

# PROCEDURES FOR LIFE CYCLE COSTS ANALYSIS

## For Article 3 Contracting Agencies of the State of Alabama

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These procedures have been prepared by the State of Alabama, Department of Examiners of Public Accounts as required by Act Number 2008-379 and Act 2009-760, Acts of Alabama. They have been amended to reflect the provisions of Act 2011-530, Acts of Alabama where applicable.



## LIFE CYCLE COST ANALYSIS GUIDELINES

### 1. Life Cycle Costs Defined

Life Cycle Cost Analysis is defined “as a method for evaluating all relevant costs over the time of a project, product, or measure. This method takes into account first costs, including capital investment costs, purchase, and installation costs; future costs, including energy costs, operating costs, maintenance costs, capital replacement costs, financing costs; and any resale, salvage, or disposal cost, over the life-time of the project, product, or measure.”<sup>1</sup>

### 2. General Provisions

The Awarding Authority<sup>2</sup> is not required to use life cycle cost analysis in making bid awards; however, State Law does allow the use of life cycle cost analysis.

The Awarding Authority may use life cycle cost analysis for personal property purchases as provided by the Alabama Competitive Bid Law, *Code of Alabama 1975*, Section 41-16-57(c) and the *Code of Alabama 1975*, Section 16-13B-7(c)(1)<sup>3</sup>. Act 2011-530, Acts of Alabama, amended Section 41-16-57(c) to allow for the use of life cycle cost for goods which are, or are to become fixtures. Before applying life cycle cost analysis, the Awarding Authority must:

- Determine the personal property (item or items) to be purchased;
- Determine whether the total cost of ownership over the expected life of the item or items, including acquisition costs, plus sustaining costs can be reasonably ascertained using industry recognized and accepted sources;
- Determine that the bid meets the terms, conditions and specifications listed in the invitation to bid;
- Include in the invitation to bid provisions that specify that the lowest responsible bid might be determined using life cycle costs; and
- Include in the invitation to bid the standards to be applied in determining the life cycle costs and the industry recognized and accepted sources that will be applicable to the evaluation.

Alabama Law does allow the use of Life Cycle Costing for Real Property which is included in the definition of public property pursuant to the Public Works Law<sup>4</sup>. The Public Works Law, Code of Alabama 1975, Section 39-2-1 and 39-2-6, as amended, respectively, defines life cycle costs

for public works and prescribes the circumstances under which life cycle costing may be utilized for public works. Readers should refer to these Code Sections when evaluating public works projects.

### **3. Documentation Requirements**

The Awarding Authority must maintain documentation of all items related to the bid process in their bid files as required by Alabama Law, including the information on life cycle cost analysis specified below. The Awarding Authority should be aware that often data obtained through electronic means is only available for short periods of time and must, therefore, establish methods to retrieve and maintain this data and make it available for inspection.

- a. The Awarding Authority must identify how they determined that the Source (“industry recognized and accepted source”) is an Industry Recognized Source. The Source must be independent of the companies solicited or submitting bids.
- b. The Awarding Authority must determine the relevant costs to be used based on how the personal property is to be used and the characteristics of the personal property. Relevant costs include, but are not limited to: purchase price, installation costs, operating costs, energy costs, repair and maintenance costs, training costs, disposal costs, residual values, etc.
- c. The Awarding Authority must consider all relevant costs related to the item to be purchased in evaluating the total cost of ownership. These elements must be specified in the invitation to bid.
- d. The Awarding Authority must identify how the cost elements will be used in calculating the total cost of ownership. All information related to the calculation and evaluation of the total cost of ownership must be included in the bid files and must be made available for public inspection.
- e. The Awarding Authority must receive all information that will be considered in the awarding of the bid by the date of the bid opening. Any information furnished after the opening of the bids must not be considered.

### **4. Effective Date**

These guidelines shall become effective on January 1, 2009 and shall remain in effect until amended or rescinded by the Department of Examiners of Public Accounts, or by operation of Law.

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<sup>1</sup> *Guidance on Life Cycle Cost Analysis Required by Executive Order 13123*, April 2005, prepared for the Department of Energy by Sieglinde K. Fuller, Economist, Office of Applied Economics, National Institute of Standards and Technology, page 11.

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<sup>2</sup> Awarding Authority refers to those agencies specified in Article 3 of the **Code of Alabama 1975**, Section 41-16-50 and the **Code of Alabama 1975**, Section 16-13B-1.

<sup>3</sup> Amended on July 14, 2009 to reflect change in law as a result of the passage of Act 2009-760, Acts of Alabama.

<sup>4</sup> Act Number 2011-530, Acts of Alabama amended the Code of Alabama 1975, Sections 39-2-1 and 39-2-6, to define Life Cycle Costs for public works projects and to provide conditions under which an awarding authority may consider life cycle costs in determining the lowest responsible bid for a public works project.