

# Finding the Funds to Renovate: Energy Savings Performance Contracting

2010 High Performance Sustainable Schools Workshop

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# Overview

- **Defining Energy Savings Performance Contracting (ESPC)**
- **Legislation**
- **When is ESPC Applicable?**
- **Advantages of ESPC**
- **Sample Cash Flow and Self-Funding Program**
- **Funding Options**

# Energy Savings Performance Contracting (ESPC) Defined

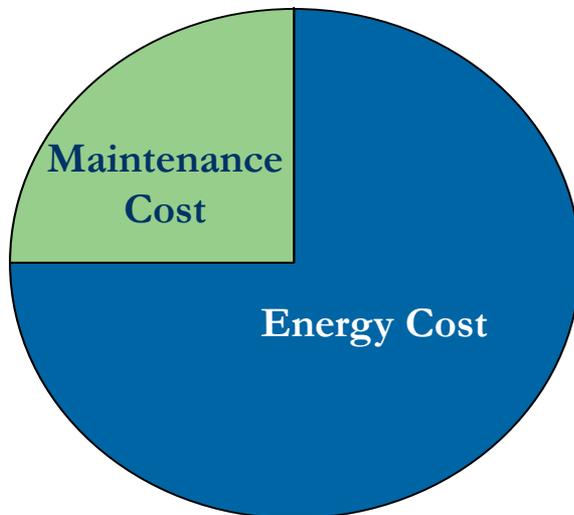
“The use of guaranteed savings from the maintenance and operations budget (utilities) as capital to make needed upgrades and modernizations to your building environmental systems, financed over a specified period of time.”



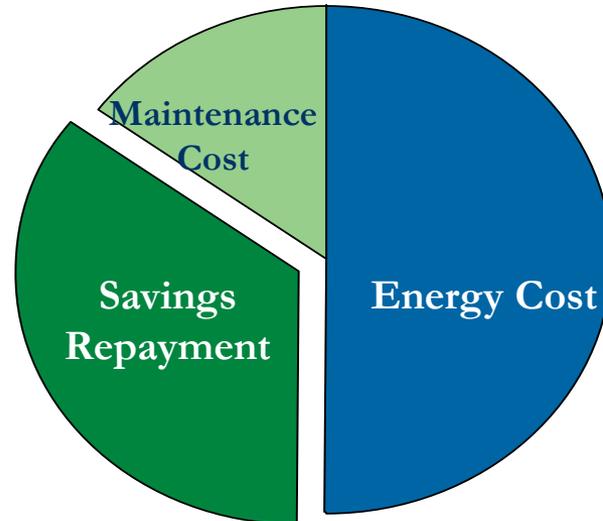
-United States Department of Energy

# What is Performance Contracting?

The ESCo guarantees that cost avoidance (utility & operations expenses) will meet or exceed annual payments to cover all project costs, over an agreed debt service period, or the ESCo pays the difference.



Pre Project



Post Project

# Legislation (History)

- The ESPC legislation is permissive (not mandated), but when used, the provisions must be followed.
- The legislation is intended to provide a mechanism for ESPC to assist government agencies in making buildings more energy-efficient.
- The 1996 legislation provided for the use of ESPC as a private sector financing mechanism.
- ESPC requires that qualified providers, Energy Service Companies (ESCo's) guarantee the savings will pay for energy improvements.
- The 1998 legislation, stipulates requirements for local governments that had been previously specified by regulations under the 1996 legislation and expands on these regulations.

# Statutory Authority

## KRS 45A.345 - 45A.460

- Authorizes the use of guaranteed energy savings performance contracts by units of local government.
- Requires regulations to be promulgated by the Department of Education for school districts and the Department for Local Government for cities, counties, and other units of local government. The regulations specify requirements that must be met to use ESPC. (702 KAR 4:150 for schools).

# Statutory Authority

- Statutory requirements oblige school districts to adhere to the approval process (policies/regulations) for ESPC established by the Department of Education.
- Chief state school officer must approve or disapprove ESPC for local school districts.
- Requires an RFQ/RFP process and that process satisfies the requirements in KRS 162.070 for low bid and shall not be subject to an award determination based on the lowest competitive bid or a separate bidding process for each energy conservation measure (ECM) listed in the proposal.
- Exempts ESPC from current and future debt limitations except that capital cost avoidance shall be limited to current and future debt limitations.

# When is an ESPC Applicable?

- Have Deferred Maintenance Issues & Aging Equipment
- Lack of Funds for Building Improvements
- Budget Constraints and High Utility Costs
- Little Experience with Energy Efficiency
- No Recent Upgrades of Lighting, Water, or Controls
- Have Comfort Complaints
- Too Many Demands on Maintenance Staff

# Benefits of PC

- Rising utility costs
- Aging plant operations and infrastructure
- Rising maintenance costs
- Access to capital

# Advantages of PC

- Improves the working environment and comfort
  - Proven to increase productivity  
<http://cnx.org/content/m23100/latest/>
- Minimize capital costs
  - Money already allocated for utilities is used for improvements
- Savings and performance are guaranteed by ESCo
- Fixed price contract, no change orders
- Proven results, technology, & expertise
  - Reliable way to make energy saving improvements and needed infrastructure upgrades

# Opportunity Assessment / Feasibility Study

- **Utility Analysis Results**

- Baseline Year Utility Costs
- Utility Cost Index
- Savings & Program Potential
- Project Illustration
- Facilities with Savings Potential

- **Conservation Opportunities**

- Lighting
- Water
- Environmental Controls
- Electrical
- Building Envelope
- HVAC
- Renewable Energy

# Sample Cash Flow: Self-Funding Program

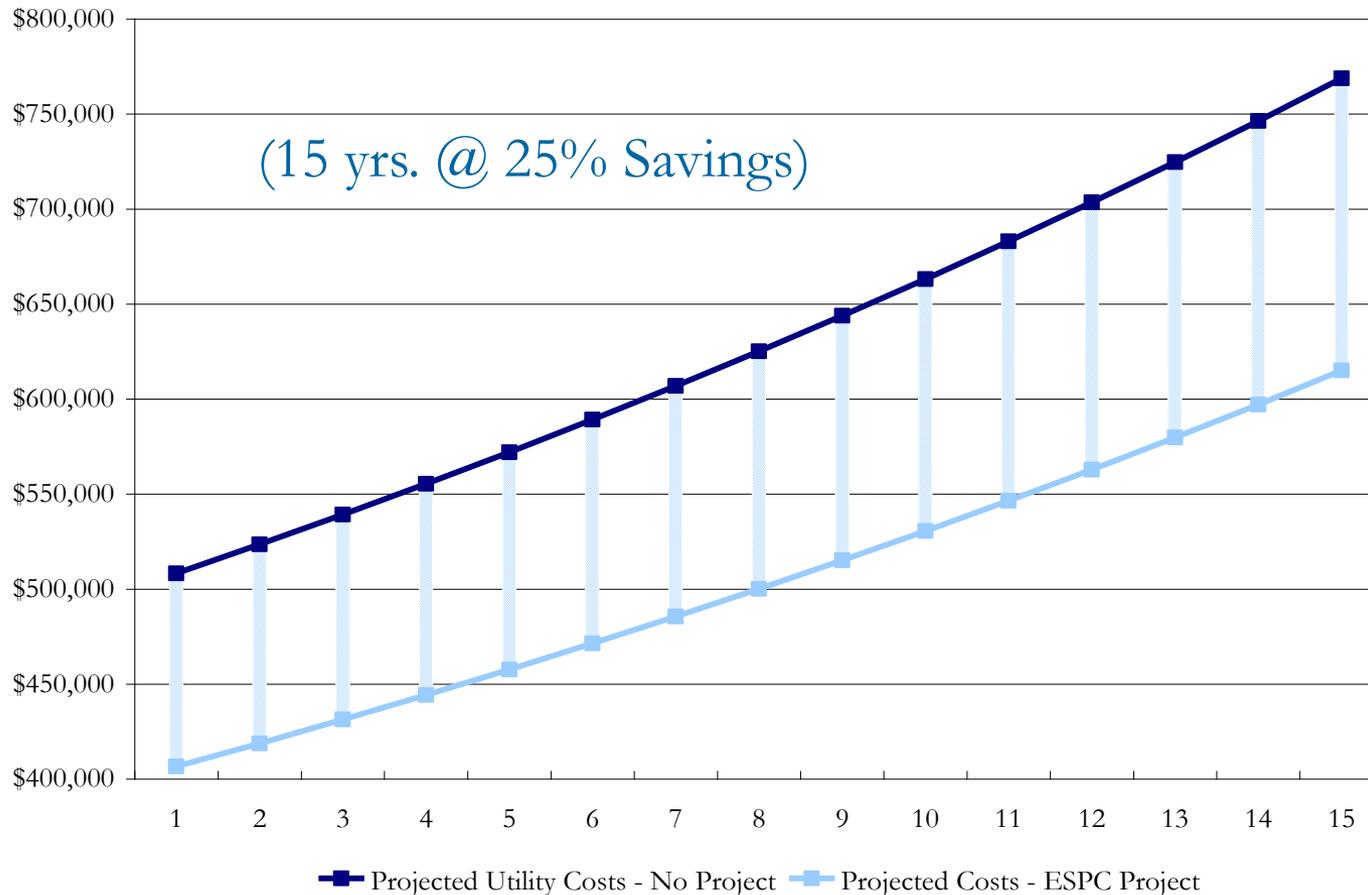
- Scenario:
  - School System has 6 schools in varying conditions, Board Office and Bus Garage
  - Annually pays \$508,230 in combined utilities for all facilities
  - Want payback at 12 and 15 years
  - Need self-funding program (savings pays for upgrades)

Utility	Total Cost
Electric/Natural Gas	\$476,342
Water	\$20,334
Sewer	\$11,553
<b>Total</b>	<b>\$508,230</b>

# Savings and Program Potential

<b>Potential Self-Funding Savings &amp; Program Potential</b>			
<b>Energy Savings %:</b>	<b>20%</b>	<b>25%</b>	<b>30%</b>
<b>1st Year Energy Cost Savings:</b>	\$101,646	\$127,058	\$152,469
<b>1st Year Estimated O&amp;M Savings:</b>	\$10,165	\$12,706	\$15,247
<b>1st Year Total Annual Cost Savings:</b>	\$111,811	\$139,764	\$167,716
<b>Measurement &amp; Verification Fee:</b>	\$6,510	\$8,138	\$9,765
<b>Financed Interest Rate:</b>	5.0%	5.0%	5.0%
<b>12 Year Program Potential:</b>	<b>\$1,085,032</b>	<b>\$1,365,291</b>	<b>\$1,627,549</b>
<b>15 Year Program Potential</b>	<b>\$1,319,368</b>	<b>\$1,649,211</b>	<b>\$1,979,053</b>

# Savings & Program Potential



# Chief State School Officer

- The Chief State School Officer (Facilities Director) Provides Guidelines for Approval of ESPC:
  - Compliant with KRS 45A and 157.420 and 157.440
  - Compliant with technical, health, and safety standards as required by administrative regulation;
  - Compliant with the district's approved facility plan;
  - Funding capability of the school district; and
  - Financing mechanism and proper financing documentation.
- Call Mark's Office! (502) 564-4326

# Funding Requirements

- Restricts the use of energy conservation revenue bonds to ESPC
- Requires the term of energy conservation revenue bonds to run conterminous with the term of the ESPC
- Permits a local public agency to finance the installation of energy conservation measures (ECMs) through a lease-purchase agreement, bonds, or whatever brings the most economical value to the local public agency subject to compliance with all other laws regarding approval of plans for additions, alterations, or renovation of buildings
- Requires that when energy conservation revenue bonds are used, the total cost of ECMs must not exceed the cost of the energy savings plus the operational cost plus the capital cost avoidance.
- Authorizes the use of **capital cost avoidance** by a local public agency with certain restrictions.

# Financing Options

- **General Fund**
- **Capital Outlay Allotment**
- **State and Local Funds from Facilities Support Program**
- **Green Bank of Kentucky (possible future source)**
- **Other**

# Financing Options-continued

The two main types of financing available for schools:

- **Tax-Exempt Financing** —Remains near historic lows (Fixed rates 12-Year @ 3.39% and 15-Year @ 3.70%)
- **“Build America Bonds”** —Projects over \$4,000,000 and term closer to 20 years Taxable Financing through the issuance of which come along with a 35% subsidy on interest payments paid directly by the federal government as part of the recent Federal Stimulus Package.

**Note:** On a large projects such as a new school or large renovation/addition the issuance of Build America Bonds could lower the NET average interest cost by up to a quarter of a percent.

# Other Funding Options

- **Qualified School Construction Bonds (QSCB's)**  
<http://www.education.ky.gov/KDE/>
- **Stimulus Funding**
- **Rebates**
- **Utility Incentives**
- **Recovery Zone Economic Development Bonds & Facility Bonds**

# Reference

- ENERGY STAR's Cash Flow Opportunity calculator :

[http://www.energystar.gov/index.cfm?c=business.bus\\_financing](http://www.energystar.gov/index.cfm?c=business.bus_financing)

- Financing
  - Financing Energy Efficiency Projects
  - Finding Money for Your Energy Efficiency Projects
  - Easy Access to Energy Improvement Funds
- Tools
  - Cash Flow Opportunity Calculator

**Thank you for your time!**

**Questions?**

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