Guaranteed Energy Savings Act

Department of General Services
Energy Office
Program Presentation
GESA Program Overview

- Market as a fiscal tool
- Savings pay for projects (utility, operational, capital avoidance)
- Third Party Lenders (7)
- Maximum 15 year project payback (3rd party lender)
- Budget neutral to Agency
- Agency project – No Public Works involvement
- RFP procurement process
- Qualified Energy Service Companies (ESCO’s)
11 participating agencies
18 Qualified Energy Service Companies (ESCO’s)
45 projects
26 projects under contract
  Project scope repayment: $286 Million
Guaranteed savings: $323.5 Million
  Operational Savings: $25.2 Million
  Utility Savings: $306.9 Million
  Avoided Capitol: $53.1 Million
  Net Savings: $44.1 Million (savings, repayment, annual ESCO payment)
Agency Involvement (45 Projects)

- State System of Higher Education (15)
- Department of Military and Veterans Affairs (8)
- Department of Corrections (7)
- Department of General Services (5)
- Labor and Industry (2)
- Pennsylvania Department of Transportation (2)
- Department of Public Welfare (2)
- Department of Agriculture (1)
- Pennsylvania Higher Education Assistance Agency (1)
- Pennsylvania Historical and Museum Commission (1)
- Pennsylvania State Police (1)
18 companies are currently qualified in the DGS pool. They are re-qualified every 3 years.

The DGS pool of ESCO’s is used extensively by municipalities.
Project Costs

Hard Cost: $179 Million

Combined Total project cost to be financed: $208.5 Million

Repayment Cost: $286.1 Million
Total Project Savings: $359.7 Million
Guaranteed Savings: $323.4 Million

- Use of standard Measurement & Verification
- International Performance Measurement & Verification Protocol (IPMVP)
  - Option A - Stipulated
  - Option B - Isolated & Meter Upgrade
  - Option C – Whole Building Metering
  - Option D – Computer Simulation
Types of Savings

Utility Savings
Electric, Steam, Water, etc.

Operational Savings
Labor, Material, Maintenance Contracts

Capital Avoidance
Deferred Maintenance, Replacement
Emissions (26 Projects)

Annual Avoided CO2: **111,442 Tons**
(The avoided CO2 would be the equivalent of removing 19,634 passenger vehicles from the road per year.)

Annual Avoided Greenhouse Gas: **112,406 Tons**

Annual Avoided MMBTU: **857,354**
(The avoided MMBTU's would power 23,574 average residential homes per year.)

Renewable / Green Energy

Payback often longer than **15** years

Supported by Standard ECM's
Support by User Agency
Renewable GESA Projects

- **Laurel Highlands**
  - Landfill Gas

- **Governors Residence**
  - Geo-Thermal (heat only)

- **Labor & Industry**
  - Solar (Commonwealth Garage)

- **Green Ticket**
  - Governors Residence & Rachel Carson
Commonwealth Agency Participation

Incentive / Barriers
Agency Motivation

Facility Operations (Current Beneficiary)
  • New Equipment
  • Deferred Maintenance
  • Staff Commitment

Executive Level (Key to Agency Future Commitment)
  • Emission Goals
  • Energy Goals
  • Quality of Air Goals
Agency Barriers

- Staff Commitment
- Unaware of GESA Program
- Agency Based Talent Engineering, Performance Contracting
- Narrow Focus (Agency Mission Only)
- Commitment to Energy and Emission Goals
- Loss of Funds Saved (General Funds)
DGS Energy Office
GESÅ Services
Outreach

Promote and Service Commonwealth Agency GESA Projects

Task Force: DGS, DEP, GGGC, PSFEI

Quality of Air
LEED
Energy Star
Baseline Commonwealth Facilities
Commonwealth Energy Policies
Education
New Build & EB Operational Efficiencies
Energy Office Reorganization

- Added Staff
- Service Based
- Agency Energy Coordinator
- Consultants