and Methodology**

We examined the EPC, including the ESCO's projection, and reviewed energy consumption and costs for the period July 1, 2014 through September 30, 2015. We extended our scope back to January 1, 2008 to review the energy consumption and costs prior to the start of the EPC and also projected forward the potential cost and energy savings to the contract's end in 2031.

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 are included in Appendix B of this report.

## **Comments of BOCES Officials**

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

## Energy Performance Contract

An EPC should generate cost savings over the life of the contract that cover or exceed the cost of the energy upgrades without the benefit of grants or State aid. After the related project work is completed, BOCES officials should monitor the energy consumption and costs and use that data to ensure that the BOCES is realizing the energy or cost savings guaranteed by the ESCO. If the ESCO prepares an annual measurement and verification (M&V) report for BOCES stating whether the guaranteed savings were met or not, BOCES officials should use their own data to confirm whether the ESCO's report is accurate. BOCES officials should also ensure that the EPC states what recourse is available to the BOCES if the guaranteed energy or cost savings are not realized.

In September 2009, the Board entered into an EPC with an 18-year contract term.<sup>2</sup> The construction occurred from June 2010 to its completion in January 2014. Construction included retrofitting all interior lighting, envelope sealing around doors and windows, and upgrading transformers, boilers and hot water heaters with digital controls to allow users to access system data. The EPC guaranteed energy cost savings of \$4.1 million over the 18-year contract term. The EPC capital project had three amendments, with a total capital project cost of approximately \$3.3 million.

The EPC's projections included the dollar amount savings but did not include a total for the projected energy consumption savings. However, BOCES had a detailed energy audit (DEA) performed by the ESCO prior to executing the EPC which identified the specific areas for improvement and listed the associated dollar and energy projected savings. Therefore, we compared the projected electric consumption (kilowatt hours), electric demand (kilowatts) and natural gas (therms) annual savings in the DEA to the ESCO's Year 1 Report's actual results. We reviewed the calculations for accuracy and reasonableness. We found minimal variations between the projected savings and the Year 1 Report actual results as shown in Figure 1:

<sup>2</sup> The contract period does not start until the project's completion. This project was completed in 2014 and will end in 2031.

**Figure 1: Annual Energy Consumption Savings**

<b>Electrical Kilowatt Hours (kWh) Savings per Year</b>	
Total Annual kWh Projected Savings	\$812,788
Total kWh Savings per M&V Year 1 Report	\$807,875
kWh Variance	4,913
Percentage Variance	0.61%
<b>Electric Demand Kilowatt (kW) Savings per Year</b>	
Total Annual kW Projected Savings	\$3,079
Total kW Savings per M&V Year 1 Report	\$3,172
kW Variance	-93
Percentage Variance	-2.93%
<b>Natural Gas (Therms) Savings per Year</b>	
Total Annual Thermal Projected Savings	\$44,716
Total Thermal Savings per M&V Year 1 Report	\$46,346
Thermal Variance	-1,630
Percentage Variance	-3.52%

The EPC is projected to achieve the guaranteed energy cost savings of \$4.1 million over the life of the contract and an additional \$204,000 as a result of savings achieved during the four year construction period that were not included in the original contract. Also, during the construction, BOCES separately renovated a building eliminating the installation of certain equipment as previously planned. Therefore, as a result of the adjustments, we project BOCES will realize an additional \$112,000 in reduced energy consumption costs over the EPC's life.

**Figure 2: OSC Projected Energy Cost Savings Over the Life of the EPC**

Projected Energy Cost Savings per the EPC	\$4,142,505
Additional Savings Already Achieved	\$203,957
Savings Due to Projected Adjustments	\$112,530
<b>Total Cost Savings</b>	<b>\$4,458,992</b>
Less: Lease Payments Including Interest <sup>a</sup>	\$3,706,787
<b>Net Benefits Without Grants and State Aid</b>	<b>\$752,205</b>
Add: Grants Received	\$195,809
Add: State Aid Received <sup>b</sup>	\$937,034
<b>Net Benefits With Grants and State Aid</b>	<b>\$1,885,048</b>

<sup>a</sup> The District financed \$2,888,955 (and \$144,808 in interest) to cover the lease of the EPC.  
<sup>b</sup> This amount includes aid already received and does not include potential future aid payments.

District expenditures to implement the terms of the EPC total \$3.7 million, for a net gain to the District of \$752,000 before any grants or State aid. With the receipt of grants and State aid, the total savings will amount to approximately \$1.9 million.

BOCES officials have also instituted monitoring procedures. BOCES has an energy manager who, along with the facilities director, performed an inspection after the initial installation and have done so at the end of each year. They also monitor daily energy usage for the campus boilers through the digital control system and monthly by reviewing utility bills for any unexpected drastic changes.

Furthermore, BOCES officials used the Year 1 M&V Report from the ESCO to compare and verify the results of their monitoring activities to the savings reported by the ESCO. The Year 1 M&V Report showed BOCES saved a total of \$181,586 and energy consumption savings of 807,875 kilowatt hours and 46,346 therms. If the BOCES continues with these savings each year, it will be on track to reach the guaranteed savings.



**APPENDIX A**

**RESPONSE FROM BOCES OFFICIALS**

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

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607-257-1551 ext. 1001  
jmatteson@tstboces.org

February 17, 2016

[REDACTED]  
Binghamton Regional Office  
New York State Office of the State Comptroller  
44 Hawley Street - Rm 1702  
Binghamton, NY 13901-4417

Re: BOCES Letter of response to Energy Performance Contract Report of Examination

Dear [REDACTED]

Please accept this letter as our official response to the draft audit report titled Energy Performance Contract Report of Examination Period Covered July 1, 2014 – September 30, 2015. The Tompkins-Seneca-Tioga BOCES agrees with and accepts the findings of this report. We are not requesting any modifications at this time.

We would like to thank the members of the State of New York Office of State Comptroller for their diligence in performing this audit. If you have any questions regarding our response to this audit, please feel free to contact me.

Sincerely,

Dr. Jeffrey A. Matteson  
District Superintendent

*Together we learn, lead, support and serve*

Andor • Dryden • George Junior Republic • Groton • Ithaca • Lansing • Newfield • South Seneca • Trumansburg

## APPENDIX B

### AUDIT METHODOLOGY AND STANDARDS

To accomplish our audit objective and obtain valid audit evidence, our procedures included the following:

- We interviewed BOCES officials and employees, the energy manager and the ESCO representative.
- We reviewed the EPC to obtain the scope of the work, the cost of the project, the length of the contract and the guaranteed energy and consumption savings over the life of the EPC.
- We verified whether the ESCO's base-year utility rates were reasonable by comparing those rates to a 10-year annual average of utility costs prior to the base year for New York State using data from the U.S. Energy Information Administration.
- We obtained the current monitoring year's actual utility consumption and costs which we then compared to the base-year amounts. We determined the cost savings for the EPC and calculated the annual cost savings by multiplying the savings by the agreed-upon, base-year escalation rate.<sup>3</sup>
- We compared our calculations to the ESCO's reconciliation report to ensure that the ESCO's reported actual savings were reasonable. We determined the savings to be reasonable and used the ESCO's reported energy savings from the reconciliation report for the completed year.
- We obtained the lease payment schedules for the EPC to document the lease payments to be made over the life of the contract. We subtracted the lease payments from the total cost savings calculated to identify any potential cost savings without considering grants or State aid.
- We obtained any documentation supporting grants received, such as cash receipts and grant applications. We also considered State aid received by reviewing State aid reports. We added the grants and State aid received to the cost savings after the expenditures were considered to calculate an overall potential cost savings for the EPC.

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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

<sup>3</sup> The EPC states that the base utility rate shall be escalated annually to the actual utility rate, but no less than the mutually agreed-upon floor escalation rate of 3 percent.

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Andrew A. SanFilippo, Executive Deputy Comptroller  
Gabriel F. Deyo, Deputy Comptroller  
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