

ABILENE, KANSAS
Purchasing Policy
Resolution No. 052311-1
May 23, 2011

SECTION TEN: LIFE CYCLE COST ANALYSIS (LCCA)

Life Cycle Costing begins with the acquisition of the product or service, and includes all the associated costs of ownership, such as purchase price, shipping, maintenance and repair, longevity, and includes disposition costs at the end of life. The initial acquisition price is adjusted with additional cost streams expected to occur over the anticipated life of the product or service. These additional cost streams must be clearly thought out costs or adjustments (i.e., the time value of money, cost uncertainty, inflation factors, etc.), and must be based upon reasonable assumptions. Cost streams are discrete elements of costs that relate to the particular purchase considered for Life Cycle Costing. In some cases, cost streams may include negative costs or savings that are expected to result in a particular cost stream.

Life Cycle Cost methodology may be used for purchases of products or equipment under \$100,000, but shall be required of such items that exceed \$100,000 in value. City departments may also consider using LCCA whenever the costs of system operation, support, and disposal, and other quantifiable costs are significant in comparison with the cost of acquisition and are above the then current sealed bid threshold.

There are a number of established LCCA industry standards for various products or equipment. These can be the basis of an LCCA, or departments may propose their own LCCA with appropriate justification. Use of LCCA in procurement decisions requires prior approval by the City Manager.

Criteria:

1. *Determine the operating cycle for the product or equipment:* types of operation, routine maintenance, overhaul sequence, and other operating factors, detailing how the machine functions or what will be done in each step of this cycle.
2. *Identify and quantify the factors that affect the costs:* power consumption and rates at various levels of operation, labor requirements and rates, maintenance requirements and rates, average time between failures, time between overhauls, average downtime costs, etc.
3. *Calculate all costs at current rates and prices.*
4. *Project costs to the future date at which they will be incurred:* adjust for expected inflation or deflation, consider estimated salvage value and complete Life Cycle Cost matrix.

5. *Discount all future costs and benefits to their present values.*
6. *Sum all costs and benefits to obtain the total Life Cycle Cost, expressed in present value terms. Note that all of the costs are brought back to year one by using present value factors directly related to the jurisdictions' cost of money.*

Requirements:

1. When utilizing LCCA as the basis for an award, the solicitation must advise prospective offerors how Life Cycle Costing will be considered in an award decision.
2. Awards may be made based on the lowest evaluated cost resulting from LCCA. Under this approach, the evaluation includes Life Cycle Costs in the solicitation issued.
3. Awards of Invitations to Bid to the lowest Bidder include the Life Cycle Costs as part of the bid evaluation methodology and award. The lowest total Life Cycle Cost is considered the low bid; or
4. Awards of RFPs may include a Life Cycle Costing award factor in two ways:
 - a) The RFP may include Life Cycle Costs as part of the total points awarded for costs. In this method, all Life Cycle Costs are calculated and the lowest total Life Cycle Costs is awarded the maximum points allocated for cost in the RFP; or
 - b) The RFP may include a separate Life Cycle Cost Factor that is assessed as weight or points and is considered in addition to other factors in the proposed evaluation methodology. As a separate evaluation factor, it may be used in addition to costs, when the cost factor does not consider Life Cycle Costing elements.
5. The Solicitation: The solicitation must provide relevant information (e.g., projected item usage, operating environment, the operating period, and other information that will be considered in the evaluation of the offer). It may include projections and estimates of life and cycle times from independent third party sources. The solicitation must describe how Life Cycle Cost will be applied in the award process. Factors not described in the solicitation may not be used in the evaluation. The solicitations must describe what relevant costs, along with appropriate information to support life costs, the Offer must provide. Typical elements used in Life Cycle Costing Awards may include:
 - a) Average unit price, including (when appropriate) recurring and nonrecurring production costs;
 - b) Delivery, shipping and transportation costs;
 - c) Switching costs prepared by originating department that include a reasonable estimate of what it will cost to switch from a current product or brand to another;

- d) Unit operating and support costs (e.g., manpower, energy, parts requirements, scheduled maintenance, and training);
 - e) Unit disposal costs (e.g., the cost of removing equipment from the Contracting Agency facility);
 - f) Unit salvage or residual value; and
 - g) Related information as requested to support costs such as testing and operational data.
6. Award Decision:
- a) Invitation to Bid - using Life Cycle Cost methods, the award must be made to the responsible firm whose responsive offer provides the lowest overall cost of ownership in accordance with the Life Cycle Cost evaluation factors listed in the solicitation document.
 - b) Request for Proposals - using Life Cycle Cost methods, the award must be made to the responsible firm whose responsive offer, after consideration of Life Cycle Cost factors as a part of price evaluation, and other factors listed in the solicitation document are determined to be the most advantageous or best proposal for the City.

NOTE: Full policy is available for download at:
<http://www.abilenecityhall.com/DocumentCenter/Home/View/388>