

# Memorandum

## City of Lawrence

### City Manager's Office

TO: City Commission  
FROM: Eileen Horn, Sustainability Coordinator  
CC: Tom Markus, City Manager  
DATE: February 7, 2017  
RE: FCIP Energy Performance Contract

#### **Background**

This Energy Performance Contract is made and entered into between Willdan Group, Inc., DBA 360 Energy Engineers and the City of Lawrence is for the purpose of installing energy conservation measures in City owned buildings and facilities. Signing this contract will initiate the implementation of the energy conservation measures described in the Investment Grade Audit performed by 360 Energy Engineers.

#### **Energy Performance Contract Terms**

This Energy Performance Contract is not a typical construction contract for the City. Therefore, we have outlined the key responsibilities of both the energy service company (360 Energy Engineers) and the City of Lawrence, below.

#### **360 Energy Engineers' responsibilities:**

- Has conducted an Investment Grade Audit of City Facilities.
- Has calculated annual energy and maintenance savings associated with the project.
- Will serve as general contractor for the project, managing the construction process and all subcontractors.
- Will monitor the annual energy savings for 36 months after project completion. If actual energy savings fall short of the energy savings guarantee, 360 ESCO shall reimburse the City for the full amount of the difference between the Actual Energy Savings and the Energy Savings Guarantee.
- Will not be responsible for maintenance of systems after installation, but will provide training to City of Lawrence staff on proper equipment operation.
- Will conduct a thorough and systematic performance test of each element and total system of the installed Equipment in accordance with the procedures specified in Schedule H and prior to acceptance of the project by the City.
- Will extend warranties for all equipment to the City.
- Will maintain appropriate insurance limits as outlined in the contract.

### City responsibilities:

- Accepts the energy and maintenance savings calculations provided by 360.
- Will pay 360 Energy Engineers within 30 days of invoice receipt.
- Will be responsible for maintenance of all systems after installation.
- Will assist 360 in obtaining all necessary permits and approvals for installation of the equipment.
- Will work with 360 to coordinate installation and construction schedules.
- Will own all equipment installed, and will own all rights to the designs.
- Will provide access to City buildings for the completion of the work by 360 and subcontractors.
- Will notify 360 of any material changes that would impact the projected energy savings (i.e. change in use of the building, operating hours, etc).
- Will collaborate with 360 to allow them access to EnergyCAP, our utility tracking software to allow for timely tracking of Actual Energy Savings.

### **Energy Savings Guarantee (Schedule C)**

The Energy Savings Guarantee (Schedule C) of the contract is the lynchpin of a performance contract. Basically, the City is agreeing to the energy savings projections calculated by 360 for the 20 year term of the project. The energy savings projections are guaranteed, not the maintenance savings.

The annual energy savings for the project are projected to be \$450,302. 360 is guaranteeing annual savings of \$420,315 (approximately 93% of the total amount) for the 20 year term of the project. Staff agrees that 360 has made reasonable assumptions in these projections.

Verification of the Actual Energy Savings compared to the Energy Savings Guarantee therefore, will occur on two scales:

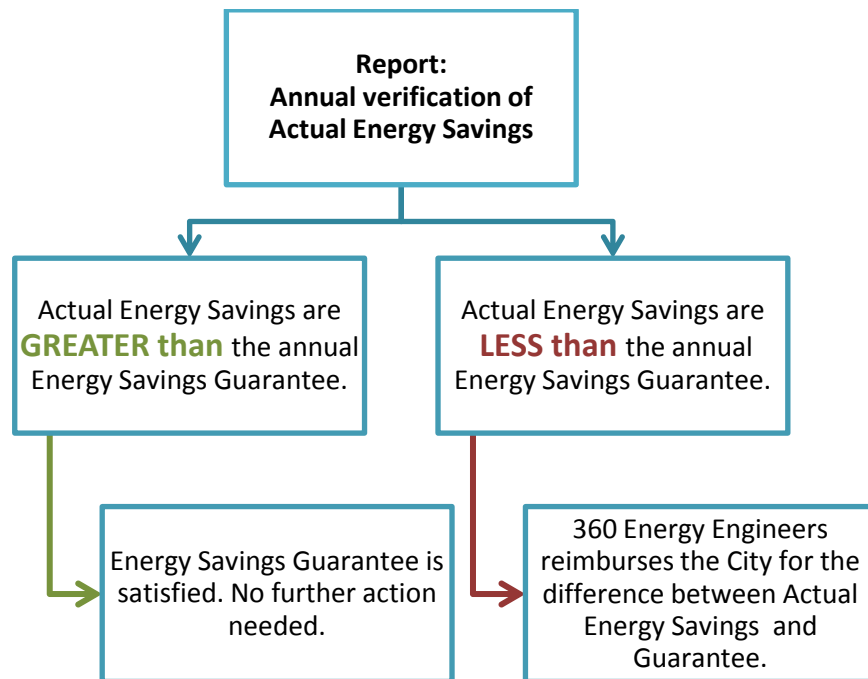
- 1) An annual verification of Actual Energy Savings, and
- 2) A calculation of the Actual Energy Savings for the entire 20 year project term.

The two verification tracks occur slightly differently, but both are important components of the Energy Savings Guarantee to understand. See the flow charts on the following pages.

## 1. Annual Verification of Actual Energy Savings:

360 Energy Engineers will provide a Customer Energy Savings Report identifying the Actual Energy Savings achieved for the first three years post-construction. This 36 month timeframe is the Savings Reporting Period. Reports will be delivered to the City of Lawrence in May of 2019, 2020, and 2021.

There are two possible outcomes of these annual reports:

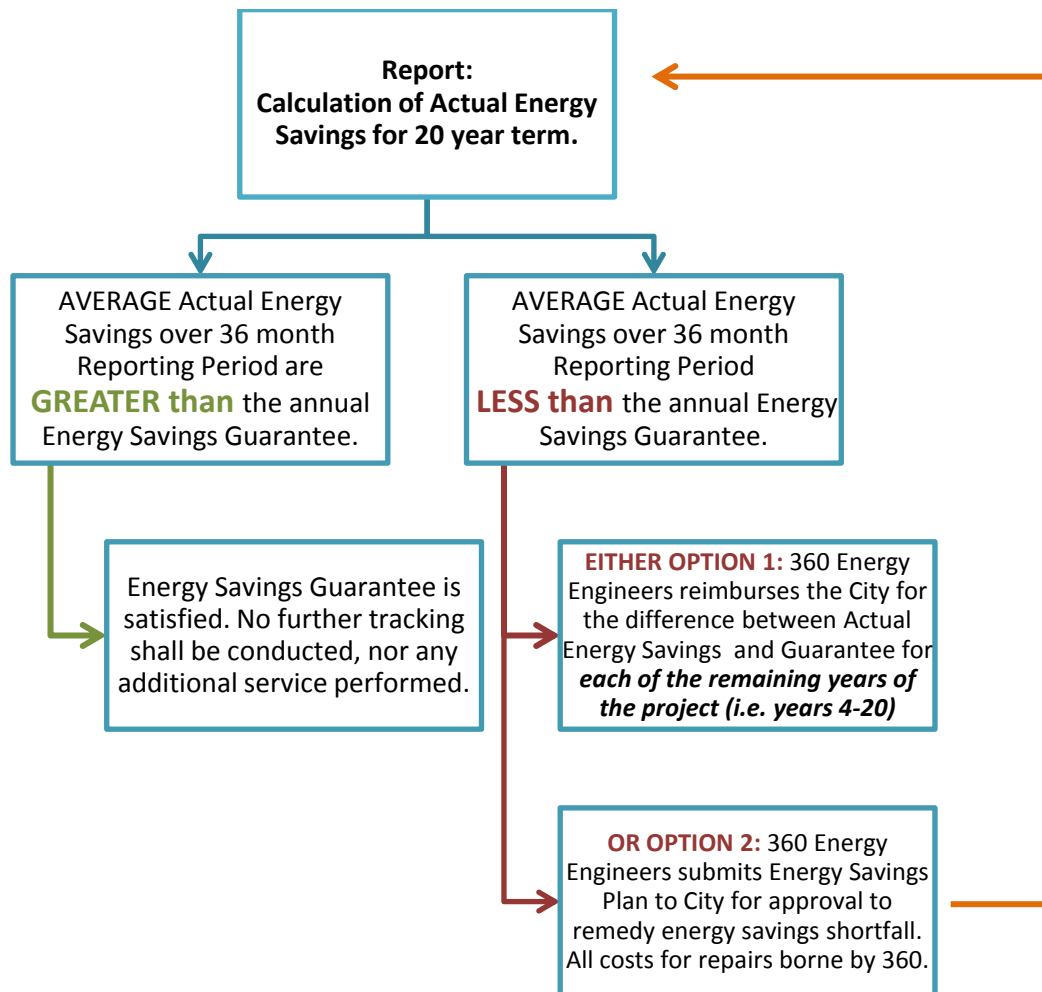


This process of annual verification of Actual Energy Savings will occur each year throughout the 36 month Savings Reporting Period. Therefore, each year, the City will either receive a reimbursement check from 360 for the savings shortfall, or the savings will be achieved, and no funds will be exchanged.

## 2. Calculation of the Actual Energy Savings for the entire 20 year project term:

The process detailed above could be repeated each year, with the Actual Energy Savings reported for each of the 20 years in the project term. However, this process is potentially cumbersome to administer. Also, the performance of a project in the first 36 months is often indicative of how the project will continue to perform over time.

Therefore, 360 Energy Engineers has proposed a method for calculating the Actual Energy Savings for the entire 20 year project term that is based upon the performance of the project in the first 36 months post-construction.



If Option 2 is agreed upon by 360 and the City, then 360 will make necessary repairs to improve the Actual Energy Savings realized by the project. Then, 360 will monitor for an additional 12 month period to ensure that the project is performing.

At the end of that 12 month period (now 48 months post-construction), 360 will provide another report to the City showing the Calculation of Actual Energy Savings for 20 Year

Term based upon 48 months of tracking. Depending upon the results of that report (i.e. greater than or less than), the process would begin anew at the top of the flow chart, above.

Staff are comfortable that the proposed calculation method is reasonable, but if instead, the Commission would like to request the annual Actual Energy Savings Reports be calculated each year, 360 would provide that service at a fee of \$25,600/year (adjusted annually for inflation for years 4-20 of the project).

### **Additional Schedules, Exhibits, and Appendices**

**Attached to the contract are the following detailed schedules, exhibits, and appendices.** We have provided a one sentence explanation of each of the schedule's contents.

- Schedule A Equipment to be Installed by ESCO**  
(This schedule lists all of the energy conservation measures and equipment to be installed in City buildings and facilities).
- Schedule B Description of Premises; Pre-Existing Equipment Inventory**  
(This lists the 39 City buildings impacted by the project, totaling 1,028,505 square feet of building space)
- Schedule C Energy Savings Guarantee**  
(This schedule details the calculation of the energy savings guarantee provided by 360 Energy Engineers, and the terms of that guarantee).
- Schedule D Compensation to ESCO**  
(Explains the process by which the ESCO (360) will apply for payment from the City, and how those payments will be processed and approved.)
- Schedule E Baseline Energy Consumption**  
(This is the baseline energy data used to calculate the energy savings, details the building operation schedules that the calculations were based upon).
- Schedule F Savings Measurement & Calculation Formulae; Methodology to Adjust Baseline**  
(Shows formulas used to calculate energy savings).
- Schedule G Construction and Installation Schedule**  
(Draft construction schedule for 2017).
- Schedule H System Start-Up and Commissioning; Operating Parameters of Installed Equipment**  
(All systems and equipment installed or modified will include start-up and commissioning. A detailed plan will be provided after project initiation).
- Schedule I Standards of Comfort**  
(Explains the temperature setpoints the buildings should operate at to achieve maximum savings).
- Schedule J ESCO's Maintenance Responsibilities**  
(360 is not responsible for ongoing maintenance of systems installed).
- Schedule K Customer's Maintenance Responsibilities**

(Upon installation, the City will be responsible or maintenance of systems installed).

**Schedule L Facility Maintenance Checklist**

(360 will provide the City with a complete facility maintenance checklist prior to the Acceptance of Project Completion).

**Schedule M ESCO's Training Responsibilities**

(360 will provide training to City of Lawrence staff on proper operation of all systems installed).

**Schedule N General Conditions**

(These are provided by the Kansas Corporation Commission and are the general conditions standard in construction projects. These cover both the state of Kansas and the City of Lawrence).

**Schedule O Annual Installment Payment Schedule to Financing Party**

(This is the annual installment payment schedule for project financing).

**Schedule P Detailed ECM Savings Calculations**

(Provided in the IGA report).

**Schedule Q Detailed Pollution Credit Calculations**

(Not applicable to this project).

**Exhibits**

Exhibit I Performance Bond

Exhibit II Labor and Material Payment Bond

Exhibit III i. Certificate of Acceptance – Investment Grade Audit  
ii. Certificate of Acceptance - Installed Equipment  
iii. Certificate of Acceptance – Project Completion

Exhibit IV Equipment Warranties

**Appendices**

Appendix A RFP for ESCO Solicitation

Appendix B ESCO Proposal

Appendix C Investment Grade Audit Agreement

Appendix D Investment Grade Audit Report