

How to Manage Outsourced Projects

*Practical “How To” Ways for Managing Today’s
Challenging Projects*



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HOW TO MANAGE OUTSOURCED PROJECTS

Project Procurement Management involves engaging in a systematic process to purchase or acquire the needed products, services, or results from an outside source which will perform the work. Procure Management encompasses contract management and control processes necessary to administer contracts or purchase orders. It also includes processes which assist in administering a contract to assure the buyer/seller relationships are properly managed.¹

The process of outsourcing portions of a project from the make/buy decision to contract closeout is shown in the flow diagram below.²

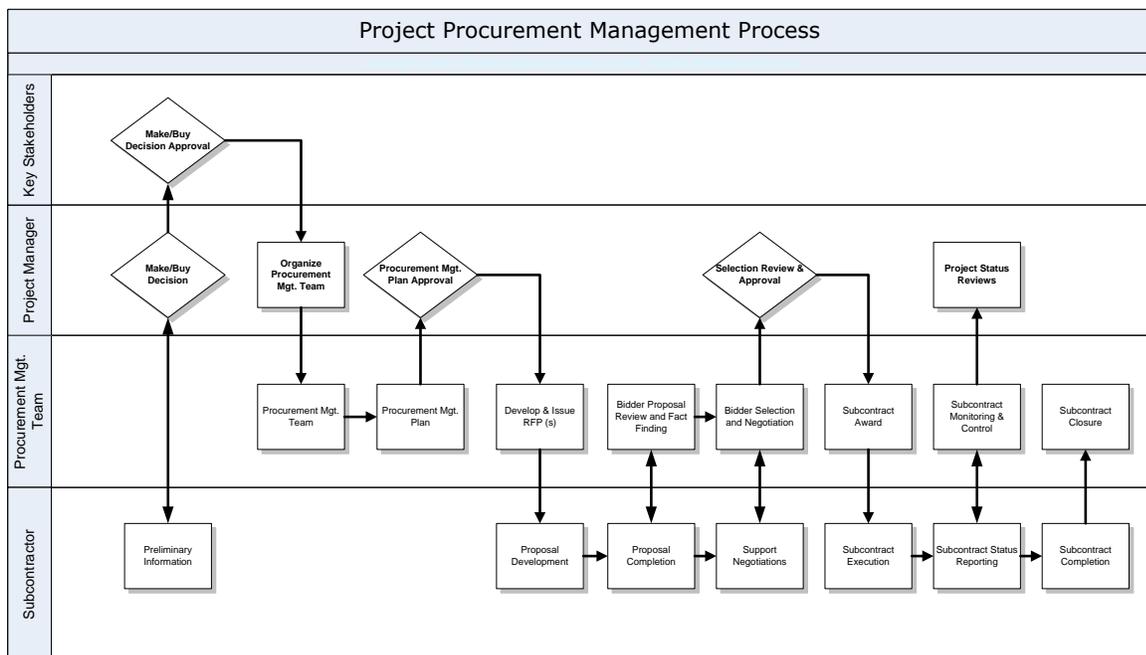


Figure 1 Project Procurement Management Process

¹ E. Nelsen, *Project Procurement Management Processes*, April 2, 2007 <<http://www.anticlue.net/archives/000823.htm>>

² This flow diagram can be downloaded from www.projectmgt.com.

THE NEED FOR OUTSOURCING TODAY

In the past many corporations would downsize when the economy turned downward, and upsize when the economy improved. Recently, however, some are choosing to remain lean by opting not to upsize when economic conditions become favorable. This has the benefit of focusing their strategic energies on their core competencies. But how do they make up for the additional resources needed to keep up with market demands? The answer is outsourcing, or procurement management.

Outsourcing is directed toward a corporation's non-essential capabilities while it maintains a close focus on what makes them strong in commercial and government worlds. This new approach presents a rising demand for project managers who have strong, proven project procurement skills.

THE MAKE OR BUY DECISION

Outsourcing typically begins with a make-or-buy decision. Before a project manager outsources a portion of the project some preliminary information will be required to determine the cost, risks, manageability, and timeliness of outsourced product deliveries.

In many corporations the project manager must present a clear pragmatic case to the key stakeholders for outsourcing. Key stakeholders will not only evaluate the benefits of outsourcing but will be very protective against giving away too many proprietary processes or any intellectual property. The control of information and documents between a buyer and a seller is to be protected and managed efficiently by the project procurement management team.

Outsourcing is not always limited to subcontracting with other corporations but can also be established with "free-agent" individuals who prefer to work on their own. Web-based organizations, such as Elance,³ can help buyers find the most experienced most qualified individuals. The following is directed primarily to the former, outsourcing to corporations.

Outsourcing is often required when:

- Needed skills are unavailable.
- Internal efforts take too long.
- Internal risks are too great.
- Internal costs are too high.

³ www.elance.com.

GETTING BIDDER INFORMATION

Before a make-or-buy decision can be submitted to the project's key stakeholders the project manager must obtain all necessary information needed to present a clear practical reason for outsourcing.

To prevent possible legal ramifications, such as detrimental reliance,⁴ by requiring potential bidders to develop costly proposals that are usually paid out of their pockets, the project manager must use methods other than the typical extensive Request-for-Proposal (RFP). Two other vehicles can be used in lieu of an RFP. These are RFIs (request for information), and RFQs (request for quotes).

Request for Information (RFI). As an alternative for getting information needed for a make-or-buy decision, the project manager can issue an RFI which does not require a costly comprehensive response on the part of a potential bidder. RFIs usually ask for a ROM ("ballpark") estimate rather than a detailed estimate with cost estimate data. Because the information given to a potential bidder is very tentative and general the accuracy of the response may be in the vicinity of -25% to +75%. Response times for RFIs are about one to three days, whereas RFP responses can be much longer. The information provided to potential bidders is very top level, sometimes only a verbal description of what might be outsourced.

Request for Quote (RFQ). If the project manager has more detailed description about the nature of what is to be outsourced, an RFQ may be used to get the needed make-or-buy information. The primary difference between an RFI and an RFQ lies in the level of detail about what is to be outsourced. Because the information given to a potential bidder is more detailed than that of an RFI the accuracy of the response may be in the vicinity of -10% to +25%. Nevertheless, in both cases formal approved documents such as procurement specifications, statement of work, procurement schedule, etc., are not yet developed. Only some preliminary information needed to substantiate a rough quote is available.

RFQs may ask for budgetary not-to-exceed quotes, vs. ROM estimates, from potential bidders and will require an estimate to be submitted within about three to five days. Some preliminary written information may be submitted with the RFQ.

Request for Proposal (RFP). The issuance of a formal RFP is usually not made until the make-or-buy decision has been made, and a project procurement management team has been established. The objective of an RFP is also very different from RFIs and RFQs which are typically used to gather make-or-buy decisions. RFPs, on the other hand are usually issued with the goal of selecting the best bidder. More information about RFPs will be described later in this chapter.

Following is a comparison of these three types of information gathering documents.

⁴ *Detrimental reliance* is a term commonly used to force another to perform their obligations under a contract, using the theory of promissory estoppel. Bidding corporations may claim detrimental reliance if they use their own funds to respond to a buyer's RFP only to discover later that their chances of recovering their expenditures were very low.

	RFI (Request for Information)	RFQ (Request for Quote)	RFP (Request for Proposal)
Cost Estimate Type	ROM	Budgetary	Detailed
Basis of Estimate	Verbal (General description)	Written (Preliminary docs)	Written Contract (To be negotiated)
Typical Usage	M/B Decision	M/B Decision	Bidder Selection
Estimate Range	-25% to +75%	-10% to +25%	-5% to +5%
Days to Respond	1 to 2	2 to 5	10 to 21
Cost Estimate Type	ROM	Budgetary	Detailed

Figure 2 RFI, RFQ, RFP Comparisons

ESTABLISHING PROCUREMENT MANAGEMENT TEAMS

The time and energy needed to manage subcontractors can often be seriously underestimated. If project managers require the project teams to oversee outsourced portions of the project in addition to their internal responsibilities, the procurement aspects will usually be given a lesser priority. As a result, subcontractors that cannot get timely responses to their questions will be forced to make assumptions that could create cost overruns.

Another alternative to requiring project teams to manage subcontractors is to have the project manager manage them. In such cases the project manager will most likely find that this can be very time consuming and will divert attention from managing the project to managing subcontractors.

The alternative for managing subcontractors that has been proven down through the years is to establish Procurement Management Teams (PMT). The PMT is more than a group of individuals who act as mediators between the project manager and the subcontractors. Their role includes greater responsibilities than this. Depending on the size of criticality of the portion being outsourced the PMT membership may be from a minimum of two people to many more.

Even the smallest outsourcing effort will require a technical overseer and someone who has legal authority to issue and implement a formal written contract. Other PMT members may include the project coordinator, technical specialists, and a document control specialist.

	Small Subcontract	Medium Subcontract	Large Subcontract
Procurement Manager	No	Planning only	Yes
Administrator	Yes	Yes	Yes
Technical Lead	Yes (leader)	Yes (leader)	Yes (supportive)
Coordinator	Initial Planning	Periodic Support	Yes
On-Site Representative	No	Optional	Optional
Specialists	Periodic Support	Periodic Support	Yes
Document Manager	No	Periodic Support	Yes

DEVELOPING A PROCUREMENT MANAGEMENT PLAN

Since those who are assigned to a Procurement Management Team are often nonplused with their role, it is incumbent upon the project manager to facilitate the development of a comprehensive procurement management plan. The plan is to be directed to the PMT, not to the outsourced organizations, and its purpose is to ensure that the PMT understands how it will operate within the project environment, how it will establish subcontracts, and how it will manage and monitor the subcontractors. This plan should include the following aspects:

- Procurement goals
- Team roles (RAM)
- Competitive vs. sole-source rationale
- List of potential bidders
- Subcontractor selection method
- Procurement risk management plan
- Subcontractor monitoring and control methods

Procurement goals. The specific goals of the eventual subcontract will define not only the objectives of the subcontract around the constraints of time, cost, and scope, but it should include their relative priorities.

Team roles (RAM): Since the role of a PMT is different than that of the other project teams confusion can easily set in. The most pragmatic way to address this unique role is to develop a PMT responsibility allocation matrix.

Competitive vs. Sole-source Rationale. Even though a make-or-buy decision has been made at this point, the project manager and the PMT must determine if it is more beneficial to outsource to one bidder or to many. Traditionally, the tendency has been to submit a request-for-proposal to several firms with the understanding that this will create a competitive situation and the bidders will put their best foot forward in order to gain the business. However, competitive outsourcing takes more time than going to one bidder. Reviewing, fact-finding, and selecting the best of several bidders can be very time consuming and will require a larger budget to support these efforts as compared to sole source procurements. Sole-sourcing, on the other hand, offers a quicker way to get subcontractors on board but has the disadvantage of negotiating with a corporation that knows it is the only source. Sole-sourcing has become very popular today and is generally the adopted practice when both the primary contractor and the subcontractor have a proven record of mutual support and trust.

List of Potential Bidders. If it is decided to compete the outsourced portion of the project, the next step is to locate potential bidders. Formal business services such as Dunn and Bradstreet, the Thomas Global Register, and Hoover's Database can provide names and contact information for potential bidders. Informal resources such as internal lists of approved vendors and subcontractors and online newspaper searches can also aid the process of locating and researching potential bidders.

Subcontractor Selection Method. Personal biases on the part of the PMT can create both ineffective and sometimes unethical selections of subcontractors. For this reason the project manager must ensure that a fair subcontractor selection method is used. If for some reason a bidder which lost the completion may conduct "saber rattling" by challenging the selection decision. When this happens, the PMT must be capable of fully defending its decision. Techniques such as Analytic Hierarchy Process, Kepner-Tregoe Decision Analysis, and Rank-Rate models can be used to minimize improper human biases during the bidder selection process.

Procurement Risk Management Plan. Most outsourced projects will contain significant risks. Bidders may be strong in the technical areas yet weak in schedule or cost management. Additionally, when outsourcing to firms that are located in other countries the risks become greater than outsourcing to local firms. Communication barriers, licensing agreements, and time differentials can impose serious risks. Prior to issuing RFPs, the PMT should evaluate these risks before reaching any legal agreements with another firm. These types of risks should also be surfaced when making the make-or-buy decision.

Subcontractor Monitoring & Control Methods. When portions of a project are outsourced, the methods for monitoring and controlling the work of another firm can become very challenging. Instead of relying solely on the institutional authority of the project manager, control is based on a written contract. Internal monitoring of project teams is much easier than monitoring and controlling a firm that located somewhere else in the world. This necessitates having unique skills on the part of the PMT members.

DEVELOPING A CLEAR REQUEST-FOR-PROPOSAL

One of the primary roles of the PMT is to prepare an RFP which will be issued to potential bidder(s) in order to obtain detailed proposals. It is vital that the RFP, which is effectively a preliminary contract, be worded clearly so that bidder misinterpretations are avoided. As a minimum the RFP should include the following parts:

- Subcontract Statement of Work
- Procurement Schedule
- Procurement Specifications
- Contract Terms and Conditions
- Proposal Preparation Instructions

Statement of Work

If something is not in the subcontract it will not be accomplished. For this reason every effort must be made to avoid the assumption that a contract is *carte blanche*. The scope of work that a PMT expects of a subcontractor must be clearly stated in a Subcontract Statement of Work (SSOW).

Scope Definition. The SSOW defines all work (scope) to be accomplished by the subcontractor within the terms of the negotiated contract. If work is later issued to the subcontractor, and it is not in the SSOW, the PMT can expect to receive a billing for additional funds from the subcontractor. This can cause significant cost overruns if the directed change is not pre-approved by the project manager. Such changes to the scope of the subcontract must, therefore, be submitted to the project Change Control Board before a contract change is issued. Subcontractors must be informed that they are not to respond to any changes, particularly verbal changes, until they are reflected in a contract change notice.

Product Acceptance Criteria. The SSOW should also define the PMT's product/service acceptance criteria. Nothing is more frustrating than to get into a dispute with a subcontractor over the acceptance of a completed outsourced product. It is suggested that PMT's base their acceptance on the procurement specification, and take acceptance at the buyer's facility, not the seller's facility. This avoids the necessity of dealing with packaging and shipping complexities.

Definition of Contract Terms. Terminology is best defined in the SSOW. For instance, the term "cable" can mean something different to a subcontractor when compared to what the PMT had in mind. "Cable" can mean a simple twisted-shielded pair cable used for telephone lines, or coaxial cable which is used in high-frequency signal transmissions. Unless the SSOW defines the term clearly the subcontractor is at liberty to choose either one. Often the subcontractor will choose the lesser type to keep costs to a minimum. Technical parameters, however, should be contained in procurement specifications rather than in the SSOW.

Documentation Requirements. The flow of documents between the PMT and subcontractor is often greater than one might expect. The SSOW should also describe all needed subcontractor documents, including what the document should contain and when it is due.

Subcontract WBS. The project WBS will often include the outsourced portion of the project. The WBS element that includes the outsourced portion can be lifted from the project WBS and inserted into the SSOW after it is decomposed to the next level. This becomes the Subcontract WBS (SWBS) and is usually included in the SSOW. The PMT should resist the urge to decompose the SWBS to inappropriate levels. Decomposing the SWBS should be the responsibility of the subcontractor which is closer to the work to be accomplished.

Procurement Schedule

The procurement schedule is different from the project schedule in that it is the schedule placed in the RFP (and eventual contract) designating the start of the subcontract, major key dates, and the expected completion of the subcontract.

Procurement schedules are very “top level” with respect to the subcontract and may look something like that below.

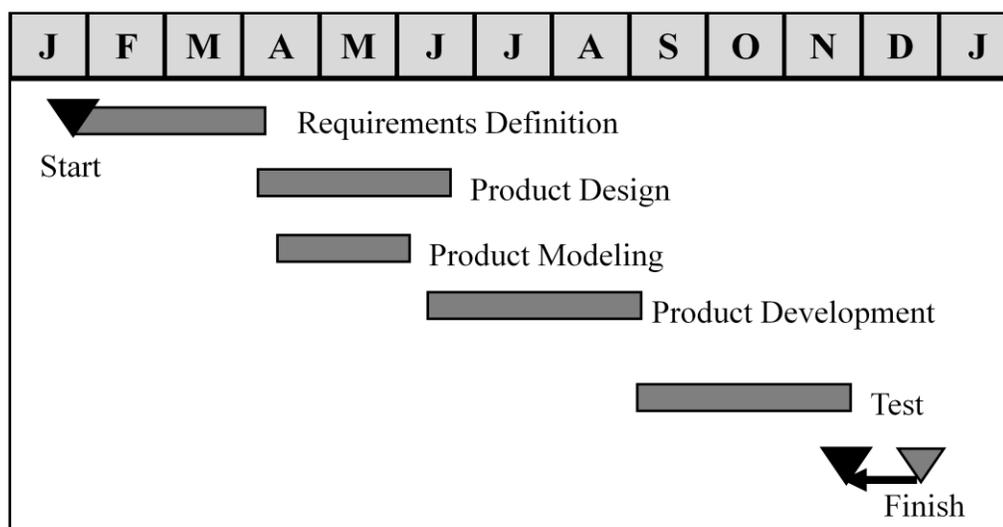


Figure 3 Procurement Schedule Example

The key milestone dates in the procurement schedule should be set to coincide with critical dates on the project schedule. The subcontractor will be expected to decompose this schedule and present it in detailed form in their proposal. Many subcontractors tend to be strong technically but weak in the area of schedule management. The PMT should, therefore, pull up the finish date to establish some degree of margin in the event that the subcontract finish date be delayed.

Procurement Specifications

Most PMT's prefer to issue specifications to a bidder rather than requirements. This takes much of the guess-work out of the subcontract. Because the RFP is usually released early in the project cycle the need to develop clear and accurate procurement specifications can be a real challenge.

The burden of providing clear specifications (*onus probandi*) falls on the buyer. Sellers are not responsible for grasping the true meaning of a specification if it is ambiguous. If a subcontractor cannot obtain a clear answer to some unclear aspect of the specification it will most likely make assumptions and move on in order to complete the subcontract on time. Any expenditures put forth under these kinds of assumptions must be reimbursed by the buyer.

When certain parameters in the specification are critical to the project, the PMT may want to establish a certain degree of margin. For example, if the product can weigh no more than 12 lb. the specification might limit the weight to 11 lb. This is sometimes referred to as "design margin." Care should be taken to avoid establishing design margin on all specifications since this will likely result in excessive costs.

Specifications usually form the basis of product acceptance. The typical way to demonstrate that a finished product is acceptable to the buyer is for the seller to provide evidence that it meets all specifications. Evidence can be in the form of verifiable test data.

Contract Terms & Conditions

Contract terms and conditions establish the legal aspects of a contract. Fortunately, most corporations have pre-established terms and conditions which are written to protect the buyer. The Seller will also want a certain degree of legal protection so it is not uncommon for them to submit requested changes to the buyer's T&Cs. The PMT should expect this as a normal process but should the contract administrator review and approve any proposed changes before accepting them. Contract terms and conditions will typically include the following items:

Period of performance. This is usually the designated start and finish dates of the subcontract period.

Contract type. There are various types of contracts, such as fixed-price (FP), cost-reimbursable (CR) contracts, time and material (T&M) contracts, and basic ordering agreements (BOA). The type of contract to be used is to be identified along with any peculiar aspects such as incentives, share ratios, etc.

Conditions for payment. Buyers must be clear about the way payments are to be made to the seller. Some buyers may choose to use automatic monthly progress payments while others may base payments on completed milestones. The later would be the case if earned-value management was imposed on the seller.

Latent defects. Many T&C stipulations include a clause that states if the product malfunctions as a result of poor design, the burden of correcting the problem falls on the seller, not the buyer.

Breakages. Until the seller delivers the finished product any breakage repairs would be corrected solely by the seller, and the buyer would in no way be held responsible until the product is accepted.

Rights in data. Many buyers will want not only the finished product but will want to retain ownership of all design data and documentation. This would include all intellectual property (patents, copyrights, etc.) developed by the seller.

Proprietary data. When company sensitive information is submitted by the buyer to the seller, conditions for using and returning the information will be clearly stated in the T&Cs.

Insurance. Buyers may require sellers to provide their own insurance for possible safety hazards when working on their product.

Warranties. To prevent cost failures of the product which may be deemed normal up to a certain time, the buyer may require the seller to provide warranties. This is different from latent defects which are caused exclusively by poor product design.

Lower-tier supplier liens. To prevent liens on the buyer from the seller's lower-tier suppliers when the seller becomes delinquent on payments, the buyer may establish a liens protection clause, such as a mechanic's lien⁵ in the contract.

Subcontractor key personnel. Bidder's often use a bait-and-switch tactic when competing against other companies for business contracts. Impressive key personnel are listed in their proposal with their credentials. However, after the contract is won the seller will often move these key personnel to other contracts. Because of this bait-and-switch tactic, PMTs may want to stipulate the specific personnel that must participate as described in the seller's proposal. Listing them by name would be appropriate.

Contract authority hierarchy. To prevent confusion when two or more contract documents conflict with each other a hierarchy based on priority can be shown. For instance, if the statement of work and terms and conditions conflict, the hierarchy list might show the terms and conditions as being in authority over the statement of work.

⁵ For more on mechanics liens see: http://en.wikipedia.org/wiki/Mechanic's_lien

Contract Changes. Both the seller and the buyer must be clear on the process of making any changes to the contract. Unless this is established the seller might be tempted to respond to any verbal direction from the buyer even if it is not approved by the PMT. The result is cost overruns. To prevent this from happening clear contract change processes must include the formal review and approval of any proposed change. Approved changes are usually implemented using contract change notices.

Contract Termination. There are conditions when a contract must be terminated before the subcontractor completes all work. These conditions may include termination by default, where the subcontractor fails to perform in a satisfactory manner, or when it is convenient for both parties to terminate the contract. Termination conditions must be defined clearly to avoid any legal ramifications between the two parties. Conditions for a normal termination based on the completion of all contract work may also be included to avoid any ambiguities.

Proposal Preparation Instructions

Unless the PMT dictates the structure of bidder proposals it is at the mercy of the bidder's discretion. The purpose of the proposal preparation instructions portion of the RFP is to tell the bidder exactly what you want in the proposal, and how you want it organized.

Proposal Outline. Stipulating a proposal outline will expedite the PMT review, and when multiple proposals are being considered will enable accurate scoring to be made. It can become somewhat frustrating to a bidder selection team, whether it be the PMT or an appointed board, when the needed information to be scored cannot be found quickly.

Limit Page Count. Unless the proposals are page limited the PMT will be given voluminous documents that will require an inordinate amount of time to review and fact-find. This becomes an untenable situation when the bidder selection must be made quickly.

Proposal Due Date. To ensure fairness to all bidders, a proposal due date must be established. If this date is not in the terms and conditions, it should be included in the proposal preparation instructions.

HOW TO SELECT THE BEST BIDDER

When a competitive bid process is adopted by the PMT, every effort should be made to follow a process that is expeditious and effective. To achieve this it is vital that two important aspects be included. The first is to establish scoring criteria before the RFP is released, and the second is to establish what is sometimes called a "should cost."

Proposal Scoring Criteria. The best bidder is usually the one that scores highest in a set of selection criteria. A common mistake with many PMTs is establish proposal selection criteria after the RFP has been issued. As a result, the information needed for scoring cannot be found in the proposals. To avoid this, mistake the PMT must establish the bidder selection criteria before releasing the RFP. The proposal preparation instructions should dictate where in the proposal the bidder is to place the necessary scoring information.

Should Cost. After the RFP has been issued to the bidders the PMT should in effect turn the RFP on itself as though it was one of the bidders. This will enable the PMT to derive what the subcontract should cost. This accomplishes two very important things. First, it enables the PMT to identify “lowball bids” where a bidder intentionally bids below the true cost of a subcontract knowing that it can “get well” after the contract is awarded. Second, it surfaces differences in understanding between a bidder and the PMT. Either one may be correct, but when a significant difference is found between what the bidder proposes, and what the PMT believes something should cost, the difference should be identified as an issue to be resolved during fact-finding so that accurate bidder scoring and selection can be made.

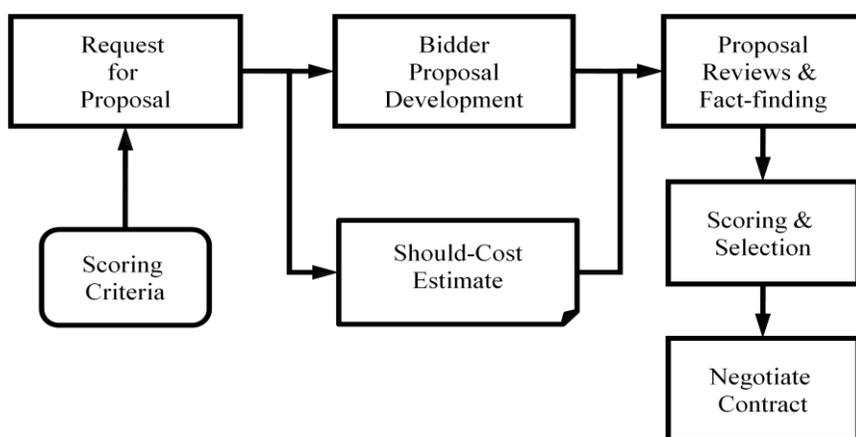


Figure 4 Competitive Bid Process

Bidder's Conference. Technique often used to expedite the submittal of bidder proposals is to conduct a bidder's conference shortly after the release of the RFP. Bidder's collectively meet with the PMT to resolve any questions they may have. Fairness is employed when all bidders are invited to the conference. This technique eliminates excessive e-mail communications which can consume too much time.

Proposal Review Meeting. Once the PMT receives all bidder proposals a proposal review meeting can be conducted. This too can save much needed time and allows the PMT to quickly resolve any ambiguities with a bidder's proposal. Unlike the bidder's conference this meeting is conducted separately with each bidder.

Bidder Selection Tools. Personal biases can run rampant when it comes to selecting the best bidder. Selection teams may be tempted to select a bidder because of its location, or because of a friendship with someone working for one of the bidders. To minimize these tendencies it is strongly recommended that a bidder selection tool be used. The tools include any of the following:

- Analytic Hierarchy Process
- Kepner-Tregoe Analysis
- Scoring Models
- Rank and Rate
- Delphi Consensus Method
- Decision Trees

MONITORING & CONTROLLING SUBCONTRACTORS

The most widely means of monitoring a subcontractor are through regular conference calls, regular progress reports, and on-site meetings at the subcontractor's facility. PMTs should take advantage of groupware whenever possible. All methods for monitoring and controlling a subcontractor must be clearly defined in the Subcontract Statement of Work.

Regular Conference Calls. The PMT should make it a point to conduct regular (usually weekly) conference calls with each subcontractor. The PMT should insist having the subcontractor project manager as the primary contact during these calls so that any issues that arise can be handled by someone in authority. Establishing a pre-determined agenda will ensure a smooth transfer of status information. The agenda⁶ may include:

- Overall subcontractor schedule status and actions being taken to recover from any significant slips.
- Overall subcontractor cost status and any actions being taken to recover from overruns.
- Overall status of the subcontract product including any problem areas and corrective actions.
- Open action items between the buyer and subcontractor.
- Proposed or pending changes to the contract.

Subcontractor Progress Reports. In addition to the regular conference calls the PMT should insist on having regular progress reports. These reports should contain the same information provided in the regular conference calls in order to establish a record of what was discussed.

⁶ The type and amount of information submitted by a subcontractor will depend greatly on the type of contract being used. Firm-fixed price contracts generally require less information than a cost-reimbursable contract.

Regular Onsite Meetings. Conference calls and progress reports may not always reveal true problems. For this reason the PMT should conduct regular onsite meetings with the subcontractor. These meeting may follow the same agenda as that used in the conference calls but will enable more time to be spent on each item, especially the adequateness of any corrective action plans.

Problem Reports. Any significant deviation from the requirements described in the subcontract can be defined as a “problem.” When this occurs, the PMT must insist on having a problem report that describes the problem in detail, its impact on the schedule, the budget, and the product’s performance, and the corrective actions. The underlying cause of the problem should also be identified and corrected.

MAKING SUBCONTRACT CHANGES

Changes to an outsourced subcontract are to be made in a manner much like changes made within the project. The figure below illustrates how this takes place. When a change is proposed the subcontract project manager will convene a change control board (CCB) to review it against the current contract requirements. If it is deemed favorable it will tentatively be approved. Next, the subcontract project manager will determine whether it is in scope or out-of-scope of the existing contract. Should the proposed change require an extension to the subcontract schedule, or require additional funding by the PMT, it must be submitted to the PMT as a requested contract change notice. If the PMT approves the change, a formal contract change will be required.

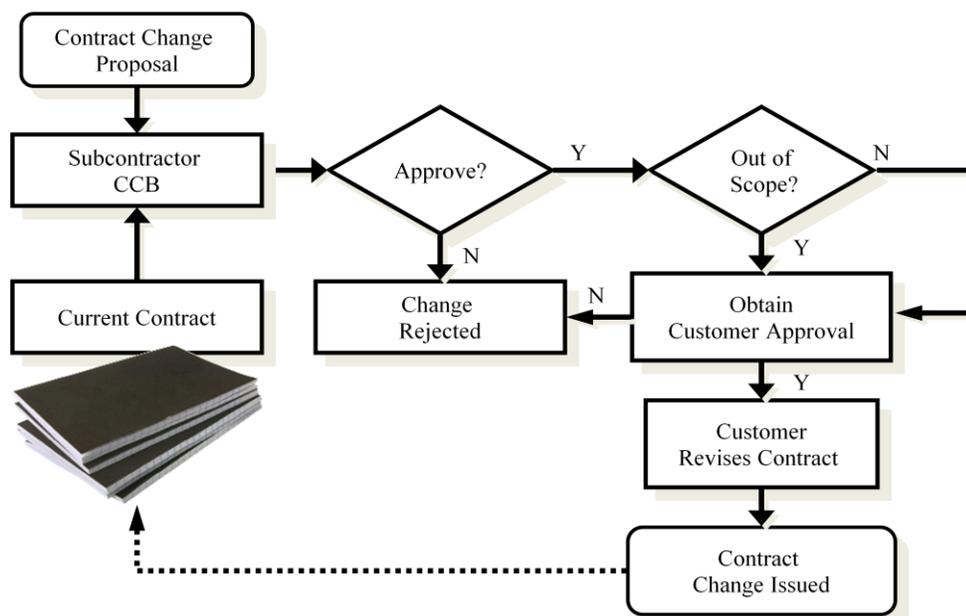


Figure 5 Subcontract Change Process

CLOSING-OUT A SUBCONTRACT

The close out of a subcontract is more important than one might initially believe. Before any final payments are made to the subcontractor the PMT must verify that all contract work (scope) has been satisfactorily completed. This can be accomplished by conducting a contract close-out audit to ensure that the finished product meets all procurement specifications, all physical items are ready to be shipped to the buyer's facility, and product-related documents (manuals, drawings, code listing, etc.) have been validated and verified. Any proprietary documents exchanged between the two parties must also be returned in their original forms.

