

# Guaranteed Energy Savings Act

## **Introduction**

The Guaranteed Energy Savings Act (GESA) is provided for under Chapter 37 of Act 57 (1998), and as amended by Act 77 (2003).

The Act provides a procurement tool that seeks to set up a win-win situation between the university and a qualified Energy Services Company (ESCO). The GESA process is unlike the typical design-bid-build process in which the lowest responsible bidder wins. The low-bidder process dictates an incentive to provide the least amount of work and cheapest hardware to narrowly meet the project requirements described within an Invitation for Bids or a Request for Proposal. The GESA procurement process selects the ESCO who is the best qualified, provides the best value, and is the best fit for the university. Moreover, the end result is a performance contract in which the ESCO provides design-build services, some operations and maintenance services, and an energy savings guarantee for a period of up to 15 years.

The concept of a GESA is that the cost savings arising from energy savings on an annual basis are enough to pay the debt on financing for the construction/installation of the energy savings measures themselves. The original Act allowed for a 10-year cost-recovery/payback period. The amended Act now allows for a 15-year payback.

Utilizing the GESA procurement process provides universities with a method to obtain capital improvements by superior providers, not the cheapest. Additionally, the GESA process provides universities with a performance contract in which the provider guarantees performance, in the form of energy savings. And lastly, the GESA process provides universities with a funding source for these capital improvements, rather than taking the funds out of operating budgets or capital budgets. While the industry practice is often for the ESCO or a third party to arrange financing for the project, universities will normally use bond financing.

The GESA procurement process is fairly new to most facility managers. Process steps and standard documentation have been put in place to assist facility managers to procure the best ESCO for a given facility's needs. This Appendix provides basic information on GESAs and the ESCO procurement process. More detailed information is available from the Department of General Services, and the State System's Facilities Management Office has developed comprehensive guidance and sample documents for use by universities.

## **Terminology**

Department of General Services (DGS) – The Executive Agency responsible for administering the GESA procurement process for the Commonwealth.

Energy Conservation Measure (ECM) – An individual energy improvement item that an ESCO will propose. Typical ECMs would be lighting upgrades and installation of low-flow water valves.

Energy Services Company (ESCO) – Service providers who enter into the GESA contract. DGS has pre-qualified a certain number of ESCOs, and these are the only ones eligible for participation in Commonwealth GESAs.

Governor’s Green Government Council (GGGC) – An organization within the Department of Environmental Protection that promotes the GESA procurement process to private and publicly funded organizations that are typically non-executive agencies.

Investment Grade Audit (IGA) – An extremely thorough examination of the operating conditions and energy use of the buildings investigated and the proposed plan for energy savings. The IGA is the basis for securing financing of a defined project scope and the basis of the resultant GESA Agreement.

Letter of Interest (LOI) – The response that an ESCO will provide to indicate that they are interested in preparing a proposal for the university’s consideration. Usually involves limited technical information, and no cost information.

Penn State Facilities Engineering Institute (PSFEI) - An outreach organization of the College of Engineering, Pennsylvania State University, that is contracted by the Department of General Services to assist Executive Agencies of the Commonwealth to implement the GESA procurement process. PSFEI also is under contract with the State System for a variety of engineering support services. PSFEI offers the following assistance in relation to the GESA process:

- Hosting a discussion/presentation of the GESA procurement process
- Assisting with the development of project goals and objectives
- Aiding the project facilitator with the process steps
- Assisting with the evaluation of LOIs
- Assisting with the evaluation of proposals
- Assisting with review of the IGA
- Maintaining performance history of completed projects

Request for Proposal (RFP) – Document issued by the facility to three selected ESCOs in order to receive proposals to evaluate in order to select the single ESCO to move toward the IGA and final GESA Agreement.

## **Preparing for a project**

Experience has shown that projects focused on reducing energy consumption lack the glamour of many competing projects. Moreover, the end result of such projects may change the ways of doing business or of living and working, for both facilities staffs and the campus community as a whole. However, energy costs can represent a significant portion of a university’s operating budget (25% or more of non-salary expenses). Furthermore, the working environment created by lighting, heating, ventilation, and air conditioning equipment have a significant impact on occupants’ productivity, health, and absenteeism, and on a facility’s emergency preparedness. Management’s decision to follow through with a project is highly dependent on their belief and understanding that the overall energy strategy of the university can be met through the implementation of the project. It is imperative, therefore, that the goal and objectives of an

energy-related project are thoroughly understood and communicated within the university. University leadership needs to strongly support the project and its implementation.

***Establishing the goal and objectives*** – This information is very important to ESCOs. Projects that have a well-defined goal and objectives are more likely to succeed and offer less risk to the ESCOs. They invest up to one hundred thousand dollars to provide a proposal for a multi-million dollar project; therefore, time should be invested in the project development process to encourage the best ESCOs to participate in the GESA procurement process. The following should be accomplished:

- Identify a project manager.
- Briefly describe the problem or opportunity for the project to address.
- Identify the expected benefit(s) that the project will provide. Consider the impact on energy costs, customer satisfaction, overall health and safety, performance and efficiency improvements, and added capability.
- Identify operational and time constraints that may impact the implementation of the project.
- Describe the metrics that will be used by management to determine the value and profitability of a proposed solution(s).
- Identify the funding options that are available to implement the project.
- Determine if this project has the potential to lead to other work within the organization.
- Estimate the project size: a rule of thumb is to take 15 percent of annual utility costs and multiply it by the number of contracting years (i.e. 15 years).
- If the entire facility is not included within the project scope, determine which set of buildings and/or rooms will be included.

***Submit a “Request for Delegation” letter to DGS*** – Because DGS is tasked with responsibility for GESAs for the Commonwealth, a delegation must be provided for a university to procure and execute their own GESA. The request letter simply identifies the project manager responsible for the procurement process, the expected scope of the project, the involved buildings within a facility, and the annual cost of all applicable energy needs utilized by the involved buildings. The letter should be sent to:

Bruce Stultz  
Department of General Services  
Energy Management Coordinator  
403 North Office Building  
Harrisburg, PA 17125  
(717) 705-8519  
cell: (717) 649-0897  
Email: [bstultz@state.pa.us](mailto:bstultz@state.pa.us)

This part of the process is generally a formality, and an approval/response should be received within one business week.

## **Procuring an ESCO for the project**

The DGS GESA procurement process is outlined in the flow chart(s) at the end of this Appendix. While the State System is generally following the DGS process, the System is varying some of the specifics involved in each phase. Moreover, the System has made significant revisions to the standard DGS documents. Detailed information on the process and each phase, as well as the revised documents themselves, are available from the System's Facilities Management Office. DGS is in the process of changing their process slightly, with an anticipated implementation date of June 2006. However, the new DGS process will not affect how the System will procure ESCOs. Additionally, DGS will be conducting a new ESCO pre-qualification in early 2006, with a new list of pre-qualified ESCOs being in place in June 2006.

***LOI Phase*** - The current process starts with the LOI Phase. The university sends a request for LOIs to all pre-qualified ESCOs, soliciting their interest in a project at their university. Interested ESCOs submit LOIs for evaluation. Evaluation generally focuses on past performance and technical capabilities. Three ESCOs are selected to proceed to the next phase.

***RFP Phase*** - The second phase is the RFP Phase. The university sends an RFP to the three selected ESCOs, soliciting technical proposals and cost proposals for a sample project at their university. The three ESCOs submit technical proposals and cost proposals and undergo an oral interview. Evaluation generally focuses on past performance and experience, technical approach and capabilities, and cost approach. One ESCO is selected to proceed to the next phase.

***IGA Phase*** - The third phase is the IGA Phase. The university and the selected ESCO enter into an Energy Audit Agreement. Under this Agreement, the ESCO performs comprehensive analysis of the university's facilities and energy usage, and develops a detailed report proposing specific ECMs and associated cost information, energy savings information and guarantees, and various verification, operating, and maintenance requirements. Once the report is accepted by the university, it becomes the technical and cost basis of the final Energy Savings Agreement. The IGA Phase ends when the ESCO and the university enter into the Energy Savings Agreement.

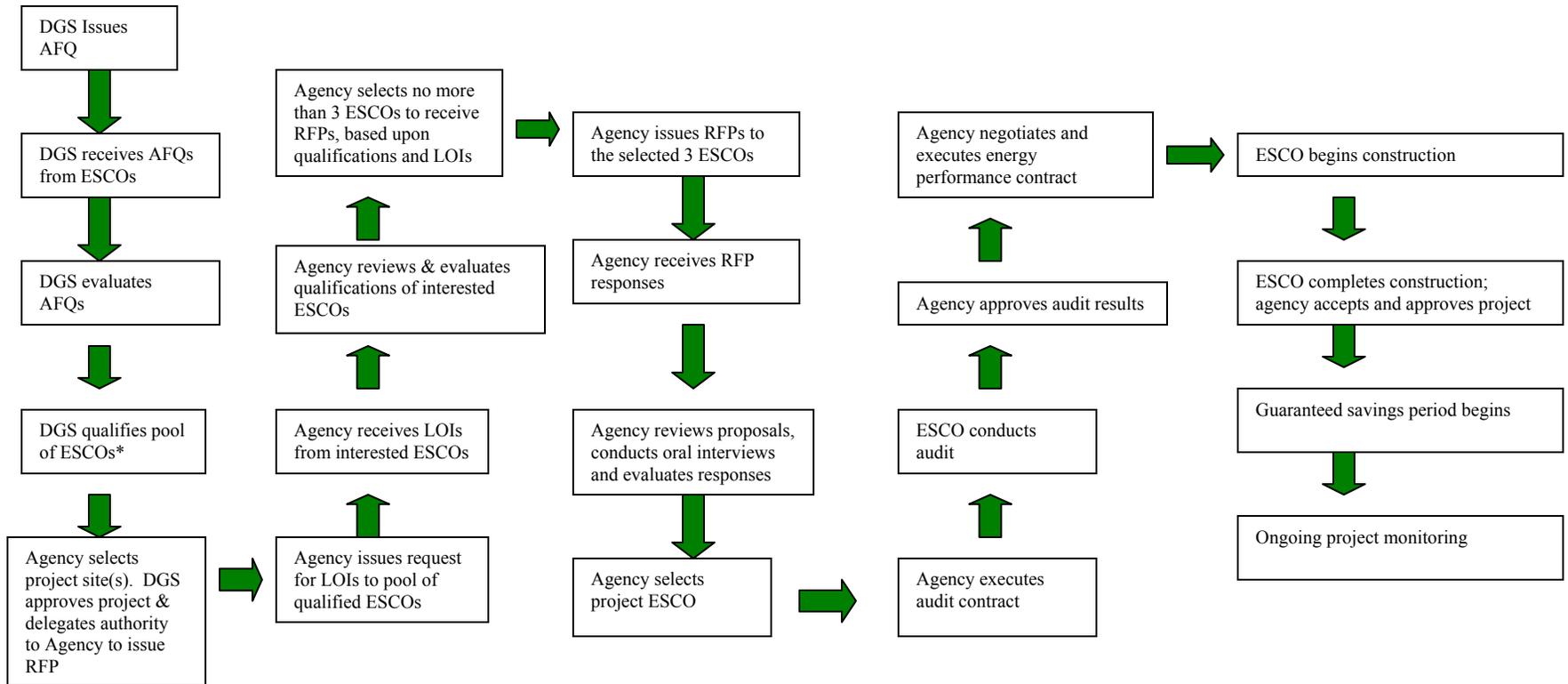
***Design and Construction Phase*** - The fourth phase is the Design and Construction Phase (called the Interim Period in the GESA Agreement). During this time, the ESCO designs and constructs/install the various ECMs, under a design-build scenario. At the conclusion of the construction/installation, the university accepts the completed ECMs, and the Performance Period begins.

***Performance Period*** - The last phase is the Performance Period (called the Term of Agreement in the GESA Agreement). During this period, which is as long as 15 years, the ECMs are operated and serviced by both the ESCO and the university in accordance with the Agreement. During this time the ESCO has guaranteed a certain amount of energy savings, which are measured and verified by Measurement & Verification (M&V) activities, again in accordance with the Agreement. If the energy savings fall short of what has been guaranteed, the ESCO reimburses the university for the costs associated with the shortfall.

COMMONWEALTH OF PENNSYLVANIA

STANDARD GUARANTEED ENERGY SAVINGS PROJECTS  
ENERGY PERFORMANCE CONTRACTING  
PROJECT PROCUREMENT AND IMPLEMENTATION  
(AFQ PROCESS TO MONITORING)

Terms:  
DGS – Department of General Services  
AFQ – Application for Qualifications  
ESCO – Energy Services Company  
LOI – Letter of Interest  
RFP – Request for Proposals



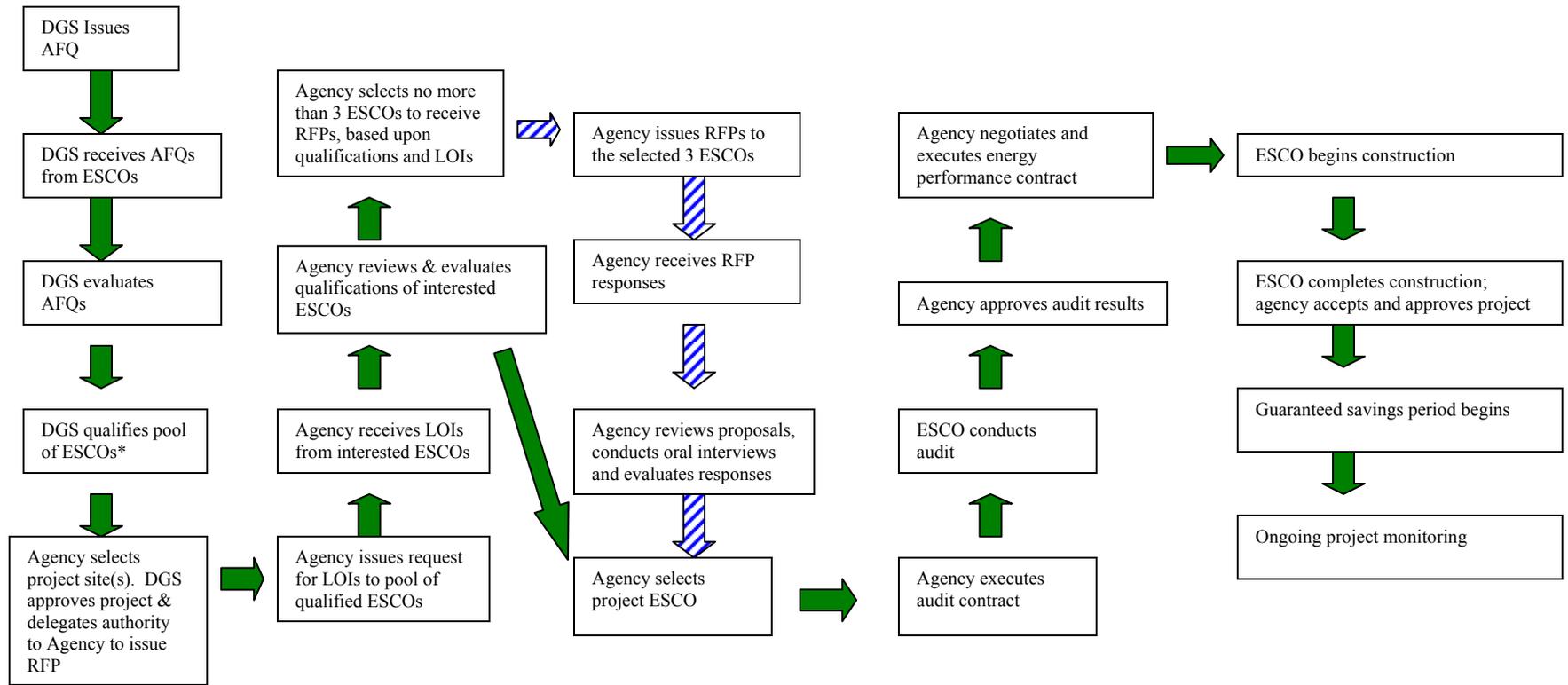
\*Qualification period for ESCOs is 3 years

 Mandatory Path

COMMONWEALTH OF PENNSYLVANIA

SMALL GUARANTEED ENERGY SAVINGS PROJECTS  
 (Annual Utilities < \$175,000)  
 ENERGY PERFORMANCE CONTRACTING  
 PROJECT PROCUREMENT AND IMPLEMENTATION  
 (AFQ PROCESS TO MONITORING)

Terms:  
 DGS – Department of General Services  
 AFQ – Application for Qualifications  
 ESCO – Energy Services Company  
 LOI – Letter of Interest  
 RFP – Request for Proposals



\*Qualification period for ESCOs is 3 years

