Facilities Conservation Improvement Program (FCIP) City of Lawrence

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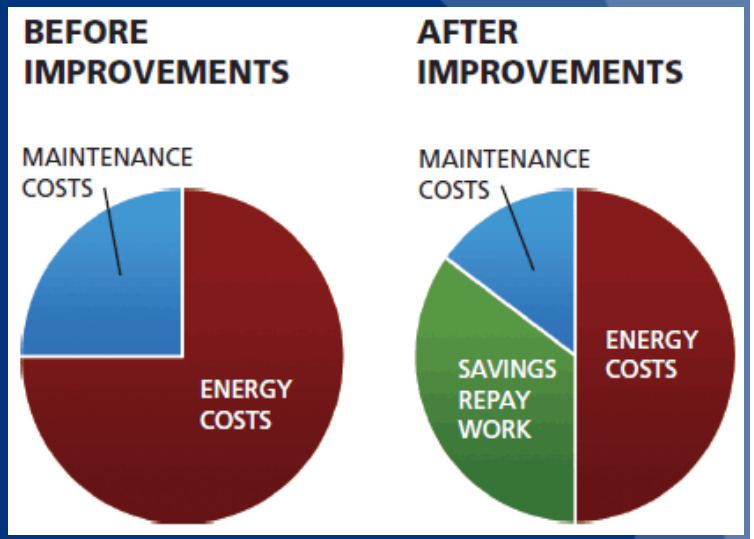
Timeline:

- **December 30, 2015**: City Commission authorized staff to initiate FCIP project to save energy, save money, and improve buildings and facilities.
- **January 2016:** Staff in Public Works and Parks & Recreation submitted preferred buildings and facilities to include in FCIP.
- **February – March**: City issued Requests for Information, selected Energy Service Companies for interviews, selected 360 Energy Engineers as preferred firm.
- **April-May:** Ongoing communication amongst City staff and 360 to ensure that the firm's approach meets the needs of the City.
- **Today:** Requesting Commission authorization to initiate a contract with 360 Energy Engineers for the next stage of the FCIP project, the Investment Grade Audit.

The Performance Contracting Model:

A method for making energy efficiency building improvements in which energy and operational cost savings cover the debt service.

- Energy savings are identified with energy audit.
- City's partner firm leads all facets of project design and implementation.
- Energy savings pay for the project.
- Energy savings are guaranteed by the firm.



The Facilities Conservation Improvement Program:

A state program that facilitates performance contracting in public buildings.

- Third-party oversight – experienced consulting to help you get the best value in the energy performance contracting model.
- Informed and knowledgeable review of energy audits and contract documents, and provides pre-negotiated contracts.
- Provides technical, legal, and financial oversight.

http://www.kcc.state.ks.us/energy/fcip/

Benefits of FCIP participation:

- Save energy in our buildings and facilities,
- Reduce utility bills,
- Address deferred maintenance,
- Reduce maintenance costs,
- Provide important comfort and safety upgrades,
- Provide leadership on sustainability and greenhouse gas emissions reduction goals.

Potential FCIP Projects

- **Lighting**
  New lamps and ballasts, fixtures, daylighting (i.e. LED traffic signals downtown, parking lots)
- **Heating**
  Replace boilers, steam traps, pumps (i.e. Community Health Building boiler replacements)
- **Cooling**
  Replace chillers, cooling towers, RTUs, etc.
- **Controls**
  New Energy Management Systems and commissioning
- **Water**
  Low-flow fixtures, waterless urinals, water treatment plants
- **Building Shell**
  Insulation, windows, roofs (i.e. assessment of City Hall windows)
- **Alternative Energy**
  Wind, solar, geothermal
- **And more**

What is the Process?

FOUR MAIN STEPS

- **Preliminary Audit**
  Determine if savings are available

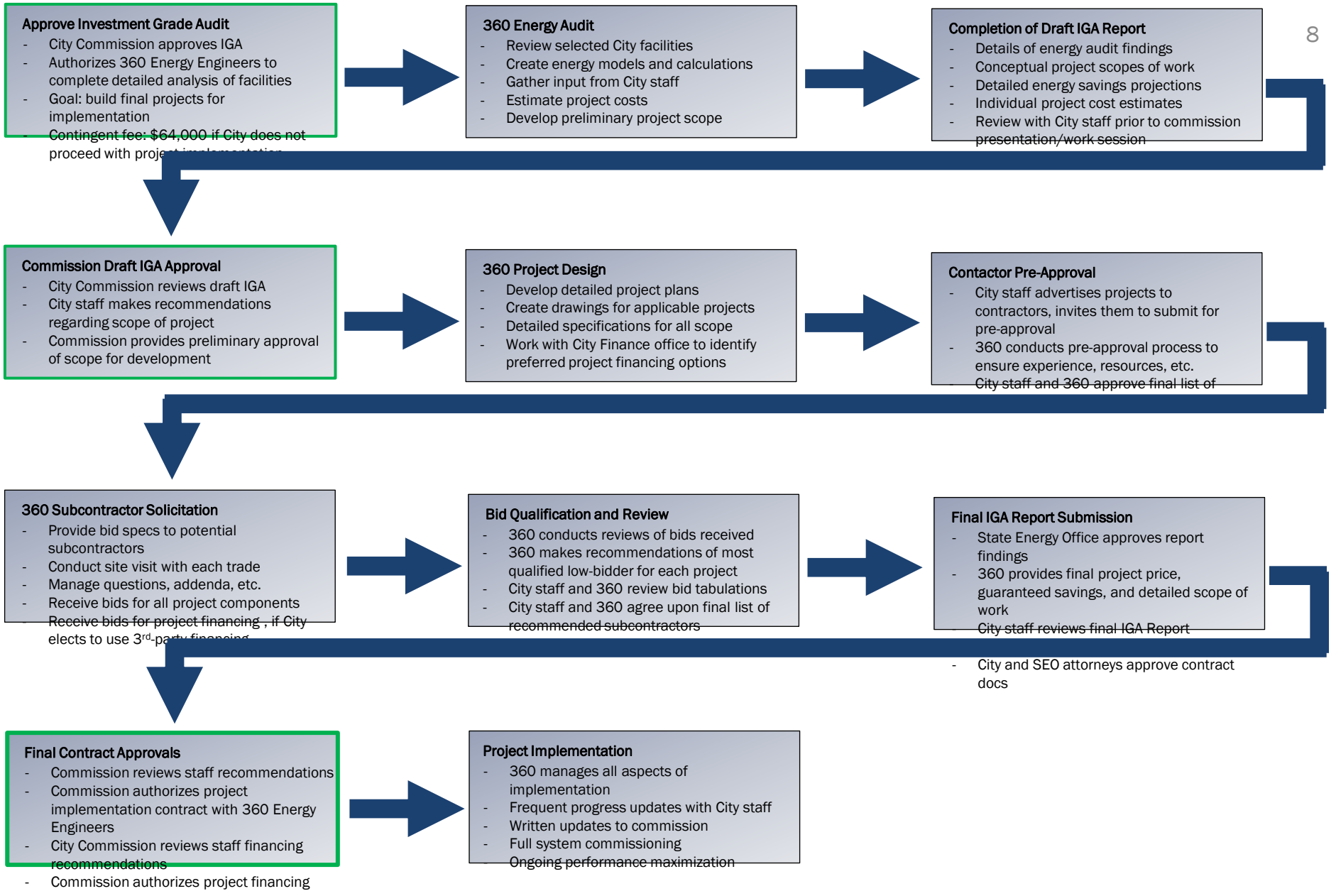
March 9

- **Investment Grade Audit**
  Identify and quantify savings/improvements

May-July

- **Energy Performance Contract**
  Construction of improvements

- **Measurement & Verification**
  Energy and operational cost savings
  Shortfall check for unrealized savings

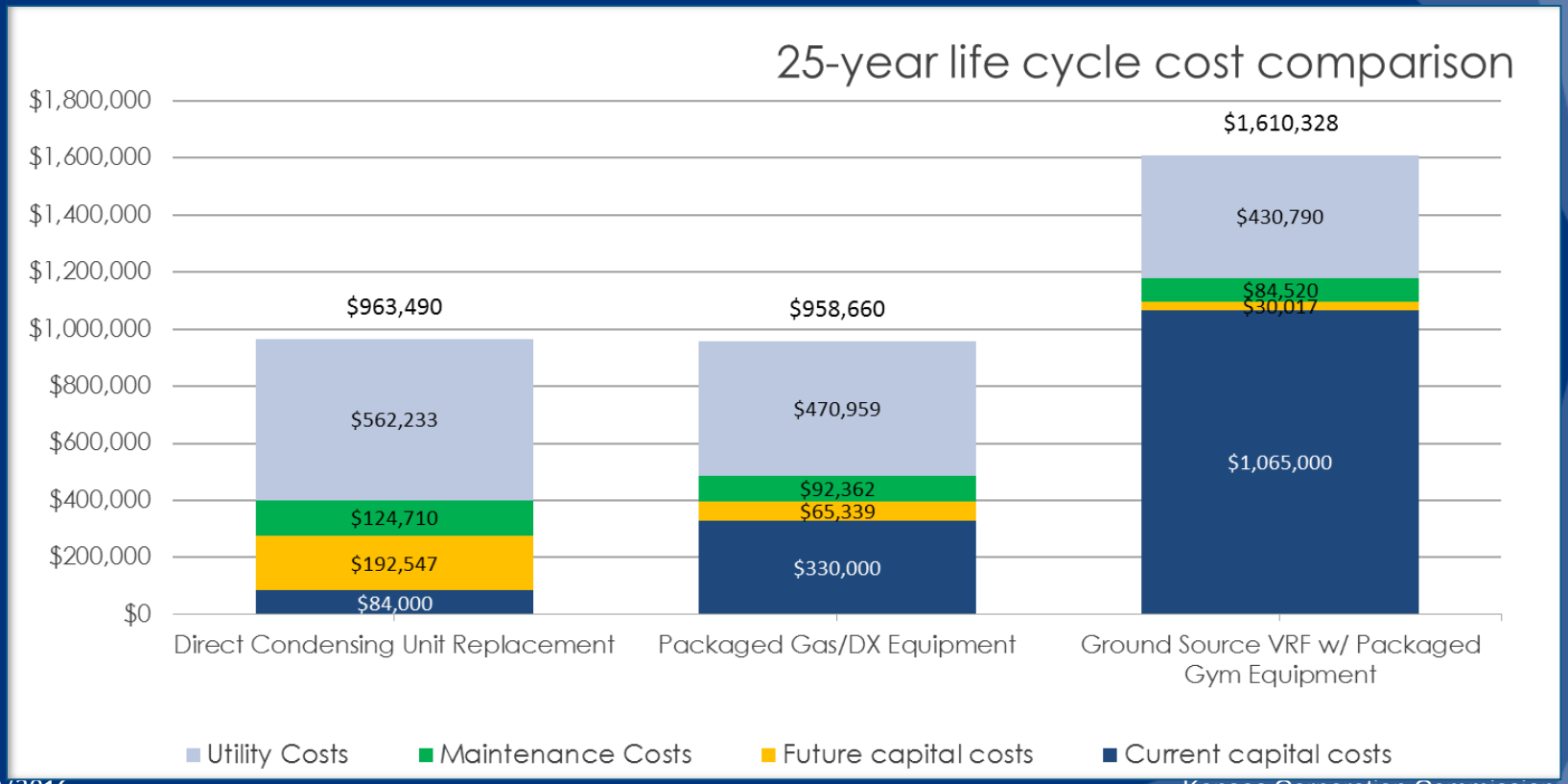

Approve Investment Grade Audit
- City Commission approves IGA
- Authorizes 360 Energy Engineers to complete detailed analysis of facilities
- Goal: build final projects for implementation
- Contingent fee: $64,000 if City does not proceed with project implementation
360 Energy Audit
- Review selected City facilities
- Create energy models and calculations
- Gather input from City staff
- Estimate project costs
- Develop preliminary project scope
Completion of Draft IGA Report
- Details of energy audit findings
- Conceptual project scopes of work
- Detailed energy savings projections
- Individual project cost estimates
- Review with City staff prior to commission presentation/work session
Commission Draft IGA Approval
- City Commission reviews draft IGA
- City staff makes recommendations regarding scope of project
- Commission provides preliminary approval of scope for development
360 Project Design
- Develop detailed project plans
- Create drawings for applicable projects
- Detailed specifications for all scope
- Work with City Finance office to identify preferred project financing options
Contactor Pre-Approval
- City staff advertises projects to contractors, invites them to submit for pre-approval
- 360 conducts pre-approval process to ensure experience, resources, etc.
- City staff and 360 approve final list of
360 Subcontractor Solicitation
- Provide bid specs to potential subcontractors
- Conduct site visit with each trade
- Manage questions, addenda, etc.
- Receive bids for all project components
- Receive bids for project financing , if City elects to use 3rd-party financing
Bid Qualification and Review
- 360 conducts reviews of bids received
- 360 makes recommendations of most qualified low-bidder for each project
- City staff and 360 review bid tabulations
- City staff and 360 agree upon final list of recommended subcontractors
Final IGA Report Submission
- State Energy Office approves report findings
- 360 provides final project price, guaranteed savings, and detailed scope of work
- City staff reviews final IGA Report
- City and SEO attorneys approve contract docs
Final Contract Approvals
- Commission reviews staff recommendations
- Commission authorizes project implementation contract with 360 Energy Engineers
- City Commission reviews staff financing recommendations
- Commission authorizes project financing
Project Implementation
- 360 manages all aspects of implementation
- Frequent progress updates with City staff
- Written updates to commission
- Full system commissioning
- Ongoing performance maximization

The Investment Grade Audit

- Comprehensive analysis of 40 buildings/facilities– looks at opportunities in lighting, heating, cooling, water, renewable energy.
- ESCO delivers final audit with potential performance contract project, with energy conservation measures and financing recommendations.
- Audit cost is based on pre-negotiated rates, but the cost becomes part of the performance contract, and can be rolled into total project financing.

Sample Investment Grade Audit Results

Holcomb Recreation Center HVAC System Replacement: Life Cycle Cost of HVAC System Alternatives



Audit Scope

Staff have recommended 40 buildings/facilities within the City that are in need of energy improvements. Include:

- City Hall
- Lawrence Arts Center
- Community Health Building
- Holcomb, East Lawrence, Community Building
- Aquatic Centers – both indoor and outdoor
- Fire Stations
- Airport facilities
- Various lighting opportunities – parks, parking lots, school crossing beacons, downtown traffic signals

360 Energy Engineers Overview

- Founded in Lawrence in 2010 to operate differently than traditional ESCOs
  - ✓ Core project team has led growth of industry since Kansas began FCIP in 2000
  - ✓ Founders saw good – and bad – of PC industry working with traditional ESCOs and as client
- The 360 Vision
  - ✓ Balance the benefits of design/bid/build with those of traditional performance contracting
  - ✓ Full in-house engineering to deliver turnkey projects
  - ✓ Transparency and ongoing customer involvement
  - ✓ Vendor neutrality enables use of qualified low-bidders and local subcontractors
- Originally located in BTBC; moved to Hobbs-Taylor in 2014
- Becoming part of Willdan Group provided access to the most complete portfolio of Municipal Services in the U.S.

Other Relevant Projects

University of Kansas

- Retro-commissioning Ambler Student Recreation Center
- LED parking garage lighting upgrades
- Measurement and verification services

Harvey County, Kansas

- Installation of geothermal heat pumps at Courthouse
- County-wide lighting retrofit
- Window and door replacements

City of Belton, Missouri

- On-Call Energy Services
- Projects in development
- Evaluation of street-lighting acquisition

Other Relevant Projects

City of Eudora, Kansas

- Water meters & AMI
- Street lighting conversion to LED
- Building Energy Improvements

King County, Washington

- Corrected major IAQ issues in world-class aquatic center
- Corrected major ventilation issues in locker rooms
- Replaced antiquated HVAC Systems

City of Elk Grove, California

- Replaced approximately 10,000 streetlights with LED
- Managed project from design through implementation
- Oversaw transparent competitive bidding process

Why 360 Energy Engineers

- 100% design of selected projects before contract approval
  - ✓ Ensures City staff fully understands scope they are buying
  - ✓ Allows for competitive bidding process
  - ✓ Clarity reduces risk and ensures lower subcontractor pricing
- Commitment to Lawrence
  - ✓ 360's growing presence in Lawrence benefits local community
  - ✓ Company seeks to maximize use of local contractors
  - ✓ Transparent and flexible in approach to IGA and project implementation
- Best Financial Value
  - ✓ Design and competitive bidding ensure lower subcontractor pricing
  - ✓ Lower markups than traditional ESCOs considered during selection process

Request from Commission

- Authorize the City Manager to initiate an Investment Grade Audit Agreement with 360 Energy Engineers to conduct investment grade audits of approximately 40 city buildings and facilities.