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CITY OF GARDNER
MASSACHUSETTS 01440-2630

OFFICE OF THE
CITY COUNCIL



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CITY CLERKS OFFICE
GARDNER, MA

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June 15, 2016

CITY COUNCIL INFORMAL MEETING

Date: Monday, June 20, 2016
Time: 7:00 P.M.
Location: City Council Chamber, Room 219, City Hall

ANNOUNCEMENT - Any person may make a video or audio recording of an open session of a meeting, or may transmit the meeting through any medium, subject to reasonable requirements of the chair as to the number, placement and operation of equipment used so as not to interfere with the conduct of the meeting. Any person intending to make such recording shall notify the Chair forthwith. All documents referenced or used during the meeting must be submitted in duplicate to the City Clerk, pursuant to the Open Meeting and Public Records Law. All documents shall become part of the official record of the meeting.

AGENDA

Presentation Relative to Calendar #9663, A Resolution Supporting the Performance Guaranteed Energy Auditing and Contracting Agreement with Honeywell International, Inc.

NOTICE: The listing of Agenda items are those reasonably anticipated by the Chair which may be discussed at the meeting. Not all items listed may in fact be discussed and other items not listed may also be brought up for discussion to the extent permitted by law.

CITY COUNCIL OF GARDNER
James M. Walsh
JAMES M. WALSH
Council President

9663

City of Gardner, *Executive Department*



Mark Hawke, Mayor

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June 13, 2016

2016 JUN 13 A 10:42

CITY CLERKS OFFICE
GARDNER, MA

James M. Walsh, President
And City Councilors
95 Pleasant Street
Gardner, MA 01440

RE: Honeywell Performance Management Contracting

Dear President Walsh and Councilors,

In an effort to become more efficient, save taxpayer dollars and upgrade our facilities, the City underwent a Request For Qualification (RFQ) process in order to initiate the process of utilizing MGL c25 §11, Performance Contracting. Honeywell International, Inc. was the company chosen by a committee comprised of the Purchasing Agent, Assistant City Engineer and Building Commissioner to act as the City's Energy Services Company (ESCO).

Through Performance Contracting an ESCO will enter into an Energy Management Services (EMS) contract, a type of Performance Contract, which will be used to install energy efficient facility improvements, with **NO** upfront costs, paid for out of **guaranteed energy savings** from our existing operating budget.

In other words, in a traditional manner, the City would pay for the design, materials and installation up front and then realize the savings associated with the upgrades. Through the EMS, the City's ESCO, has performed an investment grade audit of municipal (City and School) facilities. Utilizing this information a "baseline" has been established. This baseline will be utilized as a comparative factor moving forward. Our ESCO (Honeywell) will **guarantee** savings equivalent to the cost of design, materials and installation. The City then reimburses Honeywell over the course of 19 years (1 year of construction and 19 years to pay back) via the guaranteed savings.

The project cost is anticipated to be \$6.7 million. This means that the City will be guaranteed a savings of at least \$6.7 million. This guarantee allows the City to make badly needed upgrades to our facilities with no upfront costs and a guaranteed revenue neutral position.

I ask for your endorsement of the attached Resolution supporting the performance contract.

Respectfully,

Mark Hawke
Mayor, City of Gardner

RESOLUTION**SUPPORTING THE PERFORMANCE GUARANTEED ENERGY AUDITING AND CONTRACTING AGREEMENT WITH HONEYWELL INTERNATIONAL INC.**

WHEREAS, the City of Gardner (City), based on the achieved multi-million dollar energy and operational savings of other similarly situated municipalities, commenced a formal RFQ process to enter into a performance guaranteed energy auditing and contracting agreement with the selected firm;

WHEREAS, after the appropriate on site interviews a selection committee comprised of City staff selected, Honeywell International Inc, based on its technical expertise, sense for community involvement and guaranteed projected fiscal savings to conduct a full-fledged energy usage audit and to make the necessary Energy Conservation recommendations for all municipal buildings;

WHEREAS, Honeywell completed the audit and its report in May 2016 and worked with various municipal officials to finalize its recommendations;

WHEREAS, the Honeywell recommendations include the replacement of boilers, lighting upgrades, HVAC system upgrades, building envelope improvements, boiler control replacements, water conservation measures, electrical upgrades, the creation of an energy portal and the upgrading of all energy management systems with the latest technology to control costs and energy expenditures;

WHEREAS, the recommendations will assist the City and its taxpayers by avoiding approximately \$6.7 million in capital outlays in the proposed capital plan which is in addition to the overall projected \$7 million in savings from energy, operational and sustainability costs. These savings are guaranteed by Honeywell thereby creating a positive cash flow project;

WHEREAS, the overall project will be completed within 12 months and will be turnkey in nature with the necessary long term maintenance plan included in the agreement and will be of a great benefit to the City's citizens in terms of its fiscal and environmental impact;

WHEREAS, the City desires to purchase and/or lease to own certain equipment, with a cost not to exceed \$7 million dollars constituting personal property necessary for the City to perform essential governmental functions and to maintain and improve the operations of City facilities in terms of energy efficiency and cost effectiveness as detailed in the agreement between the City and Honeywell;

WHEREAS, the City proposes to enter into the appropriate Equipment Lease to own and/or Purchase agreements, to submit the necessary applications and seek qualification for the appropriate taxable energy conservation bonds and/or for any other tax-exempt avenues available to it to finance the overall project agreement with the appropriate financing entity in conjunction with Honeywell International, Inc.;

WHEREAS, any such financing will be subject to the City granting the financing entity a security interest in any equipment provided pursuant to said Equipment Lease to Own and/or Purchase agreements;

NOW THEREFORE, BE IT RESOLVED that the City Council of Gardner hereby authorizes the City by and through the Mayor to finance the lease and/or purchase of certain Energy Conservation equipment to be installed in City properties in an amount not to exceed \$7 million dollars and to further authorize the City to grant to any financing agency a security interest in said equipment.



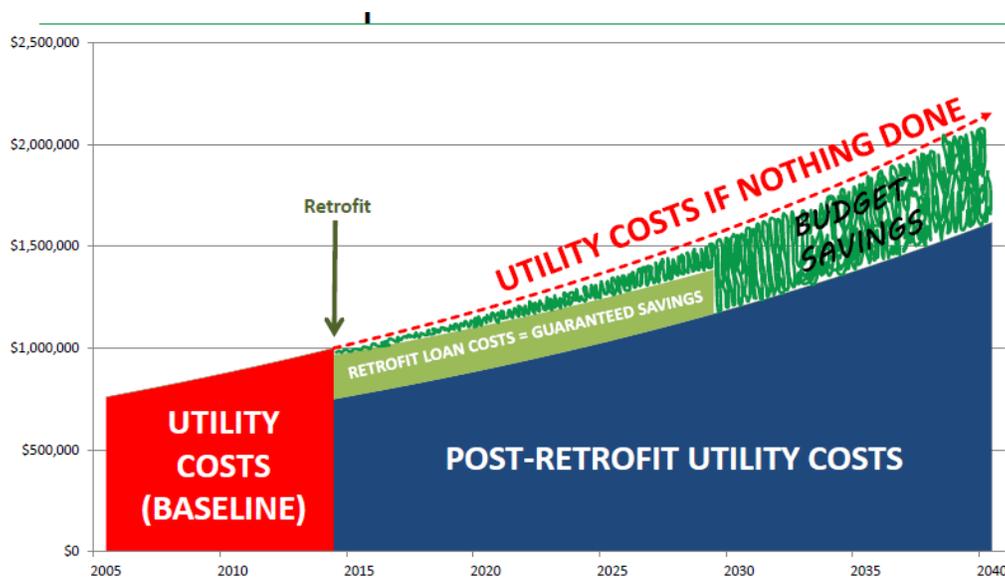
Introduction to Energy Performance Contracting



What is Energy Savings Performance Contracting (ESPC)?

ESPC is a turnkey service, which provides cities and towns with a comprehensive set of energy efficiency, infrastructure upgrades, capital improvements and generation measures and are accompanied with guarantees that the savings produced by a project will be sufficient to finance the full cost of the project. The typical term of an ESPC is twenty (20) years or less. There are two energy laws in Massachusetts enabling performance contracting and the ability to use this vehicle. A typical ESPC project is delivered by an Energy Service Company (ESCO) and with Honeywell consists of the following:

- ❖ Turnkey Service – The ESCO provides all of the services required to design and implement a comprehensive project at the customer facility, from the initial energy audit through long-term Monitoring and Verification (M&V) of the project guaranteed savings.
- ❖ Comprehensive Measures – The ESCO tailors a comprehensive set of measures to fit the needs of a particular facility, and can include energy efficiency, infrastructure improvements, distributed generation, water conservation and sustainable materials and operations. *This is focused on blended paybacks not on short term savings.*
- ❖ Open book pricing and vendor neutrality ensuring the cities and towns receive competitive pricing.
- ❖ Project Financing – The ESCO helps arrange for a long-term project financing through third party financing companies. Financing is typically in the form of a tax exempt municipal lease although bonds are also utilized.
- ❖ Project Savings Guarantee – The ESCO provides a guarantee that the savings produced by the project will be sufficient to cover the cost of project financing for the life of the project. If the guaranteed energy savings is missed the company writes a check to the City for the difference.



Schools & Municipalities can benefit from an Energy Performance Contract in numerous ways:

- ❖ Double digit energy savings ranging from 15-25% annual energy savings
- ❖ The City of Gardner's energy reduction is 30% of the energy baseline
- ❖ Infrastructure improvements that fund themselves – NO TAXPAYER IMPACT



Introduction to Energy Performance Contracting



- ❖ No need for bond issuance
- ❖ **Decrease Capital Budget needs as items can be incorporated into the EPC**
- ❖ Reduce carbon footprint
- ❖ Utility rebates and grants to help buy down cost of projects
- ❖ *“Do nothing”* in rising energy/budget cost environment is not an option

History of ESPC

The history of ESPC nationally can be usefully divided into four stages:

The Beginning of ESPC (pre 1980) – ESCOs were established to provide manpower and systems to enable utilities to meet federal and state mandates and offer energy conservation services.

Emergence of ESPC (1985 – 1993) – Utility programs evolved from purchasing services (e.g. home energy audits) to acquiring large amounts of kW or kWh as part of their Integrated Resource Plans (IRPs). ESCOs bid to provide the reduced kW or kWh and delivered turnkey projects to large industrial and institutional customers and financed the projects themselves.

Success and Consolidation (1994 – 2002) – Successful experience with ESPC documented in studies by the National Association of Energy Service Companies (NAESCO) encouraged the federal and state governments to promote ESPC. The implementation of the International Performance Measurement and Verification Protocol (IPMVP), which provided standard methods for documenting project savings, gave commercial lenders the confidence to begin financing ESPC projects on a large scale.

Pause and then Fast Growth (2003 – Present) – The collapse of Enron, the suspension of the federal ESPC program and the uncertainty about the deregulation of the electric utility industry caused a slowdown in the growth of ESPC from 2002-2004. Enabling legislation, large utility subsidies and an awareness of energy costs rising caused a dramatic focus on energy performance contracting. In the Commonwealth, two performance contracting laws, MGL 25a 11c and then 11i, eventually 11i was passed enabling a longer term, and flexibility for energy performance contracting in the state.

Turnkey Service

In an ESPC, an ESCO can provide the full range of services required to complete the project including:

- ❖ Energy Audit
- ❖ Design engineering
- ❖ Construction management
- ❖ Arrangement of long-term project financing
- ❖ Commissioning
- ❖ Operations & maintenance
- ❖ Guaranteed Energy & Operational savings
- ❖ Savings monitoring & verification



Introduction to Energy Performance Contracting



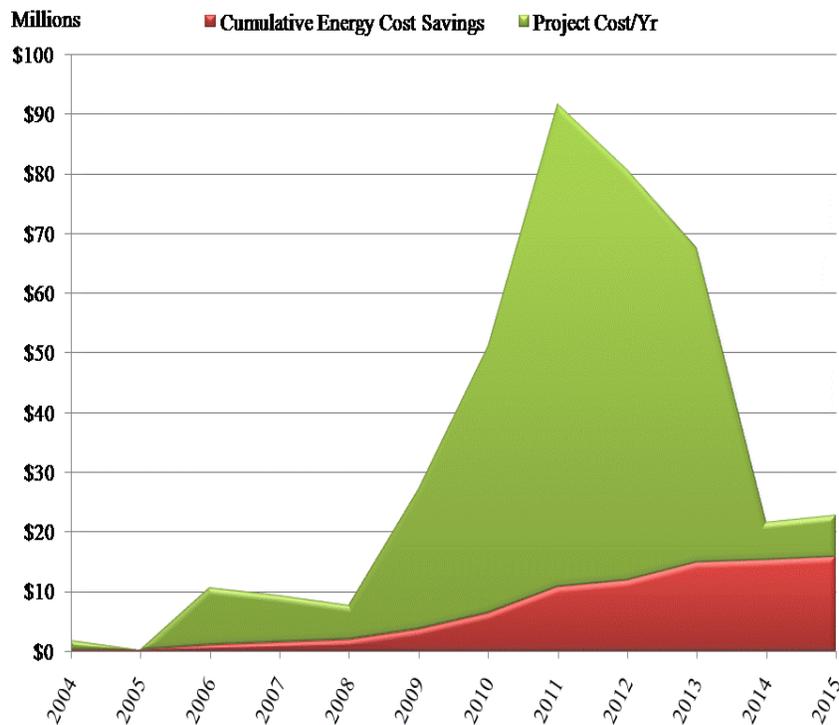
Comprehensive Measures

In an ESPC, the ESCO tailors a comprehensive set of measures to fit the needs of the customer, including any of the following:

- ❖ Lighting/Street Lighting/Exterior lighting
- ❖ Heating, air conditioning and ventilation
- ❖ Mechanical system upgrades – boiler plants, cooling equipment
- ❖ Gas conversions/Fuel conversions
- ❖ Control systems
- ❖ Building envelope improvements (insulation, roofs, windows, etc.)
- ❖ Demand response
- ❖ Solar projects/geothermal and biomass installations
- ❖ Water and sewer – metering and use reduction
- ❖ Microgrid development/installation

Projects implemented in the Commonwealth

Municipalities have utilized performance contracting in Massachusetts since the early 90's, but only started tracking data closely since 2002. Between 2002 and the present, **one hundred eighty-three** Massachusetts local governmental bodies (municipalities, schools, regional schools) contracted for ESPC with contracts valued at over **\$364 million**. These projects will provide guaranteed energy cost savings of **\$17.8 million annually**.





Introduction to Energy Performance Contracting



A few examples of municipal projects in the Commonwealth are as follows:

Town of Randolph, MA

Proven Experience

- **Ability to Address Similar Goals**
 - Infrastructure needs were most important
 - Reduced Energy Costs – 24% Reduction, Guarantee for 20 Years
- **Provided \$6.3 Million in Capital Improvements**
 - Town and Schools – 1.0M Square Feet
 - Utility Incentives of \$200k
 - Tax Exempt Lease & QZAB Bonds
- **Preservation and Improvement of Public Infrastructure**
 - 6 Major Boiler Plants, HVAC, Controls, Lighting, Steam Traps, Building Envelope Upgrades, Roof, Water Conservation, VFD's, Energy Kiosk
- **Community Involvement**
 - FMA Live – Honeywell – NASA Partnership
 - Business Journal
 - ACTI Earth Web Portal

Honeywell

City of Somerville, MA

Proven Experience

- **Ability to Address City Goals**
 - Reduced GHG Emissions by 17%
 - Reduced Energy Costs – 16.5% Reduction, Guarantee for 20 Years
- **Provided \$7.9 Million in Additional Capital Improvements – Self Funded**
 - Reduced Energy Costs by Over \$450k Per Year
 - Utility Rebates/MTC Grant
 - Financing – Tax exempt lease & bond
- **Preservation and Improvement of Public Infrastructure**
 - HVAC, Controls, Renewable Energy Solutions, Co-generation, Lighting, Steam Traps, Solar Heating, Green Power Purchasing, Building Envelope Upgrades
 - **Installed 3 Performance Contracts over 25 Years**
- **Eliminate Project Risks**
 - Communication Plan – Minimize Disruptions/Maximize Impact
 - ACT Earth Days

Honeywell

City of Worcester, MA

Proven Experience

- **Goals of the City and Accomplishments**
 - Capital Improvements, Energy reduction & Infrastructure renewal
 - \$2.4M in incentives, Guarantee for 20 Years
 - SREC & REC Value is \$17.8M over the twenty years to the City
- **Project size: Phase 1: \$26.65M and Phase 4: \$38.69M**
- **Financing:**
 - Tax exempt bond for Phase 1, 2, 3 & 4
- **Preservation and Improvement of Public Infrastructure**
 - Boiler Plant Replacement, Solar installation – 11MW Solar, EMS Controls, Lighting, Steam Traps, Roof replacement, Boiler – Burner Controls, AHU/VAV Conversions, Replace Chillers & Cooling Towers, Replace RTU's, Transformer replacements, Street Lighting, Wind Turbine – Educational Use, Water Conservation & Building Envelope, Roof Replacement, Window/Door replacement, Domestic Hot Water installations, Heat Recovery, Variable Frequency Drive Installations, Computer power management, and Building Envelope/Piping Insulation

Honeywell



City of Gardner – Finance Committee/City Council

Honeywell

Agenda

- **Energy Performance Contracting**
- **Project Update/Timing**
- **Scope of Work/Guaranteed Results**
- **Next Steps**



Energy Savings Performance Contracting (ESPC)

Our Purpose:

To co-author a *guaranteed energy solution under MGL 25A 11c* to enable the City to redirect your existing energy and operational expenditures to pay for the project and save capital dollars.

Improve Comfort, Reliability and Efficiency of Existing Buildings

Project Funded from Resulting Savings w/o impact to tax payers

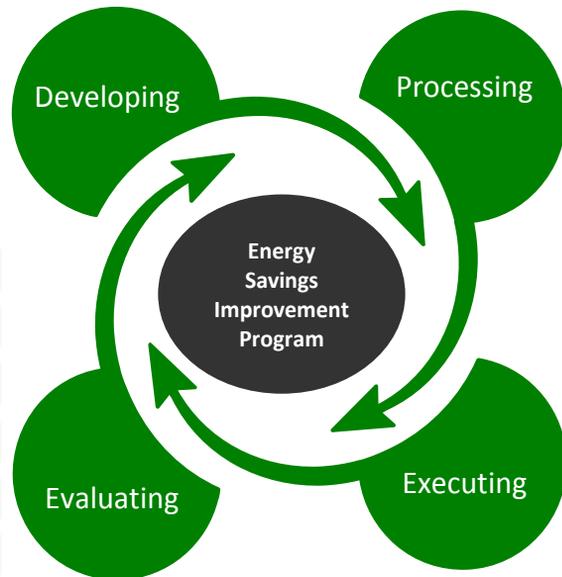
Energy Services Company Guarantees Savings

Projects Produce Significant Energy Efficiency Rebates

Define City Goals and Building Needs

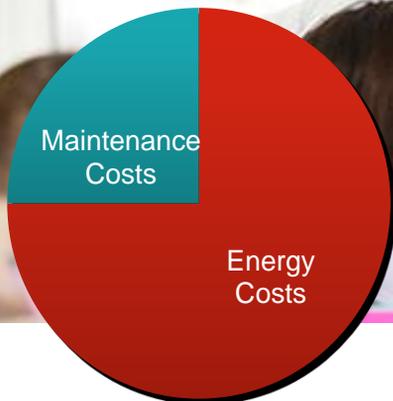
Co-author Long Term Vision for the City of Gardner

Open Book Pricing and Vendor Neutral Protocols



Energy Savings Improvement Program

Before Improvements



After Improvements



No Increase in Taxes - Guaranteed Savings
- No Capital Outlay - Annual Savings of \$395,375

Project Overview and Timing

- Honeywell awarded Energy Performance Contract 1/15/16
- Kick off meeting and site surveys begin 2/3/16
 - Develop timeline and deliverables
- Honeywell develops 30% report of building surveys 3/18/16
 - Identifies potential upgrades
 - Gathers energy data/square footage
 - Develops overview of building/Review report
- Honeywell develops 60% report of energy measures 4/8/16
- Potential cost/savings are identified
 - Building scope is reviewed/modifications/deletions
 - Develop list of final measures/scope/term
 - Measurement & Verification Options reviewed
- Honeywell develops 90% report of energy measures 5/9/16
 - Final energy savings & scope developed- guarantee finalized
 - Final Investment Grade Audit (IGA) & contracts are developed
 - Finance Review/RFP review
 - Set board meetings/Financing/Contract legal review
 - **Summer Construction**

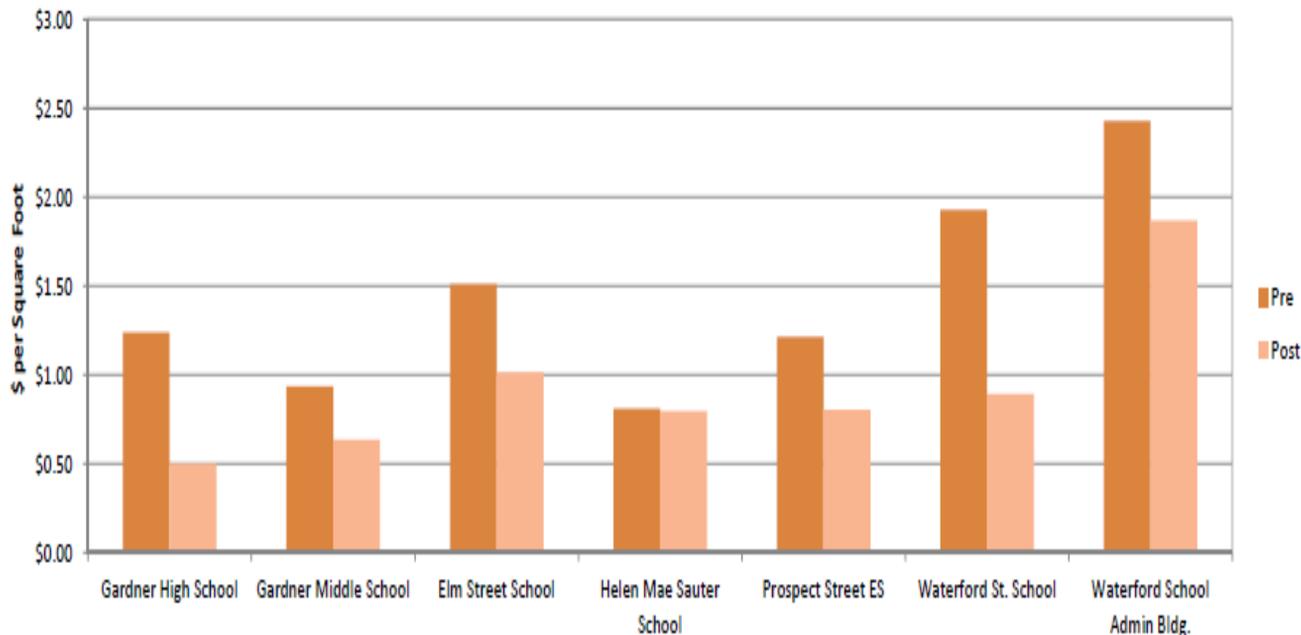
Energy & Infrastructure Scope



- LED Lighting & Lighting Controls
- Boiler Plant Replacement/Upgrades
- Domestic Hot water replacements
- Replace Kitchen Equipment
- Kitchen hood/freezer controllers
- De stratification Fans
- Installation of Infrared Heaters
- Heat Pump Replacement
- Energy Management Controls
- Replace Unit ventilators
- Refurbish Air Handling Units
- Building Envelope Improvements
- Steam Trap Replacement
- Pipe Insulation
- Solar PV upgrades
- Computer Power Management
- Plug Load Peripherals
- Transformer Replacement
- Water Conservation

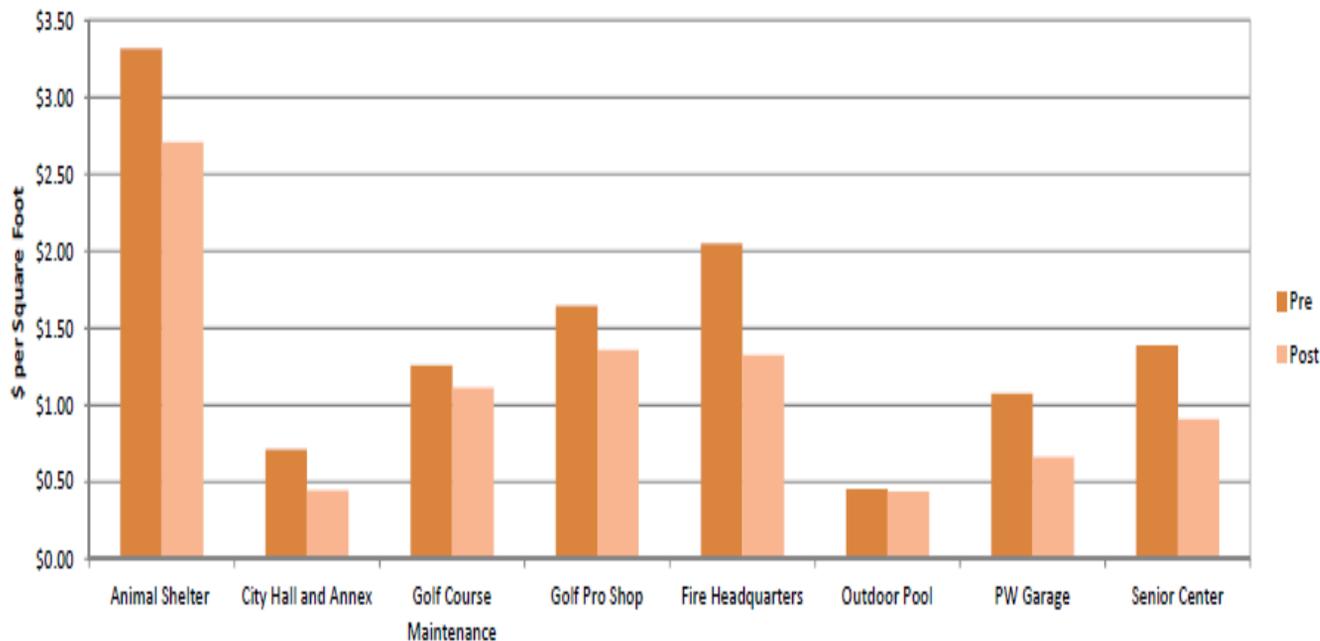
Projected Savings - Schools

Project Impact on Total Utility Cost per Square Foot



Projected Savings - City

Project Impact on Total Utility Cost per Square Foot



Financial Overview

➤ Total Implementation Cost	\$6,675,188
➤ Contingency	\$66,752
➤ Total Financed Amount	\$6,741,940
➤ Finance Term	19 Years
➤ Annual Energy & Operational Savings	\$395,375
➤ Total Utility Incentive Estimate (Projected)	\$201,000
➤ Total Utility Incentive Estimate (Carried)	\$150,000
➤ Estimated Annual Positive Cash Flow	\$3,600



Thank you...