1. Qualitative Cost – Technical Tradeoff

What is it?

For this variation of best value procurement, the STA evaluates all non-cost criteria using an adjectival or modified pre-determined scoring system. All proposals are evaluated and those proposals found to be responsive make up the competitive range. The STA then opens the bids from the responsive proposals and awards the project to the best value without any mathematical calculations or combination of price and technical factors (*1*).

Why use it?

Qualitative cost – technical tradeoff is a best value method that allow certain jurisdictions that require the technical and price portions of a proposal to be evaluated separately to use best value for procuring a construction firm. The tradeoff analysis is not conducted solely with technical and price ratings and scores alone. The evaluation must analyze the differences between the competing proposals and make a rational decision based on the facts and circumstances of the specific acquisition (*2*).

Qualitative cost – technical tradeoff is a more qualitative approach to best value procurement. It allows STAs to differentiate between bids when the technical and qualification components of a proposal are difficult to quantify using a point or scoring system. This is useful for projects that have specific technical or experiential requirements in order for success to occur.

How to use it?

The NCHRP Report 561 outlines a process for STAs to follow when using qualitative cost – technical tradeoff best value procurement (*1*):

1. Screen candidate projects first to determine the criteria that is critical to the project and rank the criteria in order of importance.
2. Develop the qualifications, technical, schedule, and cost evaluation criteria based on the screening criteria. The STA must develop a measureable standard for each evaluation criteria so that responsive bids received by the STA can be measured.
3. STAs then advertise the first step of the best value procurement, the Request for Qualifications (RFP). The qualifications solicitation needs to contain the following at a minimum:
4. Description of the scope of work
5. Statement of Qualifications (SOQ) forms
6. Contract completion date or days
7. List of qualifications evaluation criteria with corresponding standards
8. Description of process to be followed for the best value evaluation plan
9. Definition of non-responsive SOQ
10. Once qualifications are received, the STA evaluates the SOQs against the pre-determined standards to find which SOQs are responsive and which are not in terms of meeting the qualifications criteria.
11. The qualified and responsive firms then receive the request for proposal (RFP). The RFP should, at a minimum, contain the following information:
12. Scope of work and relevant plans and specifications
13. Proposal forms
14. Contract completion date or days
15. Method to carry forward the SOQ rankings/scores to the final evaluation (if applicable)
16. Best value proposal evaluation plan that lists the technical, schedule, and cost evaluation criteria with corresponding standards
17. Definition of non-responsive proposal
18. Evaluate the received proposals against the pre-determined standards to find which proposals are responsive and which are not in terms of meeting the qualifications criteria.
19. Eliminate the non-responsive proposals and roll up the evaluation results.
20. A pre-determined selection panel then conducts a qualitative cost-technical tradeoff to identify the best proposal. This best value variation of procurement is more subjective than most as the selection panel conducts a discussion of qualifications and technical criteria in order to determine the best proposal that includes enough qualifications and does not trade-off too many technical requirements.
21. Award project to the firm that is identified as the best proposal and provides a cost in the range determined by the STA to be acceptable.

When to use it?

Qualitative cost – technical tradeoff is the best option for STAs in jurisdictions that allow best value procurement, but require that the price portion and technical portions are evaluated separately and recorded as such in the review process (*1*). Further, qualitative cost –technical tradeoff is useful when an STA evaluates the price portion on a qualitative scale rather than the actual price.

Limitations?

Using quantitative cost – technical tradeoff can be seen as a very subjective selection process, even more so than the similar best value procurement process quantitative price – technical tradeoff. The STA compares the technical portion value against the proposed price using professional judgment, not a specific objective process. This can be worrisome for STAs that firms that are not awarded the project could protest the selection.

Who uses it?

City of Santa Monica (California), FHWA, General Services Administration, National Park Service, US Army Corps of Engineers, National Aeronautics and Space Administration (NASA)

Example

Qualitative Cost – Technical Tradeoff has not been used by a state transportation agency. Other municipalities and federal organizations have used it on past projects. One of these projects completed by the United State Army Corp of Engineers (USACE) was the Hurricane Protection Project of West Algiers Canal located in Jefferson Parish, Louisiana *(1)*. The scope of work for this project consisted of fabricating, transporting, settling, and ballasting a float-in sector gate, which consisted of a post-tensioned reinforced concrete pile foundation monolith structure with structural steel sector gates. A sheet pile cutoff wall below water needed to be installed with accurate excavation in the cut-off wall area, along with constructing floodwalls, dredging as needed, constructing guidewalls, pile clusters, and placing of stones for erosion control. In addition, the selected construction team had to construct a casting facility for the fabrication of the float-in structure. The USACE provided a graving site to construct the casting facility, or the potential bidders were able to elect to use an alternative site or facility.

 The USACE used a best value procurement method using qualitative cost –technical tradeoff as the algorithm. The selection was to be to the proposing firm that represents the best value to the government using the tradeoff process described in FAR part 15, which permits tradeoffs between price and technical merit/quality to occur. The USACE could then select the proposing firm that was not the lowest responsive bidder. The award decision was made on a comparative assessment of proposals against all source selection criteria found in the request for proposal.

The RFP stated the non-cost evaluation factors of past performance, personnel experience, project management plans, and technical approach. The combination of these four non-cost evaluation factors was approximately equal to the price. The USACE wanted to strike a balance between the technical merit of the non-cost factors and the cost factor. The degree of importance of price was allowed to become greater depending upon the equality of the proposals for the non-cost technical evaluation factors. When technical proposals were determined to be equal, then the price portion becomes the controlling factor in selecting a proposing firm.

### References

1. Scott, Sidney, Keith R. Molenaar, Douglas Gransberg, and Nancy C. Smith. *NCHRP Report 561:* *Best-Value Procurement Methods for Highway Construction Projects*. National Cooperative Highway Research Program, Transportation Research Board, Washington DC, 2006.
2. *Performance Contracting Framework Fostered by Highways for LIFE.* Federal Highway Administration, <https://www.fhwa.dot.gov/construction/contracts/pubs/framework/09.cfm> [Accessed: March 27, 2014].