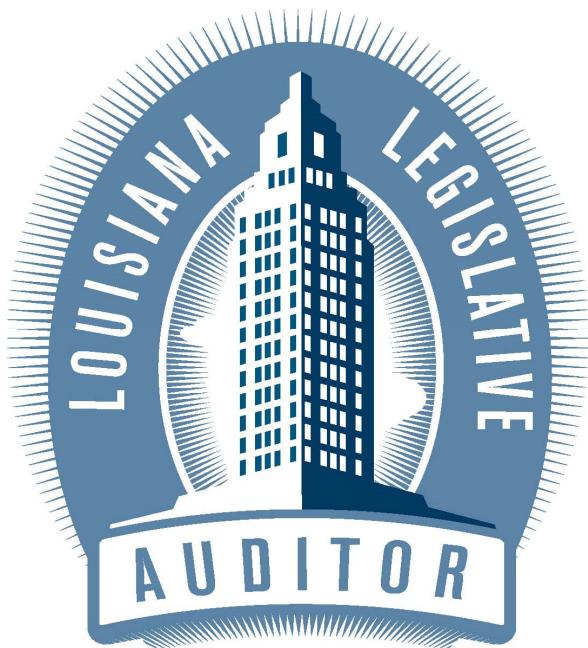


ENERGY EFFICIENCY CONTRACTS 2020  
MONITORING AND COST SAVINGS



PERFORMANCE AUDIT SERVICES  
PROGRESS REPORT  
ISSUED MAY 19, 2021

**LOUISIANA LEGISLATIVE AUDITOR  
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LOUISIANA LEGISLATIVE AUDITOR

May 19, 2021

The Honorable Patrick Page Cortez  
President of the Senate  
The Honorable Clay Schexnayder,  
Speaker of the House of Representatives

Dear Senator Cortez and Representative Schexnayder:

This report provides the results of our performance audit of the three state energy efficiency contracts in effect as of June 30, 2020. These contracts include the Louisiana School for the Deaf and Visually Impaired (LSDVI), Southeastern Louisiana University (SELU), and the Louisiana Department of Corrections (LADOC).

The report contains our findings and conclusions. I hope this report will benefit you in your legislative decision-making process.

We would like to express our appreciation to the management and staff of LSDVI, SELU, and LADOC for their assistance during this audit.

Sincerely,

Michael J. "Mike" Waguespack, CPA  
Legislative Auditor

MJW/aa

EEC2020



# Louisiana Legislative Auditor

Michael J. "Mike" Waguespack, CPA



## Energy Efficiency Contracts 2020 Monitoring and Cost Savings

May 2021

Audit Control # 40210011

### Introduction

Louisiana Revised Statute 39:1622 (E)(2) requires the Louisiana Legislative Auditor to conduct periodic performance audits of each performance-based energy efficiency contract entered into by a state agency and in effect on and after January 1, 2010. In accordance with this mandate, we performed a performance audit of the three state energy efficiency contracts in effect as of June 30, 2010. These contracts include:

- Louisiana School for the Deaf and Visually Impaired (LSDVI) with Johnson Controls, Inc. ("LSDVI - Johnson Controls")
- Southeastern Louisiana University (SELU) with Honeywell International, Inc. ("SELU - Honeywell")
- Louisiana Department of Corrections (LADOC) with Johnson Controls, Inc. ("LADOC - Johnson Controls")

The objective of our audit was:

**To determine if the energy service companies conducted their monitoring activities and achieved the cost savings required by their contracts as of June 30, 2020.**

**LSDVI - Johnson Controls.** Johnson Controls, Inc. has conducted its monitoring activities but did not achieve the annual cost savings required by the contract for Year 15. Johnson Controls paid LSDVI \$9,343, which is the difference between the savings guarantee and the actual savings, as specified in the contract. Year 15 is the last year in the contract term.

**SELU - Honeywell.** Honeywell International, Inc. has conducted its monitoring activities and achieved the annual cost savings required by the contract for Year 17.

**LADOC - Johnson Controls.** Johnson Controls has conducted its monitoring activities and achieved the annual cost savings required by the contract for Year 7.

Appendix A details our audit scope and methodology, and Appendix B summarizes background information.

**Objective: To determine if energy service companies conducted their monitoring activities and achieved the cost savings required by their contracts as of June 30, 2020.**

Based on our analysis, Johnson Controls and Honeywell are in compliance with the monitoring requirements specific to their contracts. The energy service companies are providing the required cost-savings verification reports to the agencies. Johnson Controls did not meet its cost savings guarantee for the LSDVI - Johnson Controls contract. However, Honeywell met its cost savings guarantee for the SELU - Honeywell contract, and Johnson Controls met its cost savings guarantee for the LADOC – Johnson Controls contract. Each of these contracts is discussed in detail below.

### **LSDVI – Johnson Controls Contract**

**Contract Summary.** On May 19, 2004, LSDVI entered into a contract with Johnson Controls for energy conservation equipment and consulting services. The term of the contract is 15 years with a total cost of \$4,385,684. The contract specifies guaranteed savings of \$4,421,960 that will be achieved through measurable savings of energy consumption, operational, and capital cost avoidance savings.

LSDVI reached the end of its contract term on September 1, 2020, and is not renewing the agreement. According to LSDVI, it no longer benefits from the energy efficiency contract because the equipment originally installed has reached the end of its useful life. Exhibit 1 below shows the projected financial performance for the full term of the energy efficiency contract.

| <b>Exhibit 1: Projected Financial Performance<br/>LSDVI - Johnson Controls Contract</b> |                                  |                                      |                                   |  |   |   |  |
|---|----------------------------------|--------------------------------------|-----------------------------------|--|---|---|--|
| <b>(A)<br/>Net Lease<br/>Payments</b>   | <b>(B)<br/>Service<br/>Costs</b> | <b>(C)<br/>Total Costs<br/>(A+B)</b> | <b>(D)<br/>Energy<br/>Savings</b> | <b>(E)<br/>Operational<br/>Savings</b> | <b>(F)<br/>Capital<br/>Cost<br/>Avoidance<br/>Savings</b> | <b>(G)<br/>Total<br/>Guaranteed<br/>Savings<br/>(D+E+F)</b> | <b>(H)<br/>Projected<br/>Net<br/>Savings<br/>(G-C)</b> |
| \$3,285,739   | \$1,099,945                      | \$4,385,684                          | \$2,593,836                       | \$936,180                              | \$891,944   | \$4,421,960   | \$36,276   |

**Source:** Prepared by legislative auditor's staff using information from the LSDVI - Johnson Controls Energy Efficiency Contract.

**Johnson Controls is in compliance with the monitoring requirement.** The contract requires Johnson Controls to measure energy-related cost savings and provide a report on the cost savings to LSDVI within 60 days of each anniversary of the performance commencement date<sup>1</sup> or within 30 days of receiving the final electricity bill for the time period. Johnson Controls provided monitoring services for both the guaranteed cost savings and the equipment

<sup>1</sup> The performance commencement date is the first day of the month after the month in which all equipment is installed and commenced operating per the contract, and the date that the first guarantee year and calculation of savings commences.

installed as part of this energy efficiency contract. Throughout the term of the agreement, or until the monitoring service is cancelled by LSDVI, Johnson Controls receives \$15,677 per year for the portion of the service agreement that includes monitoring the associated energy and cost savings.

LSDVI staff monitors energy consumption on a monthly basis by analyzing its energy bills to determine if any significant changes have occurred. LSDVI staff compares the energy consumption numbers in Johnson Control's cost-savings verification reports with the numbers from the energy bills to ensure Johnson Controls uses the correct numbers in its calculations. LSDVI uses the cost-savings verification reports to verify whether or not the guarantee has been met.

**Johnson Controls did not achieve the annual guaranteed cost savings for Year 15 of the contract.** The LSDVI - Johnson Controls contract contains a cost-savings guarantee for each year of the contract. To verify the accuracy of the cost savings in the cost-savings verification reports, we compared the energy consumption data in LSDVI's utility bills from July 2019 through June 2020 to the energy consumption data used by Johnson Controls to generate the annual cost-savings verification reports. The inputs used to generate the annual cost-savings verification reports for the LSDVI - Johnson Controls contract were accurate. Based on the cost-savings reports, Johnson Controls did not achieve the annual savings guarantee for Year 15 through June 2020. As a result, Johnson Controls has paid LSDVI \$9,343,<sup>2</sup> which is the difference between the savings guarantee and the actual savings, as specified in the contract.

Johnson Controls did not achieve the annual savings guarantee because of operational changes made in reaction to the COVID-19 pandemic. LSDVI shut down its campus on March 13, 2020, and students do not return to campus until September 2021. The cost savings guarantee relies on a certain amount of electricity, gas, water/sewer, and operations usage. The campus shutdown reduced LSDVI's utility consumption, which limited savings opportunities.

Exhibit 2 is a summary of contract results to date, including whether the cost-savings guarantee was met for each year. Overall, Johnson Controls has exceeded the annual savings guarantees by \$333,039 through June 2020.

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<sup>2</sup> The difference between the saving guarantee and the actual savings was \$9,342 but Johnson Controls rounded up and paid LSDVI \$9,343.

**Exhibit 2: LSDVI - Johnson Controls Contract  
Cost-Savings Summary**

| <b>Year</b>                    | <b>(A)<br/>Electricity<br/>Savings</b> | <b>(B)<br/>Gas<br/>Savings</b> | <b>(C)<br/>Water/Sewer<br/>Savings</b> | <b>(D)<br/>Operation<br/>Savings</b> | <b>(E)<br/>Total<br/>Actual<br/>Savings<br/>(A+B+C+D)</b> | <b>(F)<br/>Annual<br/>Guaranteed<br/>Savings*</b> | <b>Savings in<br/>Excess of<br/>Guarantee<br/>(E-F)</b> |
|--------------------------------|--|--------------------------------|--|--------------------------------------|---|---|---|
| Installation (Nov 04 - Aug 05) | \$44,412                               | \$7,206                        | \$3,799                                | \$52,087                             | \$107,504   | \$86,000  | \$21,504  |
| Year 1 (Sept 05 - Jun 06)      | 84,717                                 | 35,962                         | 1,445                                  | 100,806                              | 222,930   | 240,887   | -17,957   |
| Year 2 (July 06 - June 07)     | 111,602                                | 86,641                         | 12,522                                 | 124,026                              | 334,791   | 289,064   | 45,727  |
| Year 3 (July 07 - June 08)     | 130,441                                | 69,969                         | 23,989                                 | 125,641                              | 350,040   | 289,064   | 60,976  |
| Year 4 (July 08 - June 09)     | 125,797                                | 51,666                         | 23,352                                 | 119,832                              | 320,647   | 289,064   | 31,583  |
| Year 5 (July 09 - June 10)     | 79,517                                 | 59,866                         | 27,190                                 | 124,259                              | 290,832   | 289,864   | 968   |
| Year 6 (July 10 - June 11)     | 120,919                                | 56,648                         | 17,882                                 | 122,305                              | 317,754   | 289,864   | 27,890  |
| Year 7 (July 11 - June 12)     | 100,906                                | 35,010                         | 15,422                                 | 125,352                              | 276,690   | 280,541   | -3,851  |
| Year 8 (July 12 - June 13)     | 111,262                                | 47,279                         | 28,112                                 | 124,528                              | 311,181   | 289,064   | 22,117  |
| Year 9 (July 13 - June 14)     | 121,685                                | 57,634                         | 32,528                                 | 119,206                              | 331,053   | 289,064   | 41,989  |
| Year 10 (July 14 - June 15)    | 110,748                                | 42,718                         | 38,436                                 | 121,044                              | 312,946   | 289,064   | 23,882  |
| Year 11 (July 15 - June 16)    | 117,117                                | 35,120                         | 41,135                                 | 126,039                              | 319,411   | 289,064   | 30,347  |
| Year 12 (July 16 - June 17)    | 120,091                                | 30,591                         | 46,961                                 | 125,123                              | 322,766   | 289,064   | 33,702  |
| Year 13 (July 17 - June 18)    | 99,394                                 | 50,986                         | 42,053                                 | 126,689                              | 319,122   | 289,064   | 30,058  |
| Year 14 (Jul 18 - June 19)     | 82,549                                 | 21,558                         | 32,829                                 | 128,294                              | 282,510   | 289,064   | -6,554  |
| Year 15 Jul 19 - June 20       | 113,233                                | 22,483                         | 32,742                                 | 126,600                              | 295,058   | 289,064   | -9,342  |
| <b>Total (Year 15 totals)</b>  | <b>\$1,674,390</b>                     | <b>\$711,337</b>               | <b>\$420,397</b>                       | <b>\$1,891,831</b>                   | <b>\$4,715,235</b>  | <b>\$4,366,860</b>                                | <b>\$333,039</b>  |

Cost savings for the years highlighted in gray were reviewed in prior reports. The reports are available on the Legislative Auditor's website at <http://www.la.la.lgov>.

\* Year 7 included a reduction of \$8,523 to reflect that LSDVI was operating more buildings because the Louisiana School for the Deaf merged with the Louisiana School for the Visually Impaired after the contract was initiated. Modifications for Year 8 through Year 13 did not have a significant impact on the reported savings in excess of guarantee and were not included in the chart. Year 14 includes the actual savings modification /reduction of \$17,280 to reflect an unforeseen increase in water usage. Year 15 includes an Actual Savings reduction of \$15,343 to reflect operational changes resulting from the Covid-19 pandemic.

**Source:** Prepared by legislative auditor's staff using information from LSDVI Cost-Savings Reports.

## SELU – Honeywell Contract

**Contract Summary.** On December 19, 2001, SELU entered into a contract with Sempra Energy Services, now Honeywell, to design and install energy conservation measures and to provide monitoring and training services. The contract term is 20 years and has a total cost of \$12,141,954 with projected savings of \$12,581,651, which will be achieved over the duration of the contract.<sup>3</sup> Exhibit 3 below shows the projected financial performance for the full term of the energy efficiency contract.

<sup>3</sup> Per the SELU-Honeywell contract, the Annual Energy Savings Guarantee equals the total lease payments. The total lease payments, over the term of the contract, equal \$11,751,142. The contract lists the Total Projected Savings as \$12,581,651.

| <b>Exhibit 3: Projected Financial Performance<br/>SELU - Honeywell Contract</b> |                                 |                                     |                                  |   |  |   |   |
|---|---------------------------------|-------------------------------------|----------------------------------|---|--|---|---|
| (A)<br><b>Total Lease<br/>Payments</b>  | (B)<br><b>Service<br/>Costs</b> | (C)<br><b>Total Costs<br/>(A+B)</b> | (D)<br><b>Energy<br/>Savings</b> | (E)<br><b>Lighting<br/>Material<br/>Savings</b> | (F)<br><b>Mechanical<br/>Maintenance<br/>Savings</b> | (G)<br><b>Total<br/>Savings<br/>(D+E+F)</b> | (H)<br><b>Projected<br/>Net<br/>Savings<br/>(G-C)</b> |
| \$11,751,142  | \$390,813                       | \$12,141,954                        | \$11,823,501                     | \$502,337                                       | \$255,813  | \$12,581,651                                | \$439,696   |

**Note:** The calculations in this exhibit are based on rounded numbers.

**Source:** Prepared by legislative auditor's staff using information from the SELU Energy Efficiency Contract.

**Honeywell is in compliance with the monitoring requirement.** The SELU - Honeywell contract requires Honeywell to provide monitoring services on both the guaranteed cost savings and the equipment installed. As required by the contract, Honeywell monitors the energy savings and provides SELU with an annual performance report, typically issued within the first quarter of the calendar year, detailing the cost savings achieved for the prior year. Our evaluation of Honeywell's monitoring and the reliability of the inputs in the cost-savings report is based upon our review of the controls in place with SELU's energy monitoring system. Each report serves to identify cost savings achieved over the previous year relative to the agreed-upon baseline. SELU is required to pay Honeywell a fee for the monitoring work performed as specified in the contract. The fee is adjusted annually based on the Average National Consumer Price Index. For the first year following project completion, SELU was required to pay a \$27,608 fee for monitoring. In Year 17 of the contract, SELU was required to pay Honeywell \$24,167 in monitoring fees.

**Honeywell achieved the annual guaranteed cost savings for Year 17 of the contract.** The SELU - Honeywell contract contains a cost-savings guarantee for each year of the contract. Based upon the cost-savings report, Honeywell has exceeded the annual guaranteed savings for Year 17 of the contract through October 2020. SELU reported no issues with the reliability of the inputs used to generate the annual cost-savings verification reports. While SELU staff review monthly utility bills for energy usage and provide these to Honeywell for its cost-savings verification report, SELU staff are able to monitor real-time energy usage on the campus using a centralized energy monitoring system. Meters located in campus buildings allow staff to detect a spike in energy usage and investigate the reason for the increase. This system allows SELU to identify any inaccuracies in Honeywell's cost-savings report.

SELU has developed additional energy savings measures outside of the contract with Honeywell. Beginning in 2014, SELU has worked to switch to efficient LED light bulbs that use less energy and also help decrease labor costs, since LED light bulbs need to be changed less often. According to SELU officials, the university has continued LED retrofits over the past year. SELU's additional energy savings measures are beyond what is specified in SELU's contract with Honeywell and will further increase SELU's total energy savings over the life of the contract.

Exhibit 4 is a summary of contract results to date, including whether the cost-savings guarantee was met for each year. Overall, Honeywell has exceeded the annual savings guarantees by \$1,444,670 through October 2020.

#### Exhibit 4: SELU - Honeywell Contract Cost-Savings Summary

| <b>Year</b>               | <b>(A)<br/>Energy<br/>Savings</b> | <b>(B)<br/>Lighting<br/>Material<br/>Savings</b> | <b>(C)<br/>Mechanical<br/>Maintenance<br/>Savings</b> | <b>(D)<br/>Total<br/>Savings<br/>(A+B+C)</b> | <b>(E)<br/>Annual<br/>Guaranteed<br/>Savings</b> | <b>(F)<br/>Savings in<br/>Excess of<br/>Guarantee<br/>(D-E)</b> |
|---------------------------|-----------------------------------|--|---|--|--|---|
| Interim (Feb 02 - Oct 03) | \$691,729                         |  |   | \$691,729                                    |  | \$691,729   |
| Year 1 (Nov 03 - Oct 04)  | 613,252                           | 20,000   | 10,185  | 643,437                                      | 573,608  | 69,829  |
| Year 2 (Nov 04 - Oct 05)  | 627,969                           | 20,600   | 10,490  | 659,059                                      | 621,131  | 37,928  |
| Year 3 (Nov 05 - Oct 06)  | 627,969                           | 21,218   | 10,805  | 659,992                                      | 621,681  | 38,311  |
| Year 4 (Nov 06 - Oct 07)  | 627,969                           | 21,855   | 11,129  | 660,953                                      | 620,481  | 40,472  |
| Year 5 (Nov 07 - Oct 08)  | 627,969                           | 22,510   | 11,463  | 661,942                                      | 618,881  | 43,061  |
| Year 6 (Nov 08 - Oct 09)  | 627,969                           | 23,185   | 11,807  | 662,961                                      | 621,431  | 41,530  |
| Year 7 (Nov 09 - Oct 10)  | 623,060                           | 23,881   | 12,161  | 659,102                                      | 622,729  | 36,373  |
| Year 8 (Nov 10 - Oct 11)  | 623,060                           | 24,597   | 12,526  | 660,183                                      | 623,044  | 37,139  |
| Year 9 (Nov 11 - Oct 12)  | 623,060                           | 25,335   | 12,902  | 661,297                                      | 622,950  | 38,347  |
| Year 10 (Nov 12 - Oct 13) | 623,060                           | 26,095   | 13,289  | 662,444                                      | 622,200  | 40,244  |
| Year 11 (Nov 13 - Oct 14) | 623,060                           | 26,878   | 13,688  | 663,626                                      | 618,450  | 45,176  |
| Year 12 (Nov 14 – Oct 15) | 623,060                           | 27,685   | 14,098  | 664,843                                      | 618,950  | 45,893  |
| Year 13 (Nov 15 – Oct 16) | 623,060                           | 28,515   | 14,521  | 666,096                                      | 623,450  | 42,646  |
| Year 14 (Nov 16 – Oct 17) | 623,060                           | 29,371   | 14,957  | 667,388                                      | 621,700  | 45,688  |
| Year 15 (Nov 17 - Oct 18) | 623,060                           | 30,252   | 15,406  | 668,718                                      | 618,950  | 49,768  |
| Year 16 (Nov 18 - Oct 19) | 623,060                           | 31,159   | 15,868  | 670,088                                      | 618,775  | 51,313  |
| Year 17 (Nov 19 - Oct 20) | 623,060                           | 32,094   | 16,344  | 671,498                                      | 622,275  | 49,223  |
| <b>Total</b>              | <b>\$11,298,486</b>               | <b>\$435,230</b>                                 | <b>\$221,639</b>                                      | <b>\$11,955,356</b>                          | <b>\$10,510,686</b>                              | <b>\$1,444,670</b>  |

Cost savings for the years highlighted in gray were reviewed in prior reports. The reports are available on the Legislative Auditor's website at <http://www.la.la.lgov>.

**Source:** Prepared by legislative auditor's staff using information from the SELU Cost-Savings Reports.

## LADOC – Johnson Controls Contract

**Contract Summary.** On September 22, 2011, LADOC entered into a performance-based energy efficiency contract with Johnson Controls. The contract term is 16 years. The original contract covered nine sites; however, the contract was amended in 2013 to compensate for the closure of Forcht-Wade Correctional Center and C. Paul Phelps Correctional Center.<sup>4</sup> The amendment reduced the total cost of the contract by \$891,303, to \$39,631,903, and the total guaranteed savings by \$1,081,596 to \$39,741,809. Act 51 of the 2017 Regular Legislative Session allowed LADOC to further amend its contract to deduct the guaranteed savings attributable to the closed sites. As such, LADOC and Johnson Controls amended the contract again on January 18, 2018, to reduce the total guaranteed savings by an additional \$552,709. The contract was amended again on February 26, 2020, to account for the closing of Louisiana Correctional Institute for Women. This amendment reduced the total cost of the contract by \$831,365 and the guaranteed savings by 2,371,384.

The contract's amended total projected net savings is -\$1,982,822 because LADOC incurred costs for work Johnson Controls completed at Forcht-Wade Correctional Center, C.

<sup>4</sup> The six remaining sites are LADOC Headquarters, Dixon Correctional Institute, B.B. Rayburn Correctional Center, Elayn Hunt Correctional Center, David Wade Correctional Center, and Louisiana State Penitentiary.

Paul Phelps Correctional Center, and Louisiana Correctional Institute for Women before the agency closed the three sites, but no energy savings will actually be achieved.<sup>5</sup> Exhibit 5 summarizes the cost and savings guarantee terms of the amended contract.

| <b>Exhibit 5: Projected Financial Performance<br/>LADOC - Johnson Controls Contract</b> |                         |                             |  |                         |                               |  |  |
|---|-------------------------|-----------------------------|--|-------------------------|-------------------------------|--|--|
| (A)<br>Net Lease<br>Payments  | (B)<br>Service<br>Costs | (C)<br>Total Costs<br>(A+B) | (D)<br>Electricity<br>and Natural<br>Gas Savings | (E)<br>Water<br>Savings | (F)<br>Operational<br>Savings | (G)<br>Total<br>Guaranteed<br>Savings<br>(D+E+F) | (H)<br>Projected<br>Net Savings<br>(G-C) |
| \$33,079,706  | \$5,720,832             | \$38,800,538                | \$34,277,375                                     | \$763,342               | \$1,776,999                   | \$36,817,716                                     | -\$1,982,822*                            |

\*The negative projected net savings is a result of LADOC incurring costs prior to the closure of Forcht-Wade Correctional Center, C. Paul Phelps Correctional Center, and Louisiana Correctional Institute for Women but related savings will not be achieved as a result of the closure of the three sites. The Projected Net Savings does not take into account actual savings in excess of the guaranteed savings. See exhibit 6 for the savings in excess of the guarantee through Year 7 which is \$1,343,900.

**Source:** Prepared by legislative auditor's staff using information from the LADOC Energy Efficiency Contract.

**Johnson Controls is in compliance with the monitoring requirement.** The LADOC-Johnson Controls contract contains a service agreement in which Johnson Controls provides measurement and verification services, waste management compactor monitoring, and premium level services on identified facilities and equipment. The 2020 contract amendment reduced the annual service costs LADOC will pay Johnson Controls beginning in Year 7 to the end of the contract because of the closure of Forcht-Wade Correctional Center, C. Paul Phelps Correctional Center, and Louisiana Correctional Institute for Women. The amendment reduced the total service agreement cost from \$6,552,197 to \$5,720,832, a reduction of \$831,365. The service agreement is paid in monthly installments throughout the term of the contract.

As part of the service agreement, Johnson Controls calculates the measured annual energy, operation, and maintenance savings achieved; reconciles the energy, operation, and maintenance savings with the guaranteed savings; and advises LADOC of whether there is a guaranteed savings shortfall or guaranteed savings surplus for the applicable guarantee year. As required, Johnson Controls provided LADOC an annual report that details this information for Year 7 of the contract.

**Third-Party Monitoring.** The Division of Administration (DOA), Office of Facility Planning and Control contracted E/S3 Consultants, Inc. (E/S3) to serve as an independent third-party consultant on the energy efficiency contract between LADOC and Johnson Controls. E/S3 monitors measurement and verification services provided by Johnson Controls. Specifically, E/S3 reviews Johnson Controls' annual energy and costs savings/shortfall calculations, and measurement and verification methodology, as well as recommends adjustments to the baseline used to calculate cost savings.

DOA first entered into a contract with E/S3 on February 11, 2013, and the latest amendment to the contract is dated July 16, 2018, and covers three years. The cost for Year 3 of the contract is \$18,216. The cost associated with the E/S3 contract is not included in the

<sup>5</sup> The LADOC-Johnson Controls contract contains an annual cost savings guarantee for each year of the contract. Therefore, the negative projected net savings for the total contract term doesn't affect this guarantee.

calculation of net cost savings because R.S. 39:1622 requires that energy savings companies pay a fee, not to exceed 2.5% of the contract, which goes into the Energy Performance Contract Fund to pay for contract oversight. The LADOC contract is the only existing energy efficiency contract with a third-party monitor.

**Johnson Controls achieved the annual guaranteed cost savings for Year 7 of the contract.** The LADOC - Johnson Controls contract contains a cost-savings guarantee for each year of the contract. Based on the cost-savings reports, Johnson Controls exceeded the annual savings guarantee for Year 7 through June 2020. The actual savings reported by Johnson Controls in its cost-savings verification report was independently reviewed by E/S3. According to E/S3, savings for Year 7 and are higher than the amount saved in Year 6, in part, due to increases in electricity savings driven by the removal of a credit adjustment used in previous years to account for the closure of the LCIW facility.

Exhibit 6 is a summary of contract results to date, including whether the cost-savings guarantee was met for each year. Overall, Johnson Controls has exceeded the annual savings guarantees by \$1,343,900 through June 2020.

**Exhibit 6: LADOC - Johnson Controls Contract  
Cost-Savings Summary**

| Year*                          | (A)<br>Electricity<br>Savings | (B)<br>Gas<br>Savings | (C)<br>Water/Sewer<br>Savings | (D)<br>Operation<br>Savings | (E)<br>Total<br>Savings<br>(A+B+C+D) | (F)<br>Guaranteed<br>Savings | Savings in<br>Excess of<br>Guarantee<br>(E-F) |
|--------------------------------|-------------------------------|-----------------------|-------------------------------|-----------------------------|--------------------------------------|------------------------------|---|
| Construction (Jan 12 - Jun 13) | \$370,885                     | \$526,810             | \$95,553                      | N/A                         | \$993,248                            | \$559,951                    | \$433,297                                     |
| Year 1 (July 13 - Jun 14)      | 771,617                       | 973,396               | 276,605                       | 143,901                     | 2,165,519                            | 2,294,181                    | -128,662                                      |
| Year 2 (July 14 - Jun 15)      | 799,337                       | 1,009,879             | 274,351                       | 143,901                     | 2,227,468                            | 2,335,772                    | -108,304                                      |
| Year 3 (July 15 - Jun 16)      | 797,568                       | 1,240,544             | 283,352                       | 143,901                     | 2,465,365                            | 2,340,543                    | 124,882                                       |
| Year 4 (July 16 - Jun 17)      | 855,445                       | 1,334,776             | 272,890                       | 143,901                     | 2,607,012                            | 2,383,060                    | 223,952                                       |
| Year 5 (July 17 - June 18)     | 969,694                       | 1,190,433             | 235,103                       | 143,901                     | 2,539,130                            | 2,426,427                    | 112,703                                       |
| Year 6 (July 18 - June 19)     | 1,028,645                     | 1,117,338             | 210,599                       | 143,901                     | 2,500,483                            | 2,470,661                    | 29,822  |
| Year 7 (July 19 - June 20)     | 1,354,953                     | 1,346,590             | 171,050                       | 50,403                      | 2,922,996                            | 2,266,786                    | 656,210                                       |
| <b>Total</b>                   | <b>\$6,948,144</b>            | <b>\$8,739,766</b>    | <b>\$1,819,503</b>            | <b>\$913,809</b>            | <b>\$18,421,221</b>                  | <b>\$17,077,381</b>          | <b>\$1,343,900</b>                            |

Cost savings for the year highlighted in gray was reviewed in a prior report. The report is available on the Legislative Auditor's website at <http://www.lla.la.gov>.

**Source:** Prepared by legislative auditor's staff using information from LADOC Cost-Savings Report.

## APPENDIX A: SCOPE AND METHODOLOGY

Louisiana Revised Statute 39:1622 (E)(2) provides that the Louisiana Legislative Auditor (LLA) shall conduct annual performance audits of performance-based energy efficiency contracts entered into by state agencies. LLA shall establish a written schedule for the execution of such performance audits, with the schedule posted on LLA's website no later than February 1 of each year.

Audits shall be conducted on each performance-based energy efficiency contract in effect on and after January 1, 2010. LLA shall coordinate with the Commissioner of Administration to develop a description of information to be included as part of each energy efficiency contract performance audit. In accordance with this legislative mandate, we performed a performance audit of the energy efficiency contracts currently in place as of June 30, 2020. Our audit objective was:

**To determine if the energy service companies conducted their monitoring activities and achieved the cost savings required by their contracts as of June 30, 2020.**

To answer the audit objective, we conducted the following procedures:

- Researched and reviewed state laws on energy efficiency contracts.
- Researched and summarized various aspects of current energy efficiency contracts, including contracts held by Southeastern Louisiana University (SELU), the Louisiana Schools for the Deaf and Visually Impaired (LSDVI), and the Louisiana Department of Corrections (LADOC).
- Contacted LSDVI, SELU, and LADOC staff to determine the status of the state agency energy efficiency contracts in effect as of June 30, 2020, including any new contract amendments.
- Obtained cost-savings verification reports from the energy savings companies to determine compliance with the contract monitoring requirements.
- Used cost-savings verification reports to summarize the cost savings achieved for the energy efficiency contracts held by SELU, LSDVI, and LADOC.
- Communicated with officials at SELU, LSDVI, and LADOC to develop an understanding of the processes used to track and verify the energy consumption associated with the equipment installed as part of the contract.
- Obtained energy consumption data from SELU, LSDVI, and LADOC for each contract's term.

- Compared the energy consumption data received from LSDVI to the energy consumption data used in the cost-savings verification reports to verify the accuracy of the energy consumption inputs used.
- Gained an understanding of SELU's energy monitoring system and controls in place over the system.
- Communicated with officials at E/S3 Consultants, Inc. to understand LADOC contract amendments.

We conducted this performance audit in accordance with generally accepted *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

## APPENDIX B: BACKGROUND

Louisiana Revised Statute (R.S.) 39:1622 provides that Louisiana state agencies are allowed to enter into performance-based energy efficiency contracts for services and equipment. The state agency awards a contract to an energy service company through a request for proposal process and the contract extends for a period equal to the lesser of 20 years or the average life of the equipment installed by the performance contractor. The energy service company provides equipment and services to the agency intended to reduce the agency's energy consumption.

**Current Energy Efficiency Contracts.** There were three energy efficiency contracts in effect as of June 30, 2020. These contracts include the following:

- Louisiana School for the Deaf and Visually Impaired (LSDVI) with Johnson Controls, Inc. (“LSDVI - Johnson Controls”)
- Southeastern Louisiana University (SELU) with Honeywell International, Inc. (“SELU - Honeywell”)
- Louisiana Department of Corrections (LADOC) with Johnson Controls, Inc. (“LADOC - Johnson Controls”)

These contracts range from 15 to 20 years in length. Below is a summary of state energy efficiency contracts in effect as of June 30, 2020.

**Exhibit 7: Active State Energy Efficiency Contracts  
As of June 30, 2020**

| State Agency | Energy Service Company        | Contract Initiation | Contract Length | Performance Commencement Date* | Total Cost   | Total Guaranteed Savings | Projected Net Savings** |
|--------------|-------------------------------|---------------------|-----------------|--------------------------------|--------------|--------------------------|-------------------------|
| LSDVI        | Johnson Controls, Inc.        | May 19, 2004        | 15 Years        | September 1, 2005              | \$4,385,684  | \$4,421,960              | \$36,276                |
| SELU         | Honeywell International, Inc. | December 19, 2001   | 20 Years        | November 1, 2003               | \$12,141,954 | \$12,581,651             | \$439,697               |
| LADOC        | Johnson Controls, Inc.        | September 22, 2011  | 16 Years        | July 1, 2013                   | \$38,800,538 | \$36,817,716             | \$-1,982,822            |

\*The performance commencement date is the first day of the month after the month in which all equipment is installed and commenced operating per the contract, and the date that the first guarantee year and calculation of savings commences.

\*\* Projected Net Savings doesn't take into account actual savings in excess of the guaranteed savings. See Exhibits 2, 4, and 6 for this information. The negative projected net savings for the LADOC-Johnson Controls contract is a result of LADOC incurring costs prior to the closure of three facilities before related savings could be achieved.

**Source:** Prepared by legislative auditor's staff using information from the LSDVI - Johnson Controls, SELU - Honeywell, and LADOC - Johnson Controls.

**Monitoring.** All three existing contracts, in accordance with Louisiana Administrative Code 34:V.2505(D), require that the energy service company use the International Performance Measurement and Verification Protocol standard to measure the financial performance of the respective contracts. The energy service companies provide the agencies with quarterly or annual reports throughout the term of the contract that summarize the contractor's performance relative to the guaranteed cost savings. These reports compare the actual energy consumed for the given time period to an agreed-upon energy consumption baseline to determine the amount of energy saved.

**Cost Savings.** R.S. 39:1622 (C)(1) requires energy efficiency contracts to include a method to establish their guaranteed cost savings. These savings, at a minimum, must ensure a total annual savings sufficient to fully fund any financing arrangement entered into to fund the contract.<sup>6</sup> In the event that the guaranteed savings are not met, the energy service company must pay the agency the difference between the guaranteed savings amount and the actual savings amount. This arrangement helps agencies finance equipment and system upgrades that they might otherwise not be able to afford.

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<sup>6</sup> ACT 869 of the 2004 Regular Legislative Session established this cost savings requirement.