

Independent Government Estimates – A Fact Sheet

1. Introduction

An Independent Government Estimate (IGE) is an unbiased cost estimate based upon the specifications and without the influence of potential contractor's marketing effort or input. In the government construction environment, the IGE is generally prepared by either the Government's own design engineer or estimator, or by the Architectural & Engineering firm that prepared the design.

FAR 36.203 requires preparation of an IGE when the anticipated total contract or modification is expected to exceed the simplified acquisition threshold (SAT). At the discretion of the contracting officer, an IGE may be required for actions less than the SAT. Waiver of this requirement however, does not relieve the contracting officer of the responsibility to determine price reasonableness. FAR 36.203 further requires that the IGE be prepared in as much detail as though the Government were competing for award. The purpose of a construction IGE is three-fold:

- It is the basis for budgeting and reserving funds for the contract;
- It is the basis for comparing costs or prices proposed by offeror(s); and,
- It is the basis for determining price reasonableness when only one proposal is received.

The key to development of a good cost estimate is to approach it from a prospective contractor's viewpoint. This means the estimate should include (1) the direct costs incident to the construction; (2) an allowance for indirect or overhead costs; and (3) an allowance for a reasonable amount of profit.

Once the IGE is developed, CE and the CO ensure that the cost estimate is fully funded.

2. Types of Independent Estimates. There are many methods available for developing IGEs. Here, we discuss three of the most common estimates – parametric cost estimates, engineering cost estimates, and construction cost estimates.

- **Parametric Cost Estimates.**

Many construction contractors use a rule of thumb, or parametric cost estimating, to prepare their estimates. It is particularly useful when design details are not available. Government estimators often use this method to develop programming or budgetary cost estimates.

For example, if the requirement is for a brick two-story house with a basement, the contractor might use \$60/square foot (or whatever value is currently reasonable for the application) to estimate the price of the house: \$60/sq ft x 2200 sq. ft = \$132,000 house price.

In this example, the estimate relates floor space to building cost. Once a general structural design is determined, the contractor can use this relationship to estimate the total building price or cost (i.e., plus up or down scope) – excluding the cost of land. This technique is reliable and can save both the contractor and the Government time and resources in the development of estimates and it produces results similar to that of other more detailed techniques.

- **Engineering Cost Estimate.**

The basis of an engineering estimate is labor and material costs for significant work elements. Instead of dividing the estimate for concrete into its major components, as the contractor might do, the engineer will estimate so much for materials and so much for labor. For example, if the requirement is for a concrete patio, the engineer might estimate \$70 a cubic yard in place for material and \$20 a cubic yard for labor costs multiplied time the amount of cubic yards to be poured. This price would include the cost of cement, aggregate, reinforcing steel and forms, but it usually excludes all overhead and profit.

- **Construction Cost Estimate.**

The basis for the construction element, frequently referred to as a brick and mortar estimate, is a detailed analysis of construction methods. Typically, the estimates prepared by government estimators and A-E firms commonly prepared to this level of detail. First, divide the required work into its major components. Each of these is then separated into its constituent elements such as cement, aggregate, reinforcing steel, additives, form lumber and hardware, form fabrication, form erection and stripping, placement of reinforcing steel, mixing and placing concrete, and finishing concrete surfaces. Next, enter the estimated unit cost of labor and material for each element, multiplied by the quantities of each. Finally, add the plant, equipment, and job overhead costs. Lastly, apply home office expense and profit to develop the total price.

3. Sources of Estimate Details.

There are at least three sources available for obtaining details to support the IGE for government construction contracts and modifications.

- **Previous Similar Contracts.**

Pricing from previous, similar contracts can be a valuable source of information in formulating the IGE. For example, let's say the requirement is for the establishment of an indefinite delivery-indefinite quantity (IDIQ) contract for various paving requirements. The price schedule contains 200 individual line items. In the previous competition for the same or similar requirements, six offerors responded. In this scenario, you may use the competitive prices of the six offerors in the development of the IGE for the follow-on paving contract, considering any consumer price index adjustments.

While this is an excellent source of information, you must use caution and recognize certain extenuating circumstances may invalidate the data. For example, if using unit prices from a previous requirements or IDIQ type or sole source contracts, you must consider how those prices were determined fair and reasonable. These are pertinent questions to ask:

- Did you individually analyze the unit prices?
- How old is the data?
- Do prices need adjustment for special site conditions, changes in labor rates or materials?

- **Architect-Engineers (A-E) Estimates.**

Because of the use and far-reaching impact of their estimates, A-E firms must provide comprehensive and up-to-date estimates for projects they design for the government. Using the latest computerized estimating programs and technology and commercial pricing guides, they are fully equipped to prepare accurate cost estimates for their designs. Designers must be aware of the relative economics of different types of structures and materials and must keep pace with changing trends in building costs. However, before relying on an estimate for budgetary or price analysis purposes, the estimate should be updated to include any adjustment for escalation of prices, and for any design changes (both additions and deletions) injected by the government since receipt of the initial 100% design package. This is especially important when dealing with an older design. You may discover, after-the-fact that facility occupants or requirements have changed without a commensurate adjustment to the project cost estimate.

- **Commercial Pricing Sources.**

These sources might include commercial pricing guides and/or software such as RSMeans® Construction Cost Data, WinEstimator®, DoD Facilities Pricing Guide, Parametric Cost Engineering System (PACES), and Tri-Service Cost Model (for Housing Projects). Many of the commercial software programs allow adjustments for local site conditions, labor rates, and material prices. These programs also provide pricing for construction specialties, such as square footage costs, Americans With Disabilities Act (ADA) compliance pricing, assemblies cost data, concrete/masonry, electrical, and facilities (versus residential).

4. Developing the Cost Estimate.

Tips and Best Practices. The following tips and "best practices" may be useful in developing the IGE:

- **Team Approach.** It is be wise to assemble a team made up of the project stakeholders (i.e., facility users, contracting, resource managers, design

engineers, price analyst, and other technical experts) to go over the estimate during the acquisition-planning phase. This will help answer the who, what, where, and when regarding development of the estimate and it can help flush out the “gray” areas that may affect price. Besides providing functional expertise, the right mix of team members can be a valuable source of historical data.

- **Structure.** Define and document a structured approach to size your acquisition [Work Breakdown Structure (WBS), Cost Element Structure (CES), models, analogies with other acquisitions, market survey plans, etc., or combinations of these]. This structure provides the baseline for many acquisition decisions. Statements of Work (SOW), IGEs, tradeoff decisions, funds reallocations, contract negotiations, value engineering change proposals (VECP), and spend plans will all rely on this structure and related cost elements.
- **Format.** The emphasis is on information, not format. Most construction projects do not call for a unique combination of skills, materials, and equipment. Therefore, a logical approach and standard spreadsheets or common application software allow IGEs to be easily developed and transferred electronically. Information that should always be included is:

Standard Cost Elements (tailored to fit the acquisition):

- Direct Labor Cost (DLC)
- Other Direct Costs (ODC): Materials & Supplies, Equipment, Travel, IT
- Overhead Costs (OVHD)
- General & Administrative Costs (G&A)
- Profit

Market Research.

Using cost/price data from a single source, without scrutiny, invalidates the "independence" that makes the IGE useful in price analysis or contract negotiations. This is a serious problem if competition is limited to one or only a few contractors. Refer to FAR Part 10 for Market Research techniques.

Currency of Data.

Validate a cost estimate more than two years old to reflect the current design, requirements of the end user, and schedule.

Cost Elements. The following are standard cost elements that should be included in the IGE, as applicable.

- **Direct Labor Cost (DLC).** Direct Labor Cost is the cost of labor directly applied to producing the requirement. There are two types of DLC:

- ***Unburdened*** which includes only salary; and ***burdened***, which includes salary plus an allocation of costs for overhead, general and administrative, profit, and any escalation for option years.
- ***Burdened*** rates simplify the cost estimating process. The accuracy of this method may depend on the availability of recent, competitively negotiated burdened rates that have similar skill requirements as your acquisition. Labor burden rates vary considerably depending on the contractor's organization and facilities and the type of work performed.

- **Other Direct Cost (ODC).**

These are all costs (other than labor and materials) used to satisfy the requirement: Materials & Supplies, Equipment, Travel, IT, and any other direct cost such as bonds. Do not use "Lump sum" estimates. These estimates are not useful in evaluating the proposal.

- **Contractors' Equipment Ownership and Operating Expense.**

Construction equipment is normally defined as a contractor's tool costing more than several hundred dollars and for which a prudent contractor would depreciate over several years or many hours of usage. It is necessary to know if the contractor will be using rented or owned construction equipment.

If the contractor is using equipment they own, FAR 31.105(d)(2)(i) states actual ownership and operating expenses are used if they can be determined from the contractor's financial records for each piece of equipment. If actual expenses cannot be determined from the contractor's records, check the Army Corps of Engineers' "Engineer Pamphlets." There's one entitled: *Construction Equipment Ownership and Operating Expense Schedule*.

(http://www.publications.usace.army.mil/USACE-Publications/Engineer-Pamphlets/udt_43545_param_orderby/Pub_x0020_Date_UDT_Value/udt_43545_param_direction/descending)

If the contractor is using rented or leased construction equipment, FAR 31.105(d)(2)(ii) and FAR 31.205-36 provide guidance. Check rental rates with local suppliers or catalogues; check invoices if retrospective pricing.

- **Overhead Costs (OVHD).**

These are the regular operating expenses of a business such as rent, utilities, facility maintenance, and taxes. Overhead rates vary from one contractor to another. Overhead rates can be actual indirect cost rates or DCAA audited rates. Either way, the purpose is to determine overhead rates based on costs that are allowable, allocable and reasonable.

- **Profit.**

IAW DFARS 215.404-4, if Certified Cost or Pricing Data is required then one of the three structured methods identified must be used to develop a pre-negotiation profit or fee objective on any negotiated contract action. The most common of the three methods is the Weighted Guidelines Method. However, regardless of the need for Certified Cost or Pricing Data, it is still highly recommended that you use a structured approach to analyze profit for all acquisitions. The intent is to eliminate an arbitrary profit objective and to provide a consistent manner to reward risk, motivate efficiency and quality performance. The weighted guidelines method focuses on three profit factors:

5. Delivery Orders.

Pre-priced Indefinite Delivery Contract's (SABER, paving, roofing, fencing, painting contracts): A delivery order is issued by the Government to the contractor to order work under an existing Indefinite Delivery Contract. In these instances, the IGE should consist of the specific quantities of the various line items ordered.

6. Protection of the IGE.

Classify IGEs as "FOR OFFICIAL USE ONLY." Do not reveal government estimates to the public under any circumstances unless the Contracting Officer deems it necessary. FAR 36.203(c) permits disclosure of information concerning the Government estimate during contract negotiations to allow the Contracting Officer to identify a specialized task and the associated cost breakdown figures. ONLY to the extent deemed necessary to arrive at a fair and reasonable price. The Contracting Officer is the only person who has the authority to disclose government cost estimates. Disclosure may put the government at a disadvantage in dealing with contractors. Moreover, it gives contractors an unfair advantage over other contractors competing for the same requirement.