



# Guaranteed Energy Savings Performance Contracting

---

“More with Less”



# Agenda

---

- Introduction
- History of Performance Contracting
- Understanding Educational Challenges
- Solutions for Schools
- Implementation Process
- Benefits of Partnership...



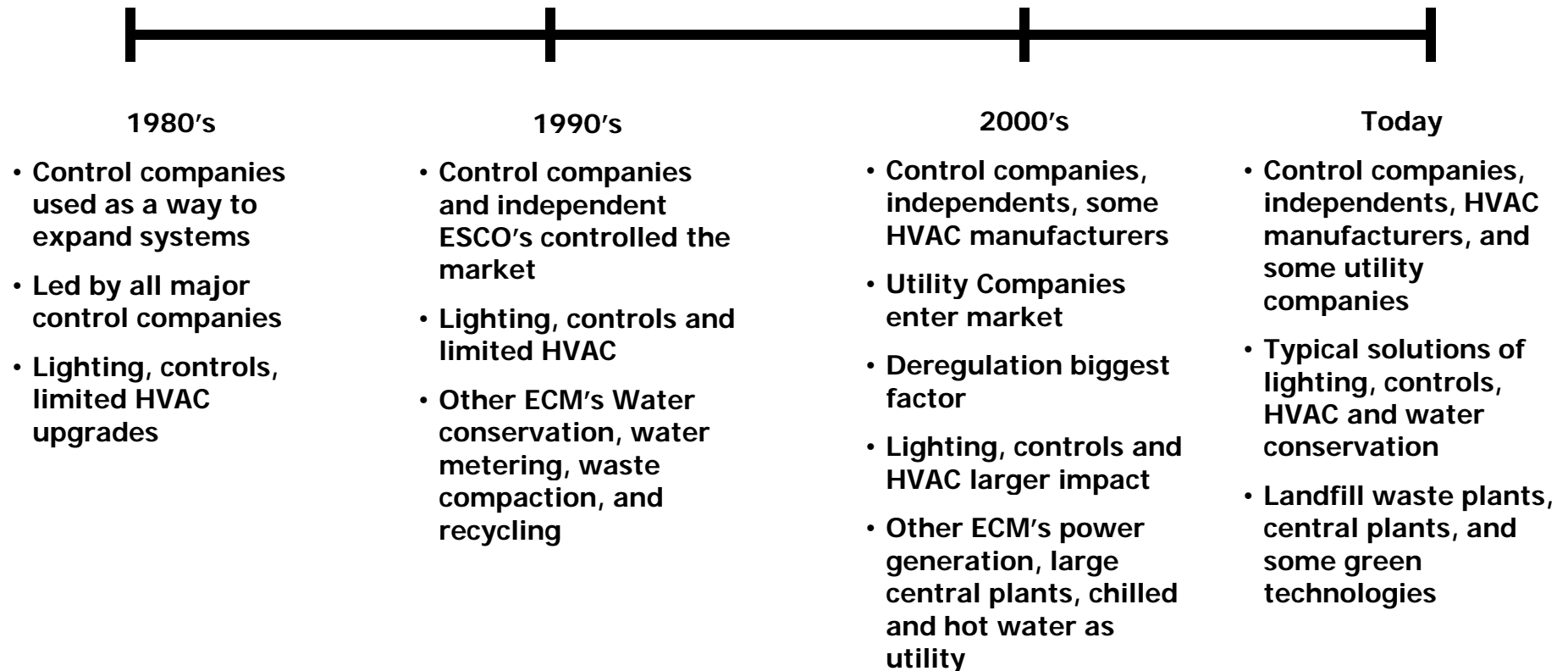
# History of Performance Contracting

---



# History of Performance Contracting

---





# Solutions for Your Schools

---

“More with Less”



# Educational Challenges

---

- Budget short falls due to shrinking economy
- SPLOSTS projections lower
- Growing student populations
- Increasing operating and utility expenses
- Aging Infrastructure,
- Increasing Technology Demands,
- Limited Man-Power and Deferred Maintenance
- All this while focusing on developing children and retaining staff...



# Energy Savings Performance Contracting

---

- A financial solution to help fund school needs
- Provide *REAL* Value,
  - Reduce utility consumption
  - Utilize energy savings to pay for upgrades
  - Improve classroom learning environment
  - Guaranteed construction – No change order
  - Guaranteed revenue stream to pay for the annual finance cost
- True partnership in your schools success

# Improved Budget Utilization

## *How Performance Contracting Works*



### *Current Utility Budget*

\$500,000

- Electricity Bills
- Natural Gas Bills
- Water Bills
- Aged Equipment
- Poor Learning Environment

### *Performance Contracting Goal*

\$400,000

- Lower Electricity Bills
- Lower Natural Gas Bills
- Lower Water Bills

\$100,000

Annual Lease Payment for 10 years

- New HVAC Equipment
- High Efficiency Lighting
- Low Consumption Plumbing

ESCO Guarantees the \$100,000



## How It Works

---

Project Cost	\$500,000
<ul style="list-style-type: none"><li>■ Lighting retrofit</li><li>■ HVAC replacements</li><li>■ Building automation</li><li>■ Others: roofing, metering, irrigation etc.</li></ul>	
Annual Savings	\$75,000
Less Annual Finance Cost	<u>(\$63,200)</u>
<ul style="list-style-type: none"><li>■ 10 year at 4.5%</li></ul>	
Net Positive Cash Flow	\$11,800



## Benefits

---

- Makes needed improvements to your schools infrastructure
- Improves the learning environment
- Project is paid from your existing utility budgets
- Avoid the need for capital funding
- Written guarantee that all savings are met
  - ESCO writes a check for the shortfall in savings
- Low Risk Solution



# Potential Building Upgrades

---



# Potential Upgrades in a Performance Contract

---

## Standard Upgrades

- Lighting retrofits
- Building automation
- Heating, ventilation and air conditioning
- Water Conservation

## Non Standard

- Building envelope – windows, doors and roofs
- Interior upgrades – ceiling tile, flooring, painting etc.



## Other Solutions

---

- Building Envelope
  - Roof replacement
  - Window upgrades or replacements
- Fire Alarm and security systems
- Interior finishing – ceiling tile, painting, flooring
- Outdoor sports lighting
- Garbage compaction and recycling
- Vending misers to control compressor
- Electric meter consolidation and rate changes



# Steps to a Performance Contract

---



## Steps to Performance Contract

---

- Preliminary Facility Survey and Audit (No Cost)
- Approval
- Request for Qualifications/Proposal
- Selection of ESCO
- Final Engineering or Investment Grade Audit
- Approval
- Construction
- Commissioning
- On going Measurement and Verification



## Preliminary Audit

---

- Survey the schools
- Review 12 month utility consumption
  - Electric, Nat. Gas, Propane, Water & Sewer, Wastewater
  - Any utility cost
- Needs from schools
  - Utility bills, building layout and history, hours of operation etc.
  - Access to locations and equipment
- Estimate ECM cost, savings and payback
- No cost



## Request for Qualification/Proposal

---

- Qualify the best partner for your school based on:
  - Technical and Solutions approach
  - Experience in Performance Contracting
  - National certifications and awards
  - Guarantee Approach and abilities
  - Financial strength
  - Vendor neutrality
  - Open book pricing
- Publish to meet state requirements
- Review, Interview and Select the best vendor



# Final Engineering/Investment Grade Audit

---

- Verify all proposed ECM's
- Develop energy baseline on each building
  - 2 to 3 years utility billing information
  - Model each meter/school to compare future consumption
- Develop final cost, scope and guaranteed savings
  - Bid ECMs to qualified vendors
  - Final engineering, design, permits, code compliance etc.
- Arrange financing of the project
- Cost are rolled into final project
  - Pay for the Audit if a self funding project is not delivered or you choose not to proceed with a self funding project.
- Present final project for approval



## Implementation

---

- Board approval and Contract signing
- Construction of the scope of work
  - Finance company pays the ESCO for construction
  - ESCO Draws down an escrow account or finance company pays based on percent complete
  - School controls and approves draws
- Commissioning of all ECMs
- Final sign off on construction
- Guarantee starts and payments to finance company begin
- No Up Front Capital Needed



## Written Guarantee

---

What to look for in a Guarantee



## How the Guarantee Works

---

- Develop a historical energy baseline
  - Typically 2 – 3 years of consumption and cost data
  - Trend data based on student population, weather, operational hours etc.
  - Goal: Achieve an accurate model of your school
- Future years are compared to the Base Year
- Difference between the Current Year and Base Year is the savings



## Keys for a Successful Guarantee

---

- Customized approach to meet your risk requirements
- National Energy Services Company (NAESCO)
  - [www.naesco.org](http://www.naesco.org)
  - Use a “certified” or “accredited” provider
  - Financially sound companies
  - History of meeting or exceeding Guarantees
- Utilization of International Performance Measurement and Verification Protocol (IPMVP)
  - International standard for energy savings projects
  - [www.ipmvp.org](http://www.ipmvp.org)



## IPMVP Protocol Importance

---

- International standard used by all legitimate ESCO's
- Ensure the savings are achieved
- Allows you to control the cost of the Measurement and Verification
- Balance the level of Measurement and Verification based on each ECM
- Creates a revenue stream for Finance Companies to fund the project



## What to watch for in a Guarantee

---

- Avoid or Verify all Capital Cost Avoidance Savings
  - Credit for upgrading equipment utilizing money you should be setting aside for replacement
  - Verify and thoroughly understand the budget ramifications
- Avoid or Verify all Maintenance and Operations Savings
  - Less cost for maintaining new equipment being installed, reduced man hours, or increased production of staff
  - Verify they are real cost reductions like a lower service agreement or ability to reduce staff
- Avoid maintenance contracts tied to the guarantee
  - Many ESCO's require a maintenance contract tied to the guarantee



# Industry in Georgia

---



## Types of ESCO's

---

- Control Manufacturers
  - Johnson Controls, Siemens, Honeywell
- HVAC Equipment Manufacturers
  - Trane, Noresco (Carrier)
- Electric, Natural Gas and Oil providers
  - Chevron Energy (Oil), Florida Power and Light (Elec), Energy Systems Group (Gas), Constellation Energy (Elec)
- Independents
  - Ameresco, Control Technology and Solutions,



## Things to Look For in an ESCO

---

- Local and National Experience
- Customized solution and approach
- Ability to use and bid to local vendors
- Open book pricing
- Vendor neutral for equipment
- Guarantee ability and open approach
- Union affiliations



## Resources Available

---

- National Association of Energy Services Companies
  - [www.naesco.org](http://www.naesco.org)
- Federal websites for Performance Contracting
  - U.S. Department of Energy
  - <http://www1.eere.energy.gov/femp/financing/espcs.html>
- Energy Services Coalition
  - <http://www.energyservicescoalition.org/>
- Georgia Environmental and Finance Authority
  - [www.gefa.org](http://www.gefa.org)



# Questions

---