

National Aeronautics and
Space Administration



Preventing Increased Cost with Sound IGCEs

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- ❖ FAR Requirements, Formal and Informal
- ❖ NASA Requirements
- ❖ Benefits of a Sound IGCE
- ❖ Past Vs. Future IGCE Development Practices
- ❖ Current Vs. Future IGCE Development Emphasis
- ❖ IGCE Purpose and Users
- ❖ Level of Detail in an IGCE driven by need and estimating type
- ❖ EPO Offered Tools and Review
- ❖ Best Practices



IGCE Background Information

❖ FAR References – IGCE Term Formally Referenced

- FAR 15.404-1 Proposal analysis techniques.
 - Specifically, 15.404-1(b)(2)(v) Comparison of proposed prices with IGCE (this is Price Analysis used to determine prices are “fair and reasonable”)
 - Price Analysis evaluates a proposed price without evaluating its separate cost elements
 - Specifically, 15.404-1(c)(2)(iii)(D) Comparison of costs proposed by the offeror for individual cost elements with IGCE by technical personnel (this is Cost Analysis used to determine prices are “fair and reasonable” or to determine cost realism)
 - Cost Analysis is the review of separate cost elements and profit or fee.
- FAR 15.406-1 Prenegotiation objectives
 - Specifically, 15.406-1(a) The prenegotiation position ... should be based on the results of the ... analysis of the offeror’s proposal, taking into consideration all pertinent information including ... IGCEs ... (this is documentation used to support the Contracting Officer’s determination that prices are “fair and reasonable”)

❖ FAR References – IGCE Term Implied (Informal Reference)

- FAR 7.105 Contents of written acquisition plans.
 - Specifically, 7.105(a)(2)(ii) Any known cost ... constraints
 - Specifically, 7.105(a)(3) Cost. Set forth the established cost goals for the acquisition and the rationale supporting them, and discuss related cost concepts to be employed, including, as appropriate, ... life-cycle cost, design-to-cost, and application of should-cost
- Since acquisition planning is required for all acquisitions (FAR 7.102) in order to promote ... full and open competition to the maximum extent possible (FAR Part 6), this means that IGCEs are required for all acquisitions above the Simplified Acquisition Threshold (SAT) – currently \$250,000

❖ NASA References – IGCE Term Formally Referenced

- NASA Source Selection Guide (December 14, 2020)
 - Paragraph 1.11 Initiate Development Of Government Independent Cost Estimate (ICE) ... early in the acquisition planning process.
 - Paragraph 3.1.1.2 provides specific details relative to IGCE development and finalization

❖ Why Develop A Sound IGCE

- IGCEs are a tool used by the Contracting Officer (CO) in both competitive and sole-source procurements to establish that a price is “fair and reasonable”
- The CO relies on the IGCE to assist in the determination of acquisition strategy – including the estimated cost of the proposed Statement of Work (SOW) effort
- Sound IGCEs eliminate or mitigate –
 - Funding issues, especially under-funding issues
 - Delayed and iterative proposals – i.e., lowers administrative costs
 - Negotiation difficulties and delays – i.e., impacts to schedule

❖ Past IGCE Development Practices

- The quality of IGCEs varied widely from Center to Center and from procurement to procurement with some IGCEs based on –
 - Budgets
 - Previous procurements where the cost was simply escalated into the future
 - Grounds up estimates based solely on previous or current contract requirements, but with current labor and indirect factors applied
 - Grounds up estimates based solely on projected future contract requirements and with current labor and indirect factors applied

❖ Current / Future IGCE Development Emphasis

- NASA OP is emphasizing the need for sound IGCE development that accounts for known and anticipated future SOW requirements.
- IGCEs must not be based on budget alone.
- IGCEs supporting procurements over \$50 million (e.g., PSM charts and RFPs for both competitive and non-competitive procurements) will be reviewed by EPO Price Analysts and/or EPO Management.
- IGCEs are to be developed at the cost element level with supporting basis of estimate rational.

❖ What Constitutes a Sound IGCE

- A sound IGCE will reflect content changes to the requirements of the future contract due to –
 - Current SOW contract requirements continuing on the predecessor contract
 - Current SOW contract requirements not continuing on the predecessor contract
 - SOW content being added to the predecessor contract for SOW requirements.
- A sound IGCE will capture anticipated direct labor categories and hours, direct labor cost, indirect cost, non-labor resources (i.e., material and equipment, travel, other direct costs, and profit or fee)

IGCEs Purpose

- ❖ IGCEs are used throughout the procurement lifecycle and are procurement sensitive.
 - Who will use the IGCE?
 - Requirements Development Team, Source Evaluation Board, Source Selection Authority, Legal, and more.
 - How?
 - RDT to ensure the PWS/SOW is affordable, SEB as a comparative analysis tool for Evaluation of Offerors, SSA decision factor for award determination, Legal for ensuring the estimate was based on sound judgment and is documented in a way to support potential protest.
 - Why?
 - To meet the level of detail and documented rationale needed to meet current policy and report templates for the centralized review channels (i.e. PSM).
- ❖ IGCEs are Prepared:
 - Prior to Request for Proposal (RFP) release for new fixed-price and cost-reimbursement contracts.
 - When a change to the PWS impacts contract cost.
 - When requested by a CO for a contract less than the SAT or an individual project under an existing contract.

- ❖ The Level of detail in your IGCE drives the level of detail in Offerors Cost Models.
- ❖ Different Estimating Techniques, main two are:
 - ❖ Top Down, typically used by Program Estimates
 - Used when requirements are somewhat defined/developed, high level PWS/SOW.
 - Estimates based on history, also called parametric, cost estimating relationships, or ballpark estimates.
 - Estimate approximate cost.
 - Defines *how to do work*, typically does not allow for offeror's unique approach.
 - Typically provides labor categories and hours and other plug figures for proposal purposes.
 - ❖ Bottoms Up, typically used by Institutional Estimates
 - Used when requirements are well defined/developed resulting in more detailed PWS/SOW.
 - Estimates based on history and RDT technical expertise.
 - Detailed estimates developed at the cost element level.
 - Defines *what is required* and allows for offeror's unique approach.

- ❖ EPO CAM requires Analyst review and concurrence for IGCE
 - EPO analyst ensures estimate is balanced, approach is sound, and documented rationale is sufficient for PSM and beyond.

- ❖ NASA EPO CAM:
 - [https://nasa.sharepoint.com/sites/OP-EPO/SitePages/EPO-Review-and-Assistance-Instructions\(1\).aspx](https://nasa.sharepoint.com/sites/OP-EPO/SitePages/EPO-Review-and-Assistance-Instructions(1).aspx)

 - Insert a picture of CAM

❖ IGCE Excel file and Narrative templates are available to help!

- Available through your Centers OP or EPO. Agency Wide Templates in development.
 - EPO → <https://nasa.sharepoint.com/sites/OP-EPO/SitePages/Best-Practices-Training-Resources.aspx>

IGCE Guide and BOE Examples



Independent Cost Estimate EXAMPLE

Cost Category	Base Period	Option 1		Option 2		Total
		Rate	Cost	Rate	Cost	
Direct Labor Costs	C	\$ 1,579,036.00	\$ -	\$ -	\$ -	\$ 1,579,036.00
Direct Labor Costs	N	\$ -	\$ 232,680.00	\$ -	\$ -	\$ 232,680.00
Fringe		34.50%	\$ 831,252.02	34.50%	\$ -	\$ 831,252.02
Labor Overhead	C	51.00%	\$ 495,081.55	51.00%	\$ -	\$ 495,081.55
Labor Overhead	N	5.50%	\$ 12,797.40	5.50%	\$ -	\$ 12,797.40
Burdened Labor Costs			\$ 2,968,846.58	\$ -	\$ -	\$ 2,968,846.58
Material/Equipment		\$ -	\$ -	\$ -	\$ -	\$ -
Material Overhead		0.00%	\$ -	0.00%	\$ -	\$ -
Travel		\$ -	\$ 53,567.00	\$ -	\$ -	\$ 53,567.00
Total Costs			\$ 3,023,413.58	\$ -	\$ -	\$ 3,023,413.58
G&A		7.00%	\$ 211,568.95	7.00%	\$ 0	\$ 211,568.95
Total Costs			\$ 3,235,982.53	\$ -	\$ -	\$ 3,235,982.53
Profit/Fee		4.50%	\$ 145,528.32	4.50%	\$ 0	\$ 145,528.32
Total IGCE			\$ 3,379,511.74	\$ -	\$ -	\$ 3,379,511.74

IGCE Narrative Template and Sample Text

(Insert Name of Contract)
INDEPENDENT GOVERNMENT ESTIMATE (IGCE)

DATE:

SUMMARY:

Insert Portion Marking as per agency documentation. If C/F, detail in IGCE. Information is not to be set (RDT) Source Selection Board, accordance with current SFP.

Note: Narrative portions below the IGCE documentation and are should address each cost element.

Discuss the scope and type of the anticipated scope of effort consolidates functions current for contracts are 1) the XXX (111), 3) the X contract - NAS the XXXX contract - NAS 9.

Insert table of anticipated prices.

Because Flight Hardware requirement will be included in the 200X projected costs and full time.

Adjust the table to align to the as should be as detailed as possible, miss/cost information requested.

Total Core and Indefinite Labor Hours	
Cost Elements	Amount
Direct Labor Cost	\$ 59,000
Fringe	
Overhead	
Cost	
Subtotal/Indirect Rate	
Fee	

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INTRODUCTION:

The Requirements Development Team (RDT) consists of technical and business functions.

Both the current XX and XXX contract functions will be incorporated into the anticipated XX contract in their entirety. Only WBS numbers BNF 1, 2, 3, 4 & 5 of the XX contract and the XX WBS XX, XX, & XX portion of the XXX contract will be incorporated into the XX contract. Because XX hardware requirements are yet to be defined for the XX contract, actual pricing of this effort will be accomplished on an indefinite delivery, indefinite quantity (IDIQ) basis. The manner in which costs under the current XX contract are captured do not facilitate projections on an IDIQ basis. Accordingly, this effort will, of necessity, not be included in the IGCE.

Based on RFP requirements, only the first year of XX effort is to be priced by offerors. Accordingly, the IGCE will only address first year estimates of full time equivalent staff (FTE) and total costs excluding general administrative (G&A) expense and fee.

APPROACH:

The initial approach to development of the IGCE, centered on coordinative efforts with the XX contracting officer (CO) to determine at what level of detail the IGCE should be developed to facilitate proposal evaluation. The CO requested that (if possible) the IGCE be segregated between IDIQ, Completion Form (CF) and LOE functions. Specifically, the CO would like the IGCE team to identify first year costs for CF efforts under the 5 current contracts and separately identify first year costs for 5 representative task orders (TO) to be priced on a cost plus basis. These TOs are 1) XX, 2) XX, 3) XX, 4) XX and 5) XX. Tentatively, the CO identified XX hardware as a possible sixth TO for which requirements have yet to be developed.

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IGCE Template w/Formulas for Cost or Fixed Type Procurements

- ❖ Understand the Requirement. Know the importance of the PWS/SOW.
- ❖ Engage early and often with other stakeholders to understand expectations, maintain schedule, capture teams expertise in estimate. NASA Source Selection Guide, 1.11.
- ❖ The IGCE format and content differ based on the type, complexity, and value of the acquisition.
- ❖ Take it one piece at a time: Do not get overwhelmed!
- ❖ Meticulously document IGCE methodologies, assumptions, information sources, and calculations. Make document 'stand-alone'.
- ❖ Ensure IGCE reflects period of performance, including any options and 6 Month Option to Extend (FAR 52.217-8) if included in RFP, and escalated properly.
- ❖ Requirements change, ensure the IGCE is updated to reflect all changes during the development process.
- ❖ Estimate Phase-In costs for the IGCE discretely to formulate estimate.
- ❖ Benefits of a clearly stated and documented IGCE result in successful procurement reviews, timelines, and ultimately set the program up for effective performance.
- ❖ IGCEs should not based on budgets, but rather reflect requirements.
- ❖ Ensure common errors such as incomplete estimates and lack of detail are avoided, different definitions of "burdened rate" especially important when using rate data from third-party sources.
- ❖ Utilize your EPO support resources, personnel and tools.

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