

A GUIDE TO BEST PRACTICES FOR PERFORMANCE-BASED SERVICE CONTRACTING

Office of Federal Procurement Policy (OFPP)
Office of Management and Budget (OMB)

Executive Office of the President
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FOREWORD

Performance-based service contracting (PBSC) emphasizes that all aspects of an acquisition be structured around the purpose of the work to be performed as opposed to the manner in which the work is to be performed or broad, imprecise statements of work which preclude an objective assessment of contractor performance. It is designed to ensure that contractors are given freedom to determine how to meet the Government's performance objectives, that appropriate performance quality levels are achieved, and that payment is made only for services that meet these levels.

This document contains best practices that have proven useful for drafting statements of work, solicitations, and quality assurance plans, and in awarding and administering performance-based service contracts. Many of these practices were identified through the government wide Office of Federal Procurement Policy PBSC Pledge Program. This document is neither mandatory regulatory guidance, nor is it intended to serve as a detailed "how to" manual. Such manuals exist already, and citations to them are included at Appendix 1.

The purpose of this publication is to assist agencies in developing policies and procedures for implementing PBSC. The practices contained herein were derived from the experiences of contracting personnel in both government and industry. This information was gathered from interviews, articles, and existing government guidance.

We wish to thank the procurement and program officials from the Executive Departments and agencies, and those representatives from the private sector, who provided information on their experiences with PBSC. We especially appreciate the participation of those agency officials who were willing to be innovative in promoting and implementing this initiative and utilizing PBSC methods by joining in the OFPP PBSC pledge program.

This is one in a series of publications on best practices developed by OFPP. Copies of these documents may be obtained from the Executive Office of the President's (EOP) Publications Office by calling 202-395-7332 or writing to the Office of Publications, 725 17th Street, NW, Room 2200, New Executive Office Building, Washington, DC 20503. Comments and suggestions should be addressed to the attention of Stanley Kaufman, New Executive Office Building, Room 9001, Washington, DC 20503.

Deidre A. Lee - Administrator

CHAPTER 1

INTRODUCTION

OFPP Policy Letter 91-2 established the policy of utilizing a performance-based approach to service contracting. Appendix 2 contains a copy of the Policy Letter. PBSC emphasizes objective, measurable performance requirements and quality standards in developing statements of work, selecting contractors, determining contract type and incentives, and performing contract administration. Appendix 3 contains a checklist of key elements of PBSC acquisitions.

PBSC was pioneered within the Department of Defense with a great deal of success. However, this proven methodology has yet to be fully implemented governmentwide for a variety of reasons, including inexperience in writing performance-based statements of work, cultural inertia, and concerns about more open and interactive communication with industry throughout the acquisition process.

To promote implementation of this policy, OFPP initiated, in October 1994, a governmentwide pledge pilot project to encourage the use of PBSC. Services covered by the pledge ranged from janitorial and guard services to computer maintenance, and aircraft and technical support. See Appendix 4 for a list of services that provide targets of opportunity for PBSC.

The governmentwide pledge was further supported by four industry associations representing over 1,000 companies. They pledged to utilize conflict resolution mechanisms to avoid protests and disputes, identify services convertible to performance-based contracting on a fixed-price basis, work with the government to eliminate obstacles to implementing this initiative, and identify commercial contracting practices adaptable for use by the government.

As a result of the pledge, 15 agencies converted 26 contracts with an estimated value of \$585 million to performance-based methods. The agencies reported an average 15 percent reduction in contract price in nominal dollars, and an 18 percent improvement in satisfaction with the contractors' work. Moreover, reduced prices and increased customer satisfaction occurred at all price ranges, for both nontechnical and professional and technical services, and whether the contract remained fixed-price or was converted from cost reimbursement to fixed-price. Copies of the pilot project report, "A Report on the Performance-Based Service Contracting Pilot Project," May 1996, may be obtained from the EOP Publications Office or the Acquisition Reform Network (ARNET) (www.arnet.gov).

As evidenced by the results of the pledge, incentives for agencies to implement PBSC are numerous. For program personnel, PBSC is a tool that offers improved contractor performance. For budget offices, PBSC has already demonstrated significant cost savings. For managers, PBSC improves mission attainment and implements the principles of streamlining and innovation of the National Performance Review (NPR), as well as the Government Performance and Results Act. Further, personnel who participate on PBSC acquisitions will have the opportunity to attain recognition for their successes. In addition, contractors who do well on initial PBSC efforts will gain an advantage on future solicitations where past performance is a significant evaluation factor.

Conversion to performance-based contracting for Navy aircraft maintenance resulted in immediate savings of \$25 million. Additional savings are anticipated through the positive and negative incentives contained in the contract. The proposal, evaluation and award process took 30 days less than was needed for the previous non-performance based competition. Working with industry as a team, to meet Navy aircraft maintenance requirements,

resulted in dollars and time savings. So far, performance is surpassing the contract's minimum required standards.

The National Aeronautics and Space Administration (NASA) saved enough money from converting a janitorial services contract to PBSC to reinstate several tasks previously cut due to a lack of sufficient funds.

The Environmental Protection Agency (EPA) saved enough money from its first PBSC Superfund task order to fully fund the next task order.

In converting from a traditional Statement of Work (SOW) to a PBSC Performance Work Statement (PWS), some agencies have reported an increased initial up-front investment. However, the resulting savings to the agency through the use of PBSC will quickly offset the initial up-front costs. In addition, the quality improvement expected from this type of contract and the resulting expected reduction in overall contract administration costs will again offset the initial up-front costs and should provide program offices with additional resource availability.

PBSC will help to correct problems commonly associated with services contracts and identified in numerous audits, including cost overruns, schedule delays, failure to achieve specified results, and other performance problems. This document is intended to facilitate implementation of PBSC.

Appendix 5 lists references used in compiling this document.

CHAPTER 2

BASIC DEVELOPMENTAL ELEMENTS

The contract statement of work, which is referred to as the PWS, is the foundation of performance-based services. The PBSC PWS describes the effort in terms of measurable performance standards (outputs). These standards should include such elements as "what, when, where, how many, and how well" the work is to be performed. A Quality Assurance Plan (QAP), which directly corresponds to the performance standards and measures contractor performance, is needed to determine if contractor services meet contract PWS requirements. Positive and/or negative performance incentives, based on QAP measurements, should be included. The PWS Performance Standards, QAP and Incentives are interdependent and must be compatible in form, style, and substance, and should be cross-referenced. For a procurement to be a true PBSC, it should contain a PWS, QAP, and appropriate financial incentives.

Application of only selected aspects of the total PBSC methodology is not likely to be successful, and can even cause a reduction in the value of services provided. Agencies have reported negative experiences due to the failure to define work in completion terms, to develop or enforce measurable Government quality assurance plans, and to place sufficient financial risk on the contractor.

One agency limited its implementation of PBSC to the fee portion of several major contracts. It did not use negative incentives, and payment of the cost portion of the contracts was not tied to performance requirements and standards. A GAO report found that the agency paid much higher fees, yet the contractors' performance did not improve.

Proactive management support and direction from the highest agency levels disseminated throughout the agency, including field operations, also is important to the success of PBSC. Cultural inertia and lack of experience, two large detriments to use of PBSC, can be overcome by positive agency support for PBSC.

A directive signed by the Deputy Director of the Defense Logistics Agency (DLA) was sent to all personnel stressing PBSC and the importance of program and procurement personnel working together.

The NASA Administrator emphasized the importance of PBSC in a memorandum to all NASA field centers, and NASA's Procurement Executive visited each field center to promote the use of PBSC. Now each field center is stressing the use and importance of PBSC.

The Deputy Administrator, General Services Administration (GSA), affirmed the use of PBSC in a memorandum to Senior Management and asked for their help in stressing the use of PBSC to statement of work preparers and contracting personnel involved in service contracting.

The Assistant Secretary of the Navy for Research, Development and Acquisition emphasized to the Navy acquisition community the goals of PBSC and indicated that PBSC should be adopted at all contracting activities.

Signing the PBSC pledge led the Railroad Retirement Board to establish a three-person agency executive committee that met with contracting and technical personnel to develop and manage the implementation of PBSC. The committee members included the directors of three agency bureaus: data processing, supply and service, and disability/Medicare claims processing. The three-person executive committee provided oversight to the technical and procurement staff involved in the procurement.

Training for program and contracting personnel that includes how to write both PWSs and QAPs, as well as other aspects of PBSC, is of equal importance to the success of PBSC. Training can be accomplished by internal resources, external sources, or modifying existing training to include PBSC.

The Department of Energy (DOE) modified its project management course to include PBSC and contracted for a prototype training package exclusively for program personnel to help define their duties and roles in implementing PBSC.

DOE also developed an electronic bulletin board to advertise their best practices and lessons learned on PBSC and other procurement reform efforts.

DLA distributed diskette copies of the NAVFAC model PWSs and QAPs as guides for its field activities and encouraged them to utilize NAVFAC training courses to develop skills for writing their own PWSs and compatible QAPs.

To aid agencies in implementing PBSC, OFPP has solicited information on training programs or courses covering the development of PWSs and QAPS. Appendix 6 contains a list of these sources. While inclusion on this list is not an endorsement of any particular course or organization, we hope that the information will be helpful to agencies interested in PBSC training and that agencies will utilize these resources.

Agencies experienced in the use of PBSC have established a process that provides a useful model to follow when implementing PBSC. In general, the steps in this process are performing

a job analysis, writing the PWS and QAP concurrently, and performing diligent contractor surveillance after contract award. This document addresses each of these important steps.

CHAPTER 3

JOB ANALYSIS

Job analysis involves determining what the agency's needs are, and what kinds of services and outputs are to be provided by the contractor. This is of particular importance because the services or outputs identified form the basis for establishing performance requirements, developing performance standards and indicators, writing the PWS, and producing the QAP. If the job analysis is done properly, writing the PWS and QAP will be facilitated. In general, job analysis includes: agency or activity organization, work to be performed by the contractor, performance standards, directives, data gathering, and cost.

Organization Analysis

Organization analysis involves reviewing the agency's needs and identifying the services and outputs required from the contractor. It should emphasize the outputs the contractor will produce, but should not dictate how to produce these outputs.

DOE's analysis of its protective force program resulted in a determination that it no longer needed armed and specially trained security guards. The change from armed to unarmed protective forces reduced contract payroll costs significantly. Further, contract labor hours necessary to support an armed force were eliminated. These changes resulted in an approximate annual savings of \$500,000.

Work Analysis

Work analysis involves further analyzing the required outputs by breaking down the work into its lowest task level and linking tasks in a logical flow of activities. Agencies should start with the overall service or output required from the contractor, then divide the job into all its parts and subparts, and identify the relationships among all the parts.

One method to accomplish this analysis is a tree diagram. It is a chart that divides a job into parts and subparts, each of which contributes to a final result or output, and demonstrates its relationship to the others. Appendix 7 contains a sample tree diagram.

Identifying all outputs from tasks and subtasks required of the contractor is important. Failure to do so will result in incomplete or ambiguous contractual requirements that may be difficult to enforce or lead to contractor misinterpretation and inadequate performance.

GSA reports that SOW and QAP preparation training provided by NAVFAC to GSA's pledge participants provided an excellent foundation for using job analysis techniques.

Ft. Bragg established a Process Action Team (PAT) to develop a standard format for the PWS and QAP. This was copied on a disk in WordPerfect and given to customers along with instructions on how to complete it. All the specifications were numbered and samples for technical exhibits were included. The instructions query the customers concerning their requirements. The results are then integrated into final form.

Performance Analysis and Standards

Performance analysis assigns a performance requirement to each task, which involves determining how a service can be measured and what performance standards and quality levels apply. The performance standard establishes the performance level required by the government. Correspondingly, the acceptable quality level (AQL) establishes a maximum allowable error rate or variation from the standard.

For example, in a requirement for taxi services, the performance standard might be "pickup within five minutes of an agreed upon time." The AQL then might be five percent, i.e., the taxi could be more than five minutes late no more than five percent of the time. Failure to perform within the AQL would result in a contract price reduction.

Under the Navy aircraft maintenance contract, requirements are stated in measurable terms such as: ground abort rate is less than five percent; 100 percent of flight schedules are met; and aircraft are 80 percent mission capable.

Agencies should insure that each standard is necessary, is carefully chosen, and not unduly burdensome. Failure to do so can result in unnecessarily increased contract costs.

The Railroad Retirement Board converted a contract for data entry services to include a performance-based statement of work. They experienced approximately 30 percent cost savings. By going through the process of developing a PBSC PWS, they identified and eliminated unnecessary requirements. The estimated type and volume of source documents to be converted decreased by 14 percent. Vendor pricing was based on a more accurate and realistic profile of work to be performed.

Care must be exercised in establishing the quality level at which performance standards are set. The minimum acceptable performance standard should rarely be 100 percent, since the standard directly affects the cost of the service. Conversely, if the quality level is too low, it may act as disincentive to good contract performance.

Where appropriate, agencies may provide either a specific performance standard or allow the contractor the option to propose different target levels of standards of service along with the appropriate price adjustment. This allows contractors an opportunity to propose what they consider to be the most cost-effective performance standard level. In order to properly evaluate alternative levels of standards proposed by the contractor, agencies need to do market research into the feasibility of accepting these alternative levels, i.e., discussing with commercial entities their contracting methods and acceptable levels of standards for the same type of service.

In a GSA contract for custodial requirements, specification writers only identified desired quality levels. Offerors' technical proposals only identified the frequency and methods to be employed to meet the quality standard. The result was maximum flexibility for the contractors.

Standards may be published or well recognized, industry-wide standards, or may be developed by the agency. Agency standards should have industry input to ensure they are realistic and effective. This may be done through public meetings, public comment on proposed standards, or Requests for Information (RFIs) per FAR 15.405.

If there are a number of tasks and deliverables, agencies should summarize them in a performance requirements summary (PRS). A PRS usually lists tasks, deliverables, standards, and quality levels.

Appendix 8 contains sample PRS tables.

Directives Analysis

All potentially relevant agency directives should be screened to determine which should be utilized, either in whole or in part. Directives that are unnecessary, or that apply only in part, should not be referenced or included in their entirety. Negative effects from excessive or inappropriate application of specifications include: confusion or errors in performing work; undermining the government's ability to enforce required performance; unjustifiable increases in the cost of performance; unwarranted dictation of how work is to be performed, and discouraging or preventing contractor use of innovative or cost-effective performance methods.

Wherever possible, agencies should excerpt required portions of directives and include them in the PWS. If this is impractical, agencies should incorporate the required portions by reference. Entire documents should not be incorporated by reference when only a portion of the document applies.

Directives may also be an information source for developing task descriptions and quality standards.

Data Gathering

Agencies should provide the contractor an estimate of the workload to be performed and the items and services that the government will furnish to the contractor for the performance of the contract. In order to make the workload estimate, a determination of the historical workload by the major performance categories must be made. In addition, agencies must clearly identify the amount and types of items and services that it will provide to the contractor, e.g., electrical, equipment, furniture.

The historical workload data gathered may be used in cost estimating and analysis, and should be used as a baseline to estimate the future work requirements to be covered in the contract. This is especially important so that the offerors in addition to the incumbent can gain sufficient familiarity with the work in order to compete effectively. Also, the estimate of the future work requirements and government furnished items is critically important as the basis for the offerors to provide realistic cost estimates.

In preparing a solicitation for telephone hotline services, EPA used its extensive workload data as an attachment to the solicitation. The data included an analysis of call volume since 1989. This enabled industry to gain a better understanding of the requirement and the magnitude of the workload. It also allowed EPA to shift the burden of having the capacity to handle surges to the contractor under a fixed-price contract. Under the previous cost type contract, EPA had been paying to keep extra operators standing by even when they weren't needed.

Needed workload data is often available from existing management information subsystems or other databases or records such as sampling or on-the-job observation. If workload data is not available, various techniques can be used to generate it. For example, agencies can provide their best estimate of the data or if there is sufficient time before the award of the contract, the program personnel can immediately begin collecting workload data for a sufficient period of time to use for projections.

Some agencies have placed a performance requirement in the PWS for the incumbent contractor to maintain accurate workload data. This information can be used to help develop the

baseline for future contract work estimates.

Agencies should place workload data and applicable documentation in a central area, e.g., a reference room where all potential offerors will have access to it and can readily use it in preparing their bids.

Cost Analysis

Estimated costs must be computed for each service or output based on available data. These costs are used in preparing the government estimate, evaluating proposals, and determining positive and negative performance incentives.

For commercial services, the marketplace should provide a sufficient baseline for cost estimating. In the development of their independent government estimates, agencies should include consideration of commercial costs of performing work in the private sector.

Incentives

Incentives should be used when they will induce better quality performance and may be either positive, negative, or a combination of both. They should be applied selectively to motivate contractor efforts that might not otherwise be emphasized, and to discourage inefficiency. Incentives should apply to the most important aspects of the work, rather than every individual task.

Where negative incentives are used, the deduction should represent as close as possible the value of the service lost. This amount is usually computed by determining the percentage of contract costs associated with each task. For example, if a given task represents 10 percent of the contract costs, then 10 percent will be the potential maximum deduction in the event of task failure. Similarly, if a task is not performed to the AQL stated in the quality standards of the contract, deductions are computed based upon tables or formulas designed to reflect the value of substandard output. For example, a task having an AQL of five percent defects would have its unit price reduced incrementally for each percent of defects exceeding the AQL.

The Navy aircraft maintenance contract contains both positive and negative incentives. As a positive incentive, the material management function was turned over to the contractor. Material is obtained on a cost reimbursable basis, but the contractor earns a 15 percent positive incentive for cost avoidance. This "bonus" is calculated by comparing actual material costs with historical material costs adjusted by the Consumer Price Index. As a negative incentive, the contract is priced at a ready for training rate of 75 percent. To the extent this level of performance is not attained, the contract price is reduced proportionately. For example, an actual ready for training rate of 60 percent results in a 20 percent price reduction.

The definitions of standard performance, maximum positive and negative performance incentives, and the units of measurement should be established in the solicitation. They will vary from contract to contract and are subject to discussion during a source selection. Care must be taken to ensure that the incentive structure reflects both the value to the government of the various performance levels, and a meaningful incentive to the contractor. Performance incentives should be challenging yet reasonably attainable. The goal is to reward contractors for outstanding work, but not penalize them for fully satisfactorily but less than outstanding work.

The Tennessee Valley Authority (TVA) established a cash incentive for a raw water treatment service contract by creating a fee pool to which both TVA and the contractor contribute. The TVA business team evaluates the contractor's performance semiannually, and if the contractor meets the established performance evaluation criteria they are awarded their contribution to

the fee pool. If they exceed the established performance evaluation criteria, they receive all or a portion of TVA's contribution to the fee pool. However, before TVA awards any portion of its contribution to the fee pool, the contractor must have demonstrated cost savings to TVA in excess of the fee pool incentive payment (e.g., if the contractor is awarded one percent, they must have saved TVA two percent or more).

Incentives are especially useful in efforts that are complex, have a high-dollar value, or have a history of performance or cost overrun problems.

NASA's cost type Space Station contract provides that the contractor will be docked 25 cents for every dollar of cost overrun, but will earn an additional 25 cents for every dollar saved. In addition, all fee payments are provisional and are subject to recoupment if station hardware fails to perform.

Incentives should correlate with results. Agencies should avoid rewarding contractors for simply meeting minimum standards of contract performance, and create a proper balance between cost, performance, and schedule incentives. The incentive amount should correspond to the difficulty of the task required, but should not exceed the value of the benefits the government receives. Agencies need to follow-up to ensure that desired results are realized, i.e., that incentives actually encourage good performance and discourage unsatisfactory performance. Verifying the effectiveness of the incentives used is important.

NASA reduced program costs for the Space Shuttle by approximately \$350 million since FY 90 by the use of special contractual incentives. These

incentives included special incentive fees, such as award fees for exceptional cost performance, and value engineering provisions. The award fee for exceptional cost performance is used to incentivize the contractor to initiate innovations, cost management, and cost reduction measures that reduce operation costs while maintaining excellent performance. The award fee is earned incrementally during performance and is in addition to and separate from any other fees available under the contract, and is available only when the contractor earns a performance rating of excellent for the award fee period. The amount of the fee earned is based upon a formula established by the contract, and no fee can be earned during any period when the actual contract costs exceed the should-cost estimate.

Past performance "report cards" per FAR 42.15 should reflect adherence to performance requirements when a PWS has been used. Performance under PBSC provides better data for evaluation of past performance under other solicitations. A powerful incentive of excellence and customer satisfaction is created when contractors know their performance will influence future award decisions.

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Work Analysis

Work analysis involves further analyzing the required outputs by breaking down the work into its lowest task level and linking tasks in a logical flow of activities. Agencies should start with the overall service or output required from the contractor, then divide the job into all its parts and subparts, and identify the relationships among all the parts.

One method to accomplish this analysis is a tree diagram. It is a chart that divides a job into parts and subparts, each of which contributes to a final result or output, and demonstrates its relationship to the others. Appendix 7 contains a sample tree diagram.

Identifying all outputs from tasks and subtasks required of the contractor is important. Failure to do so will result in incomplete or ambiguous contractual requirements that may be difficult to enforce or lead to contractor misinterpretation and inadequate performance.

GSA reports that SOW and QAP preparation training provided by NAVFAC to GSA's pledge participants provided an excellent foundation for using job analysis techniques.

Ft. Bragg established a Process Action Team (PAT) to develop a standard format for the PWS and QAP. This was copied on a disk in WordPerfect and given to customers along with instructions on how to complete it. All the specifications were numbered and samples for technical exhibits were included. The instructions query the customers concerning their requirements. The results are then integrated into final form.

Performance Analysis and Standards

Performance analysis assigns a performance requirement to each task, which involves determining how a service can be measured and what performance standards and quality levels apply. The performance standard establishes the performance level required by the government. Correspondingly, the acceptable quality level (AQL) establishes a maximum allowable error rate or variation from the standard.

For example, in a requirement for taxi services, the performance standard might be "pickup within five minutes of an agreed upon time." The AQL then might be five percent, i.e., the taxi

could be more than five minutes late no more than five percent of the time. Failure to perform within the AQL would result in a contract price reduction.

Under the Navy aircraft maintenance contract, requirements are stated in measurable terms such as: ground abort rate is less than five percent; 100 percent of flight schedules are met; and aircraft are 80 percent mission capable.

Agencies should insure that each standard is necessary, is carefully chosen, and not unduly burdensome. Failure to do so can result in unnecessarily increased contract costs.

The Railroad Retirement Board converted a contract for data entry services to include a performance-based statement of work. They experienced approximately 30 percent cost savings. By going through the process of developing a PBSC PWS, they identified and eliminated unnecessary requirements. The estimated type and volume of source documents to be converted decreased by 14 percent. Vendor pricing was based on a more accurate and realistic profile of work to be performed.

Care must be exercised in establishing the quality level at which performance standards are set. The minimum acceptable performance standard should rarely be 100 percent, since the standard directly affects the cost of the service. Conversely, if the quality level is too low, it may act as disincentive to good contract performance.

Where appropriate, agencies may provide either a specific performance standard or allow the contractor the option to propose different target levels of standards of service along with the appropriate price adjustment. This allows contractors an opportunity to propose what they consider to be the most cost-effective performance standard level. In order to properly evaluate alternative levels of standards proposed by the contractor, agencies need to do market research into the feasibility of accepting these alternative levels, i.e., discussing with commercial entities their contracting methods and acceptable levels of standards for the same type of service.

In a GSA contract for custodial requirements, specification writers only identified desired quality levels. Offerors' technical proposals only identified the frequency and methods to be employed to meet the quality standard. The result was maximum flexibility for the contractors.

Standards may be published or well recognized, industry-wide standards, or may be developed by the agency. Agency standards should have industry input to ensure they are realistic and effective. This may be done through public meetings, public comment on proposed standards, or Requests for Information (RFIs) per FAR 15.405.

If there are a number of tasks and deliverables, agencies should summarize them in a performance requirements summary (PRS). A PRS usually lists tasks, deliverables, standards, and quality levels. Appendix 8 contains sample PRS tables.

Directives Analysis

All potentially relevant agency directives should be screened to determine which should be utilized, either in whole or in part. Directives that are unnecessary, or that apply only in part, should not be referenced or included in their entirety. Negative effects from excessive or inappropriate application of specifications include: confusion or errors in performing work; undermining the

government's ability to enforce required performance; unjustifiable increases in the cost of performance; unwarranted dictation of how work is to be performed, and discouraging or preventing contractor use of innovative or cost-effective performance methods.

Wherever possible, agencies should excerpt required portions of directives and include them in the PWS. If this is impractical, agencies should incorporate the required portions by reference. Entire documents should not be incorporated by reference when only a portion of the document applies.

Directives may also be an information source for developing task descriptions and quality standards.

Data Gathering

Agencies should provide the contractor an estimate of the workload to be performed and the items and services that the government will furnish to the contractor for the performance of the contract. In order to make the workload estimate, a determination of the historical workload by the major performance categories must be made. In addition, agencies must clearly identify the amount and types of items and services that it will provide to the contractor, e.g., electrical, equipment, furniture.

The historical workload data gathered may be used in cost estimating and analysis, and should be used as a baseline to estimate the future work requirements to be covered in the contract. This is especially important so that the offerors in addition to the incumbent can gain sufficient familiarity with the work in order to compete effectively. Also, the estimate of the future work requirements and government furnished items is critically important as the basis for the offerors to provide realistic cost estimates.

In preparing a solicitation for telephone hotline services, EPA used its extensive workload data as an attachment to the solicitation. The data included an analysis of call volume since 1989. This enabled industry to gain a better understanding of the requirement and the magnitude of the workload. It also allowed EPA to shift the burden of having the capacity to handle surges to the contractor under a fixed-price contract. Under the previous cost type contract, EPA had been paying to keep extra operators standing by even when they weren't needed.

Needed workload data is often available from existing management information subsystems or other databases or records such as sampling or on-the-job observation. If workload data is not available, various techniques can be used to generate it. For example, agencies can provide their best estimate of the data or if there is sufficient time before the award of the contract, the program personnel can immediately begin collecting workload data for a sufficient period of time to use for projections.

Some agencies have placed a performance requirement in the PWS for the incumbent contractor to maintain accurate workload data. This information can be used to help develop the baseline for future contract work estimates.

Agencies should place workload data and applicable documentation in a central area, e.g., a reference room where all potential offerors will have access to it and can readily use it in preparing their bids.

Cost Analysis

Estimated costs must be computed for each service or output based on available data. These

costs are used in preparing the government estimate, evaluating proposals, and determining positive and negative performance incentives.

For commercial services, the marketplace should provide a sufficient baseline for cost estimating. In the development of their independent government estimates, agencies should include consideration of commercial costs of performing work in the private sector.

Incentives

Incentives should be used when they will induce better quality performance and may be either positive, negative, or a combination of both. They should be applied selectively to motivate contractor efforts that might not otherwise be emphasized, and to discourage inefficiency. Incentives should apply to the most important aspects of the work, rather than every individual task.

Where negative incentives are used, the deduction should represent as close as possible the value of the service lost. This amount is usually computed by determining the percentage of contract costs associated with each task. For example, if a given task represents 10 percent of the contract costs, then 10 percent will be the potential maximum deduction in the event of task failure. Similarly, if a task is not performed to the AQL stated in the quality standards of the contract, deductions are computed based upon tables or formulas designed to reflect the value of substandard output. For example, a task having an AQL of five percent defects would have its unit price reduced incrementally for each percent of defects exceeding the AQL.

The Navy aircraft maintenance contract contains both positive and negative incentives. As a positive incentive, the material management function was turned over to the contractor. Material is obtained on a cost reimbursable basis, but the contractor earns a 15 percent positive incentive for cost avoidance. This "bonus" is calculated by comparing actual material costs with historical material costs adjusted by the Consumer Price Index. As a negative incentive, the contract is priced at a ready for training rate of 75 percent. To the extent this level of performance is not attained, the contract price is reduced proportionately. For example, an actual ready for training rate of 60 percent results in a 20 percent price reduction.

The definitions of standard performance, maximum positive and negative performance incentives, and the units of measurement should be established in the solicitation. They will vary from contract to contract and are subject to discussion during a source selection. Care must be taken to ensure that the incentive structure reflects both the value to the government of the various performance levels, and a meaningful incentive to the contractor. Performance incentives should be challenging yet reasonably attainable. The goal is to reward contractors for outstanding work, but not penalize them for fully satisfactorily but less than outstanding work.

The Tennessee Valley Authority (TVA) established a cash incentive for a raw water treatment service contract by creating a fee pool to which both TVA and the contractor contribute. The TVA business team evaluates the contractor's performance semiannually, and if the contractor meets the established performance evaluation criteria they are awarded their contribution to the fee pool. If they exceed the established performance evaluation criteria, they receive all or a portion of TVA's contribution to the fee pool. However, before TVA awards any portion of its contribution to the fee pool, the contractor must have demonstrated cost savings to TVA in excess of the fee pool incentive payment (e.g., if the contractor is awarded one percent, they must have saved TVA two percent or more).

Incentives are especially useful in efforts that are complex, have a high-dollar value, or have a history of performance or cost overrun problems.

NASA's cost type Space Station contract provides that the contractor will be docked 25 cents for every dollar of cost overrun, but will earn an additional 25 cents for every dollar saved. In addition, all fee payments are provisional and are subject to recoupment if station hardware fails to perform.

Incentives should correlate with results. Agencies should avoid rewarding contractors for simply meeting minimum standards of contract performance, and create a proper balance between cost, performance, and schedule incentives. The incentive amount should correspond to the difficulty of the task required, but should not exceed the value of the benefits the government receives. Agencies need to follow-up to ensure that desired results are realized, i.e., that incentives actually encourage good performance and discourage unsatisfactory performance. Verifying the effectiveness of the incentives used is important.

NASA reduced program costs for the Space Shuttle by approximately \$350 million since FY 90 by the use of special contractual incentives. These incentives included special incentive fees, such as award fees for exceptional cost performance, and value engineering provisions. The award fee for exceptional cost performance is used to incentivize the contractor to initiate innovations, cost management, and cost reduction measures that reduce operation costs while maintaining excellent performance. The award fee is earned incrementally during performance and is in addition to and separate from any other fees available under the contract, and is available only when the contractor earns a performance rating of