Canada

PRACTITIONER'S GUIDE FOR PROCUREMENT PRICING

2022 - 1

Procurement Support Services Sector
Public Services and Procurement Canada

TABLE OF CONTENTS

1.0 INTRODUCTION 4

2.0 GUIDE ORGANIZATION: PRICING IN CANADA 6

2.1 Overview of Key Pricing Considerations 8
2.2 Pricing Approach 11
2.3 Pricing Principles 12

3.0 KEY PRICING CONSIDERATIONS 14

3.1 Managing Pricing Throughout the Acquisition Lifecycle 15
3.2 Engaging Expert Advice 17
3.3 Documenting and Justifying Key Pricing Decisions in the Contract 19
3.4 Developing a Validation Strategy 21
3.5 Capturing and Tracking Lessons Learned 25

4.0 PRICING APPROACH 26

4.1 Basis of Payment 27
4.1.1 Fixed Price 32
4.1.2 Fixed Time/Unit Rate 40
4.1.3 Cost Reimbursable 43
4.1.4 Provisional Price Basis of Payment 74
4.2 Economic Price Adjustments (EPAs) and Foreign Currency Adjustments (FCAs) 83
4.3 Ceiling Price and Limitation of Expenditure 88
4.4 Incentives 89
4.4.1 Technical Performance Incentives 95
4.4.2 Schedule Performance Incentives 101
4.4.3 Award Fees 106
4.4.4 Non-Financial Incentives 115
4.5 Pricing Approach Selection 116
4.5.1 Summary Table of Basis of Payment Types 117
4.5.2 Summary Table of Incentive Types 125

5.0 PRICING PRINCIPLES 128

5.0.1 Cost-Based Pricing Principles 130
5.0.2 Commercial Pricing 132
5.1 Principles for Establishing the Cost Base 135
5.1.0 Contract Cost Principles, SACC 1031-2 138
5.1.1 Costing Standard 140
5.1.2 Cost Accounting Practice (CAP) Submission 141
5.2 Profit Principles 143
5.2.1 Negotiated Profit Element: Capital Employed 148

5.2.2 Negotiated Profit Element: General Business Risk 177
5.2.3 Negotiated Profit Element: Contractual Risk 182
5.3 Alternative Pricing Strategies 204

6.0 ANNEXES 206

ANNEX 1: Firm Price Basis of Payment 207
ANNEX 2: Costing Standard 210
ANNEX 3: Contact Information 282
ANNEX 4: Process Steps for Cost Accounting Practices (CAP) Submission 283
ANNEX 5: Discussion Papers 284
Annex 5.1 Background: Contract Pricing in Canada 284
Annex 5.1.1 Discussion Paper - Financial Accounting vs. Cost Accounting 284
Annex 5.1.2 Discussion Paper - Rules-Based Vs. Principles-Based Standards 292
Annex 5.1.3 Discussion Paper - Accrual Vs. Cash Based Accounting 296
Annex 5.2 Performance Management Discussion Papers 299
Annex 5.2.1 Discussion Paper - Contract Incentives to Encourage and Reward Enhanced Value to Canada 299
Annex 5.2.2 Discussion Paper - Measures to Manage Contractor Non-Compliance or Unacceptable Behaviour 314
Annex 5.2.3 Discussion Paper - Liquidated Damages 336
Annex 5.2.4 Discussion Paper - Managing Long-Term Contractual Relationships 338
Annex 5.3 Costing Discussion Papers 347
Annex 5.3.1 Discussion Paper - Sales and Marketing 347
Annex 5.3.2 Discussion Paper - Executive Compensation and Bonus 357
Annex 5.3.3 Discussion Paper – Asset Valuation 363
Annex 5.3.4 Discussion Paper – Transfer Pricing 368
Annex 5.3.5 Discussion Paper – Production Capacity and Indirect Costs Allocation 375
Annex 5.3.6 Discussion Paper - Research and Development Costs 386
Annex 5.3.7 Discussion Paper - Industrial and Technological Benefits – Value Proposition Cost Considerations 401
Annex 5.4 Pricing Discussion Papers 403
Annex 5.4.1 Discussion Paper – Alternative Approaches to Cost-Based Pricing 403
Annex 5.4.2 Discussion Paper – Baseline Profit Methodology for Consideration 416
ANNEX 6: Tools and Templates 418
Annex 6.1 Profit Determination Template 418
Annex 6.2 Applicable Rates for Profit Determination Table 418
Annex 6.3 Contractual Risk Assessment Tool 418

1.0 INTRODUCTION

Pricing is a fundamental enabler to the achievement of best possible value in a procurement. Effective pricing begins with the development of a pricing strategy that closely aligns with the overall procurement strategy to ensure pricing decisions are in accordance with the procurement's objectives and priorities. To achieve this alignment, it is essential that a pricing strategy is developed early on in the procurement process and before actual sourcing occurs, which will then need to be managed throughout the life of the procurement.

The world of procurement is rapidly changing and evolving and, as a result, the procurement community is increasingly being called upon to think both differently and more strategically to achieve desired procurement outcomes and to maximize value for Canadians. As a result, in order to effectively manage pricing it is important to ensure:

- pricing objectives are aligned with the procurement objectives to maximize the value achieved;
- the pricing strategies are monitored and evaluated throughout the lifecycle of a contract;
- pricing is focused on desired contract performance outcomes; and
- good working relationships are maintained among all stakeholders (e.g., Public Services and Procurement Canada (PSPC), federal government departments/agencies and contractors).

Purpose and Objectives of Practitioner's Guide for Contract Pricing

The Practitioner's Guide for Procurement Pricing (the Guide) is not intended to prescribe pricing to contracting officers but rather to aid them in the application of their professional judgement when making pricing decisions. Given that pricing within a contract is highly dependent on the nature of the procurement, the Guide has been developed to outline both the variety of options available and the flexibility that contracting officers have in building a comprehensive pricing strategy. For example, in developing a pricing strategy, the contracting officer would need to consider such things as whether to accept a cost, when and how to apply one or multiple types of basis of payments and how to include incentives tailored to the specific circumstances of a given procurement.

In addition to the pricing approaches outlined in the Guide, it is important to stress that contracting officers are encouraged to employ alternative pricing approaches not currently incorporated in this Guide. In fact, this Guide outlines a process to share and document procurements that use alternative approaches to those included in the Guide so that they can be considered in future iterations of this Guide for the benefit of the entire procurement community.

The Guide is intended to be used as a tool to develop effective pricing. As such, the desired objectives of the Guide are to:

- provide a better understanding of pricing with the Government of Canada and why it is important.
- provide clear and relevant pricing options available to contracting officers.

- provide guidance to determine best pricing options, including their associated potential benefits, risks and related processes based on the nature of the procurement.

- outline the key steps, considerations and tools contracting officers should consider as they develop a contract pricing strategy.

- provide guidance on key process considerations to help increase the clarity, consistency and transparency of pricing decisions.

- promote the use of alternative pricing approaches and the recommended process to document and capture lessons learned.

Please note throughout the Guide the term 'contractor' will refer to both current and future contractors doing business with the Government of Canada.

2.0 GUIDE ORGANIZATION: PRICING IN CANADA

The Practitioner's Guide for Pricing (the Guide) is applicable for both market pricing and negotiated pricing as detailed below.

Market Pricing: The price is assessed and established when there exists sufficient competition to obtain more than one competitive bid and price comparison. It is important to stress that Canada makes every effort to ensure that the price of goods and services is determined by the market through competition.

Negotiated Pricing: Occurs when a contract requires any type of price negotiation such as pricing a non-competitive contract, price negotiations in a competitive contract subsequent to the award for specific pricing aspects, contract amendments, and use of incentives involving costs and contract extensions.

- Cost-Based Pricing: The price is established based on the contractor's cost plus a profit margin above the cost.

- Alternative Pricing Strategies: The price is established by applying an alternative method to cost-based pricing. While the Guide does not contain specific guidance on specific alternatives, it does contain details in Section 5.3 (Alternative Pricing Principles) on the process to follow in the event an alternative strategy is being pursued.

There are instances where price cannot be established through competition. In those situations, cost-based pricing is most commonly used. With that said, that does not mean that there are not alternative pricing strategies available to contracting officers.

Understanding How the Guide is Organized

The Guide is organized based on the following three concepts to support the contracting officers in the development of a procurement pricing strategy:

1) Key Pricing Considerations: are key pricing considerations and practices that should be employed where applicable when managing pricing throughout each stage of the acquisition lifecycle.

2) Pricing Approaches: are approaches used to determine how a contractor will be compensated and includes consideration of the basis of payment and incentive options.

3) Pricing Principles: are principles that are to be applied to all scenarios in which price negotiations are required and involve the establishment of a cost-base, profit levels and price.

Table 2.0.a. below outlines the overall structure of the Guide as well as the core concepts presented within the Guide and their applicability to market and negotiated pricing.

Table 2.0.a.: Pricing Elements of the Guide

	Market Price	Negotiated Price
Key Pricing Considerations	• Manage pricing throughout the Acquisition Lifecycle: monitor, review and evaluate • Engage expert advice • Document key components of pricing decisions in a contract • Develop validation strategies • Capture and track lessons learned	• Manage pricing throughout the Acquisition Lifecycle: monitor, review and evaluate • Engage expert advice • Document key components of pricing decisions in a contract • Develop validation strategies • Capture and track lessons learned
Pricing Approaches	• Basis of payment • Incentives	• Basis of payment • Incentives
Pricing Principles	• The price is assessed and established through a comparison to other competitive bids • Any subsequent price negotiation requires the application of Pricing Principles, Negotiated Price	• Establishment of cost-base • Development of an appropriate profit • Alternative pricing strategies

2.1 OVERVIEW OF KEY PRICING CONSIDERATIONS

In order to effectively manage a pricing strategy throughout the acquisition lifecycle and to ensure it successfully meets the procurement's objectives, contracting officers should consider:

1. managing pricing throughout the acquisition lifecycle: monitor, review and evaluate.
2. engaging expert advice, as needed.
3. documenting and justifying all key pricing decisions and incorporate them in the contract.
4. developing a validation strategy.
5. capturing and tracking lessons learned.

1) Manage Pricing throughout the Acquisition Lifecycle: Monitor, Review and Evaluate

A pricing strategy should be established early in a procurement and then regularly reviewed, monitored and evaluated throughout the entire acquisition lifecycle. This is particularly important because changes in contract requirements, amendments, risk factors, timeframes, original estimates and expectations will all have an impact on the performance of the pricing decisions made at the outset of a contract.

The regular evaluation and management of pricing strategies within a procurement will ensure that the requirements of Canada have been met, will help build long-term collaborative relationships with industry, and are essential to optimizing value to Canada. See Section 3.1 (Managing Pricing through the Acquisition Lifecycle) for further details and guidance.

2) Engage Expert Advice, as needed

Pricing decisions can be complex and may require that contracting officers engage experts with knowledge and experience in such areas as:

- the development of pricing strategies;
- benchmarking tools; and
- price validation and technical validation.

For example, for support regarding pricing decisions and the development of pricing strategies, early engagement of the Price Advisor Group (PAG) within PSPC is recommended. See Section 3.2 (Engaging Expert Advise) for further details and guidance on when and how to access this expertise.

3) Document, Justify and Incorporate in the Contract

An essential principle to managing a successful pricing strategy is clear documentation of the strategy, the rationale for the strategy as well as details on how it is intended to be carried out. This would include:

- a formal record of decision for the key components of the pricing strategy including the selection of basis of payment;
- incentives;
- profit levels;
- validation strategy;
- limits and parameters on costs, acceptance of costs not generally accepted; and
- any other deviations from current pricing guidance and the cost-benefit analysis carried out in the decision making process.

Documenting the key decisions related to the pricing strategy and formally incorporating them in contract documents is essential to be able to seamlessly transition procurement files from one contracting officer to another, to minimize pricing disputes and to ensure there is a common understanding of the pricing strategy by all stakeholders. See Section 3.3 (Documenting and Justifying Key Pricing Decisions in the Contract) for further details and guidance.

4) Validation Strategy

A pricing strategy also requires management of the risk factors in a contract and with a contractor. A validation strategy should be developed to address a number of potential risks including the:

- reasonability of the price;
- accuracy of cost estimates or costs being claimed;
- actual levels of profit being earned;
- achievement of incentives;
- ability of a contractor's system to appropriately track costs; and
- ability of a contractor's system to appropriately track data related to the achievement of incentives.

The validation strategy should be clearly communicated to all stakeholders and can be comprised of various validation tools such as should-cost analysis, benchmarking and assurance services.

It is recommended that contracting officers seek advice and guidance from the Assurance Services Group to develop an effective validation strategy. The Assurance Services Group is a unit within PSPC's Procurement Support Services Sector devoted to providing contracting officers with advice on Pricing.
See Section 3.4 (Developing a Validation Strategy) for further details and guidance on when to access this expertise.

5) Capturing and Tracking Lessons Learned

Capturing and tracking lessons learned is vital to ensure the guidance provided remains relevant and evergreen, and to continuously inform contracting officers of opportunities and best practices in procurement pricing. Contracts applying alternative pricing strategies should be sent to the Procurement Support Services Sector (PSSS). PSSS will review contracts and supporting information for considerations of future guidance and lessons learned to ensure the Guide remains relevant and evergreen.

Please Note

- When an alternative pricing strategy is used in a contract please provide a copy of the contract detailing the strategy to the Procurement Support Services Sector by email at:

  (TPSGC.padgamtp-appbipm.PWGSC@tpsgc-pwgsc.gc.ca)

- See Section 3.5 (Capturing and Tracking Lessons Learned) for further details and guidance.

2.2 PRICING APPROACH

The Pricing Approach determines how a contractor will be paid for the services or goods provided. The approach requires consideration of the various types of basis of payment in conjunction with the use of incentives in order to strategically align pricing to the priorities and objectives of a procurement. See Section 3.4 (Developing a Validation Strategy) of the Guide for further details on the pricing approaches available.

Basis of Payment

The basis of payment in a contract defines how a price will be built to compensate a contractor in a contract. It reflects such things as the commodity, the duration of the contract and how adequately the requirement is defined.

The Guide outlines the basis of payment options that are available to contracting officers (fixed price, fixed time/unit rate, cost reimbursable, and provisional price). Specifically, Section 4.1 (Basis of Payment) of the Guide:

- defines each basis of payment;
- outlines when to consider using a particular basis of payment;
- identifies the factors contracting officers should consider in selecting the most appropriate basis of payment; and
- provides examples of how a particular basis of payment functions in practice.

Incentives

Based on the nature of the procurement, an incentive can act as a powerful tool that financially or non-financially motivate or encourage contractors to achieve higher levels of performance to maximize the value to Canada.

When appropriately structured, incentives can allow Canada to share in cost savings or focus the contractor on the areas of critical importance to a procurement such as costs and technical performance and schedule performance. See Section 4.4 (Incentives) for further details and guidance.

2.3 PRICING PRINCIPLES

As previously mentioned, there are instances where a contract will require price negotiation (e.g., where competition is not possible or where price negotiations take place in competitive contracts to incorporate amendments and contract extensions). Cost-based pricing is most commonly applied in those types of situations. Alternative approaches, however, are also available.

Section 5.0 of the Guide discusses the establishment of the cost-base and the development of a profit.

Section 5.3 provides details on the process to follow in the event an alternative strategy is being pursued.

Establishment of the Cost-Base

Establishing a cost base is the first step in building the price for cost-based pricing. The Guide is structured to assist contracting officers through the process of determining an acceptable cost, which requires careful consideration of the following factors: Attribution, Appropriateness and Reasonability. These factors are outlined in the Costing Standard. The process outlined in the Costing Standard, Cost Accounting Practices (CAP) Submission is designed to assist contracting officers in exercising their professional judgement to assess the acceptability of the costs in the contract. See Section 5.1 (Principles for Establishing the Cost Base) and Annex 2 (Costing Standard) for further details and guidance.

Development of a Profit

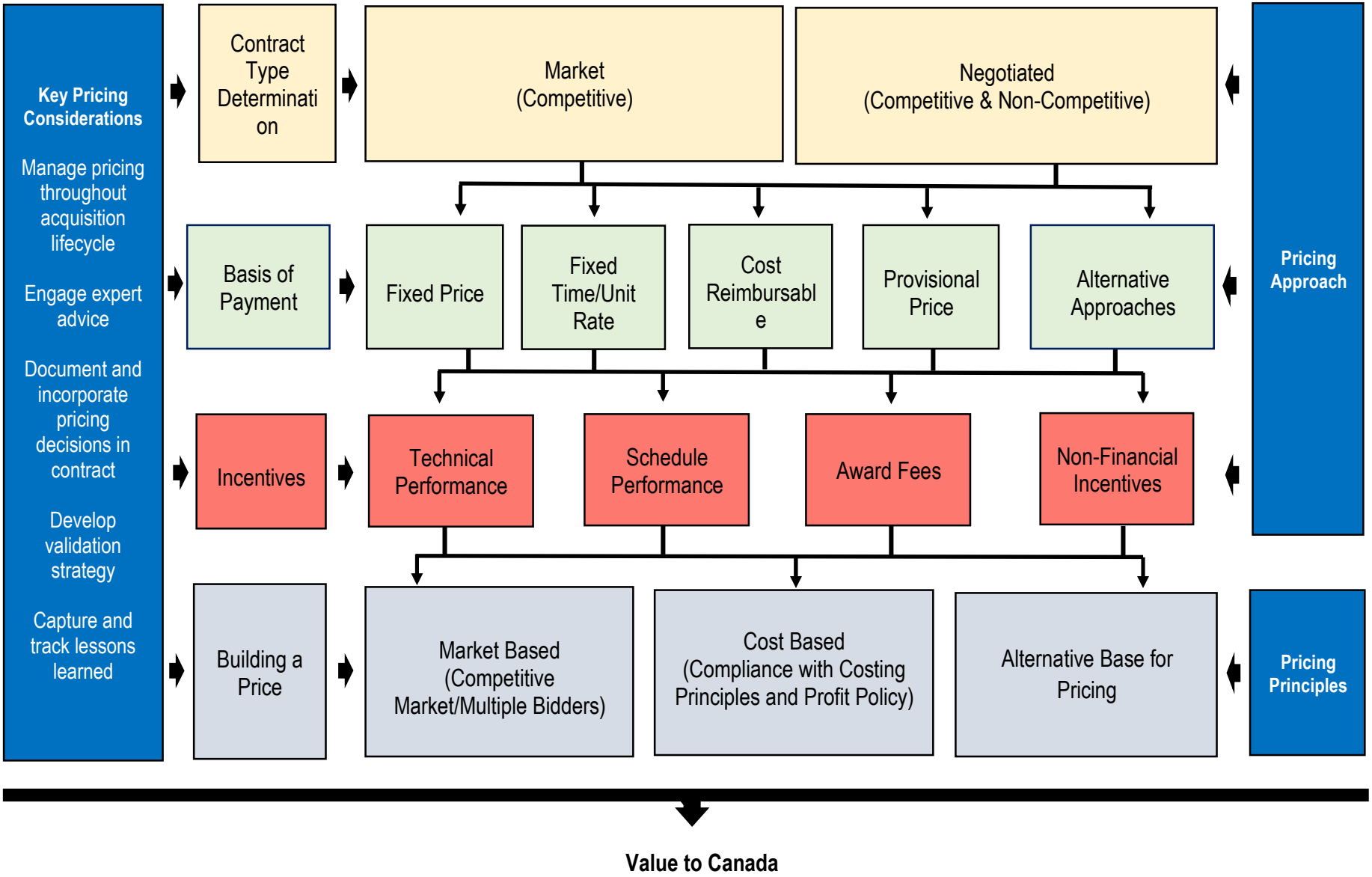
Once the cost-base is established, the next step is to develop an acceptable profit. Profit refers to the financial gain achieved by the contractor to provide goods and services to Canada. Section 5.2 (Profit Principles) provides guidance on the profit development process.

Alternative Pricing Strategies

The Guide currently lays out Pricing Principles related to cost-based pricing. Alternative pricing measures such as outcome based pricing or value-based pricing may be pursued. In the event an alternative pricing strategy is used, please provide a copy of the contract and contract details to the PSSS (TPSGC.padgamtp-appbipm.PWGSC@tpsgc-pwgsc.gc.ca). This will ensure lessons learned from the use of alternative approaches are incorporated in future iterations of the Guide.

Figure 2.3.a. below provides an overview of these pricing elements and of their interconnectivity. More detailed descriptions are provided in subsequent sections of the Guide.

Figure 2.3.a.: Procurement Pricing In Canada



3.0 KEY PRICING CONSIDERATIONS

Key pricing considerations are in place to ensure that a pricing strategy is effective. To that end, a pricing strategy must support the achievement of a procurement's objectives in a way that delivers value to Canada. The pricing objectives need to be agreed upon and clear to all stakeholders.

It is also important to stress that pricing will need to be reviewed, monitored and evaluated throughout the life of the procurement. A pricing strategy established early in the acquisition lifecycle, for example, may not over time operate as initially intended or it may not be effective or efficient as needed later on in the life of a procurement. It is for these reasons, among others, that it is important for contracting officers to incorporate the following five key pricing considerations into their ongoing management of a given procurement:

3.1 Managing Pricing Throughout the Acquisition Lifecycle: Monitor, Review and Evaluate

3.2 Engaging Expert Advice

3.3 Documenting and Justifying Key Pricing Decisions into the Contract

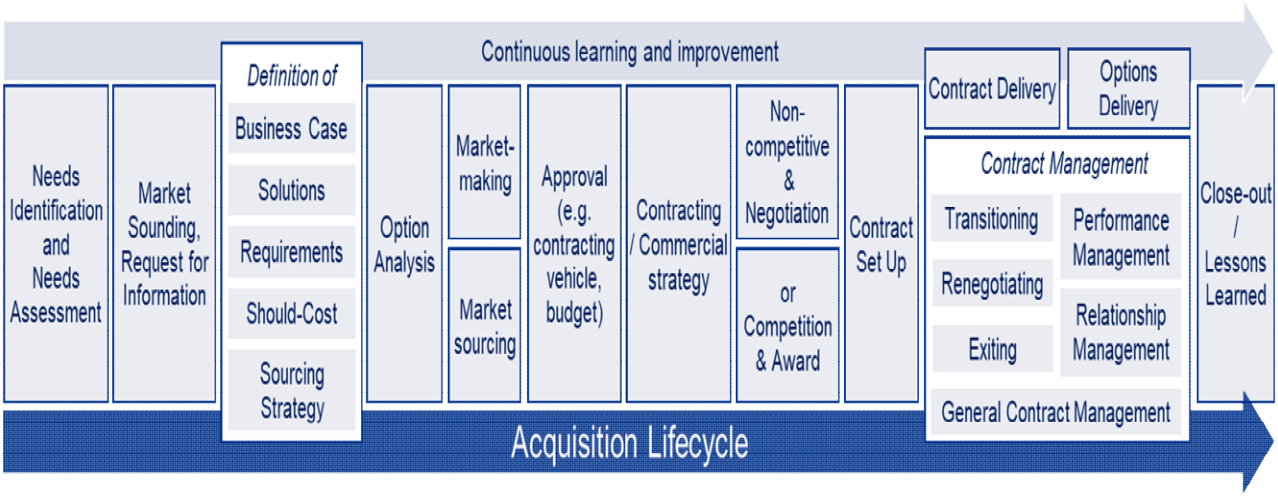
3.4 Developing a Validation Strategy

3.5 Capturing and Tracking Lessons Learned

3.1 MANAGING PRICING THROUGHOUT THE ACQUISITION LIFECYCLE

Pricing should be managed throughout the acquisition lifecycle in order to ensure requirements are being met as outlined in the contract and that objectives of both parties remain aligned with desired procurement outcomes. Managing pricing through the life of a procurement serves to motivate contractors to fulfill contractual requirements in a cost effective, timely and quality manner. An illustration of the acquisition lifecycle is presented in Figure 3.1.a. below.

Figure 3.1.a: The Acquisition Lifecycle



The pricing strategy applied should be continually monitored and evaluated for compliance and continued fit to the procurement objectives. Modifications in procurement objectives and priorities could require modifications to the pricing strategy.

A number of risk factors can impact how often and which pricing decisions should be reviewed and revisited. These include performance, market, financial and business risks. In addition, managing pricing throughout the acquisition lifecycle becomes increasingly important when it comes to longer-term contracts because there is a greater risk of variation of these factors. The lack of effective price management across the acquisition lifecycle can have significant and undesirable consequences such as:

- overpayments;
- poor contractor relationships;
- increased risk of contractor insolvency; or
- failure to deliver.

For example, if a contract is to be amended or extended, the factors applied in the determination of the original pricing strategy chosen may have changed and another pricing strategy may now be more appropriate. A cost reimbursable basis of payment may have been selected initially for a contract due to the number of unknowns in the requirement. If the requirement, however, becomes well known over time then

consideration could be given to introducing a fixed basis of payment and/or incentives. Additional information and tools for managing pricing throughout an acquisition lifecycle can be found in the following discussion papers:

- Annex 5.2.2 - Discussion Paper: Measures to Manage Contractor Non-Compliance or Unacceptable Behaviour

- Annex 5.2.4 - Discussion Paper: Managing Long-Term Contractual Relationships

3.2 ENGAGING EXPERT ADVICE

The intention of the Guide is to assist contracting officers in applying their professional judgement to procurement pricing. Pricing can be complex and may require the involvement of expert advice. For example, expertise may be required to determine the reasonability of the technical inputs included in the pricing estimate, to conduct a benchmarking exercise or to perform a should-cost analysis on a new good or service.

Did You Know?

- Contracting officers can draw on expert advice from the:

  Price Advisor Group (PAG), within the Procurement Support Services Sector

- Please see Annex 3 for contact information.

Engaging Price Advisors

Contracting officers can draw upon the expertise offered within PSPC by the Price Advisor Group (PAG). The engagement of PSPC's price advisors is highly recommended to support pricing decisions and the development of pricing strategies early on in the acquisition lifecycle. The advice of a price advisor can be acquired in accordance with both the Directive on the Use of Cost and Price Analysis Services and the Guideline on the Use of Cost and Price Analysis Services.

Please note that it is mandatory to contact PAG for:

- all potential sole-source contracts over $1,000,000 (this includes all competitive contracts over $1,000,000 with only one responsive bidder);
- any potential contracts or amendments that brings the total cost of a contract (competitive or non-competitive) to over $10,000,000; or
- any potential contract over $1,000,000 with a basis of payment other than fixed or firm price (e.g., costs and level of effort are variable and/or unforeseen).

As soon as it is known that any of the above conditions exist, PAG must be contacted to determine if any further action is required early in acquisition lifecycle. PAG services that may be required:

- Before contract award to:
  - assess the price proposal and costing rates negotiated for billing purposes.
  - assess the proposed price or rate under the price/rate certification.
  - assess the price support.
  - provide advice on applying specific economic price adjustments.

- After contract award to:
    - negotiate annual costing rates for billing purposes.
    - determine reasonable and supportable pricing on add work requirements or change proposals.
- determine if further work by government auditors is required where contract rates are subject to negotiation or where contract costs rely on the contractor's time recording system.

3.3 DOCUMENTING AND JUSTIFYING KEY PRICING DECISIONS IN THE CONTRACT

Another key pricing consideration is documenting pricing decisions in the contract. It is essential to have a transparent approach to documenting the pricing strategy, the pricing approach and the decisions with respect to the pricing principles. It is also important to ensure that the documentation be thorough and comprehensive enough to enable others to understand how the pricing strategy was intended to function. This means maintaining a formal record of decision of the key components within the pricing strategy including:

- the selection of basis of payment;
- incentives;
- profit levels,
- the validation strategy;
- limits and parameters,
- acceptance of costs not generally accepted; and
- any other deviations from current pricing guidance and the cost-benefit analysis carried out in the decision making process.

The contracting officer must ensure to keep a record of all assumptions, rationales, agreements and challenges related to the pricing of a contract.

Process Steps

The following documentation is required from the contracting officer:

I. Identify the pricing strategy used.

II. Explain the reasons for the pricing strategy.
   - Contracting officers are responsible for determining fair and reasonable profit. Supporting documents and any justifications (e.g., options analysis, profit calculations) that were used to establish the pricing decision should be retained and documented in the procurement file, business or other decision documents. This should be done for all contracts as well as contract amendments.

   - This will support fairness and transparency and clearly document the intent and rationale for the contracting officer's pricing decisions. This supports sound stewardship, responsible contract management and, ultimately, the long-term success of the contract. This will also provide contracting officers who may be responsible for the contract in the future with access to procurement files that provide a clear understanding of the reasons behind past contract pricing decisions.

- Explain how the pricing was calculated or determined, if applicable.

In cases, however, were determining profit differs from the guidance provided in Section 5.2 (Profit Principles) or where an alternative pricing strategy is applied Section 5.3 (Alternative Pricing Principles), contracting officers will need to document and submit:

- an explanation of how the pricing is intended to work.
- an identification, description and estimate of expected costs and benefits of the pricing.
- evidence or comparative information from other jurisdictions/sectors in support of the proposed pricing practice, if available.
- an identification of any limits in the application of the pricing practice such as timeframes or conditions that apply.
- a brief description, as applicable, on plans and approaches to:
    - measure and track whether the contractor achieved the conditions in the pricing provisions.
    - validate whether the contractor has achieved the conditions that activate the pricing provisions, including gain-sharing and non-financial performance objectives.
    - adjust or recalibrate contract pricing for multi-year contracts, including performance objectives.
    - review and assess the effectiveness of the pricing practice and make recommendations for its use by others.

Incorporating Pricing into a Contract

Once the pricing is appropriately authorized through standard procurement approval process, contracting officers will need to include all appropriate clauses for the basis of payment chosen and to ensure all aspects of the price are clearly documented in the contract (e.g., in an Annex). A detailed breakdown of the cost, profit and incentives should be included in the contract Basis of Payment section, where applicable.

Documentation on how the price will be administered throughout the lifecycle of the contract is also required, including the validation strategy and pricing strategy review checkpoints. Price administration/management will outline, for example, how often the price will be revisited, how the incentives are intended to work and when they will be evaluated and awarded. This reduces the risk of future disputes arising due to vague terms and conditions.

3.4 DEVELOPING A VALIDATION STRATEGY

A validation strategy seeks to:

- manage risk in a contract;
- better understand the nature of the costs being claimed;
- establish the credibility of the amounts being charged; and
- validate the achievement of incentives.

Did You Know?

- A validation strategy can be developed with the use of the expertise from the:
- Assurance Services Group (ASG) within the Procurement Support Services Sector
- Please see Annex 3 for contact information.

It is important that the validation strategy be established early on in the acquisition lifecycle and prior to both Request for Proposal or contract negotiation. Please note, the Assurance Services Group is available to assist contracting officers in developing a validation strategy.

The validation strategy should assess the risks in the contract pricing strategy and specific risks related to the contractor to properly assess the areas within the contract that will require validation and when the validation should be carried out. It will establish the level of assurance work that is required to perform the validation. For example, higher dollar value, higher risk contracts may require the Assurance Services Group to coordinate the validation work where as other areas of the strategy may be carried out by contracting officers or through contractor attestations.

The timing of the validation strategy needs to be determined upfront because validation should be performed at specific times based on the contract's basis of payment and use of incentives. The timing of the validation as well as who will carry out the validation requirements and how the results of the validation findings are intended to be handled should all be laid out in the validation strategy. The strategy should be clearly communicated to all parties, including the contractor and client department.

Pricing Approach Considerations

The validation requirements and timing will vary depending on the basis of payment and use of incentives. Detailed considerations relating to validation strategies for different types of basis of payments are listed in Table 3.4.a. below.

Table 3.4.a.: Validation Strategy Considerations

Pricing Approach	Validation Strategy Considerations
Fixed Price	• In the case of a negotiated fixed price contract, considerable risk upfront can exist when establishing the initial contract because it is very difficult to assess the credibility of the costs and price proposed at the onset without validating. In light of the fact the price is fixed for the life of the contract, validating pricing factors in advance of signing a contract is imperative. • A price/cost validation exercise should be completed prior to contract finalization for any fixed price to ensure prices are appropriate, attributable and reasonable. • Once the price is fixed and incorporated into the contract, it is very difficult to modify, further highlighting the importance of validation upfront. • Price validation methods differ depending on how the price of the contract was determined: o A competitive process with more than one compliant bidder. Multiple bids will validate the fairness of the price. o Available market-based data to compare to the price, in the event there is only one bid. • Cost validation for a cost-base price build-up, typical for sole sourced contracts. • In the event price cannot be validated through competition or the market, the price is developed from a validated cost base with a profit calculation (See Section 5.2: Profit Principles for more information). • The level of validation required for a cost base is contingent on the level of complexity. Contracting officers are encouraged to seek advice and expertise, as required, from the PSSS.
Cost Reimbursable	• In a cost reimbursable contract, price validation is required once costs have been incurred to ensure claims are consistent with the terms and conditions of the contract and that they are acceptable. • In a cost reimbursable contract, it is equally important to develop a validation strategy to ensure the costs claimed and accepted by Canada are in line with Canada's Contract Cost Principles SACC 1031-2 and the Costing Standard (Annex 2)

	• It is also important to establish what costs are "acceptable" to Canada as early on in a contract as possible. • Agreeing with the contractor in advance of the acceptability of costs and accounting practices with the Annex 2 (Costing Standards). This minimizes the risk of disputes related to costing later in a contract. • The validation strategy for a cost reimbursable contract should include an assessment of acceptable costs in advance of the contract being signed or at the time of the negotiations by using CAP Submission. • A timely validation schedule can then be established to ensure the costs being claimed are in line with those deemed acceptable at the outset of the contract. This can be based on findings of a formal or informal audit. The audit provides the basis for certification that the price is reasonable. • More information on validation strategies can be found in Section 3.4 (Developing a Validation Section)
Provisional Pricing	• Provisional pricing is a basis of payment with a planned move from cost reimbursable to fixed price, as the degree of certainty related to the contract requirements increases. • Validation is required in a provisional price contract, as the first portion of the contract operates in a cost reimbursable environment. The validation strategy for the cost reimbursable portion must include an assessment of acceptable costs actually incurred. . • The validation strategy, timing and plan must be agreed upon in advance of the contract commencing, and must be well documented. • The results of the cost validation exercise will be used to set the fixed price of the contract moving forward.
Incentives	• Validation is also important to determine and measure incentives that are in place in the contract. • To ensure information tracking for incentives is credible (e.g., deliverables, performance indicators, and costs), it is important to, first, ensure the contractor has appropriate system controls (for example, accounting system and labour time recording system audit). • Determination of the sufficiency of controls should be included in the validation strategy for the contract.

	• The validation strategy must detail a schedule and plan for validating the achievement of the incentives laid out in the contract.

Validation: Value Added Information

In addition to validating the actual costs incurred in a contract, the credibility of a contractor's systems and the achievement of incentives, there is considerable value in the information received from a validation activity on the nature of the costs being incurred on a contract and profit being earned.

Validation can also be used to inform on the implementation of the pricing strategy, and to gain knowledge on how the costing and pricing of a contract is actually working. This information helps with the decision related to the pricing of amendments, follow-on contracts or changes required. The timely analysis of financial information, costs and systems can help to better inform contracting officers and to support them in making sound decisions.

In terms of contract pricing, the information provided through validation can be valuable for future pricing decisions as well as serve as a conduit for sharing lessons learned on pricing moving forward and to help identify opportunities for improvement.

Validation Tools: Should-Cost Analysis/Benchmarking

Should-cost analysis is a process for determining what a good or service might reasonably be expected to cost based on a separate cost estimate and/or an objective assessment of the contractor's operations to identify and correct for any inefficiencies. If should-cost analysis/benchmarking is determined to be beneficial and feasible (e.g., benefits outweigh the costs, availability of data and expertise), it could be used to assess or establish a price.

3.5 CAPTURING AND TRACKING LESSONS LEARNED

Capturing and tracking lessons learned is vital to ensure policies, guidance, and training remain evergreen and that contracting officers are continuously informed of opportunities and best practices on contract pricing.

Please Note

- When innovative pricing approaches and alternative pricing methods (in line with Section 5.3, Alternative Pricing Strategies), the contracting officer should share with PSSS by email (TPSGC.padgamtp-appbipm.PWGSC@tpsgc-pwgsc.gc.ca) details of the method applied.

Why is this important?

- This information will be used by PSSS to learn from the experiences of contracting officers and to enhance consistency across procurements by updating this Guide.
- Lessons learned will be tracked and shared to facilitate stakeholder development and the continuous improvement of the pricing guidance and associated strategies and processes.

4.0 PRICING APPROACH

The pricing approach is a key element in establishing a contract price. The pricing approach determines how a contractor will be compensated for the provision of goods and services. This includes deciding the appropriate basis of payment in combination with the use of incentives, where appropriate.

The goal of the pricing approach is to align contract pricing with the procurement's primary goals and objectives. The pricing approach includes:

- Determining the appropriate basis of payment, in combination with incentives (if appropriate);
- Determining profit levels;
- Selecting payment schedules and contract terms and conditions related to pricing;
- Driving the achievement of value in a procurement as defined by the buyer;
- Balancing the risks and uncertainties between Canada and the contractor; and
- Encouraging both efficient and economical performance within the contract.

Section 4.1 (Basis of Payment) and Section 4.4 (Incentives) are meant to help support contracting officers in determining a pricing approach appropriate for a given procurement.

Section 4.5.1 provides Summary Tables of Basis of Payment Types and Section 4.5.2 provides Incentive Types at the conclusion of the Pricing Approach section.

4.1 BASIS OF PAYMENT

What is a Basis of Payment?

A basis of payment is the base component of the pricing approach. It establishes the structure of the pricing arrangement that can be stand-alone or be paired with incentives, where appropriate.

The basis of payment can and should be adapted according to the following:

- Degree and timing of the responsibility/risk assumed by the contractor for the costs of performance;
- Amount and nature of the profit offered to the contractor for achieving specified standards or goals;
- Amount and nature of the incentive offered to the contractor for exceeding specified standards or goals.

Factors to Consider

Depending on the nature of the procurement, one or many types of basis of payment can be incorporated into a contract in conjunction with a combination of incentives provided it is appropriate to achieve best value.

- In the case of provisional pricing, which will be discussed later in this document, a contract can switch from one basis of payment to another after set parameters are met.
- In other cases, a contract could have multiple aspects with different levels of certainty and risk, with each aspect having its own basis of payment.

Did You Know?

- A contract need not be confined to a single basis of payment.
- Provided it is appropriate to achieve best value, one or many types of basis of payment can be incorporated into a contract and can even be used in conjunction with a combination of incentives.

While the basis of payment options will be discussed in detail in Section 3.1 (Managing Pricing throughout the Acquisition Lifecycle), selecting a basis of payment that is appropriate for a contract requires careful consideration, measurement and assessment of the risk factors and uncertainties. It is also important to note that the basis of payment option has an impact on the transfer of risk between Canada and the contractor.

Table 4.1.a. below provides the areas that need to be considered in determining a basis of payment.

Table 4.1.a.: Consideration for Pricing Approach

The questions outlined below will help you determine which Pricing Approach is suitable for your procurement and whether or not incentive options can apply.

Areas of Consideration	Questions to Consider
Clarity of scope and requirements	• Does the good or service have clearly established criteria? • Is the good or service commercially available? • Is this a complex procurement where the requirements are not well known? • Are there uncertainties related to the development or implementation of the good or service that could impact the achievement of contract requirements? • Does the good or service being acquired have very specific requirements that have not been done or tested before? • Is the requirement of an urgent nature?
Market Forces	• What is the degree of market competition? • Are costs subject to potential fluctuations in material availability and labour costs?
Contract Duration	• Is the duration of the requirement/contract expected to be short-term? • Is the requirement/contract delivered over a longer period of time? • Is the contract for a short period of time with no possibility of extension? • Is the initial contract for a short period of time but there is a possibility of extensions?

Areas of Consideration	Questions to Consider
Price Validation	• To what extent can price analysis provide for a reasonable pricing standard? (e.g., availability of historical cost and pricing data) • Is it possible to conduct a cost analysis including an assessment of the impact of uncertainty and reasonable allocation of cost responsibility to the contractor? • Based on past experience with the contractor, has the contractor been able to provide consistent and accurate cost estimates? • What is the extent and availability of comparable market prices, benchmarks and should-cost analysis? • What are the impacts of concurrent contracts and their pricing arrangements?
Contractor Readiness	• Is the contractor capable of performing the requirements of the contract? (e.g., skills, knowledge) • Is the contractor financially stable and able to remain operational throughout the duration of the contract? • Is the contractor able to perform the requirements of the contract within budget? (e.g., cost control/containment) • Is the contractor's accounting system able to support the timely development of data related to costing and incentive targets in the manner outlined in the proposed contract? • Does the contractor plan to subcontract none, some or the bulk of the work under the contract to another party?
Applicability of Incentives	• Are there significant concerns related to cost controls? • Is there measurable and justifiable value in rewarding performance superior to that of the base standards established in the statement of requirements? • Will the contractor achieve the target performance criteria required without an incentive?

Basis of Payment Types

There are four primary basis of payment:

- Fixed price;
- Fixed time/unit rate;
- Cost reimbursable; and
- Provisional price.

The Table 4.1.b. below provides a description of these basis of payment.

Table 4.1.b.: Basis of Payment Types

Section	Basis of Payment	Description
4.1.1	Fixed Price Note**:** The previous firm price basis of payment has been replaced by the fixed price basis of payment. Refer to Annex 1 for further details on firm price	Sets a total fixed price for the delivery of a good or service for the duration of a contract regardless of actual costs incurred. Options include: • Fixed Price Competitive: Price is established by market competition with more than one bidder. • Fixed Price Non-Competitive: Price is negotiated at the outset of the contract or in an amendment. • Fixed Price subject to Economic Price Adjustment: Price includes the ability to adjust for significant fluctuations of price outside of Canada and the contractor's control.
4.1.2	Fixed Time/Unit Rate	Fixed Time/Unit Rate: Calculates a set amount (which typically includes direct costs, indirect costs (overhead charge) and profit), which is charged based on a fixed rate and the actual hours worked/ actual volume of units purchased. • Fixed Time/Unit Rate subject to Economic Price Adjustment: Price includes the ability to adjust for significant fluctuations of price outside of Canada and the contractor's control.

Section	Basis of Payment	Description
4.1.3	Cost Reimbursable	Reimburses a contractor for all acceptable contract costs incurred, typically up to a set amount. Options include: • No Fee: Allows for repayment of actual costs incurred only. • Fixed Fee: Adds a specific profit amount to the costs incurred. • Target Cost/ Incentive Fee: Provides for a sharing formula between the contractor and Canada of cost savings achieved or costs exceeding the target. A form of cost reimbursable contract with greater cost controls. • Fee Based on Actual Costs: Adds a variable amount of profit based on the costs incurred.
4.1.4	Provisional Price	Provisional Price: Commences by using a cost-reimbursable basis of payment with set parameters and then moves to a fixed price basis of payment within the contract term, as a function of requirement and cost certainty.

4.1.1 FIXED PRICE

Please Note

- A fixed price basis of payment is a new basis of payment in Canada and has been established to replace the firm price basis of payment.
- See Annex 1 for further details on the firm price basis of payment.

Definition

Fixed price provides price certainty throughout the life of a contract. In a fixed price contract, the contractor is paid a definite sum of money for carrying out the work regardless of the costs incurred, resulting in the following factors:

- Risks related to cost fluctuations and resulting profits or losses are fully borne by the contractor.
- A higher profit rate is typically built into the price to compensate the contractor for taking on the risk of fluctuating costs, as detailed in Section 4.4 (Incentives).
- Contractors are encouraged to control costs and maximize efficiency because all resulting savings impact their profit levels. This can result in stronger performing contractors who are better able to compete in the marketplace.
- There is generally a lower administrative burden in a fixed price contract over other basis of payment. For example, while a contracting officer may want to validate estimated costs before contract award, validation of actual costs is not required for a fixed price contract.

Factors to Consider

- A fixed price basis of payment is new in Canada (refer to Annex 1: Firm Price Basis of Payment for details on the changes).
- A competitive fixed price is the optimal basis of payment for achieving value because it is based on business profit motives. With multiple compliant bidders, the contracting officer is generally afforded a high degree of comfort that the price being fixed is fair market value.
- It is important to note the difference between a fixed price and a firm price basis of payment for non-competitive contracts:
    - Price can only be fixed with strong certainty, assurance and validation of estimated requirements, costs and profit.

- There is no Discretionary Audit clause in a fixed price contract, which means that once a contract is signed, the contracting officer no longer has the ability to validate the costs and profit being earned on a contract during the contract or at contract completion for the purposes of excess profit recovery.

- Ensure as part of the validation strategy, that Canada retains it's right to audit for information purposes (i.e. only related to potential future negotiations on interim or follow-on contracts). This should include the right to audit the underlying costs (including the cost of production) to produce the necessary level of price support needed to determine if the fixed price is fair and reasonable. General audit clauses/conditions are a part of the general conditions template for low, medium and high complexity procurements.

  Please note: an update has been proposed to the general audit clauses currently found in the Standard Acquisition Clauses and Conditions (SACC), Section 3 General Conditions templates and a proposed additional audit clause for the SACC Manual.

  While this update is underway, it is recommended that the "Accounts and Audit" clauses in the "General Conditions – Higher Complexity – Goods SACC 2030, section 33", "General Conditions – Higher Complexity – Services SACC 2035, section 31" and "General Conditions – Research and Development 2040, section 42" templates be used, as appropriate. The "Accounts and Audit" clauses included in the templates detail the contractor's obligations related to audit (i.e. the contractor must retain evidence for all amounts claimed in a contract) and protects Canada's right to audit (i.e. Canada's right to audit all claimed amounts, calculated in accordance with the Basis of Payment).

- The longer the duration of a fixed price contract, the greater the risk that the cost base for pricing will not represent actual costs.

When Should You Use the Fixed Price Basis of Payment?

Due to the fact that a fixed price contract results in the price being set for the duration of the contract, it is important to consider this basis of payment when:

- The contracting officer has a significant level of assurance that the price being fixed is fair and will not result in unreasonable profits being paid by Canada. This assurance can be obtained through:

  - A competitive procurement with multiple bidders, which allows the market to set the price.

  - Sufficient benchmarking and should-cost information to validate the price.

  - Available historical data on costing that is robust enough to be able to validate prior to fixing the price exists. With a follow on contract, for example, assurance services can be performed on the costs and profit of the previous contract to establish a fixed price in the follow on contract.

- The requirements, scope of work and outputs to determine the level of effort are known, clearly defined and are unlikely to change. (e.g., where the relevant technology/industry/platform/service is mature or proven).

- The contract duration is short- to medium-term to ensure that:

    - The price would not need to include additional profit premiums to account for long-term requirements and cost uncertainties.

    - The contracting officer has a reasonable level of assurance that the price will still be reasonable and of value to Canada in the later years of the contract given the potential for technology changes and process improvements.

- The schedule is relatively certain and considered achievable.

- It is appropriate for the contractor to bear the risk of cost uncertainty.

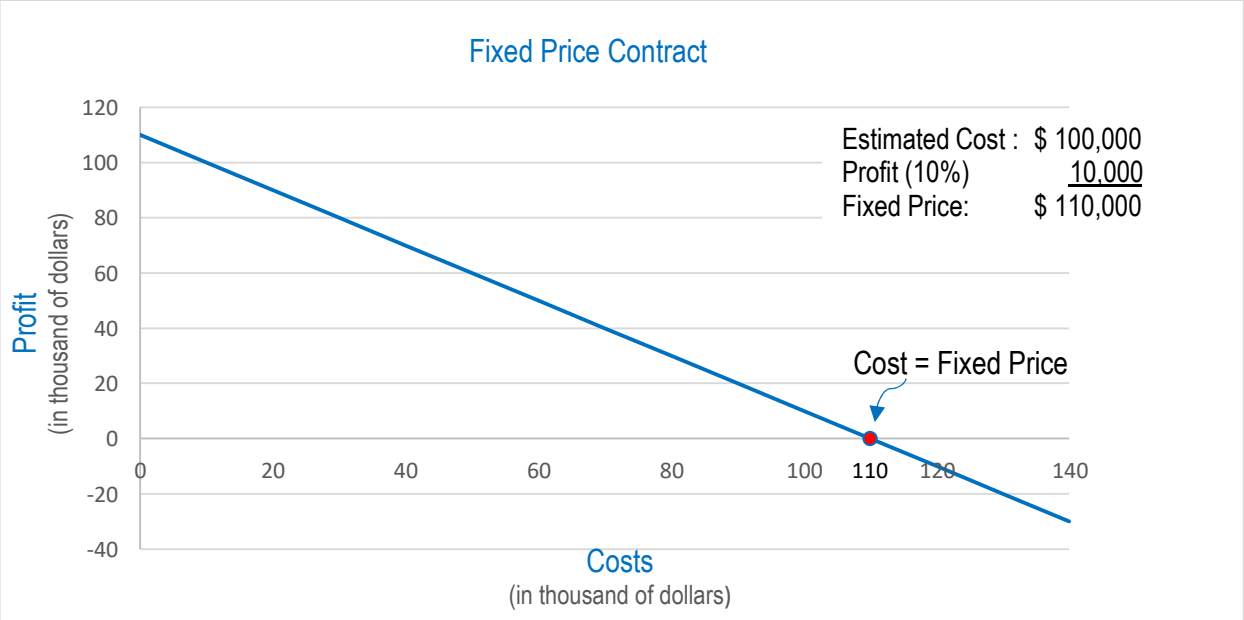
When Should You Not Use the Fixed Price Basis of Payment?

A fixed price basis of payment may not be appropriate for high risk procurements involving contracts with highly uncertain or variable scopes (e.g., cutting edge, untested or developmental technology). Using a fixed price basis of payment in these situations may result in:

- Contractors building a significant contingency (risk premium) into the contract price, which ultimately results in a higher overall price that no longer provides value for money.
- Contractors struggling to perform the agreed work (for the fixed price).
    - This may result in a need to renegotiate price, scope and/or schedule requirements, resulting in the contract operating like a cost reimbursable contract, losing the benefits of a fixed price contract, while the contractor is being paid higher profit premiums associated with fixed pricing.
    - This may also result in placing at risk delivery of contracted outcomes and/or compromising the capability (including safety and quality) as the contractor may look to 'cut corners' in an attempt to minimize costs and preserve profits.

Example 4.1.1.a.: Profitability of a Fixed Price Contract

Canada negotiates a fixed price contract for $110,000 which is composed of $100,000 of validated cost estimates plus a 10% profit, or $10,000. The profitability can be expressed by the line graph below.



Consider the following scenarios:

- If the contractor incurred costs of $110,000, which is equal to the fixed price, the contractor's profit is nil. In other words, the contract was not profitable for the contractor.

- If, however, the actual costs incurred by the contractor are $90,000, the contractor's profit would be as follows:

    - Fixed price = $110,000

    - Actual Contractor Costs = $90,000

    - Profit = $20,000

  In this case, due to cost efficiencies, the contractor's profit is $10,000 ($20,000 - $10,000) more profitable than originally negotiated.

- If the actual costs incurred by the contractor are $120,000, thereby exceeding the negotiated fixed price, the contractor will be in a loss position, as follows:

    - Fixed price = $110,000

    - Actual Contractor Costs = $120,000

    - Loss = $10,000

It is important to note that the profitability of a fixed price contract is not limited. In other words, the more cost efficient a contractor is in performance of the work, the more profitable the contract is, and conversely, the greater the amount by which the actual costs exceed the fixed price, the greater the loss the contractor incurs.

Process Steps

Process Steps	Process Overview
Document Decision to Use Fixed Price Basis of Payment	• Decision on which basis of payment would be most applicable for the requirement should be documented in the procurement file.
Establish the Cost Base	• Applicability: See the Section 5.0.1 (Cost-Based Pricing Principles) on circumstances when Cost- Based Pricing applies. • To establish the cost base, follow Section 5.1 (Principles for Establishing the Cost-Base).

Process Steps	Process Overview
	• For non-competitive contracts, validation prior to contract award is necessary to ensure that cost estimates are reasonable and that the contractor's financial systems, which support the estimates, are sufficient and reliable.
Determine the Price	• Options to determine the price include the following: o A competitive process with more than one compliant bidder; o Available market-based data; or o Costs plus profit (see Section 5.2 Profit Principles).
Validate the Price Prior to Contract Award/Contract Extension	Once the price is fixed and incorporated into the contract, it is very difficult to modify, further highlighting the importance of validation prior to contract award. • In the case of a negotiated fixed price contract, validating the credibility of the costs and price proposed is necessary to ensure the negotiated price is fair and reasonable to Canada, particularly given the fact that the price is fixed for the life of the contract. • A price/cost validation exercise should be completed prior to contract award or contract extension for any fixed price to ensure prices are appropriate, attributable and reasonable. • Price validation methods differ depending on how the price of the contract was determined: o Generally in a competitive process with more than one compliant bidder, multiple bids will validate the fairness of the price. o In a non-competitive or competitive process with only one compliant bidder price validation might be based on available market-based data to compare to the price; and/or cost validation; and a reasonableness assessment of proposed profit. If the above elements are lacking, then a fixed price basis of payment may not be appropriate. • The nature and level of validation required for a cost base is contingent on the level of complexity of costing and dependency on the

Process Steps	Process Overview
	contractor's accounting systems. Contracting officers are encouraged to seek advice and assistance, as required, from the Assurance Services Group within the Procurement Support Services Sector. • Options for Validation: There are two different bases for prices that will affect how a contracting officer approaches price validation for a procurement. They are: 1. *Market based prices* • Competitive: The prices submitted by suppliers in response to a competitive solicitation, where multiple bids are received, are considered market based prices. • Non-competitive (Negotiated): If the contract to be awarded results from a non-competitive solicitation and there are similar or comparable commercial goods or services available in the market that match the requirement, the commercial price may be suitable as a proxy of the market price, plus or minus any adjustments to reflect any variations in the requirement. • A price determined by the market for competitive contracts is the preferred basis for fixed price contracts and should always be used for requirements where there is a commercial/market price available for setting a price or as a basis for price negotiation. 2. *Cost-based prices* • Development of cost-based prices is based on estimated costs to carry out the work. This cost base is established based on the sum of reasonable estimates for the cost elements which support the performance of the work. • The underlying assumptions include: o The contractor is competent and capable of performing the work; o Its business processes are up-to-date/cost-effective; and, o The estimates of inputs required are reliable. • Historical data from previous contracts may provide comfort that estimates of inputs are reasonable and sufficient to establish a cost base for pricing.

Process Steps	Process Overview
	• Depending on the value and complexity of the requirement, technical specialists with industry experience may be required to establish a reliable estimates of inputs required to complete the work. • Guidance on the acceptability of the costs can be found in the Standard Acquisition Clauses and Conditions Contract Cost Principles (SACC 1031-2) and Section 5.1 (Principles for Establishing the Cost-Base) of this Guide. • Once the cost base has been established, a reasonable profit may be negotiated and applied to the cost base. The profit should be negotiated in accordance with Section 5.2 (Profit Principles).
Incorporate Pricing into the Contract	• It is important that the total fixed price and any supporting terms and conditions are included in the contract to ensure that contract's pricing is clear to both parties.
Documentation, Justification, Authorization	• Documentation of all decisions supporting validation, justification and authorization of the price must be included in the procurement file.

4.1.2 FIXED TIME/UNIT RATE

Definition

This basis of payment pays the contractor for the actual hours worked/actual units procured in performance of the work. For example, units can represent labour or machine hours. The amount paid for these hours/units is calculated based on an estimate of the associated costs to establish a predetermined fixed rate. A predetermined fixed rate is typically composed of estimated direct costs, indirect costs (overhead charge) and profit. The amount to be paid varies based on the increase and decrease in units.

When to Use

- When it is not possible to estimate in advance the level of effort and/or quantities required to perform the contract, but it is possible to determine within reasonable limits the applicable direct and indirect costs for each hour worked or unit procured during the contract period.

Factors to Consider

- The contract profit on the contract will be impacted by any variances between the level of expected volumes and the actual volumes procured. The overhead costs are either spread out over more or less units than expected. Resulting in a higher or lower profit.

- All rate components need to be clearly documented. Consideration can be given to monitoring the rate for reasonableness on an annual or other periodic basis to ensure ongoing value.

- The actual amount of hours worked or units procured in the performance of the work can be made subject to government audit.

- Canada regularly negotiates rates with a limited number of major government suppliers. Please contact the Procurement Support Services Sector (PSSS) for information on available rates, either as negotiated by Canada or by Canada's allies.

Process Steps

Process Steps	Process Overview
Document Decision to Use Fixed Time/Unit Rate Basis of Payment	• Once a decision has been made to use a fixed time/unit rate basis of payment, document it in the procurement file.
Establish the Cost Base	• Applicability: See the Section 5.0.1 (Cost-Based Pricing Principles) on circumstances when Cost- Based Pricing applies. • To establish the cost base, follow Section 5.1 (Principles for Establishing the Cost-Base). • For non-competitive contracts, validation prior to contract award is necessary to ensure that cost estimates are reasonable and that the contractor's financial systems, which support the estimates, are sufficient and reliable.

Determine the Fixed Time/Unit Rates)	• Options to determine the fixed time/unit rates include the following:
	  ○ A competitive process with more than one compliant bidder;
	  ○ Available market-based data; or
	  ○ Costs plus profit (see Section 5.2 Profit Principles).
	• For non-competitive contracts, the fixed rate is often determined by negotiation between the contractor and contracting officer with support from PSSS's price advisors.

Consider the Use of Incentives	• Consider the use of incentives and other measures to align both parties' objectives to achieve the best value for money. • A cost-control incentive where possible would be beneficial • See Section 4.4 (Incentives) of the Guide
Incorporate Pricing into the Contract	• Fixed time/unit rate basis of payment can be used with a ceiling price (SACC Manaul clause C6000C), or without a ceiling price (in which a limitation of

Process Steps	Process Overview
	expenditure clause, SACC Manual clause C6001C, must be used). Refer to Section 4.3 (Ceiling Price and Limitation of Expenditure).
Monitor, Review and Evaluate Pricing Strategy	• Monitor, review and evaluate the pricing strategy, as required, throughout the contract. Take note of any issues with the contract and ensure early engagement with PSSS to resolve any pricing matters.
Price Validation	• Validate the inputs (i.e. labour hours, machine hours, material, etc.). • For more information on validation strategies see Section 3.4 (Developing a Validation Strategy).
Document, Justification, Authorization	• As applicable throughout this process, ensure all decisions are appropriately documented, justified, and authorized. • For non-competitive contracts with negotiated rates, ensure a detailed breakdown of the agreed to cost estimates is explicitly stated in the contract and documented in the procurement file, as well direction on how the price will be administered throughout the contract period.

4.1.3 COST REIMBURSABLE

A cost reimbursable basis of payment provides for the reimbursement to the contractor of allowable costs incurred in performance of the work in the contract.

Please refer to SACC 1031-2 and Annex 2 (Costing Standard) for a description of allowable costs.

Factors to Consider

As actual costs are reimbursed, the project budget could be exceeded if cost increases are greater than estimated. This situation can be mitigated with the provision of price control mechanisms such as a ceiling price or limitation of expenditure (Section 4.3 Ceiling Price and Limitation of Expenditure).

Different price control mechanisms are appropriate to different cost reimbursable options, as shown in the following table:

Table 4.1.3.a.: Cost Reimbursable with Ceiling Price or Limitation of Expenditure

Cost Reimbursable Option	Ceiling Price	Limitation of Expenditure
No fee	✗	✓
Fixed fee	✓	✓
Target cost/ incentive fee - no maximum price	✗	✓
Target cost/ incentive fee - maximum price	✓	✓

Other examples of cost control useful for cost reimbursable basis of payment include:

- Implementing cost control incentives that can be used where possible to help encourage contractors to control costs (see Section 4.4 Incentives);
- Reimbursing only defined categories of acceptable costs, in line with SACC Manual 1031-2 and Annex 2 (Costing Standard);
- Controlling the scope of work through specific tasking arrangements;
- Imposing limits on the recoverability of certain cost categories (e.g., direct R&D costs related to a product will not exceed a set dollar value in a contract);
- Validating the actual costs incurred, to both control costs and meet requirements under Section 34 of the Financial Administration Act (FAA) (when additional risk factors warrant the use of a more formal validation strategy, contact the Procurement Support Services Sector, see Annex 3 for contact information); or
- Specifying the fixed time/unit rate for certain costs (e.g., fixed hourly rate for labour).

When Should You Consider a Cost Reimbursable Basis of Payment?

Cost reimbursable pricing is primarily used when there is uncertainty as to the scope and requirements of the work. Cost reimbursable pricing is generally used in negotiated contracts. It may not provide much encouragement for a contractor to limit costs unless paired with a cost control incentive.

Cost reimbursable pricing is best confined to contracts (or contract components) for which scope is uncertain. As such, cost reimbursable pricing is most appropriate in the following types of situations:

- Research and development;
- Major system development;
- Prototype development and testing;
- Low rate initial production;
- Immature industry, platform, or service;
- Minimal competition; and/or
- Immature product/poorly defined support concept/understanding of requirements.

Cost reimbursable contracts should only be used when:

- A contractor's accounting system is adequate for determining costs applicable to the contract.
- Adequate government resources are in place to manage a cost reimbursable contract, which includes resources to review and validate costs claimed.
- Appropriate validation mechanisms exist during the performance of the contract to provide reasonable assurance that efficient methods and effective cost controls are used.
- It is not possible to reasonably estimate a price for the work that can be agreed upon by both parties that would result in more equitable sharing of risks and responsibilities between Canada and the contractor.

When Should You Not Consider a Cost Reimbursable Basis of Payment?

Cost reimbursable basis of payment should not be used if a commercial price is available.

Cost Reimbursable Options

There are four basic forms of the cost reimbursable basis of payment. Each starts with the defining feature that the contractor is reimbursed for allowable costs incurred in performance of the work in the contract.

Cost reimbursable basis of payment can be used in conjunction with various incentives (see Section 4.4 Incentives) to ensure goals/objectives of both parties are aligned and value for money is achieved.

A combination of the types of various basis of payment can be used for different aspects of the procurement.

The four Cost Reimbursable basis of payment options are as follows:

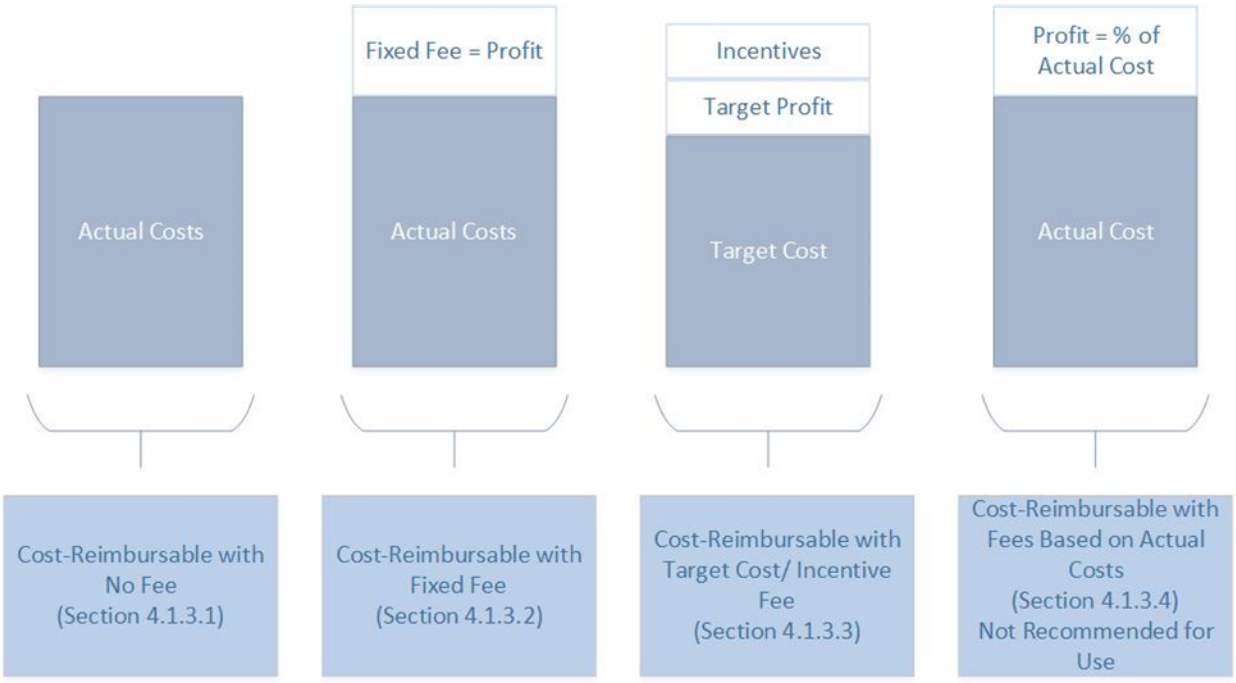
1. Cost reimbursable with no fee
2. Cost reimbursable plus fixed fee
3. Cost reimbursable with target cost/ incentive fee
4. Cost reimbursable with fee based on actual costs (not recommended for use)

Did you Know?

Cost reimbursable with target cost/ incentive fee makes use of a sharing formula to control costs. See Section 4.1.3.3

Figure 4.1.3.a. below indicates the components of each option. The four options are further explained below.

Figure 4.1.3.a.: Illustration of Cost Reimbursable Basis of Payment Types and their Components



4.1.3.1 COST REIMBURSABLE WITH NO FEE

Definition

- This basis of payment provides only for the reimbursement to the contractor of actual costs incurred.
- The contractor receives no fee.

When to Use

- Except for contracts covering the provision of assistance to a contractor, this basis of payment is rarely used entirely on its own. Contractors cannot normally be expected to accept a contract that provides no profit for the manufacture of goods or the provision of services.
- This basis of payment may be appropriate for contracts (or specific components of a contract) that are exploratory in nature (i.e. research or development portion) or that involve not-for-profit organizations.
- This basis of payment may be appropriate for specific types of costs within a contract (for example travel and living expenses) for which a mark-up or profit is not appropriate related to that specific procurement.

Factors to Consider

- This cost reimbursable option should include limitation of expenditure as a price control method since a realistic statement of work cannot be submitted by the contractor, which prevents agreement between the parties as to what constitutes the prescribed work and, therefore, negates using a ceiling price.

Process Steps

Process Steps	Process Overview
Document Decision to Use Cost Reimbursable Basis of Payment	• Once a decision has been made to use a cost-reimbursable basis of payment, document the type that is most appropriate for the requirement and why it was chosen in the procurement file.
Establish the Cost Base	• *Only the establishment of the cost base will be required for this basis of payment.* • To establish the cost base, follow Section 5.1 (Principles for Establishing the Cost-Base).

Process Steps	Process Overview
	• Validation strategies prior to contract award are important to ensure proposed costs are acceptable and that contractor's accounting systems are sufficient and reliable in capturing, measuring and reporting of contract costs.
Consider the Use of Incentives	• Consider the use of incentives and other measures to align both parties' objectives to achieve the best value for money. • A cost-control incentive where possible would be beneficial. • See Section 4.4 (Incentives) of the Guide.
Incorporate Pricing into the Contract	• In a contract or part of a contract with this basis of payment, which does not include a ceiling price, SACC Manual clause C6001C - limitation of expenditure must be included in the contract. Refer to Section 4.3 (Ceiling Price and Limitation of Expenditure).
Monitor, Review and Evaluate Pricing Strategy	• Monitor, review and evaluate the pricing strategy, as required, throughout the contract. Take note of any issues with the contract and ensure early engagement with PSSS to resolve any pricing matters.
Price Validation	• Validate costs claimed by the contractor upon completion of the contract or periodically, for example annually in the case of multi-year contracts. • Validation can be conducted by performing verification procedures. These procedures provide the basis for certification of pricing being in accordance with the contract. • More information on validation strategies see Section 3.4 (Developing a Validation Strategy).
Document, Justification, Authorization	• As applicable throughout this process, ensure all decisions are appropriately documented, justified, and authorized. • Ensure a detailed breakdown of the acceptable costs, given their nature and amount, is explicitly included in the contract and documented in the procurement file, as well direction on how the price will be administered throughout the contract period.

4.1.3.2 COST REIMBURSABLE WITH A FIXED FEE

Definition

- This cost reimbursable basis of payment option provides for payment to the contractor for acceptable costs incurred by the contractor and a fixed fee (expressed as a dollar amount) as agreed to in the contract. The actual amount of costs incurred in the performance of the work may be subject to government audit. While the fixed fee does not vary with actual costs incurred, it may be renegotiated under certain circumstances.

When to Use

- It may be appropriate to use this basis of payment when circumstances do not permit the use of a fixed price basis of payment and where the possible savings from the use of a cost reimbursable with target cost/ incentive fee contract are likely to be offset by the complexities of contract administration resulting from its use.

- It is primarily used in research and advanced development or in projects where the level of effort required is unknown.

Factors to Consider

- A possible benefit of this cost reimbursable option is that the contractor may be motivated to decrease total cost to realize a higher rate of return (fee/cost).

- Another possible benefit is that the contractor may be motivated to finish the work as soon as possible since the profit is fixed.

- Alternatively, under certain circumstances, a contractor may not be as motivated to control or reduce costs because the fixed fee will be earned regardless of actual costs incurred and reimbursed.

Process Steps

Process Steps	Process Overview
Document Decision to Use Cost Reimbursable Basis of Payment	• Once a decision has been made to use a cost-reimbursable basis of payment, document the type that is most appropriate for the requirement and why in the procurement file.

Process Steps	Process Overview
Establish the Cost Base	• To establish the cost base, follow Section 5.1 (Principles for Establishing the Cost-Base). • Validation strategies prior to contract award are important to ensure proposed costs are acceptable and that contractor's accounting systems are sufficient and reliable in capturing, measuring and reporting of contract costs.
Determine a Fixed Fee Portion	• The amount of the fixed fee, based on an estimate of the costs to be incurred, should be no greater than the appropriate amount of profit (Refer to Section 5.2 Profit Principles). • This fixed fee is typically based on a percentage of the estimated cost and does not change once it has been accepted by both parties.
Consider the Use of Incentives	• Consider the use of incentives and other measures to align both parties' objectives to achieve the best value for money. • A cost-control incentive where possible may be beneficial. • See Section 4.4 (Incentives) of the Guide.
Incorporate Pricing into the Contract	• Cost-reimbursable with fixed fee basis of payment can be used with a ceiling price (SACC Manaul clause C6000C), or without a ceiling price (in which a limitation of expenditure clause, SACC Manual clause C6001C, must be used) (Section 4.3 Ceiling Price and Limitation of Expenditure).
Monitor, Review and Evaluate Pricing Strategy	• Monitor, review and evaluate the pricing strategy, as required, throughout the contract. Take note of any issues with the contract and ensure early engagement with PSSS to resolve any pricing matters.
Price Validation	• Validate costs claimed by the contractor upon completion of the contract or periodically, for example annually in the case of multi-year contracts. • For more information on validation strategies see Section 3.4 (Developing a Validation Strategy).

Process Steps	Process Overview
Document, Justification, Authorization	• As applicable throughout this process, ensure all decisions are appropriately documented, justified, and authorized. • Ensure a detailed breakdown of the acceptable costs, given their nature and amount, is explicitly included in the contract and documented in the procurement file, as well as direction on how the price will be administered throughout the contract period.

4.1.3.3 COST REIMBURSABLE WITH TARGET COST/ INCENTIVE FEE

Cost reimbursable with a target cost/ incentive fee is a form of gain or pain sharing, where cost efficiencies or losses are rewarded and shared through fee arrangements in which both the contractor and Canada share the reward (risk) of meeting (or not meeting) contract performance criteria. In effect, the gain or pain sharing formula in this basis of payment acts as an incentive for the contractor to control their costs.

Setting targets and percentages for gain/pain sharing formulas should involve determining the likelihood of variations from the established target. Actual experience may indicate that the contractor's underlying business solution or Canada's requirements have changed to the point where the "sharing agreement and the contract should be amended.

For other incentives, see Section 4.4 (Incentives).

There are two primary types of target cost/inentive fee:

- target cost/ incentive fee with no maximum price; and
- target cost/ incentive fee with maximum price.

These two types of cost reimbursable with target cost/ incentive fee are described in more detail in Table 4.1.3.3.a. and Figure 4.1.3.3.a. below, and further in this section.

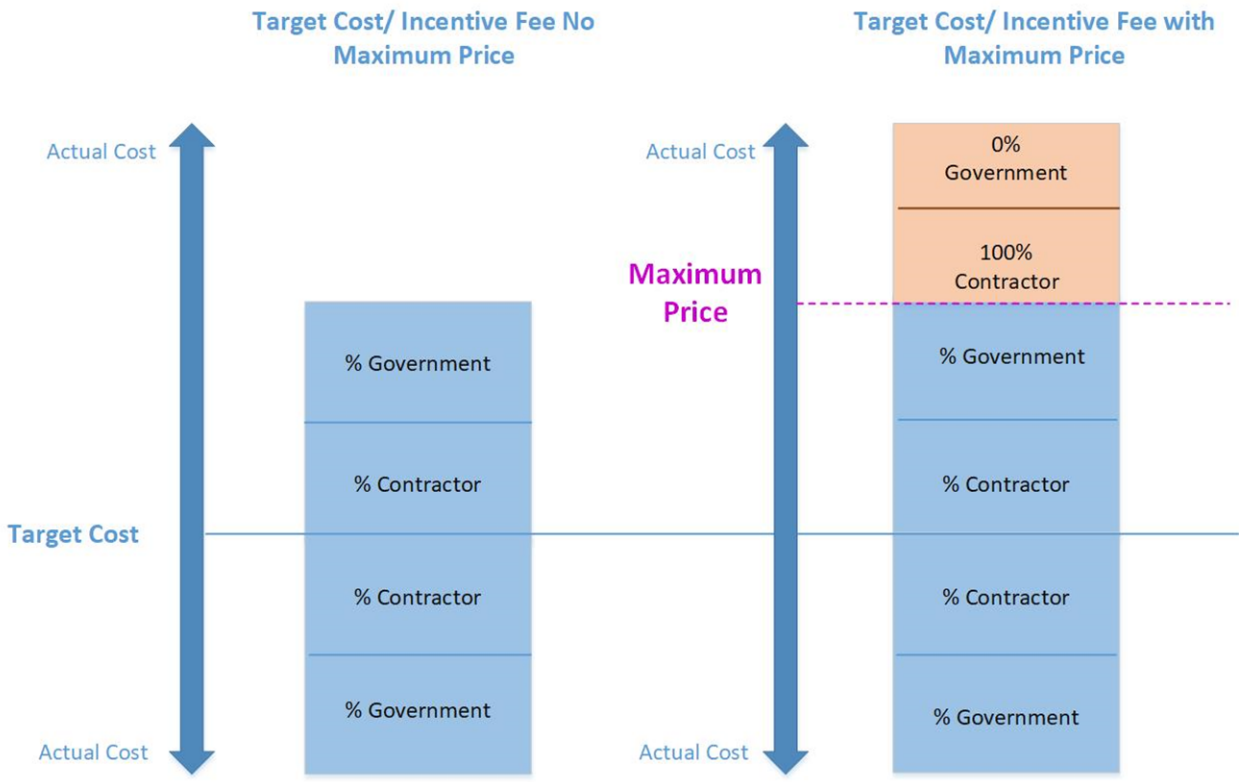
Table 4.1.3.3.a.: Target Cost Types

Target Cost Type	Description
Target Cost/ Incentive Fee with No Maximum Price	• Canada and the contractor share in cost savings achieved or costs exceeding the target in the performance of the contract. • The contract uses a cost reimbursable basis of payment and there are no limits to the losses or gains incurred. • A sharing formula is predetermined at the outset of the contract to allocate cost savings and costs in excess of pre-established target costs. • The contractor has the ability to earn additional profit relative to the cost savings, which places a higher-degree of cost responsibility and cost control on the contractor than that of a standard cost reimbursable contract.
Target Cost/ Incentive Fee with Maximum Price	• Canada and contractor share in cost savings achieved or costs exceeding the target in the performance of the contract up to the point of the maximum price.

Target Cost Type	Description
	• The contract uses a cost reimbursable basis of payment up to the point where the maximum price is reached, at which point, the contract closely resembles a fixed price contract, with the potential loss to Canada capped, increasing the risk that is borne by the contractor. • A sharing formula is predetermined at the outset of the contract to allocate cost savings and costs exceeding pre-established target costs (up to the maximum price). • The contractor has the ability to earn additional profit relative to the cost savings but takes on significantly more risk than a target cost/ incentive fee with no maximum price because the contractor will not be paid any more than the maximum price while retaining the obligation to complete the work as specified in the contract.

Figure 4.1.3.3.a.: Target Cost/ Incentive Fee Types

The table below displays the difference in risk and reward sharing undertaken by Canada and the contractor in a target cost/ incentive fee with no maximum price compared to that of a target cost/ incentive fee with maximum price. The key difference between the two occurs at the point of the maximum price.



Target Cost/ Incentive Fee with No Maximum Price

When to Use

- When the actual costs and cost components (e.g., labour hours, labour mix, material requirements) to be incurred in the performance of a contract cannot be accurately predicted and greater cost control than that of a standard cost reimbursable contract is required.
- When it is too difficult to attract a contractor without having an over inflated fixed price to compensate industry for the risks related to the uncertainties.
- When it is possible to establish an objective relationship between contractor profit and contract costs.
- When procuring non-commercial goods or services with unpredictable requirements such as new products and research and development programs.

Factors to Consider

Risks	Benefits
• Developing estimates of target costs and all related variations can be difficult and time consuming. • Adequate time for planning the project and assessing the cost estimates is essential. • With no cost limit, there is potential for costs to exceed initial budgets which can result in the need for additional funding. • A misaligned gain/pain sharing ratio could result in low effectiveness of the incentive needed to achieve desired cost efficiencies. • Performance objectives other than cost (e.g., related to quality or schedule) may be compromised or overlooked particularly if the focus is solely on cost.	• The contractor's risk is lowered because a portion or all (in a limited sharing arrangement) costs are recovered. • Contractors are incented to be efficient because the more efficient they are, the greater their profit.

Process Steps

Process Steps	Process Overview
Document Decision to Use Cost Reimbursable Basis of Payment	• Once a decision has been made to use a cost-reimbursable basis of payment, document the type that is most appropriate for the requirement and why in the procurement file.
Develop Target Cost	• Establish a reasonable but challenging target cost that is achievable. There is no purpose in setting target costs that the contractor cannot meet. • A conservative estimate of target cost is preferable to an overly aggressive target cost. • Target costs should be established in line with Section 5.1 (Principles for Establishing the Cost-Base). • Validation strategies prior to contract award are important to ensure proposed costs are acceptable and that contractor's accounting systems are sufficient and reliable in capturing, measuring and reporting of contract costs.
Develop Target Profit	• Target profit should be developed using the approach detailed in Section 5.2 (Profit Principles) using the target cost as the cost base. • The contractor is rewarded a profit to control costs and, as a result, the target profit is reflective of the level of cost responsibility assumed by the contractor. • The target profit is the amount of profit payable without adjustment if the actual costs incurred equal target cost.

Develop Sharing Formula	• The sharing formula is used to calculate how savings and costs exceeding the target will be shared between Canada and the contractor.
	• The formula takes into account two scenarios:
	  ○ When the actual cost is less than the target cost.
	  ○ When the actual cost is greater than the target cost.

Process Steps	Process Overview
	• A government share/contractor share ratio is established for each of these scenarios. The ratios can be the same or can differ, depending upon the level of risk acceptable by each party. • The sharing formula subtracts the actual cost from the target cost, and multiplies this by the contractor's share for the scenario that actually occurred. This is then added to the actual cost and the target profit to arrive at a final price paid. (This is demonstrated mathematically in examples later in this section.) • In development of the sharing formula, it is important to consider all possible variations, from the most optimistic to the most pessimistic, including any risk not covered in the target cost and target profit, how aggressive the target cost is, and potential changes through the acquisition lifecycle. • For example: ○ A more aggressive target cost may provide for a sharing ratio that heavily rewards the contractor for costs less than target (*20/80*) but more equally shares costs in excess of target (*50/50*) due to the higher likelihood of exceeding the aggressive target. ○ A target cost which is achievable and less aggressive, would result in a share ratio that would more equally share costs less than target *(60/40)* with the contractor taking on a larger portion of costs in excess of target (*25/75*). • A Limited Sharing Arrangement can be used when there is a very high degree of uncertainty in setting the target costs, as detailed in Example 4.1.3.3.b. below. Maximum and Minimum Fees are used to limit the gains or costs exceeding the target. Note that with these arrangements, the government assumes 100% of the risk of costs exceeding the target at the minimum fee point.
Incorporate Pricing into the Contract	• Cost-reimbursable with target cost/ incentive fee with no maximum price or ceiling price, must include a limitation of expenditure (SACC Manual clause C6001C). Refer to Section 4.3 (Ceiling Price and Limitation of Expenditure).
Monitor, Review and Evaluate Pricing Strategy	• Monitor, review and evaluate the pricing strategy, as required, throughout the contract. Take note of any issues with the contract and ensure early engagement with PSSS to resolve any pricing matters.
Price Validation	• Validate costs claimed by the contractor upon completion of the contract or periodically, for example annually in the case of multi-year contracts.

Process Steps	Process Overview
	• For more information on validation strategies see Section 3.4 (Developing a Validation Strategy).
Document, Justification, Authorization	• As applicable throughout this process, ensure all decisions are appropriately documented, justified, and authorized. • The target cost, target profit, sharing formula and validation plan must be documented and incorporated in the contract. • Ensure a detailed breakdown of the acceptable costs, given their nature and amount, is explicitly included in the contract and documented in the procurement file, as well as direction on how the price will be administered throughout the contract period. • See Section 3.3 (Documenting & Justifying Key Price Decisions) for further details.

Examples

The impact of a target cost/ incentive fee with no maximum price may vary depending on how the incentive is applied. Outlined below are three examples of different applications of this incentive and how contractors may behave as a result.

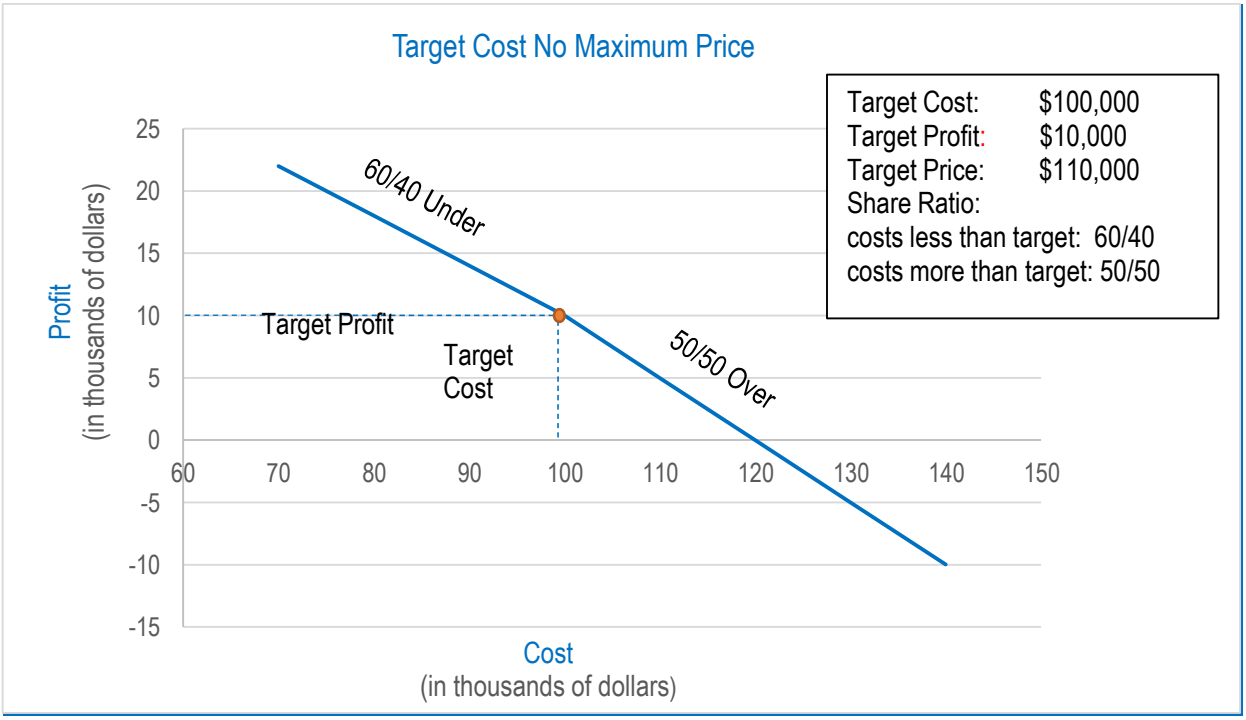
The following factors apply to Examples 4.1.3.3.a., 4.1.3.3.b. and 4.1.3.3.c. below:

Target Cost	Estimated cost to perform the contract requirements is $100,000
Target Profit	10% of Costs is $10,000
Share Ratios	Vary with each example

Example 4.1.3.3.a.: Target Cost/ Incentive Fee with No Maximum Price Contract, Unlimited Sharing Arrangement

In this example, a 60/40 ratio for costs less than target and 50/50 ratio for costs exceeding the target have been established. The amount of profit that could be earned by the contractor is not limited in the case of cost savings. Similarly, there are no limits to the cost that Canada and the contractor may share in the case

of costs exceeding the target, resulting in an unknown final price that could be higher than budgeted. However, Canada only incurs 50% of costs exceeding the target and benefits in 60% of all cost savings.



Example 4.1.3.3.a.: Target Cost/ Incentive Fee with No Maximum Price Contract, Unlimited Sharing Arrangement (continued)

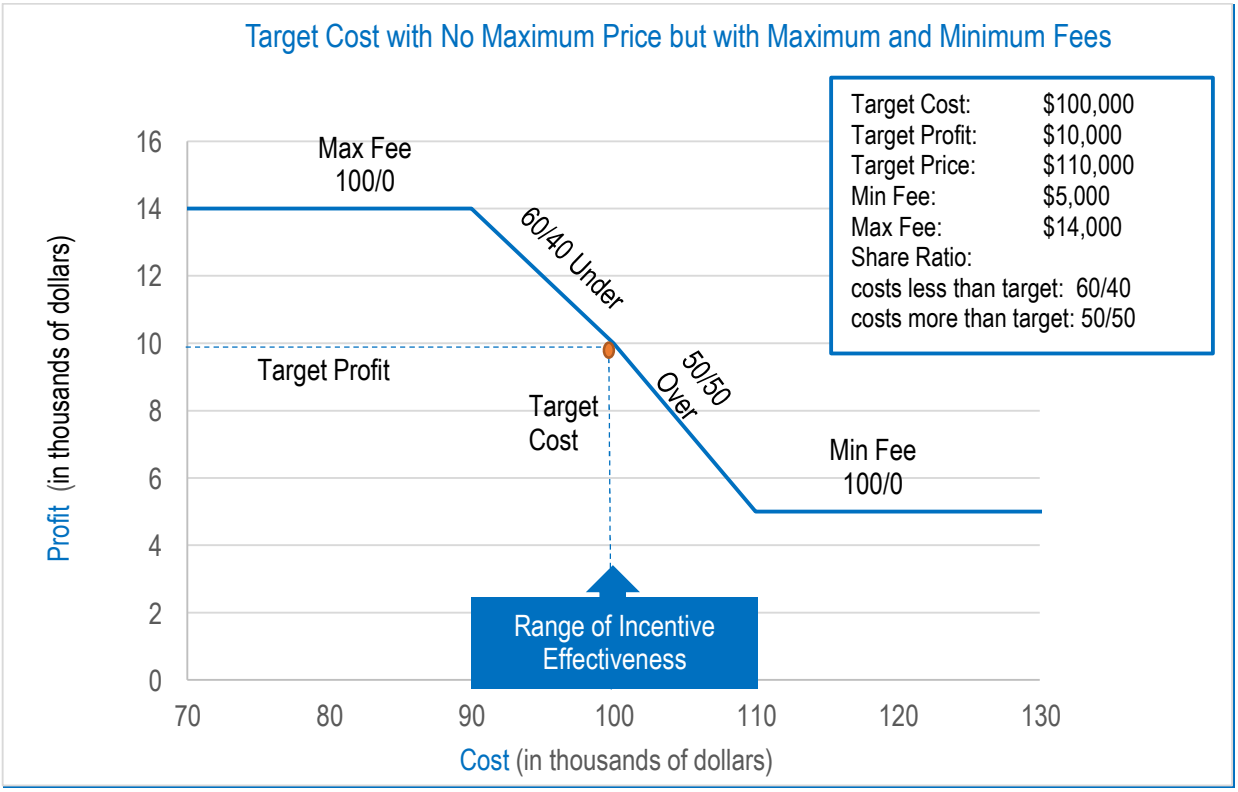
	Target Cost	Actual Cost	Sharing Formula [% * (Target Cost – Actual Cost)]	Fixed Fee	Contract Profit or Loss (Sharing Formula + Target Profit) (Profit/Loss)/Actual Costs = %	Final Price Paid (Actual Cost + Contract Profit or Loss)
1	$100,000	$80,000	40% * ($100,000-$80,000) = $8,000	$10,000	$18,000 22.5%	$98,000
2	$100,000	$90,000	40% * ($100,000-$90,000) = $4,000	$10,000	$14,000 15.6%	$104,000
3	$100,000	$100,000	($100,000-$100,000) =$0	$10,000	$10,000 10%	$110,000
4	$100,000	$110,000	50% * ($100,000-$110,000) =($5,000)	$10,000	$5,000 4.55%	$115,000
5	$100,000	$120,000	50% * ($100,000-$120,000) = ($10,000)	$10,000	$0 0%	$120,000
6	$100,000	$140,000	$50% * ($100,000 - $140,000) = ($20,000)	$10,000	($10,000) -7.1%	$130,000

Example 4.1.3.3.b.: Target Cost/ Incentive Fee with No Maximum Price but with Maximum and Minimum Fees

In this example, there is a maximum limit imposed on the amount of profit that could be earned by the contractor in the case of cost savings and a minimum amount of profit imposed in the case of costs exceeding the target. No limits are applied on the amount of actual costs incurred.

In this case, the maximum limit of profit is set at $14,000 and the minimum limit is set at $5,000.

Using the same share ratios as indicated in Example 1, those limits would take effect once actual costs fall below $90,000, or exceed $110,000. The share ratio only takes effect within this range of actual costs. If the contractor's actual costs were between $90,000 and the target cost of $100,000, then the contractor has to share these cost savings with Canada in the 60/40 proportion. Similarly, if the actual costs were above the target cost but below $110,000, then the costs exceeding the target are shared equally between the two parties (50/50). If actual costs, however, are greater than $110,000 or lower than $90,000, the contractor is eligible to receive either $5,000 or $14,000 of profit. This means that any costs exceeding the target or savings greater than $10,000 belong to Canada.



Example 4.1.3.3.b.: Target Cost/ Incentive Fee with No Maximum Price but with Maximum and Minimum Fees (continued)

	Target Cost	Actual Cost	Sharing Formula *[% * (Target Cost – Actual Cost)]*	Target Profit	Contract Profit or Loss *(Sharing Formula + Target Profit) (Profit/Loss)/Actual Costs = %*	Final Price Paid *(Actual Cost + Contract Profit or Loss)*
1	$100,000	$80,000	($100,000 - $80,000) = $20,000 > Maximum Fee $14,000	$10,000	$14,000 17.5%	$94,000
2	$100,000	$90,000	40% * ($100,000-$90,000) =$4,000	$10,000	$14,000 15.6%	$104,000
3	$100,000	$100,000	($100,000-$100,000) =$0	$10,000	$10,000 10%	$110,000
4	$100,000	$110,000	50% * ($100,000-$110,000) =($5,000)	$10,000	$5,000 4.55%	$115,000
5	$100,000	$140,000	($100,000 - $140,000) =($40,000) < Minimum Fee $5,000	$10,000	$5,000 3.6%	$145,000

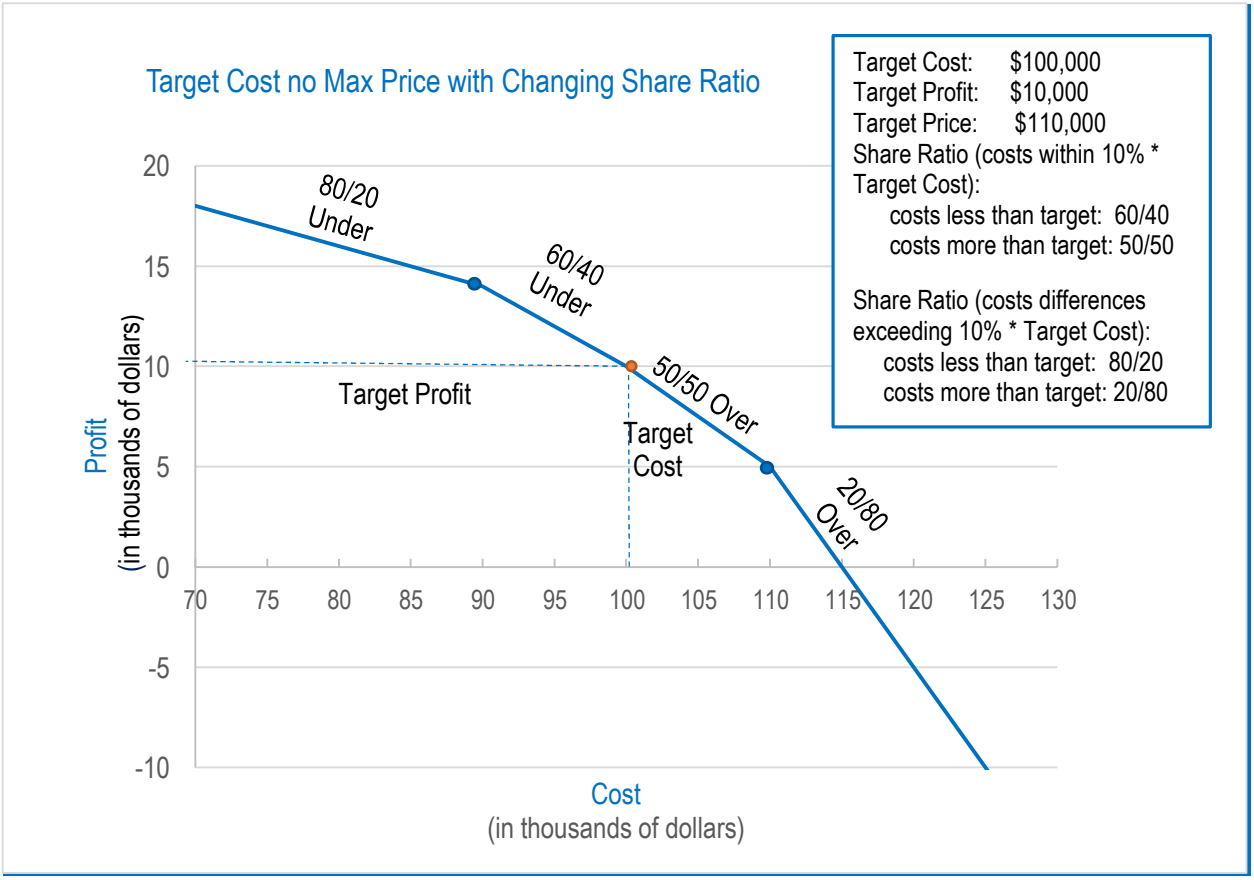
Since there is a limit on the maximum and minimum profit, this incentive is effective only when the actual costs incurred are not outside the cost range within which the profits that the contractor could earn vary. In other words, the contractor may be willing to control the costs up to the point where possible profit stops increasing with the increase of cost savings.

For Canada, this type of contract could be more costly than demonstrated in Example 4.1.3.3.a., as Canada assumes 100% of risk of costs exceeding the target at the minimum fee point.

Example 4.1.3.3.c.: Target Cost/ Incentive Fee with No Maximum Price but with Changing Share Ratio

A final variation is where there are no maximum or minimum profits set, but instead, points at which the share ratios may change.

In this example, the original share ratios are still reasonable when the actual cost is within a range of 10% of the target cost, i.e. between $90,000 and $110,000. When actual costs fall below 10% of the target cost (i.e. below $90,000) a different ratio, in this case 80/20, is triggered. Similarly, when actual costs rise above 10% of the target costs (i.e. above $110,000), a ratio of 20/80 will apply. The following graph illustrates the described situation.



Example 4.1.3.3.c.: Target Cost with No Maximum Price but with Changing Share Ratio (continued)

	Target Cost	Actual Cost	Sharing Formula *[% * (Target Cost – Actual Cost)]*	Target Profit	Contractor Profit or Loss *(Sharing Formula + Target Profit) (Profit/Loss)/Actual Costs = %*	Final Price Paid *(Actual Cost + Contract Profit or Loss)*
1	$100,000	$80,000	($100,000 - $80,000) = $20,000; • $10,000 < 10% (60/40) • $10,000 > 10% (80/20) (40% * $10,000) + (20% * $10,000) =$6,000	$10,000	$16,000 20%	$96,000
2	$100,000	$90,000	40% * ($100,000-$90,000) = $4,000	$10,000	$14,000 15.6%	$104,000
3	$100,000	$100,000	($100,000-$100,000) = $0	$10,000	$10,000 10%	$110,000
4	$100,000	$110,000	50% * ($100,000-$110,000) = ($5,000)	$10,000	$5,000 4.55%	$115,000
5	$100,000	$140,000	($100,000 - $140,000) = ($40,000) • ($10,000) < 10% (50/50) • ($30,000 > 10% (20/80) (50% * $10,000) + (80% * $30,000) = ($29,000)	$10,000	($19,000) -13.6%	$121,000

The contractor is further incented to not exceed the cost above the certain percentage of the target cost in this situation rather than in the situation outlined in Example 4.1.3.3.a. because the contractor bears a greater percentage of costs if the variance is greater than the pre-established percentage of the target cost.

Target Cost/ Incentive Fee with Maximum Price

When to Use

- When it is possible to establish a firm target cost, target profit and sharing formula as well as be able to establish a maximum price and cost sharing limit that sufficiently incents the contractor to assume an appropriate share of the risk.
- When adequate requirements and cost information are available at the time the basis of payment is being developed.
- When Canada would like to share expected efficiency savings in a contract.
- For a newer program, good or service, where there is a clear understanding of what Canada requires.
- When there are no significant unresolved technical process or design issues that will result in a redesign of the requirements.
- When there are qualified contractors with the financial capacity to absorb any unforeseeable costs exceeding the maximum price while still being able to deliver the product.

Factors to Consider

Risks	Benefits
• Significant risk is put on the contractor for final delivery regardless of costs exceeding the target. As a result, reasonable profit sharing ratios must be established. • Performance objectives other than cost (e.g., related to quality or schedule) may be compromised or overlooked if the focus is solely on cost.	• Canada is able to share in cost efficiencies. • Canada limits the risk on costs exceeding the target above the maximum price. After the maximum price and cost sharing limit are reached, the contractor bears the risk of any additional costs.

Process Steps

Process Steps	Process Overview
Document Decision to Use Cost Reimbursable Basis of Payment	• Once a decision has been made to use a cost-reimbursable basis of payment, document the type that is most appropriate for the requirement and why in the procurement file.
Develop Target Cost	• Establish a reasonable but challenging target cost. This means that it can be attained by the contractor provided the contractor focuses on achieving efficiencies. There is no purpose in setting target costs that the contractor cannot meet. • A conservative estimate of target cost is preferable to an aggressive target cost. • Target costs should be established that are in line with with Section 5.1 (Principles for Establishing the Cost-Base). • Validation strategies prior to contract award are important to ensure proposed costs are acceptable and that contractor's accounting systems are sufficient and reliable in capturing, measuring and reporting of contract costs.
Develop Target Profit	• Target profit should be developed using the weighted guidelines approach as detailed in Section 5.2 (Profit Principles) using the target cost as the cost base. • The contractor is rewarded a profit to control costs and, as such, the target profit is reflective of the level of cost responsibility assumed by the contractor. • The target profit is the amount of profit payable without adjustment if the actual costs incurred equal target cost.

Develop Sharing Formula	• The sharing formula is used to calculate how savings and costs exceeding the target will be shared between Canada and the contractor.
	• The formula takes into account two scenarios:
	  ○ When the actual cost is less than the target cost.
	  ○ When the actual cost is greater than the target cost.

Process Steps	Process Overview
	• A government share/contractor share ratio is established for each of these scenarios. The ratios can be the same or can differ, depending upon the level of risk agreed to be accepted by each party. • The sharing formula subtracts the actual cost from the target cost, and multiplies this by the contractor's share for the scenario that actually occurred. This is then added to the actual cost and the target profit to arrive at a final price paid. (This is demonstrated mathematically in examples later in this section.) • In development of the sharing formula, it is important to consider all possible variations, from the most optimistic to the most pessimistic, including any risk not covered in the target cost and target profit, how aggressive the target cost is, and potential changes through the acquisition lifecycle. For example: • A more aggressive target cost may provide for a sharing ratio that heavily rewards the contractor for costs less than target (20/80) but more equally shares costs in excess of target (50/50) due to the higher likelihood of exceeding the aggressive target • A target cost which is achievable and less aggressive, would result in a share ratio that would more equally share costs less than target *(60/40)* with the contractor taking on a larger portion of costs in excess of target (*25/75*). • A Limited Sharing Arrangement can be used when there is a very high degree of uncertainty in setting the target costs, as detailed in Example 4.1.3.3.d. below. Maximum and Minimum Fees are used to limit the gains or costs exceeding the target. Note that with these arrangements, the government assumes 100% of the risk of costs exceeding the target at the minimum fee point.
Develop Maximum Price	• This is the maximum amount that Canada will pay on the contract. • The maximum price represents the limit of Canada's obligation to pay the contractor for the work under the contract. This should be a realistic figure that is not so high as to have no meaning. • If the sharing arrangement is effective and the contractor is efficient in the performance of the contract, the maximum price will not come into effect. • The contract becomes a fixed price contract if the costs rise to the point where the maximum price takes effect.

Process Steps	Process Overview
Incorporate Pricing into the Contract	• Cost-reimbursable with target cost/incentive fee with maximum price basis of payment will be used with a ceiling price clause (SACC Manual Clause C6000C). Refer to Section 4.3 (Ceiling Price and Limitation of Expenditure).
Monitor, Review and Evaluate Pricing Strategy	• Monitor, review and evaluate the pricing strategy, as required, throughout the contract. Take note of any issues with the contract and ensure early engagement with PSSS to resolve any pricing matters.
Price Validation	• Validate costs claimed by the contractor upon completion of the contract or periodically, for example annually in the case of multi-year contracts. • For more information on validation strategies see Section 3.4 (Developing a Validation Strategy).
Document, Justification, Authorization	• As applicable throughout this process, ensure all decisions are appropriately documented, justified, and authorized. • The target cost, target profit, sharing formula, maximum price and validation plan must be documented and incorporated in the contract. • Ensure a detailed breakdown of the acceptable costs, given their nature and amount, is explicitly included in the contract and documented in the procurement file, as well as direction on how the price will be administered throughout the contract period. • See Section 3.3 (Documenting & Justifying Key Price Decisions) for further details.

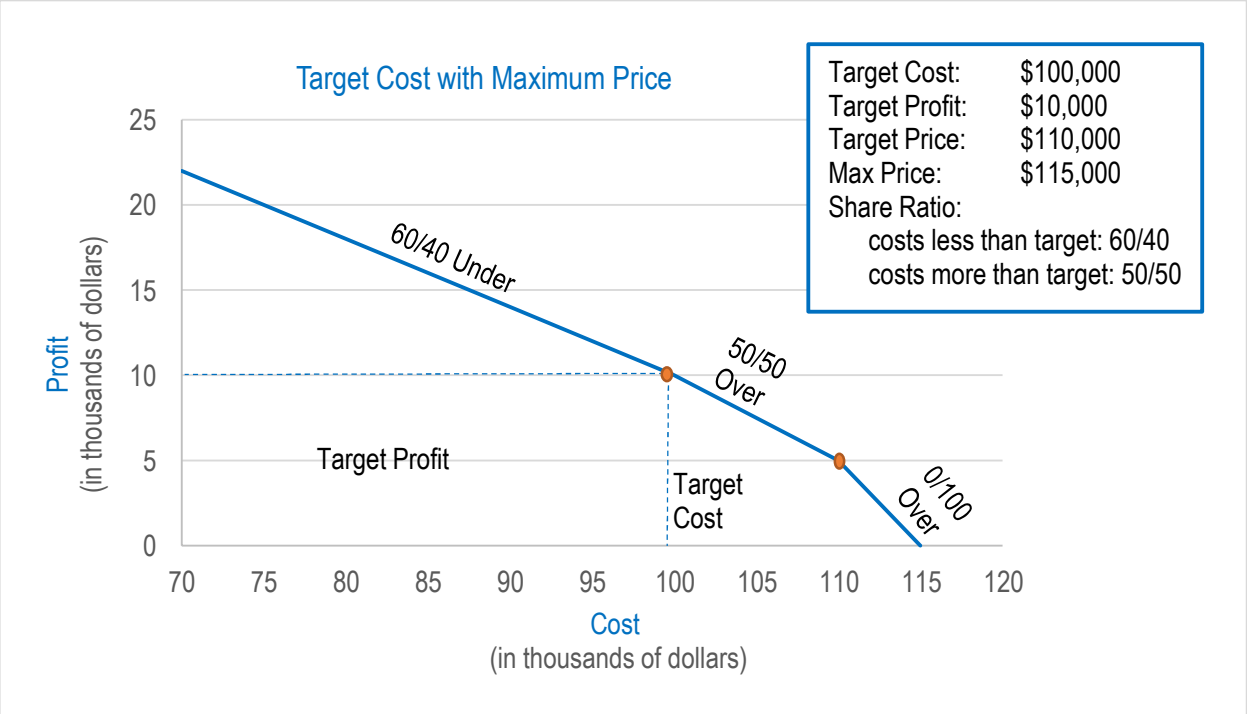
Example 4.1.3.3.d.

The following example shows how the target cost with maximum price incentive functions.

Example Factors

Target Cost	Estimated cost to perform the contract requirements is $100,000
Target Profit	10% of target costs is $10,000
Maximum Price	$115,000
Share Ratios	Costs in excess of target to be shared 50/50 Costs less than target to be shared 60/40

This situation is illustrated on the following graph.



Example 4.1.3.3.d. (continued)

	Target Cost	Actual Cost	Sharing Formula *[% * (Target Cost – Actual Cost)]*	Resulting Price Before Maximum Price *[%*(Target Costs – Actual Costs)]+Actual Costs +Target Profit*	Final Price Paid *Lesser of: Resulting Price or Maximum Price ($115,000)*	Contractor Profit or (Loss) *Final Price Paid – Actual Costs* *Profit/(Loss)/Actual Costs = %*
1	$100,000	$80,000	40% * (100,000-80,000) =$8,000	8,000+80,000+10,000 =$98,000	$98,000	$18,000 22.5%
2	$100,000	$90,000	40% * (100,000-90,000) =$4,000	4,000+90,000+10,000 =$104,000	$104,000	$14,000 15.6%
3	$100,000	$100,000	(100,000-100,000) =$0	0+100,000+10,000 =$110,000	$110,000	$10,000 10%
4	$100,000	$110,000	50% * (100,000-110,000)=($5,000)	(5,000)+90,000+10,000 =$115,000	$115,000	$5,000 4.55%
5	$100,000	$111,000	50% * (100,000 - 111,000) =($5,500)	(5,500)+111,000+10,000 =$115,500	$115,000	$4,000 3.6%
6	$100,000	$112,000	50% * (100,000 - 112,000) =($6,000)	(6,000)+112,000+10,000 =$116,000	$115,000	$3,000 2.7%
7	$100,000	$140,000	50% * (100,000 - 140,000) =($20,000)	(20,000)+140,000+10,000 =$130,000	$115,000	($25,000) (-17.9%)

4.1.3.4 COST REIMBURSABLE WITH FEE BASED ON ACTUAL COSTS

Please Note

This basis of payment is not recommended because it provides little or no control over contractor costs and actually encourages contractors to increase costs as a way to increase profit.

Definition

Cost reimbursable with fee based on the actual costs provides for the payment to the contractor for actual costs incurred in the performance of the work in the contract plus the fixed percentage of those actual costs as a profit.

When to Use

Use this basis of payment only when the circumstances do not allow for the use of any other basis of payment.

Factors to Consider

- The application of this basis of payment results in higher profits being earned as costs increase, resulting in no encouragement for cost control.
- Consider the applicability of Incentives, Section 4.4, before using this basis of payment.
- Ceiling prices are not applicable with this basis of payment.

Process Steps

Process Step	Process Overview
Document Decision to Use Cost Reimbursable Basis of Payment	• Once a decision has been made to use a cost-reimbursable basis of payment, document the type that is most appropriate for the requirement and why in the procurement file.
Establish the Cost Base	• To establish the cost base, follow Section 5.1 (Principles for Establishing the Cost-Base)

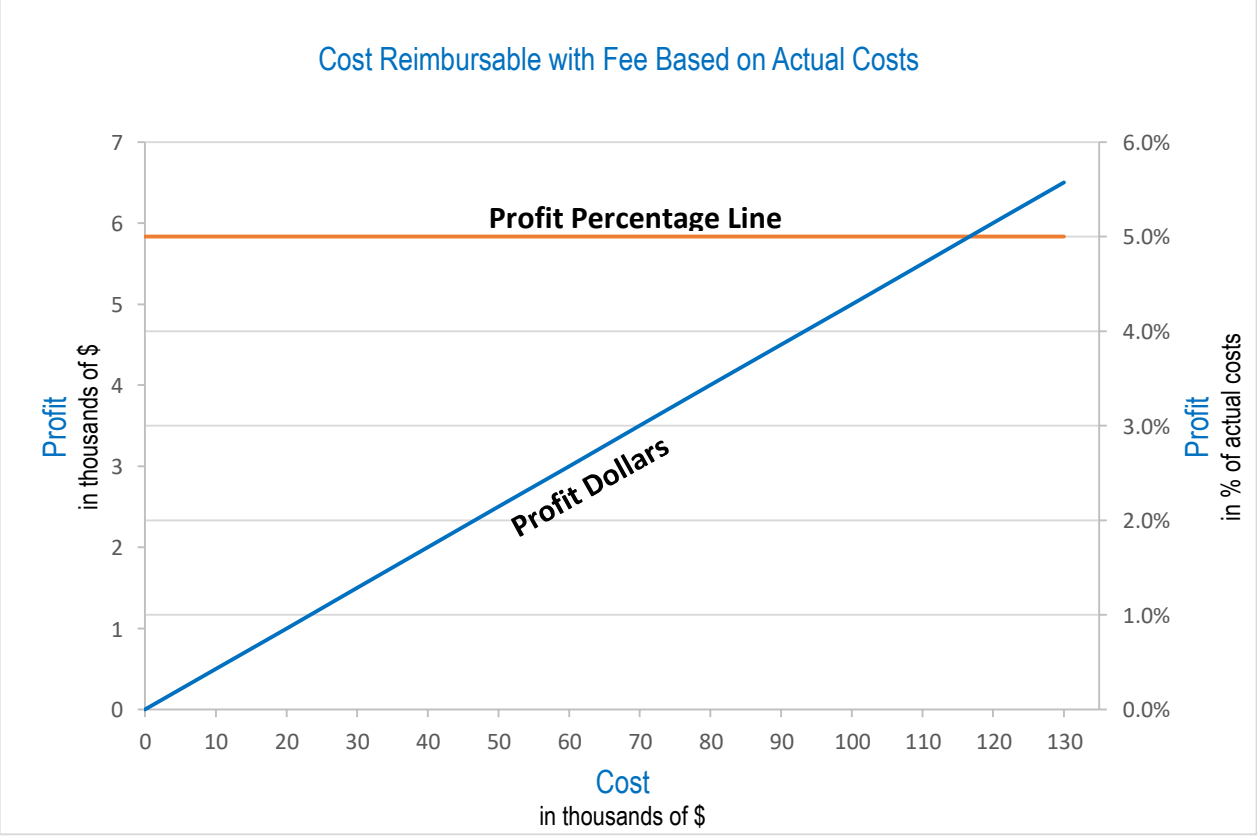
Process Step	Process Overview
	• Validation strategies upfront are important to ensure costs agreed to should be acceptable and that contractor's accounting systems are reliable. • For a competitive contract, the cost base may also be influenced by costs included in initial bids, provided they meet the "Acceptable" cost criteria in Canada's Costing Standard.
Determine the Fee	• For the fee portion of the basis of payment, establish the percentage that would be applied to the actual costs incurred. • For profit rate calculations follow Section 5.2 (Profit Principles).
Consider the Use of Incentives	• Consider the use of incentives and other measures to align both parties' objectives to achieve the best value for money. • A cost-control incentive where possible would be beneficial. • See Section 4.4 (Incentives) of the Guide.
Incorporate Pricing into the Contract	• Ceiling prices are not applicable when this basis of payment is used. • In a contract or part of a contract with this basis of payment, SACC Manual clause C6001C - Limitation of expenditure must be included in the contract. Refer to Section 4.3 (Ceiling Price and Limitation of Expenditure).
Monitor, Review and Evaluate Pricing Strategy	• Monitor, review and evaluate the pricing strategy, as required, throughout the contract. Take note of any issues with the contract and ensure early engagement with PSSS to resolve any pricing matters.
Price Validation	• Validate costs claimed by the contractor upon completion of the contract or periodically, for example annually in the case of multi-year contracts. • For more information on validation strategies see Section 3.4 (Developing a Validation Strategy).

Process Step	Process Overview
Document, Justification, Authorization	• As applicable throughout this process, ensure all decisions are appropriately documented, justified, and authorized. • Ensure a detailed breakdown of the acceptable costs, given the nature and amount, is explicitly included in the contract and documented in the procurement file, as well as direction on how the price will be administered throughout the contract period.

Example 4.1.3.4.a.: Cost Reimbursable with Fee Based on Actual Costs

There is a research contract where the cost could not be reliably estimated prior to contract award. The profit level, however, that could be earned by the contractor was negotiated as 5% of the actual costs incurred. Having such an agreement in place, the contractor will be reimbursed for all allowable costs incurred plus the 5% of these costs as a profit.

For example, if the contractor's actual costs are $100,000, then the total payment to the contractor would be $100,000 + 5% fee (or $5,000) for a total of $105,000. While the absolute amount of profit will vary with the change in the actual cost, the profit percentage will always remain constant. The following chart graphically shows the relationships between profit and the actual costs.



4.1.4 PROVISIONAL PRICE BASIS OF PAYMENT

Definition

A provisional price basis of payment is used when there is a plan to move from a cost reimbursable basis of payment to a fixed price basis of payment because there will be an increased certainty in terms of the contract requirements over time, which therefore decreases the risks to Canada for the remainder of the contract. Provisional pricing gives contracting officers the ability to reduce the risks to Canada when they are able to better analyze and evaluate appropriate, attributable and reasonable costs.

In a provisional price basis of payment, a contract begins with a cost reimbursable basis of payment when the requirements and costs within the contract are uncertain or cannot be estimated, with a clearly defined price ceiling or limitation of expenditure.

Provisional price requires a milestone to be established that is relevant to the level of uncertainty for the requirement. This milestone is typically tied to a certain percentage of work completed or achievement of critical performance indicators within the contract when the costs are more certain and stable. This would predefine when the cost reimbursable portion is complete and the basis of payment can move to fixed price. This must be clearly detailed in the contract.

Costs must be validated before the basis of payment is formally changed. The price validation is triggered when the contractor submits a declaration of the percentage of work completed that corresponds to the milestone. This declaration must include a cost submission prepared by the contractor.

Contractors must cooperate in a timely manner with auditors and provide all necessary supporting evidence such as financial information, as and when required by auditors. The submission of all costs incurred must be sufficient to disclose unit cost and cost trends for the goods and/or services performed in relation to the contract and inventories of both work in progress and undelivered contract supplies on-hand. Benchmarking by market data or historical data on costs and profit calculation is also included in the price validation process. The use of expertise within PSSS to validate the price is highly recommended.

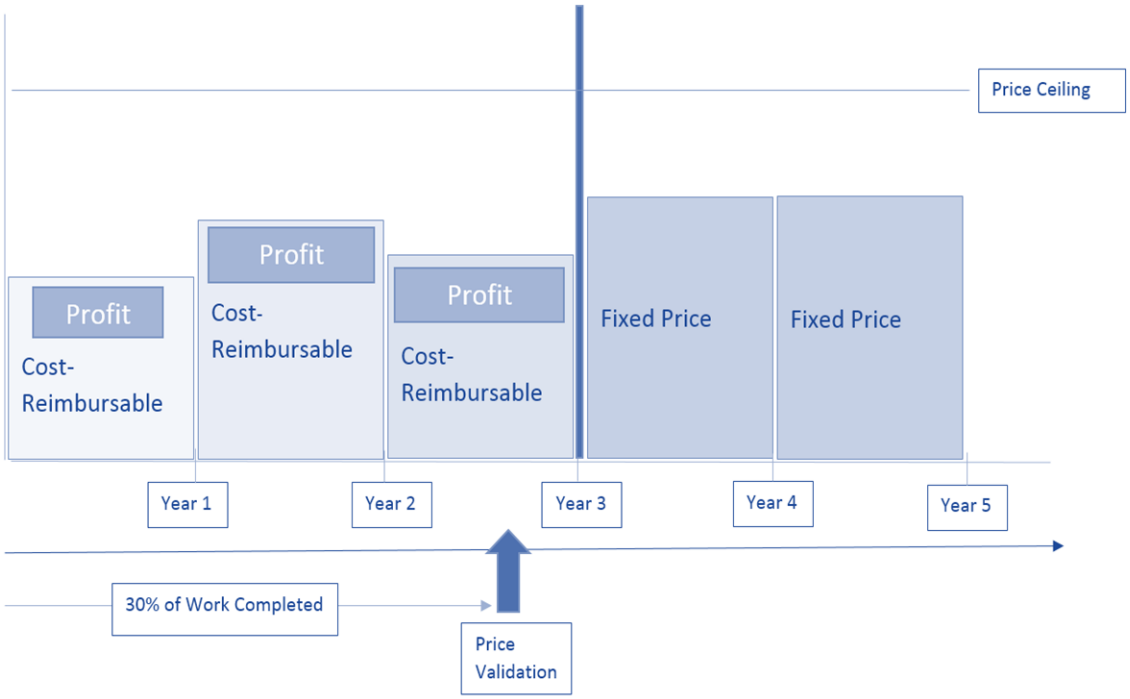
Important Reminder

- There is expert advice and support available within the Procurement Support Services Sector (PSSS) of PSPC to assist in validating price.
- Price advisors and assurance advisors should be consulted early in the process.
- Please see Annex 3 for contact information.

When the milestone is attained and the costs become more certain and stable, Canada and the contractor will negotiate a fixed price for the remainder of the contract based on the terms and conditions outlined in the initial contract. An appropriate profit level will need to be included as part of this fixed price. When an attributable, appropriate and reasonable fixed price has been agreed to by both parties, the original contract will be formally amended and any changes to required clauses and terms will be made.

Figure 4.1.4.a. below is a visual representation of how these components work together in a Provisional Price contract.

Figure 4.1.4.a.: How Provisional Price Works: A Visual Representation



When Should You Consider a Provisional Price Basis of Payment?

- Typically, provisional pricing is used in longer-term contracts (e.g., five (5) years or longer), in instances where it is not possible to fix the price due to uncertainty, or where there is an inability to set reasonable estimates or targets on contract requirements and costs.

- Provisional pricing enables contracting officers to work towards the benefits of a fixed price, such as cost efficiencies, transfer of risk to the contractor, and reduction of the administrative burden that existed during the period where the contract had a cost reimbursable basis of payment. A cost benefit analysis could help to reveal the potential value in using provisional pricing.

When Should You Not Use Provisional Price?

- A provisional price basis of payment should not be used:

    - Where there is a significant risk that Canada will not obtain the degree of collaboration and cooperation from the supplier required for fulfilment of the contract terms unique to this basis of payment. For example, when difficulties are experienced proposing or preparing to transition the contract or during negotiations to transition the contract from cost reimbursable to fixed price basis of payment.

- If the contract requirements and costs are stable or certain. In this situation, a fixed price basis of payment is the more appropriate choice.

- In cases where the contract requirements and costs are likely to remain unstable or uncertain. In this case, a cost reimbursable basis of payment is likely be the more appropriate option.

Factors to Consider

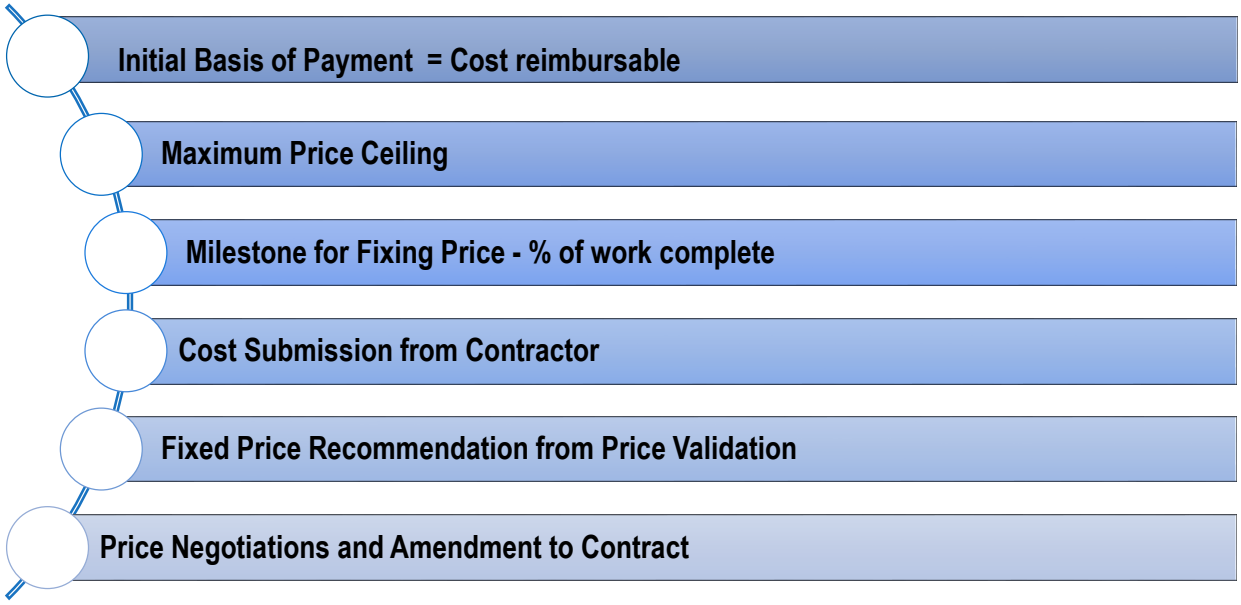
- Provisional pricing may increase administrative burden (time, resources and costs) due to the need to assess, validate and fix the price part way through the contract. This is why it is important to consider using cost-benefit analysis (e.g., option analysis) early in the procurement process to ensure this basis of payment is the best fit for the requirement.

- The cost reimbursable portion of the contract comprises a similar risk exposure and resulting lower profit premium because Canada bears the risk for cost variations. Similarly, the fixed price portion of the contract has a similar risk exposure and resulting higher profit premiums as a fixed price basis of payment due to the fact that the contractor bears the risk for cost variations. See Section 4.1 (Basis of Payment) for each basis of payment for further details.

- There is a risk for Canada that inefficient production practices from the cost reimbursable portion of the contract could result if the contractor is not encouraged to control the costs. The contractor may overstate costs to be able to establish the price at higher levels in later periods of the contract. To help mitigate this risk, contracting officers should consider the use of cost incentives and ensure that a price validation exercise is completed before fixing the price. For example, a price audit with examination of actual costs and profit or benchmarking exercises, such as should-cost analysis, could be performed.

Figure 4.1.4.b. below summarizes the key components of Provisional Price basis of payment.

Figure 4.1.4.b.: Provisional Price Basis of Payment: Process



Process Steps

Process Steps	Process Overview
Document Decision to Use Provisional Pricing	• Since provisional pricing may create an increased administrative burden (time, resources and costs) due to the need to firm up the price part way through the contract, consider cost-benefit analysis in adopting this procurement strategy early in the procurement process and document the decision accordingly in the procurement file explaining how this basis of payment is the best fit for the requirement.
Determine the Initial Basis of Payment to be Used for the Contract Price	• Determine the appropriate cost-reimbursable basis of payment that is to be used for the initial portion of the contract corresponding to the contract's milestones. • Consider using the Cost Accounting Practices (CAP) Submission to develop a common understanding with the contractor on the cost accounting practices to be applied in determining costs. • Validation strategies prior to contract award are important to ensure proposed costs are acceptable and that contractor's accounting systems are sufficient and reliable in capturing, measuring and reporting of contract costs.

Process Steps	Process Overview
	• See Section 4.1.3 (Cost-Reimbursable) for more information and detailed process steps.
Set the Price Ceiling or Limitation of Expenditure	• Set a clear price ceiling or limitation of expenditure in the contract and monitor to ensure it is adhered to. Refer to Section 4.3 (Ceiling Price and Limitation of Expenditure).
Set an Appropriate Milestone that is Relevant to the Level of Uncertainty for the Requirement	• Milestone: Provisional pricing requires a milestone to be set in the contract to determine when the cost reimbursable portion of the contract is complete and the price for the remaining work is fixed. This is typically done based on a percentage of completion of work or achievement of critical performance milestones within a contract. • Determine the percentage level for when the contractor will declare the cost reimbursable portion of the work complete at which point a price validation is required to determine the remaining work which will be performed on a fixed-price basis. • Document the milestone clearly in the contract and provide the justification for the milestone in the procurement file. • The following are suggested guidelines to follow when setting up this key milestone in the contract: ○ The milestone should generally be established at a point between **30% to 70%** of work completion. ○ Decisions on the above percentage of work completion will depend on the nature of the requirement. ○ For example, where the nature of the requirement allows for costs to be estimated early on the project timeline, a 30% work completed milestone could be set as the point at which prices will be fixed. This may be typical of new developmental contracts, where only 10% of the work will be design and the next 20% represents production costs that are predictable. In this example, the remaining costs can be easily estimated.
Negotiate Transition from Cost	• Ensure the terms to negotiate the transition from the cost reimbursable portion to the fixed price portion are incorporated in the original solicitation and contract.

Process Steps	Process Overview
Reimbursable to Fixed Price	• At a minimum, these terms should include: o Responsibilities of Canada and the contractor – should address. cost submission, price validation, and determining fixed price component; o Timelines – for example a 60 day negotiation period; and o Corrective measures.
Cost Submission from the Contractor	• This is a declaration made by the contractor that the cost-reimbursable portion of the work has been completed and provides a cost submission prepared by contractor relative to the remaining work on the contract that will be performed on a fixed-price basis. • Cost Submission: o It is the contractor's responsibility to declare when the milestone is reached and then provide a cost submission. o Contractors are required to cooperate fully and in a timely manner with Canada by providing all necessary evidence as requested to support the proposed costs needed to establish the fixed price portion of the contract. o Cost Submission: • Breakdown of all costs incurred should be provided. • The data must be sufficient to disclose unit cost and cost trends for the goods and/or services performed in relation to the contract, and inventories of work in progress and undelivered contract supplies on hand (estimated to the extent necessary). • The data must be accurate and reliable. • Contracting officers should monitor the progress of the contract work to ensure the contractor submits its declaration of percentage of work complete and a cost submission in a timely manner. • Provisional pricing is highly complex and involves professional judgment in the cost acceptance and cost validation. Pricing depends on the contractor's accounting systems and internal controls. Contracting officers are encouraged to seek Procurement Support Services Sector advice and assistance in both determination of the price and obtaining assurances on the reliability and accuracy of contractor invoices.

Process Steps	Process Overview
	• Contracting officers should also anticipate when the cost reimbursable milestone will be reached and communicate the expected timeline with the Procurement Support Services Sector to enable PSSS to provide support in the validation of costs and facilitate the timely completion of the exercise to fix the price for the remainder of the contract, and limit delay in the continued work under the contract.

Fixed Price Recommendation from Price Validation	• Canada needs to validate the reasonableness of the contractor's proposed costs and profit.
	• A price validation exercise will be conducted to determine a fair and reasonable fixed price for the remainder of the contract.
	• A price validation exercise usually involves a review of the actual costs incurred to establish a basis from which a fixed price may be determined.
	  ○ It is recommended that Contracting officers seek assistance from the Procurement Support Services Sector when conducting a price validating exercise.
	• Costs can also be validated through benchmarking (for example, comparison of costs using market-data or historical data, etc.) if the information is available.
	• An appropriate profit level will need to be negotiated as part of the fixed price.
	  ○ This would be calculated in accordance with Section 5.2 (Profit Principles). Support for negotiating a fair and reasonable profit is available from the Procurement Support Services Sector's Price Advisory Group.
	• Cost information must be submitted by the contractor in a timely fashion and Canada must, similarly, conduct its price validation exercise in a timely manner so as to limit the delay to conversion of the basis of payment, and unnecessarily impacting the progress of the work under the contract.

Price Negotiations and Use of Dispute Resolution Process, if required	• Based on terms and conditions set out in the original contract, along with recommendation on the fixed price from the price validation exercise, Canada and the contractor will together negotiate a fixed price for the remainder of the contract. • In the event, the contractor and Canada are unable to come to an agreement on a fixed price for the remainder of the contract:

Process Steps	Process Overview
	• The dispute resolution process outlined in the contract may be invoked. If agreement cannot be reached, then it may be necessary to renegotiate the contract on a cost reimbursable basis of payment or terminate, if the contractor's proposed going forward is unaffordable. • Contracting officers are recommended to consult with the Procurement Support Services Sector in this situation.
Incorporate New Pricing Amendment to Contract to	• After a fixed price is negotiated, the original contract will be formally amended to convert its basis of payment to fixed price for the remainder of the contract period. • The amendment must include an updated basis of payment clause, which captures the cost reimbursable basis of payment for the initial portion of the contract, which is now complete, and the fixed price basis of payment of the remainder.
Monitor, Review and Evaluate Pricing Strategy	• Monitor, review and evaluate the pricing strategy, as required, throughout the contract. Take note of any issues with the contract and ensure early engagement with PSSS to resolve any pricing matters.
Price Validation	• Validate costs claimed by the contractor upon completion of the contract or periodically, for example annually in the case of multi-year contracts. • For more information on validation strategies see Section 3.4 (Developing a Validation Strategy).
Document, Justification, Authorization	• As applicable throughout this process, ensure all decisions are appropriately documented, justified, and authorized. • For cost-reimbursable basis of payment, ensure a detailed breakdown of the acceptable costs, given their nature and amount, is explicitly included in the contract and documented in the procurement file, as well as direction on how the price will be administered throughout the contract period. • See Section 3.3 (Documenting & Justifying Key Price Decisions) for further details.

Example 4.1.4.a.: Provisional Pricing

There is a requirement to build six ships for Canada but the cost per ship cannot be reasonably estimated at the start of the contract. This being the case, the contractor is reluctant to commit to a fixed price. Provisional pricing offers a means to transition a contract to a fixed price, once greater certainty exists. Initially, a cost reimbursable basis of payment is used to establish the price.

It is believed that once two ships have been constructed, the contractor will be in a reasonable position to estimate its costs for the remainder of the contract. As such, completion of the two ships represents a critical performance milestone for the conversion of the basis of payment from cost reimbursable to fixed price.

Once the contractor has constructed the first two ships, the contractor advises Canada that this critical performance milestone has been reached, and provides a cost submission, estimating the contractor's cost to construct the remaining four ships. The cost base is expected to benefit from the experience gained from constructing the initial two, taking into account learning curve and production efficiencies. This cost submission provides a basis for fixed pricing negotiations.

When the reasonableness of the estimated costs has been established, profit is negotiated, in accordance with Section 5.2 (Profit Principles), and the total fixed price (cost plus profit) for the remaining four ships is now established.

The contracting officer amends the contract to update the basis of payment.

4.2 ECONOMIC PRICE ADJUSTMENTS (EPAS) AND FOREIGN CURRENCY ADJUSTMENTS (FCAS)

Definition

Economic price adjustments and foreign currency adjustments are tools in place to mitigate specific pricing risks impacted by changing market conditions, where one or more elements of the cost of a good or service may be subject to significant fluctuations of price that are outside of Canada and the contractor's control (e.g., commodity prices, foreign exchange, labour rate in collective bargaining negotiations).

In these instances, neither Canada nor the contractor would have confidence in accepting a fixed price over an extended period of time. As a result, the price is set or negotiated with a provision that allows for revisions to the fixed base price upon the occurrence of certain contingencies.

- EPAs mitigate a significant risk posed by market fluctuations associated with a contractors' input costs related to a specific commodity (commodity risk).
- FCAs mitigate a significant risk posed by currency fluctuations related to a foreign-based source of supply (foreign exchange risk).

When to use

- When it is not possible within the control of Canada and the contractor to make a realistic estimate of future material, labour or overhead costs, and the potential variations in these costs could be significant.
- In fixed price or fixed time/unit rate basis of payment in both competitive and non-competitive situations

For example, when significant uncertainty exists in the market, such that:

- The contractor's commodity pricing is highly volatile;
- Labour rates are a significant portion of the contract costs and the contractor is in collective bargaining negotiations; or
- A critical and designated source of supply for its input costs are exposed to foreign currency risk.

Economic price adjustments should not normally be included in contracts with delivery schedules of less than 12 months, or contracts valued under $100,000.

Factors to consider

- EPAs/FCAs can be applied in both competitive and non-competitive scenarios when warranted and must be identified in all approval documents and the resulting contract.
- EPAs/FCAs provisions provide for both price increases and decreases to protect Canada and the contractor from the effects of economic changes.
- Other considerations that could be made instead of or in addition to EPAs/FCAs for areas of significant fluctuations, include:

- postpone the procurement;
- use available substitute products;
- provide advance information on requirements to potential contractors, to benefit from their improved ability to control costs by forward planning, and to make full use of the commodity futures markets in appropriate circumstances;
- reduce the period of term contracts or the quantities ordered on production contracts;
- increase production rates to compress the duration of contracts;
- reduce administrative time allowances in the procurement process (solicitation, award decision, award of contract and authority to commence work), while adhering to required time frames under Canada's trade agreements; and
- isolate the unstable element in pricing the work and providing for price adjustment, both upward and downward, on it alone, in accordance with a reliable predetermined formula such as an established economic index.

Process Steps

Process Steps	Process Overview
Determine Whether a Provision for an EPA or FCA is Required and Document and Justify the Decision	• Supporting documentation to justify the use of this provision should be included in the appropriate procurement file. • When a competitive bidding process is used, the proposed EPA or FCA provisions must be clearly explained in the solicitation documents. In all other situations, EPA or FCA provisions should be agreed to during negotiation of the initial or base year contract price. • The advice of a price advisor (from PSSS) is recommended in the development of any significant or major economic price adjustment provisions, in accordance with the Directive and Guideline on the Use of Cost and Price Analysis Services.
Establish the Fixed Price/ Fixed Time/Unit Rate	• See Section 4.1.1 (Fixed Price) or Section 4.1.2 (Fixed Time/Unit Rate) for more information.
Establish How the Contract Price will be Adjusted Upwards or Downwards	• The price adjustment method used should be the simplest, most suitable adjustment formula to provide the protection necessary to both parties with the least administrative effort.

Process Steps	Process Overview
	• Where a price adjustment is used, the awarded contract must include a term specifying a ceiling price. • The awarded contract must clearly identify the fixed price/rate (the base price), the adjustment methodology or price index/exchange rate used (if applicable), and the base period for which adjustments are to be made. • A trigger point could be defined in the contract to establish when an EPA or FCA is required (i.e. annual market change, raw material index +/- 3%) • Adjustment **provisions to prices** for commercial goods and services: o If the fixed price/rate includes a discount factor, from the initial or then current established catalogue price, the same discount factor should be applied to the adjusted price, unless otherwise stated in the contract. o Statistics Canada publishes a variety of reports, providing changes in price indices, material and labour costs. The Department of Labour performs this function in the United States. Private sector surveys may also be used. Numerous bank rates are also available for use with FCA provisions • Adjustments to **actual costs** for labour or material: o Ensure the contractor's accounting system permits timely compilation of all necessary cost data relative to the EPA and/or FCA during contract performance. o The calculation of any adjustment formula should remain consistent with the cost/price accounting treatment used to arrive at the base price. This will ensure accuracy in measuring variation from the base price. o A company's union agreement with its employees may be considered an acceptable economic labour rate index for that company, provided that it reflects comparable labour rate movements within that industrial sector.
Incorporate Pricing into the Contract	• The price adjustment formula must provide for both upward and downward revision of the fixed base price, and include a ceiling price or limitation of expenditure. It must identify, if applicable, the economic wage or price index to be used, the fixed base price element, and the base period for which adjustments are to be made.

Process Steps	Process Overview
	• The various economic price adjustment clauses are in subsection 5-C of the SACC Manual.
Monitor, Review and Evaluate Pricing Strategy	• Monitor, review and evaluate the pricing strategy, as required, throughout the contract. Take note of any issues with the contract and ensure early engagement with PSSS to resolve any pricing matters.
Documentation, Justification, Authorization	• Ensure all decisions are properly documented, justified and authorized throughout this process in the procurement file. • See Section 3.3 (Documenting & Justifying Key Price Decisions) for further details.

Example 4.2.a

There is a requirement for a contract for a production aircraft component which contains carbon steel. Contract performance is expected to be for a period of five (5) years.

It was identified that 35% of the acquired part would be composed of carbon steel, the price of which may fluctuate significantly over time. Therefore, it was agreed that an EPA clause would be included in the contract in order to decrease the risk of cost uncertainty to the contractor or Canada. It was agreed to adjust the price based on changes in the Global Carbon Steel Index (GCSI), which is considered to provide the most accurate depiction of price changes of carbon steel.

The base point against which the changes would be compared was determined to be the GCSI figure for the month when the contract commenced. The price would then be subject to adjustment at the end of the each one-year period. Having the price set for each component item, the following EPA formula was incorporated into the contract:

$$Adjusted\ Unit\ Price = \frac{I}{B} \times L \times P + (1 - L) \times P$$

Where: B = GCSI for base period;
I = GCSI for the month preceding the month of reassessment of the price;
L = percentage of the price subject to adjustment;
P = base unit contract Price.

If:

- the base unit price for the procured part is $1,000;
- the GCSI for the base period is 142.1;

- the GCSI for the month preceding the month of reassessment of the price (one year after signing the contract) is 168.7; and

- the percentage of the price subject to adjustment is 35% of the unit price,

Then:

- $Adjusted\ Unit\ Price = \frac{168.7}{142.1} \times 0.35 \times \$1{,}000 + (1 - 0.35) \times \$1{,}000 = \$1{,}065.52$

The calculated adjusted unit price of $1,065.52 will be used to price the contract for the next one-year period.

4.3 CEILING PRICE AND LIMITATION OF EXPENDITURE

Contract budgets could be exceeded if actual costs or volumes are greater than estimated in a fixed time/unit rate or cost reimbursable contract. This risk can be mitigated by the use of price control mechanisms such as a ceiling price or limitation of expenditure.

- A ceiling price is used when the level of effort or quantity can be realistically estimated and there is full agreement between the parties as to what constitutes the prescribed work. The contractor must complete the prescribed work without additional payment, whether or not actual costs exceed the ceiling price.
    - During negotiations of a ceiling price, consider the uncertainties involved in contract performance and the cost impact. Also, the ceiling should provide for assumption of a proportion of the risk by the contractor.
    - *SACC Manual clause C6000C must be used in a ceiling price contract where it is necessary to ensure the contractor does not make changes or carryout additional work without the prior written approval of the contracting officer.*

- A limitation of expenditure is the maximum amount of money that may be paid to a contractor for the prescribed work. The limitation of expenditure is typically used for service requirements where the level of effort cannot be accurately estimated at the outset in cost-reimbursable and fixed time/unit rate type contracts. "Expenditure" in this context, refers to payments made by Canada to the contractor. The clause limits Canada's total liability under a contract and establishes a notification and reporting requirement on the part of the contractor. The contractor can be requested to complete a portion of the work to the extent that the allocated funding permits.
    - *SACC Manual clause C6001C clause provides for a limitation of expenditure which is a maximum amount the contract may be paid for the prescribed work.*

4.4 INCENTIVES

What is an Incentive?

An incentive is the conscious use of rewards and recognition to encourage desired behaviour.

An incentive is a tool used in contracting to maximize value to both the Government of Canada and the contractor by motivating and rewarding the achievement of Canada's desired outcomes, when appropriate.

Incentives can be both short-term to achieve specific goals or long term to encourage the sustainment of behaviours.

When appropriately structured, incentives can allow Canada to focus the contractor on the outcomes of critical importance to a procurement. Incentives also allow Canada to share in cost savings and risks while affording the contractor an opportunity to earn more profit.

Did You Know?

- Incentives can be used in both competitive and non-competitive procurements.
- Incentives can also be used in with all basis of payment types to reward superior contract performance which exceeds the base standards established in the statement of requirement.

For additional information on the benefits of incentives, please refer to Annex 5.2.1 (Discussion Paper: Contract Incentives to Encourage and Reward Enhanced Value to Canada).

When to Use

Incentives can be used:

- In both competitive and non-competitive procurements; and
- With all basis of payment types to reward superior contract performance which exceeds the base standards established in the statement of requirement and provides value to Canada.

When Not to Use

Incentives may not be appropriate or effective for all contracts, particularly when:

- The contractor will achieve the target performance criteria without an incentive.
- The contractor will not be motivated by the incentives to achieve the target performance criteria.
- There is minimal to no value to Canada for the contract to perform beyond the base standards established in the statement of requirements.

Factors to Consider

- The performance objectives or outcomes associated with the incentive should be balanced and aligned to the most important objectives of the procurement. Rewarding a contractor for simply meeting the contract requirement should be avoided.
- Incentives should be challenging and add value to a procurement when achieved. It is important to avoid incentives that are easily achieved and don't add value to the procurement, but also to note that when incentives are too challenging and difficult to achieve, a contractor may be discouraged to invest the effort and cost required to achieve the performance.
- An assessment is needed to ensure the incentive(s) will, in fact, motivate a contractor to perform (e.g., follow-on business, growth, maintaining or retaining a production capability, and positive past performance information). This will vary by contractor based on many factors including but not limited to basis of ownership, size, diversification, and organizational culture.
- Consideration should be given to whether or not the contractor has control over the achievement of the incentives and whether the performance objectives can be measured and verified, which includes ensuring that the contractor's systems can adequately track the information required for measurement.
- The benefits of the contract outcomes should exceed the combined cost of the incentives and cost of their administration to all parties.
- The structure and administration of incentives should be as simple as possible. Simple, limited, high level objective measurements are preferred over complex multi-variable algorithms. This includes avoiding the use of too many incentives in a single contract. Too many incentives dilutes the focus and makes it more likely for the Government of Canada to pay for unintended outcomes. See the section on Multiple Incentives and Competing Objectives below.

- If there are unstable market conditions and the procurement includes the use of an Economic Price Adjustment/Foreign Currency Adjustments (EPA/FCA), the EPA/FCA must be excluded from determining the incentives. (See Section 4.2 Economic Price Adjustments and Foreign Currency Adjustments for more information).

- The involvement and active communication with all stakeholders including program, technical, acquisition, and price advisors in the incentive planning process is essential. In addition, modelling of the impact and value of incentive programs from both the Government of Canada and the Contractor perspectives is essential

- Incentives may modify contractor behaviour. In order to ensure the behaviour modification is planned and welcomed, it is imperative that the contract structure (Basis of Payment, Work Scope, and Performance Management Plans) be developed considering the perspective of both the Government of Canada and the contractor. An incentive plan that is not informed by all parties and perspectives can result in unintended consequences on a procurement.

Timing

Establishing incentives and how they will be applied, measured and tracked should be decided before a contract is put into place and when the priorities and most important objectives of the procurement are defined. It is important to stress, however, that planned incentives can be applied at multiple stages within a procurement.

Non-Competitive Contracts: With respect to non-competitive contracts, incentives can be introduced at the solicitation phase or during negotiations of a contract price and applied anytime throughout the life of a contract.

Competitive Contracts: When it comes to competitive contracts, it is recommended that incentives be introduced in the solicitation. If there are uncertainties in terms of the application of incentives, specific incentive parameters can be stated in the solicitation and then negotiated prior to contract award.

There will be times, however, particularly in contracts where the scope and performance of the goods and/or service being contracted has too much uncertainty and will become clearer over time. In these situations, the procurement team may have more information and, as a result, may be in a better position to apply incentives appropriate for the contract. In these cases, the incentives to a contract may be in the best interest of all parties. With respect to competitive contracts, negotiations would need to be undertaken within the parameters established in the solicitation. Considerations should be given to the limitations established by the various trade agreements.

Incentive Types

There are a number of incentive options available. The following is a list of incentives for which additional guidance has been provided in the Guide. This is not to be considered an exhaustive list of incentives, but rather a starting point from which to establish a base incentive. Table 4.4.a. below provides a brief description of the following incentive types:

- Technical performance incentives;
- Schedule performance incentives;
- Awards fees;
- Non-financial incentives; and
- Cost reimbursable with target cost/ incentive fee– This basis of payment provides incentives for contractors' to control costs - see Section 4.1.3.3 (Cost Reimbursable with Target Cost/ Incentive Fee).

Table 4.4.a.: Incentive Types

Section of Guide	Incentive Type	Description	Objective
4.4.1	Technical Performance Incentives	The contractor is provided with the opportunity to earn additional profit upon achievement of one or more technical performance goals.	• Superior technical performance; • Performance reliability; • Improved service delivery; and • Increased availability.
4.4.2	Schedule Performance Incentives	The contractor is provided with the opportunity to earn additional profit upon achievement of one or more targeted delivery dates.	• More timely delivery

4.4.3	Award fees	An award fee establishes a pool of funds available to the contractor in the event the contractor exceeds pre-established performance elements. Award fee arrangements are appropriate when important elements of performance cannot be objectively or quantitatively measured.	• To achieve superior performance in areas that can only be measured subjectively. For example: • Superior customer service; • Management responsiveness; and • Quality assessments.
4.4.4	Non-Financial Incentives	The contractor is incented to achieve superior performance to earn non-monetary rewards that are not part of a contractor's pay.	• To exceed overall contract performance objectives.

Multiple Incentives and Competing Objectives

It is possible to incent only one objective or multiple objectives in a single contract. While it can be complex, effectively balancing incentives across multiple objectives can help avoid the unintended consequence of sacrificing the performance of certain objectives. For example, a contractor may decide to sacrifice the quality of a product if the only incentive in place in the contract is tied to product delivery within a scheduled target date.

For multiple incentives to work as intended within a contract and to avoid competing objectives, it is important to ensure that goals are not in conflict and that the different incentives are appropriately balanced with consideration of the contract's overarching priorities and objectives.

Examples of competing objectives:

- Cost versus Technical Performance
  - It is likely that the cost to build and service a ship for achieving greater number of days at sea is higher with each additional day at sea.

- Technical Performance versus Schedule

- It will likely take longer to build and test a missile that will travel farther and be more accurate.

- Schedule versus Cost
  - In the ship building example, additional project work could result in overtime and higher labour costs to meet delivery timelines.

  - On the other hand, a ship builder incorporating new technology in production might be able to deliver early and reduce overall project costs.

Selecting the Appropriate Incentive

To determine which incentive is best for a procurement it is important to start by assessing how the cost, schedule and technical risks associated with the contract have been allocated in the basis of payment. This would include consideration of the following two questions:

- How much risk and responsibility has already been assumed by the contractor for the cost of the performance?; and

- How much profit is already included in the contract to achieve the performance objectives?

The decision to use incentives and to determine which incentives to use requires professional judgement by the contracting officer. There is no exact recipe on the necessary pricing elements for each procurement. Instead, analysis, understanding and professional judgement are required.

See Section 4.5 (Pricing Approach Selection) for further considerations to considerations related to the choice of Basis of Payment and Incentives.

4.4.1 TECHNICAL PERFORMANCE INCENTIVES

Definition

Technical performance incentives include the technical goals that have to be achieved in performing the contract and to bring value to Canada. These goals can be expressed in the form of technical criteria as well as specifications and requirements. Incorporating technical performance incentives in a contract aims to achieve and/or improve technical parameters related to the procurement that are of critical importance to Canada. Upon achievement of one or more specified levels of technical performance, the contractor is provided with the opportunity to earn additional profit.

When to Use

- When performance excellence and improvements would add value or are of critical importance to the procurement and to Canada (e.g., quality, timeliness, and technical ingenuity).
- When it is possible to establish discrete, objective and measurable incentive targets applicable to technical performance.
- In all forms of pricing approaches ranging from fixed price to cost reimbursable.
- In combination with and in addition to other incentive plans related to cost, delivery and performance.

Factors to Consider

Risks	Benefits
• Complicated to apply because it can be difficult to establish an appropriate incentive formula and to ensure it is fair with an optimal allocation of risk and reward to incent the contractor to deliver on performance objectives (e.g., cost efficiency, technical sufficiency). • Resources are required to monitor, manage and evaluate. • When established without a corresponding cost control incentive or process, it can potentially result in cost inefficiencies. • It is effective only for incenting performance for criteria that are objective. It should not be used on performance criteria that require professional judgement to assess actual performance. See Section 4.4.3 (Award Fees) for incentives related to subjective criteria.	• Can provide a practical way to motivate excellence in contractor performance or to meet technical performance criteria critical to Canada.

Process Steps

Process Steps	Process Overview
Develop and Define the Performance Criteria and Parameters	• The selection of performance criteria and parameters relies heavily on contract technical considerations. • Selection of performance criteria and parameters are based on the technical specifications in the procurement requirements and technical proposals of the contractor. • Choose the important elements of performance from which Canada would benefit from improvements such as future cost savings related to production, operational efficiencies and increased capabilities. • The benefit to Canada of improving the minimum requirement must be clear and definitive. There are no set rules for defining this benefit, and the criteria will vary based on the procurement. They must be achievable at the minimum acceptable level.

Define the Performance Range and Target	• Competitive Contracts: It is necessary to ensure that the performance levels are formally accepted by the client and are reasonable for the potential suppliers.
	• Non-Competitive Contracts: It is necessary to ensure that the performance levels are formally accepted by both the client and the proposed contractor.
	• Establish three targets:
	  • Standard Performance Target: Level of performance the contractor will likely achieve with normal technical and management effort.
	  • Minimum Acceptable Performance: Level of minimum performance required to meet the contractual performance obligation. This level must be achievable and acceptable if only minimum performance levels are achieved.
	  • Maximum Performance: Level of maximum performance that will add value to the procurement. Above the maximum value, no further incentives are required because it will no longer add value to Canada. This level should not be set so high that a major technological breakthrough would be necessary to achieve it.

	• There are many options available for Performance Incentive formulas. The following are the two most commonly used formulas:

Process Steps	Process Overview
Develop the Incentive Formula	Variable Payment • Rewards an increase on a pro rata basis for each level of improvement above the standard performance target level up to the maximum performance level. • A pre-established formula determines the value to Canada of each incremental increase/decrease in performance to the maximum and minimum levels. • A straight-line formula is the most standard method of applying this incentive. Target Incentive Fee • Rewards a contractor a set fee for meeting specific performance targets. • Performance targets that add value to Canada are clearly outlined in the contract along with the corresponding fee percentage or dollar value.
Establish Methodology for Validation of Performance	• Define the validation process for the establishment of the levels to be achieved. • Ensure all parties clearly understand and accept how performance will be measured for the purpose of assessment. • Validation programs and procedures should be well documented including details such as timing, methods of testing, locations for testing, testing conditions, number of tests and parties to observe testing.
Documentation, Authorization and Incorporation into Contract	• Performance levels, ranges and validation methods for determining whether or not performance has been achieved must be documented in the contract. • Ensure all parties clearly understand and accept the performance measurement criteria. • Clearly define the incentive targets and formulas along with the dollar or percentage values to be awarded at each increment or target. See Section 3.3 (Documenting & Justifying Key Price Decisions) for further details.

Examples

The following examples are designed to show how to calculate the incentives.

Example 4.4.1.a.: Variable Payments Incentive

There is a contract for construction and ongoing cost of operations of a Canadian Coast Guard ship that indicates that:

- The standard number of days required by the Canadian Coast Guard for the ship to be available to be at sea is 150 days.
- The minimum acceptable period at sea is 140 days.
- The maximum period from which the Canadian Coast Guard could benefit from the ship being at sea is 200 days.
- The base payment amount is $10,000,000.
- The available variable payments incentive amount is $500,000.

The difference between the maximum number of days at sea and the standard number of days is 50 (i.e. 200 less 150). Thus, the contractor has an opportunity to receive $10,000 more (i.e. $500,000 divided by 50 days) than the base pay of $10,000,000, for each additional day of being able to stay at sea above the target. Similarly, the base pay could be reduced by the same amount for each day at sea below the target number of days up to the point where the minimum requirements are reached.

Scenario 1

If the assessment of actual performance on the technical requirement shows that the coast guard ship could be at sea for as many as 180 days, then the calculation of total contract price will be as follows:

- Base payment = $10,000,000;
- Variable amount (for each day of variance from the target period) = $10,000;
- Standard target period as per requirements = 150 days;
- Actual period for which the ship could stay at sea = 180 days;
- Payment adjustment = (180 days – 150 days) x $10,000 = $300,000; thus
- Total price = $10,000,000 + $300,000 = $10,300,000.

Example 4.4.1.a: Variable Payments Incentive (continued)

Scenario 2

If the assessment of actual performance on the technical requirement shows that the coast guard ship could be at sea for no more than 145 days, then the calculation of total contract price will be as follows:

- Base payment = $10,000,000;
- Variable amount (for each day of variance from the target period) = $10,000;
- Standard target period as per requirements = 150 days;
- Actual period for which the ship could stay at sea = 145 days;
- Payment adjustment = (145 days – 150 days) x $10,000 = - $50,000; thus
- Total price = $10,000,000 - $50,000 = $9,950,000.

Example 4.4.1. b.: Target Performance Incentive

The same contract example presented above is used, but in this instance, target incentives have been established for achievement of 180 days at sea valued at $150,000 and of 200 days at sea valued at $300,000.

Scenario 1: Contractor achieves 180 days

- Base payment = $10,000,000;
- Target incentive = $150,000; and
- Total price = $10,000,000 + $150,000 = $10,150,000.

Scenario 2: Contractor achieves 200 days

- Base payment = $10,000,000;
- Target incentive = $300,000; thus
- Total price = $10,000,000 + $300,000 = $10,300,000.

4.4.2 SCHEDULE PERFORMANCE INCENTIVES

Definition

Schedule performance incentives involve rewarding the achievement of delivery timeline goals set in the contract that are of critical value or provide additional value to Canada. The contractor is provided with the opportunity to earn additional profit upon achievement of one or more targeted delivery dates.

When to Use

- When it is of critical importance or value to Canada to receive a good or service in a timely manner.
- When it is feasible to determine objective incentive targets applicable to delivery times.
- In all forms of pricing approaches ranging from fixed price to cost reimbursable.
- In combination with and in addition to other incentive plans related to cost, delivery and performance.

Factors to Consider

Risks	Benefits
• Canada's action can both positively or negatively impact contractor performance. For example, a schedule performance incentive could compromise the quality of work. • When established without a corresponding cost control incentive or process, it can potentially result in cost inefficiencies.	• Practical way to achieve required timelines. • Practical way to ensure matters of an urgent nature are delivered on time.

Process Steps

Process Steps	Process Overview
Establish the Schedule Requirements	• The delivery requirement must be realistic and cannot be based on dates that are impossible to achieve. At the same time, it must not be so easy that the contractor could achieve the dates with minimal effort. • Establish flexibility in the incentive with the use of minimum, maximum and target dates, where possible.
Define the Target Dates and Date Ranges	• Target dates are the delivery dates of critical importance to the performance of the contract: o One Target Date: The delivery incentive will provide a bonus payment simply if the target date is met and no bonus payment if the date is not met. o Target Date Range: The earlier the completion of performance the greater value to Canada and the greater the incentive up to a maximum acceptable delivery period.
Link Schedule Requirements to Performance Requirements	• It must be clear that the delivery incentive is also contingent on the specifications of the contract being met. • If specifications are not met and further work is required to meet contract specifications, the delivery time is measured to the point the work meets the specifications.
Establish Incentive Formula	Variable Payment • Rewards increase on a pro rata basis for each time period closer to the earliest delivery date desired. • If desired, penalties increase on a pro rata basis for each time period after the standard delivery target up to the latest acceptable delivery date. • Pre-established formula determines the value to Canada of each incremental increase/decrease in schedule to the maximum and minimum dates. • A straight-line formula is the most standard method of applying this incentive. Target Incentive Fee

Process Steps	Process Overview
	• Rewards a contractor a set fee for meeting a specific schedule target. • Schedule targets that add value to Canada are clearly defined in the contract along with the corresponding fee percentage or dollar value.
Documentation, Authorization and Incorporation into Contract	• The dates or date range (earliest delivery date desired, standard delivery target, and latest acceptable delivery date) must be clearly documented in the contract. • The time intervals and formula over which the delivery incentive will be paid must also be clearly documented and included in the contract. • See Section 3.3 (Documenting & Justifying Key Price Decisions) for further details.

Examples

The following examples are designed to show how to calculate the incentives.

Example 4.4.2.a.: Variable Payment Incentive

- A contract has a base payment amount of $500,000.
- The target delivery time for the requirements was negotiated as 50 weeks, with the latest and earliest acceptable completion dates being 55 and 40 weeks, respectively, from the outset of the contract.
- A variable incentive (and penalty) was established at $5,000 per week for completion of the work in advance (or behind) the target delivery time, up to a maximum incentive of $50,000. This approach applies a straight line formula to the incentive, up to the established maximum.

Scenario 1

If the contractor delivered on the contract requirements in 43 weeks which is earlier than the target delivery date by seven (7) weeks, then the calculation of total contract price would be as follows:

- Base payment = $500,000;
- Variable amount (for each week of variance from the target delivery date) = $5,000;
- Standard target period as per requirements = 50 weeks;
- Actual delivery period = 43 weeks;
- Payment adjustment = (50 weeks – 43 weeks) x $5,000 = $35,000; thus
- Total price = $500,000+ $35,000 = $535,000.

Scenario 2

If actual delivery on the contract requirements was in 54 weeks, which is later than the target delivery date by four (4) weeks, then the calculation of total contract price would be as follows:

- Base payment = $ 500,000;
- Variable amount (for each week of variance from the target delivery date) = $5,000;
- Standard target period as per requirements = 50 weeks;
- Actual delivery period = 54 weeks;
- Payment adjustment = (50 weeks – 54 weeks) x $5,000 = -$20,000; thus

- Total price = $500,000 - $20,000 = $480,000.

Example 4.4.2.b.: Target Schedule Performance Incentive

- A contract has a based amount of $500,000.
- The target delivery time is 50 weeks, and will equate to a $50,000 incentive if met, for a total payment amount of $550,000.
- If the delivery takes place after the target delivery date, the incentive of $50,000 is not paid, and the maximum payable for the work, if and when complete, will be $500,000.

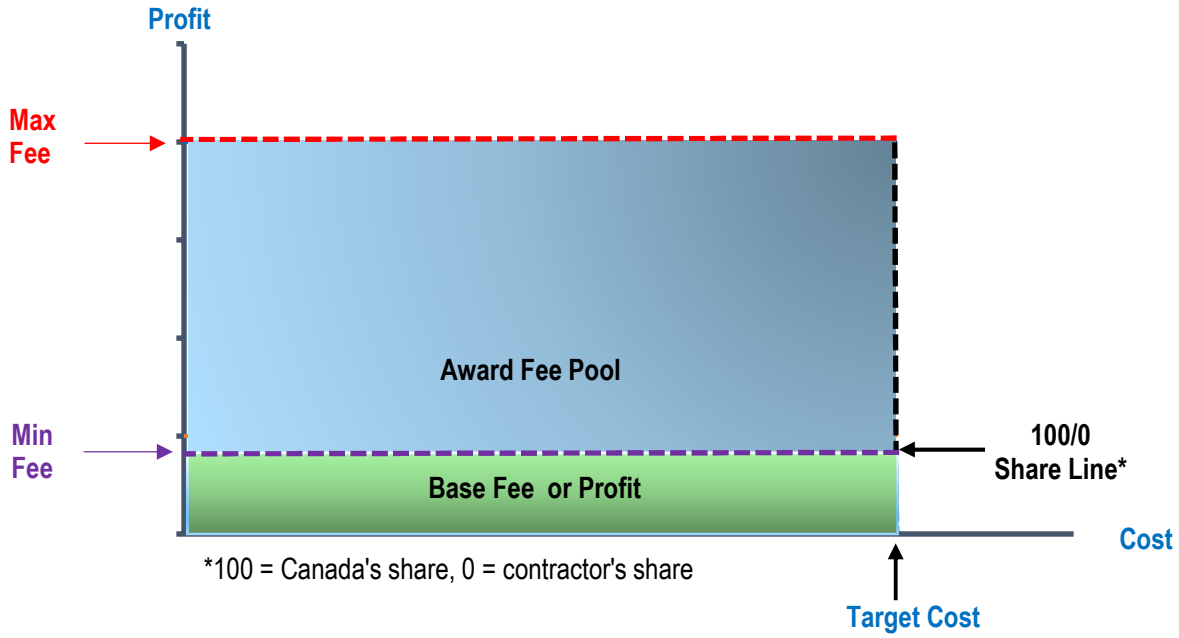
4.4.3 AWARD FEES

Definition

Award fee incentives are used to motivate contractors to perform in areas critical to a procurement's success that are subject to judgment and qualitative measurement and evaluation. The award fee incentive is a pool of funds, up to a maximum of which the contractor can earn, in addition to any profit or base-fee, upon an evaluation of performance against pre-established criteria.

Award fees can be applied to all forms of pricing approaches ranging from fixed price to cost reimbursable and in a combination with other incentives.

Figure 4.4.3.a.: Award Fees



When to Use

- When evaluating a performance that is subjective in nature and it is not possible or feasible to determine objective incentive targets applicable to cost, schedule or technical performance.
- When the contract amount, performance period, and expected benefits warrant the cost of the additional administrative and management effort.
- When there something to be gained by motivating excellence in performance including quality, timeliness and technical ingenuity for cost reimbursable contracts and cost-effective management.
- In all forms of pricing approaches ranging from fixed price to cost reimbursable and in combination with other incentives.

Factors to Consider

Risks	Benefits
• Significant administrative burden. Requires resources to monitor, manage and evaluate. • Challenging to align award fee earnings with contract performance outcomes. • Canada's actions can both positively or negatively impact contractor performance. • Low qualitative ratings can potentially cause tension with contractors. • If multiple evaluation periods are in place over the term of the contract, there is a risk of disproportionate allocation of the total award-fee pool over the evaluation periods. A greater portion of award fees could be earned in the early stages of the contract, which could lower the contractor's motivation and lead to poor performance towards the end of the contract.	• Awards fees can be a flexible way to motivate excellence in contractor performance. • Can motivate a contractor to concentrate resources in areas critical to a program's success. • In a contract where cost control exists award fees can focus the contractor's efforts on qualitative key performance areas.

Process Steps

Process Steps	Process Overview
Prepare and Document an Award Fee Plan	• The award fee plan structures how the contractor's performance will be evaluated and is aligned with the government's strategy, goals and objectives for the procurement. • Not all award fee contracts will be structured and administered in the same way. • All details of an award fee plan must be documented and incorporated in the procurement file. • The plan must clearly communicate the key factors within an award fee incentive, which includes the award fee amount and evaluation details such as evaluation periods, teams, categories, criteria, ratings and process.
Develop the Award Fee Amount	• The award fee must incorporate the following factors: o Value to Canada for exceptional performance; o Amount required to sufficiently motivate the contractor to achieve exceptional performance; and o Complexity of the work and the resources required for contract performance. • There are a number of different approaches to establish the award fee pool such as a review of previous and current contracts for similar requirements, awarding percentages based on risk and the importance of the established evaluation criteria, the total value of the contract, and cash flow analysis. • The award fee must be earned. The contractor begins with 0% of the available award fee and must work up to the evaluated fee.
Develop the Evaluation Period	• The contract performance can be divided into evaluation periods when required. It is possible to have one or multiple evaluation periods. • Avoid evaluation periods that are too short in length, which can lead to excessive administrative burden on the contract.

Process Steps	Process Overview
	• Ensure that there is sufficient amount of the award fee available for payment at contract completion to motivate contractor performance through to the end of the contract.
Establish the Evaluation Team	• The number of members forming the evaluation team and their qualifications will depend on the nature, dollar value and complexity of the acquisition. • An appropriate balance between technical expertise and procurement expertise should be considered. • The evaluation team members must be familiar with the contract and the work being performed, the evaluation categories, criteria and plan. The evaluation team must also have the time available to commit to the evaluation in a timely manner.
Develop the Performance Categories	• Performance categories emphasize the most important needs and goals of the procurement. • It is not necessary to include all functions required by the Statement of Work in the evaluation plan. • Spreading the award fee over a large number of categories dilutes the emphasis and takes the focus away from the key areas of success. • Examples of performance categories include output factors such as cost control, program management, service quality and schedule.
Define the Evaluation Criteria and Ratings	• Three to five standard criteria are recommended to assess the contractor's performance in a performance category. • Point/Score ranges are assigned to each criterion, and the overall score on a performance category is determined by the total points from each criterion within the category. • In the event that certain criteria are of higher importance than others, relative weighting can also be assigned to the criteria. • Examples of criteria include the following: • For cost control performance category:

Process Steps	Process Overview
	○ Ability to meet cost estimate; ○ Cost control program; ○ Timeliness of cost problem communications; and ○ Establishment and monitoring of staff utilization goals and standards. • For a program management performance category: ○ Program planning abilities; ○ Responsiveness to program and technical issues; and ○ Ability to anticipate and assess program and milestone changes independently. • An example assessment of the above criteria would be a range assessment with pre-established scores for each criteria: ○ Unsatisfactory 1-50 ○ Satisfactory 51-60 ○ Good 61-75 ○ Very Good 76-90 ○ Excellent 91-100
Establish the Evaluation Process	• Keep the process as clear and as simple as possible. • Decide and document at what points the evaluation will be performed and clearly define the evaluation periods. Ensure the evaluation is done in a fair and timely manner. • Determine how evaluation information will be gathered. • Determine how often information will be obtained for review. • Establish a communication process for the evaluation process and results including required response times.
Documentation, Authorization and	• Ensure the evaluation plans and procedures are communicated to all parties.

Process Steps	Process Overview
Incorporation into Contract	• Plans should be signed by both Canada and the contractor. This should ideally take place prior to the commencement of a performance period and included as an attachment. • A predetermined period should be established for a review of the evaluation plan where modifications can be made. • Authorization must include evidence of program management acceptance as well as authorization from the appropriate contracting level. • Formal documentation of the evaluation, evaluation process and final ratings should also be maintained. • See Section 3.3 (Documenting & Justifying Key Price Decisions) for further details.

The following examples are designed to show how to calculate the incentives.

Example 4.4.3.a.: Cost-Plus Award Fee Contracts

- A five (5) year contract is awarded with estimated costs of $10,000,000.
- A base fee total estimated costs, i.e. $200,000, which will be earned upon completion of the contract by the contractor regardless of the results of the performance evaluation.
- An award fee amounting to up to another 10% of total estimated costs, i.e. $1,000,000, is available to the contractor providing it achieves pre-established performance criteria.
- Performance evaluations are conducted annually, therefore the award fee may be earned on an annual basis across the five-year contract.

Total Estimated Costs	$10,000,000
Base Fee	$200,000
Award Fee Pool	$1,000,000
Total potential fee (profit) available to the contractor	$1,200,000
Contract Period	5 years

The allocation of the total award fees pool over the five periods is uniform, which means that the maximum amount of the award fee that could be earned in one evaluation period is the same as for the other periods because the risks and type of work to be performed on the contract is similar throughout the whole contract period. The calculations are as follows:

Number of Evaluation Periods	1st period	2nd period	3rd period	4th period	5th period
Duration of each evaluation period	1 year	1 year	1 year	1 year	1 year
Allocation of Award Fee pool over evaluation periods (%)	20%	20%	20%	20%	20%
Maximum amount of award fee that could be earned in each period	$200,000	$200,000	$200,000	$200,000	$200,000

If the risks and type of work change throughout the duration of the contract then the allocation of the award fee pool over the evaluation periods might be unequal as shown in the following table:

Number of Evaluation Periods	1st period	2nd period	3rd period	4th period	5th period
Duration of each evaluation period	1 year	1 year	1 year	1 year	1 year
Allocation of Award Fee Pool over Evaluation periods (%)	15%	35%	20%	5%	25%
Maximum amount of award fee that could be earned in each period	$ 150,000	$ 350,000	$ 200,000	$ 50,000	$ 250,000

Example 4.4.3.b.: Fixed Price Award Fees Contracts

- A five (5) year contract is awarded with a fixed price of $10,000,000.
- An additional amount of up to $1,000,000 in award fees is available to the contractor providing it achieves pre-established performance criteria.
- Performance evaluations are conducted annually, therefore the award fee may be earned on an annual basis across the five-year contract.

- If the allocation of the award pool is uniform over the five evaluation periods, the contractor has an opportunity to earn up to 20% of the maximum award fee at each of the five evaluation periods.

- If the allocation of the award pool is not equal due to differences in risks and type of work being conducted in each year, the maximum amount that could be earned at each evaluation period could vary from year to year.

The following table shows the dollar amounts for the example on Fixed Price Award Fee (above) and Weighted Award Fee (below), which follows below.

Total Estimated Costs	$ 10,000,000
Award Fee Pool	$ 1,000,000
Contract Period	5 years

Number of Evaluation Periods	1st period	2nd period	3rd period	4th period	5th period
Duration of each evaluation period	1 year	1 year	1 year	1 year	1 year
Allocation of Award Fee Pool over evaluation periods (%)	20%	20%	20%	20%	20%
Maximum amount of award fee that could be earned in each period	$200,000	$200,000	$200,000	$200,000	$200,000
Unequal Allocation of Award Fee Pool over evaluation periods (%)	15%	35%	20%	5%	25%
Maximum amount of award fee that could be earned in each period	$150,000	$350,000	$200,000	$50,000	$250,000

Unlike cost-plus award fee contracts, fixed price award fee contracts do not provide for a base fee since profit is already included into the fixed price. Because the profit that is already included in the fixed price is designed

to provide maximum incentive for the contractor to be efficient in terms of cost, an award fee in this type of contract might be used to incent other areas such as technical and schedule performance.

Example 4.4.3.c.: Weighted Award Fee

A weighted award fee could be used to determine the actual award fee earned for the evaluation period in both cost-plus award fee and fixed award fee contracts. In both cases, relative weights are assigned to the evaluation criteria based on their relative importance in the contract.

In the example below, contractor performance is assessed in three main areas: technical, management, and cost.

- The technical area is assigned a 50% weight; management is assigned 30%; and cost is assigned a 20% weight, which indicates that technical performance is of the greatest importance.
- Each area is scored (out of 25 points).
- The relative weight of each area is applied to the score rate to arrive at a weighted result for each area, and then these weighted results are totalled to arrive at an overall performance rating for the period.

The following table outlines for the mechanics of this calculation:

Evaluation Criteria for Each Period	Relative Weight of the Criterion	Score (/25)	Description of the score range	Weighted Results
Technical Area	50%	17.0	Good	0.5*17=8.5
Management Area	30%	21.6	Excellent	0.3*21.6= 6.48
Cost	20%	19.5	Very Good	0.2*19.5=3.9
Total	**100%**		**Very Good**	**8.5+6.48+3.9 = 18.88**

The overall performance rate for the period is 18.88 points out of 25, which corresponds to 75.52% (=18.88/25) of the maximum performance for the period.

Therefore, if the maximum award fee for the period is $200,000, then the actual award fees earned for the period would be $200,000*75.52% = $151,040.

4.4.4 NON-FINANCIAL INCENTIVES

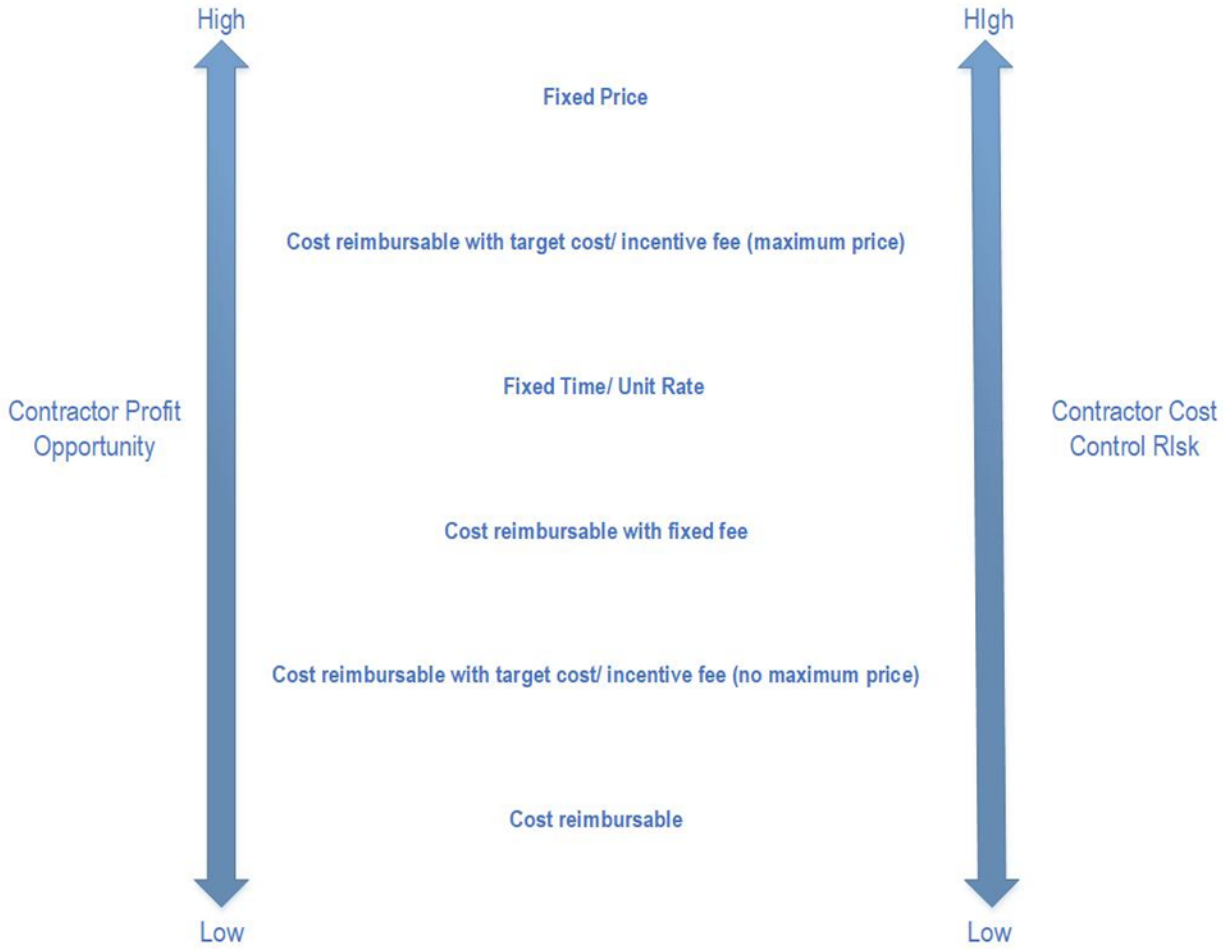
Non-financial incentives are not readily used in Canada and do not directly impact the profitability of a contractor in value but contribute to future contractor profitability. For more information on non-financial incentives please refer to Annex 5.2.1 (Discussion Paper: Contract Incentives to Encourage and Reward Enhanced Value to Canada).

4.5 PRICING APPROACH SELECTION

The pricing approach, which involves the selection of an appropriate basis of payment and consideration of incentives will establish how the contractor is compensated. In order to determine which pricing approach is best for a contract, it is important to assess how the cost, schedule and performance risks associated with the contract should be allocated. This would include consideration of the risks and responsibilities that are appropriate for the contractor to assume in the performance of the contract and the level of profit appropriate for delivering on the requirements outlined in the contract.

The following figure summarizes the relationship between cost control risks and the contractor's opportunity for profit for the main basis of payment types. The figure demonstrates that the risk of cost control increases, the opportunity for contractor profit increases to compensate contractors for accepting the additional cost risk.

Figure 4.5.a.: Pricing Approaches



4.5.1 SUMMARY TABLE OF BASIS OF PAYMENT TYPES

Types	Description	When to Use	Benefits	Risks	Elements	Typical Application
Fixed Price	• Fixed price contracts provide for a price not subject to any adjustment. • The contractor is paid a definite sum of money for carrying out the work regardless of the costs incurred.	• The work scope is clearly defined. • Contractors are experienced in meeting the requirement. • Market conditions are stable. • Financial risks are not considered significant. • It is efficient for the contractor to bear cost risks.	• Contractor bears risk of costs exceeding the target or changes in prices of inputs. • There is certainty of price. • There is a simple pricing structure. • It allows comparison in competitive market testing. • It has the lowest administration costs.	• If parameters of project are difficult to specify before contract award, additional contingency factors will be required resulting in a higher fixed price to cover financial risk exposure. • Variations to contract or scope result in potential loss in benefit of fixed pricing.	Competitive • Fixed price established through competitive bids Non-Competitive • Fixed price typically established through negotiations of cost base (SACC 1031-2) and additional profit (Section 5.2: Profit Principles), or through benchmarking. • A price/cost validation exercise should be completed prior to contract award.	• Used for commercial goods and/or services. • Generally not appropriate for research and development projects or long-term developmental contracts with significant "project risk" that will translate into price premiums.

Types	Description	When to Use	Benefits	Risks	Elements	Typical Application
Fixed Time/Unit Rate	• Contractor is paid a price per unit applied to actual inputs (e.g., labour hours, machine hours) incurred in performance of the work. • The price per unit is predetermined and includes components for direct costs, indirect costs and profits.	• When it is not possible to estimate in advance the extent or duration of the work. • When there is provision for adequate controls to ensure that the contractor is not using inefficient methods.	• It facilitates volume variations. • There is visibility of costs. • It enables Canada to participate in cost savings when actual inputs are lower than expected.	• There is budget uncertainty for client department. • It can be very administratively burdensome.	• Allowable costs; • Profit and unit rate; • Ceiling price or limitation of expenditures; and • Validation of costs claimed.	• Typically used for service contracts.
Cost Reimbursable with No Fee	• Provides only for the reimbursement to the contractor of actual costs incurred.	• This basis of payment is rarely used entirely on its own because it provides no profit for the contractor.	• Canada does not pay for any profit or any extra fees. Only actual allowable costs are paid	• No incentive for contractors to control costs.	• Allowable costs; • Limitation of expenditure; and • Validation of actual costs.	• Used for research and development with non-profit organizations.

Types	Description	When to Use	Benefits	Risks	Elements	Typical Application
Cost Reimbursable with Fixed Fee	• This basis of payment provides for payment to the contractor for acceptable costs incurred by the contractor and a fixed fee.	• When circumstances do not permit the use of a fixed price. • When scope of work is not clear or cannot be predicted.	• Flexible pricing and allows for scope adjustments and variations without profit recalculations. • Provides control over the amount of profit (contractor does not receive a windfall gain as may be the case for a fixed price contract). • Has visibility of costs. • Enables Canada to participate in cost savings when actual inputs (e.g., hours, units) are lower than expected.	• No incentive for contractors to control inputs (e.g., hours, units) or gain efficiencies. • Canada bears all cost risks. • Canada loses if the work cannot be completed within the expected cost of performance. • There is budget uncertainty for client department. • Increased contract administration burden to verify and monitor costs.	• Acceptable costs; • Fixed fee; • Ceiling price or limitation of expenditures; and • Validation of costs claimed	• Primarily used in research, advanced development or exploratory development when the level of effort required is unknown.

Types	Description	When to Use	Benefits	Risks	Elements	Typical Application
Cost Reimbursable with Target Cost/ Incentive Fee - No Maximum Price	• A gain/pain sharing contract that provides for a sharing formula between Canada and contractor of cost savings achieved or costs exceeding the target during performance of the contract requirements. • Allocates cost savings and costs exceeding pre-established target costs based on a sharing formula.	• When it is difficult to predict actual cost components and costs of the contract. • When it is too difficult to attract a contractor without having over inflated fixed price to compensate industry for risks. • When it is possible to establish an objective relationship between incentive fee and contract costs.	• Canada bears risk for cost exceeding the target. • Costs may exceed initial budgets without cost limit. • Misaligned gain/pain sharing ratio could results in low effectiveness of incentive for cost control. • Performance objectives other than cost, related to quality or schedule, may be compromised or overlooked if focus is solely on cost.	• Can strengthen the alignment between Canada and the contractor and encourage them to work together because they share both risk and reward. • Incents the contractor to be cost efficient. • Contractor's risk related to costs exceeding the target is lowered.	• Target cost; • Target profit; • Sharing formula; • Adequate accounting system; and • Validation plan.	• Used for non-commercial product or services (e.g., new products or builds, research and development programs).
Cost Reimbursable with Target Cost/ Incentive	• A gain/pain sharing arrangement where the	• When the costs to be incurred in the contract are	• Significant risk is put on the contractor for final delivery, as once	• Can strengthen the alignment between Canada and the	• Target cost; • Target profit;	• Used for a newer program or product (e.g., a prototype has

Types	Description	When to Use	Benefits	Risks	Elements	Typical Application
Fee - Maximum Price	contractor and Canada share in a reward (penalty) that is calculated based on the measurement of actual cost performance compared to pre-established cost performance criteria, with a maximum in place.	difficult to predict. • When the contract would benefit from incentives designed to provide greater cost control. • For a program or product where there is a clear understanding of client requirements. • When it is possible to establish an objective relationship between incentive fee and contract costs.	the maximum price is reached there is no limit to a contractors loss. • Complex and difficult to negotiate and execute. • Performance objectives other than cost, related to quality or schedule, may be compromised or overlooked if focus is solely on cost.	contractor and encourage them to work together because they share both risk and reward. • Canada is able to share in cost efficiencies. • Canada limits the risk to costs exceeding the target under the maximum price.	• Piece ceiling/ maximum price; • Sharing formula; • Adequate accounting system; and • Validation plan.	been developed and production is commencing). • When there is no significant unresolved technical process or design issues that will result in the redesign of requirements.

Types	Description	When to Use	Benefits	Risks	Elements	Typical Application
Cost Reimbursable with Fee Based on Actual Costs	• The contractor gets paid on the actual costs spent in the performance of the work plus a fixed percentage of those actual costs as a profit.	• Not recommended.	• N/A	• There is no incentive for contractors to control costs. • Contractors are motivated to maximize costs.	• Fixed profit percentage on total allowable costs	• Not recommended. • Should consider using another basis of payment.
Provisional Price	• The contract begins with a cost reimbursable basis of payment with the objective of moving towards a fixed price basis of payment within the contract term.	• When a cost benefit analysis reveals that the value to Canada to fix a price to decrease the downside risks of a cost reimbursable contract, warrants the increased administration burden that accompanies it.	• Reduces risks to Canada by converting an administratively heavy cost reimbursable based contract with little cost control to a fixed price contract. • When the price is fixed, it incents a contractor to earn a greater profit through efficient cost control.	• Canada bears all risks related to costs through the cost reimbursable portion of the contract. • Canada takes on the risk and burden of establishing and validating the price prior to fixing it. • Risk to Canada that price is fixed based on	• Initial basis of payment = cost reimbursable with price ceiling or limitation of expenditure; • Milestone for fixing price - % of work complete; • Cost submission from contractor validated; • Price developed from price validation; and	• In contracts where the costs surrounding the requirement cannot be reasonably estimated initially but it is expected to be able to reliably estimate the costs for the requirement later in the contract life. • Typically, these would be used in longer-term

Types	Description	When to Use	Benefits	Risks	Elements	Typical Application
				inefficient cost practices from cost reimbursable portion of the contract.	• Price negotiations and amendment to formally move contract to fixed price.	contracts (e.g., 5 or longer).
Price Subject to Economic Price Adjustment (EPA)/Foreign Currency Adjustment (FCA)	• Contract price is fixed with provisions to provide for revisions to the fixed based price or fixed time/unit rate upon the occurrence of certain contingencies.	• Market conditions are significantly at risk through an extended period of contract performance and are separately identifiable. • Risk stems from industry-wide contingency beyond contractor's control.	• Addresses a specified market risk that may be beyond the contractor's ability to control. • Incents a contractor to accept a fixed-price contract without inflating the price to cover the risk. Protects both Canada and contractor from the effects of economic changes.	• There is uncertainty related to market prices over the life of the contract. • Potentially allows for annual increases (or decreases) in a contract price based on an index that does not correlate to cost-efficiencies.	• A fixed price is established. • A formula to adjust volatile components of the contract upwards or downwards is documented in the contract. • A trigger point is defined in the contract to establish when an EPA adjustment is required.	• Used in long-term contracts for commercial supplies during a period of high inflation. • When the contract has components priced on market conditions that are significantly at risk through an extended period of contract performance and can be separately identifiable.

Types	Description	When to Use	Benefits	Risks	Elements	Typical Application
					• For example: 1) Annual market change and 2) Raw material index increases or decreases by > 3%). • Must include a ceiling price or a limitation of expenditure.	

4.5.2 SUMMARY TABLE OF INCENTIVE TYPES

Types	Description	When to Use	Risks	Benefits	Elements	Typical Application
Technical Performance Incentives	• Sets and rewards objective technical performance goals to be achieved in the performance of the contract that bring value to Canada.	• When technical performance thresholds are critical to Canada. • When performance excellence and improvements would add value to procurement. • When it is possible to establish discrete, objective and measurable incentive targets to technical performance.	• It is potentially complicated to practically apply. • There is significant administrative burden. • Canada`s actions can both positively or negatively impact contractor performance. • When established without a corresponding cost control incentive or process, it can potentially result in cost inefficiencies.	• It is a practical way to motivate excellence in contractor performance or to meet technical performance criteria critical to Canada.	• Technical criteria, specifications and Requirements ; • Incentive formula; and • Validation methodology.	• Used in all forms of pricing approaches, ranging from fixed price to cost reimbursable.
	• Contractor is	• When it is of				• Applied to all

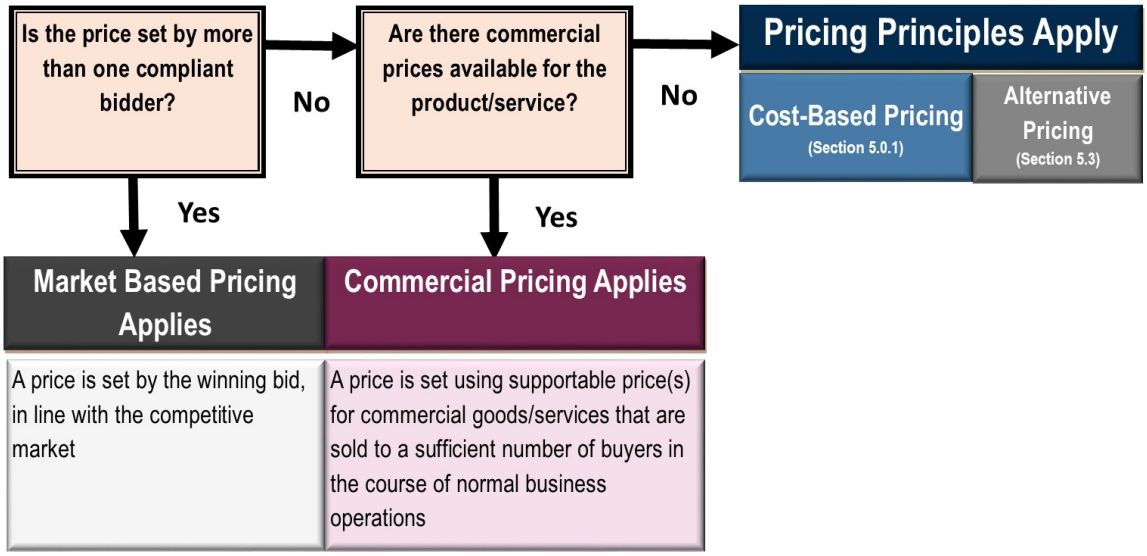
Types	Description	When to Use	Risks	Benefits	Elements	Typical Application
Schedule Performance Incentives	provided with opportunity to earn additional profit upon achievement of targeted delivery dates of critical value to Canada.	critical importance to Canada to receive a product or service in a timely manner. • When it is feasible to determine objective incentive targets applicable to delivery times.	• Canada's actions can both positively or negatively impact contractor performance. • When established without a corresponding cost control incentive or process, it can potentially result in cost inefficiencies.	• It is a practical way to achieve required timelines. • It is a practical way to ensure matters of an urgent nature are delivered on time.	• Schedule requirements; • Target dates; • Schedule performance incentives and performance requirements; • Incentive formula.	forms of pricing approaches ranging from fixed price to cost reimbursable .
Award Fees	• The award fee incentive is a pool of funds that the contractor can earn, in addition to any profit or base-fee, upon evaluation performance against pre-established criteria.	• When evaluating a performance that is subjective in nature and objective performance targets are not available/ possible.	• It can be challenging to align award fee earnings with contract performance outcomes. • There is significant	• It is a flexible way to motivate excellence in contractor performance. • Motivates a contractor to concentrate resources in an area critical to a	• Award fee plan; • Award fee amount; • Evaluation period; • Evaluation team;	• Consultations; • Services; • Research and development; • Construction system development and designs; and

Types	Description	When to Use	Risks	Benefits	Elements	Typical Application
	• Motivates contractors to perform in areas critical to a procurement success that are subject to judgement and qualitative measurement and evaluation.		administrative burden. • Canada's actions can both positively or negatively impact contractor performance.	program's success.	• Performance categories; • Evaluation criteria and ratings; and Evaluation process.	• Support services.
Non-Financial Incentives	• Incents the contractor by non-monetary rewards that are not part of a contractor's pay.	• Use when it is an efficient supplement to direct financial incentives. • When financial incentives are not available.	• Will not directly motivate the contractor. • Care needs to be exercised in their administration to avoid creating the impression of favouritism. • Award terms may inhibit competition.	• It is a low cost approach to incent performance. • It contributes substantially to future contractor profitability. • It builds an effective long-term relationship between Canada and the contractor.	• Reputation enhancing measures; • Contract award terms; and • Contractor employee motivation.	• Testimonials; • Contractor performance recognition programs; and • Intrinsic motivation for contractor employees.

5.0 PRICING PRINCIPLES

As contracts are awarded competitively and non-competitively, contract pricing can be determined by **market based pricing, commercial pricing** or **pricing principles**. See Figure 5.a below for a decision tree to determine pricing methods for a contract or contract components.

Figure 5.a: Available Pricing Methods



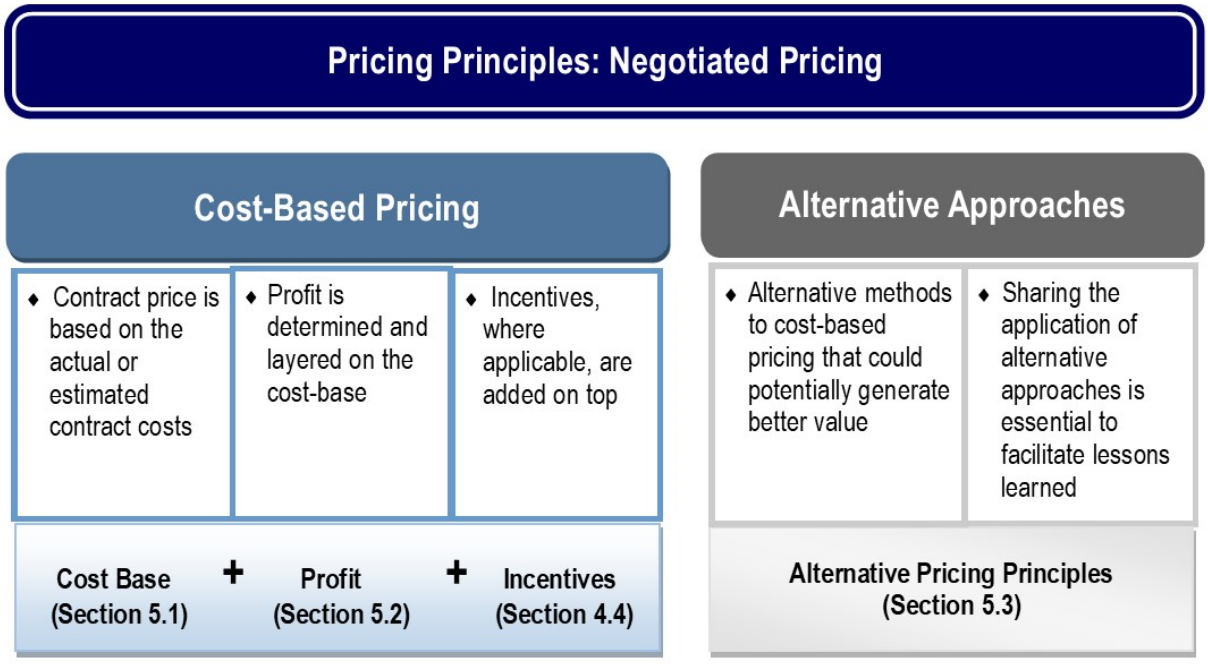
Market Based Pricing: The Government of Canada makes every effort to ensure that a fair and reasonable price for goods and services is determined by the market through competition. This is possible when sufficient competition exists to obtain more than one competitive bid with comparative prices.

A secondary market option, when competition does not exist, is **commercial pricing**, where the goods and services are customarily used by and sold to the general public or entities for non-government purposes, and as such a supportable market price is available. Refer to Section 5.0.2 Commercial Pricing for more information.

Negotiated Pricing: Where market pricing is not possible, the price is negotiated with the contractor. As outlined in Section 2.3, Pricing Principles are to be applied for all scenarios requiring price negotiations. The objective is to replicate a fair market price, while establishing a realistic division of responsibilities and risks between the contractor and Canada.

There are two main categories of Pricing Principles: 1) Cost-Based Pricing Principles, which is the approach most commonly used in the absence of competition in Canada and internationally in the negotiation of a price; and 2) Alternative Pricing Principles, which details the process to follow for the implementation of alternatives to Cost-Based Pricing. See Figure 5.b below for further details.

Figure 5.b: What are the Negotiated Pricing Principles?



Additional Considerations:

Consult the **Supply Manual** for the following special circumstances that are exceptions:

- Research and Development Contracts with Universities and Colleges (see Supply Manual Section 10.40 - Research and Development Contracts with Universities and Colleges);
- Non-competitive Contracts with Non-profit Organizations, excluding Universities and Colleges (see Supply Manual Section 10.45 - Non-competitive Contracts with Non-profit Organizations, excluding Universities and Colleges); and
- Non-competitive Acquisitions of Manufactured Products and Repair and Overhaul Services from Agency and Resale Outlets (see Supply Manual Section 10.50 - Non-competitive Acquisitions of Manufactured Products and Repair and Overhaul Services, from Agency and Resale Outlets)

5.0.1 COST-BASED PRICING PRINCIPLES

How does Cost-Based Pricing work?

Once a Pricing Approach (Section 4.0) is determined, the price development and negotiation process can be applied. As outlined in Figure 5.a above, this means that:

- Firstly, it is important to establish an acceptable Cost Base (Section 5.1) for the contract as a whole or in the form of costing rates, whether based on actual or estimated costs;
- Secondly, depending on the Pricing Approach selected (Section 4.0) it is necessary to develop a profit level (Section 5.2); and
- Lastly, when applicable, add incentives. (Section 4.4).

When does Cost-Based Pricing apply?

Cost-Based Pricing applies in the following circumstances:

- non-competitive contracts;
- competitive Request for Proposals (RFPs) resulting in one compliant bid;
- price negotiations subsequent to award for contract components not included in the initial financial bids and negotiations, such as task authorizations, contract modifications, extensions, additional work requirements, or amendments to work requirements; and
- contracts with cost-reimbursable components, incentives and targets involving costs.

Specifically, this includes the following Pricing Approaches:

BASIS OF PAYMENT & REFERENCE	DESCRIPTION	Apply Cost-Based Pricing?	EXPLANATION: Why Cost-Based Pricing Applies
Fixed Price Section 4.1.1	Sets a fixed price for the delivery of a good or service for the duration of a contract that is not subject to adjustment regardless of actual costs incurred.	✓	The cost base is the foundation of the price. The estimated acceptable costs are the starting point upon which a profit or fee is applied for the determination of a fixed price.
Firm Price Annex 1	Sets a total price for the delivery of a good or service for the duration of a contract. The profit included in the Contractor's price is subject to audit and adjustment by Canada, where the actual contract costs and actual profit earned is assessed against the original profit and price certification for reasonableness.	✓	The cost base is the foundation of the price. The estimated acceptable costs are the starting point upon which a profit or fee is applied for the determination of a firm price. In addition, when applied, an audit would determine the contract's actual costs incurred and profit realized and assess these against the initial price negotiated.

			Cost-base principles and standards would be applied in the audit.
Fixed Time/Unit Rate Section 4.1.2	Calculates a set rate (which typically includes direct costs, indirect costs (overhead charges) and profit), which is applied against the actual volume of units or hours.	✓	The cost base is the foundation upon which the profit rate is determined. The estimated acceptable costs are the starting point for the calculation of the costing rates, applicable profit rate and ceiling price where applicable.
Cost Reimbursable Section 4.1.3	Reimburses a contractor for all acceptable contract costs incurred, typically up to a set amount.	✓	The cost base is the foundation of the price. The estimated acceptable costs are the starting point upon which a profit or fee is added. In addition, the costing standards and principles of Cost-Based Pricing are applied in the determination of the contract ceiling price, where applicable, as well as the acceptable costs.
Provisional Price Section 4.1.4	Commences by using a cost-reimbursable basis of payment with set parameters and then moves to a fixed price basis of payment within the contract term, as a function of requirement and cost certainty.	✓	Cost-Base Pricing is applied as detailed in Cost-Reimbursable and Fixed Price contracts above.
Incentives Section 4.4	An incentive is the conscious use of rewards and remedies to modify behaviour. An incentive can be a tool used in contracting to maximize value to both the Government of Canada and the contractor by motivating and rewarding the achievement of the Government of Canada's desired outcomes, when appropriate.	✓	In combination with the basis of payment options mentioned above, Cost-Base Pricing is also applicable to incentives through the determination and assessment of target incentives or incentives based on costs.

5.0.2 COMMERCIAL PRICING

Commercial pricing is the price of goods and services customarily used by and sold to the general public or entities for non-government purposes, in other words the price in ordinary trade between buyers and sellers free of bargain. The commercial price includes both the contractor's costs and profit.

When does Commercial Pricing apply?

Commercial pricing is applied when there is a sufficient number of buyers existing to establish a relevant market price for the good and service. For example, published catalogue prices for powerful binoculars sold to many different customers such as individuals and companies for camping, hunting, recreational, and industrial purposes.

Commercial Pricing can also apply to a procurement as a whole or to specific components of a procurement where commercial pricing is available. For example, there are two major components for a contract. The first component is for a radio communication device that is used and sold to many other customers such as individuals and companies for outdoor, recreational and industrial purposes. Whereas, the second component is for the repair and maintenance of these devices which is not a normally offered service to this supplier's customers. The first component of this contract can be commercially priced, whereas the second component does not have a commercial price.

Price Support for Commercial Pricing

It is important to note that when establishing a commercial price, sufficient price support must be obtained to validate the price provided by a contractor. Commercial price support can be obtained through a variety of methods:

- **Catalogue prices:** Based on published catalogues maintained by a contractor as the basis of the proposed price relative to the price of recent sales. For example, an e-magazine published quarterly on a contractor's website listing all products and prices that are in effect for the quarter and available for sale on the market. Published/standard price lists are lists that contain standard prices for items/services charged to all entities doing business with the organization. For example, a list of different prices for different models of cameras sold by a company and published on their website.
- **Market research:** This refers to price comparisons based on the marketplace or offers to other customers. Market research includes an understanding of the market, such as the products/services available that will satisfy the requirement, the number of competitors, types of discounts, terms, etc. The key is to focus on the industry, not just a particular company. This is important to understand the reasonability of the commercial price and of what other similar products on the market may meet the requirements or impact the pricing of the original product.

- **Historical prices:** This involves comparing the proposed price to previous prices paid internally or by other customers. When comparing to previous prices paid for the item, the base price must be determined reasonable based on sound analysis.

Although the commercial marketplace is presumed to be a competitive environment and should drive a fair and reasonable price, it does not necessarily mean the commercial price would be cheaper than the cost-based price.

It is important to note that negotiations may still be needed even when commercial pricing is available:

- To adjust for *differences* in quantities, characteristics, demand discounts and terms, etc. of the procurement requirements to the commercial goods/services; and
- To *obtain* discounts, better terms, etc. based on the specific volume and timing of the procurement.

Note the following considerations to ensure sufficient price support is available:

- The most appropriate support is price comparisons with multiple organizations (i.e. other governments, Crown corporations, hospitals, universities and/or large private sector corporations), provided the prices are clearly for the same or similar products or services, quantities, terms, and technology.
- Internally produced price lists by the contractor may not provide sufficient price support for commercial pricing. Published price lists are more reliable and have more value to support the commercial price.
- Ensure the market and/or technology are still relevant for the price comparisons. Fluctuations in the market (i.e. inflation) may need to be accounted for in price adjustments. New or updated in technology could impact the price because the product or service has changed drastically.
- The basis for the comparison of prices must also be relevant and recent. Outdated price support is unreliable.
- When using historical prices for assessing the commercial price, ensure it is based on a fair and reasonable price.
    - Use caution with historical prices as the price paid by another party cannot be assumed to be fair and reasonable.
    - Ensure due diligence and support on historical prices (such as comparable invoices). The base price must have been determined to be reasonable and not only based previous price comparisons, or else there is a risk of continuously building on bad prices.
    - It is important to require the contractor's timely provision of price support.
- Ensure that Canada's right to audit is retained. General audit clauses/conditions are a part of the general conditions template for low, medium and high complexity procurements.

- Please note: an update is underway on the general audit clauses currently found in the Standard Acquisition Clauses and Conditions (SACC), Section 3 General Conditions templates and a proposed additional audit clause for the SACC Manual.

  While this update is underway, it is recommended that the "Accounts and Audit" clauses in the "General Conditions – Higher Complexity – Goods SACC 2030, section 33", "General Conditions – Higher Complexity – Services SACC 2035, section 31" and "General Conditions – Research and Development 2040, section 42" templates be used, as appropriate. The "Accounts and Audit" clauses included in the templates detail the contractor's obligations related to audit (i.e. the contractor must retain evidence for all amounts claimed in a contract) and protects Canada's right to audit (i.e. Canada's right to audit all claimed amounts, calculated in accordance with the Basis of Payment).

Guidance on Strategies When Seeking Price Support Through Comparable Invoices

The following provides strategies to assist contracting officers when seeking price support through comparable invoices.

- Consider requesting the supplier provide a list of all sales, for the most recent one to three years, for the product or service that Canada is procuring. This allows the contracting officer to pick samples for comparison and ask for specific invoices from the list to validate the actual billings.
- When dealing with a specific labour resource (i.e. technical engineer consultant), consider asking the supplier for evidence of that resource's billing rate on all contracts over a period of time (i.e. past 3 months, 6 months and/or 1 year).
- Compare invoices from a variety of the contractor's customers that were awarded on a competitive basis. A series of invoices from previous sole source contracts with Canada is not necessarily a valid indicator of the market price.
- When a contractor has concerns related to sensitive information, they can redact the names of customers and replace them with a description of the type of customer (i.e. university, large Canadian city, large aerospace company, etc.).
- If the work is technically complex, consider engaging the technical authority to assess the comparability of the work in the sample invoices and the work under the proposed contract.
- Ensure the contractor provides the link between the comparable invoice price and the price quoted to Canada if it is not immediately apparent. In other words, ensure the sample invoices clearly demonstrate that the price to Canada is fair.
- If a commercial good or service experiences a significant price increase, contracting officers should request evidence to support this price increase. For example, the price of a sub-component (i.e. computer chip) within a good may have increased significantly which is driving up the total costs. Evidence should be requested to validate this commercial price.

5.1 PRINCIPLES FOR ESTABLISHING THE COST BASE

What are the principles for establishing the Cost Base?

As described in the introduction to Cost-Based Pricing Principles (Section 5.0.1), the establishment of a cost base is the first step in building a negotiated cost-based contract price.

In cost-based pricing, the price of the contract is based on the acceptability of costs incurred, cost estimates, or a combination thereof with a profit margin calculated in accordance with Profit Principles (Section 5.2).

The acceptable estimated or actual costs in a contract are determined using the following clauses, standards and processes, which are further explained below in Table 5.1.a. Components for Establishing the Cost-Base.

Contract Cost Principles 1031-2 of the Standard Acquisition Clauses and Conditions (SACC) Manual

Costing Standard: Attributable, Appropriate and Reasonable Costs *(See Annex 2)* + *Costing Discussion Papers (See Annex 5)*

Cost Accounting Practices (CAP) Submission *(See Annex 4)*

Key objectives of the principles for establishing a Cost Base

The key objectives of the principles for establishing a Cost Base include the following:

- Enhance the clarity and transparency of acceptable costs in Government of Canada contracts;
- Facilitate consistency in costing;
- Improve understanding and clarity on the acceptability of costs;
- Aid in the achievement of Canada's objective of fair and reasonable pricing;
- Apply principles-based approaches to pricing; and
- Support contracting officers in the execution of their professional judgement in terms of effective pricing.

When do the principles for establishing a Cost Base apply?

The principles for establishing a Cost Base apply to all negotiated contracts, in line with the applicability requirements detailed in Section 5.0.1 (Cost-Based Pricing Principles), with the following exceptions.

Exceptions to Cost-Based Pricing in Negotiated Contracts

- **Low Dollar Value Contracts:** Contracts valued under $50,000 do not require negotiation of profit under this section.

- **Commercial Pricing:** Cost-Based Pricing Principles are not required for commercial goods and services, since these are used regularly for non-government purposes, and are sold by the supplier in the course of carrying out its normal business operations; and there is a sufficient number of buyers, other than the government, to establish a relevant market price for the good or service. Sufficient price support for a commercial price must be available to support a commercial price or Cost-Based Pricing Principles will apply.

Table 5.1.a. Components for Establishing the Cost-Base

Cost-Base Component	Explanation
Canada's Contract Cost Principles, SACC 1031-2	Canada's Contract Cost Principles, SACC 1031-2, provide a sound basis on which Canada can evaluate costs. These principles are consistent with cost accounting recognized by Canadian academia and have been benchmarked against cost accounting standards applied in other nations. SACC 1031-2 is a measuring stick for the assessment of costs. Without the inclusion of SACC 1031-2, there is no measuring stick against which to assess the validity of costs. As such, the Contract Cost Principles are to be included as a condition of the contract for all cases outlined in the applicability requirements detailed in Section 5.0.1 (Cost-Based Pricing Principles).
Costing Standard	PSPC's Costing Standard, detailed in Annex 2, developed in support of SACC 1031-2: • explains in detail Canada's expectations on costing related to Canada's contracts; • emphasizes the core costing principles of attribution, appropriateness and reasonableness; and • includes examples and suitable measures to assist contracting officers in determining the acceptability of a cost and the amount claimed. See Annex 5 for Costing Discussion Papers that are intended to support cost interpretation and provide additional guidance for cost acceptability decisions to support contracting officers' understanding of complex areas when preparing for contract negotiations and in managing contracts.
Cost Accounting Practices (CAP) Submission (Policy Notification 133)	The CAP Submission provides greater certainty on the acceptability of a contractor's costing. The CAP Submission includes an attestation by the contractor of compliance with SACC 1031-2 and highlights specific areas of costing where different interpretations may exist. It provides the contractor and Canada with the means to agree on the acceptability of costing and avoid disputes, and as a basis upon which to resolve differences related to the acceptability of costs.

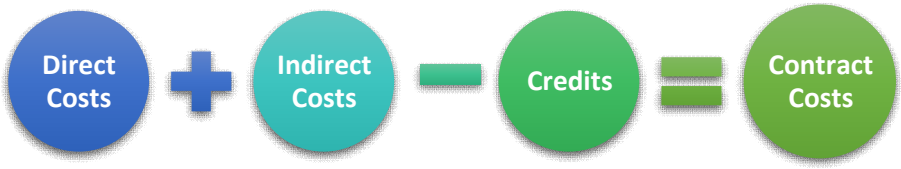
5.1.0 CONTRACT COST PRINCIPLES, SACC 1031-2

The Contract Cost Principles 1031-2 is a clause in the SACC manual that states the principles to apply in the determination of an acceptable cost. SACC 1031-2 provides the framework and is the "measuring stick" for determining acceptable costs in a contract.

SACC 1031-2 **must** be incorporated into the terms and conditions of a contract whenever determination of a contract price is negotiated based on costs or it is anticipated that there will be a possibility of price negotiations during the life of the contract such as competitive request for proposals resulting in one compliant bid; or for components not included in the initial financial bids (i.e. contract modifications, extensions, additional work requirements, or amendments to work requirements).

As per SACC 1031-2, the total cost of the contract must be the sum of the applicable **direct** and **indirect** costs less any applicable **credits**. These direct and indirect costs must be reasonably and properly incurred and/or allocated, in the performance of the Contract.

The following diagram shows the formula of how to calculate the total contract cost:



Under SACC 1031-2, contract costs are classified as either direct or indirect (overhead) based on the relationship of the cost in performance of the contract.

Direct Costs are those that can be specifically identified/measured in the performance of the contract. For example, direct material, direct labour and other direct costs.

Indirect Costs are costs that cannot be identified or measured as directly applicable in the performance of the contract. They represent the expenses of fulfilling the contract requirements that are not readily identified with the contract specifically but are necessary for the general operation of the organization. Examples include rent, executive salaries, administration costs, electricity, etc.

Credits are the applicable portion of any income, rebate, allowance, or any other credit relating to any applicable direct or indirect cost, received by or accruing to the contractor that must be credited to the contract.

For detailed definitions of components of contract costs under SACC 1031-2, see the legal text in the SACC 1031-2 clause.

Section 07 of SACC 1031-2 provides a list of **non-applicable costs** for a contract. These are costs that are not allowable for a contract even if they may have been or may be reasonably and properly incurred by the contractor in the performance of the contract.

Cost Allocation is the process of assigning indirect costs to cost objects such as departments, products, programs, jobs and subsequently to specific contracts. As indirect costs may apply to multiple contracts and customers, it is important to determine which costs apply to a specific contract.

Costs are typically allocated by applying **costing rates**. Refer to Annex 2B (Contract Costing Rates) for further details on cost allocation and costing rates, including details on the following types of costing rates:

- Indirect costing rates
- Take-Out Rates
- Out-of-Plant Service Rates
- Mobile Repair Party Rates
- Material Handing Rates
- Purchased Labour Rates

5.1.1 COSTING STANDARD

An acceptable cost is determined in accordance with Standard Acquisition Clauses and Conditions (SACC) 1031-2 - Contract Cost Principles. The Costing Standard is supplementary guidance to SACC 1031-2.

- The Costing Standard is intended to augment Canada's Costing Principles SACC 1031-2 to:
  - facilitate consistency in costing;
  - improve understanding and clarity on the acceptability of costs;
  - aid in the achievement Canada's objective of fair and reasonable pricing;
  - apply principles-based and risk guided approaches to pricing; and
  - support contracting officers in the execution of their professional judgement in terms of effective pricing.

See Annex 2 for more information.

5.1.2 COST ACCOUNTING PRACTICE (CAP) SUBMISSION

Please Note

Cost Accounting Practices (CAP) Submission

- A formal disclosure of a contractor's cost accounting practices including the identification of direct and indirect costs and disclosure of methodologies used to allocate indirect costs.
- A CAP Submission document can serve as a useful tool in helping to explain and support contractor costs. from the outset.
- See Policy Notification 133 for additional details on the CAP Submission.
- For support, contact the Professional Accounting Practices Group (PAPG) in the Procurement Support Services Sector (PSSS). See Annex 3 for contact information.

Canada's direction on costing for government contracts is principle-based. This is similar to the approach adopted by other jurisdictions, most notably Great Britain and Commonwealth of Australia. Principle-based costing allows a contractor's accounting professionals with the ability to classify and assign costs to Canada's contracts based on their professional judgement. Because "principle-based" direction can be open to interpretation and to avoid disputes related to contract costs, PSPC has introduced the Costing Accounting Practices (CAP) Submission.

The CAP Submission serves to reinforce the contractor's obligation to comply with SACC 1031-2 and, when in doubt, to seek Canada's direction on interpretation and application. It documents:

- the justification by contractors in terms of its interpretation of suitable costs; and
- Canada's formal acceptance, when greater certainty is required.

The CAP Submission does not address the reasonableness of the amount of costs but rather the nature of the cost or costing practices.

Purpose

The purpose of the Cost Accounting Principles (CAP) Submission document is:

- to develop a common understanding between the contracting officer, the contractor and the client department on the cost accounting practices being applied by fully disclosing the acceptance of the practices during the pre-contract award period.

- to improve transparency into the costing applied in a cost-based contract.

- to ensure that a contractor will be able to recover all attributable, appropriate and reasonable costs.

When to Use

The CAP Submission is intended to be used when the price or rate of a potential contract (or amendment) will be based on estimated or actual costs (e.g., fixed time rate, cost reimbursable, cost reimbursable plus fixed fee, etc.), which may apply in the following situations:

- Sole-source cost-based contracts where pricing is based on costs and the costing methodologies in accordance with SACC 1031-2.

- Competitive or non-competitive contracting situations such as pricing of amendments where costing is needed to determine the price for Additional Work Requirements (AWRs), change orders, extensions, options, and spares.

- Contract management for profit determination that is required to support bonuses and other financial incentives or cost-based indicators for performance-based contracts.

Process Steps

See Annex 4 for more information on process steps.

5.2 PROFIT PRINCIPLES

What is profit?

Profit is the financial return over and above allowable costs paid to a contractor for the performance of a contract. The financial return is intended to recognize the cost of money associated with the capital employed by the contractor in performance of the contract and the level of effort and risk assumed by the contractor in performance of the contract.

Key Objectives of Profit

The overarching objectives of profit for the government are as follows:

- Optimize value to Canada on negotiated contracts, ensuring sound stewardship of taxpayers' dollars;
- Compensate contractors fairly and reasonably, commensurate with the effort and risks undertaken to perform the requirements of the contract; and
- Treat all contractors equitably through the consistent application of a clear, transparent process for the determination of profit.

It is important to note that the ultimate goal is for value to be optimized for all parties involved. Canada's profit determination process is in place to ensure contractors earn sufficient profit and rewards to continue operating successfully and remain competitive. The profit objectives for industry may differ from those of government, a perspective that is important to consider in the negotiation process. Profit is a requirement for industry not only to innovate, improve, and grow, but also to survive economic and business downturns and unanticipated risks. A fair and reasonable profit enables Canada to attract strong industry performance, resulting in stronger procurement results and better value.

Canada's profit determination process has been benchmarked internationally and analyzed against industry earnings. The current process is in line with the profit methodologies and profit levels paid by international counterparts, as well as industry earnings.

PSPC recognizes the importance of ensuring the profit levels rewarded through the negotiated profit determination process outlined below, continue to be sufficient and in-line with industry earnings. Annually, the rates will be assessed against average industry earnings and market factors to determine if and when adjustments are required to ensure appropriate profit levels.

When do the Profit Principles apply?

The Profit Principles apply to all negotiated contracts, in line with the applicability requirements detailed in Section 5.0.1 (Cost-Based Pricing), with the following exceptions.

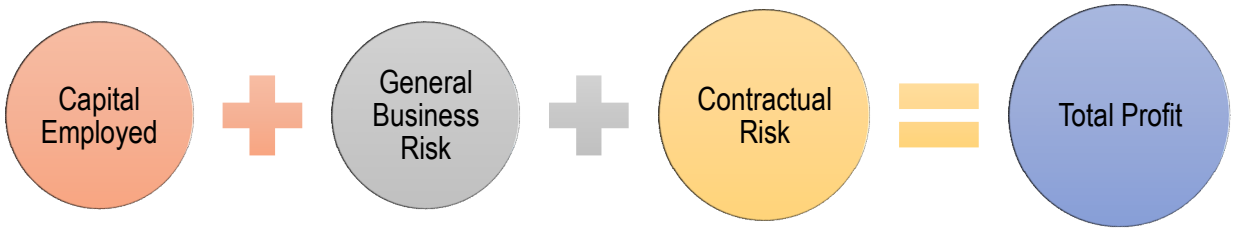
Exceptions to Profit Principles in Negotiated Contracts

- **Low Dollar Value Contracts:** Contracts valued under $50,000 do not require negotiation of profit under this section.

- **Commercial Pricing (Section 5.0.2):** It is important to note for a negotiated procurement, similar or comparable commercial goods or services may be available in the market that match the requirement. In these cases, the commercial price may be suitable as a negotiated price, plus or minus any adjustments to reflect any variations in the requirement. In these cases, the cost and profit would already be included in the commercial price, and as such, no further adjustments to the price would be required. Examples of commercial pricing include:
    - Latest published catalogues, price lists or fee schedules where only discounts are subject to negotiation.
    - Recent (within two years) prices paid by multiple other organisations, such as other governments, Crown corporations, hospitals, universities and/or large private sector corporations or companies, provided the prices are clearly for the same/similar products or services, quantities, terms, and technology.

Components of Profit

The profit components together are intended to recognize the cost of money associated with the capital employed by the contractor in performance of the contract and the level of effort and risk assumed by the contractor in performance of the contract. Applied consistently in a transparent manner, the process of calculating the total profit ensures sound stewardship of taxpayer money.



While the process to determine profit should be applied consistently, each contract is unique, with different performance requirements, risk profiles, cost inputs, and capital requirements. The components for each contract should be established in an accountable and transparent manner, with appropriate documentation.

Once the amounts of profit for each category have been determined, the rates of return are added together to derive the total contract profit. The contract profit rate is expressed as a return on cost (contract profit divided by allowable contract costs. See Annex 6.1 for a template on the documentation and development of the profit components and contract profit rate.

Table 5.2.a. Profit Components Descriptions

Profit Component	Where to find	Description
Capital Employed	Section 5.2.1	Capital Employed compensates the contractor for the investment in capital required to deliver a contract, regardless of how a contractor is financed. As per 1031-2 07 a. of the SACC Manual and 4.4 of the Costing Standard (Annex 2), financing costs are disallowed. Instead, Canada compensates all contractors fairly through the profit determination process, ensuring the contractor receives a reasonable return for the cost of capital specific to a contract. The return on capital employed is comprised of two parts: • ***Return on Working Capital Employed*:** Working capital employed measures the level of current and short-term financial commitments from day-to-day activities in the performance of the contract that would be required by the contractor. The ***Return on Working Capital Employed*** is the level of return provided in a contract, based on the cash flow requirements of a contract. This is impacted by the payment schedule applied in a contract. • ***Return on Fixed Capital Employed***: Fixed capital is capital or money employed in a contract for assets of a durable nature for repeated use over a long period, for example, equipment and facilities form part of fixed assets. The ***Return on Fixed Capital Employed*** is intended to compensate a contractor for the cost of money associated with fixed capital employed on the contract, and to encourage investment in new capital equipment.
General Business Risk	Section 5.2.2	Recognizes the level of effort a contractor makes and the degree of risk involved in the management of resources required to perform the contract in an efficient and economical manner. Business risk will vary according to the different cost elements in a contract.
Contractual Risk	Section 5.2.3	Represents contract specific factors that impact the delivery of the contract, such as the basis of payment, the accuracy of costing and the technical and schedule risks.

Roles and Responsibilities for Profit Determination

There are various stakeholders involved in the determination of contract profit. While the roles and responsibilities of each stakeholder may vary from one procurement to another, they will generally align with those presented in the table below.

Stakeholders	Roles and Responsibilities
Contracting/ Procurement Officers	• For negotiated, cost-based pricing, contracting and procurement officers are responsible for the final price and profit determination. This includes responsibility to: Assess the reasonability of related inputs, verify and review estimates, negotiate risk levels, and approve the final profit for each component of profit within a contract; and • Consult experts for support on the assessment of profit in a contract.
Contractor	Contractors are responsible to: • Submit profit schedules and templates prior to price negotiation, including completion of the profit determination template found in Annex 6.1, and • Provide supporting documentation for the profit schedules necessary for the validation purpose of the cost and pricing of the contract
Price Advisor	Price advisors are responsible for the provision of direct support and assistance in the development and negotiation of profit rates as requested by the contracting officer. • Refer to the Directive on the Use of Cost and Price Analysis Services, for further details. • Please see Annex 3 for contact information of the Price Advisor Group (PAG), within the Procurement Support Services Sector.

Final Contract Profit Review and Consideration

The profit principles outlined above are designed to support a contracting officer in the determination of the profit on a contract. Other factors also require consideration on the profit including incentives, subcontract costs and profit thresholds.

Incentives with Profit

An incentive is the conscious use of rewards and remedies to modify behaviour. Incentives potentially enable Canada to share in cost savings and risks, pursue innovative approaches and obtain better value, while affording the contractor an opportunity to earn more by meeting targets set out in the contract. Incentives may not be appropriate or effective for all contracts, and it is important to consider the guidance detailed in Section 4.4 (Incentives) for the application of incentives.

While incentives are not included in the Profit Principle (Section 5.2) determination of the negotiated contract profit, it is essential to understand the impact of incentives in a procurement on the overall contract price. The total contract price is comprised of the total contract costs/estimated costs, profit, and incentives. The additional potential earnings that arise from the use of incentives will result in an increase in the contract price and overall profit and earnings to the contractor.

Also, the use of incentives can have an effect on the Contractual Risk factor as it can be used to mitigate risks. Please refer to Risk Mitigation considerations in the Contractual Risk Factors Section.

Subcontract Profit: Profit on Profit Layering

Subcontract costs included in the contract costs will also have a degree of profit included in the costs that are submitted to Canada. Each subcontractor in the supply chain is compensated for costs incurred plus a profit. It is important to be aware that profit is layered into subcontract costs at each step in the supply chain, and to be aware of the degree or level of profit awarded to subcontractors where possible, as Canada then includes a final layer of profit on the total through the General Business and Contractual Risk profit factors.

For this reason, transparency and clarity on the total cumulative profit within the supply chain is important where possible to understand and assess for reasonability and added value.

Related party transactions are another area where profit layering can happen. For information specifically on related party transactions, refer to Annex 5.3.4 (Discussion Paper – Transfer Pricing).

Profit Documentation and Justification

Contracting officers should ensure all documentation and justification for the profit determination is included in the procurement file. This includes the completed profit determination template found in Annex 6.1, all supporting documentation used to assess the reasonability of inputs, and justification required on decisions made regarding profit factors.

Profit Threshold

The profit threshold is intended to provide a guideline on the maximum profit amount that should be awarded under the Profit Principles for negotiated, cost-based pricing.

The total negotiated profit is determined as outlined in the Profit Principles (Section 5.2) by adding together the amount of profit for each of the components of profit: Capital Employed (Section 5.2.1), General Business Risk (Section 5.2.2) and Contractual Risk (Section 5.2.3). The total dollar value of these components is then divided by total contract costs to determine the maximum contract profit rate.

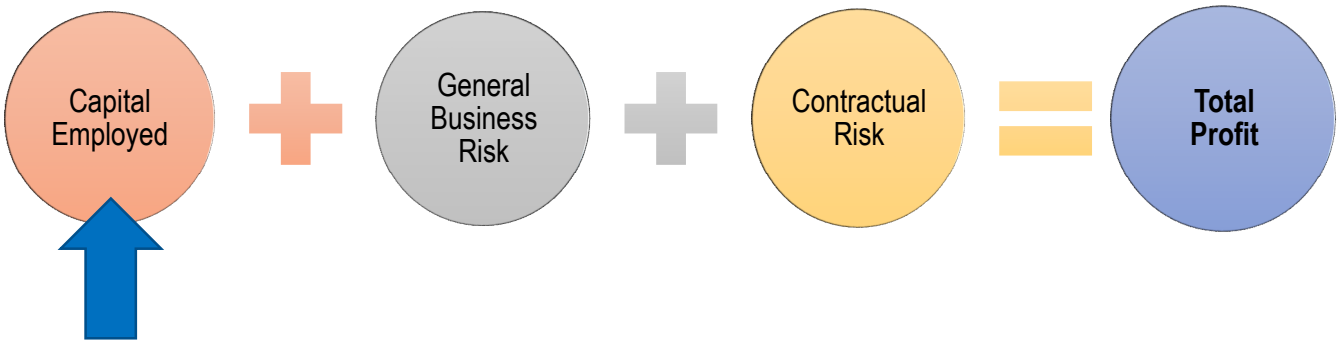
Profit rates will vary depending on the degree of capital investment, the level of business risk required per cost element and the degree of contractual risk.

The maximum contract profit rate will not exceed 16% of total contract costs, which represents the maximum profit threshold reflecting the highest risk and rare fixed price contract scenarios with significant Capital Employed, extreme General Business Risk (primarily Direct Labour and Overhead costs) and maximum Contractual Risk.

> The Profit Determination Template in Annex 6.1 supports contracting officers and contractors in the determination of total profit for a contract.

5.2.1 NEGOTIATED PROFIT ELEMENT: CAPITAL EMPLOYED

Figure 5.2.a.: Components of Profit



Purpose

The Return on Capital Employed component of profit is intended to recognize the cost of money associated with the capital employed[1] by the contractor in performance of a contract.

Specifically, the Capital Employed component of profit is designed to recognize the capital investment required to deliver a contract, and provide a reasonable return, regardless of how a contractor is financed.

As per Contract Cost Principles 1031-2 of the SACC Manual, financing costs are specifically disallowed in contracts. The compensation for the cost of capital through the profit determination, as opposed to the acceptance of financing costs, ensures that all contractors are compensated fairly and consistently for the cost of capital, regardless of the financing requirements of a specific organization.

Components

The return on capital employed is comprised of two parts:

Working Capital Employed

- Working capital employed measures the level of current and short-term financial commitments from day-to-day activities in the performance of the contract that would be required by the contractor.

Fixed Capital Employed

- Fixed capital employed is capital or money employed in a contract for assets of a durable nature for repeated use over a long period, for example, equipment and facilities.

[1] Capital employed includes working capital employed and fixed capital employed. See "Components section" for the respective definitions.

Return on Capital Employed Considerations

- **Roles and Responsibilities**: It is the contractor's responsibility to calculate the capital employed for a specific contract and submit the calculation along with necessary supporting documentation to the contracting officer. A contracting officer, with the support of a price advisor will review and validate the submission.

- **Capital Employed Calculation Tools**: Standard calculation tools and templates are available for the determination of both working and fixed capital employed in a contract. The template can be found in Annex 6.1.

Did You Know?

• Contracting officers can draw on expert advice from the:

Price Advisor Group (PAG), within the Procurement Support Services Sector

• Please see Annex 3 for contact information.

- **Simplified Options**: The determination of capital employed can be complex and all contracts have varying degrees of capital investment requirements. For that reason, in each of the fixed and working capital employed calculations, simplified options are available for contracts that meet the applicability criteria. These simplifications are not mandatory and have been developed to approximate and best represent the return a contractor would earn applying the full determination of capital employed, with less complexity.

- **Data Requirements**: Capital Employed requires the input of specific financial data related to the contractor and the contract, including the following:

    1. Contract Data
        - Total estimated costs
        - Estimated depreciation
        - Overhead allocation bases and rates
        - Payment Schedule
    2. Contractor Data
        - Balance Sheet
        - Capital asset register, including the net book value of capital assets
    3. Applicable Financial Market Rates
        - See Applicable Rates for Profit Determination Table found in Annex 6.2

5.2.1.1 RETURN ON WORKING CAPITAL EMPLOYED

What is Working Capital Employed?

Working capital employed refers to the costs of maintaining daily operations within an organization. When performing work under contract with the Government of Canada, a contractor makes working capital investments to fund the day-to-day contractual operations, whether it is with current assets, such as cash and investments or with current liabilities, such as loans and accounts payable.

Specifically, the amount of working capital employed applicable to a particular contract is defined as the cumulative timing difference between when acceptable contract costs are incurred by the contractor and paid by the government.

Why does Working Capital Employed matter?

The working capital investment in a contract will impact contractors differently, depending on the size and financial status of an organization, available capital, and market conditions. Some contractors may be required to borrow in order to fund the working capital needs of a contract, incurring financing costs, while others will have sufficient capital on hand that could otherwise have been invested in short term capital markets. Regardless of the financing structure of the organization, the cost of working capital employed requires compensation.

Objectives

The return on working capital employed is intended to accomplish the following objectives:

- Estimate the working capital investment requirements for a specific contract;
- Provide a return on the contractual working capital investment in line with current market rates available for similar term financial investments; and
- Apply market rates and procedures consistently to all contracts and contractors, regardless of how they are financed.

Factors to Consider

The degree of working capital investment will vary from one contract to another. It is important to consider the following factors in the determination of the return on working capital employed and the contract price.

Factor	Explanation and Impact on Working Capital Employed
Payment Terms	Contracts are rewarded with varying types of payment terms, including: • Milestone payments, • Progress payments, • Single payments, and • Advance payments. *(Refer to Supply Manual Chapter 4.70.30.10. Types of Method of Payment for additional information)*

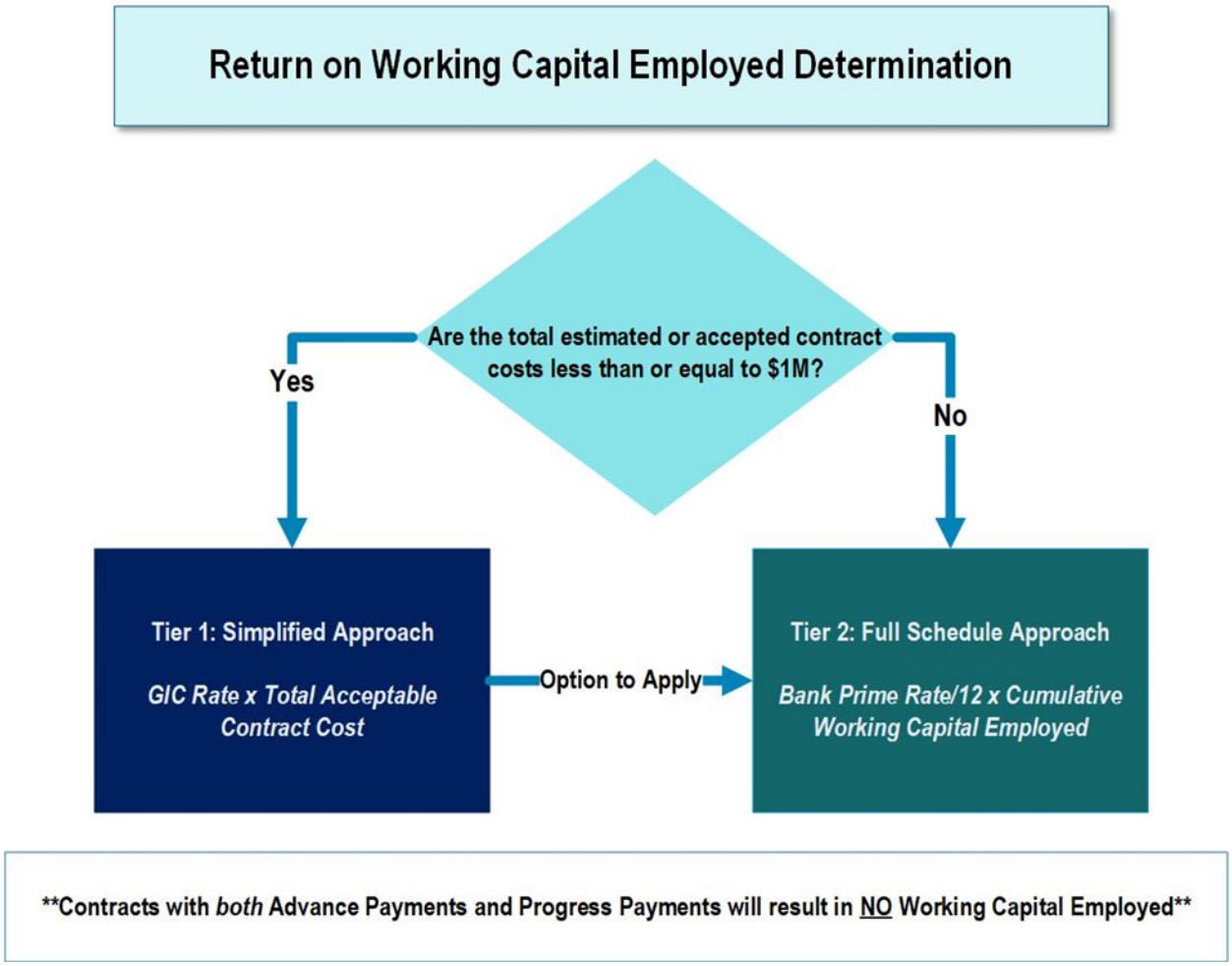
	A greater period of time between expenses being incurred by a contractor and payments being made by the Government of Canada, represents a greater working capital demand for a contractor. Essentially, the contractor finances the contract expenses until a contract payment is received. Contracts with regular progress billings and shorter payment terms (for example, progress payments for work done every 30 days, invoiced and paid within 30 days of invoicing) require less working capital investment than those with longer payment terms (for example, milestone payments for work estimated to be completed in a six-month period). Contracts with **Advance Payments** will have lower to no working capital accumulated, as the government will have advanced and funded the costs. Contracts with advance payments and regular progress payments may not require a return on working capital employed. Advance payments should always be deducted from the full working capital employed determination. Examples 5.2.1.1. c) i. & ii. show the impact of advance payments on working capital employed.
Multi-Year Contract	The working capital employed determination will accumulate the working capital for each month of the contract. Multiple year contracts will typically accumulate greater working capital requirements, increasing the compensation required. In addition, in a multi-year contract, the working capital employed may be difficult to estimate in the later years. The initial working capital employed estimates require monitoring each year. Significant changes in the working capital employed, may require a re-calculation and adjustment.
Holdbacks	In the event holdbacks have been applied in a contract, the contractor will incur additional costs of working capital in the performance of the contract. It is important to ensure that the holdback amounts are included in the working capital employed determination. See Examples 5.2.1.1. b) i. & ii. for the difference with and without holdbacks in a specific contract.
Significant Variations in Working Capital	The return on working capital employed is typically determined prior to the commencement of a contract in the negotiation of the contract price. The inputs to the determination, such as the cost estimates, payment schedule and market rates applied are those established at the beginning of a contract. The working capital employed factors should be monitored over the course of the contract. Modifications to the methods of payment or payment schedule and significant changes in cost estimates may result in a need to recalculate the return on working capital employed.

How to Determine the Return on Working Capital Employed

The return on working capital will vary depending on the degree of working capital investment in a contract. The two-tiered approach provides a simplified approach for contracts with lower dollar values and a full

schedule approach for contracts with higher costs. Tier 1 is an optional, simplified approach intended only for contracts that meet the applicability criteria as outlined below. For Tier 2, contractors must submit a schedule estimating the working capital employed in a contract for the profit negotiation, using the template provided in Annex 6.1.

Figure 5.2.1.1.a. below illustrates the two-tier simplification process for working capital employed.



Tier 1: Simplified Return on Working Capital Employed

Applicability:

Tier 1 is a simplified approach for application in contracts that meet the following criterion:

- Contract Costs ≤ $1,000,000
  All contracts where the total estimated or acceptable contract costs are less than or equal to $1,000,000.

Contracts that meet the applicability criterion for Tier 1 have the option of applying the Tier 2 calculation detailed below. However, contracts that do not meet the applicability criterion detailed above should not apply Tier 1.

Tier 1 Determination:

TIER 1

Return on Working Capital Employed =

1-Year GIC Rate[1] x Total Acceptable Contract Cost[2]

Factor	Explanation

1. 1-Year GIC Rate	A 3-year rolling average of the 1- Year Guaranteed Investment Certificate (GIC) Rate is applied in Tier 1 Working Capital Employed calculations for the following reasons:
	• A GIC of 1 year reflects a secure, short-term earnings instrument available in the financial market, with a time period consistent with the longest time period possible a contractor would be covering total contract costs.
	• A 3-year rolling average of the GIC rate is used to calculate the applicable rate for this calculation to:
	  ○ represent the average earnings over the average length of a contract with the Government of Canada; and
	  ○ reduce the impact of any significant market fluctuations.

	The 3-year average of the 1-Year GIC rate applicable to the contract can be found in the Applicable Rates for Profit Determination Table in Annex 6.2. This rate, sourced from the Bank of Canada, will be updated annually.
	The rate to be used in the return on working capital employed calculation for the contract will be the latest figure published at the time the price is negotiated.
	In the event that the published rate in the Applicable Rates for Profit Determination Table in Annex 6.2 at the time of contract award has changed by more than one full point, up or down, the return will be recomputed applying the revised rate. The

	following clause must be included in the price proposal, after consultation with the Pricing Advisory Group: ○ "The price quoted includes an amount of profit using the 1-Year GIC Rate of _____ percent. In the event that the 1-Year GIC Rate available at Procurement Support Services Sector (PSSS), at the time of contract award, has changed by more than one full point, up or down from this rate, the price will be adjusted to reflect such rate."
2. Total Acceptable Contract Cost	The total estimated acceptable contract costs are applied as the base against which the 3-year average GIC rate is applied, representing the maximum working capital a contractor would have employed in the contract. • Refer to Example 5.2.1.1. a) below for the Tier 1 return on working capital employed calculation.

Example 5.2.1.1. a)

The total acceptable costs are $960,000 for a 2-year contract. Based on the payment terms of the contract, the time between invoice and payment will be 2 months. The Tier 1 Return on Working Capital approach would be applicable in this case. The 3-year average of the 1-Year GIC rate was 0.98% at the time of acquisition.

Return on working capital employed = 0.98% x 960,000 = $9,408

Tier 2: Full Approach Return on Working Capital Employed

Applicability:

Tier 2 involves the full calculation of estimated of working capital employed in a contract and applies to contracts that meet the following criteria:

- Contract Costs > $1,000,000
  All contracts where the total estimated or acceptable contract costs are greater than $1,000,000, or

- Tier 1 contracts where a contractor requests a Tier 2 determination.

Tier 2 Determination:

TIER 2

Return on Working Capital Employed[3] =

Bank Prime Rate/ 12 [1] x Cumulative Working Capital Employed[2]

Factor	Explanation

1. Bank Prime Rate/ 12	The 3-year average bank prime rate is applied in the Tier 2 calculation for the following reasons:
	• The bank prime rate is the foundation for all variable lending rates in Canada.
	• It provides a strong earning rate when compared to other short term investment with terms that correspond to average government of Canada contract lengths of two to three years.
	• A 3-year rolling average is used to calculate the applicable rate for this calculation to:
	  ○ represent the average earnings over the average length of a contract with the Government of Canada; and
	  ○ reduce the impact of significant market fluctuations.

	The 3-year average bank prime rate applicable to the contract can be found in the Applicable Rates for Profit Determination Table in Annex 6.2. This rate, sourced from the Bank of Canada, will be updated annually.
	The rate to be used in the return on working capital employed calculation for the contract will be the latest figure published at the time the price is negotiated.
	In the event that the published rate at the time of contract award has changed by more than one full point, up or down, the return will be recomputed applying the revised rate. The following clause must be included in the price proposal, after consultation with the Pricing Advisory Group: ○ "The price quoted includes an amount of profit using the Bank Prime Rate of __ percent. In the event that the Bank Prime Rate available at Procurement Support Services Sector (PSSS), at the time of contract award, has changed by more than one full point, up or down from this rate, the price will be adjusted to reflect such rate."
2. Cumulative Working Capital Employed	Contractors must submit a schedule of estimated monthly net working capital for the contract, using the Return on Working Capital Employed Tab found in the Profit Determination Template in Annex 6.1. In order to prepare and review this schedule, the following information is required: • Monthly Estimated Net Working Capital = ○ Schedule of Acceptable contract costs, exclusive of depreciation (calculated in accordance with Standard Acquisitions Clauses and

	Conditions, Contract Cost Principles, 1031-2 and Annex 2, the Costing Standard, ○ Schedule of contract revenue payments, exclusive of profit (Payment plan / Schedule) ○ Advance Payments must be applied in the full schedule ○ Contracts with Advance Payments and Progress Payments do not require a return on working capital employed.
3. Calculation Methodology	The 3-year average bank prime rate, as defined above, is an annual rate of return. The calculation below accumulates the monthly working capital return, and as such, the rate is divided by 12 to reflect the monthly earning. The return on the cumulative working capital employed can be calculated as follows: ○ **Total: Bank Prime Rate/ 12 * Cumulative Monthly Working Capital**
4. Template	The Tier 2 working capital determination process should be carried out in the Working Capital Employed Tab in the Profit Determination Template in Annex 6.1. Refer to Examples 5.2.1.1. b) & c) below for the Tier 2 return on working capital employed calculation.

Example 5.2.1.1 b)

Example 5.2.1.1 b) i.: Tier 2: Full Schedule Return on Working Capital Determination

The return on working capital employed determination is required for a contract price negotiation. The 18 month contract will commence contract progress payments after month 2 of the contract. Contract details are as follows:

Current Bank Prime Rate (3-Year Rolling Average)	3.48%
Contract Costs	$ 18,630,000
Proportionate Value of Depreciation to the contract	$ 896,004
Total Contract Cost less Relative Depreciation	$ 17,733,996
Contract Revenue less Profit = Total Costs	$ 18,630,000

Month	Contract Cost excluding Depreciation $	Contract Revenue Less Profit $	Monthly Working Capital $	Cumulative Working Capital Employed $	Monthly Rate Applied (3.48% / 12)	Profit $
1	985,222		985,222	985,222	0.29%	2,857
2	985,222		985,222	1,970,444	0.29%	5,714
3	985,222	1,035,000	- 49,778	1,920,666	0.29%	5,570
4	985,222	1,035,000	- 49,778	1,870,888	0.29%	5,426
5	985,222	1,035,000	- 49,778	1,821,110	0.29%	5,281
6	985,222	1,035,000	- 49,778	1,771,332	0.29%	5,137
7	985,222	1,035,000	- 49,778	1,721,554	0.29%	4,993
8	985,222	1,035,000	- 49,778	1,671,776	0.29%	4,848
9	985,222	1,035,000	- 49,778	1,621,998	0.29%	4,704
10	985,222	1,035,000	- 49,778	1,572,220	0.29%	4,559
11	985,222	1,035,000	- 49,778	1,522,442	0.29%	4,415
12	985,222	1,035,000	- 49,778	1,472,664	0.29%	4,271
13	985,222	1,035,000	- 49,778	1,422,886	0.29%	4,126
14	985,222	1,035,000	- 49,778	1,373,108	0.29%	3,982
15	985,222	1,035,000	- 49,778	1,323,330	0.29%	3,838
16	985,222	1,035,000	- 49,778	1,273,552	0.29%	3,693
17	985,222	1,035,000	- 49,778	1,223,774	0.29%	3,549
18	985,222	1,035,000	- 49,778	1,173,996	0.29%	3,405
19		1,035,000	- 1,035,000	138,996	0.29%	403
20		1,035,000	- 1,035,000	- 896,004	0.29%	- 2,598
Total	$17,733,996	$18,630,000		$26,955,954		**$78,172**
Profit (or Return) on Working Capital Employed applicable to this contract:						**$78,172**

Example 5.2.1.1. b) ii.: Tier 2: Full Schedule Return on Working Capital Determination with Holdback

Contract details are same as in Example 5.2.1.1 b) i., except, in this case, a 15% holdback will be applied to the monthly progress payments, and will be paid in the final contract payment.

Month	Contract Cost excluding Depreciation	Contract Revenue Less Profit	Monthly Working Capital	Cumulative Working Capital Employed	Monthly Rate Applied (3.48% / 12)	Profit
	$	$	$	$		$
1	985,222		985,222	985,222	0.29%	2,857
2	985,222		985,222	1,970,444	0.29%	5,714
3	985,222	879,750	105,472	2,075,916	0.29%	6,020
4	985,222	879,750	105,472	2,181,388	0.29%	6,326
5	985,222	879,750	105,472	2,286,860	0.29%	6,632
6	985,222	879,750	105,472	2,392,332	0.29%	6,938
7	985,222	879,750	105,472	2,497,804	0.29%	7,244
8	985,222	879,750	105,472	2,603,276	0.29%	7,550
9	985,222	879,750	105,472	2,708,748	0.29%	7,855
10	985,222	879,750	105,472	2,814,220	0.29%	8,161
11	985,222	879,750	105,472	2,919,692	0.29%	8,467
12	985,222	879,750	105,472	3,025,164	0.29%	8,773
13	985,222	879,750	105,472	3,130,636	0.29%	9,079
14	985,222	879,750	105,472	3,236,108	0.29%	9,385
15	985,222	879,750	105,472	3,341,580	0.29%	9,691
16	985,222	879,750	105,472	3,447,052	0.29%	9,996
17	985,222	879,750	105,472	3,552,524	0.29%	10,302
18	985,222	879,750	105,472	3,657,996	0.29%	10,608
19		879,750	- 879,750	2,778,246	0.29%	8,057
20		3,674,250	- 3,674,250	- 896,004	0.29%	- 2,598
Total	$17,733,996	$18,630,000		$50,709,204		**$147,057**
Return on Working Capital Employed applicable to this contract:						**$147,057**

The return on working capital of the contract with 15% holdbacks is over $68,000 greater than that of the contract without holdbacks, in Example 5.2.1.1 b) i. above.

Example 5.2.1.1. c)

Example 5.2.1.1. c) i.: Tier 2: Full Schedule Return on Working Capital Determination with Milestone Payments

The return on working capital employed determination is required for a contract price negotiation. The two year contract has milestone payments every 6 months. Contract details are as follows:

Current Bank Prime Rate (3-Year Rolling Average)	3.48%
Estimated Contract Costs	$ 20,420,000
Total estimated contract depreciation costs	$ 1,410,000
Total Contract Cost less Relative Depreciation	$ 19,010,000
Contract Revenue less Profit = Total Costs	$ 20,420,000

Month	Contract Cost excluding Depreciation $	Contract Revenue Less Profit $	Monthly Working Capital $	Cumulative Working Capital Employed $	Monthly Rate Applied (3.48% / 12)	Profit $
1	650,000		650,000	650,000	0.29%	1,885
2	650,000		650,000	1,300,000	0.29%	3,770
3	650,000		650,000	1,950,000	0.29%	5,655
4	650,000		650,000	2,600,000	0.29%	7,540
5	650,000		650,000	3,250,000	0.29%	9,425
6	650,000		650,000	3,900,000	0.29%	11,310
7	650,000	4,610,000	- 3,960,000	- 60,000	0.29%	- 174
8	650,000		650,000	590,000	0.29%	1,711
9	820,000		820,000	1,410,000	0.29%	4,089
10	820,000		820,000	2,230,000	0.29%	6,467
11	820,000		820,000	3,050,000	0.29%	8,845
12	820,000		820,000	3,870,000	0.29%	11,223
13	820,000	4,610,000	- 3,790,000	80,000	0.29%	232
14	820,000		820,000	900,000	0.29%	2,610
15	880,000		880,000	1,780,000	0.29%	5,162

16	880,000		880,000	2,660,000	0.29%	7,714
17	880,000		880,000	3,540,000	0.29%	10,266
18	950,000		950,000	4,490,000	0.29%	13,021
19	950,000	5,595,000	- 4,645,000	- 155,000	0.29%	- 450
20	950,000		950,000	795,000	0.29%	2,306
21	950,000		950,000	1,745,000	0.29%	5,061
22	950,000		950,000	2,695,000	0.29%	7,816
23	750,000		750,000	3,445,000	0.29%	9,991
24	750,000		750,000	4,195,000	0.29%	12,166
25		5,605,000	- 5,605,000	- 1,410,000	0.29%	- 4,089
Total	$19,010,000	$20,420,000	-	$49,500,000		**$143,550**
Profit (or Return) on Working Capital Employed applicable to this contract:						**$143,550**

Example 5.2.1.1. c) ii.: Tier 2: Full Schedule Return on Working Capital Determination with Holdback

Contract details are same as in Example 5.2.1.1. c) i., except, in this case, a 10% advance payment will be applied at the beginning of the contract, lowering the final contract payment.

Month	Contract Cost excluding Depreciation $	Contract Revenue Less Profit $	Monthly Working Capital $	Cumulative Working Capital Employed $	Monthly Rate Applied (3.48% / 12)	Profit $
1	650,000	2,042,000	- 1,392,000	- 1,392,000	0.29%	- 4,037
2	650,000		650,000	- 742,000	0.29%	- 2,152
3	650,000		650,000	- 92,000	0.29%	- 267
4	650,000		650,000	558,000	0.29%	1,618
5	650,000		650,000	1,208,000	0.29%	3,503
6	650,000		650,000	1,858,000	0.29%	5,388
7	650,000	4,610,000	- 3,960,000	- 2,102,000	0.29%	- 6,096
8	650,000		650,000	- 1,452,000	0.29%	- 4,211
9	820,000		820,000	- 632,000	0.29%	- 1,833
10	820,000		820,000	188,000	0.29%	545
11	820,000		820,000	1,008,000	0.29%	2,923

12	820,000		820,000	1,828,000	0.29%	5,301
13	820,000	4,610,000	- 3,790,000	- 1,962,000	0.29%	- 5,690
14	820,000		820,000	- 1,142,000	0.29%	- 3,312
15	880,000		880,000	- 262,000	0.29%	- 760
16	880,000		880,000	618,000	0.29%	1,792
17	880,000		880,000	1,498,000	0.29%	4,344
18	950,000		950,000	2,448,000	0.29%	7,099
19	950,000	5,595,000	- 4,645,000	- 2,197,000	0.29%	- 6,371
20	950,000		950,000	- 1,247,000	0.29%	- 3,616
21	950,000		950,000	- 297,000	0.29%	- 861
22	950,000		950,000	653,000	0.29%	1,894
23	750,000		750,000	1,403,000	0.29%	4,069
24	750,000		750,000	2,153,000	0.29%	6,244
25		3,563,000	- 3,563,000	- 1,410,000	0.29%	- 4,089
Total	$19,010,000	$20,420,000	-	$492,000		**$1,427**
Profit (or Return) on Working Capital Employed applicable to this contract:						**$1,427**

The return on working capital of the contract with the application of the advance payment of 10% is significantly lower than the working capital employed without the advance payment, in Example 5.2.1.1. c) i. above.

5.2.1.2 RETURN ON FIXED CAPITAL EMPLOYED

What is Fixed Capital Employed?

Fixed capital employed consists of the investments contractors make that the company will use for more than one year. Fixed costs are typically purchased for use in the current and future years. Some examples of fixed capital costs include facilities, equipment, building expansions, hardware including computers, vehicle, etc. The investment in fixed capital is capitalized so that the cost to the contractor can be spread out over the life of the asset.

Contractors are required to invest in fixed capital for the purposes of carrying out contracts and the fixed capital can often be used for one or multiple contracts.

The fixed capital employed in a contract is estimated by assessing the net book value of fixed assets applicable to the contract. This net book value of the assets excludes:

- land and any intangible assets,
- any fixed assets not in use such as idle plant, and
- any surplus value arising from re-appraisal.

Net book value is defined as the asset's original cost with the accumulated depreciation of the asset being subtracted from the asset's original cost. Accumulated depreciation is the sum of all depreciation on an asset to a specific date. Depreciation is the reduction in the value of an asset with the passage of time due in particular to wear and tear. For further guidance on depreciation, see Section 1.2 in the Costing Standard.

Why does Fixed Capital Employed matter?

The fixed capital investment in a contract will impact contractors differently, depending on the size and financial status of an organization, available capital, and market conditions. Some contractors may be required to borrow in order to fund the fixed capital demands of a contract, while others will have sufficient capital on hand that could otherwise have been invested in capital markets. As contractor's management considers investment opportunities, they must consider the cost of capital required to make each investment and the potential return from that investment. To attract investment, the prospective return on investment generally must be sufficient to make the investment. The cost of capital is a real cost that effects investment decisions; however, it is not the same for all sources (e.g., owner's equity and long-term loans), all contractors, or all periods of time.

The purpose of the fixed capital employed is to provide a return on the allocation of the cost of contractor's investment in fixed capital to negotiated contracts, regardless of the financing structure of the organization.

Fixed capital employed varies by industry with some requiring a significant amount of fixed capital, such as industrial manufacturers and telecommunications providers, while more service-based industries, such as IT support and engineering services, typically have more limited fixed capital needs.

Key Objectives

The return on fixed capital employed is intended to accomplish the following objectives:

- Estimate the fixed capital investment requirements for a specific contract;
- Provide a return on the contractual fixed capital investment in line with current market rates available for similar term capital investments; and
- Apply market rates and procedures consistently to all contracts and contractors, regardless of how they are financed.

Factors to Consider

The degree of fixed capital investment will vary from one contract to another. It is important to consider the following factors in the determination of the return on fixed capital employed and the contract price.

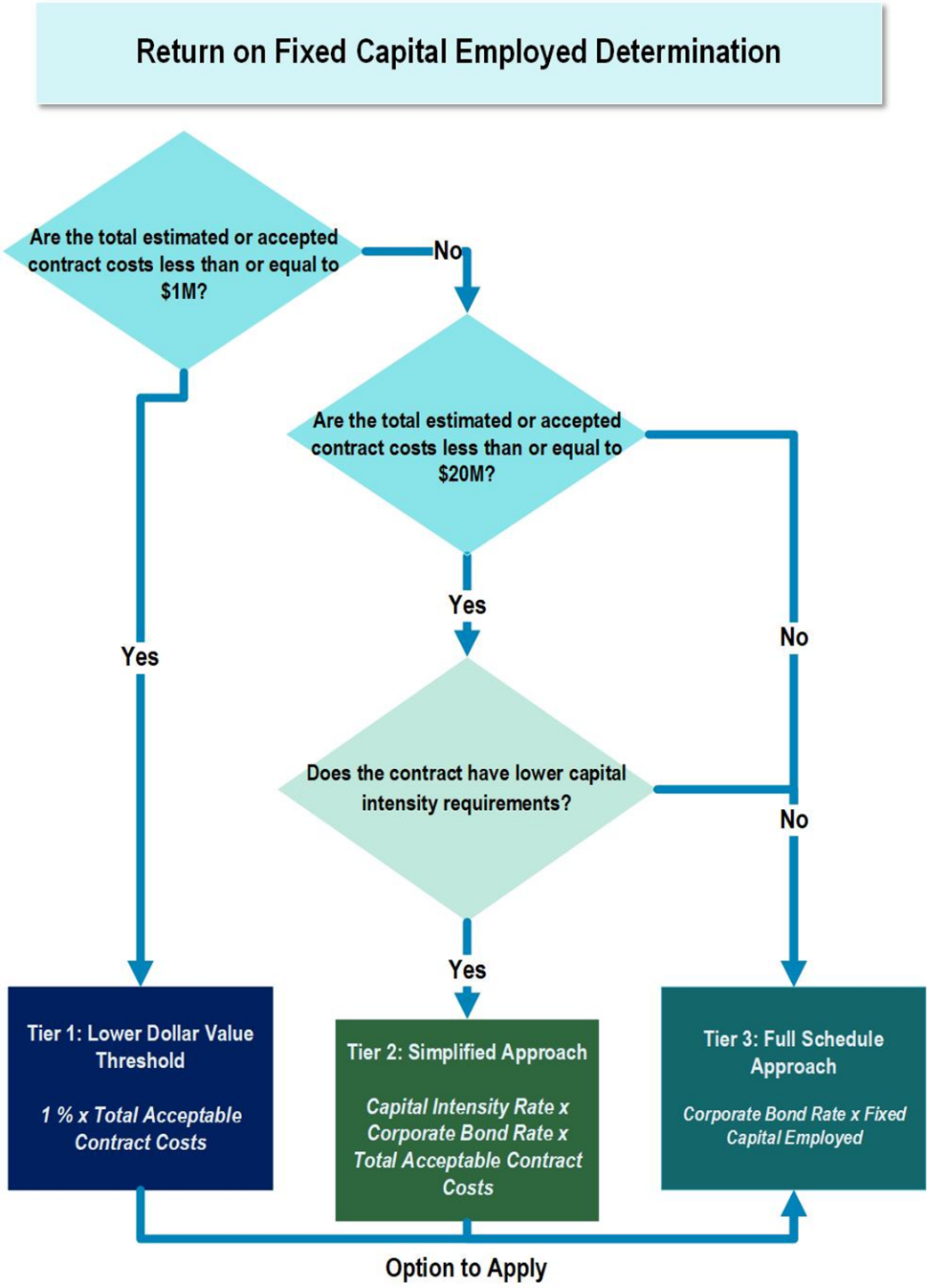
Factor	Explanation and Impact on Capital Employed
Applicable Assets and Allocation Factors	A fixed asset can be used for more than one contract. As such it is important to determine the contract specific fixed assets. This can be done by applying the applicable overhead recovery rates for the contract to the applicable assets. *Unless a contract represents 100% of an organization's fixed capital use, the above allocation methodology is required. Contractors must submit a schedule outlining the fixed capital employed in a contract for the profit negotiation, using the template provided in Annex 6.1.
Degree of Capital Intensity	Fixed capital employed varies by industry and by contract. It is more typical for production type contracts to require higher capital investments, while ancillary services and maintenance and repair contracts require lower levels. Contracts with lower fixed capital requirements or lower dollar values have the option of applying a simplified fixed capital calculation. This determination does not involve the full complex fixed capital determination, and instead, applies a simplified calculation using an assigned fixed capital intensity rate as a percentage total of contract costs and a defined rate of return. The simplification is not mandatory and has been designed to approximate and best represent the return a contractor would earn applying the full fixed capital determination on a contract with low fixed capital investment requirements. Tier 1 being for lower dollar value threshold, Tier 2 represents the simplified approach, with Tier 3 being applied for contracts with more significant fixed capital requirements or when it is in the contractor's best interest to apply the full calculation.
Significant Variations in Fixed Capital	The return on fixed capital employed can be determined either annually for contracts where rates are negotiated on an annual basis or alternatively, the

	return on fixed capital employed can be determined once, at the onset of the contract, where the fixed capital employed for each year of the contract is estimated at the time of negotiation and contract price determination. The inputs to the determination of fixed capital employed, such as the capital investment requirements and market rates applied may fluctuate. In contracts where the contract costing rates and fixed capital employed are determined annually, such fluctuations are incorporated into the calculation.
Further Encouragement of Production Efficiency	Investments in fixed capital employed in a contract can potentially lead to production efficiencies that benefit all stakeholders. The pursuit of any additional investment in production efficiencies, where appropriate and required in a contract are recommended through the use of incentives, as the encouragement of production efficiencies is not applicable to all industries, procurements and contracts. See Section 4.4 of the Guide for guidance on the use of incentives.

How to Determine the Return on Fixed Capital Employed

The return on fixed capital employed will vary depending on the degree of fixed capital investment in a contract. A three tier approach has been adopted to incorporate a lower dollar threshold as well as a simplified approach for contracts with lower levels of fixed capital investments. Tier 1 and Tier 2 are optional approaches for contracts that meet the applicability criteria as outlined below. The following flowchart illustrates the determination process of the three-tier approach for fixed capital employed.

Figure 5.2.1.2.a. below illustrates the three-tier simplification process for fixed capital employed.



Contractors must submit a schedule estimating the fixed capital employed in a contract for the profit negotiation, using the template provided in Annex 6.1.

Tier 1: Lower Dollar Value Threshold for Return on Fixed Capital Employed

Applicability:

Tier 1 is a simplified approach for application in contracts considered lower dollar i.e. that meet the following criterion:

- Contract Costs ≤ $1,000,000

  All contracts where the total estimated or acceptable contract costs are less than or equal to $1,000,000.

Contracts that meet the applicability criterion for Tier 1 have the option of applying either the Tier 2 calculation or the Tier 3 full calculation detailed below. However, contracts that do not meet the applicability criterion detailed above, should not apply Tier 1.

Tier 1 Determination:

TIER 1

Return on Fixed Capital Employed =

1 %[1] x Total Acceptable Contract Cost[2]

Factor	Explanation
1. 1 %	A fixed percentage of 1% is to be applied to the Total Acceptable Contract Costs to determine the return on fixed capital employed.
2. Total Acceptable Contract Cost	The total estimated acceptable contract costs are the base against which the 1% is applied. • Refer to Example 5.2.1.2 a) below for Tier 1 return on fixed capital employed calculation.

Example 5.2.1.2 a)

A 2-year contract requires IT system maintenance for PSPC. The total acceptable costs are $708,000, under the $1,000,000 threshold for applicability in Tier 1. The return on fixed capital employed to this contract is calculated as follows:

Tier 1 Lower Dollar Threshold: Return on Fixed Capital Employed = 1% x $708,000 = $7,080

Tier 2: Simplified Approach for Return on Fixed Capital Employed

Applicability:

Tier 2 is a simplified approach for application in contracts that meet the following criteria:

- Contract Costs ≤ $20,000,000

  All contracts where the total estimated or acceptable contract costs are less than or equal to $20,000,000.

- Contracts with lower fixed capital intensity levels, such as services contracts with minimal fixed capital needs.

Contracts that meet the applicability criteria for Tier 2 have the option of applying the Tier 3 full calculation detailed below. However, contracts that do not meet the applicability criteria detailed above, should not apply Tier 2.

Tier 2 Determination:

The Tier 2 determination is designed to provide a simplified approach for contracts with lower capital intensity levels and to provide a fair level of return in line with what could be earned if the full calculation were applied.

TIER 2

Return on Fixed Capital Employed =

Capital Intensity Rate[1] x Corporate Bond Rate %[2] x Total Acceptable Contract Cost[3]

Factor	Explanation
1. Capital Intensity Rate	The Capital Intensity Rate, posted in the Applicable Rates for Profit Determination Table in Annex 6.2, is applied to the Total Acceptable Contract Costs to estimate the fixed capital employed for contracts with lower levels of fixed capital investments. The rate will be established annually based on a review of fixed capital employed calculations on a sample of contracts to best reflect a lower level of capital intensity.
2. Corporate Bond Rate	A 3-year average long-term BBB corporate bond rate is applied in the Tier 2 calculation for the following reasons: • The Corporate Bond rate represents a stable, relevant market factor with lower volatility than the equity market. Equity market earnings alone are

	highly volatile and would result in significant earning fluctuations on a regular basis.
	• The long-term BBB corporate bond rate provides a higher yield that fairly reflects the average life of the fixed assets employed in the contract.
	• A 3-year rolling average is used to calculate the applicable rate for this calculation to:
	  ○ represent the average earnings over the average length of a contract with the Government of Canada; and
	  ○ reduce the impact of any significant market fluctuations.

	The 3-year average long-term BBB corporate bond rate applicable to the contract can be found in the Applicable Rates for Profit Determination Table in Annex 6.2.This rate will be updated annually.
	The rate used will be the latest figure published at the time the price is negotiated and the fixed capital employed schedule is submitted.
	In the event that the published rates at the time of contract award have changed by more than one full point, up or down, the return will be recomputed applying the revised rates. The following clause must be included in the price proposal, after consultation with the Pricing Advisory Group: ○ "The price quoted includes an amount of profit using a Corporate Bond Rate of ____percent. In the event the Corporate Bond Rate available at Procurement Support Services Sector (PSSS), at the time of contract award, has changed by more than one full point, up or down from this rate, the price will be adjusted to reflect such rate."
3. Total Acceptable Contract Cost	The total estimated acceptable contract costs are the base against which the Capital Intensity Rate and Corporate Bond Rate are applied. As detailed above, this is done to ensure the simplified approach produces a return in line with the application of the full return on fixed capital employed calculation on contracts with lower fixed capital requirements. • Refer to Example 5.2.1.2 b) below for Tier 2 return on fixed capital employed calculation.

Example 5.2.1.2 b):

A 3-year service contract with total acceptable costs of $13,560,811 is being negotiated. The service contract does not require a great deal of fixed capital and the contractor and contracting officer determines whether the Tier 2 simplified approach is applicable, given the total acceptable costs of the contract is under the $20,000,000 threshold and the fact that minimal fixed capital is required to deliver the contract. The current Capital Intensity Rate is 5% and the Corporate Bond Rate is 4.05%. The Tier 2 Simplified Approach for the calculation of return on fixed capital employed to this contract as follows:

Tier 2 Simplified Approach for Return on Fixed Capital Employed = 5% x 4.05% x $13,560,800 = $27,460.62

Tier 3: Full Schedule Approach Return on Fixed Capital Employed Approach

Applicability:

Tier 3 involves the full estimation of fixed capital employed in a contract and applies to contracts that meet the following criteria:

- Contract Costs > $1,000,000;
  All contracts where the total estimated or acceptable contract costs are greater than $1,000,000.

- Contracts that do not meet Tier 1 and Tier 2 applicability criteria; or

- Tier 1 and Tier 2 contracts, where a contractor requests the full Tier 3 determination.

Tier 3 Determination:

The Tier 3 determination is designed to ensure that a contractor receives a level of return in line with what could be earned in the capital market within an investment of similar terms.

TIER 3

Return on Fixed Capital Employed =

Corporate Bond Rate[1] x Fixed Capital Employed[2]

Factor	Explanation
1. Long-Term Corporate Bond Rate	A 3-year average long-term BBB corporate bond rate is applied in the Tier 3 calculation for the following reasons: • The Corporate Bond rate represents a stable, relevant market factor with lower volatility than the equity market. Equity market earnings alone are highly volatile and would result in significant earning fluctuations on a regular basis. • The long-term BBB corporate bond rate provides a higher yield that fairly reflects the intended to represent the average life of the fixed assets employed in the contract. • A 3-year rolling average is used to calculate the applicable rate for this calculation to:

	○ represent the average earnings over the average length of a contract with the Government of Canada; and ○ reduce the impact of any significant market fluctuations.
	The 3-year average long-term BBB corporate bond rate applicable to the contract can be found in the Applicable Rates for Profit Determination Table in Annex 6.2.This rate will be updated annually.
	The rate used will be the latest figure published at the time the price is negotiated and the fixed capital employed schedule is submitted.
	In the event that the published rates at the time of contract award have changed by more than one full point, up or down, the return will be recomputed applying the revised rates. The following clause must be included in the price proposal, after consultation with the Pricing Advisory Group: ○ "The price quoted includes an amount of profit using a Corporate Bond rate of ____percent. In the event the Corporate Bond Rate available at Procurement Support Services Sector (PSSS), at the time of contract award, has changed by more than one full point, up or down from this rate, the price will be adjusted to reflect such rate."
2. Fixed Capital Employed	Fixed Capital Employed represents the percentage of a contractor's fixed capital to be used in the process of carrying out the contract. • Contractors must submit a schedule of estimated fixed capital employed for the contract, using the Return on Fixed Capital Employed Tab in the Profit Determination Template in Annex 6.1. In order to prepare and review this schedule, the following information is required: ○ Listing of Fixed Assets required for the contract, including Net Book Values of each asset. Fixed capital employed includes the net book value of fixed assets less: ▪ land and any intangible assets, ▪ any fixed assets not in use such as idle plant, and ▪ any surplus value arising from re-appraisal. • A determination of the percentage of fixed assets in use for the purpose of the specific contract, i.e. the allocation of the portion of the net book value of assets to be employed in the performance of the contract, determined as follows: • Applying the applicable overhead recovery rates (overhead recovery base / total budget amount of recovery base) for the contract to the applicable assets, as detailed in the Profit Determination Template in Annex 6.1. *** Unless a contract represents 100% of an organizations fixed capital use, the above allocation methodology will be required.* • When the contract period extends over more than one of the contractor's fiscal years, the determination of fixed capital employed must be done for

	each fiscal year within the contract term. The process outlined above applies for the contractor's first fiscal year in the contract. In order to determine the fixed capital employed in the years subsequent to the first fiscal year, the following process applies: ○ The contractor's net book value of applicable fixed assets is estimated for each fiscal year arise subsequent to the first year of the contract. ○ The estimated overhead recovery factors for each fiscal year, determined via the contract costing rate negotiations are applied for the allocation of the capital assets ○ The Fixed Capital Employed for the contract is the sum of the fixed capital employed for each fiscal year of the contractor within the duration of the contract. ○ The Long-Term Corporate Bond Rate established in Step 1 above, is applied to the Total Fixed Capital Employed in the contract. • Refer to Examples 5.2.1.2 c) & d) below for Tier 3 return on fixed capital employed calculation for both single year and multiyear contracts.

Example 5.2.1.2 c)

The one year contact is from April 1, 2019 to March 31, 2020. The contractor's fiscal year ends on March 31. In order to determine the fixed capital employed, the contractors, total fixed assets, accumulated amortization and relevant overhead recovery basis are required. The net book value of the fixed assets (fixed assets less accumulated amortization) will be allocated to the contract applying the overhead recovery base.

Overhead costs and related overhead allocation base and methodology were established during the contract costing rate negotiations and will be applied accordingly to determine the fixed capital employed in the contract. As established in the costing rate negotiations, material costs and direct labours hours are the applicable recovery bases.

STEP 1: The contractor's balance sheet and capital asset details as of March 31, 2019 are obtained and adjusted to ensure only acceptable capital asset costs are included in the determination of fixed capital employed. This involves an adjustment for the following:

- land and any intangible assets,
- any fixed assets not in use such as idle plant, and
- any surplus value arising from re-appraisal.

Fixed Asset Category	Cost	Accumulated Amortization	Net Book Value
Land	950,000	-	950,000

Buildings	820,000	425,000	395,000
Equipment	1,250,000	485,000	765,000
Furniture and Fixtures	180,000	75,000	105,000
Intangibles (trademarks, licences, goodwill)	85,000	-	85,000
Total Fixed Assets	**3,285,000**	**985,000**	**2,300,000**
Adjustments:			
Less: Land			(950,000)
Less: Intangibles			(85,000)
Total Contractor Fixed Assets before allocation to contract			**1,265,000**

STEP 2: Determine in which cost centres depreciation of capital assets is accumulated to understand for how the capital employed will be allocated, as overhead recovery bases are established by cost-centre.

Cost Centre	Depreciation
Material Handling	$1,200
G&A	$204,000
Occupancy	$9,800

STEP 3: The costs accumulated in the Occupancy cost centre require reallocation to other cost centres in order to apply the overhead recovery rates. The re-allocation to other cost centres is done on the basis of the area occupied, set by the rates outlined below.

Cost Centre	Re-allocation %
Material Handling	30%
G&A	70%
Occupancy	100%

STEP 4: Identify the netbook value of assets in each cost centres and re-allocate the assets from the occupancy cost centre in accordance with the re-allocation factor established above in Step 3:

Details	A Material Handling	B G&A	C Occupancy	Total
Net Book Value of Fixed Assets	6,562	1,206,054	47,884	1,260,500
Re-allocation	30%	70%	100%	
Occupancy	14,365	33,519	(47,884)	
Adjusted Net Book Value of Fixed Assets	**20,927**	**1,239,573**	**-**	**1,260,500**

STEP 5: Identify the applicable recovery base and percentage allocated to the contract for each cost centre, based on the costing rate negotiation.

Cost Centre	Allocation Base	Total Recovery Base	Allocated to the Recovery Base to Contract	% of Allocation to Contract
Material Handling	Total Material Costs	$ 1,400,000	$ 760,000	54%
G&A	Direct Labour Hours	800,000	280,000	35%

STEP 6: Apply the Allocation Factor to the contractor's applicable capital assets to determine the Fixed Capital Employed in the contract.

Details	A Material Handling	B G&A	C Occupancy	Total
Adjusted Net Book Value of Fixed Assets	20,927	1,239,573	-	1,260,500
Overhead Allocation Factor	54%	35%		
Fixed Capital Employed in the Contract	**11,301**	**433,851**		**445,152**

STEP 7: Determine the Return on Fixed Capital Employed by applying the Long-Term Bond Rate as of the time of price determination to the Fixed Capital Employed in the contract as follows:

Details	A Material Handling	B G&A	C Occupancy	Total
Fixed Capital Employed Applicable to Contract				$445,152

Long-Term Canada BBB Corporate Bond Rate (2019)				4.05%
Return on Fixed Capital Employed in This Contract				**$ 18,029**

Example 5.2.1.2 d)

The three year period of contact performance is from January 2019 to December 2021. The contractor's fiscal year ends on December 31. In order to determine the fixed capital employed, the contractors, total fixed assets, accumulated amortization and relevant overhead recovery basis are required. The net book value of the fixed assets (fixed assets less accumulated amortization) will be allocated to the contract applying the overhead recovery base.

Overhead costs and related overhead allocation base and methodology were established during the contract costing rate negotiations and will be applied accordingly to determine the fixed capital employed in the contract. As established in the costing rate negotiations, the contractor's allocation base is direct labour hours for all overhead and indirect costs.

STEP 1: The contractor's balance sheet and capital asset details as of December 31, 2018 are obtained and adjusted to ensure only acceptable capital asset costs are included in the determination of fixed capital employed. This involves an adjustment for land and any intangible assets, any fixed assets not in use such as idle plant, and any surplus value arising from re-appraisal. The netbook value of fixed assets for the two additional years of the contract are estimated:

Fixed Asset Category	Cost	Accumulated Amortization	Net Book Value
Land	8,000,000	-	8,000,000
Buildings	12,400,000	3,240,000	9,160,000
Manufacturing Equipment	6,640,000	4,240,000	2,400,000
Office Equipment	1,350,000	820,000	530,000
Vehicles	580,000	230,000	350,000
Furniture and Fixtures	495,000	195,000	300,000
Intangibles (trademarks, licences, goodwill)	200,000	-	200,000
Total Fixed Assets	**29,665,000**	**8,725,000**	**20,940,000**
Adjustments:			

Less; Land			(8,000,000)
Less: Intangibles			(200,000)
Applicable Fixed Capital Employed by the Contractor as a whole 2019:			**12,740,000**
Estimated Fixed Capital Employed by the Contractor as a whole 2020: **Estimated Fixed Capital Employed by the Contractor as a whole 2021:**			**13,249,600** **13,120,080**

STEP 2: All indirect costs are allocated based on Direct Labour Hours. As such, the total Fixed Capital Employed for this contract are allocated based on the estimated overhead recovery base of Direct Labour Hours as follows:

Details	Total 2019	Total 2020	Total 2021
Total Direct Labour Hours for the contractor as a whole	190,000 hours	210,000 hours	220,000 hours
Total Direct Labour Hours allocated to this specific contract	76,000 hours	88,000 hours	92,400 hours
Allocation Rate ***(Direct Labour Hours for this Contract / Total Contractor Direct Labour Hours)***	**40.0%**	**41.9%**	**42.0%**

STEP 3: The Overhead Allocation Rates are then applied to the actual and estimated fixed capital for each year. This established the fixed capital employed in the contract.

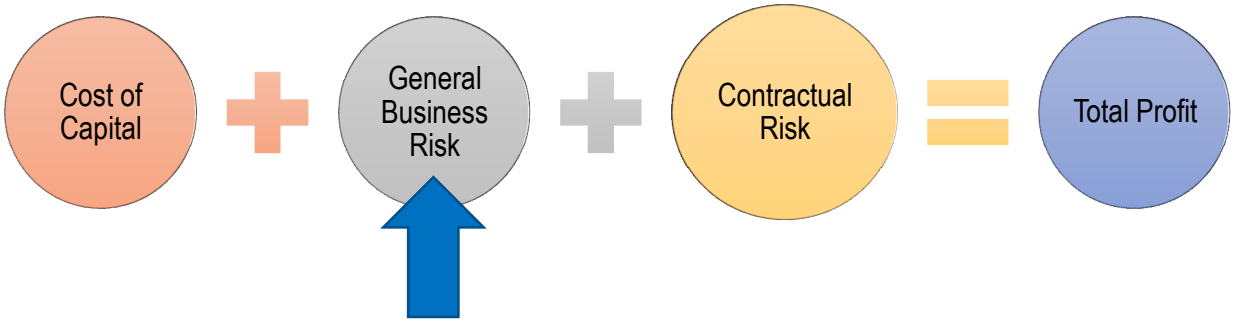
Details	2019	2020	2021	Total Fixed Capital Employed
Total Contractor fixed capital employed	12,740,000	13,249,600	13,120,080	
Allocation Rate	40.0%	41.9%	42.0%	
Fixed Capital Employed in the Contract	**5,096,000**	**5,551,582**	**5,510,433**	**16,158,015**

STEP 4: The Return on Fixed Capital Employed is calculated by applying the applicable rate of return to the fixed capital employed in the contract. The applicable rate of return is the rate as at the time of profit determination and is applied as follows:

Details	Total Return on Fixed Capital Employed
Fixed Capital Employed in the Contract	16,158,015
Long-Term Canada BBB Corporate Bond Rate (2019)	4.05%
Return on Fixed Capital Employed for the contract	**$ 654,400**

5.2.2 NEGOTIATED PROFIT ELEMENT: GENERAL BUSINESS RISK

Figure 5.2.a.: Components of Profit



Purpose of General Business Risk

General Business Risk recognizes the ***level of effort*** and the ***degree of responsibility and risk*** involved in the management of resources required to execute a contract in an efficient and economical manner.

The return for General Business Risk, along with the level of effort, responsibility and risk, will vary in accordance with the nature of the costs and the different cost elements of a contract.

General Business Risk Considerations

The return provided for the management of the various cost components required in the performance of the contract, includes considerations of the following factors:

- **Costing Mix:** Different cost elements carry different degrees of risk. Higher returns are typically awarded to more complex costs that require a higher level of effort for a contractor to manage.

- **Cost Management:** The level of return for General Business Risk is calculated based on the estimated or actual costs incurred within each cost component, as outlined in Table 5.2.2.a. The determination relies upon effective, efficient resource management by a contractor, including strong cost estimating and reliable internal control systems.

- **Internal vs. External Costs:** The level of return on General Business Risk is impacted by the extent to which the risk management is passed on to external parties. External costs, such as direct material and sub-contract costs are rewarded at a lower rate of return than those of costs such as internal labour, where the costing risks are fully born by the contractor.

- **Impact of Contractual Risk and General Business Risk vs. Industry Earnings:** General Business Risk, together with the Contractual Risk profit factor, are intended together to provide contractors with a return on risk that is not only fair and reasonable, but also sufficient to attract industry participation in procuring with the Government of Canada. Through benchmarking conducted with other similar international jurisdictions and the use of Canadian industry financial performance data, overall risk profit rates (including General Business Risk and Contractual Risk components) are highly comparable.

In order to ensure the continued relevancy of the combined risk profit rates, PSPC will monitor the rates on an annual basis.

- Baseline Profit Methodology: A baseline profit methodology relies on average industry profit and earnings data to establish a baseline for the development of profit in a contract. This method is currently under consideration and review for feasibility and use in Canada. Please see the Discussion Paper in Annex 5.4.2 for further details on this methodology. Contact the Pricing Practices and Guidance Group (TPSGC.padgamtp-appbipm.PWGSC@tpsgc-pwgsc.gc.ca) to provide any feedback on this methodology or if there are any questions regarding this concept.

General Business Risk Elements

General Business Risk is applied based on the total costs in each cost element as outlined below in Table 5.2.2.a. The profit rate varies by cost element as the contractor's business risk varies with the degree of risk management required for each element. For example, the direct labour risks and level of effort are inherently greater than direct material risk; as such, the profit rate for direct labour is greater than the profit rate for direct materials.

Table 5.2.2.a: General Business Risk Profit Rates

Cost Element	Profit Rate
Direct Materials	1.5 %
Subcontracts	2.0 %
Accountable Advance Spares	2.0 %
Direct Labour	4.0 %
Overhead	4.0 %
All Other Allowable Costs	1.5 %
Pass Through Costs	0 %

The General Business Risk return is calculated by applying the profit rate for each cost element, as defined in Table 5.2.2.a above to the total actual or estimated costs in that cost element. The sum of the returns for each element equal the total General Business Risk Profit.

See Examples 5.2.2 a) & b) below that illustrates the profit determination process for General Business Risk. Refer to Annex 6.1 for the Profit Determination Template.

Table 5.2.2.b below provides the definitions, intentions and examples of the costs that would correspond to each cost element.

Table 5.2.2.b: Explanation of Cost Elements

Cost Element	Definition, Intention and Examples
Direct Materials	Inputs (i.e. raw materials) directly required to fulfill contractual requirements and produce a finished product. The contractor is rewarded profit for the acquisition and management of the direct materials. **Example:** Steel and plastic used directly in manufacturing a product.
Subcontracts	Costs the prime contractor incurs for utilizing another party to accomplish some or all the work required in the contract. Subcontracting poses a risk for the prime contractor as there are risks and challenges involved in the management of a supply chain and the subcontractors within. There is a level of uncertainty regarding a subcontractor's performance outside the prime contractor's control in some aspects. Contractors also manage risks through subcontracting, transferring some of the risk management to another party. **Example:** A company hired to provide all the cleaning services for the prime contractor's facility, in a facilities management contract.
Accountable Advance Spares	Non-catalogued material owned by the government and manufactured or purchased by contractors in accordance with agreements between contractors and the government. Accountable Advance Spares are typically used in the repair and overhaul of government equipment. The contractor is rewarded profit to account for the acquisition/manufacturing, management and storage of these resources. **Example**: Extra wheels for a fleet of vehicles a contractor must maintain and repair under a contract for Canada.
Direct Labour	Direct labour costs required to fulfill specific contractual obligations. This includes the day-to-day routine business labour activities, managing labour with diverse skill sets, planning and coordination schedules, management of labour standards, quality and timelines. The contractor is solely responsible for all risks related to direct labour. **Example:** The cost of a mechanic when carrying out repairs on a services contract.
Overhead	Indirect costs required in the operation of a business that support the efforts of the direct labor workforce and cannot be directly attributed to any specific contract, business activity, product or service. A contractor manages these indirect costs that provide critical support required for a company's business activities. **Example:** Routine indirect costs supporting production such as heating, lighting, electricity, administration fees, etc.
All Other Allowable Costs	All other acceptable direct contract costs that do not fall under any of the above categories.
Pass Through Costs	Certain cost elements may not warrant the addition of profit when the contractor carries minimal or no risk. In these cases, only the laid-down costs should be included in the contract. The laid-down cost is the cost incurred by the contractor for the specific product or service. This includes the invoice price (less trade discounts) charged to the

	contractor plus any applicable charges for transportation, exchange, custom duties, and brokerage charges. **Example:** Where industry practice dictates, examples of laid down cost include warranty costs, Special Production Tooling (SPT), or Special Test Equipment (STE).

Example 5.2.2 a)

The estimated costs are as follows:

Cost Element		Cost
Direct Materials	$	13,170,000
Subcontracts	$	13,497,000
Direct Labour	$	16,016,350
Overhead	$	8,292,932
Other Allowable Costs	$	7,492,880

Solution:

To calculate General Business Risk profit per Cost Element = General Business Risk Profit Factor x Cost Amount

Cost Elements	General Business Risk Profit Factor		Cost		Profit
Direct Materials	1.50%	$	13,170,000	$	197,550
Subcontracts	2.00%	$	13,497,000	$	269,940
Direct Labour	4.00%	$	16,016,350	$	640,654
Overhead	4.00%	$	8,292,932	$	331,717
Other Allowable Costs	1.50%	$	7,492,880	$	112,393
Total General Business Risk Profit				**$**	**1,552,254**

Example 5.2.2 b)

The estimated costs are as follows:

Estimated Costs		Cost
Materials for Repairs	$	27,750,000
Accountable Advance Spares	$	1,780,147
Engineering Labour Costs	$	29,149,451
Maintenance Labour Costs	$	22,575,651

Overhead Costs for Engineering	$	26,402,036
Overhead Costs for Maintenance	$	20,447,834
General & Administrative Costs for Direct Materials	$	346,034
General & Administrative Costs for Material Handling	$	1,641,902
General & Administrative Costs for Engineering	$	650,953
General & Administrative Costs for Maintenance	$	504,149

- **Overhead Costs Include:** Indirect Repair and Overhaul Support – Salaries, General Facility Maintenance Wages, Utilities, Property Taxes, Repairs and Maintenance, Building Rentals, Maintenance, Other Equipment Depreciation, Leasehold Improvements Depreciation, Facility Security, Maintenance Software Expense, and Inspection Services, Administration, Management Fees, Audit & Tax, Storage, Office Rent, Office Insurance, Information Technology Personnel Salaries, Consulting Fees, Advertising, Labour Negotiations, Legal Costs, and Bank Charges

Solution:

Estimated costs have to be organized into the appropriate cost element categories:

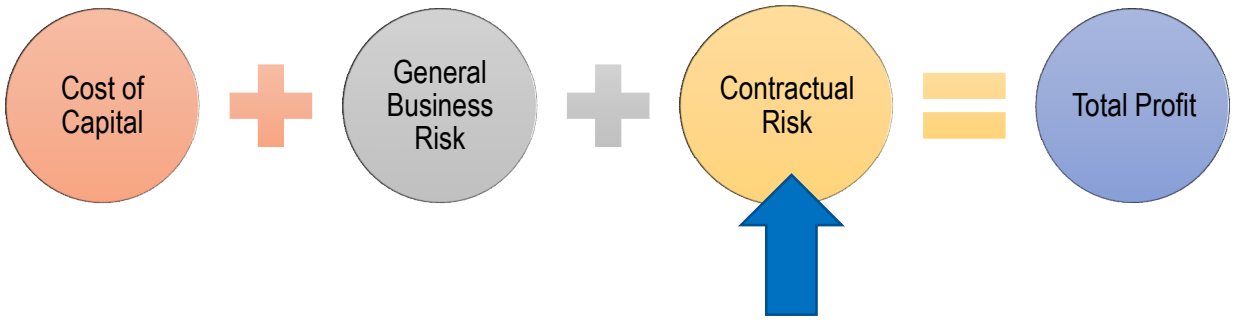
Cost Elements	Estimated Costs		Total Cost
Direct Materials	Materials for Repair	$	27,750,000
Subcontracts	None	$	-
Accountable Advance Spares	Accountable Advance Spares	$	1,780,147
Direct Labour	Engineering Labour Costs, Maintenance Worker Costs	$	51,725,102
Overhead	Overhead Costs for Engineering and Maintenance, and General & Administrative Costs	$	49,992,908

To calculate General Business Risk profit per Cost Element = General Business Risk Profit Factor x Cost Amount

Cost Elements	General Business Risk Profit Factor		Cost		Profit
Direct Materials	1.50%	$	27,750,000	$	416,250
Subcontracts	2.00%	$	-	$	-
Accountable Advance Spares	2.00%	$	1,780,147	$	35,603
Direct Labour	4.00%	$	51,725,102	$	2,069,004
Overhead	4.00%	$	49,992,908	$	1,999,716
Total General Business Risk Profit				**$**	**4,520,573**

5.2.3 NEGOTIATED PROFIT ELEMENT: CONTRACTUAL RISK

Figure 5.2.a.: Components of Profit



Purpose of Contractual Risk

The contractual risk profit factor represents the probability of financial loss to the contractor related to contract specific risk factors. Assessing contractual risk involves understanding the risks present within the contract and understanding which party is best to carry the risk for the various components of the contract. The level of profit on contractual risk is based on how much of the risk is carried by the contractor. A higher profit rate for contractual risk, is the result of the risk being assigned to and borne by the contractor. It is important to ensure the assignment of risk is clear, transparent and well defined.

The following list outlines the key contractual risk factors to consider in the negotiation of profit:

- Basis of payment: The degree of financial risk taken on by a contractor, dependant on the contract basis of payment.
- Accuracy of costing: The risk that the costing estimates are not accurate and the contract will cost more than planned.
- Technical & schedule: The risk that contract specific factors and requirements will impact a contractor's ability to successfully complete the contract.

The degree of risk for each of the contractual risk factors should be assessed to determine the appropriate contractual risk profit level. The following section provides detailed guidance on how to understand and evaluate the contractual risk present in a contract and determine the profit rate commensurate with the level of risk assumed by the contractor.

As illustrated in Figure 5.2.3.a below, the contractual risk profit rate is applied to the total estimated contract costs in the development of the contract price.

Figure 5.2.3.a: Contractual Risk Profit Formula

The ***Contractual Risk Assessment Tool*** is a summary tool of the guidance provided in this section, designed to support practitioners in the assessment of contractual risk in a procurement in order to establish an appropriate contractual risk profit rate. The Tool can be found in Annex 6.3.

How to Determine the Contractual Risk Profit Rate for a Procurement?

Figure 5.2.3.b: Steps Involved in Determining the Contractual Risk Profit Rate

Basis of Payment Considerations

The first step in the contractual risk assessment is the identification of the basis of payment, which is the base of the contractual risk profit assessment. The basis of payment selected significantly impacts the balance of risk between Canada and the contractor and it establishes who is best to manage the risks. It is important that the appropriate basis of payment is assigned to the various requirements in a contract, to ensure an appropriate balance. For the purpose of the contractual risk assessment, the basis of payment impact has been broken down into the two main categories: fixed price/rate and cost reimbursable. The degree of contractual risk is higher for a contractor in a fixed price basis of payment and lower in a cost reimbursable contract, as detailed in Figure 5.2.3.c below.

Figure 5.2.3.c: Basis of Payment Type: Risk

See Section 4.1 (Basis of Payment) for guidance related to the appropriate selection of Basis of Payment in a contract.

Contractual Risk Profit Ranges

The base of the contractual risk profit rate is the standard rate identified by basis of payment in Table 5.2.3.a: Contractual Risk Profit Range per Basis of Payment below. The standard rate is the profit rate assigned for contracts with standard risk levels. The available range establishes the profit premiums available when additional risk is assumed by a contractor.

Table 5.2.3.a: Contractual Risk Profit Range per Basis of Payment

Category	Basis of Payment	Standard Rate	Available Range
Fixed Price/Rate	Fixed Price	4 %	4 - 7 %
Fixed Price/Rate	Firm Price	4 %	4 - 7 %
Fixed Price/Rate	Fixed Time/Unit Rate: Ceiling Price *	1 %	1 – 4.5 %
Fixed Price/Rate	Fixed Time/Unit Rate: No Ceiling Price *	1 %	1 – 3.5 %
Cost Reimbursable	Cost Reimbursable: Incentive Fee/Target Cost	1 %	1 – 4.5 %
Cost Reimbursable	Cost Reimbursable: Fixed Fee with Ceiling Price	1 %	1 – 4.5 %
Cost Reimbursable	Cost Reimbursable: Fixed Fee No Ceiling Price	0 %	0 – 1 %
Cost Reimbursable	Cost Reimbursable: No Fee No Ceiling Price	0 %	0 %
* For Fixed Time/Unit Rate basis of payment, if rates are negotiated in arrears, refer to R4. Timing of Negotiation.			

How to work within the Contractual Risk Profit Range?

Consider the Risk Factors

As detailed in Table 5.2.3.a above, the basis of payment for a contract determines the standard contractual risk profit rate and the available range of profit. The level of contractual risk profit varies within the ranges depending on the presence, likelihood, and impact of risk factors. The key risk factors to consider include:

- Accuracy of costing, and
- Technical and schedule risks

The key risk factors, sub-factors, and their impact are explained in Table 5.2.3.b below.

Key Questions to Ask

From there, Table 5.2.3.c: Key Questions to Ask, walks a contracting officer through a series of questions related to the key risk factors to assess the presence, likelihood and impact of contractual risk in a contract. Each procurement and program is unique, and the questions are designed to provide discussion points among stakeholders regarding risk and to enhance each parties understanding of contractual risk. The goal of the assessment is to have an open conversation on the risks and which party is responsible to bear which risks. It is important to ensure the assignment of risk is clear, transparent and well defined.

Assign the Contractual Risk Profit Rate

The profit rate is typically determined based on the presence and degree of risk factors in the contract. Contracts with risk factors assessed as standard, will typically apply the standard rates defined in Table

5.2.3.a above. Elevated risks undertaken by a contractor should be appropriately rewarded with higher risk premiums.

The Contractual Risk profit rate typically ***increases*** with either:

- The presence of a significant *number* of risk factors, or
- One or more risk factors that could significantly *impact* the contract's risk.

A Standard Contractual risk is the lowest rate in the range. In rare circumstances, the Contractual Risk can decrease below the standard rate or starting point in circumstances where the risk is negligible, non-existent, or mitigations measures are in place to negate the impact entirely.

Key Contractual Risk Factors

The ***Contractual Risk Assessment Tool*** is a summary tool of the guidance provided in this section, designed to support practitioners in the assessment of contractual risk in a procurement in order to establish an appropriate contractual risk profit rate. The Tool can be found in Annex 6.3.

Table 5.2.3.b: Explanation of Contractual Risk Factors

Main Risk Category	Description	Impact
COST	**Description: Risk of financial loss incurred by a contractor due to unplanned increases in costs for a contract** **Cost risk is assessed based on either the presence of a significant *number* of risk factors that increase contractual risk or one or more risk factors that is determined to have a significant *impact* on the contract's risks.**	
	R1. Well Established Scope, Requirements and Demand	
	Represents how clearly the requirements, specifications, and needs are defined. Consideration is required for the likelihood of unanticipated scope changes or adjustments in requirements, design, or needs over the contract lifecycle.	Fixed Price/Rate Type The possibility of fluctuations in the scope, requirements and specifications results in an increased risk of higher than expected costs being incurred by a contractor due to modifications in the planned process, level of effort, volume of inputs and expertise required.

Main Risk Category	Description	Impact
	Contracts with a well-defined scope and operational requirements are considered standard contractual risk.	<u>Cost-Reimbursable Type</u> The risk of increases in costs due to scope and requirement uncertainty is taken on by the Government of Canada in a Cost Reimbursable contract. Minimal impact considerations for contractor profit.
	R2. Reliable Cost Estimates	
	A reliable cost estimate includes credible, reliable, and accurate underlying assumptions. A reliable cost estimate typically requires a strong forecast and cost estimate with dependable sensitivity models, indices, analysis, and a clear Statement of Work (SOW) in place. Reliability can be achieved with the availability of relevant historical costing data for the work or similar work.	<u>Fixed Price/Rate Type</u> The risk of fluctuations in cost estimates is a risk of financial loss to a contractor in a Fixed Price/Rate contracts. The more reliable the cost estimate used to determine the fixed price/rate, the lower the contractual risk for the contract. <u>Cost-Reimbursable Type</u> The risk of fluctuations in costs due to unreliable estimates results in an increased risk of cost to the Government of Canada in a Cost Reimbursable contract. Minimal impact considerations for contractor profit.
	R3. Potential Fluctuations from External Factors	
	Potential fluctuations refer to unanticipated changes in market factors that impact the cost estimates and resulting contract price. These include commodity prices, union labour negotiations, foreign currency fluctuations, etc. The fluctuations refer to changes that cannot be reliably estimated or forecasted due to a dependency on external factors. A contract that accounts for market fluctuations through the use of an	<u>Fixed Price/Rate Type</u> The possibility of fluctuations in costs due to market uncertainties increases the risk of financial loss to a contractor. However, the inclusion of the EPA/FCA clause minimizes the risk and no resulting increase in contractual risk is required. In the event there is a reliance on market factors in the cost estimates and the impact on price of market fluctuations could be significant, and there is no related EPA/FCA clause in place, there would be an increase in risk

Main Risk Category	Description	Impact
	Economic Price Adjustment (EPA) or Foreign Currency Adjustment (FCA) clause (Section 4.2) does not require a change to the contractual risk factor. The EPA/FCA clause provides contractors with protection for fluctuations outside their control.	to the contractor that the costs would be higher than planned, resulting in an increase in the contractual risk factor. Cost-Reimbursable Type Minimal impact in a cost-reimbursable contract as the risk of fluctuations in costs is born by the Government of Canada.
	R4. Timing of Negotiations	
	The timing of price and fee negotiation has an impact on the accuracy of the costs and price estimated. Contract prices determined before the contract start date, and for Fixed Time/Unit Rate contracts before the start of a contract year, rely on estimates and uncertainties, which results in a higher level of risk. Contract prices determined after a contract has started and for Fixed Time/Unit Rate contracts after the start of a contract year, when a significant portion of the work has been completed to reasonably understand inputs and related costs, have a lower level of risk. If a substantial portion of the costs have been incurred prior to the finalization of contract prices or rates, the contracting officer may assign a value as low as zero percent, regardless of Basis of Payment type.	Fixed Price/Rate Type Standard risk conditions rely on a contract being negotiated prior to the commencement of a contract and for Fixed Time/Unit Rate contracts before the start of a contract year. The contractual risk rate will decrease when the prices and rates are negotiated after a contract or contract year has started (in arrears) and inputs and actual costs are known. With this factor, a Fixed Price/Rate contractual risk factor can go below the normal range as the contract price being negotiated is now actual costs plus a fee, reducing the cost uncertainty and risk to that of a cost-reimbursable contract. For example, in a Fixed Time Rate contract where costing rates are negotiated annually in arrears, there will typically be no cost risks, as the contract would essentially be cost-reimbursable in nature. The contractual risk portion of profit should be decreased accordingly. Regular assessments of contractual risk factors should be conducted in line with

Main Risk Category	Description	Impact
		costing rate negotiations for Fixed Time Rate contracts. <u>Cost-Reimbursable Type</u> Minimal impact in a cost-reimbursable contract with regards to the establishment of the ceiling price. The contractual risk rate will <u>decrease</u> when the prices and rates are negotiated after a contract has started (in arrears) and inputs and actual costs are known.
TECHNICAL & SCHEDULE	**<u>Description:</u> The risk that various contractual factors will impact a contractor's ability to successfully complete the technical aspects of the procurement as scheduled according to the requirements in the contract.** **Technical and Schedule risk is assessed based on either the presence of a significant ***<u>number</u>*** of risk factors that increase contractual risk or one or more risk factors that is determined to have a significant ***<u>impact</u>*** on the contract's risks.**	
	R5. Technical Risk	
	Technical risk refers to the technical skills, knowledge and/or innovation required to meet procurement objectives. A contract that has a high level of technical risk typically requires highly skilled personnel, state of the art machinery/leading edge technology, and/or a high degree of development and design. <u>Note:</u> Lower technical risk areas are typically sustainment or ancillary services, such as maintenance and support, spare parts or off the shelf	<u>Fixed Price/Rate and Cost Reimbursable Type</u> A contract that with higher technical risk typically results in a higher contractual risk rating as there are more areas that can impact the successful completion of the contractual requirements. Also, there can be the differentiation between developmental vs. off-the-shelf. Generally, off-the shelf would decrease contractual risk as risks are lower for a contractor for an established product line where performance is known and risks of unknowns are lowered.

Main Risk Category	Description	Impact
	items procurement, IT services, training, standard services, routine support services and facilities support.	
	R6. Familiarity and Program Maturity	
	Familiarity refers to a contractor's past experience with the same or similar work and requirements being procured. Program maturity refers to the level of establishment of the product/services/processes/tasks involved in meeting the procurement objectives. Examples of less mature programs include the following: • Product lines would include products that are developmental that have a high degree of uncertainty or risk because of the untested nature of the technology or the unproven, unique or developmental nature of the deliverable. • Unproven processes or new processes with minimal testing Routine vs. non-routine tasks (typically, the more routine a task, the higher the degree of program maturity)	<u>Fixed Price/Rate and Cost Reimbursable Type</u> Contractors that do not have experience with same or similar work and do not have a good understanding of the process, resources and timelines required to successfully meet procurement requirements will experience increased risk of procurement failures, resulting in a higher contractual risk rating. A new program typically has an increase in contractual risk, as the lack of program experience could impact the successful fulfillment of the procurement. Note that the length of time for a program to be considered mature will vary depending on the industry (For example: high-tech industry where technology changes frequently vs. parts manufacturing where technology does not change frequently).
	R7. Performance Specifications	
	Performance specifications refer to the operational requirements of a product or service, and the level of tolerances for variances in the product or service requirements.	<u>Fixed Price/Rate and Cost Reimbursable Type</u> Contractual risk increases for contracts with demanding performance specifications and low tolerances for

Main Risk Category	Description	Impact
	This also includes timeline risks, which is where there are tight restrictions related to the delivery schedule and timelines. Essential timelines and tight timelines impose additional risk on successful delivery of a contract. A timeline is typically considered more stringent and challenging when it is significantly shorter from normal lead times for the same or similar work. For example: The acceptable range for physical dimension for a manufactured product as it can impact the reliability.	deviations for it. The contractor has minimal room for error and a higher risk of not being able to successfully deliver the procurement on time.
	R8. Duration	
	This risk factor refers to the length of the contract. Typically, the longer a contract is, the riskier, due to the greater amount of unknown factors in the long-term. 1. The length of a contract can impact the predictability of the scope, requirements, inputs, and various costs and overhead distribution rates. In addition, typically, the longer a contract, the predictability of the requirements, factors and market conditions decreases. For example, commodity fluctuations, demand and supply, inflation, etc. 2. The duration of a contract can also impact the capacity to establish a reasonable operational delivery schedule and fair payment schedule. In a longer term contract (5+ years) it is difficult to establish a reasonable operational delivery timeline. When the	<u>Fixed Price/Rate and Cost Reimbursable Type</u> 1. Generally, the longer the duration of a contract, the greater the risk and potential impact on the ability to reasonably estimate requirements and costs. This would be to a lesser degree for Cost Reimbursable type contracts. 2. Typically, the longer the duration of a contract, the higher the risk the contractor will experience schedule delays and resulting business loss, or payment schedule changes and resulting cash flow concerns. 3. Typically, the longer the duration of a contract, the higher the risk is a contractor will not successfully deliver the contract.

Main Risk Category	Description	Impact
	final delivery schedule is changed or modified, it can result in a loss of revenue for a contractor, for example, if they are forced to delay or cancel a follow on contract due to required adjustments to the delivery and performance schedule. The contract duration also impacts ability to establish a fair and reasonable payment schedule. This presents further risk that the contractor will not have sufficient payments and cash flow to successfully meet contractual obligations. 3. The duration of a contract can also impact the ability of a contractor to successfully complete a contract, due to the heightened uncertainties in timing, volumes, costs, resource requirements and availability, supply chain changes, parts obsolescence and sourcing. Negative changes in a supply chain, such as changes in suppliers and parts obsolescence can negatively impact a supplier's ability to deliver a contract.	
Socio-Economic Benefits Programs and Policy Considerations	**<u>Description:</u> Certain socio-economic benefits programs and policies may have a direct impact on procurement pricing and could result in an impact to contractual risk as it pertains to cost, technical, performance and schedule. The potential impact of these programs and policies on contract profit should be assessed on a procurement-by-procurement basis.** **The following is an example of a program for consideration:**	

Main Risk Category	Description	Impact
	(Please note that other socio-economic benefits programs and policies to be considered here is a topic under consultation for the next iteration of the Guide.)	
	Industrial and Technological Benefits (ITB) Policy Considerations	
	Refer to Annex 5.3.7 Discussion Paper – Industrial and Technological Benefits – Value Proposition Cost Considerations for more information on the ITB Policy.	For procurements where the ITB Policy applies, there may be an impact on the above risk categories and these should be assessed on a procurement-by-procurement basis. It is important to involve the ITB Authority at Innovation, Science, and Economic Development Canada (ISED) when undertaking this portion of the risk assessment.

Factors to Consider

It is important to consider the following factors in the determination of the contractual risk profit and the contract price.

- **Multiple Basis of Payment:** Contracts with multiple bases of payments will be required to calculate the contractual risk factor for each separate basis of payment. The remaining profit factors, General *Business Risk*, *Working Capital Employed* and *Fixed Capital Employed*, are calculated separately and are not impacted by the basis of payment. Contractual risk is the only factor requiring a calculation per basis of payment. Refer to Example 5.2.3 d) below for an example of a contract with multiple basis of payments. This methodology for multiple basis of payments also applies to provisional price basis of payments.
- **Task Authorizations and Requirement Add-Ons:** Depending on the contract, separate contractual risk assessments may also be required for task authorizations and/or add-ons to a contract that were not competed. This methodology would be similar to that applied to multiple basis of payments.
- **Modifications to Basis of Payment and Risk Assignment:** Once the contractual risk assessment is complete, the resulting profit rate is reflective of the risk assumed and agreed to by each party. A higher risk premium is awarded for taking on additional risk. In the event the risks are realized, for example, cost increases, the rate in place has already compensated a contractor for the potential of a cost increase. There is no further requirement to adjust the price. In the event, a contractor is no longer able to bear the risk originally agreed upon, and a contract basis of payment is changed from fixed price to cost reimbursable, it is important that the contractual risk profit rate also be adjusted, to reflect the fact that the risk is now borne by the Government of Canada.
- **Risk Mitigation:** It is important to note that in the evaluation of contractual risk, the degree of risk can be impacted by risk mitigation factors that are in place. For example, “pain sharing”

agreements can mitigate risk related to cost estimating as the contractor's downside risk is limited as losses are shared with the government. Another example is the "rolling wave" in a long-term contract, where the contractor is only required to estimate costs in increments, mitigating the risk related to the contract length. Another example is when a Fixed Price type contract has a provision to compensate for design changes or additional work arising, mitigating risks related to uncertainties in scope, requirements and demand.

- **Warranty Risk:** Warranty costs include those arising from fulfillment of any contractual obligation of a contractor to provide services such as installation, training, correcting defects in the products, replacing defective parts, and making refunds in the case of inadequate performance. This includes assigning the contractor accountability for product warranty claims due to workmanship when Canada is responsible for some levels of the maintenance activity.

  Warranty risk is *not* considered a technical risk for the Contractual Risk factor as these costs are typically accounted for in the Costing Standard.

  See Section 4.13 Provisions for Contingencies and Warranty Costs of the Costing Standard for more detail.

- **Contingencies:** Contingency costs are considered non-applicable costs to the contract under SACC 1031-2. Risks related to any uncertainties in cost estimates are factored in the Contractual Risk profit factor in R2. Reliable Cost Estimates.

Key Questions to Ask

The following key questions support a contracting officer in the assessment of the presence, likelihood and impact of contractual risk in a contract.

Table 5.2.3.c: Key Questions to Ask in the Assessment of Contractual Risk

Risk Factor	Key Questions to Ask
R1. Well Established Scope, Requirements and Demand	• Are the scope and requirements well defined? • Is the likelihood of unanticipated changes to the operation requirements and demand mid-low?
R2. Reliable Cost Estimates	• Is there an ability to develop strong forecasts and cost estimates? • Is there a clear SOW in place as a base for the cost estimates? • Are the underlying assumptions used to calculate the cost estimates credible and accurate? • Are dependable sensitivity models, indices and analysis in place to accurately determine cost fluctuations? • Is there reliable historical costing data for this work or similar work? • Is the length of the contract short-medium in duration? If no, consider the length of the contract and its impact on reliable cost estimates (i.e. the predictability of requirements, inputs and resulting costs and rates (labour, material and overhead distribution).
R3. Potential Fluctuations from External Factors	• Are there potential market fluctuations that could significantly impact the price (for example, commodity price, labour negotiations, foreign currency)? • If yes, is protection provided to the contractor for fluctuations outside of the contractor's control, such as Economic Price Adjustment (EPA) / Foreign Currency Adjustment (FCA) clause?
R4. Timing of Negotiations	• Was the contract price, fee, and/or rates determined after the contract start date and/or contract year (i.e. in arrears)? • If yes, has a significant enough portion of the work been completed that inputs and related costs are known? If yes, and contract is Fixed Price/Rate type, consider a decrease in Contractual Risk from standard levels.

Risk Factor	Key Questions to Ask
R5. Technical Risk	• Are the contract requirements considered complex? • Are highly skilled personnel or specific technical skills required? • Is state of the art machinery or leading edge technology required? • Is there a high degree of research, development and design requirements? • Is this considered developmental work (vs. off-the-shelf technology) with significant risk related to customization? • Is the contract for new product lines or non-routine tasks?
R6. Familiarity and Program Maturity	• Does the contractor have limited to no experience performing the work or similar work for the government or another government client? • Is the program considered new (i.e. the product or service has not been available in the market for a period of time)?
R7. Performance Specifications	• Are there high performance specifications and strict standards required for successful delivery (for example, strict timelines, product specifications or service standards)? • Is there a very low tolerance for deviations in performance specifications? • Would a deviation in performance specification impact the success of delivery? • Are there exact specifications with zero tolerance for deviations in place?
R8. Duration	• Is the length of the contract medium to long term in duration? • Does the length of the contract impact the ability to establish a reasonable operational delivery schedule; and/or a fair payment schedule? • Is there a risk related to parts obsolescence that could significantly impact the contract's successful delivery?
R9. Socio-Economic Benefits Programs and Policy Considerations	**Industrial and Technological Benefits (ITB) Policy Considerations** *(Please note that other socio-economic benefits programs and policies to be considered here is a topic under consultation for the next iteration of the Guide.)*

Risk Factor	Key Questions to Ask
	It is important to involve the ITB Authority at ISED when undertaking this portion of the risk assessment. • What is the estimated contract value and length? • What is the level of Canadian content (level of direct work)? • Are there operational or national security requirements that mandate a certain level of Canadian content/participation? • What is the level of existing Canadian industrial capability? • What is the contractor's and major/tier-1 suppliers' footprint and supply-chain activity in Canada?

Examples

The following examples provide various scenarios that demonstrate how the contractual risk can be assessed for a contract. The responses have been established by applying the questions within the *Contractual Risk Assessment Tool found in* Annex 6.3.

Example 5.2.3 a)

Scenario:

- Negotiated Fixed Price 2-year contract for the acquisition of specialized protective equipment for client department.
- Scope and requirements are clear and well known.
- Contractor has experience with similar work done in the past for other organizations and has reasonable and accurate cost estimates.
- Negotiations for price and fee will be completed before the contract start date.
- Manufacturing of equipment requires skilled, unionized laborers. Collective bargaining is underway and resulting new labour rates and escalation factors for the 2-year contract period are difficult to estimate. Labour costs are significant, at 65% of the total estimated contract costs. Any fluctuations in labour will result in significant fluctuation in costs for the contractor. Manufacturing of equipment also requires special fibers and materials that are difficult to source with price fluctuations based on market and demand. There is no Economic Price Adjustment (EPA) clause included in the contract.
- Incentives will not be used on the contract.
- The product is customized with specific performance specifications and requires state of the art equipment to produce. Tolerances for deviations are lower than those typically required by commercial customers. This product is similar to ones produced and sold to commercial customer and general manufacturing process remains similar for customized versions for Canada.

- Due to the pressing operational needs of the client department for the protective equipment, Canada is looking for very tight timelines for the production of the products on a regular basis over the 2-year contract. Typically the contractor requires two months lead time to finish a pallet of product for a commercial customer. Canada is looking for a one month lead time for the same quantity.
- No major subcontracting anticipated for the contract. Any subcontracting work that will be required is typical for the industry.
- No socio-economic benefits obligations such as ITB obligations exist for this contract

Analysis and Solution:

Basis of Payment Type:

- Version A: Fixed Price
- Contractual risk profit range starting point: 4%
- 4% - 7% Range = up to 3% risk increase potential (1.5% Cost Risk + 1.5% Technical & Schedule Risk)

Risk	Impact on Procurement	Justification
R1. Well Established Scope, Requirements and Demand	Standard	Scope and requirements are clear and well known.
R2. Reliable Cost Estimates	Standard	Contractor has past experience for reasonable and accurate cost estimates.
R3. Potential Fluctuations from External Factors	Significant	Significant fluctuations for skilled labours and direct materials possible. Labour cost has significant impact on total costs of contract. No EPA clause in contract.
R4. Timing of Negotiations	Standard	Negotiations will be completed before contract start date.
Total Impact (Standard or Above?)	+1.5%	R3 increases cost risk for the procurement and could potentially have a **significant** impact on total costs. Total cost risk impact = significant. Highest amount in range awarded due to significant impact the risk factor has on cost risk.
R5. Technical Risk	Moderate	Specialized product that requires "state of the art" equipment to produce and highly skilled labour required.
R6. Familiarity and Program Maturity	Standard	Contractor is experienced with similar work. Program is mature. Similar products for commercial customers and similar process involved in manufacturing.

Risk	Impact on Procurement	Justification
R7. Performance Specifications	Moderate	Low tolerance for performance deviations. Tight timelines that are more stringent and challenging compared to normal lead times. Technical and Schedule risk increases.
R8. Duration	Standard	2 year contract; no impact on the predictability of requirements and costs.
Total Impact (Standard or Above?)	+1.5%	R5 and R7 increase Technical and Schedule risk for the procurement and have significant impact on contractual risk. Total Technical and Schedule risk = significant. Highest amount in range awarded due to a number of moderate risk factors present.
Overall Impact on Contractual Risk	+3%	
Total Contractual Risk to be Applied	7%	

Based on the above analysis, the contractual risk factor profit rate to award is determined to be 7%.

Example 5.2.3 b)

Scenario:

- Negotiated incentive based basis of payment: Cost Reimbursable with Target Cost, 6 year contract for the development and maintenance of a fleet of specialized drones. For the Cost Reimbursable with Target Cost basis of payment, the contractor and Canada have agreed upon contract performance criteria where cost efficiencies or losses are rewarded and shared through the fee arrangement in which both parties share the reward (risk) of meeting (or not meeting) them.
- Scope and requirements for the procurement are clear and well-established.
- Due to the developmental and specialized nature of the products being procured and uncertain service level required to maintain the new product, cost estimates may not be very accurate or dependable.
- Negotiations for price and fee are well on their way and will be completed before the contract start date.
- Material and unionized specialized labour required is subject to great uncertainty based on market conditions.

- The contractor is experienced with developing drones for other commercial and government customers each with their own specific requirements in the past. The development process is similar to a process for other drones developed by the contractor and is a proven process.
- Performance specifications required and tolerances for deviations is the same as other products the contractor produces.
- Timelines and schedules for delivery and maintenance are similar to other products in the product line of the contractor and maintenance schedule is estimated to be similar as well.
- No major subcontracting anticipated for the contract. Any subcontracting work that will be required is typical for the industry.

Analysis and Solution:

Basis of Payment Type:

- Version B: Cost Reimbursable with Target Cost
- Contractual risk profit range starting point: 1%
- 1% - 4.5% Range = up to 3.5% risk increase potential (1.75% Cost Risk + 1.75% Technical & Schedule Risk)

Risk	Impact on Procurement	Justification
R1. Well Established Scope, Requirements and Demand	Standard	Scope and operational requirements are clear and well established.
R2. Reliable Cost Estimates	Moderate	Cost estimates are not very accurate or dependable. Cost risk increases, slightly higher than standard risk.
R3. Potential Fluctuations from External Factors	Standard	Although potential for fluctuations is high, minimal impact due to cost-reimbursable type contract.
R4. Timing of Negotiations	Standard	Negotiations well on their way and will be completed before contract start date. Minimal impact for a cost-reimbursable contract.
Total Impact (Standard or Above?)	+1%	R2 increases cost risk for the procurement and has a slightly higher than standard impact on contractual risk. Total cost risk impact = moderate, but with presence of only one risk factor, only 1% extra is determined applicable.
R5. Technical Risk	Moderate	Developmental nature of product and highly specialized labour required increasing technical risk. Contract also includes a maintenance portion which lowers technical complexity risk. Overall slightly above standard risk.
R6. Familiarity and Program Maturity	Standard	Contractor is experienced with the development of drones.

Risk	Impact on Procurement	Justification
		Similar product lines exist and processes are proven.
R7. Performance Specifications	Standard	Performance specifications and tolerances for deviations are same as other products of contractor. Timelines and schedules for delivery similar to other products in product line.
R8. Duration	Standard	6 year contract; minimal impact on the predictability of requirements and costs.
Total Impact (Standard or Above?)	+1%	Slight impact on Technical and Schedule risk from R5 = moderate, only 1% extra is deemed applicable.
Overall Impact on Contractual Risk	+2%	
Total Contractual Risk to be Applied	**3%**	

Based on the above analysis, the contractual risk factor profit rate to award is determined to be 3%.

Example 5.2.3 c)

Scenario:

- Taking the same scenario as in Example 2, the following are the only factors that have changed:
  - A "pain sharing" incentive is included in the contract. The government of Canada will share any losses with the contractor, utilizing a 50/50 ratio.

Analysis and Solution:

Basis of Payment Type:

- Version B: Cost Reimbursable with Target Cost
- Contractual risk profit range starting point: 1%
- 1% - 4.5% Range = up to 3.5% risk increase potential (1.75% Cost Risk + 1.75% Technical & Schedule Risk)

Risk	Impact on Procurement	Justification
R1. Well Established Scope, Requirements and Demand	Standard	Scope and operational requirements are clear and well established.
R2. Reliable Cost Estimates	Moderate	Cost estimates are not very accurate or dependable. Cost risk increases.
R3. Potential Fluctuations from External Factors	Standard	Although potential for fluctuations is high, minimal impact due to cost-reimbursable type contract.
R4. Timing of Negotiations	Standard	Negotiations well on their way and will be completed before contract start date. Minimal impact for a cost-reimbursable contract.
Total Impact (Standard or Above?)	+1%	R2 increases cost risk for the procurement. Total cost risk impact = moderate, only 1% extra is deemed applicable.
R5. Technical Risk	Moderate	Developmental nature of product and highly specialized labour required. Technical and Schedule risk increases. Contract also includes a maintenance portion which lowers technical complexity risk. Overall slightly above standard risk.
R6. Familiarity and Program Maturity	Standard	Contractor is experienced with the development of drones. Similar product lines exist and processes are proven.
R7. Performance Specifications	Standard	Performance specifications and tolerances for deviations are same as other products of contractor. Timelines and schedules for delivery similar to other products in product line.
R8. Duration	Standard	6 year contract; minimal impact on the predictability of requirements and costs.
Total Impact (Standard or Above?)	+1%	Slight impact on Technical and Schedule risk from R5 = moderate, only 1% extra is deemed applicable.
Overall Impact on Contractual Risk	+2%	
Total Contractual Risk to be Applied	**3%**	

NOTE: The contract includes a “pain sharing” incentive arrangement. The overall impact of the incentives on the total contract price must be considered. Canada shares in any losses with the contractor if targets

are not met, the target profit that has been set in the contract considers this. Decisions on the target levels for incentives should consider the overall profit rate (including the Contractual Risk profit factor). The Contractual Risk profit for this example will still be 3% and the incentive amount may fluctuate over total contract price according to the performance of the contractor. The contractor takes on the risk that targets may or may not be met, depending on their performance and shares in the financial losses related to it with Canada.

Based on the above analysis, the contractual risk factor profit rate to award is determined to be 3%.

Example 5.2.3 d) - Multiple Bases of Payment

Scenario:

- Negotiated procurement for the development, production and maintenance of a fleet of specialized drones.
- Multiple basis of payment:
    - Cost Reimbursable: Fixed Fee No Ceiling Price (30% of the contract) - This is for the maintenance portion of the fleet of specialized drones.
    - Fixed Price (70% of the contract) - This is for the development and production of specialized drones.
- Estimated total contract costs is $5.5 million.
- There are significant risks in many aspects of the contract, for this reason:
    - It is determined that for the Cost Reimbursable portion of the contract, 1% contractual risk profit factor is appropriate.
    - It is determined that for the Fixed Price portion of the contract, 7% contractual risk profit factor is appropriate.

Analysis and Solution:

Contractual Risk Profit Factor x Estimated Contract Costs = Total Contractual Risk Profit

Basis of Payment Type	Contractual Risk Profit Factor	Estimated Contract Costs	Total Contractual Risk Profit
Cost Reimbursable: Fixed Fee no Ceiling Price	1%	30% x $5.5 million = $1.65 million	$16,500
Fixed Price	7%	70% x $5.5 million = $3.85 million	$269,500
TOTAL			**$286,000**

Therefore, the total contractual risk profit estimated for this contract is $286,000.

5.3 ALTERNATIVE PRICING STRATEGIES

Alternatives to Cost-Based Pricing are ways to buy goods and services where the price does not rely on the cost to the contractor of fulfilling the statement of requirements. There are some situations where alternatives to Cost-Based Pricing might generate better value.

The Alternative Pricing Principles refer to the procedures and guidance in place for contracting authorities to follow when a contract price is established applying an approach that does not fully incorporate the Cost-Based Pricing Principles outlined in Section 5.0.1 Cost-Based Pricing Principles.

Alternatives to Cost-Based Pricing are not commonly applied and as such, guidance on specific alternatives is not yet in place. Concepts and types of alternatives that could be considered are discussed further in Annex 5.4.1 (Discussion Paper Alternative Approaches to Cost-Based Pricing).

The Alternative Pricing Principles, detailed below, outline the process to follow to ensure the alternative method is appropriately analyzed with consideration for the risks and the benefits, and to ensure that the alternative approaches are shared for lessons learned and incorporation in future iterations of this Guide for the benefit of the entire procurement community.

5.3.1 Objectives

The purpose of the Alternative Pricing Principles is to encourage contracting officers to broadly consider other factors or alternative approaches in their pursuit of **better value**, in the development of contract pricing. For example, these could include:

- Enhanced performance of government services to the public;
- Flexible contracting arrangements responsive to change for goods and services rendered; or
- Improved contractor behavior or customer satisfaction for goods and services rendered.

5.3.2 When Alternative Pricing Principles Apply

When justification exists that an alternative pricing method might generate **better value** than the application of the Cost-Based Pricing Principles (Section 5.0.1), the Alternative Pricing Principles are to be applied in accordance with the Principles and Procedures outlined in Section 5.3.3 below.

The following requirements must be met in order to apply the Alternative Pricing Principles:

- The contract pricing is sanctioned by the delegated contracting authority
- Concurrence is obtained from the client
- The decision is documented as described in the procedures below

- The record of decision showing justification, client concurrence and the contracting authority's approval is shared with the Procurement Support Services Sector.

5.3.3 Procedures for Application of Alternative Pricing Principles

Contracting Officers are responsible to justify and obtain approval for the use of the alternative pricing methodology applied as opposed to the use of Cost-Based Pricing Principles in Section 5.0.1.

The Alternative Pricing Principles require a contracting officer to document the following in the Procurement Plan, if applicable, a business case file or other decision document:

a) Identify the pricing practice proposed
b) Explain the reasons for the selection of proposed pricing practice, identify which Cost-Based Pricing Principles were not used and why
c) Provide the evidence or comparative information from other jurisdictions/sectors in support of the proposed pricing practice as a benchmarking, if available
d) Identify, describe and estimate expected costs and benefits of the chosen pricing practice to Canada
e) Explain how the pricing was determined, and provide a comparison to the profit and price determination that would have been applied under Cost-Based Pricing Principles
f) Explain how the pricing is intended to work
g) Identify any applicable limits in the application of the pricing practices, such as timeframe or conditions
h) Briefly discuss, as applicable, plans and approach to:
    I. Validate contractor's achievement of conditions that activate the pricing provisions, including gain-sharing and non-financial performance objectives
    II. Establish provisions for adjusting or recalibrating contract pricing, including performance objectives for multi-year contracts
    III. Review and assess the effectiveness of the pricing practice and make recommendations for its use by others

It should also be noted that documentation must include evidence of program management (client) acceptance/ concurrence with the contract pricing provisions.

Did You Know?

- Contracting officers should draw on expert advice from the: Price Advisor Group (PAG), within the Procurement Support Services Sector (PSSS)
- Please see Annex 3 for contact information.
- Once the Alternative Pricing Method is approved by the delegated contracting authority, the contracting officer should share with PSSS by email (TPSGC.padgamtp-appbipm.PWGSC@tpsgc-pwgsc.gc.ca) the Alternative Pricing Principles that have been applied for lessons learned and incorporation into future iterations of the Guide.

6.0 ANNEXES

ANNEX 1: Firm Price Basis of Payment

ANNEX 2: Costing Standard

ANNEX 3: Contact Information

ANNEX 4: Process Steps for Cost Accounting Practices (CAP) Submission

ANNEX 5: Discussion Papers

ANNEX 6: Tools and Templates

ANNEX 1: Firm Price Basis of Payment

Please Note

- Firm Price basis of payment has been replaced by a Fixed Price Basis of payment (Section 4.1.1) and is no longer recommended for use.
- Refer to Section 4.1.1 (Fixed Price) for application of this option.

Comparison: Firm Price vs. Fixed Price Basis of Payment in a Non-Competitive Contract

Firm Price Basis of Payment in a Non-Competitive Contract

A firm price basis of payment provides for the establishment a price at the beginning of a contract based on estimated costs and a negotiated profit, which for the most part, is not subject to adjustment unless through the course of the contract, PSPC exercises its right to apply the discretionary audit clause. The discretionary audit clause, validates the actual costs incurred and profit earned in the contract and compares them to those originally estimated in the establishment of the firm price. Resulting decreases in actual costs and related excess profits realized by the contractor are then recovered by Canada.

Fixed Price in a Non-Competitive Contract

A fixed price basis of payment establishes a price in the same manner as a firm price contract, through the development of a cost base and negotiation of a profit rate; however, a fixed price is not subject to any adjustment. The contractor is paid a definite sum of money for carrying out the work regardless of the actual costs incurred. A validated strategy is carried out before a contract is signed to ensure the reasonableness and fairness of the price and, once the contract is signed, changes cannot be made to the price.

Similarities

- Firm and fixed price contracts are used under similar circumstances, as detailed in the Fixed Price Section 4.1.1, when the contract scope and requirements are known and unlikely to change, resulting in a realistic estimate of applicable costs, and the negotiation of a fair and reasonable profit.
- Firm and fixed prices in a non-competitive environment are built by estimating a cost-base and negotiating a fair and reasonable profit, using Section 5.2 (Profit Principles).
- Both firm price and fixed contracts:
    - place risk upon the contractor as they bear full responsibility for all costs and resulting losses;
    - result in a high profit rate built into the prices as the risk is passed onto the contractor;
    - provide incentive for the contractor to control costs and perform efficiently; and
    - impose little administrative burden upon both contracting parties

Differences

- It should be noted that the discretionary audit clause is not always applied in a firm price contract. As a result, many firm price contracts result in similar application to that of a fixed contract. It is only in the application of the audit clause that differences arise.
- A firm price may be subject to a discretionary audit and a resulting price adjustment in the event the audit reveals excess profit (profit greater than that negotiated at the onset of the contract), where as a fixed price remains the same throughout the contract regardless of fluctuations in costs and the contractor bears all risks associated with those fluctuations.
- A discretionary audit clause may be included in a firm price contract, while there will be no discretionary clause for the purposes of excess profit recoveries in a fixed price contract.
- A firm price essentially sets a maximum price limit that Canada will pay. In the event the contractor's actual costs incurred were much higher than estimated in the establishment of the contract price, there is no resulting price increase. The contractor bears full risk related to cost increases and, as a result, they are awarded a higher profit premium. In a fixed price contract, the contractor also bears full risk related to cost increases, but is able to retain all additional profits earned when costs are under the original estimates.

Why is a Firm Price Basis of Payment Not Recommended for Use?

A firm price basis of payment is not recommended due to the following:

- Firm price removes all incentive for the contractor to improve their processes and to gain efficiencies because Canada has the right to audit and recover the resulting overpayment.
- The discretionary audit clause may not be applied consistently and when it is applied, the audit and resulting recovery appears punitive in nature.
- Firm price does not help build or maintain contractor relationships due to disputes over excess profit recoveries and audit findings as well as the inconsistent application of the clause.
- Contractors are awarded a premium for Firm Price at the beginning of a contract, and then, throughout the contract the scope and requirements are modified and the nature of the contract resembles that of a cost reimbursable contract with Canada bearing the risks related to cost uncertainties and the contractor earning a higher than necessary profit premium.

Application Differences between Firm and Fixed Price

For those contracts where the requirements, scope of work and outputs to determine the level of effort are known and a validation strategy to determine the reasonableness and fairness of price can be conducted, a fixed price basis of payment is recommended, in line with the criteria outlined in Section 4.1.1. The key differences in application between fixed and firm price basis of payment are as follows:

- fixed price is set as a final price that is not subject to any adjustment throughout the lifecycle of the contract if no amendment of the contract is needed.
- fixed price must be validated prior to contract initiation through available market-based data, a validated cost base with a Section 5.2 profit calculation or should-cost analysis benchmarking.
- discretionary audit clauses will be replaced by a general audit clause.
- audits will not be conducted for the purpose of excess profit recoveries.

Alternatives to Firm Price Basis of Payments

In addition to applying a Fixed Price basis of payment, a Contracting Officer can consider other basis of payments that transfer risk to the contractor in a manner similar to that of a Firm Price contract, but that operate in fair and transparent manner. For example, Cost Reimbursable contracts with a Target Cost are a form of "gain or pain" sharing, where cost efficiencies or losses are rewarded and shared through fee arrangements in which both the contractor and Canada share the reward (risk) of meeting (or not meeting) contract performance criteria. The "gain or pain" sharing formula in this basis of payment acts as an incentive for the contractor to control their costs. See Section 4.1.3.3 for further details on the benefits and application details of Target Cost contracts.

For contracts where scope and requirements may require modifications, a cost reimbursable type contract will be more appropriate for the cost uncertainty risks taken on by the contractor.

Process Steps

Although it is not recommended for use, a firm price basis of payment follows the same process steps as that of a fixed price which are detailed in Section 4.1.1 with the exception of the inclusion of the discretionary audit clause. The discretionary audit clause (SACC C0100C, C0101C or C0102C) must be incorporated in the contract when a firm price basis of payment is used.

> *Please note SACC C0100C (Discretionary Audit Clause for Commercial Goods and/or Services), should be used with caution, as it may be difficult to assess whether the contractor is able to meet the audit / validation requirements specified in this clause prior to contract award.*
>
> *If a supportable commercial price is available, sufficient price support must be obtained and validated prior to accepting the commercial* price. *See Section 5.0.2 Commercial Pricing for more information.*
>
> *It is recommended that contracting officers ensure that the "Accounts and Audit" clauses from the SACC Section 3 General Conditions template are used. For example, as appropriate, the "General Conditions – Higher Complexity – Goods SACC 2030, section 33", "General Conditions – Higher Complexity – Services SACC 2035, section 31" and "General Conditions – Research and Development 2040, section 42" are recommended. The "Accounts and Audit" clauses included in the templates detail the contractor's obligation related to audit (i.e. the contractor must retain evidence for all amounts claimed in a contract) and protects Canada's right to audit (i.e. Canada's right to audit all claimed amounts, calculated in accordance with the Basis of Payment).*
>
> *Also note: an update has been proposed to the general audit clauses currently found in the Standard Acquisition Clauses and Conditions (SACC), Section 3 General Conditions templates and a proposed additional audit clause for the SACC Manual.*

Table of Contents

The Costing Standard.....212
Costing Standard Subsections.....221
1) Asset-based Costs.....221
2) Employee-based Compensation Costs.....230
3) Good/Service-based Costs.....242
4) Corporate/Various-based Costs.....246
General Considerations for Costing.....266
Annex 2A: Costing Process.....268
Annex 2B: Contract Costing Rates.....269
Annex 2C: Cost Management.....276

Costing Standard Subsections for the categorization of the specific costs by cost groups

1) Asset-based Costs	2) Employee-based Compensation Costs	3) Good/Service-based Costs	4) Corporate/Various-based Costs
1.1 Amortization of Unrealized Appreciation of Assets	2.1 Dues and Membership	3.1 Bad Debts and Collection Charges	4.1 Allowance for Interest on Debt and Capital
1.2 Depreciation	2.2 Downtime	3.2 Inventory Losses and Obsolescence	4.2 Extraordinary or Unusual Matters or Events
1.3 Excess Production Capacity	2.3 Employee Benefits	3.3 Rework and Faulty Workmanship	4.3 Financial Related Expenses
1.4 Excess Facilities	2.4 Executive and Employee Compensation	3.4 Surplus Materials Expense	4.4 Fines and Penalties
1.5 Impairment of Assets	2.5 Overtime Costs		4.5 Fees for Professional Advice
1.6 Leases	2.6 Pension Costs		4.6 Goodwill
1.7 Special Production Tooling and	2.7 Pension Plan Refunds		4.7 Insurance
	2.8 Severance Payments		4.8 Legal, Accounting and Consulting Fees

1) Asset-based Costs	2) Employee-based Compensation Costs	3) Good/Service-based Costs	4) Corporate/Various-based Costs
Special Test Equipment 1.8 Government Assistance Related to Fixed Assets, Research and Product Development	2.9 Training and Staff Development 2.10 Travel Costs and Living Expenses 2.11 Department of National Defence (DND) Facility Costs 2.12 Displacement/ Dislocation Pay Allowance		in Connection with Financial Re-Organization, Security Issues, Capital Stock Issues, Obtaining of Patents and Licenses and Prosecution against the Crown 4.9 Losses on Investment 4.10 Losses on Other Contracts 4.11 Patents and Licenses 4.12 Prosecution of Claims against the Crown 4.13 Provisions for Contingencies and Warranty Costs 4.14 Refunds 4.15 Research and Development 4.16 Sales and Marketing Costs 4.17 Taxes 4.18 Joint Venture 4.19 Transfer Pricing

1) Asset-based Costs	2) Employee-based Compensation Costs	3) Good/Service-based Costs	4) Corporate/Various-based Costs
			4.20 Head Office Expense 4.21 Environmental Costs 4.22 Government Supplied Materials 4.23 Donations

The Costing Standard

The Costing Standard provides supplementary guidance that includes explanations of Canada's expectations and core costing principles to assist contracting officers in determining the acceptability of a cost and the amount claimed. It builds upon the Contract Cost Principles, Standard Acquisition Contract Clause 1031-2, which provide a sound basis on which Canada can evaluate costs.

See Section 5.1 (Principles for Establishing the Cost-Base) for more guidance on the establishment of the cost-base and Section 5.1.0 (Contract Cost Principles, SACC 1031-2) for more information on SACC 1031-2.

The Costing Standard is intended to:

- Enhance the clarity and understanding of acceptable costs, and
- Facilitate greater consistency in costing.

The Costing Standard emphasizes the core costing principles of attribution, appropriateness and reasonableness to assist contracting officers in determining the acceptability of a cost and provides examples, questions and measures for consideration to support costing decisions.

Detailed supplementary considerations for assessing the acceptability of specific costs are provided in the sub-sections of this Annex, as well as additional guidance on the Costing Process (Annex 2A), Contract Costing Rates (Annex 2B) and Cost Management (Annex 2C). In addition, costing Discussion Papers that provide additional information and context are also available in Annex 5.

Criteria for Assessing the Acceptability of a Contract Cost

To be acceptable, a contract cost must meet the criteria of:

- Attributable
- Appropriate; and
- Reasonable.

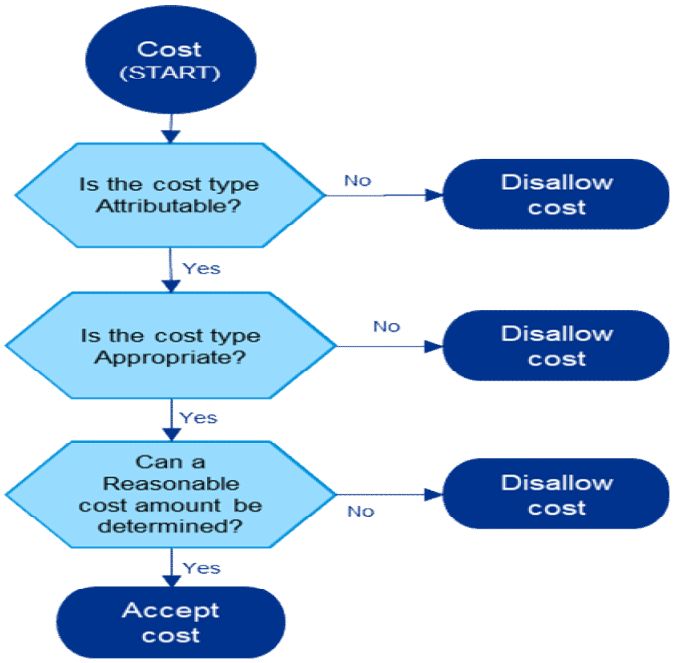
Attributable: A cost is attributable if it is incurred directly or indirectly for the fulfilment of the contract and it is necessary to fulfil the requirements of that contract.

Appropriate: A cost is appropriate if it, by its character and nature, represents a cost that is expected to be incurred in the conduct of delivering the contract.

Reasonable: A cost is reasonable if by its nature it does not exceed what might be expected to be incurred in the normal delivery of the contract in question, whether under a competitive or non-competitive procurement.

The criteria of Attributable and Appropriate should be used to determine if a cost should be accepted for a contract, while the criterion of Reasonable should be used to determine what amount of an Attributable and Appropriate cost should be accepted for a contract. If these criteria are met, it implies that accepting the cost is of value to Canada. The following decision tree diagram illustrates this further.

Figure A2.a.: Contract Cost Acceptability Assessment Decision Tree



In order to assess the criteria, professional judgement should be applied along with consultation from the integrated procurement team (e.g. contracting officers, price advisors, auditors, client department members, management, and others). Ultimately, the application of professional judgement should be guided by the purpose and desired outcomes of the contract and the risk of the contract and respective costs.

Sub-Criteria: Attributable, Appropriate and Reasonable

The following tables provide sub-criteria, and corresponding example considerations, on how to assess whether a cost is Attributable, Appropriate, and Reasonable. For a cost to be assessed as Attributable, Appropriate, and Reasonable, "yes" must be answered for all respective sub-criteria. However, it should be noted that the list of considerations to assess the respective sub-criterion are illustrative and accordingly may not be applicable in each situation.

Is the Cost Attributable?	
Sub-Criteria	Example Considerations to Assess Sub-criteria
Is the cost not already compensated in any way from the contract or another contract, whether past, existing or proposed?	• Is the cost not already compensated through other means within the contract (e.g., government grants)? • Is the cost not already compensated through another contract? • Is the cost (e.g. financing costs) not already compensated through profit rate calculations (e.g., return on capital)?
Is there a sufficient level of certainty for the occurrence of the cost type?	• Have direct costs been tracked separately from indirect costs? • Have the costs been recorded in the accounting system? • Is there sufficient evidence that the cost has occurred or will occur? • Is supporting information for the cost disclosed? • If required, can the above information be verified by Canada?
Does the cost have a causal relationship with or is otherwise required/beneficial for the performance of the contract?	• With respect to assessing the causal relationship of the cost, consider the following: o Does it contribute to the achievement of contract specific activities or outcomes?; and o Could it have been avoided if not for the contract?

Is the Cost Attributable?	
Sub-Criteria	Example Considerations to Assess Sub-criteria
	• In respect to assessing whether a cost is otherwise required/beneficial, consider the following: ○ Does it contribute to financial, schedule, and quality benefits for the contract:?; and/or ○ Is it necessary and expected to be incurred for the performance of the contract even though a causal relationship to the contract cannot be shown (e.g., certain types of indirect general and administrative costs)?

Is the Cost Appropriate?	
Sub-Criteria	Example Considerations to Assess Sub-criteria
Is the inclusion of the cost congruent with applicable government policies and regulations?	• Is the inclusion of the cost congruent with policies and regulations such as the Treasury Board Secretariat Directive on Travel, Income Tax Act, provincial Employment Standards, PSPC code of conduct, PSPC values and ethics, etc.?
Is the inclusion of the cost consistent with comparator information?	• Have the following sources of comparator information been considered for the cost: ○ internally available data for other contracts; ○ accessible data for contracts from other government procurement organizations (e.g., municipal, provincial/territorial, and/or international); ○ accessible documentation, including historical and forward-looking financial reports, for the contractor; ○ publically available financial reports from other companies in the contractor's industry; ○ publically available financial reports from other companies in the contractor's geography; and/or ○ other applicable sources of comparator information?

Is the Cost Appropriate?	
Sub-Criteria	Example Considerations to Assess Sub-criteria
Does inclusion of the cost provide the supplier with a perceived unfair advantage over others in the industry?	• Does the inclusion of the cost improve the competitive position (e.g. by enabling reduced overhead costs) of the respective contractor within its industry, and if so: ○ Is the inclusion of the cost in the contract due to the contract's integration with other government mechanisms or programs (e.g. Innovation, Science and Economic Development Canada's Industrial Technology Benefits Policy); and ○ Would the reimbursement of the cost be viewed as a fair subsidy to the contractor or the contractor's region or industry?

Is the Cost Reasonable?	
Sub-Criteria	Example Considerations to Assess Sub-criteria
Is there a sufficient level of evidence around the measurement for the cost amount?	• For actual costs: ○ Has the cost amount been identified and recorded in the contractor's accounting system?; and ○ Can the contractor provide evidence to support costs such as documentation and supporting calculations for the cost amount? • For cost estimates: ○ Can the contractor provide empirical evidence for the amount estimated for the cost (e.g., source of data, financial forecasts, supporting calculations); and/or ○ Has the contractor applied a rigorous cost estimating methodology? (e.g., use of quality data, use of analogies, parametric equations, build-ups, extrapolation from actuals) ○ If required, can all of the above information be verified by Canada?
	• Where applicable:

Is the Cost Reasonable?	
Sub-Criteria	Example Considerations to Assess Sub-criteria
Is the treatment of the cost amount consistent with good business practices and congruent with contract performance?	○ Has the contractor used an acceptable measurement basis to determine the cost amount? ○ Has sound transfer pricing methodology been used to determine transfer prices? ○ Is the amount for the cost type congruent with applicable policies and regulations (e.g., Treasury Board Secretariat Directive on Travel, Income Tax Act, provincial Employment Standards) • Have the following sources of comparator information been considered for the cost amount: ○ internally available data for the contract in question (prior-period and forecasted amounts); ○ internally available data for other contracts; ○ accessible data for contracts from other government procurement organizations (e.g., municipal, provincial/territorial, and/or international); ○ accessible financial reports, historical and forward looking, for the contractor; ○ publically available financial reports from other companies in the contractor's industry; ○ publically available financial reports from other companies in the contractor's geography; ○ leading practices for managing the amount of the cost type; and/or ○ other applicable sources of comparator information? • Have applicable credits (e.g., grants, subsidies, discounts, allowances, rebates) been removed from the cost amount?

Is the Cost Reasonable?	
Sub-Criteria	Example Considerations to Assess Sub-criteria
	• Where measurable, does the amount of the cost provide value for Canada and, where measurable, does the cost justify the benefits? (e.g., research and development costs resulting in reduced production costs)
Is there evidence that the cost amount, to be allocated to Canada, has not already been recovered?	• Has the cost amount to be allocated to Canada been recovered: o in past, existing, or proposed contracts? o in profit rate or premium calculations? • Has a direct (indirect) cost already been recovered as an indirect (direct) cost?
Does the cost amount comply with the terms and conditions established in the contract, if applicable?	• For established limits in the contract terms and conditions, does the cost amount comply? • Does the cost amount comply overall with any terms and conditions (i.e. limits) set out in other contracts with the same contractor? o For example, there may be a limit set in the contract terms for the percentage of contractor indirect sales and marketing costs that can be allocated to government contracts in relation to the total cost of the government contracts (e.g., contractor indirect sales and marketing costs can comprise up to X% of the total cost of the contractor's government contracts).
Has the cost amount been allocated to the contract in proportion to the benefits received or expected to be received by the contract?	• Has the cost amount been allocated fairly and accurately (i.e. direct versus indirect cost) between the contract in question and other existing government contracts and non-government business activities in which the contractor may be engaged?

Assessment of Contract Cost Acceptability Using a Risk Guided Approach

To assist in assessing the acceptability of contract costs, a risk-guided approach should be applied. Applying a risk-guided approach means that it is necessary to assess the:

- likelihood of incorrectly assessing the acceptability of a contract cost; and
- impact of the incorrect assessment of acceptability for a contract cost on the value to Canada

This approach is recommended because:

- contracts may vary based on the nature of the procured goods and services, the uncertainty of scope, the level of strategic/reputational importance, the length of the contract, and the size of dollar value.
- costs may vary based on the nature of the cost, the uncertainty of occurrence of the cost, the level of strategic/reputational importance, and the size of cost amount.

Correspondingly, the risk of incorrectly assessing the acceptability of a contract cost will vary depending on the specific contract and specific cost in question.

The table below identifies potential indicators for assessing likelihood and impact. Note that the list of indicators are non-exhaustive and may differ depending on the type of cost-based payment.

Likelihood of Risk Occurring	Impact on the Value to Canada
• The nature of the procured goods and services (e.g., routine versus new technology). • The uncertainty of the scope of the contract (e.g., for cost-estimate types of basis of payment). • The nature of the cost, including, but not limited to, whether the: o cost is classified as an indirect cost; o cost is a derivative of transfer prices; o cost amount has been measured using an alternative measurement basis (e.g., fair market value instead of opportunity cost); and/or o amount for the cost is an aggregate of amounts for other cost (e.g., sales and marketing costs may be comprised of	• The reputational/strategic importance of the contract • The amount of the cost including the proportional cost amount to the total contract cost • The reputational/strategic importance of cost, including, but not limited to, whether: o a high level of public scrutiny will occur due to incorrect acceptance; and/or o unfair subsidies will result from incorrect acceptance.

compensation costs, travel costs, and others). • Sufficiency of evidence required to support acceptability for the cost, including, but not limited to, whether certain evidence is: o available (e.g. benchmark data); and/or o measurable (e.g. benefits of cost type to Canada).	

The likelihood of the risk occurring, the impact on the value to Canada, and the overall risk level (which is an aggregate of likelihood and impact) should be assessed using an appropriate mechanism (e.g. a rating scale). The benefit of a risk-guided approach is that it will help Canada manage capacity, so that increased and suitable effort (e.g. stakeholder consultations, due diligence, etc.) is allocated, to assess the higher risk contract costs. Ultimately, a risk-guided approach will hasten the process of assessing contract cost acceptability leading to more agile procurements.

Assessing Contract Cost Acceptability During the Contract Lifecycle

The criteria of Attributable, Appropriate, and Reasonable can be used to assess the acceptability of contract costs before contract initiation, during the contract period and after contract completion. These criteria can be used as the basis to negotiate what costs would be appropriate for a contract, to provide limits for determining a reasonable amount for a cost case and to assess if the reported contract costs are Attributable, Appropriate and Reasonable.

Costing Standard Subsections

Supplementary Considerations for Assessing the Acceptability of Specific Costs
Information for specific costs are presented as subsections in table format below.

- Description: This field identifies a description and/or examples of the respective cost.

- Supplementary Considerations: This field identifies supplementary considerations, for assessing the acceptability of the specific cost in respect to the criteria of Attributable, Appropriate, and Reasonable, that augments the guidance already provided in the Recommended Criteria for Assessing the Acceptability of a Contract Cost section. This field also identifies discussion papers or cost tables with related guidance which the practitioner can consult for further reference. This field is not meant to include a complete list of all supplementary considerations, professional judgement is required.

Please Note: When assessing the acceptability of a specific cost, it is important to consider that the respective cost may be an aggregate of other costs (e.g. sales and marketing costs may be comprised of compensation costs, travel costs, and others). Correspondingly multiple tables may need to be consulted to identify supplementary considerations and examples for the cost being assessed.

1) Asset-Based Costs

1.1 Amortization of Unrealized Appreciation of Assets

Description: Amortization is the process of allocating the cost of an asset over a period of time. Unrealized appreciation is an increase in the value of an asset that the owner does not receive because the asset has not been sold.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, costs associated with the amortization of unrealized appreciation of assets are considered non-applicable costs to the contract.

Amortization of unrealized appreciation of assets is currently under consideration.

Attributable
- No supplementary considerations noted.

Appropriate
- No supplementary considerations noted.

Reasonable
- No supplementary considerations noted.

1.2 Depreciation

Description**:** Depreciation is the gradual exhaustion of the service capacity of fixed assets which is not restored by maintenance practices. It is the consequence of such factors as use, obsolescence, inadequacy, and decay.

"Capital Cost Allowance (CCA)" is an annual deduction (i.e. depreciation) used for income tax purposes that can be claimed on fixed assets when determining taxable income.

"Fixed Assets" are long-term tangible assets that is not likely to be consumed or converted quickly into cash (i.e. property, plant or equipment).

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, costs associated with the following are considered non-applicable costs to the contract:

a. finance charges *(please note all finance charges are considered non-applicable costs to a contract)*

h. amortization of unrealized appreciation of assets

i. depreciation of assets paid for by Canada

k. expenses and depreciation of excess facilities

Attributable

- No supplementary considerations noted.

Appropriate

- No supplementary considerations noted.

Reasonable

- The historical cost of an asset less related borrowing costs included in the cost of the asset should be used to calculate depreciation costs.

- A contractor should apply its own accounting policies when valuing and recognizing assets on its balance sheet, unless title is taken by Canada, or Canada pays for the asset under an Assistance Program.

- Assets are generally depreciated over their useful life. In circumstances where an asset is acquired for a specific contract only and has no useful purpose thereafter then, if agreed to in advance, the asset may be fully depreciated over the life of the contract as an acceptable depreciation cost.

- The amount calculated using Capital Cost Allowance (CCA) rates should be no higher than the basic CCA rates published by Canada Revenue Agency (CRA) for income tax purposes.

    - Also, the use of accelerated CCA rates should not be considered reasonable, as it is not permitted under General Condition SACC 1031-2. Contracting officers should consider the

risk associated with accelerated CCA rates, such that accelerated CCA rates assign a greater cost to an individual period that may not reflect the use of the asset and may unfairly load costs in a period and significantly impact individual contracts.

- There should be no recovery of depreciation costs where these costs have been recovered through other means.
    - Example: When a contractor receives a grant from Canada to buy a depreciable asset, the amount of the grant should be subtracted from the asset's historical cost.
- Unless the title is taken by Canada, any funding provided by Canada should be credited to the asset (i.e. the funding amount should be deducted from the related purchase price of the assets, with any depreciation or amortization calculated on the net amount). This includes direct and indirect benefits such as the contribution for capital assistance. Investment Tax Credit should not be deducted from the fixed asset cost.
- Note: leasehold improvement costs are similar in nature to capital additions and for depreciation purposes should be amortized over the lesser of the expected useful life of the leasehold improvement or the non-renewable term of the lease.

1.3 Excess Production Capacity

Description: Excess production capacity is the difference between the contractor's supply of capacity and demand for capacity. It is also known as 'idle capacity or 'capacity not used'.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

See Annex 5.3.5 (Discussion Paper – Production Capacity and Indirect Costs Allocation).

1.4 Excess Facilities

Description: Excess/idle facilities refers to all fixed assets in a contractor's books of account which are not in use or for which no use is anticipated within a reasonable period. "Facilities" in this context means plant, related land, equipment, or any other tangible capital asset, wherever located, and whether owned or leased by the contractor.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, expenses and depreciation of excess facilities are considered non-applicable costs to the contract.

Attributable

- Expenses associated with the maintenance and/or the amounts of depreciation attributable to Excess Facilities are generally not attributable costs to government contracts.

- Expenses and/or depreciation of excess/idle facilities, as defined above, may be attributable when they are required to achieve contract specific activities and outcomes.
    - For example: Canada requires access to contractor facilities and production capacity to be in a state of readiness to respond to events such as health crises, war demands, and others. The costs of idle facilities and excess capacity may be Attributable in this case.
    - For example: Excess capacity may arise when Canada asks a contractor to build up its capacity to support a large contracted project. The costs of idle facilities and excess capacity may be Attributable in this case.
    - Also, the expenses and/or depreciation of excess/idle facilities, which the government has ordered retained for defence purpose, should be charged to a separate contract set up for that purpose.
- Idle facilities and excess production capacity costs should be verifiable. The contractor should be able to provide supporting documentation and calculations if such information is requested.

<u>Appropriate</u>
Costs associated with facilities that are excess to the contractor's current needs should be examined and the following factors should be considered when doing this assessment:

a) Vacant, or largely vacant space;

b) Inactive or unused equipment;

c) Idle capacity required for stand-by purposes;

d) Indirect supporting staff no longer required either in full or part;

e) Other costs such as maintenance, repair, rent, property taxes, insurance, depreciation, etc.;

f) Management costs that should be reduced because of the reduction in active facilities.

<u>Reasonable</u>
- No supplementary considerations noted.

1.5 Impairment of Assets

Description: An asset impairment occurs when there is a sudden decrease in the market value of an asset below its recorded cost (i.e. cost recorded on the contractor's statement of financial position).

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- The contractor should be able to provide evidence that asset impairment has occurred.
- Impairment of an asset caused by the production/service requirements of the contract may be Attributable.
    - Example: The contractor is required to use its equipment above practical capacity for an extended production period. As a result, the equipment experiences significant wear and tear and becomes impaired. This impairment loss would presumably be Attributable.
- Impairment of an asset may be Attributable if the asset in question is acquired for a specific contract and has no useful purpose thereafter.
    - Example: The contractor is required to acquire a specific asset for a contract. Other than for the contract in question, it is determined that the asset has limited commercial value. Due to contract scope changes, the asset is no longer required. The contractor chooses to dispose of the asset, due to its limited commercial value, and recognizes a corresponding impairment loss. This impairment loss would presumably be Attributable.
- Impairment of an asset caused by contractor negligence would not be Attributable

Appropriate

- No supplementary considerations noted.

Reasonable

- The contractor should provide evidence, such as documentation and supporting calculations, for the impairment cost amount of the asset.
- Impairment costs, for assets, which are covered by insurance, should not be allocated to a contract.

1.6 Leases

Description: A lease may be categorized as an operating lease or a capital lease.

Lease: is the conveyance by a lessor to a lessee of the right to use a tangible asset usually for a specific period of time in return for rent.

Operating Lease: the lessor does not transfer substantially all the benefits and risks associated with ownership of the leased property. Lease payments are treated as an expense (i.e. monthly rent).

Capital Lease: transfers substantially all the benefits and risks associated with ownership of the leased property from the lessor to the lessee. Typically, a lessee would record the underlying asset (property) as though it owns/purchased the asset.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- The contractor should be able to provide evidence of whether capital or operating lease costs have occurred.

Appropriate

- No supplementary considerations noted.

Reasonable

- To be considered reasonable any lease cost should be determined in accordance with the following.
    - The type of lease must be correctly identified as either an operating lease or a capital lease based on acceptable Canadian accounting standards; Canadian Generally Accepted Accounting Principles (i.e. ASPE or IFRS). In the case of an operating lease, the actual rental cost paid is considered to be a reasonable cost. In the case of a capital lease, the depreciation amount calculated on the capitalized value of the asset in the lease over the lease term or economic life of the asset, is considered to be a reasonable cost.
    - For a capital lease, depreciation of the asset should be in line with ASPE or IFRS. The asset is generally depreciated over the lesser of:
        - the lease term
        - the asset's useful life
- For capital lease costs, consult the 1.2 Depreciation cost table. The same supplementary considerations are generally applicable for capital lease costs. For operating lease costs, a Reasonable amount could be informed by rental costs of comparable property, as well as property market economic considerations, in the same geographic region.

1.7 Special Production Tooling and Special Test Equipment

Description: **Special Production Tooling (SPT)** are tools such as jigs, dies, fixtures, moulds, patterns, taps, gauges and other like items, which are of such a specialized nature that, without substantial modification or alteration, their use is peculiar to the production of supplies or the parts thereof, which are required by Canada

Special Test Equipment (STE) is either single or multipurpose integrated test units engineered, designed, fabricated or modified to meet the test requirements of the specifications peculiar to the end items of equipment, which are required by Canada. Also included are associated computer software programs.

- "Special Test Equipment" does not include: special production tooling; buildings and non-severable structures (except foundations and similar improvements necessary for the installation of special test equipment); and test equipment loaned from a client's inventory.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

- Since the cost of SPT or STE represents part of the cost of the end product being acquired by a client, payment is made out of the client's funds appropriated for the purchase of that end product.
- SPT may be acquired on a price arrangement or basis of payment (i.e. fixed price or cost reimbursable) that is separate from the one used to acquire the end product for which the tooling is required.

Attributable

- No supplementary considerations noted.

Appropriate

- Expenditures incurred by a contractor in connection with purchased SPT or STE (other than the cost of such tooling or equipment) are usually recovered as preproduction expenses or factory overhead.
- Administrative overhead is not accepted on STE.
- Purchased tooling should be included in the cost of sales base for the distribution of administrative overhead.

Reasonableness

- When SPT is to be provided:
    - a dollar limit is to be placed on the cost of the tooling with the provision that the cost is not to exceed this limit until further authorization is obtained from Canada.

Profit Considerations

- No profit is allowed on Special Production Tooling (SPT) or Special Test Equipment (STE) which is purchased by a contractor for use under a contract, or purchased or otherwise acquired by its subcontractors for use under approved subcontracts.
- When the production of the end product involves prior or concurrent expenditures for SPT or STE under a separate agreement, or pursuant to a clause in a contract or subcontract, a profit of up to 5 percent may be allowed on all SPT fabricated in a plant owned or operated by a contractor.
    - No profit is allowed on the cost of purchased equipment incorporated or built into the STE.

1.8 Government Assistance Related to Fixed Assets, Research and Product Development

Description: Government assistance is funding provided by the Government of Canada to the contractor related to the costs of certain assets (i.e. fixed assets, research and product development).

"Company Funded Costs" are expenditures made from funds over which the enterprise has spending power and which were not provided to the company through the terms of a related agreement or understanding.

Forms of funding include:

"Grant" is an unconditional payment made to a recipient, usually for a specific purpose, for which the donor will not receive any royalties, goods, or services.

"Contribution" is a conditional transfer payment under an auditable agreement for which the donor will not receive any royalties, goods, or services.

"**Contribution Arrangement"** is an undertaking between a donor department or agency and a prospective recipient of a contribution, describing the obligations of each, and the terms and conditions of payments and which contain conditions for royalties from resulting sales. The arrangement may be as informal as an exchange of letters.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

Company Funded Costs that may be considered attributable for contracts negotiated in accordance with 1031-2 are:

- **Fixed Assets**
    - Government Assistance towards the acquisition of fixed assets should be deducted from the fixed asset acquisition cost and the relevant depreciation calculated on the net asset amount. Depreciation on the net amount may be included in the applicable overhead for cost recovery on contracts.
- **Research and Development**
    - *Please note: Previously, the Supply Manual guidance states Investment Tax Credits (ITCs) shall not be deducted from related research and development (R&D) expenditures when determining the applicable costs, whereas it is proposed in the discussion paper for research*

and development (R&D) expenditures to be reported net of applicable credits, which include ITCs. ITCs and its application to related R&D expenditures when determining the applicable costs is under review and consultation for the next iteration of the Guide.

- *See* Annex 5.3.6 Discussion Paper – Research and Development Costs *for more information.*

- **Product Development**
  - Government Assistance, as well as third party funded assistance, towards a specific product development should be netted against the relevant product development costs to arrive at the portion to be recovered over the sale of that product or family of products.

Appropriate

- No supplementary considerations noted.

Reasonable

- No supplementary considerations noted.

2) Employee-Based Compensation Costs

2.1 Dues and Membership

Description: Dues and memberships are regular fees often paid to an organization at regular intervals. Professional designation annual membership dues would be one example.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, costs associated with dues and memberships other than regular trade and professional associations are considered non-applicable costs to the contract.

Attributable

- Dues and membership, which are part of an employee's standard remuneration package may be considered Attributable as they reflect the necessary administrative costs of an employee performing work on a contract.
- Other dues and membership may be Attributable if they have a causal relationship with the performance of the contract.
    - Example: Corporate membership fees of industry or trade associations may be Attributable in the event the skill set is specifically required for the contract or membership fee is required to access information required for the contract.
- The expenses associated with membership, either of the company as a whole or individual officers or employees in associations whose prime purpose is to provide entertainment or recreation, are not an acceptable cost to government contracts.

Appropriate

- No supplementary considerations noted.

Reasonable

- The cost amount for Attributable and Appropriate dues and memberships may be considered Reasonable if the cost amount is comparable to industry benchmarks.

2.2 Downtime

Description: Downtime is a form of excess capacity, except it applies to labour, instead of physical assets.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Generally not acceptable, unless downtime
    - Is required to meet uncertain scope and demand,

- Is of a strategic nature that Canada has determined may be called upon to enable or support urgent requirements, or

- Is caused by changes in government policy which could not have been predicted by the contractor.

Appropriate
- No supplementary considerations noted.

Reasonable
- No supplementary considerations noted.

2.3 Employee Benefits

Description: Employee benefits are various types of non-wage compensation provided to employees. Examples include employee insurance, retirement benefits, tuition reimbursement, sick leave, vacation, and others.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable
- Employee benefits which are part of an employee's standard remuneration package may be considered Attributable as they reflect the necessary administrative costs of an employee performing work on a contract.

Appropriate
- Attributable employee benefits may be considered Appropriate if the inclusion/occurrence of the cost type is consistent with industry benchmarks.

Reasonable
- The cost amount for Attributable and Appropriate employee benefits may be considered Reasonable if the cost amount is comparable to industry norms.

2.4 Executive and Employee Compensation

Description: Executive and employee compensation section includes the following:

Executive Compensation: Includes the monetary and non-monetary benefits given to the senior management of a company

Profit Sharing & Bonus Payments (i.e. Incentive Remuneration Bonus Plans): Include payments made to reward employee and executive performance. These payments may be based on the performance of the individual and/or of the company (e.g. amount of profit earned, share price etc.).

Dividends: A distribution of a company's earnings to the shareholders.

Stock Options and Stock Based Compensation: Compensation to employees based on the shares of a company.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, the following are considered non-applicable costs to the contract:

l. Unreasonable compensation for officers and employees

s. compensation in the form of dividend payments or calculated based on dividend payments

t. compensation calculated, or valued, based on changes in the price of corporate securities, such as stock options, stock appreciation rights, phantom stock plans or junior stock conversions; or, any compensation in the form of a payment made to an employee in lieu of an employee receiving or exercising a right, option, or benefit.

Under Section 03 of Contract Cost Principls 1031-2, paragraph (b), fringe benefits can be included as part of direct labour costs, as these costs can be a portion of gross wages or salaries which can be identified and measured as having been incurred or to be incurred in the performance of the contract.

Under Section 04 of Contract Cost Principles 1031-2, paragraph 2. (c) indicates that fringe benefits (the contractor's contribution only) can be included as indirect costs (overhead). A fringe benefit type that may not be an overhead cost for 1031-2 purposes is amounts paid under Incentive Remuneration Profit Sharing Plans. The reason these amounts are not considered costs is that normally these plans are considered as a distribution of a portion of earnings to employees. Earnings that are profits or a distribution of retained earnings are not costs. However, since the purpose of these plans is to remunerate employees, the payments under these plans may be considered costs.

- For Incentive Remuneration Bonus Plans, the following criteria must be met in order for the costs to be Appropriate:
    - the plan includes a documented sharing arrangement, with all employees, and the incentive amounts payable by the employer must be computed with reference to earned profits;
    - the company pays employees directly or provides the funds for the employees plan to a trustee in trust for the benefit of the employees who are members of the plan;
    - the amount of cost will not exceed the amount of payment made to the employees or the plan's trustee;
    - the cost is recognized only in the year the employee provides services to earn benefits under the plan;
    - the entire amount recognized as cost must be disbursed to employees in the fiscal year when the benefits were earned or shortly after the end of the fiscal year (within a few months, but well before the end of the fiscal year following the one for which plan benefits were based);

- any funds payable by the trustee to the employer for over contributions or funds that the plan may earn shall be used to reduce the current year costs unless these funds or over contributions are paid directly by the employer to the employees within that current fiscal year; or
- compensation to owners of closely held corporations, partners, sole proprietors, or members of their immediate families should be in accordance with the personal services rendered rather than a distribution of profits.

Refer to Annex 5.3.2 Discussion Paper: Executive Compensation and Bonus for detailed considerations and examples of when executive compensation, profit sharing and bonus costs may be acceptable.

Appropriate and Attributable

- Compensation in the form of dividend payments or calculated based on dividend payments are generally not appropriate or attributable, as they are a distribution of earnings to shareholders, and not organization operating costs.

- Stock-Based compensation, calculated, or valued, based on changes in the price of corporate securities are not considered attributable or appropriate. These involve the creation of a contingent provision to retain and motivate employees, based on events which may or may not occur .Further, compensation based on changes in securities price is not based on work actually performed.

Reasonable

- No supplementary considerations noted.

2.5 Overtime Costs

Description: Overtime is work performed by a contractor's employee above the normal employee working time standard. Standards will differ based on the relevant jurisdiction.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Overtime costs may be Attributable when it is specifically approved or requested by Canada. The following are some examples of situations where overtime costs may be approved or requested.

  - *When* the client department requires the contractor's resources to work above practical capacity in order to adhere to an accelerated contract schedule.

  - *When* the quicker completion of a contract activity, which requires overtime, may facilitate potential financial, schedule, and quality benefits for the contract in question.

- Overtime costs are generally not Attributable when it is determined that the contractor has not been efficient in completing contract activities (e.g. contractors spending significantly longer time on completion of a contract task than average.

Appropriate

- No supplementary considerations noted.

Reasonable

- The calculation of overtime costs should align with jurisdictional labour regulations or relevant collective bargaining or employee agreements.

- Limits on the amount of overtime costs could be established in the contract *(i.e. a* maximum percentage of the total contract compensation costs).

2.6 Pension Costs

Description: A pension is any arrangement (contractual or otherwise) by which a program is established to provide retirement income to contractor employees. Pensions may be in the form of a defined benefit plan or a contribution plan.

"Actuarial Assumptions" are presumptions about future events that will affect pension costs and obligations. These include theories concerning mortality, withdrawal, disability, retirement, changes in compensation, interest on accrued pension benefits, investment earnings, and asset appreciation or depreciation.

"Actuarial Cost Methods" are methods used to determine the cost of providing pension plan benefits and to allocate that cost to specific time periods.

"Current Service Cost" is the cost of anticipated future retirement benefits accrued during any year usually determined on an actuarial basis; it represents the aggregate estimated cost for one year's service by each employee who is a member of the plan.

"Defined Benefit Pension Plan" specifies either the benefits to be received by employees after retirement or the method for determining those benefits.

"Defined Contribution Pension Plan" is one in which the employer's contributions are fixed, usually as a percentage of compensation, and allocated to specific individuals. The pension benefit for each employee is the amount that can be provided at retirement based on the accumulated contributions made on that individual's behalf and investment earnings on those contributions.

"Experience Gain or Loss" is the measure of the difference between the expected and actual experience of the plan.

"Past Service Cost" is the estimated cost of future retirement benefits accrued in the years prior to the adoption of a pension plan; these costs are normally charged to operations over a reasonable number of years.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Section 04(2)(c) of Contract Cost Principles 1031-2 states in part, that "indirect costs may include such items as fringe benefits, (the contractor's contribution only)" in overhead pools. Pension benefits are a type of fringe benefit.

Attributable

- Pension costs are part of an employee's standard remuneration package; as such, the portion of pension costs, borne by the contractor would be Attributable, since they reflect the necessary administrative costs of an employee performing work on a contract.

- Losses associated with pension adjustments/revaluations would not be Attributable as they would be unrelated to the performance of the contract.

Appropriate

- No supplementary considerations noted.

Reasonable

- The amount of time spent on the contract by the employee, in relation to the amount of time spent by the employee employed at the contractor, should be assessed when allocating pension costs.

- Either Defined Contribution Pension Plans or Defined Benefit Pension Plans are acceptable in the calculation of pension costs in accordance with Government Contract Cost Principles 1031-2.

    - These costs should be reconcilable by the plan to the disclosure notes in accordance with the relevant Canadian Generally Accepted Accounting Principles (i.e. ASPE or IFRS).

    - Under Defined Contribution Pension Plans the employer's responsibility is simply to make a contribution each year based on the formula established in the plan. The pension cost for a cost accounting period will normally be the current and past service cost.

    - Accounting for Defined Benefit Pension Plans is quite complex, because the benefits are defined in terms of uncertain future variables, an appropriate funding pattern must be established to assure that enough funds will be available at retirement to meet the benefits promised. The pension cost for a cost accounting period will normally be the aggregate of current service, plus past service, plus interest, minus expected return on plan assets, plus or minus experience gains/losses.

2.7 Pension Plan Refunds

Description: A pension plan is any arrangement (contractual or otherwise) by which a program is established to provide retirement income to employees.

On occasion, there exist credits due to refunds to contractors from companies handling their pension plans. This situation could be as a result of large lay offs of employees, plan terminations and related interest on funds invested. The accounting issue that arises from these terminations is whether a gain should be recognized when these assets revert back to the company.

"Pension Plan Settlement" occurs when an employer legally discharges the obligation for accrued pension benefits either by transferring assets directly to plan participants in exchange for their rights to pension benefits or by purchasing annuity contracts in which a third party unconditionally undertakes to pay all accrued pension benefits.

"Pension Plan Curtailment" occurs when the expected years of future service to be rendered by the existing employee group is reduced significantly or when benefits will not be earned by employees for some or all future periods.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- The pension refund amounts to be deducted from overhead expenditures used to determine costing rates should be the contractor's share of the expected pension credits.

Appropriate

- Upon a pension plan settlement or curtailment, the employer may have eliminated obligations with respect to the plan, any gains or losses on the transaction, including any unauthorized amounts related to previous plan amendments. Changes in assumption and experience gains and losses, should be recognized immediately.

- On the other hand, if an employer settles only a part of the accrued pension benefits, a portion of any gains or losses including any unamortized amounts should be recognized immediately.

Reasonable

- No supplementary considerations noted.

2.8 Severance Payments

Description: Severance payments are a cash settlement or paid leave granted to contractor employees upon termination of employment for various reasons, or upon retirement. Remuneration for earned vacation credits or compensation for unused sick leave credits is not considered as severance pay. Other payments excluded from severance pay are return of contributions made to pension plans or retirement savings programs.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- If the cause of termination that lead to the severance payment for the respective employee is linked to poor contractor performance (non-compliance or unacceptable behaviour), then the corresponding severance costs would presumably not be considered Attributable.

Appropriate

- No supplementary considerations noted.

Reasonable

- Severance payments could be calculated in accordance with:
  - an employment contract, a collective agreement or enacted legislation;
  - an established company policy; and/or
  - based on the merits of a particular case.
- The amount of severance costs per employee should be comparable to industry benchmarks.
- The amount of time spent on the contract by the employee, in relation to the amount of time spent by the employee employed at the contractor, should be assessed when determining an amount to allocate for severance costs.
- Parameters limiting the cost amount of severance allocated to a contract could be established. Contract duration is an example of a factor on which a parameter, limiting the amount of severance costs, could be established (i.e. a positive correlation may exist between contract duration and employee turnover frequency).
- In order for the severance payment to be deemed Reasonable any amount associated with the following should not be included:
  - profit sharing;
  - commissions;
  - patent or other rights.

2.9 Training and Staff Development

Description: The objective of training and development is to improve an employee's performance through learning. As an example, training and development can consist of learning new knowledge, technical skills, and/or soft skills.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Training and staff development which are part of an employee's standard remuneration package may be considered Attributable as they reflect the necessary administrative costs of an employee performing work on a contract.

- Associated training and staff development costs would be Attributable when the contractor's employees are required to conduct online government training modules as a direct requirement of the contract.

- Certain training and staff development activities may enable the contractor to deliver on the performance of the contract in a more cost-effective, timely, and quality manner. Associated costs may be Attributable to the contract.

Appropriate

- Attributable training and staff development activities, which are part of an employee's standard remuneration package, may be considered Appropriate if the inclusion/occurrence of the activities is consistent with industry benchmarks.

Reasonable

- The cost amount for Attributable and Appropriate training and staff development activities, which are part of an employee's standard remuneration package, should be informed by industry benchmarks.

2.10 Travel Costs and Living Expenses

Description: Travel costs and living expenses are the costs for transportation, lodging, meals and incidental expenses incurred by a contractor's personnel on official company business.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Typically, traveling and living expenses incurred by a contractor in the ordinary course of business are to be treated as indirect costs chargeable to overhead (which is profit bearing).

- In order for travel costs to be acceptable as direct costs to a contract, the following conditions must be met:

    - such costs are directly attributable to the performance of the work under the contract;

    - the practice of charging travel costs to a contract is consistently followed in the costing of both government and non-government work; and

- all directly charged travel costs are eliminated from indirect costs allocated to government contracts.

Appropriate

- The practice of charging travel costs to a contract is consistently followed in the costing of both government and non-government work.

Reasonable

- Costs for transportation may be based on mileage rates, actual costs incurred, or on a combination thereof, provided the method used results in a reasonable charge.

- Costs for lodging, meals and incidental expenses may be based on per diem, actual expenses, or a combination thereof, provided the method used results in a reasonable charge.

- The Treasury Board (TB) Travel Directive applies to travel expenses incurred on contracts with persons outside the Public Service, when these expenses are a specific element of the contract. For more details, consult the TB Travel Directive and Special Travel Authorities. The contracting officer may accept the contractor's travel and living rates, if they are lower than the TB rates.

- Administrative overhead on travel and living expenses:

    - Administrative overhead may be applied to direct travel and living expenses at either full rates, where adequate support for the claimed general and administrative rate can be demonstrated, or at a lower negotiated rate where such substantiation cannot be provided (apply SAAC Manual clause C4000C).

    - A contract may provide for direct travel and living expenses to be charged at cost with no allowance for overhead or profit (apply SAAC Manual clause C4001C).

- Parameters limiting the cost amount of travel costs could be established (For example the amount of the travel expense parameter could be established as a set percentage of the total contract cost.)

2.11 Department of National Defence (DND) Facility Costs

Description: Department of National Defence (DND) service establishments may be able to provide transportation, mess and lodging facilities to the contractor's employees performing work at or near these establishments under mobile repair party and maintenance-type contracts. The commanding officer of the DND establishment should, upon request, advise the contractor as to the availability of these facilities.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- No supplementary considerations noted.

Appropriate

- No supplementary considerations noted.

Reasonable

- Any costs incurred by the contractor for the use of these facilities, plus any incidental expenses incurred, should be considered reasonable and reimbursed under the contract, together with allowances for profit and/or administrative overhead.

  In order for the contractor to be reimbursed, contracting officers must include SACC C4004C in the contract.

2.12 Displacement/Dislocation Pay Allowance

Description: A displacement/dislocation pay allowance is the reimbursement paid to employees who work outside of their office for a short time (i.e. 6 months) and need to find temporary accommodations.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

For removal, living, car allowances and outside Canada expenses, consider the following:

Attributable

- Only one removal from and back to the original residence will be paid for each out-of-plant service representative. Where removal expenses to the site of the work have been paid by the Canada on a previous contract and the services are being extended for a further period, the contract amendment or subsequent contract should only provide reimbursement for expenses incurred to move the representative back to the original residence.

- Cases where the representative is required to go abroad must be dealt with individually and considered on their merits

Appropriate

- Removal expenses should not be paid on assignments of less than six months. For assignments exceeding six months, any removal by an employee with dependents must be carried out during the first 90 days, and for an employee without dependents during the first 60 days.

- Reimbursement for living expenses for an employee with dependents on an assignment exceeding six months should cease when the family is relocated (whether or not removal expenses have been paid) to permanent quarters at the location of the work.

- Reimbursement for living expenses for an employee without dependents on an assignment exceeding six months should cease when the employee's effects have been moved (whether or not removal expenses have been paid) to the location of the work or in any event after the first 60 days of such assignment.

Reasonable

- The displacement pay must be justifiable and/or is in accordance with the contractor's established practice.

- Reasonable car allowances in accordance with the contractor's practice may be paid for the use of personally owned motorcars by the contractor's personnel for essential on-base traveling where local Canada transportation is not available.

For additional information, see Annex 2B: Contract Costing Rates on out-of-plant service rates and mobile repair party rates.

3) Good/Service Based-Costs

3.1 Bad Debts and Collection Charges

Description: A bad debt is a contractor debt that cannot be recovered. Collection charges are the costs associated with recovering a contractor debt.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, costs associated with the bad debts and collection charges are considered non-applicable costs to the contract.

Since Canada as a debtor always pays its just debts, while it is only the commercial customers who have bad debts on a contractor's books, the losses due to bad debts and the expenses of collection thereof are not an acceptable cost to government contracts.

3.2 Inventory Losses and Obsolescence

Description: Obsolete inventory is a term that refers to contractor inventory that is at the end of its product life cycle. This inventory has not been sold or used for a period of time and is not expected to be sold in the future, resulting in losses for the contractor.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Inventory losses and obsolescence may be directly Attributable if it is due to contract production requirements required by the client department.
    - Example: The client department may have asked a contractor to produce a large inventory of specific goods in the anticipation of requiring these goods for certain international crises; however, these crises do not occur, and the contractor is left with obsolete goods that no longer have commercial value. The resulting inventory losses and obsolescence would presumably be Attributable in this case.
- In circumstances where stock losses or obsolescence costs do not directly apply to contracts they may still be Attributable. This will only apply when the contractor's costing system is able to isolate these stock losses as an indirect overhead.
- The contractor should demonstrate that the inventory losses and obsolescence were unavoidable.
- Inventory losses and obsolescence may be Attributable if the contractor can provide evidence and be able to demonstrate that write-offs associated with inventory losses and obsolescence were not because of poor storage, handling, or control.

Appropriate

- No supplementary considerations noted.

Reasonable

- The amount for inventory losses and obsolescence should be the difference between the Net Realizable Value of the inventory (i.e. value realized through ordinary sale of the inventory less selling costs) and cost of the inventory in their accounting system.

3.3 Rework and Faulty Workmanship

Description: Rework is the contractor work required to correct a defective or non-conforming good or service. Faulty workmanship is rework that occurs due to the contractor's fault.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- The costs of rework may be required for the performance of the contract; this recognizes that no production or service process is likely to be completely effective and that attempts to achieve no rework would be uneconomical for the contract.
- Contractors should have adequate quality control and monitoring systems in place to be able to identify the level and, where material, the causes of rework.
- The costs of faulty workmanship would not be Attributable where the fault has occurred due to poor skills, training, systems or materials that the contractor has in place or has purchased.
- Costs associated with faulty workmanship may be Attributable where there is consensus that faulty workmanship cannot be avoided because of the complexity or lack of maturity of the contract goods or services.

Appropriate

- No supplementary considerations noted.

Reasonable

- Contracts, of a similar nature, could be referenced to inform what amount of rework and faulty workmanship may be Appropriate for the contract in question.
- Consideration should be provided to whether rework and faulty workmanship costs are already reflected in contract profit rate calculations, as a technical risk.
- The contractor should have plans in place to reduce rework costs through learning curve and efficiency gains.
- Parameters limiting the amount of rework and faulty workmanship costs could be established.
  - Example: The amount of the parameter could be established as a set percentage of the total contract compensation costs.

In the event there is a warranty covering faulty workmanship, refer to warranty and contingencies section

3.4 Surplus Material Expense

Description: Surplus materials refers to excess or unused materials that remain after the contract has been completed and/or are no longer required for the performance of the contract.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Surplus due to excess purchasing (i.e. a higher number of purchases than required by contract or by normal business practices) by a contractor would not be considered Attributable.
- Costs of surplus materials, net of any credit received in the disposal or transfer of the surplus material are Attributable in a production contract when the surplus is due to:
    - normal accumulation of stores (i.e. the amount of inventory required by contract or by normal business practices), during or on completion of a contract;
    - major design changes or other major adjustments of a substantial nature not including contract termination;
    - minor design changes or other minor adjustments in the scope of the work provided the contract does not specifically exclude such items.

Appropriate

- No supplementary considerations noted.

Reasonable

- Handling costs associated with the surplus materials are attributable in a contract whenever the costs of surplus materials are acceptable.
- General and administrative overhead costs associated with acceptable surplus materials:
    - Administrative overhead or material handling rate may be applied in a contract when the surplus materials consist of work-in-process and finished goods resulting from design changes and minor scope adjustments.

Other Considerations:

- Attributable and appropriate surplus costs may be considered separate in the determination and assessment of incentive fees, targets for incentive contracts, and ceiling price for cost-reimbursable contracts.
    - For cost-reimbursable with fixed fee or cost reimbursable with incentive fee contracts, and contracts containing a ceiling price, allowable costs of surplus materials will be treated as an extra direct cost to the contract, outside the area of fixed fee, incentive fee or ceiling price considerations. It may be necessary to renegotiate the principal terms of the contract.
    - Where incentive fee contracts require negotiation of targets, the costs of surplus materials should be included in the revision of a target only where other reasons make it essential to re-open the calculation for the protection of either the contractor or Canada. Alternatively, when a contract so provides, these costs may be paid for as an extra to the target or other arrangements, e.g. at cost plus a fixed fee at whatever rate of profit is appropriate.

- Profit will be allowed on acceptable surplus material costs, except:

- in the case of surplus materials arising from the normal accumulation of stores, during or on completion of a contract, profit will be allowed only if the inventories acquired for a contract were financed by the contractor;
- in the case of surplus materials arising from major design changes, or other major changes of a substantial nature, profit will be allowed only if the inventories were either purchased by the contractor or, if not purchased by the contractor, were manufactured by the contractor and rendered surplus as the result of the changes.
- See Section 5.2 Profit Principles for further details on profit.

4) Corporate-Based/Various Costs

4.1 Allowance for Interest on Debt and Capital

Description: Allowance for interest on Invested Capital, Bonds, Debentures, Bank or Other Loans with Related Bond Discounts

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, costs associated with allowance for interest on invested capital, bonds, debentures, bank or other loans with related bond discounts and finance charges are considered non-applicable costs to the contract.

- This is because it is impossible to know how much of a contractor's capital should be properly provided by equity capital and how much by borrowed capital. Since dividends (i.e. from equity capital) are a distribution of profit and therefore not a cost, it would be unreasonable to allow interest on borrowed capital as a cost.

Attributable

- Interest is not an Attributable as the cost-of-money (interest) is already compensated through return on capital profit rate calculations.

- In addition, since interest on capital invested in a contractor's business is not considered a business operating cost, neither is interest received by a contractor from funds invested outside of the business considered a necessary credit against business operating costs.

Appropriate

- The method in which a contractor finances their operations is generally not Appropriate as it could result in unfair treatment of contractors. For example, if interest were to be an acceptable cost, then a contractor financed by bonds, debentures or long term loans could be in an advantageous position compared to a contractor financed by the sale of equity. The government of Canada recognizes the cost-of-money (interest) associated with capital employed, however financed, as a factor in the calculation of profit.

Reasonable

- No supplementary considerations noted.

4.2 Extraordinary or Unusual Matters or Events

Description: Such events are infrequent, atypical of normal business activities, and not primarily dependent on decisions made by management. For example, a major earthquake in a region that does not experience much seismic activity may be considered an extraordinary or unusual event, while a fire caused by contractor negligence would not be considered an extraordinary or unusual event.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Costs of extraordinary or unusual matters/events, associated with assets that have a causal relationship with, or are otherwise required/beneficial, for the performance of the contract, may be Attributable.

  Example: Natural disaster flooding occurs at the contractor's office that destroys materials to be used in creation of the good. The cost of replacing the materials may be Attributable.

- Extraordinary or unusual matters/events, which can be foreseen, would presumably not be Attributable as it would be expected that the contractor would pursue preventative measures (e.g. purchase insurance).

- The cost of extraordinary or unusual matters/events, which is covered by insurance, would presumably not be Attributable.

Appropriate

- No supplementary considerations noted.

Reasonable

- There should be no recovery of costs associated with extraordinary or unusual matters/events when these costs have been recovered through insurance proceeds.

- If recovery of costs are not covered through insurance, an independent valuation of the assets and costs should be submitted by the Contractor.

4.3 Financial Related Expenses

Description: Financial Expenses include the following:

- Financing Charges: Include costs associated with a contractor's working and fixed capital.
- Financial Security Issue Costs: Include commissions paid, to investment banks, law firms, auditors, regulators, for the issuance of contractor debt or equity.
- Financial Reorganization Costs: Costs associated with changing the capital structure, debt or equity, of the contractor.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, financing charges are considered non-applicable costs to the contract.

Attributable

- Financing Charges, Financial Security Issue Costs and Financial Reorganization Costs would not be Attributable since the cost is already compensated through return on capital profit rate calculations.

Appropriate

- No supplementary considerations noted.

Reasonable

- No supplementary considerations noted.

4.4 Fines and Penalties

Description: Penalties can be imposed by federal, provincial, municipal or other government authorities. They may be issued to a contractor in the form of a fine.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, fines and penalties are considered non-applicable costs to the contract.

Attributable

- The amounts of fines and penalties imposed by federal, provincial or local authorities are not an acceptable cost to government contracts, for to accept such amounts would be tantamount to the government authority supporting financially the offense which gives rise to the imposition of a fine or penalty.

Appropriate

- No supplementary considerations noted.

Reasonable

- No supplementary considerations noted.

4.5 Fees for Professional Advice

Description: Fees related to professional advice that are associated with obtaining assistance by the contractor. This includes professional advice on technical, administrative or accounting matters.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, fees, extraordinary or abnormal for professional advice in regard to technical, administrative or accounting matters (unless approval from contracting officer is obtained) are considered non-applicable costs to the contract.

Attributable

- Generally not attributable unless there is a causal relationship with the contract (i.e. professional engineering consulting fees incurred for the benefit and a requirement specifically stated in the contract) and approval is obtained from the contracting officer.

Appropriate

- No supplementary considerations noted.

Reasonable

- No supplementary considerations noted.

4.6 Goodwill

Description: Goodwill represents the value paid by a contractor on a business enterprise purchase in excess of the fair value of the acquired firm's assets less the assumed liabilities. This amount is based on the anticipated growth and earnings of the newly acquired company.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Business combinations, such as the acquisition of a company or a business, may result in the creation of goodwill. The business combination would not have a causal relationship with, or otherwise required/beneficial for, the performance of the contract and hence would presumably not be Attributable.

- Any cost related to goodwill including amortization, expensing, write-off, or write-down of this intangible asset called goodwill (however represented) is not acceptable.

Appropriate

- No supplementary considerations noted.

Reasonable

- No supplementary considerations noted.

4.7 Insurance

Description: Insurance provides a contractor and its employee financial protection from potential and/or uncertain losses.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, premiums for life insurance on the lives of officers and/or directors where proceeds accrue to the Contractor is considered a non-applicable cost to the contract.

Attributable

- Proceeds from such life insurance need not be applied to reduce any cost to the contractor. Premiums on this type of insurance are not acceptable in government contracts since Canada does not derive any benefit therefrom.

- Insurance (e.g. medical), which is part of an employee's standard remuneration package, may be considered Attributable as they reflect the necessary administrative costs of an employee performing work on a contract.

  Other insurance types may be Attributable if they have causal relationship, or are otherwise, required for the performance of the contract.

  - Example: Insurance covering buildings, equipment, vehicles, and other assets used for the contract in question may be Attributable.

Appropriate

- Attributable insurance types may be considered Appropriate if the inclusion/occurrence of the insurance is consistent with industry and geography benchmarks.

- Insurance types used by the contractor to cover itself against its own performance in delivering the contract in question would not be considered Appropriate.

  - Example: This could include insurance against faulty workmanship, defective parts, breach of contract, or loss or profit associated with poor performance.

Reasonable

- The cost amount for the premiums of Attributable and Appropriate insurance should be comparable to industry/geography norms.

- Insurance proceeds, related to acceptable insurance policy premiums, should be directly, or indirectly, apportioned to contract(s), as a credit to corresponding costs (i.e. costs which the insurance policy covered).

4.8 Legal, Accounting and Consulting Fees in Connection with Financial Re-Organization, Security Issues, Capital Stock Issues, Obtaining of Patents and Licenses and Prosecution Against the Crown

Description: These include legal, accounting and consulting fees in connection with financial re-organization, security issues, capital stock issues, obtaining of patents and licenses and prosecution against the Crown.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, legal, accounting and consulting fees in connection with financial re-organization, security issues, capital stock issues, and prosecution against the Crown are considered non-applicable costs to the contract.

A distinction should be drawn between the occasional expenses in relation to the raising of capital referred to here, which are not an acceptable cost, and the normal recurring expenses associated with the day-to-day management and recording of capital transactions, which are an acceptable cost. The latter expenses include those arising from the registry and transfer of share capital when they form part of the activity of the company secretary, costs of share holders' meetings, normal proxy solicitations, reports to shareholders, submission of required reports to government agencies, reasonable directors' fees and incidental expenses of directors and for committee meetings.

Attributable
- No supplementary considerations noted.

Appropriate
- No supplementary considerations noted.

Reasonable
- No supplementary considerations noted.

4.9 Losses on Investment

Description: Losses on investments are losses incurred by the contractor due to its investments in equity and/or debt.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, losses on investment are considered non-applicable costs to the contract.

Attributable
- Losses on investments would not have a causal relationship with, or otherwise required/beneficial for, the performance of the contract and hence would presumably not be Attributable. It is the responsibility of the contractor to manage investment decisions, and any losses would likely be independent of the requirements of the contract.

Appropriate
- No supplementary considerations noted.

Reasonable
- No supplementary considerations noted.

4.10 Losses on Other Contracts

Description: Losses on other contracts occurs when these contracts' respective revenues are lower than their respective costs.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, losses on other contracts are considered non-applicable costs to the contract.

Attributable

- Losses on other contracts would not have a causal relationship with, or otherwise required/beneficial for, the performance of the contract in questions and hence would presumably not be Attributable.

- This principle also applies to application by a contractor of preferred overhead rates to certain contracts. Where this occurs, the excess of actual overhead over the preferred overhead amount will not be absorbed by government contracts.

Appropriate

- No supplementary considerations noted.

Reasonable

- No supplementary considerations noted.

4.11 Patents and Licenses

Description: Patents apply to newly developed technology as well as to improvements on products or processes. Patents provide a time-limited, legally protected, exclusive right to make, use and sell an invention. Licenses defines the terms under which an intangible property (e.g. intellectual property) is licensed for use by one party (e.g. the contractor) to another party (e.g. Canada).

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Costs related to a patent/license (e.g. legal fees, consulting fees, etc.) that will subsequently be owned by Canada may be Attributable if the patent/license can provide future value to Canada.

- Costs and professional fees for patents/licenses that will be maintained by the contractor or were previously owned by the contractor prior to the commencement of the contract would not be Attributable.

Appropriate

- No supplementary considerations noted.

Reasonable

- No supplementary considerations noted.

4.12 Prosecution of Claims Against the Crown

Description: Examples of costs associated with prosecution of claims against the Crown would include legal fees.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, costs associated with prosecution of claims against the Crown are considered non-applicable costs to the contract.

Attributable

- Costs associated with prosecution of claims against the Crown would presumably not have a causal relationship with, or otherwise required/beneficial for, the performance of the contract and hence would presumably not be Attributable.

Appropriate

- No supplementary considerations noted.

Reasonable

- No supplementary considerations noted.

4.13 Provisions for Contingencies and Warranty Costs

Description: A contingency liability is a liability which could arise on the happening of some event which may or may not occur.

Warranty costs include those arising from fulfillment of any contractual obligation of a contractor to provide services such as installation, training, correcting defects in the products, replacing defective parts, and making refunds in the case of inadequate performance.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, provisions for contingencies are considered non-applicable costs to the contract.

Attributable

- The initial provision or increase of funding for a contingent liability is considered to be a setting aside of earned profits to meet possible liabilities against future profits and not a business operating cost and therefore not an acceptable cost to government contracts.

- There is one exception to the above and that is in respect of the acceptability of costs for the provision of warranties. A contractor may include as a cost a reasonable amount to be set aside as a provision for the absorption of expenses associated with warranties given under the terms of the contract, upon formal request by Canada.

- With respect to warranties, ensure the costs are not already compensated in the technical risk premium in the profit calculation.

Appropriate

- Contracts, of a similar nature, could be referenced to inform what type of warranty costs may be Appropriate for the contract in question.

Reasonable

- In determining a Reasonable amount, the following factors should be taken into account:
    - Amounts provided for warranty expenses should be separate for each distinctive product or family of products;
    - Amounts provided should reflect, where available, the previous performance of the product(s) in regard to warranty, using an average of three to five years;
    - Cost of any provision for warranty charged to a specific contract should reflect any difference in the warranty period from that normally granted by a contractor on the product(s); and
    - Costs should be net of any warranty contract sales to other customers.

4.14 Refunds

Description: Money received back pertaining to a cost incurred

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Refunds which are associated with a contract cost would be Attributable.
- Refunds should be traceable to the corresponding contract costs.

Appropriate

- No supplementary considerations noted.

Reasonable

- A refund should be applied as a credit to the contract cost with which it is associated.

4.15 Research and Development

Description: There are two primary types of Research and Development costs, undertaken with the expectation of generating future sales or reducing future costs.

1. General Research and Development: A planned investigation undertaken with the hope of gaining new scientific or technical knowledge and understanding. Such investigation may, or may not be directed towards a specific practical aim or application.

2. Product Development and/or Improvement: A systematic program of work, going beyond basic and applied research which is directed towards the creation of a new or improved product, system, component or material, substantially in a marketable form, but excluding any manufacture beyond completion of the new and improved product's prototype.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2 Indirect Costs Section 04 (02) (h)

General research and development expenses as considered applicable by Canada may be included in Indirect Costs (Overhead).

Under SACC 1031-2, Non-applicable Contract Costs, Section 7(m)

Product development or improvement expenses not associated with the product being acquired under the contract are considered non-applicable costs to the contract.

General Research Phase

- Research phase is taken on with the prospect of gaining new knowledge and understanding. The company is researching the unknown, and therefore, at this early stage, there is no future economic benefit.

- The expenditure is treated as an expense as incurred and must be assessed through the Appropriate, Attributable and Reasonable criteria accordingly.

Product Development Phase

- Development phase is the application of research findings/knowledge to a plan for the production or creation of new or substantially improved materials, devices, products, processes, systems, or services, before the start of commercial production or use.

- Should be assessed to determine if the cost meets the criteria Attributable, Appropriate and Reasonable, as well as meeting the criteria of an intangible asset, such that the contractor can demonstrate the existence of a market/value for the output of the development. See Annex 5.3.6 (Discussion Paper - Research and Development Costs).

Attributable

- No supplementary considerations noted.

Appropriate

- No supplementary considerations noted.

Reasonable

- Development costs recorded as intangible assets are recovered directly through the costs of the relevant products in line with the acceptable Canadian accounting standards; Canadian Generally Accepted Accounting Principles (i.e. ASPE or IFRS) as they are sold provided:
    - the total development costs applicable can be separately identified.
    - the costs were not previously allocated to a government contract, directly or indirectly.
- The costs are prorated to specific product sales appropriately to all customers.

4.16 Sales and Marketing Costs

Description: Sales and Marketing costs are primarily incurred by contractors to generate future sales of their goods or services. Examples of sales and marketing activities include selling, public relations, advertising and entertainment.

"Bid and Proposal Expenses (i.e. bid and proposal development costs)" are the costs incurred in preparing, submitting, and supporting bids and proposals, (whether or not solicited), on potential contracts, including:

a. direct administrative effort, for the physical preparation of the technical proposal documents, and also the technical and non-technical effort for the preparation and publication of cost data, and other administrative data necessary to support the contractor's bids and proposals;

b. technical effort, incurred to specifically support a contractor's bid, or proposal, including the system and concept formulation studies, and the development of engineering and production data; and,

c. purchased services and supplies incurred to specifically support a bid or proposal.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, advertising, except reasonable advertising of an industrial or institutional character placed in trade, technical or professional journals for the dissemination of information for the industry or institution (7n) and entertainment expenses (7o) are considered non-applicable costs to the contract.

Refer to Annex 5.3.1 (Discussion Paper: Sales and Marketing Costs) for additional details and considerations on when Sales and Marketing costs may be acceptable.

Attributable and Appropriate

- Entertainment expenses are not attributable or appropriate to Canada. This includes expenses for amusement, diversion, social activities, and incidentals. In some circumstances, if it may be possible to demonstrated that expenses associated with meetings and conferences, when called for the dissemination of technical information or discussion of production problems and the like, are acceptable. These expenses may include those for meals, transportation, rental of meeting places and other incidentals provided they are reasonable.

- Advertising that supports the publications of trade, technical or professional journals for the dissemination of information for the industry may be considered acceptable in the event the contractor's employees use the journals to enhance knowledge and skills that lead to increased knowledge, efficiency and productivity benefits for the government contract, provided the Advertising:

    - Is not display advertising, and is institutional or support advertising only

    - Does not advertise a particular product or service of a contractor

    - Is not a financial publication geared primarily to investors, versus industry or trade

- Advertising expenses associated with recruiting and employment opportunities may be considered an acceptable cost, provided they are reasonable

- Under paragraph 04 (02) (g) of SACC 1031-2, selling and marketing expenses which could be considered to include, bid and proposal expenses, are listed as one of the items generally considered to be indirect costs. There are some instances where bid and proposal expenses are directly charged to the resulting contract as a consistent business practice by the contractor.

- Bid and proposal expenses may be considered Attributable as a direct charge to a contract when the proposal contributes to the achievement of contract specific requirements and is required for subsequent contract negotiations (i.e. to extend the length of the existing contract), provided that the bid and proposal expenses are clearly denoted in the proposal and contract documents as forming part of the agreed contract price.

Reasonable

- Sales and marketing costs must be allocated fairly between Canada and the contractor. Consideration must also be given to ensure the benefits balance or outweigh the associated costs. Additional allocation considerations include the following:

    - selling and marketing expenses should be clearly identified by a contractor as distinct from other indirect costs to the extent, where warranted, of creating a separate cost pool for these expenses;

    - where a contractor manufactures more than one particular product or provides more than one particular service, the selling and marketing expenses specifically identifiable with each particular product or service should be allocated directly thereto with any general expenses being prorated equitably across all products or services; and then

    - a pro-rata share of the selling and marketing expenses allocated in accordance with the particular products or services or family of products or services being acquired under the contract included in the applicable overhead costs of the contract

4.17 Taxes

Description: In Canada, taxes may be assessed at the federal, provincial/territorial, and municipal level. Examples of tax types include income tax, consumer tax, property tax, and import/export tax.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2, federal and provincial income taxes, excess profit taxes or surtaxes and/or special expenses in connection with those taxes are considered non-applicable costs to the contract.

Attributable

- Tax accounting principles should be employed to determine the applicable tax types.
- Taxes, assessed on the inputs, which are causal with, or otherwise required/beneficial for, the performance of the contract, cannot be avoided.
- Example: Types of inputs are raw materials, employees, and assets (e.g. factory). Respective taxes of these inputs are sales tax, payroll tax, and property tax.

Appropriate

- Taxes assessed on income (e.g. income tax) and other taxes in connection with financing, refinancing or re-organizing would not be an Appropriate cost.
- Note: Tax Refunds are under review for potential changes related to the applicability of such credits against appropriate contract costs. Currently, guidance states that all tax refunds, federal or provincial, are not required to be applied to reduce any related expenses. Consideration is being made to suggest that refunds/credits relating to applicable costs, for example as detailed in the attributable tax costs defined above, should be applied as a credit to the related appropriate contract cost. This remains a proposed change for comment and feedback. Refer to 4.15 Refunds cost table for related guidance on Refunds.

Reasonable

- The amount paid by the contractor for Attributable and Appropriate taxes would be considered Reasonable (in accordance with Canadian Tax Regulations).

4.18 Joint Venture

Description: "Joint Venture" is association of two or more parties who combine their money, property, knowledge, expertise or other resources in a single joint business enterprise, sometimes referred as a consortium, to bid together on a requirement.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Operational costs of a joint venture should be treated similarly as operational costs to any contractor. As such these costs are Attributable to the extent that they are considered reasonable and can be allocated to the contract based on SACC 1031-2 and Costing Standard guidance.
- When materials, supplies or services must be transferred to the joint venture under subcontracts issued to a representative of the joint venture, the contracting officer should negotiate acceptable subcontract costs with the representative in accordance with *Non-Competitive Acquisitions of Manufactured Products and Repair and Overhaul Services, from Agency and Resale Outlets* in Annex 10.3 of the Supply Manual.
- For non-competitive contracts intended to be awarded to a joint venture, special costs to the joint venture arrangement alone, such as legal, accounting and consulting fees in connection with the setting up of the joint venture, are generally not attributable costs.

Appropriate

- No supplementary considerations noted.

Reasonableness

- Joint venture costs should be assessed for reasonability in line with other standard contract costs.
- A bid price based on average rates from a joint venture is not considered reasonable. To be considered reasonable, the total contract price should be based on the sum of the price of each joint venture member's workload that is priced separately using appropriate costing procedures.

4.19 Transfer Pricing

Description: Transfer pricing refers to the prices set for goods or services that are exchanged among related parties (affiliated or entities under common control, joint control or significant influence). The "Transfer Price" is the price at which a supplier sells its goods or services to a related party buyer.

"Intra-company transfer prices" refer to transfers between divisions of the same legal or corporate entity.

"Inter-company transfer prices" refer to transfers between a company and its subsidiary or affiliate enjoying separate legal status but otherwise under common ownership control.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- No supplementary considerations noted.

Appropriate

- No supplementary considerations noted.

Reasonable

- Intra-company transfer prices must be charged under the contract at cost according to the Contract Cost Principles 1031-2 without allowances for profit or an allocation of corporate general and administrative expenses. These allowances must apply on the cost of the finished product sold to Canada.

- Inter-company transfer prices charged under the contract must not be, whenever possible, greater than those which approximate fair market value (i.e. market price).
    - Fair Market Value means the price that would be agreed to in an open and unrestricted market between knowledgeable and willing parties dealing at arm's length who are fully informed and not under any compulsion to transact.
    - If the good or service has a going price at which significant quantities are known to sell in the market in arm's length transactions, such a price will represent fair market value. Examples: regulated prices, posted prices, catalogue prices and other prices actually available and given in past transactions to arm's-length parties for the size, quality, timing and location of the transaction, after all discounts have been considered.
    - An inter-company transfer price representing fair market value will be used as "laid-down cost" for that item for the purposes of computing mark-up, profit and contract price.
    - Refer to Section 2.0 in the Guide for more information on Market Pricing

- In situations where approximate fair market value cannot be determined, inter-company transfer prices must be those that can be considered as reasonable under the circumstances if the parties to the transaction had been dealing at arm's length.
    - If no price support exists for a fair market price, the transfer prices of the company are established at cost calculated in accordance with Contract Cost Principles 1031-2 without allowance for profit and without an allocation of corporate general and administrative expenses.
    - For transfer prices where price support is provided:
        - If the contractor can prove that the transfer price is at cost, then a reasonable profit as set out in Section 5.2 Profit Principles must apply to the final product cost.

        - If the contractor can provide satisfactory price support for a transfer price in excess of cost, the profit element in such transfer price must be limited to a reasonable profit as set out in Section 5.2 Profit Principles.

- Refer to Annex 5.3.4 Discussion Paper – Transfer Pricing for further support on the overall considerations, documentation and assessing reasonability of transfer prices.

- Where necessary, common ownership control must be determined by reference to the latest issue of appropriate trade surveys (e.g. Financial Post Survey of Industrials, Moody's Industrials, etc.), as confirmed by means of a certification from the company as to owenership control (use SACC Manual clause A9112C for this purpose).
    - Ownership control is presumed in cases where at least 50 percent of the voting rights are held by the affiliate.
    - This clause is required to warrant that a contractor is not under common ownership control of another division, parent company or affiliate supplying materials and/or services in connection with the work under contract and gives Canada the right to terminate or readjust the price to reflect level of profit payable under transfer pricing practices in the event of a breach to this warranty.

4.20 Head Office Expense

Description: "Head Office" is an office responsible for the policy direction and management of two or more, but not necessarily all "segments" (i.e. branches, divisions, product departments, plants or other subdivisions, etc.) of an organization. These segments report directly to a head office and are usually identified with responsibility for profit and/or producing a product or service and is part of the same legal entity.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- For the allocation of any expenses to be attributable, generally company policies describing the basis of allocation of these expenses in a Head Office/Segment relationship must exist. For example, a company with two segments may have a company policy to split any head office expenses (i.e. head office accounting and administrative expense) evenly between the two segments.

Appropriate

- No supplementary considerations noted.

Reasonable

- Allocation based should be well documented and based on historical and present cost data with considerations for future economic conditions. Allocations derived from an arbitrary forecasted distribution base are not considered Reasonable.
- For the allocation of the expenses to be considered reasonable all, or any combination of the following three methods should be used.
    - **Directly Chargeable** – Expenses are identified as incurred specifically and totally for one particular segment is included within the Head Office expense pool. Such expenses should be allocated directly to the particular segment, to the extent practicable.
    - **Separately Allocated** - Individual, or groups of expenses are allocated only to a limited group of corporate segments. Such expenses are not typically incurred for specific segments but are related to the segments by an objective and measurable relationship and subsequently are allocated in costing pools based on this.
    - **Residual** - These are the remaining expenses which are allocated to all, or most segments on an overall basis. These expenses should be allocated to segments using a base or bases which represent the total activity of the segments (see below). If the allocation amount were material, utilizing all three methods of allocation may be necessary. In less significant situations, a combination of the Directly Chargeable and the Residual methods might suffice. In low-dollar value situations, the Residual method alone might be appropriate.
        - There are many and varied bases which might be used to allocate residual expenses. To be accepted and considered reasonable, the base(s) selected must be representative and consistently applied to all segments of the organization. The following are examples of bases for allocation which are often used, in each segment of the organization:
            - The number of personnel,
            - The dollar value of production,
            - The cost of goods sold, or
            - The total sales.

4.21 Environmental Costs

Description: "Environmental costs" are the costs incurred by an entity to prevent, abate, or remediate damage to the environment or to deal with the conservation of renewable and non-renewable resources.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- The contractor should be able to provide evidence of
    - Whether the environmental cost is required or planned to be incurred, and
    - When the environmental cost relates to, either the current period or the future period.

Appropriate

- Environmental costs that are incurred for required and planned known environmental and compliance activities would be appropriate. This may include:
    - Known environmental and compliance costs
    - Planned remediation costs, and
    - Emerging legislative compliance requirement costs

Reasonableness

- The environmental costs incurred in the current operation period, for example, costs of disposal of wastes, should be allocated to the current expenses in the contract.
- For environmental costs incurred in the current operation period for past operations (i.e. clean up costs for activities that occurred previously), material amounts should be deferred and amortized over a reasonable number of future periods (i.e. expected contract life).
- The environmental costs incurred in the current period for future operations, for example, depreciable equipment purchased to control hazardous emissions, should be amortized over the periods for which benefits are expected from the costs incurred.

4.22 Government Supplied Materials

Description: "Government-Supplied Materiel" (GSM) are material supplied to a contractor by a government department or agency on a “free-issue” basis for incorporation into the end product.

- **"Accountable Advance Spares"** are non-catalogued materiel owned by the government and manufactured or purchased by contractors in accordance with agreements between contractors and the government. Accountable Advance Spares are used in the repair and overhaul of government equipment.

"Laid-Down Cost" is the cost incurred by a contractor to acquire a specific product. This includes the invoice price (less trade discounts) charged to the contractor plus any applicable charges for transportation, exchange, custom duties, and brokerage charges, but excludes sales taxes (i.e. Goods and Services Tax and Harmonized Sales Tax).

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Attributable

- Material handling costs related to the storing and transferring out of storage are Attributable and allocated to the GSM when they are embodied (i.e. when they are used in a contract). For example, in a repair and overhaul contract, Canada provides various special parts and material handling costs related to these parts are allocated to the GSM when these parts are used by the contractor in the repair.

- General and Administrative (G&A) overhead expenses and material handling costs that are applicable should be allocated as a cost associated with the embodiment of government supplied material in the year when the materials are embodied. When transfers of GSM, for example from accountable advance spares inventory, are made to Canada for asset disposal, the general and administrative overhead expenses and material handling costs that are applicable are allocated at the time of transfer.

Appropriate

- No supplementary considerations noted.

Reasonableness

- When the contractor stores GSM for Canada, the cost of the items being stored would normally include the laid-down cost of the purchased GSM; or the applicable direct material, direct labour, factory overhead and G&A applicable to the manufacturing operation of the manufactured GSM.

4.23 Donations

Description: A donation is a gift (i.e. money or goods) for which no consideration is given in return.

Supplementary Considerations for the Criteria of Attributable, Appropriate, and Reasonable

Under SACC 1031-2 Section 07 (p), d*onations except those to charities registered under the Income Tax Act* are considered non-applicable costs to the contract.

Attributable

- Donations, except those to political parties, are an acceptable cost provided they comply with the Income Tax regulations and are taken into overhead in the period they are paid rather than pledged.

Appropriate

- No supplementary considerations noted.

Reasonableness

- No supplementary considerations noted.

General Considerations for Costing

Principles-Based Guidance for Determining Contract Costs

Rules-based standards state explicit requirements that must be followed without deviation, while principles-based standards permit the exercise of professional judgment to fit the circumstances, providing flexibility to promote creativity and innovation in the procurement of goods and services.

Costing in Canada is a principles-based approach for assessing the acceptability for contract costs. The overarching principle is contracting for value to Canada. The application of the criteria between contracts should be consistent, but the outcomes, in terms of contract cost acceptability, may differ depending on the complexity of the contracts in question. A principles-based approach to determining contract costs requires professional judgement. For further guidance on the merits of principles-based guidance, refer to Annex 5.1.2 (Discussion Paper: Rules-Based vs. Principles-Based Standards).

Financial and Cost Accounting Work Together to Determine Contract Costs

Financial accounting is used to report the expenses and revenues, assets and liabilities, and cash flow position of an enterprise to external users, typically on a quarterly and annual basis. For example, Canada reports its public financial statements using financial accounting.

Cost accounting is used internally to report costs for decision-making purposes for various cost objects (e.g. goods and services, departments, programs, contracts etc.). For example, in Canada, cost accounting is used to inform cost-benefit, capital investment, cost-recovery and other decisions.

Both financial accounting and cost accounting principles should be used to determine the cost base to price a contract. Financial accounting can be used to generate the initial source of cost information for a contract, while cost accounting can be used to allocate/adjust this cost to derive the cost basis of a contract.
For further guidance on how financial and cost accounting work together to determine contract costs, refer to Annex 5.1.1 (Discussion Paper: Financial Accounting vs. Cost Accounting).

Reporting Costs on an Accrual Basis Instead of a Cash Basis

Accrual accounting records events in the period in which they are incurred (incurred cost) whereas cash accounting records the events only when cash is received/paid. Under the accrual method, the matching principle is followed to recognize revenues in the same period as the expenses that were incurred to earn those revenues. With the cash method, only the receipt or payment of cash triggers the recognition of a transaction which can create timing differences when these transactions are recorded compared to the accrual method, i.e. expenses may be recorded in an earlier period than when revenues are recorded due to the difference in timing of the actual payment of expenses and receipt of revenues.

Accrual accounting should be used as the basis for measuring cost when establishing non-competitive government contracts. The accrual method for measuring cost estimates and actual costs would generally be appropriate for most cost types where the amount can be estimated and there is a sufficient level of certainty of occurrence.

The cash method may provide better value to Canada for cost types where the amount cannot be accurately estimated and/or there is insufficient level of evidence for occurrence. The cash method is rarely used.

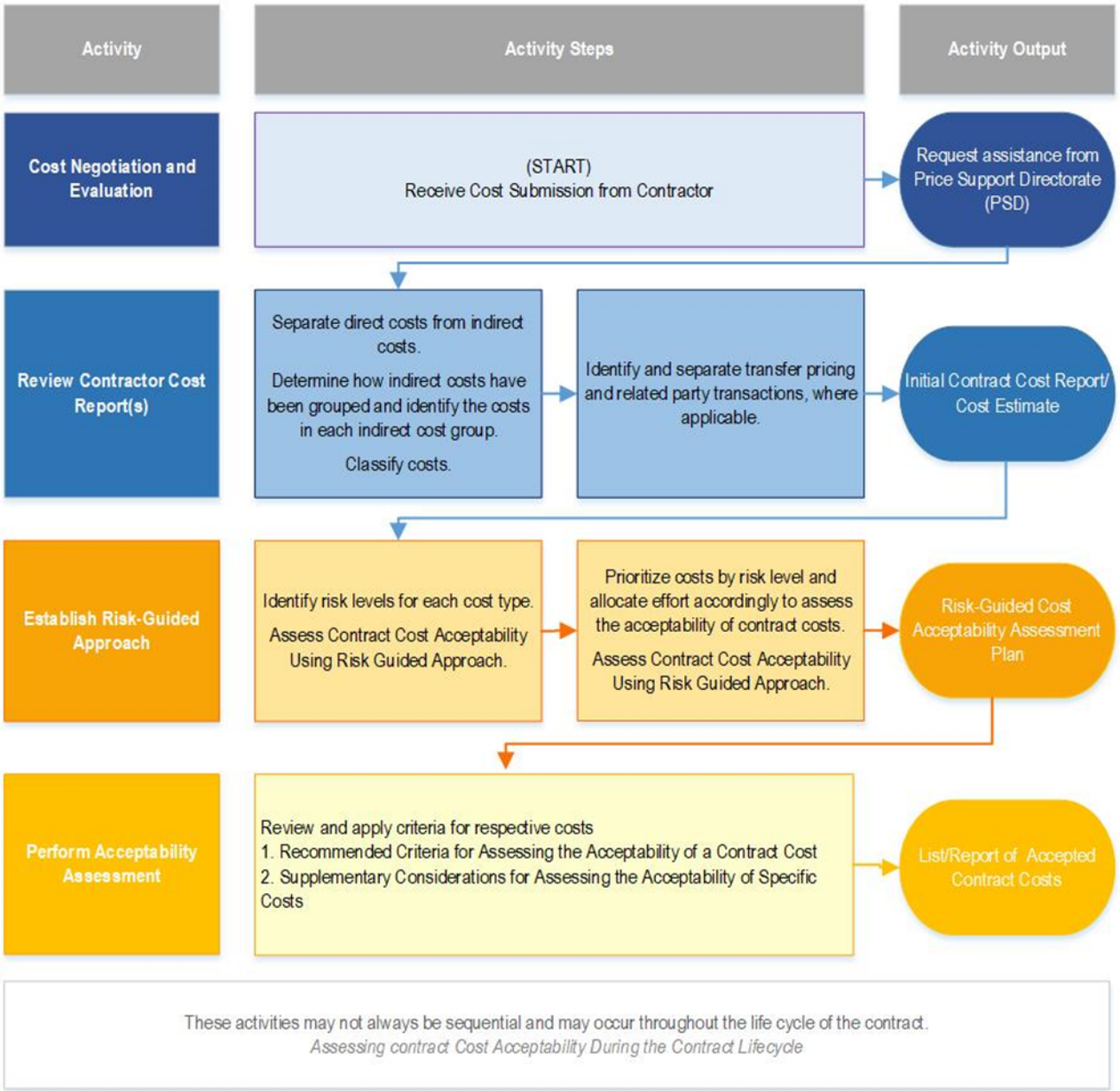
For further guidance on the applicability of accrual versus cash accounting on contract costs, refer to Annex 5.1.3 (Discussion Paper: Accrual vs. Cash Based Accounting).

Annex 2A: Costing Process

The activities, steps, and outputs involved in using the Costing Standard to assess the acceptability of contract costs are depicted in the diagram below.

Figure A2.A.1.: Costing Standard Process

All key decisions should be documented with reasoning and consideration should be made to include important elements in the contract terms and conditions



Annex 2B: Contract Costing Rates

Contract Cost Principles 1031-2 and Annex 2 Costing Standard provide detailed guidance on the determination of acceptable costs, including indirect costs.

"*Indirect Costs"* are costs that cannot be directly identified or measured as applicable in the performance of one contract. Instead, indirect costs may apply to multiple contracts and customers. These are costs which have been incurred in the performance of the contract for the operation of the contractor's business in general but cannot be identified and measured as directly applicable to the performance of the contract.

Indirect costs are typically allocated to a contract by applying contract costing rates as detailed below.

Contract Costing Rates

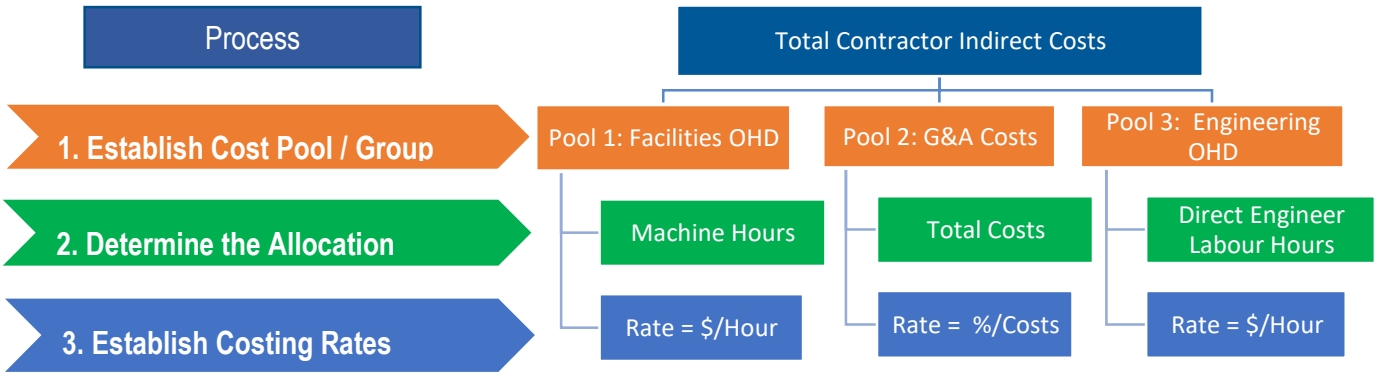
Definition

A contract costing rate, can be an indirect or direct rate with no inclusion of a profit component. It is the most common method of allocating fairly and conveniently a contractor's costs to a contract.

How do they work?

The diagram below illustrates the process of establishing costing rates.

Figure A2.B.1. Process of Establishing Costing Rates



1. Establish Indirect Cost Pools / Groups

   To inform the fair allocation of indirect costs through costing rates, indirect costs should be grouped together logically into groups, also known as pools. Cost pools are commonly used for the allocation of overhead costs. The costs within indirect cost pools should be similar enough in their relationship to each other that the allocation of the total costs in the pool provides a result which would be similar to that achieved if each cost within that pool were separately distributed, and also be grouped in a simple, clear, consistent manner.

   Indirect cost pools/groups often reflect an organization's business or operational lines. Some common examples of cost pools could be general and administrative (G&A) costs, manufacturing overhead, material handling overhead, engineering overhead, etc.

2. Determine the Allocation Factor

   Once the indirect cost pools/groups are established, the total costs are allocated to a contract using a cost allocation factor. The allocation factor for an indirect cost pool/group should reflect the causal relationship of the pooled costs to the contracts to which these costs are distributed. Examples of allocation factors include labour hours, machines hours, square footage, etc.

3. Establish the Costing Rates

   The costing rates are calculated by dividing the contractor's total annual costs in a costing pool/group by the annual volume/dollar value of the allocation factor.

   The rates are calculated annually and are typically based on the previous year's actual costs and volumes with forecasts or estimates for any predicted increases or decreases.

When would you use Contract Costing Rates?

Contract costing rates are required to facilitate contract costing and are applied in the many costing activities within the contract, including the following:

- To negotiate a contract price
- To determine hourly costing rates for invoicing
- To determine the contract costs

Types of Costing Rates:

There are many different types of costing rates that can be applied in a contract, including those we have already discussed above, related to the allocation of overheads and general and administrative costs.

Other types of rates may require additional considerations to those noted above. These special rates may not be appliable to all the contracts and should be determined on a case-by-case basis. Contracting officers are responsible for negotiating fair and reasonable rates which would normally be based on a fixed time/unit rate, i.e., percentage or dollar amount - hourly, per diem, monthly, etc. and shown as a separate line item in the basis of payment to differentiate them from the general overhead rates.

These include:

- Take-Out Rates
- Out-of-Plant Service Rates
- Mobile Repair Party Rates
- Material Handling Rates
- Purchased Labour Rates

Take-Out Rates

Definition

A take-out rate is the negotiated rate applied to the recovery of overhead costs on goods and services which do not form the major portion of the company's business but are in themselves significant relative to a government contract. The resulting rate, in most cases, should be somewhat less than that which applies to other work processed through the company's facilities.

When should you use Take-Out Rates?

Take-out rates may be established to apportion overhead expenses on a reasonable and justifiable basis on goods and services which requires less overhead effort than the company's regular activity.

Potential applicable areas for negotiated take-out rates include subcontracts, drop shipments, mobile repair parties (see the sub-section of Mobile Repair Party Rates), and other specialized applications such as for travel and living that are charged directly to a contract.

The task of identifying where and when a take-out rate is applicable is left to the discretion of the negotiators, who are in the best position to establish the need, based on the information available at the time.

The purpose of a take-out rate is to allocate overhead costs to a contract. Other overhead recovery rates must not include any of the costs of any contracts that are subject to take out rates. This means that take out rates that are established without taking into account the full costs of specific situations may result in unrecovered overhead as this overhead cannot be recovered on other contracts. As an example; this

situation can arise if a contract is established using a take out rate that is set to limit the total price of the contract and the rate is not sufficient to allow full cost recovery.

Out-of-Plant Service Rates

Definition

Out-of-plant service rates are typically used to allocate the indirect costs of services that occur offsite and out-of-plant and often is shared among multiple locations. Out-of-plant services include field services representatives, out-of-plant technical services and mobile repair parties away from the contractor's plant.

Due to the fact that the above services are not fulfilled in contractor's facilities, separate cost grouping for costs allocation to offsite locations may be necessary to permit equitable distribution of costs on the basis of the benefits accruing to the cost objectives.

When should you use Out-of-Plant Service Rates?

Out-of-plant service rates are applicable when services are not carried out on the primary business site. Typically, full plant overhead should not be applied to out-of-plant charge-out rates, unless the out-of-plant technical services are relatively minor, which is defined as less than 10 percent of the contactor's total business (volume /direct labor) in any one year. For example, a shipbuilding company will send field service representatives for an annual maintenance to service the government's ships for 2 weeks. As these services only account for 8% of the company's total business volume in a year, the out-of-plant rates could be calculated, and the resulting rates should be less than the full recovery rates.

Mobile Repair Party Rates

Definition

A mobile repair party is an individual, or group of individuals, performing work away from the contractor's plant, generally at the client's location. A mobile repair party rate is calculated to allocate the indirect costs related to the mobile repair party work for the government contract.

Repair work is normally carried out in a contractor's facility but, on occasion, to meet the requirements of a customer department, the contract specifies the repair work is required to be performed at other locations. The full overhead costs may not be applicable to the mobile repair party costs. Mobile repair party rates are applied in these cases to fairly allocate applicable indirect costs to the mobile repair party work.

When should you use Mobile Repair Party Rates?

The overhead rate on mobile repair party work is typically at the full plant rate. This is because the mobile repair party work may only be a part of the out-of-plant services. However, under the following three

circumstances, negotiation of mobile party repair rates may be required to reflect the reduced costs applicable for the mobile repair party work.

a. Where the estimated hours to be expended for mobile repair party work exceed 5% of the estimated total direct labour hours for both commercial and defence repair and overhaul work during the contract period, or
b. Where the estimated hours to be expended for mobile repair party work are less than 5%, but the contracting officer considers that a significant number of direct labour employees are hired for mobile repair party work only; or
c. Where the contractor maintains adequate cost records to permit the calculation and negotiation of a separate mobile repair party rate.

Material Handling Rates

Definition

A material handling rate is an overhead rate established to allocate indirect costs associated with handling materials. The material handling pool may include costs for purchasing, receiving, incoming inspection, storing, inventorying, packaging, and shipping materials. It is important that material handing costs clearly exclude costs relevant to the labour-hour rates such as direct labour costs and fringe labour costs.

When should you use Material Handling Rates?

The material handling rates are typically used by manufacturing companies when material handling is a crucial component of their production or business operation. When materials for resale as well as materials for overhaul or manufacturing are handled, the development of a material handling rate becomes necessary.

One common base for allocation of material handling costs is the cost of material used. If free issue materials (materials that are free of charge, for example, materials suppled by the Government or by a Government agency) are handled along with purchased materials, a handling rate can be developed if the free issue materials can be valued. If it is not possible to set a reasonable value on the free issue materials, then a basis for allocation other than material cost would have to be used. In this case, it may be possible to have a record of the number of parts handled to serve as a base for distribution of material handling costs.

However, the full material handling rate would no longer be appropriate if

- High-cost units are mixed with lost cost units,
- Trading operations are conducted along with overhaul and manufacture, or
- Higher costs than normal are incurred in handling materials used in specific contracts because of special requirements of customers.

In the above situations, cost support should be obtained for the material handling costs breakdown to determine the accurate costs and allocation base over the cost of material or over the number of parts handled.

Purchased Labour Rates

Definition

Purchased labour costs are costs incurred by a contractor/entity for temporary personnel procured from the outside for skills such as engineers, technical writers, technicians, or craftsmen.

Contractors' cost accounting method for purchased labour and overhead allocation varies depending on the circumstances under which purchased labour costs are incurred. For example, some contractors classify purchased labour as direct labour costs when the work is performed in the contractor's facilities under their supervision and otherwise meets the definition of direct labour costs under the Contract Cost Principles SACC 1031-2. Other contractors may classify purchased labour as subcontract costs.

When should you use Purchased Labour Rates?

When treating purchased labour as direct costs, the contractors may use either the purchased labour rate or average labour rate incurred by their own employees for comparable work. However, differences between the average labour rate incurred by the contractor's own employees and purchased labour prices are treated as overhead costs and are allocated accordingly.

The allocation of these purchased labour costs should be based on the causal or beneficial relationship to the cost drivers (i.e. certain indirect expenses) and the allocation method must be consistent with the contractor’s disclosed cost accounting practices

The accounting treatment for purchased labour must be evaluated on a case-by-case basis with consideration given to the materiality of costs involved and the overall effect of the accounting treatment on final cost objectives such as ascertainment of cost and proper presentation of cost data for measuring cost efficiency. Acceptance or rejection of the contractor's treatment of purchased labour must be based on:

a. the causal and beneficial relationship of indirect expenses and purchased labour, and

b. the nature of the employer/consultant relationship.

The preferred cost accounting method for purchased labour is to have a separate direct cost for this activity with an appropriate allocation of applicable overhead. Other methods are acceptable providing the

accounting method is considered reasonable and justifiable and meets the relevant Contract Cost Principles SACC 1031-2.

Did you know the risks of applying multiple rates in a contract?

- The costing rates applicable, costing pools and allocation factors are contract specific and will vary from one contract to another.
- Special attention is required when applying two or more types of costing rates in one or more contracts with a contractor to avoid Canada double paying for indirect costs in multiple costing pools.
- Guidance and cost interpretation from the Price Advisory Group (PAG) of the Procurement Support Services Sector (PSSS) is recommended. Please see Annex 3 for contact information.

Annex 2C: Cost Management

Cost Support and Validation

Cost management is a continuous process of estimating, allocating, controlling, proving and validating contact costs. This section focuses on the aspects of cost support and validation strategies in cost management.

Cost Support

Cost support is the method of showing how the claimed costs related to a contract are identified and assigned in order to establish the cost base or a costing rate.

Breakdown of Expenses

A breakdown of expenses is required by a contracting officer and a price advisor to evaluate the direct costs, indirect costs and costing pools. There may be situations where an invoice or claim has a total combined dollar value for a group of expenses, for which further detail is required on cost classifications. In these cases, it is appropriate to request financial statements from the contractor, such as an income statement, a statement of expenses or a trial balance or general ledger that will contain details of the expense/costing accounts.

Proof of Costs Incurred

Proof to validate the price being submitted by the contractor would be required at the beginning of a contract, in line with SACC clause C0008T, which is to be included in bid solicitations for all non-competitive bids. Also reviews and approvals of various cost claims throughout the management of the contract is required.

Support for costs that can be requested include but is not limited to:

- copies of invoices
- copies of receipts
- copies of cheques
- proof of banking transaction via financial bank/credit card statements, etc.
- payroll registers for salary evidence
- time sheet logs

Depending on the cost and magnitude of the amount (i.e., single large dollar amount vs. pool/group of costs), different supporting documents can be used. For example, supporting documentation for direct

costs such as salaries and wages can be found in a breakdown of expenses from the organization such as in an income statement or supported through copies of employee pay stubs, time sheets or other verifiable logs, through a payroll/project/labour time recording system. In addition, copies of legal agreements/contracts with prices clearly stated could also be useful supporting documentation for cost acceptance.

Supporting documentation provided should include enough detail for the contracting officer to determine what the cost/expense incurred is for, the amount paid, the date of purchase and who was paid (i.e., supplier name).

When scrutinizing supporting documentation for costs incurred such as invoices, there may be costs that are not related to the procurement/project or do not meet the Attributable, Appropriate, and Reasonableness criteria. These costs should be excluded from the contract costs.

Validation Strategy

Validation is the act of checking or proving the validity and accuracy of something. In terms of cost validation, it refers to a systematic process of verifying the actual costs incurred in a contract, the credibility of contractor's systems and the achievement of incentives.

Why is validation strategy needed?

Developing a validation strategy is an important part of costing and contract management. It seeks to:

- manage risk in a contract;
- better understand the nature of the costs being claimed;
- establish the credibility of the amounts being charged; and
- validate the achievement of incentives

What is included in a validation strategy?

It is important that the validation strategy be established early on in the acquisition lifecycle and prior to both the Request for Proposal and contract negotiation.

The validation strategy should assess the risks in the contract pricing strategy and specific risks related to the contractor to properly assess:

- the areas within the contract that will require validation, and
- when the validation should be carried out

What should be validated?

The strategy will establish the level of assurance work that is required to perform the validation. For example, higher dollar value or higher risk contracts may require the Assurance Services Group to coordinate the validation work whereas other areas of the strategy may be carried out by contracting officers, through requests for support as outlined in the sub-session of Cost Support.

Areas that may require validation include

- the accuracy of cost estimates or costs being claimed;
- the actual levels of profit being earned;
- the ability of a contractor's system to appropriately track costs; and
- information related to the achievement of contract incentives.

The Assurance Services Group (ASG) within the Procurement Support Services Sector (PSSS) is available to assist contracting officers in developing a validation strategy. Please see Annex 3 for contact information.

SACC Contract Clauses

In order for validation to be carried out for a contract, appropriate clauses must be included in the contract terms and conditions. The key audit and validation related clauses are listed in the following table:

Category	SACC Clauses	Description
General Conditions Audit Clauses *Please note: an update has been proposed to the general audit clauses currently found in the Standard Acquisition Clauses and Conditions (SACC), Section 3 General Conditions templates and a proposed additional audit clause for the SACC Manual.*	• 2010A 17 • 2010B 16 • 2010C 14	To audit the amount claimed for medium complexity goods, professional services, and services respectively
	• 2030 33 • 2035 31 • 2040 42	To audit, inspect and examine the accounts and records of the contractors of high complexity contracts and Research and Development contracts
Mandatory Discretionary Audit Clauses	C0100C	To validate the lowest price or rate charged by anyone else, including the contractor's most favored customer through a price certification for **commercial** goods and services.

(For Firm Price Basis of Payments – all non-competitive contracts valued over $50,000)		*Please note: This clause should be used with caution as it may be difficult to assess whether the contractor is able to meet the audit / validation requirements specified in this clause prior to contract award.* *If a supportable commercial price is available, sufficient price support must be obtained and validated prior to accepting the commercial* price. *See Section 5.0.2 Commercial Pricing for more information.* *It is recommended that contracting officers also ensure that the "Accounts and Audit" clauses from the SACC Section 3 General Conditions template are used. For example, as appropriate, the "General Conditions – Higher Complexity – Goods SACC 2030, section 33", "General Conditions – Higher Complexity – Services SACC 2035, section 31" and "General Conditions – Research and Development 2040, section 42" are recommended. The "Accounts and Audit" clauses included in the templates detail the contractor's obligations related to audit (i.e. the contractor must retain evidence for all amounts claimed in a contract) and protects Canada's right to audit (i.e. Canada's right to audit all claimed amounts, calculated in accordance with the Basis of Payment).*
	C0101C	To validate the actual profit earned on a contract for **non-commercial** goods and services
Cost Reimbursable Contracts	C0300C	To support information available for audit that requires a detailed cost submission of all cost elements signed and certified by the contractor when costs will be computed in accordance with Contract Cost Principles 1031-2
	C0307C	To support information available for auditing contracts for repair and overhaul services
Fixed Time Rate Contracts	C0710C	To provide for the verification of time charged and the contractor's time recording system

Contracting officers must refer to the SACC Manual for other related audit clauses to ensure terms and conditions are appropriately included in the contract for proper validation of the costs claimed by the contractor.

Service Contacts

The profit for all services not established by price competition, except repair and overhaul, are negotiated on the basis of the prevailing rates for the type of work required and recognizing the circumstances of each contract. Considerations may be given to the following areas:

Areas of Consideration	Description
Requirements of the task	An assessment of skill level, expertise necessary, or complexity of the task requirements
Bidder qualifications	Prices will vary in terms of factors like the calibre of proposed personnel, knowledge or expertise, previous experience, personnel utilization rate, use of facilities, or the area of specialization
Market conditions	• A determination as to whether there is a commercial or going rate (the average or usual price that is charged) for a particular expertise or service capability in private industry should be made. • If these rates cannot be determined, the profit scales recommended by provincial professional associations may be used as a reference point from which the reasonableness of a negotiated rate can be compared
Costing/pricing practices	The costing structures of individuals, bidders and universities are different and will vary significantly. Some costs that would otherwise be charged separately are sometimes charged to overhead, thus increasing the total rate but may not necessarily increase the total contract price.

The profit of the service contracts includes only those elements of cost properly associated with the actual time expended on the work. These are the direct labour costs and their fair share of overheads, general and administrative expenses and profit. Other direct costs such as charges for publication of reports, special computer or test services, travel and living, should normally be shown separately. Each case is required to be taken on its own merits to arrive at an assessment of which amounts are reasonable charges, either as a profit element, or as a separately charged item.

In all contracts for services with a cost reimbursable or fixed time rate basis of payment, the rates of payment should be specified for the entire period required for performance of the contract, including all

phases and specified option periods. When this is not possible, payments for each year or phase are based on a pre-agreed rate or formula that is to be specified in the contract.

ANNEX 3: CONTACT INFORMATION

Organization	Organization Description	Contact Information
Pricing Practices and Guidance Group (PPGG)	The **Pricing Practices and Guidance Group (PPGG)** provides guidance, tools and support related to pricing.	TPSGC.padgamtp-appbipm.PWGSC@tpsgc-pwgsc.gc.ca
Professional Accounting Practices Group (PAPG)	The **Professional Accounting Practices Group (PAPG)** is responsible for administering the Cost Accounting Practices (CAP) Submission program.	TPSGC.PADeclarationdesPCA-APCAPSubmission.PWGSC@tpsgc-pwgsc.gc.ca
Price Advisor Group (PAG)	The **Price Advisory Group (PAG)** is responsible for direct support in the negotiation of interim rates or cost-base for pricing and advice to contracting officers on basis of payment.	TPSGC.PASoutiendesprix-APPriceSupport.PWGSC@tpsgc-pwgsc.gc.ca
Assurance Services Group (ASG)	The **Assurance Services Group (ASG)** provides contract related assurance and advisory services on credibility, integrity, and reliability of financial and non-financial information used to support contractor claims.	tpsgc.padgagsc-APPBASG.pwgsc@tpsgc-pwgsc.gc.ca

ANNEX 4: PROCESS STEPS FOR COST ACCOUNTING PRACTICES (CAP) SUBMISSION

Process Steps	Process Description
Initiate The Process	• The contracting officer identified in the solicitation document initiates the CAP Submission process.
Provide and Complete Template	• The contractor will be provided with a template for the Cost Accounting Practices (CAP) Submission by the Procurement Support Services Sector. • Contractors can complete and submit the CAP Submission tool to the point of contact identified in the solicitation document. • Any questions about this document should also be directed to the point of contact identified in the solicitation document.
Review of the CAP Submission	• The Procurement Support Services Sector will review the CAP Submission. Requests for clarification or additional information from the Contractor may be made. • Review of CAP Submission: Items are assessed to determine whether or not they are in accordance with SACC 1031-2.
Documentation and Contract Amendment	• The contracting officer will incorporate the CAP Submission in the contract by way of a certification by the contractor. • The original CAP Submission will be retained by the Procurement Support Services Sector and a copy distributed to the client department and contracting officer.

Refer to the Section 5.1.2 (Cost Accounting Practices Submission) for additional information.

ANNEX 5: DISCUSSION PAPERS

ANNEX 5.1 BACKGROUND: CONTRACT PRICING IN CANADA

These discussion papers provide general considerations for contract costing and pricing in Canada. They provide further guidance on various topics to support contracting officers' understanding of how contract pricing works in Canada.

ANNEX 5.1.1 DISCUSSION PAPER - FINANCIAL ACCOUNTING VS. COST ACCOUNTING

Financial Accounting versus Cost Accounting for Reporting Contract Costs

Context

This discussion paper provides guidance to contracting officers in the negotiation of non-competitive contracts or contracts where price negotiations with the successful bidder are required following a competitive process.

This discussion paper is intended to help inform contracting officers, to prepare for contract negotiations and manage the contract through its lifecycle. Based on the scale and complexity of the acquisition, this requires considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts. This discussion paper is not intended to be a procedural document.

Why This Matters?

Financial accounting and cost accounting can be used to determine the cost base to price a contract. When contractors rely primarily on financial accounting, without proper consideration of cost accounting, to report contract costs, the reported costs may not be attributable, appropriate, and reasonable. As such, clear direction around the application of both financial and cost accounting is required to help ensure that reported contract costs meet these criteria and ultimately optimize value to Canada.

Recommendation

Both financial accounting and cost accounting principles should be used to determine the cost base to price a contract. Financial accounting can be used to generate the initial source of cost information for a contract, while cost accounting can be used to adjust this cost information and derive the cost basis of a contract.

This initial source of cost information can be relied on more heavily when the cost-based payment for the contract, or components or phases of the contract, is determined by actual costs. When the basis of

payment is determined by cost estimates, the initial source of cost information may provide a historical basis to estimate costs; however, additional data[2] will be required to develop a sound cost estimate.

Ultimately, the application of both financial and cost accounting will help ensure that the costs included in a contract are attributable, appropriate, and reasonable.

Analysis

This section first describes the purpose and key principles of financial and cost accounting as it pertains to cost reporting, identifies the similarities between them, and explains their differences. Second, it describes how financial and cost accounting work together to determine the cost basis of a contract. Last, it identifies potential challenges that contractors may experience in determining the cost basis of a contract.

A. Cost and Financial Accounting as it pertains to Cost Reporting

Purpose and Key Principles of Financial Accounting

Financial accounting is used to report the expenses and revenues, assets and liabilities, and cash flow position of an enterprise to external users, typically on a quarterly and annual basis. For example, the Government of Canada reports its public financial statements using financial accounting.

In financial accounting, a cost might be in the form of an expense or an asset. Generally, a cost is an expense (e.g. depreciation), if it relates to the revenue incurred by an enterprise during a specified period, and an asset (e.g. equipment cost) if it provides future economic benefit to the enterprise.

Financial accounting is governed by a set of authoritative publically available principles.[3] From a cost reporting perspective, these principles:

1 identify conditions under which a cost type[4] should be recognized (e.g. reporting expenses in the same period the corresponding revenues are incurred);

2 identify the conditions and options for measuring the amount of a cost type (measuring an asset at historical cost vs. fair market value); and

3 identify that supporting information for the cost type and amount should be disclosed such that the level of detail and understandability is balanced with the cost of producing the supporting information (e.g. supporting calculations and assumptions for fair market value measurement of an asset).

Purpose and Key Principles of Cost Accounting

[2] Discussion on the additional data required to develop a cost estimate is out of scope.
[3] CPA Canada Handbook, International Financial Reporting Standards, 2018 Edition, 2017.
[4] Examples of cost types include depreciation, research and development, executive compensation, and others.

Cost accounting is used internally to report costs for decision-making purposes for various cost objects (e.g. goods and services, departments, programs, contracts etc.). For example, in the Government of Canada, cost accounting is used to inform cost-benefit, capital investment, cost-recovery and other decisions.

In cost accounting, costs must be allocated to cost objects as either direct or indirect costs. In alignment with the Treasury Board Secretariat (TBS) Guidelines on Costing, costs are considered direct, when they are incurred solely to support one cost object[5], and indirect, when they are incurred to support more than one cost object. Indirect costs may be allocated to cost objects using cost pools, groupings of homogeneous or like cost types (e.g. employee-based costs).

The *TBS Guidelines on Costing* identifies six principles for costing[6][7]:

1 costing requires stakeholder consultation and judgement;

2 costing must be done for a specific purpose (different purposes require different information);

3 costing should be done consistently for costing exercises that have the same purpose so that the resulting information will be comparable;

4 costs can be affected by changes in the level of activity of a cost object in three main ways:

- costs can change in proportion to changes in the level of activity of a cost object;
- costs can remain constant regardless of changes in the level of activity of a cost object; and
- costs can remain constant with a particular range of activity but when change when the level of activity of a cost object passes a specific amount.

5 data used in a costing exercise must of high quality and must be reasonable, consistent, defensible, reconcilable and current; and

6 the benefits of cost information (i.e. level of detail, timeliness, accuracy, and complexity) must be balanced against the cost of producing it.

Similarities and Differences between Financial Accounting and Cost Accounting

The principles identified for financial accounting and cost accounting are not mutually exclusive. For example, even though the cost accounting principle of stakeholder consultation and judgement is not authoritatively identified as a financial accounting principle, it is required for financial accounting.

The key similarities between financial and cost accounting, pertaining to cost reporting, are identified below:

- professional judgment and stakeholder consultation are required to determine costs;
- cost types (e.g. deprecation, research and development, executive compensation) and amounts need to be recorded and tracked using a reliable accounting system;

[5] Guidelines on Costing. Treasury Board Secretariat, January 2016, https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=30375, Accessed 1 March 2018.
[6] IBID
[7] TBS uses the term costing instead of cost accounting in its guide.

- information, supporting costs, should be of high quality and balanced against the costs of producing the information; and
- consistent accounting methods should be used for costing exercises that have the same purpose.

The key differences between financial and cost accounting, pertaining to cost reporting, are identified below.

- Financial accounting principles provide authoritative standards for identifying conditions, under which a cost type should be recognized, and for identifying conditions and options for measuring the amount of a cost type. Cost accounting does not provide the same degree of authoritative standards.
- Financial accounting is used to reports costs of one final cost object (the enterprise) for the same purpose(s), while cost accounting can be used to report costs for several cost objects for different purposes.
- Financial accounting generally only needs to track data to report on amounts for cost types. For cost accounting, additional, or less, financial data or non-financial data (e.g. about the activity that drives a cost) may need to be tracked depending on the purpose of the respective costing exercise and/or in order to allocate costs to cost objects.
- Compared to financial accounting, cost accounting requires an increased understanding of how the cost will change in relation to changes in the level of activity of the cost object; this is of particular importance for allocating indirect costs to cost objects and for developing cost estimates.
- Financial accounting generally requires reports only at the end of a reporting period, while cost accounting may require reports at any time and with any degree of frequency depending on user needs.

Key Takeaways for Financial Accounting and Cost Accounting

Based on the identified similarities and differences between financial and cost accounting, two key takeaways have been identified.

- **Cost accounting routinely relies on the cost information produced by financial accounting**. Financial accounting provides authoritative standards for generating an initial source of cost information (e.g. cost types and amounts). Cost accounting may further transform this cost information, depending on the purpose of the costing exercise, through:
  - the collection of additional financial or non-financial data requirements;
  - the application of a different cost measurement basis;
  - the classification of costs as direct or indirect,
  - the pooling of homogeneous costs;
  - the allocation of costs to cost objects; and/or

- the development of cost estimates.

- **Cost accounting can be time consuming and difficult**. Producing accurate and complete reports based on cost accounting can be time-consuming and difficult due to:
  - the additional data required, particularly for allocating costs and developing cost estimates; and/or
  - the misalignment of timings with financial accounting reporting dates, particularly for reporting actual contract costs.

The first takeaway is elaborated on in the next section and the second takeaway is explained in the Contractor Challenges for Producing Contract Cost Reports section of the discussion paper.

B. How Financial and Cost Accounting Work Together to Determine Contract Costs

In order to depict how financial and cost accounting work together to determine contract costs, the purpose of contract costing must be discussed.

The purpose of contract costing is to determine what costs, types and amounts, should be acceptable for contracts, or components or phases of contracts, for which the basis of payment is cost-based (i.e. determined by actual costs, cost estimates, or a combination thereof), so that the best value is provided to Canada[8].

Value to Canada, from a contract costing perspective, can be determined by a contract cost's alignment to three criteria.

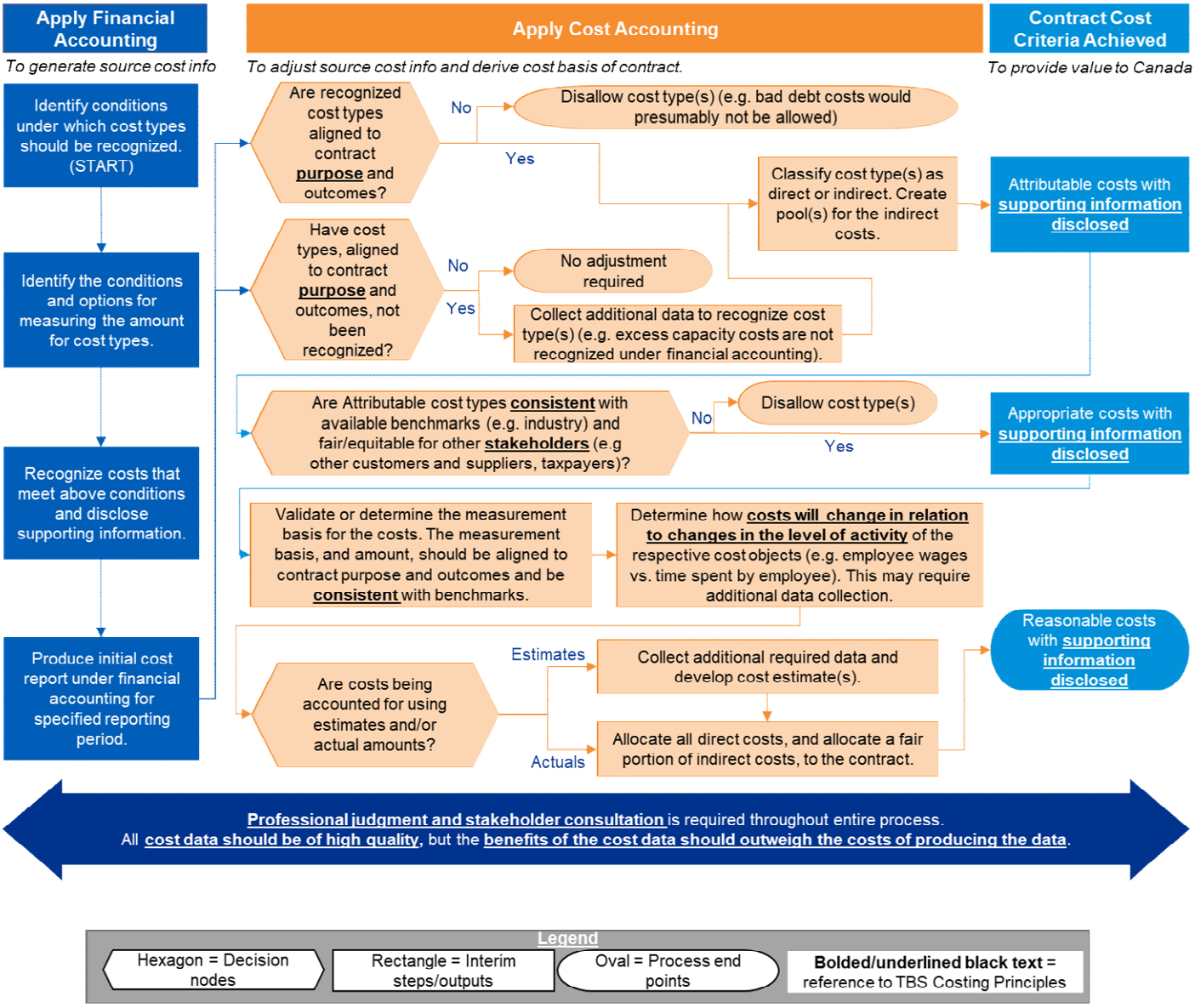
- Is the cost type **attributable** to the contract, including whether the cost type has a causal relationship with, or otherwise required/beneficial for, the performance of the contract?
- Is the cost type **appropriate** for the contract, including whether the inclusion of the cost type in the contract is fair and equitable?
- Is the amount of the cost type for the contract **reasonable**, including whether the amount is consistent with good business practices, congruent with contract performance, and fairly allocated?

Note that the criteria of attributable and appropriate are used to determine if a cost type should be accepted for a contract, while the criterion of reasonable is used to determine what amount of an attributable and appropriate cost type should be accepted for a contract. If these criteria are met, it implies that accepting the cost is of value to Canada. These criteria, as they apply to contract costs, are explained in further detail in the Costing Standard.

The application of both financial and cost accounting ultimately ensure that the costs included in a contract are attributable, appropriate, and reasonable. Financial accounting can be used to generate the initial source of cost information for a contract, while cost accounting can be used to adjust this cost information and derive the cost basis of a contract. The below diagram depicts how these two accounting types work in tandem to determine a contract cost that provides value to Canada.

[8] Canada is representative of The Government, including the customer(s), the industry including the contractor, and the Canadian taxpayers.

Exhibit A5.1.1.a. Financial and Cost Accounting Work Together to provide Value to Canada



Note that the above diagram does not explain every step and detail involved in the application of financial and cost accounting for determining contract costs. Furthermore, it does not detail all of the sub-criteria and considerations that should be met to achieve a contract cost that is attributable, appropriate, and reasonable. As previously stated, these criteria are explained in further detail in the Costing Standard.

The intent of the diagram is to depict that financial accounting can provide an initial source of authoritative information for determining contract costs. This initial source of cost information can be relied on more heavily when the basis of payment for the contract, or components or phases of the contract, is determined by actual costs. When the basis of payment is determined by cost estimates, the initial source of cost

information may provide a historical basis to estimate costs; however, additional data[9] will be required to develop a sound cost estimate.

Current Guidance for the Use of Financial and Cost Accounting for Contract Costing in Canada and Comparators

Canada[10]: Current guidance implies that the use of cost accounting is required to determine the cost basis of a contract. No explicit guidance is provided for the role of financial accounting.

Australia[11]: Current guidance states that a contractor's contract cost report should not focus on compliance to the financial accounting system, but rather to the criteria identified in the guidance for assessing allowable contract costs. The guidance implies that cost accounting is required to determine the cost basis of a contract. However, no explicit guidance is provided on how financial and cost accounting can work together to determine the cost basis of a contract.

United Kingdom[12]: Current guidance states that although contractors may adopt a variety of accounting policies and make judgements in the preparation of financial statements for statutory reporting purposes, the application of these policies will not necessarily result in the correct treatment of costs for contracts. The guidance implies that cost accounting, and not financial accounting, should be used as the primary lens to determine the cost basis of a contract. However, no explicit guidance is provided on how these two types of accounting can work together to determine the cost basis of a contract.

United States[13]: Current guidance is aligned with the Government's Cost Accounting Standards. No explicit guidance is provided for the role of financial accounting.

In summary, the recommendations in this Discussion Paper do not contradict benchmark guidance. Costs produced by financial accounting provide just the initial source of cost information for deriving the cost basis of a contract. In order to derive the cost basis of a contract, which meets the criteria of attributable, appropriate, and reasonable, cost accounting must be used.

C. Contractor Challenges for Producing Contract Cost Reports

As previously identified, producing accurate and complete reports based on cost accounting can be time-consuming and difficult due to the below reasons:

- the additional data required, particularly for allocating costs and developing cost estimates; and/or
- the misalignment of timings with financial accounting reporting dates, particularly for reporting actual contract costs.

[9] Discussion on the additional data required to develop a cost estimate is out of scope.
[10] Contract Cost Principles. SACC Manual, Public Service Procurement Canada, 16 July 2012, https://buyandsell.gc.ca/policy-and-guidelines/supply-manual/annex/10/5/13, Accessed 29 October 2017.
[11] Australian Government-Department of Defence-Capability Acquisition and Sustainment Group, Capability Acquisition & Sustainment Group Cost Principles, October 2017.
[12] Single Source Regulations Office, Single source cost standards-Statutory guidance on Allowable Costs, February 2018.
[13] United States General Services Administration Federal Government, Federal Acquisition Regulations, 17 August 2007.

These challenges, and potential mitigation strategies, are elaborated on further below.

The additional data required, particularly for allocating costs and developing cost estimates. Tracking and collecting certain cost data, which can be both financial and non-financial in nature, may be time consuming, costly, and even infeasible. For example, estimating multiple years' worth of accurate cost activity information (e.g. forecasted time spent by employees on a contract) to allocate costs (e.g. employee benefits) can be time-consuming and potential infeasible depending on the complexity and uncertainty of the scope of the contract. These challenges may be even more applicable for small and medium-sized enterprises (e.g. start-up companies) since these suppliers may not have sufficient accounting capabilities to sufficiently collect and track the data required to estimate and/or allocate contract costs.

To mitigate the above challenge, the cost-based payment type used for the contract, or portions or phases of the contract, could provide consideration to the contractor's ability to collect and track the supporting data required to determine the cost basis of the contract. For example, depending on the nature of the data requirements, certain portions or phases of a contract could have basis of payments which are informed by actual costs instead of cost estimates.

The misalignment of timings with financial accounting reporting dates, particularly for reporting actual contract costs. The schedule for providing contract cost reports to the Government may not align with the schedule for releasing financial accounting reports. Depending on the type of accounting system being used by a contractor, certain costs may only be reconciled at financial accounting reporting dates; as such, contract cost reports may not be 100% accurate and complete.

To mitigate the above challenge, the Government and contractor could, at the outset of the contract, mutually determine a schedule for cost reporting over the contract's duration, such that the contractor is able to report accurate and complete costs.

ANNEX 5.1.2 DISCUSSION PAPER - RULES-BASED VS. PRINCIPLES-BASED STANDARDS

Rules-Based Versus Principles-Based Standards

Context

This discussion paper provides guidance to contracting officers in the negotiation of non-competitive contracts. It is one of a suite of documents (e.g. other discussion papers, the Costing Standard, etc.) developed to support PSPC's review of Canada's pricing framework. Together, these documents provide recommendations for updated guidance, with respect to pricing for non-competitive contracts, including mechanisms to help address the challenges with Canada's current *Cost and Profit Policy*.[14]

This discussion paper is intended to help inform contracting officers, to prepare for contract negotiations and manage the contract through its lifecycle. Based on the scale and complexity of the acquisition, this requires considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts. This discussion paper is not intended to be a procedural document.

This guidance paper considers the merits of rules versus principles based standards that may be considered for PSPC's revision of Canada's pricing framework that is intended to provide guidance for contracting officers when negotiating a contract that includes a good understanding of contractor costs to help inform and negotiate the price of a non-competitive contract.

The overarching principle is contracting for value to Canada. The underlying principles for determining if contract costs are of value to Canada, are the criteria of Attributable, Appropriate, and Reasonable. The application of the criteria between contracts should be consistent, but the outcomes, in terms of contract cost acceptability, may differ depending on the complexity of the contracts in question.

A principles-based approach to determining contract costs requires professional judgement. As such, education and training is required to minimize different interpretations of the criteria of Attributable, Appropriate, and Reasonable.

Research completed to understand approaches in the UK, USA and Australia noted that no jurisdiction follows a completely principle or a rules-based approach, rather each follow a hybrid approach with more reliance on one approach. Current PSPC guidance includes principles as well as rules and also places an emphasis on cost and profit, whereas the revised guidance is intended to both consider the current approach as well as emphasize price and value.

[14] Includes 1031-2 ("Contract Cost Principles") of the Standard Acquisition Clauses and Conditions and Chapter 10 ("Cost and Profit") of the Supply Manual

Some of the trade-offs between a rules and principles based approach include the following:

	Advantages	Disadvantages
Rules	• Consistency of application • Less professional judgement required with focus on step by step process to apply rules • Training to rules simpler (e.g. classroom, online)	• Little room to exercise professional judgement • Many rules required that envisage a multitude of possible scenarios that must be maintained over time • Rules can still be subject to interpretation
Principles	• Ability to exercise professional judgement • Provides flexibility in negotiating contracts • Focus on maximizing value to Canada	• Differing interpretation may lead to inconsistent approaches in negotiating contracts and unintended outcomes after contracts are negotiated • Training to principles not as simple, requires learning and development over time combining formal (e.g. classroom, online and informal training (e.g. mentoring)

Why This Matters?

The application of either rules-based or principles-based approach can impact which costs are allowable, and the level of judgement required to apply principles, within a contract for goods and/or services. By better understanding the merits and limitations of both methods, as well as their implications to inform the understanding of costs from which to negotiate the price of a contract; contracting officers can incorporate the most appropriate approaches and judgements to deliver maximum value for Canadians. As a result, these standards can assist in establishing a more consistent practice across government with regards to the acceptance of allowable cost types.

Recommendation

The recommendation for Canada is to implement a principles-based approach with recommendations, where applicable, for expected practice and examples of appropriate deviations provided based on sound principles. The three key principles to be followed are Attributable, Appropriate and Reasonable. Contracting officers should consider these three principles when considering the costs put forward by contractors to inform the negotiation of price. This approach will assist in achieving improved consistency of practice with principles-based standards that encourage flexibility and innovation to support maximizing the value for Canadians derived from non-competitive contracts. For example, the use of historical cost is recommended (the recommendation based on the cost principle), but the use of replacement cost or opportunity cost may be appropriate in certain instances (buy and sell principle of best value). With recommendations and principles that emphasize the benefits for all parties involved, the contract becomes a vehicle to promote clarity and fairness that go beyond agreement on the specific costs to be allowed.

Analysis

A. Rules-Based versus Principles-Based Standards

Rules-based standards state explicit requirements that must be followed without deviation, while principles-based standards permit the exercise of professional judgment to fit the circumstances, providing flexibility to promote creativity and innovation in the procurement of goods and services.

Although rules-based standards allow for consistency and comparability, there is considerable effort required to provide a list of rules that envision all possible scenarios when negotiating a non-competitive contract. Under a principles-based approach, the use of professional judgment informed by principles enables adaptability to a changing environment and the unique circumstances for a particular goods or services procurement resulting in benefits to all stakeholders involved. Consistency needs to be demonstrated within an acceptable range, requiring documentation of alternatives analysis and decision/approval. Principles inherently allow for experimentation, contractors must be afforded similar treatment and public disclosure required to inform the marketplace and account to Parliament for due exercise of professional judgment.

The current approach for Canada includes a combination of principles and rules. Principles noted in Canada's current contract costing guidance, for example, include general principle and reasonable cost.

- **General Principle** - "The total cost of the Contract must be the sum of the applicable direct and indirect costs which are, or must be reasonably and properly incurred and/or allocated, in the performance of the Contract, less any applicable credits. These costs must be determined in accordance with the Contractor's cost accounting practices as accepted by Canada and applied consistently over time."
- **Reasonable cost** – "A cost is reasonable if the nature and amount do not exceed what would be incurred by an ordinary prudent person in the conduct of a competitive business."

Rules noted in Canada's current contract costing guidance include a list of costs that are non-applicable to a contract (e.g. losses on investments or other contracts, fines and penalties, and entertainment expenses).

B. Preferences in Other Jurisdictions

In the United States, rules-based standards have been promulgated based on principles and are more typically applied in accounting and procurement through the use of US GAAP accounting standards and the Federal Acquisition Regulation. This approach is generally favored in more litigious environments, as deviations from the rules are more easily enforced. In the UK and Australia however, principles-based standards have been developed with accompanying guidance that provide interpretations that can be viewed to some extent as rules. With regards to procurement and generating contracts, additional emphasis is applied to innovation and value for money, as the establishment of general principles enables creativity and develops a better working relationship with third party contractors on future engagements.

C. Implications

In the context of negotiating contracts, the implications for the use of rules-based versus principles-based accounting standards depend on the expectations and outcomes to be achieved from the contract. For example, if a contract is negotiated based on a set of rules to determine what costs are allowable and if the contractor is expecting to follow routine processes for standard work that need to be followed, and require minimal innovation, then a rules-based approach may be appropriate because of its ability to generate consistency of practice and its ease in implementation and managing over the life of the contract. It also facilitates subsequent compliance audits that Canada may conduct.

Conversely, if a contract is being established for a new, complex good/service, the application of general principles may be more appropriate to negotiate a cost based contract. This would enable more innovation and creative approaches to the procurement to achieve Canada's objectives, outcomes and maximize value. It can also result in more effective relationships and collaboration with contractors to develop innovative approaches to delivering the goods or services required. Particularly for large and complex non-competitive contracts (often in Defence), the objective is to obtain maximum value for Canadians.

Within a confined, rules-based contract, there is little room for deviation from the standard. If Canada's strategic objectives and outcomes for a procurement require a solution that is not a readily available good or service, the contracting officer, the customer and the contractor must jointly negotiate a contract that reflects the nature of the solution being sought as well as the distribution of risks and benefits.

Under a principles-based approach, the stakeholders are not as confined to specific requirements and may need to develop a contract that may require a stage-gate process. The assessment of costs that are acceptable under the contract should be straight forward, as long as the costs, which are included under either a rules or principles based contract, are clearly described in the contract. For large complex procurements, which may require a stage-gate process, this will require contract amendments to provide clarity on the type and amount of cost to be included as each gate is achieved. Ultimately, this will help to achieve better outcomes for Canada's revised pricing framework.

ANNEX 5.1.3 DISCUSSION PAPER - ACCRUAL VS. CASH BASED ACCOUNTING

Accrual versus Cash Based Accounting

Context

This discussion paper provides guidance to contracting officers in the negotiation of non-competitive contracts or contracts where price negotiations with the successful bidder are required following a competitive process.

This discussion paper is intended to help inform contracting officers, to prepare for contract negotiations and manage the contract through its lifecycle. Based on the scale and complexity of the acquisition, this requires considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts. This discussion paper is not intended to be a procedural document.

Why This Matters?

Misunderstandings between the concepts and application of accrual and cash based accounting can have a negative impact on understanding and determining contract costs. As a result, users should be aware of the key differences between the two methods and instances and the potential impact of each in establishing and managing a contract. This knowledge will support more consistent understanding and basis to estimate contract costs in support of further value to Canada.

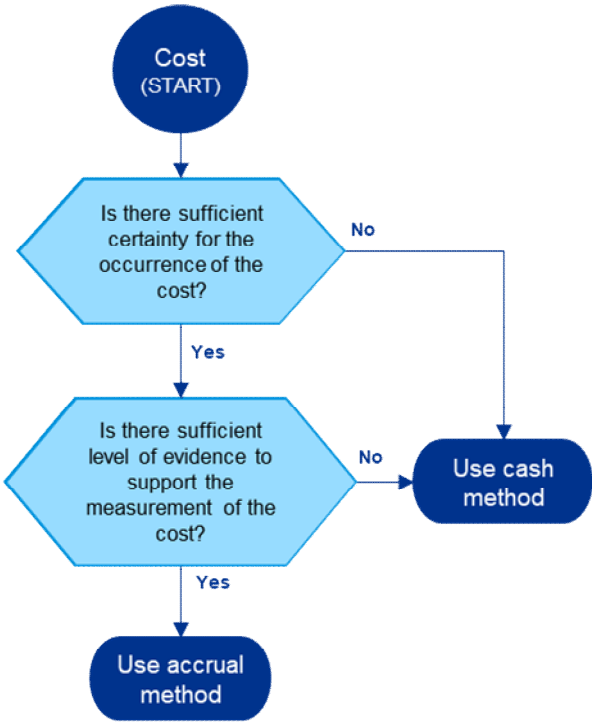
Recommendation

The recommended approach for Canada is to follow accrual accounting as the basis for measuring cost when establishing non-competitive government contracts. The accrual method for measuring cost estimates and actual costs would generally be appropriate for most cost types where the amount can be estimated and there is a sufficient level of certainty of occurrence. For example, the amount of direct labour costs to be included in a contract can be based on the estimates calculated by the contractor as part of their accounting records that typically follow accrual method as labour payments are accrued as of period end and paid shortly thereafter.

The cash method may provide better value to Canada for cost types where the amount cannot be accurately estimated and/or there is insufficient level of evidence for occurrence. The use of the cash method would likely be unusual and used rarely. In the event that the cash method is selected the amount of the cost would only be known with certainty at the time of payment. Examples include, but are not limited to, warranty or severance payments. In these examples, the contracting officer may choose to include terms and conditions in the contract that state that while the cost may be acceptable (if it meets all of the other acceptability criteria) the amount will be determined in the future when the warranty costs or severance payments are actually disbursed.

The following decision tree illustrates the recommendation.

Exhibit A5.1.3.a. – Accrual vs Cash Method.



Analysis

A. Accrual versus Cash Accounting

Accrual accounting records events in the period in which they are incurred (incurred cost) whereas cash accounting records the events only when cash is received/paid. Under the accrual method, the matching principle is followed to recognize revenues in the same period as the expenses that were incurred to earn those revenues. With the cash method, only the receipt or payment of cash triggers the recognition of a transaction which can create timing differences when these transactions are recorded compared to the accrual method, i.e. expenses may be recorded in an earlier period than when revenues are recorded due to the difference in timing of the actual payment of expenses and receipt of revenues.

It is important to recognize that all Canadian government departments and agencies follow accrual accounting as required for financial reporting purposes (i.e. Public Accounts). This is consistent with other governments used as comparators, including the United States, United Kingdom, and Australia.

B. Application to Government Contracts

Cash and accrual accounting have pros and cons to consider. The following summary is based on an Australian Government website and has been edited to be more relevant to the context of this discussion paper.[15]

Cash accounting:

- is a simple system that keeps track of a contractor's cash flow;
- is generally suited to smaller contractors that mostly handle transactions in cash;
- presents a picture of how much money the contractor has on hand and in its' bank accounts; and
- does not capture money that is owed from, or to, others.

Accrual accounting:

- is more complicated than cash accounting;
- is better suited to contractors that don't get paid for some period of time after provision of goods or services;
- is a system that accounts and reports a truer financial position at a point in time, as it captures money that is owed from, and to others; and
- is helpful when dealing with many contracts and large dollar amounts.

Most if not all contractors in Canada and abroad use accrual accounting. Similarly federal government departments and agencies in Canada and similar organizations in other countries follow accrual accounting to present a more accurate financial position at any point in time.

[15] Cash vs. Accrual Accounting, Australia Government – Department of Industry, Innovation and Science, May 2016.

ANNEX 5.2 PERFORMANCE MANAGEMENT DISCUSSION PAPERS

These discussion papers are intended to provide additional guidance and support to contracting officers in understanding tools and options available for performance management.

ANNEX 5.2.1 DISCUSSION PAPER - CONTRACT INCENTIVES TO ENCOURAGE AND REWARD ENHANCED VALUE TO CANADA

Contract Incentives to Encourage and Reward Enhanced Value to Canada

Context

This discussion paper provides guidance to contracting officers in the negotiation of non-competitive contracts or contracts where price negotiations with the successful bidder are required following a competitive process.

This discussion paper is intended to help inform contracting officers, to prepare for contract negotiations and manage the contract through its lifecycle. Based on the scale and complexity of the acquisition, this requires considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts. This discussion paper is not intended to be a procedural document.

This paper explores the following topics:

- considerations for the use, design, and administration of contract incentives;
- potential financial incentives, including respective benefits, drawbacks, and considerations; and
- potential non-financial incentives, including respective benefits, drawbacks, and considerations.

Incentive work in tandem with the various contract management measures, which are described respectively in Annex 5.2.2 (Discussion Paper - Measures to Manage Contractor Non-Compliance or Unacceptable Behaviour)

It is important to remember that incentives do not replace sound price setting and relationship management practices, which are described respectively in Annex 5.4.1 (Discussion Paper: Alternative Approaches to Cost-Based Pricing) and in Annex 5.2.4 (Discussion Paper: Managing Long-Term Contractual Relationships).

Why This Matters?

Incentives can encourage and reward superior contractor performance which exceeds the base goods and services established in the statement of requirements. Incentives are the backbone of performance-based contracting, as the contractor is rewarded based on the achievement of certain performance objectives that, in theory, are linked to contract outcomes. These performance objectives are generally above and beyond the minimum criteria established in the contract statement of work. Indicators used to evaluate performance objectives may include technical (e.g. quality, safety, innovation), schedule, cost

and other measures. Incentives can be of a financial or non-financial nature. The intent is to design incentive mechanisms that motivate the contractor and enhance value to Canada, supplementing the incentive inherently provided by the underlying basis of payment.

However, in a contract, the linkages between incentives, performance objectives, and contract outcomes are not always effective and verifiable for the following reasons:

- the use of incentives may not always be appropriate or effective;
- designing and administering appropriate and effective incentives, including corresponding performance objectives, can be complex; and
- there are several different types of financial and non-financial incentives (each with their own respective benefits, drawbacks, and considerations) that can be used in a contract.

When incentives are inappropriately selected, designed, and administered, the result can have unintended consequences and ultimately lead to suboptimal contractor performance. As such, clear guidance regarding the use of incentives is required to help ensure appropriate incentives are structured and administered to provide value to Canada.

Recommendation

Incentives should be used to reward superior contract performance which exceeds the base standards established in the statement of requirements. The use of incentives may not be appropriate or effective for all contracts, particularly when:

- the contractor is already receiving a fair profit on the contract;
- the contractor will achieve the target performance criteria without an incentive;
- the contractor will not be motivated, by the incentive(s), to achieve the target performance criteria; or
- there is no, or minimal, value to Canada for performance beyond the base standards established in the statement of requirements.

When the use of incentives is determined to be appropriate, they should be designed and administered such that:

- the corresponding performance objectives are balanced and linked to contract outcomes;
- the contractor has control over the performance objectives to which the incentives are linked ;
- the achievement of the performance objectives can be measured and verified;
- the process by which the incentive is awarded, and the incentive amount, are reasonable, and align with government policy and regulations; and
- the benefits of the contract outcomes exceed the combined cost of the incentives and the cost of administering the incentives.

A combination of financial and non-financial incentives can be used in the same contract to complement each other. Ultimately, selection of the 'right' incentive(s) can drive cost-effective, high-quality, and timely outcomes in performance-based contracts.

Analysis

A. Considerations for the Use, Design, and Administration of Contract Incentives

Assessing the Appropriateness and Effectiveness of Including Incentives in a Contract

Table A5.2.1.a. briefly describes the factors that should be assessed when determining the appropriateness and effectiveness of using incentives in a contract.

Table A5.2.1.a.

Factors	Example Criteria to Assess (Not Exhaustive)
Is the contractor already receiving a fair profit on the contract?	If the contractor is earning a profit premium as a component of the profit, how would the profit premium interact with any other incentive provisions within the contract? Refer to Section 5.2 (Profit Principles) for further guidance on profit determination.
Will the contractor achieve the target performance criteria without an incentive?	Has the contractor typically adhered to, or exceeded, performance criteria in past contracts? Is the contractor well known for its expertise and performance in respect to the contracted activities? Is the nature of the contract routine or complex (e.g. is the good or service being procured a commodity or a custom requirement or new technology)?
Will the contractor be motivated by the incentive(s) to achieve the target performance criteria?	Does the incentive align with the contractor's strategic goals? Is the potential impact of the incentive significant enough to motivate the contractor?
Is there value to Canada for contractor performance beyond the minimum performance criteria?	Will the client department, and/or the Government, benefit from contractor performance above the base standards established in the statement of requirements?

The benefits, drawbacks, and considerations of using specific types of financial and non-financial incentives in a contract are discussed later in this discussion paper.

Considerations for Designing and Administering Contract Incentives

Incentives should be designed and administered such that:

- the corresponding performance objectives are balanced and aligned to contract outcomes;
- the contractor has control over the performance objectives to which the incentives are linked;
- the achievement of the performance objectives can be measured and verified;
- the process by which the incentive is awarded, and the incentive amount, are reasonable, and align with government policy and regulations; and
- the benefits of the contract outcomes exceed the combined cost of the incentives and the cost of administering the incentives.

Designing Aligned and Balanced Performance Objectives

Below are some key considerations for designing balanced performance objectives that are aligned to contract outcomes.

- All contract outcomes should be traceable to users' needs and aligned with the client department's strategic objectives (e.g., enhancing preparedness in defence, reducing the total cost of ownership).
- All performance objectives should be fully integrated and aligned to motivate contractor performance of all contract outcomes, avoiding opportunities for the contractor to 'game the system' by focusing on select key performance indicators at the expense of others. For example, the contractor may compromise a technical indicator, such as quality or safety, in order to achieve a higher assessed score for schedule and cost indicators. Specific suggestions for mitigating this include:
    - making incentive payments conditional upon the achievement of minimum performance thresholds across all assessed performance indicators;
    - appropriately weight the performance indicators to signal the relative importance of each indicator; and
    - evaluating performance based on the achievement of performance objectives that integrate cost, technical, and schedule indicators.
- Importantly, the performance objectives, and respective target criteria, should encourage innovation in service delivery and promote a culture of continuous improvement and must not compromise safety or undermine critical safety processes.
- For long-term, multi-milestone contracts, consideration should be provided for designing and integrating incentive linked performance objectives, at various contract milestones, based on factors such as but not limited to:
    - the history of contractor performance at prior contract milestones; or
    - technological advances in the contractor's industry (i.e. advances can create new norms for cost, schedule, and/or technical contract performance).
- The total number of performance indicators should be manageable (a suitable number would be between three and five key performance indicators).

Designing Attainable Performance Objectives

Below are some key considerations for designing attainable performance objectives.

- The contractor, and to the extent possible its sub-contractors, should have control over achieving the target criteria for the performance objectives. Clauses should be included in the contract that provide flexibility for the amendment of the performance objectives and criteria, in the event that the client department and/or the Government require changes (e.g. to align with a new policy or a shift in scope).
- If the scope of the contract, including outcomes, is initially uncertain, incentives and corresponding performance objectives can be integrated into the contract (via a contract amendment) in later phases of the contract as the scope becomes more defined.

Designing Measurable and Verifiable Performance Objectives

Below are some key considerations for designing measurable and verifiable performance objectives.

- Performance objectives may be measured by quantitative or qualitative indicators. When qualitative indicators are used, they should be expressed in clear and descriptive terms, along with clear expectations on how and who will perform the assessments.
- Establishing accurate target performance criteria for performance objectives can be challenging. For example, establishing an accurate target cost or schedule in non-competitive contracts may be difficult if there is limited comparable market data. The challenge is further compounded when the nature of the contracted activities are complex and atypical. Accordingly, sound methodology, with appropriate expert advice (i.e. the client department, price advisors, etc.), should be used to develop and validate contract target cost (and schedule) estimates.
- Verification of the contractor completion of performance objectives, which are linked to incentives, is required as per Section 34 of the Financial Administration Act. To ensure verifiability of performance objectives, both the contractor and client department should have sound data measurement capabilities including, but not limited to, the below.
    - all data sources/systems should be readily identified (e.g. Accounting Systems or Labour Time Recording Systems);
    - all data elements, required for the indicator to be measured, should be readily available; and
    - data stewardship should be a part of the contractor's and client department's operational culture, and well documented processes should be in place to continuously measure and maintain data quality.

Ensuring Fairness in the Incentive Design and Administrative Process

Below are some key considerations in ensuring fairness in the incentive design and administrative process.

- The magnitude of the incentive reward should be reasonable and clearly understood and agreed upon by both the Government and the contractor.

- The incentive evaluation process should be understood and agreed upon by both the Government and the contractor.
- The incentive evaluation process should be free from bias and duplicable.
- Details about the incentive design and administrative process, including linked performance objectives, indicators, and criteria, should be clearly documented in the contract terms and conditions. Related dispute resolution terms should also be included in the contract.

Detailed considerations for ensuring fairness in the incentive design and administrative process are discussed in Financial Incentives and Non-Financial Incentives sections.

Assessing the Costs and Expected Benefits of Incentives

Administering contracts containing incentives may be costly and/or infeasible from both the perspective of the Government and the contractor. Certain incentives[16] may require increased governance and oversight from the Government. Furthermore, as described previously, the contractor and the Government require sound data measurement capabilities to monitor and verify contract performance. All of this may be both difficult and costly.

As such, incentives should be designed so that the anticipated benefits to contract performance outweigh the costs of administration and the anticipated reward. To better understand, and accordingly realize, the benefits of different incentives, the Government should at a central level:

- monitor the effectiveness of the incentives;
- review performance objectives, indicators, and criteria regularly for relevance;
- capture lessons learned; and
- maintain a repository of lessons learned that is available for access to all contracting officers.

Benchmarks – Guidance, for Incentive Use, Design, and Administration, in Comparator Jurisdictions.

From a benchmark perspective, the above recommendations generally align with guidance provided by comparable jurisdictions such as Australia[17] , the United States (U.S.)[18] , and the United Kingdom (U.K)[19].

However, there is one notable difference from guidance provided by the U.S. Federal Acquisition Regulations (FAR). This difference is in respect to guidance for contracts with multiple incentive arrangements. Specifically since outstanding results may not be attainable for each of the incentive areas,

[16] Examples of such incentives include award fees or award terms. These incentives are discussed later in this discussion paper.
[17] Factsheet 002 - Performance Measures. Australian Government, Department of Defence, Capability Acquisition and Sustainment Group, PBC Centre of Excellence. 2016.
[18] United States General Services Administration Federal Government, Federal Acquisition Regulations, 17 August 2007, Accessed 14 August 2017.
[19] Guidance on the Baseline Profit Rate and its Adjustment. SSRO, 15 March 2017.

all multiple incentive contracts must include a cost incentive, or constraint, that operates to preclude rewarding a contractor for superior technical performance or schedule results when the cost of those results outweighs their value to the Government.

Such guidance for contracts with multiple incentive arrangements is not recommended for Canada moving forward, as it is too prescriptive and increases the complexity of monitoring and evaluating incentives.

B. Financial Contractor Incentives

Financial incentives make use of a monetary reward in order to encourage a contractor to achieve specific performance objectives. This section describes three types of financial incentives:

1. technical performance incentives;
2. schedule performance incentives; and
3. award fees.

These incentives can be applied on contracts where the underlying basis of payment is cost-based. They are used widely within Canada, the United Kingdom, the United States, and Australia in both competitive and non-competitive contracts.

Technical Performance Incentive

Performance is assessed and an adjustment made to the base payment which is calculated using a variable scale. The adjustment is generally calculated against discretely measurable performance objectives. As an example, a technical performance indicator in an aircraft contract could be the speed of the aircraft, in kilometers/hour. A technical performance incentive could be that for every kilometers/hour above (below) the target speed, the contractor would receive a financial reward (penalty). Below is an illustrative example showing how the payment adjustment would be calculated.

Example A5.2.1.a.

Consider the below example, to better understand the concepts of technical performance incentive calculation

A. Contractor's base payment	$100,000
B. Variable amount (for every 100 km variance from target speed)	$1,000
C. Target speed as per the statement of requirements	5000 km/hr
D. Actual speed for aircraft supplied by contractor	6000 km/hr
E. Payment adjustment (= (D-C)/100 x b or (6000 – 5000)/100 x $1,000)	$10,000
F. Total payment (=A +E or $100,000 + $10,000)	$110,000

Schedule Performance Incentive

Performance is rewarded, based on the achievement of contract performance objectives, through advanced or more frequent payments. Note that the total price of the contract remains the same. An example of an 'incentivized' contract payment schedule is depicted below.

Example A5.2.1.b.

	Original Contract Payment Schedule	'Incentivized' Contract Payment Schedule	Cumulative Increase in Contractor Cash Flow
Payment 1	$50,000	$100,000	$50,000
Payment 2	$50,000	$300,000	$300,000
Payment 3	$200,000	$300,000	$400,000
Payment 4	$200,000	$100,000	$300,000*
Payment 5	$200,000	$100,000	$200,000
Payment 6	$300,000	$100,000	$0

Total Contract Payment	$1,000,000	$1,000,000	$0

* = ($100,000 + $300,000 + $300,000 + $100,000) – ($200,000 + $50,000 + $50,000 +$200,000)

Award Fees Incentives

Performance is assessed and an additional payment made based on the achievement of specific contract performance objectives. An award fee is generally only paid if the contractor exceeds pre-established performance criteria. Award fees may be based on qualitative evaluations, conducted during and/or after the work is complete. Award fees are frequently used to incentivize performance for project objectives that cannot be measured quantitatively (e.g. the quality of a consultant report). Below is an illustrative example showing how the award fee would be calculated.

Example A5.2.1.c.

Consider the below example, to better understand the concepts of award feed calculation (basis of payment is fixed price)

A. Fixed price	$10M
B. Maximum award fee	$1M
C. Actual award fee (based on Canada's assessment of the contractor's performance against the pre-established performance indicators)	80%
D. Award fee (= b x c or $1M x 80%)	$0.8M
E. Final contract price (= a + d or $10M + $0.8M)	$10.8M

Table A5.2.1.b. - Benefits and Drawbacks

	Benefits	Drawbacks
Technical Performance Incentive	• Effective for incentivizing performance for project objectives that can be objectively measured. • Appropriate when it would not be effective for the Government to	• May not be effective for incentivizing performance for objectives that require professional judgement in order to assess

	Benefits	Drawbacks
	share the risk and reward associated with achieving a performance objective (e.g., when the Government receives substantive benefit from the enhanced performance and the contractor took on virtually all risks to achieve the required outcome).	whether the performance objective has been met. • The formula established for variable payments may not be fair and can result in a suboptimal allocation of risk and reward to incentivize the contractor to deliver on performance objectives (e.g. cost efficiency, technical sufficiency).
Schedule Performance incentive	• The contract payment schedule can be a powerful determinant of contractor profitability.[20] Advanced or more frequent payments increase the working capital of the contractor and correspondingly reduce the contractor's debt and costs of financing. • Effective for incentivizing performance from small and medium-sized contractors who may not have ready access to capital.	• May not always be applicable, as this incentive type is subject to restrictive Treasury Board guidelines regarding advanced payments.[21] • A contractor, who has been paid a substantial amount of the contract price before the end of the contract, may not be as motivated to complete the remaining contract work or to provide quality work.
Award fees	• Effective for incentivizing performance for objectives that are more subjective requiring professional judgement to assess.	• May not be effective if the evaluation process is not understood and agreed upon by both the Government and the contractor. • May not be effective if the evaluation process does not facilitate a verifiable and structured evaluation (i.e. the assessment is not duplicable and free from bias).

[20] Arnold, Scot A. Defense Department Profit and Contract Finance Policies and Their Effects on Contract and Contractor Performance. Institute for Defense Analyses, 2009.
[21] Advanced Payments. Supply Manual, Public Service Procurement Canada, 6 June 2015.

Overarching Considerations for Financial Incentives

Reasonability of Incentive Amount

One consideration for financial incentives is how to assess whether the incentive amount is reasonable. To determine if an incentive amount is reasonable, considerations such as, but not limited to, the below can be assessed.

- How much value (e.g. quality, timely, and cost-effective outcomes) above the baseline requirements specified in the statement of work is being generated for the client department?
- What is the difficulty of achieving the respective performance criteria?
- What incentive amounts have been established on contracts of a comparable nature and scale?

If an incentive type with an offsetting disincentive is being used, the amounts of these offsets should be reasonable.

Impact on Contractor Profitability

Another consideration for financial incentives is that the incremental impact on the contractor's profitability may sometimes not be significant enough to motivate the contractor to achieve the required performance objectives that the incentives are linked to.[22] This concern could arise with the following circumstances.

- Regulation may inappropriately constrain the parameter of financial incentives. For example, in the United Kingdom, the Single Source Regulations Office identifies that incentive adjustments must not exceed 2% of the price of the respective contract.[23] Alternatively, a price ceiling for a contract may be established.
- The achievement of the conditional performance objectives requires disproportionate additional resources from the contractor. For example, for a contract, where firm price is the basis of payment, the contractor may assess that to achieve the performance required for the respective incentive, it would have to incur more costs than the amount of the incentive.

In these situations, the contractor may not be incentivized and instead redirect effort to supporting more profitable pursuits and or growth initiatives.

C. Non-financial Contract Incentives

Although non-financial contract incentives do not directly impact the profitability of a contractor, they can contribute substantially to future contractor profitability. As such, they may be an effective supplement, or alternative, to direct financial incentives. This section describes three types of non-financial incentives:

1 reputation enhancing measures;

2 contract award terms; and

[22] J. Leotta. Different Incentives in Government Contracting, ICEAA, June 2015.
[23] Guidance on the Baseline Profit Rate and its Adjustment. SSRO, 15 March 2017.

3 contractor employee motivation.

These incentives can be applied with any basis of payment or pricing methods. The first two types of non-financial incentives are used, within Canada, the United Kingdom, the United States, and Australia, in both competitive and non-competitive acquisitions.

Reputation Enhancing Measures

Description of Reputation Enhancing Measures

Reputation enhancing measures formally or informally recognize a contractor for strong performance.

Some examples of reputation enhancing measures are:

- testimonials regarding the contractor's work and the resulting impact on the client department;
- contractor performance recognition programs (e.g. Boeing has an awards program for its suppliers)[24];
- formal performance evaluations (e.g. evaluations forms; or a strategic supplier performance management program which the United Kingdom uses)[25]; or
- media coverage that highlights and acknowledges the contractor's contribution to a successful outcome.

Benefits of Reputation Enhancing Measures

Benefits, specific to the contractor, include:

- an increased chance of winning future contracts, competitive or non-competitive, particularly when the potential customer assesses past contractor performance when awarding a contract;
- a potential positive impact on share price for publically traded contractors, when testimonials or good news stories are made public; and
- a sense of fulfilment, felt by the contractor and its employees, for recognition of a job well done.

Benefits, specific to the Government, include the following.

- Some reputation enhancing measures, such as a contractor performance award program, may also facilitate indirect competition to perform among contractors, even if the contractors' respective contracts are of a non-competitive nature.
- Informal reputation enhancing measures (e.g. testimonials, press coverage) can be a low cost approach to incentivizing performance.

Key Consideration for Reputation Enhancing Measures

A key consideration for the use of reputation enhancing measures, particularly with those of a more informal nature, is that the way in which they are 'administered' may be perceived as a conflict of interest,

[24] Supplier Recognition. Boeing. http://www.boeingsuppliers.com/awards.html. Accessed October 26, 2017.
[25] Managing Government Suppliers. United Kingdom - National Audit Office. November 2013.

particularly if it appears that the Government is favouring or promoting certain contractors based on the frequency and/or nature of testimonials or media coverage.

As such, public statements regarding contractors need to comply with all applicable guidance regarding communications. Essentially, it is important not to present a general endorsement of the contractor, but to instead speak to the specific work performed and corresponding outcomes achieved by the contractor.

Contract Award Terms

Description of Contract Award Terms

Contract award terms are granted to a contractor if it achieves the agreed upon performance objectives. Contract award terms extend the length of an existing contract for an additional period of time, and are a contractual obligation of the Government if the contractor fulfills the agreed upon performance objectives.

For example, in Australia supplemental award terms are granted for certain performance-based contracts, conditional on the achievement of cost objectives such as a reduction in the government's total cost of ownership.

The use of an award terms as an incentive differs from the more commonly used general option provision within a contract. When the award term is incorporated as an incentive, the contract must be extended if the contractor achieves the conditional performance objectives. In contrast for more traditional option terms, the Government has discretion as to whether it extends the contract regardless of the contractor's performance.

When establishing contracts with award term incentives, the contracting officer should consider including clauses that allow it to opt out of a contract extension (i.e. not grant an award term) for appropriate reasons other than insufficient performance. Appropriate reasons could include, but are not limited, to the following:

- the Government no longer requires the respective goods or services; and
- the Government does not have funds available for the award term period.

Benefits of Contract Award Terms

Arguably, granting supplement contract award terms to incentivize contractor performance could be more effective than financial incentives, because the potential financial benefits for the contractor could be much higher.

Moreover, award terms may also build an effective long-term relationship between the Government and a contractor who is performing well. The establishment of a long-term relationship can yield several benefits which are discussed in Annex 5.2.4 (Discussion Paper - Managing Long-Term Contractual Relationships).

Ultimately, the use of award terms may be appropriate when acquiring goods and services in capital intense industries with long development cycles or requiring specialized skills and knowledge.

Drawbacks of Using Contract Award Terms

Award Terms Can Inhibit Competition

One drawback associated with using an award term as an incentive is that it inhibits bid competition (i.e. other qualified suppliers do not have the opportunity to bid on the respective contract), thereby potentially reducing the value to Canada in the long run by diminishing the potential for a robust competitive market of suppliers.

Additionally, from an integrity perspective, in a non-competitive environment, the respective contractor would, in substance, be awarded the same work package more than once without having to successfully compete in multiple procurements. This risk is especially material when the contract is lengthy, thus providing a greater chance for shifts in the respective industry competitive landscape.

As such to mitigate the above drawbacks, research should be conducted, from both a market research and a regulatory standpoint, to ensure that inclusion of an award term incentive is appropriate and provides value to Canada. Research could consider the following factors for the respective contract type, scope, and industry:

- What competition regulations (e.g. from the Competition Bureau) exist?
- Are there established limits for the length of a contract?
- What is the long-term forecast of qualified suppliers?

Funding may not be Available to Support Award Terms

Another risk with this incentive approach is that the client department's budgetary outlook may not align with the funding required to support the award term(s) for the contract in question. This risk is particularly material for high-dollar value contracts associated with high dollar value complex projects.

Therefore, for contracts of this nature, it is critical that control measures are in place at both the inception of the contract and during contract management:

- At contract inception, the availability of future funding, for the client department, should be confirmed and approved through sound costing, budgeting, and investment management processes.
- During contract management, periodic assessments of the contractor performance should be conducted to assess the probability of the extension of any contract award terms (e.g. periodic cost reviews if the performance objective is to reduce the Government's total cost of ownership). Ultimately, the results of these periodic assessments should be used to inform budget planning decisions.

Potentially Less Effective when the Contractor holds a Monopoly Position

An additional risk associated with this incentive approach is that a contractor may not be motivated to achieve the conditional performance objectives of the award terms, for example when the contractor perceives itself as the only supplier with the capability to provide the required goods or services.

Collaborating with the contractor to develop reasonable contract performance objectives, which are aligned to both parties' strategic goals, could help mitigate this risk. When this is not sufficient or practical, to mitigate the 'monopoly position' of the contractor, the contract in question could be scrutinized to determine what portions of the contract can and cannot feasibly be performed by other suppliers.

Facilitating Contractor Employee Motivation

The incentives discussed thus far have been designed to reward contractor performance from a corporate lens (e.g., profits, cash flow, contractor reputation, and future business). However, a motivated and engaged, and ultimately high-performing team of contractor employees, can also be key to achieving contract performance. Although the Government cannot directly motivate the contractor's workforce to achieve contract performance through monetary compensation, it can facilitate employee performance in various ways.

Linking Employee Bonuses to Contract Key Performance Indicators

Canada's current Cost and Profit Policy indicates that performance incentive pay is allowable if it is a reasonable cost.[26] From a benchmark perspective, contract costing guidance from Australia, the United Kingdom, and the United States indicate that compensation costs, including bonuses, are allowable if they are reasonable.[27][28][29] In Australia, employee bonus pools are an allowable contract cost if the bonus is due to achievement of key performance indicators set out in the contract, and if the bonus amount is reasonable. Ultimately the inclusion of employee-linked incentives in a contract could help motivate and retain talented contractor employees, and, correspondingly, provide increased value to Canada due to improved quality and commitment to the contract from the contractor workforce.

This recommendation aligns to the guidance provided in the Costing Standard and in Annex 5.3.2 (Discussion Paper - Executive Compensation and Bonus). The latter document provides further discussion on when employee compensation costs, such as bonuses, may be acceptable for a contract.

Intrinsic Motivation

Intrinsic motivation for contractor employees can be created through team bonding between the Government and the contractor personnel. For example, joint team-building events that encourage collaboration and empower employees by driving engagement and self-worth. Arguably, intrinsic motivation of contractor employees could be one of the most effective incentives for encouraging contract performance, notwithstanding the difficulties inherent in measuring its impact.

It should be noted that the application of this 'incentive' is not within the direct means of the contracting officer, but rather the client department project team. Please refer to Annex 5.2.2 (Discussion Paper - Measures to Manage Contractor Non-Compliance or Unacceptable Behaviour), and Annex 5.2.4 (Discussion Paper - Managing Long-Term Contractual Relationships) for further guidance on the importance of contract relationship management.

[26] Annex 5.3.2 (Discussion Paper - Executive Compensation and Bonus).
[27] Single Source Regulations Office, Single source cost standards-Statutory guidance on Allowable Costs, July 2016.
[28] Australian Government-Department of Defence-Capability Acquisition and Sustainment Group, Capability Acquisition & Sustainment Group Cost Principles, September 2015.
[29] United States General Services Administration Federal Government, Federal Acquisition Regulations, August 17, 2007.

ANNEX 5.2.2 DISCUSSION PAPER - MEASURES TO MANAGE CONTRACTOR NON-COMPLIANCE OR UNACCEPTABLE BEHAVIOUR

Measures To Manage Contractor Non-Compliance or Unacceptable Behaviour

Context

This discussion paper provides guidance to contracting officers in the negotiation of non-competitive contracts or contracts where price negotiations with the successful bidder are required following a competitive process.

This discussion paper is intended to help inform contracting officers, to prepare for contract negotiations and manage the contract through its lifecycle. Based on the scale and complexity of the acquisition, this requires considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts. This discussion paper is not intended to be a procedural document.

There are various measures to help ensure contractual outcomes meet the client department's objectives and ultimately provide value to Canada. These include the appropriate use of traditional contractual 'carrots and sticks', as well as softer measures to help ensure the contract works for both parties. The use of contract incentives to encourage contract performance are discussed in Annex 5.2.1 (Discussion Paper - Contract Incentives to Encourage and Reward Enhanced Value to Canada), while the use of softer measures, which focuses on managing long-term contractual relationships to help develop a performance culture, are described more fully in Annex 5.2.4 (Discussion Paper - Managing Long-Term Contractual Relationships). This discussion paper focuses specifically on measures to manage contractor non-compliance or unacceptable behaviour, which need to be administered with appropriate regard for the impact they may have on the overall contractual relationship.

Why This Matters?

Contractor non-performance is a potential issue that can undermine achievement of the client department's objectives and erode value to Canada. Contractor non-performance can be a result of non-compliance to the provisions of the contract, unacceptable behaviour or both. Contractor non-compliance occurs when a contractor fails to fulfill the performance requirements and/or other terms and conditions established in the contract, whereas unacceptable behaviour occurs when the contractor, or its employees, engage in unethical, offensive, uncooperative, dishonest, or other inappropriate behaviour(s). A range of contract management measures can be established to:

- mitigate the risk of non-performance;
- identify and assess the extent of non-performance; and
- rectify or reduce the impact of non-performance.

Such measures help ensure the contractor is motivated to fulfill contract requirements in a cost effective, timely, and quality manner.

However, some contract management measures are not always effective or feasible in some situations. Furthermore, when contract management measures are inappropriately designed or administered, the result can have unintended consequences and ultimately create a vicious cycle of poor contract performance. Clear guidance regarding the use of contract management measures is offered herein to help ensure preventative, detective and corrective measures are structured and administered to help optimize value to Canada.

Recommendation

A combination of preventative, detective, and corrective measures should be employed to manage non-compliance or unacceptable behaviour by the contractor. Specifically:

- preventative measures should be employed to mitigate the risk of non-performance;
- detective measures should be used to identify and assess the extent of any non-performance; and
- corrective contract management measures should be employed to reduce the impact to the client department of any contractor non-compliance or unacceptable behaviour, and to correct the contractor's performance.

Contract management measures should be designed such that:

- the definition of contract non-performance is based on:
    - contract terms and conditions (e.g. statement of work);
    - established project management standards; and
    - for performance-based contracts, performance criteria for measureable/verifiable, controllable, and balanced performance objectives.
- the administration of preventative and detective measures reflects the value and complexity of the contract and is linked to contractor past performance;
- collegial, more informal, tactics, followed by quality control and performance management remedies, are established as the preferred corrective measures to rectify contractor non-performance;
- the administration of disincentives uses a tiered approach, based on pre-established criteria, ideally in accordance with a formal contractor non-compliance point scheme;
- the process by which disincentives are administered, and their severity, are reasonable and align with applicable Government policy and regulations; and
- the anticipated benefits, in respect to improved client department outcomes, exceed the costs of administering contract management measures.
- To promote fairness, transparency and consistency, contract management measures (and the methods for administering them) need to be incorporated within the contract so there are no

surprises for the Government or the contractor and both parties cooperate if these measures have to be applied in the future.

- Designing and administering appropriate contract management measures requires upfront effort to define the criteria that will be used to assess non-performance, to structure the associated contract terms and conditions, and to monitor the contractor's performance throughout the resulting contract.
- Note that a combination of financial and non-financial contract management measures can be used, in the same contract, to complement each other. Ultimately, selection of the 'right' measures is key to discouraging non-performance, and, where necessary, aligning contract performance, to achieve cost-effective, high-quality, and timely outcomes.

Analysis

A. Preventative Contract Management Measures

This section describes how a robust contract performance and project management framework can be employed as a preventative measure to discourage contractor non-compliance or unacceptable behaviour. It then discusses the merits of using performance securities, as a more assertive preventative measure, to deter non-compliance.

Contract Performance Management

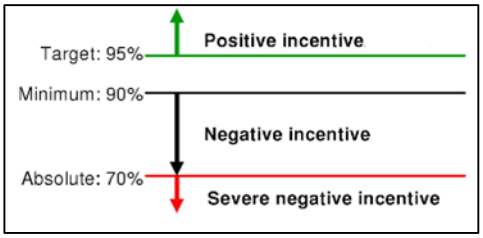
In the long run, sustainable contract performance requires the contractor to establish appropriate systems, to support compliance with the contract requirements, and to embrace an appropriate service-focused culture. Accordingly, an important measure to encourage contractor compliance is to establish reasonable performance criteria that reflect measurable, controllable (by the contractor), relevant, and balanced performance objectives.

An example of a performance objective would be to maximize the level of availability for aircraft. The related performance criteria would indicate the absolute, minimum, and target performance thresholds for the percentage of time that aircraft are available. A description of these three performance thresholds is provided below.

- **Target performance thresholds** are performance criteria for which the contractor is typically rewarded if they are achieved, but generally not penalized if they are not. They are of particular importance for contract performance incentives.
- **Minimum performance thresholds** set the base level or minimum standard of a contract performance indicator to be achieved. There may be disincentives for not achieving the minimum performance threshold.

- **Absolute performance thresholds** indicate the performance criteria at which the achievement of a performance objective is deemed a failure. There may be more onerous disincentives for not achieving an absolute performance threshold.

These performance thresholds are also depicted in the exhibit below.



Note that in practice, establishing effective performance objectives, which the contractor is motivated to achieve, is challenging. Ideally, when performance objectives are designed and administered effectively, the contractor is motivated to achieve the rewards associated with the target performance criteria, and the risk of contractor non-compliance is reduced substantially.

For further discussion on performance-based contracting concepts, please refer to Annex 5.2.1 (Discussion Paper - Contract Incentives to Encourage and Reward Enhanced Value to Canada).

Contract Project Management

A robust project management framework is an important preventative measure to help manage contractor performance. It reinforces contract expectations, at all levels, regarding what is to be delivered, who is responsible for delivering it, when and how it should be delivered, the acceptance criteria, and for how much. Ideally, the project management framework comprises of up to date project documentation including, but not limited to:

- a project charter, which incorporates shared objectives;
- a detailed work plan and budget;
- a project code of ethics, which is governed by the PSPC Code of Conduct for Procurement (signed by the contractor and the Government);
- project roles and responsibilities (for both the contractor and the Government);
- project status reporting and meeting requirements;
- quality control and deliverables approval process;
- project risk management protocols;
- contract management procedures; and
- conflict and dispute resolution procedures, including escalation clauses.

When project management approaches incorporate the above project documentation, align with a formal framework, and are embraced and followed by both the contractor and client department, they can be a critical enabler for achieving contract performance.

Two important project management components – the quality control process and conflict and dispute resolution procedures – are briefly elaborated on below.

Quality Control Process

As a preventative measure, the quality control process could include a provision for routine quality audits. Where applicable, the provision should indicate that a contractor's International Organization for Standardization (ISO)[30] certifications may be impacted if the quality audits detect significant contract quality compliance issues.

Conflict and Dispute Resolution Procedures

Clearly documented conflict and dispute resolution procedures, in the contract, can serve as an effective preventative measure to deter contract non-compliance. For example, there are escalating conflict and dispute resolution procedures beginning with escalation to senior management, followed by a dispute resolution board and culminating with a formal arbitration. Conflict and dispute resolution procedures, such as arbitration, can be costly for both the contractor and the Government and therefore encourage the parties to solve potential performance compliance issues before reaching this level.

Performance Securities

Another more assertive preventative measure to help manage contractor performance is to require performance securities from the contractor at the outset of the contract, or construction phase, to secure due and proper performance of the contract. Performance securities are used within Canada, the United Kingdom, the United States, and Australia in both competitive and non-competitive contracts. This section describes three forms of performance securities:[31]

1 security deposits;

2 performance bonds; and

3 a guarantee of performance.

These securities can be applied on contracts regardless of the basis of payment.

Security Deposits

The contractor provides a deposit to the Government. If the required performance is achieved, the deposit is returned to the contractor. It the contractor fails to perform, the deposit is forfeit. Examples of security deposits include a standby letter of credit or certified check.

Performance Bonds

[30] The ISO is an international standard-setting body, composed of representatives from various national standard organizations, which promotes worldwide proprietary, industrial, and commercial standards.

[31] Next Generation Performance-Based Support Contracts – Achieving the Outcomes that Defence Requires. Australia - Department of Defense, 5 Feb. 2010.

A guarantee is obtained from a third party (e.g. a bank or insurance company) by the contractor. If the contractor fails to perform, the third party compensates the Government for losses attributed to contractor non-compliance and arranges to complete the contractor's obligations in accordance with the contract terms and conditions.

Guarantee of Performance

A guarantee is provided by the contractor's parent company, or affiliate, to secure performance of the contract. If the contractor fails to perform, the guarantor is held accountable.

Benefits and Drawbacks of each Form of Performance Security

The benefits and drawbacks of each form of performance security are summarized in Exhibit A5.2.2.a .

Exhibit A5.2.2.a. – Performance security benefits and drawbacks

	Benefits	Drawbacks
Security deposit	• The contractor is motivated to perform, as it puts its own financial collateral at risk. • Relatively simple to administer since only two parties are involved.	• May not be viable for a contractor, from a cash flow perspective, when its primary cash flow source is the contract in question. This is quite likely to be an issue for some small and medium enterprises. • Does not secure performance of the contract if the contractor defaults.
Performance bond	• Secures performance of the contract if the contractor defaults. • A viable approach for a contractor who does not have a strong cash flow position (because the contractor is responsible only for financing the performance bond).	• May not be viable for a non-competitive contract because a guarantor may not have the capability to complete the requirements of the guaranteed contract if the original contractor defaults. • Performance bonds are a relatively high cost form of security and these costs will be reflected in the contractor's price. • More difficult to administer since more than two parties are involved.
Guarantee of performance	• Helps secure performance of the contract if the contractor defaults. • The contractor is more motivated to perform, as its parent company or	• Infeasible if the contractor does not have a parent company or affiliate. • The contractor's parent company or affiliate may not be willing to expose

	Benefits	Drawbacks
	affiliate is also accountable and has a vested interest in the performance of the contract. • More viable form of security, than other forms, for a non-competitive contract, assuming there is a parent company or affiliate with additional resources (this assumes that a parent company or affiliate has the capability to deliver on the requirements of the non-competitive contact).	itself to such a financial risk, unless it receives a higher profit premium on the price of the guaranteed contract. • Similar performance issues may arise with a related party performing the work. • More difficult to administer since more than two parties are involved.

Considerations for the Use of Performance Securities

As per Exhibit A5.2.2.a. which summarizes benefits and drawbacks, performance securities can be costly, from both the contractor's and the Government's perspective. In determining whether to make use of a performance security, contracting officers should consider the following factors.

- The dollar value of the contract and the financial capacity of the contractor.
- The complexity of the work; are the requirements of a routine nature?
- The feasibility of securing a performance bond and the anticipated cost.
- The feasibility of securing a guarantee of performance and the strength of the financial capacity of the guarantor.
- The experience of the contractor as it pertains to the scope and requirements of the contract; has the contractor completed similar work for past customers?
- The contractor's past performance; has the contractor formerly received poor performance evaluations from the Government or other customers?
- The alignment with applicable Government policies and regulations; does the administration of the performance security align with financial, legal and/or contracting policies?
- Do the anticipated benefits, in respect to improved client department outcomes, exceed the costs of administering the performance security?

Chapter 4.50 Financial Security of the Supply Manual provides guidance for the administration of performance securities. The above discussion on performance securities is meant to supplement this guidance.

B. Detective Contract Management Measures

A robust project management framework establishes appropriate monitoring and oversight for the contract to help identify contractor non-compliance and assess the extent and impact on the desired contract outcomes. This section describes two detective measures:

1 earned value management; and

2 quality assurance requirements.

Earned Value Management

Description of Earned Value Management

Earned value management is used to measure project performance and progress in a pre-agreed and objective manner.[32] It is an effective tool for monitoring and projecting costs, in relation to a project's schedule and performance accomplishment, and can help detect and anticipate performance compliance issues and risks. Earned value management can be applied on contracts where the underlying payment is based on cost estimates – the budget of a contract must be pre-established –, which is not the case for contracts where the underlying payment is based on actual costs.

Example A5.2.2.a.

Consider the below example, to better understand the calculation of earned value management

A contractor is engaged in a year long contract and is required to produce 10 widgets in the first month at $1,000 each. At the end of the month, the contractor has spent $9,000 but has only produced 8 widgets.

Using the above information, the contractor's:

- planned valued (budgeted cost of work scheduled) is $10,000 (= $1,000 x 10);
- earned value (budgeted cost of work performed) is $8,000 (= $1,000 x 8);
- actual cost of work performed is $9,000;
- schedule variance (earned value minus planned value) is -$2,000 (= $8,000 - $10,000); and
- cost variance (earned value minus actual cost) is -$1,000 (= $9,000 - $10,000).

Based on these earned value management calculations, the contractor is exceeding the production budget and is behind the production schedule for the month. Correspondingly, the contractor's 'performance' for the first month indicates that there is a risk that budget and schedule compliance may be issues for the remainder of the contract duration.

[32] Coker, Ryan L. and Peeler, David L. EVM and Contracting: A Take on Effective Affordability Issues, ICEAA World, Issue #2, 2017.

When to Use Earned Value Management

Currently, the Supply Manual and the *Standard Acquisition Clauses and Conditions* do not provide explicit guidance on when and how to apply earned value management on contracts within Canada.

The contracting officer should consider the merits of using earned value management based on the value, risk, and duration of a contract. The higher the value, risk, and duration of a contract, the more appropriate it may be to apply earned value management. Note that the effectiveness of earned value management can be compromised if the initial cost estimate is weak.

This guidance generally aligns with guidance provided by Australia and the United Kingdom.[33][34] The United States is more prescriptive in that it requires earned value management to be incorporated into the project management framework for any contracts with a value over $20 million.[35]

Quality Assurance Requirements

Description of Quality Assurance Requirements

Quality assurance checks confirm that the performance of contract work and deliverables meet agreed upon criteria. Responsibility for quality assurance checks can lie with the contractor, the Government, or both.

From the contractor's perspective, this may include, but is not limited to, maintaining substantiating evidence that the goods or services conform to contract quality requirements. From the Government's perspective, this may include, but is not limited to, performing quality assurance reviews at various phases of the contract, as may be necessary, to determine whether the goods or services conform to the statement of requirements. Alternately, a third-party could be contracted to perform an independent assessment of contract performance quality. Overall, routine quality assurance inspections can be an effective control mechanism to detect and anticipate performance compliance issues and risks.

How to Administer Quality Assurance Requirements

For the administration of quality assurance requirements, contracting officers should consult the guidance currently provided by PSPC in *Subsection 5.D - Delivery, Inspection and Acceptance from the Standard Acquisition and Clauses Conditions Manual*.

Overarching Considerations for the Use of Detective Contract Management Measures

Assessing the Cost and Expected Benefits of Earned Value Management and Quality Assurance

[33] Australian Government-Department of Defence-Capability Acquisition and Sustainment Group, Earned Value Management.
[34] Ministry of Defence, Acquisition System Guidance, Commercial Toolkit, Earned Value Management, December 2017.
[35] Coker, Ryan L. and Peeler, David L. EVM and Contracting: A Take on Effective Affordability Issues, ICEAA World, Issue #2, 2017.

A consideration in determining how to incorporate earned value management and quality assurance into the project management framework is that the value of these tools may be diminished by the costs associated with their implementation and administration.

Accordingly, in assessing whether to incorporate earned value management and quality assurance contract management measures, the contracting officer should consider:

- the past performance and relevant experience of the contractor;
- the dollar value and complexity of the contract;
- the anticipated cost to administer these provisions; and
- applicable Government policies and regulations.

What to Consider when Non-Compliance is Detected

When non-compliance is detected, a root cause analysis should be conducted to determine whether non-compliance was within or outside of the collective control of the contracting parties. The results of the root cause[36] analysis should determine the type and severity of corrective measure to apply. Moreover, a formal non-compliance point scheme, aligned with the terms and conditions of the contract, could be used to track and assess contract performance compliance issues. The use of a non-compliance point scheme is discussed in more detail in the following section.

C. Corrective Contract Management Measures

Corrective contract management measures should be employed to reduce the impact to the client department of any contractor non-compliance or unacceptable behaviour, and to ultimately correct contract performance. This section briefly describes several potential corrective measures, ranging from collegial, more informal, tactics to quality control and performance management remedies, and to more onerous, financial and non-financial disincentives to rectify contractor non-performance.

Note that guidance already exists for the administration of corrective measures in the following PSPC policy documents:

- *Vendor Performance Corrective Measure Policy contained within the Standard Acquisition and Clauses Conditions Manual; and*
- *Chapter 8 – Contract Management from the Supply Manual.*

The below discussion on the administration of corrective measures is meant to supplement this guidance.

Collegial Tactics

Description of Collegial Tactics

[36] A root cause analysis is a method of problem solving used for identifying the primary causes of performance compliance issues

Examples of informal tactics include, but are not limited to, meetings or email communications and team-building workshops between contractor and Government personnel to resolve compliance or behavioural issues. These tactics are most effective when they are implemented in a non-confrontational manner, where communications is direct and supported by evidence or examples of the observed non-performance.

When to Use Collegial Tactics

Collegial, more informal, tactics are often a more effective method of addressing non-performance than the enactment of more formal, or contractually established measures, particularly when non-performance is infrequent and the impact is not severe. Where possible, such tactics should be incorporated in the contract as the first measure for correcting non-performance.

Quality Control and Performance Management Remedies

When more formal corrective measures are needed to address contractor non-performance, quality control and performance management remedies may be appropriate. The application of quality control and performance management remedies should be aligned to the project management standards established in the contract.

Description of Quality Control Remedies

Quality control involves monitoring specific contractor results to determine whether they comply with relevant quality standards and identifying ways to eliminate the cause(s) of unsatisfactory performance, resolve any issues that arise, and help mitigate risks associated with the solution.

When to Use Quality Control Remedies

Exhibit A5.2.2.b. provides examples of quality control remedies and when they may be appropriate.

Exhibit A5.2.2.b. – Quality control remedies to consider

Nature of Non-performance	Description of Consequence	Potential Quality Control Remedies
Individual or isolated case	An individual team member produces a deliverable with an error in content, consistency, correctness or compliance	• Rework the deliverable • Review applicable standard and/or guidelines
Insufficient comprehension leading to recurring defects	Team members are unable to effectively apply a specific project standard or guideline to the production of deliverables	• Additional training for the delivery team • Clarify tasks • Clarify standards and/or guidelines which are ambiguous

Nature of Non-performance	Description of Consequence	Potential Quality Control Remedies
Inadequate project standards or guidelines	Team members are unable to effectively apply a specific standard or guideline to the production of deliverables	• Revise portions of methodologies, standards and/or guidelines which prove to be inappropriate for the work being performed

Quality control remedies can be administered by the client department or the contracting officer. For the administration of quality control remedies, the guidance currently provided by PSPC, in *Subsection 5.D - Delivery, Inspection and Acceptance from the Standard Acquisition and Clauses Conditions Manual*, should also be consulted.

Description of Performance Management Remedies

This section describes performance management remedies that may help to correct unacceptable behaviour.

Performance management remedies may include the following steps:[37]

- problem identification and analysis;
- a constructive discussion of problem behaviors;
- anticipation of the likely reaction and an appropriate response to the actual reaction to the discussion;
- formal documentation of the discussion; and
- follow-up.

The above components can be formally administered using a performance improvement plan. A description, and the benefits and risks, of a performance improvement plan are discussed next.

Description of a Performance Improvement Plan

A performance improvement plan is a formal, structured, and specific action plan which outlines contractor performance compliance and behaviour issue(s) and the steps that will be taken to improve performance. Typically the plan is developed by the contractor and approved by the client department in consultation with the contracting officer.

Performance improvement plans should build upon consideration of the following factors:

[37] Managing Difficult Employees and Disruptive Behavior, Society for Human Resource Management, 4 November 2015.

- Is the contract performance criteria and/or scope reasonable? Contracts can be complex, and the scope of work can be unclear or evolving. Accordingly performance criteria, and/or objectives, may have to be revised.
- What are the root causes of the performance compliance issues, and is the Government able to support the contractor in rectifying them? For example, the root cause could be a shortfall in the contractor's cash flow position. In some situations the Government may wish to adjust the contract payment schedule to mitigate the contractor's cash flow problem, while still meeting with the requirements of the Financial Administration Act.
- Are personnel from both the contractor and the Government side exhibiting unacceptable behaviour? For example, if the respective personnel are forming a hostile relationship, the project steering committee could assess the feasibility of redeploying these personnel so they do not have to interact with each other.

The Merits of a Performance Improvement Plan

Establishing and implementing a contractor performance improvement plan can be an effective tool for administering both quality control and performance management remedies. Performance improvement plans allow the contractor to take ownership of their performance and demonstrate their commitment to improve and correct contract compliance and behaviour issues. Furthermore, by formally providing an opportunity for the contractor to improve its performance, the Government's risk of litigation is decreased if the performance does not improve and more onerous measures are required.

Considerations for the Use of a Performance Improvement Plan

Two important considerations for the use of a performance improvement plan are that:

- structuring and administering a performance improvement plan requires time and resources from both the contractor and the Government; and
- the relationship between the contractor and the Government may become antagonistic, especially when the contractor interprets the performance improvement plan as a first step toward the inevitable application of more onerous measures.

Accordingly, the intent and structure of a performance improvement plan, including the conditions under which one would be required, should be agreed upon by both parties, at the outset of the contract, and formally documented in the project charter.

Financial and Non-Financial Disincentives

This section first outlines a proposed framework for a non-compliance point scheme. Second, it discusses the effectiveness of the application of pre-established financial disincentives in correcting contractor non-compliance. Third, it discusses the effectiveness of non-financial disincentives. Last, it briefly discusses reputational disincentives, including the broader impact they can have on a contractor's future marketability.

Non-compliance Point Schemes

Disincentives should be negotiated upfront and included in the contract terms and conditions. The application of pre-established contract disincentives should be guided by a formal contractor non-compliance point scheme, which aligns with the terms and conditions of the contract.

A non-compliance point scheme can be used to track and assess areas of non-compliance. The scheme should consider the following:

- what performance indicator to assess in order to achieve the required performance objectives (e.g. cost, asset availability, schedule);
- the level of contract non-compliance for a performance indicator (e.g. as based on target, minimum, or absolute performance criteria);
- any performance trends for the assessed indicator (e.g., has performance been improving, deteriorating, or stagnant);
- the nature of the root cause, and whether it was within or outside of the contractor's control;
- potential impact on contract outcomes; and
- overall contractor non-compliance rating.

The pre-established criteria for applying disincentives should be based on the above factors. Criteria should generally be structured so that disincentives are applied using a tiered approach (i.e. where feasible, less onerous measures are applied first when non-performance is detected and escalate to more onerous measure with repeated and/or increasingly serious non-performance is detected). Formal documentation of the details described in the non-compliance point-scheme provides auditable evidence in the case that a lawsuit is issued against the Government.

Financial Disincentives

Financial disincentives make use of a monetary adjustment to reprimand the contractor for non-compliance. Financial disincentives are used, within Canada, the United Kingdom, the United States, and Australia, in both competitive and non-competitive contracts. This section discusses four types of financial disincentives:[38]

1 at-risk amounts;

2 gain/pain sharing incentives;

3 holdbacks; and

4 liquidated damages.

[38] Next Generation Performance-Based Support Contracts – Achieving the Outcomes that Defence Requires. Australia - Department of Defense, 5 Feb. 2010.

These financial disincentives can be applied for all types of basis of payment or pricing methods.

At-Risk Amounts

Performance is linked to a portion of the contractor's 'normal' payment. For example, a technical performance indicator could be the percentage level of availability for aircraft. For every percentage below the target (or minimum) availability performance threshold, the contractor's 'normal' payment would be reduced by a variable amount. An example for illustrative purposes solely is provided below.

Example A5.2.2.b.

Consider the below example, to better understand the calculation of at-risk amounts.

A. Contractor's normal payment for the month	$100,000
B. At-risk amount (payment deduction for each % point below minimum performance threshold)	$1,000
C. Minimum availability performance threshold	80%
D. Achieved availability for the month	75%
E. Payment adjustment (= (D-C) x B or (75 – 80) x $1,000)	-$5,000
F. Total payment (= A + E or $100,000 - $5,000)	$95,000

In alignment with Annex 5.2.1 (Discussion Paper - Contract Incentives to Encourage and Reward Enhanced Value to Canada) at-risk amounts may also be referred to as variable payments.

Gain/Pain Sharing Incentives

Performance is penalized (rewarded) through fee arrangements whereby both the contractor and the client department share the risk (reward) of not meeting (meeting) contract performance criteria. Typically, a pre-agreed formula is used as the basis to share losses (gains), as a result of the negative (positive) variances, between the Government and the contractor. For illustrative purposes solely, an example based on target cost criteria is provided below.

Example A5.2.2.c.

Consider the below example, to better understand the concepts of gain/pain share incentive calculation where the basis of payment cost reimbursable

A. Target contract cost	$10M
B. Contractor share of gains/losses	20%
C. Government share of gains/losses	80%
D. Final contract cost	$11M
E. Contract price ceiling	$12M
F. Non-adjusted contract fee	$1M
G. Adjusted fee: (= B x [A – D] + G or 20% x [$10M - $11M] +$1M)	$0.8M
H. Final contact price (= D + G or $11M + $0.8M)	$11.8M

Holdbacks

Payment amounts, associated with a particular milestone or delivery date, are withheld until the required performance is achieved. Note that a holdback may also be used as a preventative measure in some industries and situations, such as for example in construction contracting.

Liquidated damages

The Government payment is reduced based on a pre-estimated loss, or rate of loss, associated with the contract's non-performance, without being required to prove actual damages. Note that these liquidated damages would not be triggered until all pre-established cure provisions are exhausted. For more information see, Annex 5.2.3 - Liquidated damages.

Example A5.2.2.d.

For example in an international border crossing such as a bridge or tunnel, liquidated damages associated with unscheduled lane closure to affect emergency repairs might be as follows:

Occurrence of unscheduled lane closure	Time	Liquidated Damages ($ per hour per lane)
Peak business periods	Monday to Friday 7 am to 6 pm	$1,000
Off peak hours	weekdays and weekends 6 pm to 7 am	$500
Special periods	Identified dates (e.g., holidays)	$2,500

Benefits and Drawbacks of each Financial Disincentive Type

The benefits and drawbacks of each financial disincentive type, are summarized in the exhibit below.

Exhibit A5.2.2.c. – Financial disincentive benefits and drawbacks

Financial Disincentive	Benefits	Drawbacks
At-risk amounts	• Provides contractor motivation to correct performance, when there is a paired positive incentive (i.e. variable payment) reward for exceeding the target performance criteria. Note that at-risk amounts, and the paired incentive rewards, if applicable, would be assessed at each payment period.	• If the at-risk amount is small, this disincentive may not be the most effective measure to rectify contractor performance.
Gain/pain sharing incentives	• Assuming gain/pain sharing incentives are applied at various milestones during the contract, and not just at the end of the contract, the Government and contractor may be encouraged to work together, to correct performance, and avoid sharing a financial loss at a future contract milestone date. • May incentivize contractor performance when performance does not meet target criteria, but still complies with minimum or absolute criteria (i.e. it would be more feasible for the contractor to improve its performance and potentially realize an incentive reward).	• Sharing ratio of losses (gains) could be misaligned and discourage the contractor from improving performance. • Losses from not meeting performance criteria are shared by the Government. • While gain sharing is effective, loss sharing can be a significant distraction as parties seek to minimize loss and apportion blame. Collegiate behaviours, if they existed, could collapse.
Holdbacks	• Provides the Government with means to rectify contract non-performance.	• May further disrupt contract performance, if the contractor's cash flow situation is a critical success factor for achieving contract performance; this risk may be particularly material if the contractor is a small or medium enterprise or if the

Financial Disincentive	Benefits	Drawbacks
		contract in question is the primary cash flow source for the contractor.

Considerations for the Use of Financial Disincentives

One overarching consideration for the application of financial disincentives is that, while necessary, financial sanctions can exacerbate the underperformance because the contractor is less likely to invest in restorative measures.

Additionally, the impact on contractor's profitability may sometimes not be significant enough to motivate the contractor to correct its performance. This consideration, which was also identified for incentives in Annex 5.2.1 (Discussion Paper - Contract Incentives to Encourage and Reward Enhanced Value to Canada), becomes particularly material when:

- a contract price floor constrains the parameter (e.g. the dollar amount) of financial disincentives; or
- correction of performance requires disproportionate additional resources from the contractor.

In these situations, the contractor may not be incentivized to correct/improve performance and may instead redirect effort to supporting more profitable customers and or growth initiatives.

Scope-based Non-financial Disincentives

The application of scope-based disincentives, as informed by contractually pre-established criteria, may be appropriate and effective in instances where financial disincentives were not successful, are not feasible, or need to be supplemented. Scope-based non-financial disincentives are used, within Canada, the United Kingdom, the United States, and Australia, in both competitive and non-competitive contracts. The section describes four types of scope-based disincentives:[39]

1. warranties;
2. step in rights;
3. repatriation of services; and
4. termination.

These disincentive types can be applied for all types of basis of payment or pricing methods.

Warranties

The contractor is requested to provide an assertion as to the sufficient performance of different aspects of a contract, including general warranties, fitness for purpose warranties, latent defects, and technical

[39] Next Generation Performance-Based Support Contracts – Achieving the Outcomes that Defence Requires. Australia - Department of Defense, 5 Feb. 2010.

data warranties. Where performance is not sufficient, corrective measures to fix the identified deficiencies are usually included.

Step in Rights

The government can step in and have the services performed by itself or another party, with the costs of this work being at the expense of the contractor.

Repatriation of Services

Services can be removed from the contract by the government and allocated back to the government, which can be used to reduce the scope of a contract.

Termination

Termination provides the ability to end the contract, in whole or in part, in response to default (including poor performance) by the contractor. In the case of a service contract another variation would be to reduce the tenure or scope of the contract.

Benefits and Drawbacks of each Scope-based Non-financial Disincentive Type

The benefits and drawbacks for each scope-based disincentive type are summarized in the exhibit below.

Exhibit A5.2.2.d. – Scope-based disincentives, benefits and drawbacks

Scope-based Disincentives	Benefits	Drawbacks
Warranties	• Simplest scope-based disincentive to administer, as contractor is held accountable to rectify performance compliance issues. • Effective, when the contractor has the capability, to rectify performance compliance issues.	• Not an appropriate disincentive to rectify non-compliance for cost or schedule performance. • Not an appropriate disincentive when contractor does not have the capability to rectify performance compliance issues. • The contractor may incorporate the costs of warranty (in excess of a reasonable warranty allowance) into the price of the contract.
Step in rights	• The contractor is held accountable for its performance compliance issues, as it is responsible for paying for the costs of the remainder of contract work being performed by another party. • May be effective, when the contractor does not have the	• May not be viable for a non-competitive contract, because the Government or another party may not have the capability to complete the requirements of the contract. • Difficult to administer due to contractual amendment requirements and the challenges of

Scope-based Disincentives	Benefits	Drawbacks
	capability, to rectify performance compliance issues. • May be appropriate when contractor non-compliance is assessed as significant. • May be appropriate when the Government has found a qualified supplier to replace the current contractor.	employing another party to perform the work. • Taxpayers may lose faith in the integrity and effectiveness of the acquisition system in respect to the quality, timeliness, and cost-effectiveness of service delivery.
Repatriation of services	• May be appropriate, when the contractor does not have the capability, to rectify performance compliance issues. • May be appropriate when the contract in question can be scrutinized to determine what portions of the contract can and cannot feasibly be performed by the government.	• May not be viable for a non-competitive contract, in such that the Government or another party may not have the capability to complete the 'repatriated' requirements of the contract. • Even when the repatriation of services is feasible, there is the risk that contract performance will further deteriorate, especially if the contractor and the added party are required to collaborate, but have formed a hostile relationship. • Difficult to administer due to contractual amendment requirements and due to the integration of another party to perform contract work.
Termination	• May be effective, when the contractor does not have the capability, to rectify performance compliance issues. • May be appropriate when contractor non-performance is assessed as significant. • May be appropriate when the Government has found a qualified	• May not be viable for a non-competitive contract, in such that the Government or another party may not have the capability to complete the requirements of the contract. • Does not secure performance of the contract for the Government. • The termination process can be costly and lengthy

Scope-based Disincentives	Benefits	Drawbacks
	supplier to replace the current contractor.	• Taxpayers may lose faith in the integrity and effectiveness of the acquisition system in respect to the quality, timeliness, and cost-effectiveness of service delivery.

Considerations for the Use of Scope-based Non-financial Disincentives

The most significant consideration for scope-based disincentives, as they apply to non-competitive contracts, is that their application may not be effective, or feasible, when the Government is unable to find a qualified supplier to replace the non-compliant contractor. One reason for this could be due to the non-compliant contractor owning background intellectual property that is critical for the accomplishment of performance requirements. In order to mitigate this, the Government could consider the following:

- assessing the feasibility of holding background intellectual property in escrow at the outset of the contract; and
- including conditional performance terms in the contract that allow the Government to provide the intellectual property to another supplier to complete contract requirements if the contractor is non-compliant with performance requirements.

Reputational Disincentives

Description of Reputational Disincentives

Another disincentive type to consider employing is reputational disincentives. Reputational disincentives could be administered formally or indirectly.

- formal means of administration could include evaluation forms or a supplier performance management program; and
- an indirect means of administration could be through media coverage that highlights the reasons for failure of a contracted project.

Reputational disincentives could penalize the contractor in a broader context through the following ways.

- The contractor could have a decreased chance of winning future contracts, competitive or non-competitive, particularly when the potential customer assesses past contractor performance when awarding a contract.
- There could be a potential negative impact on the share price for publically traded contractors, as a result of adverse media coverage.

How should Reputation Disincentives be Used?

Specifically, Canada should assess the merits of establishing a strategic supplier management program similar to the one existing in the United Kingdom. As part of this program, the Cabinet Office collects information on each contract with strategic suppliers every six months.[40] The Office also gathers ad hoc intelligence from departments each month. Each of the strategic suppliers is assigned an overall performance rating of red, amber, or green. Ratings are based on operational delivery, but also other factors including the savings they have made and their level of engagement with government's wider commercial agenda. There is also a 'high risk' rating, based on poor performance or financial risk, which entails a formal process of designation and an improvement plan. Ultimately, the establishment of a strategic supplier management program will enable the Government to conduct a thorough pre-qualification of potential suppliers, and correspondingly use this assessment to develop an appropriate contracting strategy, for the client department project requirements.

The recommended approach to reputation disincentives differs from Australia, with this jurisdiction using a more aggressive approach. The Australian Department of Defence uses a public 'name and shame' approach on large projects where contractors have not performed, and there appears to be a reluctance on the part of the company to invest in a remedy for the situation. A 'Projects of Concern' list is publicly reported by the Minister and discussed at publicized Senate hearings.

Considerations for the Use of Reputational Disincentives

Key considerations for the use of reputational measures include that their use could result in:

- exposure to litigation, for defamation or for future lost profits, from the contractor; or
- a more hostile relationship during the remaining tenure of the contract.

As such, public statements regarding contractors need to comply with all applicable guidance regarding communications.

[40] Managing Government Suppliers. United Kingdom - National Audit Office. November 2013.

ANNEX 5.2.3 DISCUSSION PAPER - LIQUIDATED DAMAGES

What are Liquidated Damages and Liquidated Damages Clause?

Liquidated damages are a specific sum of money expressly stipulated by the parties in a contract as the amount of damages to be recovered by either party for a breach of the agreement by the other. It must be a genuine pre-estimate of the loss that will be caused to one party if another party breaks the contract. It constitutes the amount, no more and no less, that the plaintiff is entitled to recover in the event of breach without being required to prove actual damages. (See Supply Manual Glossary *Liquidated Damages*)

Liquidated damages clause is the provision made for Canada to recover the pre-estimated loss or rate of loss that would result from a delivery default or breach of the contract, without being required to prove actual damages.

Why Liquidated Damages Provisions are Needed?

There is a risk to Canada that it would suffer actual damages as a result of contractor's breach of the obligations as outlined in the predetermined performance specifications in the contract and such damages are likely to be extremely difficult to quantify. Therefore, liquidated damages are used to protect Canada from its downside loss if the contractor cannot fulfill the contract and to compensate Canada for probable damages.

The contacting officers should take prompt actions such as terminating the contract and repurchasing to prevent excessive loss to defaulting contractors and to protect the interests of Canada.

When to Apply

Contracting officers are required to consider the potential impact on pricing, competition, and contract administration before using a liquidated damages clause in solicitations and contracts for supplies, services, research and development, and construction.

Use liquidated damages clauses only when:

- The time of delivery or timely performance is so important that Canada may reasonably expect to suffer damage if the delivery or performance is delinquent; and
- The extent or amount of such damage would be difficult or impossible to estimate accurately or prove

When the inclusion of a liquidated damages clause is appropriate, the SACC Manual clause D0024C must be incorporated in the contract.

For additional information, see Supply Manual section 4.70.25 Contract Performance Incentives and Annex 5.2.2 Discussion Paper – Measures to Manage Contractor Non-Compliance or Unacceptable Behaviour.

Did You Know?

- Liquidated damages are not punitive but are used to compensate Canada for probable damages. Refer to Section 4.70.25 Contract Performance Incentives of Supply Manual for determination of a reasonable forecast of the compensation.
- Liquidated damages are not unique to the Industrial and Technological Benefits - Value Proposition (ITB-VP) elements. Liquidated damages for ITB Policy considerations are treated the same as liquidated damages used for other aspects of the contract.

ANNEX 5.2.4 DISCUSSION PAPER - MANAGING LONG-TERM CONTRACTUAL RELATIONSHIPS

Managing Long-Term Contractual Relationships

Context

This discussion paper provides guidance to contracting officers in the negotiation of non-competitive contracts or contracts where price negotiations with the successful bidder are required following a competitive process.

This discussion paper is intended to help inform contracting officers, to prepare for contract negotiations and manage the contract through its lifecycle. Based on the scale and complexity of the acquisition, this requires considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts. This discussion paper is not intended to be a procedural document.

Why This Matters?

Long-term contracts can optimize value to Canada by, for example, by:

- enhancing price certainty;
- fostering industry confidence to invest;
- aligning service requirements to the underlying asset life; and
- sustaining a strategic national industry.

At the same time, long-term contracts can amplify the risk of underperformance and overpayment when such contracts are poorly managed or fail to incorporate appropriate incentives and flexibility to address change. The effectiveness of long-term contracts is often affected by inadequate contract management, misaligned incentives and poor relationships between the parties.

Poor long-term contractual relationships could be a consequence of government policies and a lack of awareness. Challenges can arise when long-term contracts are not sufficiently structured to respond to inevitable changes in an appropriate and timely manner. Changes may be precipitated by a diverse range of forces, such as evolving performance requirements, technological advancements, shifts in the contractor's cost structure, and external factors that require ad hoc negotiations. The Government's ability to identify and implement effective contract amendments requires consistent contract oversight and good relationships between the parties.

In addition to the issues associated with inadequate contract management and misaligned commercial relationships, other potential risks, to both parties in a long-term contract, may arise from the high dependency on a single contractor or customer. For the contractor, these risks may include the opportunity cost to earn more income with another customer and the potential to become less competitive due to

shielding from market forces. For the Government, these risks may include increased exposure to the risk of contractor default due to insolvency or failure to deliver—these risks could be exacerbated by the lack of alternative contractors when the contract expires and needs to be renewed (i.e., an ongoing supply contract as opposed to a contract for a project).

Although long-term contractual relationships offer benefits, benefits can only be realized when good contract management practices are implemented, commercial interests are aligned between the parties and risks are identified and mitigated

Recommendation

In order to enhance the value that long-term contracts provide to Canada, contracting officers should assess when to establish long-term contracts and what provisions will help to position the parties for long-term success. In particular, contracting officers should incorporate a proactive management approach because it can be a key success factor to ensure that long-term contracts optimize value to Canada. For example:

- Proactive contract management can help to ensure both parties fully meet their obligations as effectively and efficiently as possible. It can help ensure that the parties identify and resolve any issues or concerns in a timely manner which is consistent with the contract terms and conditions.
- Proactive contract management can enable ongoing assessment of the contractor's performance and whether the desired outcomes are being met; or whether Canada's requirements could be better served by going out to the market (which requires monitoring of the market, including prices, labour trends and innovations).
- As part of a proactive contract management approach, more emphasis should be placed on relationship management, rather than focusing solely on the transactional nature of the contract. Strong collaborative relationships can play an important role in helping the parties respond to change, which is an inevitable factor in any long-term contract. Guidance to proactively develop and maintain effective long-term contractual relationships could build upon the guiding principles of ISO 44001—an international standard for developing a platform to facilitate effective business relationship management.
- A proactive contract management approach should incorporate provisions to manage and promote consistency in the event of turnover in contractor personnel and contract management officers, such as the documentation of intent and agreements. These provisions should help to ensure that the succeeding contract management officers can enforce the agreements of their predecessors, perform the Government's responsibilities in a consistent manner (e.g., timely review of contractor reports and requests), and are not exploited by the contractor.

These guiding principles for long-term contractual relationships could be applied for performance-based contracts, which typically span a longer time horizon.

It is important that both the Government and the contractor build capability and capacity to properly manage contracts. For example, the effectiveness of long-term contracts can be undermined by failure to

provide timely communication, the unavailability and/or frequent turnover of contract management personnel, and a singular focus on the transactional aspect of the contract[41]. Leading contract management practices highlight the need for both parties to work collaboratively to respond to inevitable changes in a long-term contract.

Analysis

A. What are the potential benefits of long-term contracts?

Benefits of long-term contracts

Good long-term contractual relationships can build mutual trust and provide benefits for all parties involved, including:

- assuring the supply of goods and services over a longer term without the costs and risks associated with frequent acquisitions;
- creating opportunities for improved contractor performance due, in part, to the long-term commitment to the contractor[42];
- encouraging a lifecycle approach to the development of major equipment and infrastructure projects;
- facilitating long-term efficiencies in the client department, the contractor and the supply chain;
- enabling the contractor (and its supply chain) to obtain more favourable financing as it can borrow against the "collateral" of a long-term contract, which may then reduce the overall price to the Government;
- enabling long-term capacity and resource planning, while also potentially yielding economic development benefits (e.g., workforce training and development of intellectual property to support market expansion); and
- preparing Canada for unforeseen external factors (e.g., unexpected substantial changes in the relevant market) through collaboration with the contractor.

These benefits are particularly attractive when procuring goods and services in capital-intensive industries, such as construction and telecommunication, with long product development cycles or industries requiring specialized skills and knowledge.

Examples from comparator jurisdictions

The United Kingdom's use of long-term contracts, by way of multi-year performance-based contracts, have been helpful to reduce costs because contractors are better able to stabilize their supply chains and to obtain better prices from the supplier base.

[41] As opposed to the establishment of a platform to work collaboratively to resolve issues and concerns.

[42] An extended time period can incentivize the contractor to invest in research and development of new technology, methodologies, assets and employees to drive innovation and continuous improvement thereby improving quality and capability.

Similarly, the Australia Department of Defence has noted that the use of long-term contracts for major surface ship repair and maintenance have helped to deliver greater efficiencies and savings — stemming from the contractor's ability to progressively adopt lessons learned from prior activities as part of the continuous improvement program.

B. What are the potential risks of long-term contractual relationships?

Long-term contractual relationships can expose both parties to substantial risk, including:

- from the Government's perspective, reducing the overall size and competitiveness of the market in relatively shallow supply markets;
- from the Government's perspective, encouraging and/or facilitating monopolistic behaviour by the contractor, including uncompetitive pricing or variable quality;
- from the Government's perspective, increasing the Government's exposure to the risks of contractor insolvency and the contractor's failure to perform because of an overreliance on a single supplier;
- from the Government's perspective, decreasing value to Canada over the term of the contract due to external factors, such as the emergence of more cost-effective solutions or falling market pricings; and
- from the contractor's perspective, potentially reducing the contractor's ability to compete in the market, increasing the contractor's exposure to the risk of contract termination, and reducing the contractor's ability to negotiate terms that are favourable or acceptable to the contractor because of an overreliance on a single customer.

Failure to establish a proactive and collaborative working relationship between the parties can potentially amplify the risks inherent in a long-term contract. For example, a 2014 UK National Audit Office report noted that the lack of a strategic approach to managing contractual relationships inhibited parties from collaborating effectively to address problems and improve service.

To mitigate long-term contracting risks, substantial planning is required to structure and implement effective contractual terms and conditions. Generally, a multi-functional team is required. The team might include the client department, and subject matter experts with knowledge, skills and experience to help ensure an effective framework for contract management is established within the contract. In many instances, support from internal subject matter experts and external advisors can be a key success factor.

C. How can contractual terms and conditions help in the management of long-term contracts?

As demonstrated in Exhibit A5.2.4.a., various standard contract terms and conditions can help to position a long-term contractual relationship for success.

Exhibit A5.2.4.a. -Considerations of contract terms and condition

Contract term and condition	Considerations
Appropriate definition of requirements	• By incorporating performance-based requirements and referencing appropriate external standards (e.g. standards by the International Organization for Standardization), expectations can be set at the onset of the contractual relationship. Additionally, external standards are updated from time to time and can help ensure the good or service is consistent with evolving industry requirements. • Prescriptive requirements increase the need for change orders (and hence cost) in order to accommodate minor shifts in operations or external conditions. Where possible, performance requirements should be used (and should describe in sufficient detail to avoid ambiguity which could become the subject of dispute). • Overly prescriptive requirements can limit the potential for contractor innovation, thereby compromising the potential for cost reductions, quality improvements, and overall optimization of the value to Canada.
Provisions to discourage, and mitigate the impact of, poor performance by the contractor	• Performance based disincentives can be important tools to reduce payment to the contractor when it fails to deliver in accordance with the requirements (e.g., missed milestone dates or for failure to maintain an asset in accordance with pre-established availability requirements). • Additional provisions that may be incorporated to address chronic under-performance include increased reporting and monitoring requirements. For example, the contractor may be required to develop and implement a remediation plan, which is then approved and tracked by the Government (typically by the contracting officer or an independent third party).
Provisions to encourage, and share the benefits of exemplary performance by the contractor	• Performance-based incentives can be important tools to increase payment to the contractor if it exceeds the base pre-established performance requirements. Refer to Annex 5.2.1 (Discussion Paper - Contract Incentives to Encourage and Reward Enhanced Value to Canada) which discusses contract incentives to encourage and reward enhanced value to Canada. • Rolling contract extensions[43] (with strong off ramps for performance failures) can be a powerful incentive for the contractor to perform.

[43] Rolling contract extensions are a series of extension options that are held by the Government.

Contract term and condition	Considerations
Provisions for extensions of the contract to incentivize investment and innovation by the contractor	• Provisions for extensions can help Canada to take advantage of, for example, lower supply costs or technological innovations that could improve outcomes or drive efficiencies. • Provisions for extensions can also be helpful in instances when the life expectancy of a project is uncertain. • Implement a partnering approach with industry by way of long-term availability-based contracts with options or series of long-term extensions to manage relationships with contractors[44].
Payment mechanisms to specially address financial risk associated with long-term contracts	• While the initial contract term may transfer most (if not all) cost risk to the contractor, gain/pain sharing mechanisms in the later years, or any optional term(s), can help incentivize collaboration and reward contractor innovation. • Economic price adjustment clauses transfer risk from the contractor to the Government.
Pre-established contract amendment procedures	• Pre-established procedures can help identify and affirm the need for change, assess the impact of potential solutions and expedite amendment approvals to the contract in order to address unforeseen circumstances
Step-in rights for the Government to address the risk of contractor insolvency or when the Contractor (repeatedly) fails to meet the performance requirements as established in the contract	• Through step-in rights, the Government can step in and have the services performed by itself or another party, with the costs of this work being at the expense of the contractor. Refer to Annex 5.2.2 (Discussion Paper - Measures to Manage Contractor Non-Compliance or Unacceptable Behaviour) which describes measures to manage a contractor's non-compliance or unacceptable behaviour.
Provisions to ensure Canada's right to contract with alternate suppliers or to self-perform some or all of the work at specific times	• These provisions would generally be applied for well-defined discrete scopes of work or specific time periods in the contract, or if the contractor (repeatedly) fails to meet the performance requirements established in the contract

[44] As seen in the UK Ministry of Defence. Examples include the Sea King Integrated Operational Support (SKIOS), Integrated Merlin Operational Support (IMOS), Availability Transformation Tornado Aircraft and Multi-Role Hydrographic and Oceanographic Survey Vessels contracts.

Contract term and condition	Considerations
	• Such provisions should, for example, ensure Canada's access to background intellectual property and ownership of foreground intellectual property.
Provisions to allow for termination of the contract for convenience	• Provisions such as termination based on mutual consent can help Canada to take advantage of, for example, fundamental shifts in the market or in requirements.
Holdbacks	• Holdbacks provide the Government with means to rectify contract non-performance. • Such provisions may further disrupt contract performance, if the contractor's cash flow is compromised. This risk may be particularly material if the contractor is a small or medium enterprise or if the contract in question is the primary cash flow source for the contractor.

D. What are the leading practices for managing long-term contracts?

Guiding principles

Guiding principles for the effective management of long-term contractual relationships have been common across comparator jurisdictions and are also observed in some PSPC contracts. These guiding principles are:

- **Leadership framework.** Successful long-term contractual relationships require a supportive management framework that is flexible and able to respond to changes in priorities. For example, many long-term relationships in high-value complex acquisitions are overseen by a board comprised of five to seven senior government and contractor executives who meet on a regular basis to review performance against pre-established performance standards, consider issues and propose resolution.

  The adoption of a consistent strategic relationship management approach, ideally beginning in early contracting phases, should be incorporated in the contract management framework. For example, as new contract managers are brought in, the parties would develop a transition plan to help ensure new personnel understand the background of the relationship between the Government and contractor and are able to fulfill their responsibilities in a consistent and timely manner.

- **Clear contract ownership and governance.** The relationship with a contractor begins with the alignment of contracts with appropriate contract ownership and governance provisions (e.g., rights to change contract requirements and to direct the contractor) to enable ongoing coordination between the parties, regular feedback on performance, and timely resolution of disputes in a mutually beneficial manner

Given the division of responsibility for contract management between PSPC and the end user, effective collaboration between the contracting authority's representative and the end user's technical representative is a key ingredient for ensuring effective contract management. Depending upon the scope and complexity of the goods and services being procured, additional parties may be required to adequately support the long-term relationship. This may include various disciplines, including for example commercial, financial, legal and policy specialists as well as technical subject matter experts. All such individuals would participate as part of a multi-disciplinary team, with clear definition of their roles and responsibilities for overseeing the contract, managing relationships and authorizing change.

A relational charter, or the inclusion of relational terms in a project charter, would be helpful to outline roles, responsibilities and expectations under a selected contract ownership and governance structure.

- **Performance management and communication.** A performance management framework, and a corresponding feedback and communication mechanism, would be established, ideally before contract initiation.

  A framework for the establishment, tracking and reporting of key performance indicators, in conjunction with provisions, to appropriately redress concerns and reward successes is important: incentive structures should be calibrated and administered, and contractors should be measured against clear, objective and meaningful metrics. (Possible examples of performance measures include quality checks, service standards, and price and cost comparisons.) These key performance measures would be reviewed, and updated for new requirements if applicable, at least annually. Regular feedback (likely on a weekly or monthly basis) would be provided to the contractor, and where applicable, they would require the contractor to develop an improvement plan to redress the noted deficiencies.

  Government and contractor employees would be encouraged to communicate problems as soon as possible. A leading practice is to put an expiry date on problems (claims). If a contractor or the Government does not raise an issue within a pre-established time of its occurrence, then the relevant party forfeits the right to raise the matter at a later date. At the same time, Government and contractor employees should be mindful that the escalation of issues to management and external parties should be carefully considered to avoid the perception of political gamesmanship.

  Some agencies (e.g., Infrastructure Ontario and the Australian Department of Defence) are establishing grades for contractors. If the contractor's performance falls below a pre-established standard, the contractor would be penalized in the evaluation of future bids for a period of time. Refer to Annex 5.2.2 (Discussion Paper - Measures to Manage Contractor Non-Compliance or Unacceptable Behaviour) for further details regarding grading contractor performance.

- **Risk management.** Clear risk allocation and management help avoid misunderstanding and miscommunication regarding responsibilities and improve the potential for collaboration between the Government and the contractor. All identified risks should be assigned to the appropriate

owners, and be documented and monitored in a risk register[45]. Contingency plans should be prepared and monitored. The contract manager should report critical risks to the joint leadership team (e.g., governance board) on a regular basis (typically monthly although more frequent review may be warranted in some circumstances).

- **Information management.** A single contract management information system that combines acquisition and finance requirements would mitigate issues from the distribution of contract information across disparate systems (e.g., paper-based filing, electronic filing and e-mails) and organizations.

  Sharing reliable information between the Government and contractor is particularly important in alliance contracts and public-private partnerships (e.g., operational and financial information) when the contract includes gain/pain sharing mechanisms.

- **Financial management.** The payment mechanism and supporting processes should be defined, documented and understood by all parties. The contractor's business and financial performance should be periodically reviewed to ensure that financial remedies (e.g., warranties, indemnities, insurance and security) continue to be feasible. Payments, including for performance, should be completed without unnecessary delays. The relationship between payments and performance should be clearly established in the contract. Non-compliance or underperformance should invoke liquidated damage and other consequences as necessary.

- **Co-location of Government and contractor teams**. Co-locating Government and contractor personnel could foster collaboration and relationships—a practice that is currently used in Canada for large procurements. In the United States, the Government had on-site management representation at contractor plants for the US Fleet Ballistic Missile System contract. This was viewed to be one of the contributing factors to the success of the program. Co-location is also common in alliance contracts and public-private partnerships. If co-location is not possible, regularly scheduled visits between Government and contractor teams could be a good alternative. Frequency of visits would depend upon the duration, complexity, and risk profile of the project.

ISO 44001: Collaborative Business Relationship Management Systems

ISO 44001 is an international standard, recently published by the International Organization for Standardization, for developing a common enabling platform to develop and sustain positive outcomes in complex business relationships. The standard provides guidance on the effective identification, development and management of collaborative business relationships within or between organizations

Many consider the ISO 44001 standard as a framework of leading practices for long-term contractual relationships.

[45] A risk register is a component of a risk management plan—identifying and describing risks with respect to probability, impact, allocation of ownership and treatment approach.

ANNEX 5.3 COSTING DISCUSSION PAPERS

These discussion papers are intended to support cost interpretation and provide additional guidance for cost acceptability decisions to support contracting officers' understanding of the complex areas in preparing for contract negotiations and in managing a contract through its lifecycle.

ANNEX 5.3.1 DISCUSSION PAPER - SALES AND MARKETING

Sales and Marketing

Context

This discussion paper provides guidance to contracting officers in the negotiation of non-competitive contracts or contracts where price negotiations with the successful bidder are required following a competitive process.

This discussion paper is intended to help inform contracting officers, to prepare for contract negotiations and manage the contract through its lifecycle. Based on the scale and complexity of the acquisition, this requires considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts. This discussion paper is not intended to be a procedural document.

Why This Matters?

Sales and marketing costs are primarily incurred by contractors to generate future sales of their goods or services. Assessing if sales and marketing costs are acceptable for a Government contract is difficult because:

- there are many types of sales and marketing activities;
- the benefits of sales and marketing costs for a contract are not always evident/measureable;
- the inclusion of sales and marketing costs may be perceived as a conflict of interest in the relationship, between the Government and the contractor;
- the inclusion of sales and marketing costs in a contract may be viewed as an unfair subsidy; and
- there are many factors to consider when determining the amount of sales and marketing costs to include in a contract.

Clear guidance is required to help ensure that sales and marketing costs are only included in the contract cost base if they are Attributable, Appropriate, and Reasonable.

Recommendation

In alignment with the contract cost Acceptability criteria outlined in the Costing Standard, sales and marketing costs should be accepted for a contract when the costs are Attributable, Appropriate, and Reasonable.

When assessing the criterion of Attributable, below are some key factors to consider.

- Are the sales and marketing costs supportable and verifiable?
- Generally not attributable unless the sales and marketing costs contribute to the achievement of:
    - contract specific requirements;
    - strategic contract outcomes; or
    - financial benefits for the contracts that the Government has with the respective contractor?

When assessing the criterion of Appropriate, below are some key factors to consider.

- Are the respective sales and marketing activities ethical based on applicable Government policies and regulations?
- Are the nature of the sales and marketing costs consistent with available sources of comparator information?
- Is the reimbursement of the sales and marketing costs, as it pertains to the impact on fairness and equity for other suppliers, acceptable?

When assessing the criterion of Reasonable, below are some key factors to consider.

- Does the cost amount justify the expected return on benefits for the Government?
- Is the cost amount consistent with available sources of comparator information?
- Is the cost amount net of applicable credits?
- Does the cost amount comply with any parameters that may have been pre-authorized in the contract?
- Has the cost amount been allocated fairly between the Government and the contractor with consideration for the benefits associated with the costs?

The above factors are presented in the logical order that contracting officers will need to follow when assessing the acceptability of sales and marketing costs. It should be noted that the identified factors for assessing the criteria of Attributable, Appropriate, and Reasonable are not exhaustive. As such, the identified factors should be consulted alongside the applicable sections of the Costing Standard.

Analysis

A. Types of Sales and Marketing Activities

For this discussion paper, the scope of sales and marketing primarily relates to the following activities:

Selling. Selling is a generic term encompassing all efforts to market the contractor's goods or services. Selling includes advertising, corporate image enhancement, bid and proposal efforts, marketing planning, and direct selling.

Advertising. Advertising means the use of media to promote the sale of goods or services. Advertising media include but are not limited to conventions, exhibits, free goods, samples, magazines, newspapers, trade papers, direct mail, dealer cards, window displays, outdoor advertising, radio, television, and the Internet. A relevant example is a trade exhibition, which is an exhibition organized so that companies in a specific industry can showcase and demonstrate their latest goods and services.

Public Relations. Public relations means all functions and activities dedicated to maintaining, protecting, and enhancing the image of a concern or its goods or maintaining or promoting reciprocal understanding and favourable relations with the public at large, or any segment of the public. The term public relations includes activities associated with areas such as advertising, customer relations, etc.

Entertainment. Entertainment includes amusement, diversions, social activities, tickets to show or sports events, meals, lodging, rentals, transportation and gratuities. It also includes membership in social, dining, or country clubs or other organizations having similar purposes.

B. Assessing the Acceptability of Sales and Marketing Costs

Overarching Considerations for Assessing the Acceptability of Sales and Marketing Costs

It should be noted that sales and marketing costs may be an aggregate of other costs (e.g. compensation costs, travel costs, etc.). Therefore, when assessing the acceptability of sales and marketing costs, the criteria of Attributable, Appropriate, and Reasonable should also be assessed for the respective aggregate costs. Applicable discussion papers and cost specific considerations from the Costing Standard should be consulted as required.

Assessing the Attributable Criterion

Sales and marketing costs are generally not attributable unless the costs:

- are supportable and verifiable; and
- contribute to the achievement of contract specific requirements;
    - strategic contract outcomes; or
    - financial benefits for the contracts that the Government has with the respective contractor.

Supportable and Verifiable

Sales and marketing costs should be readily identifiable based on contract cost reports produced by the contractor.

The contract cost reports should:

- disclose the nature and purpose of the sales and marketing costs;

- identify direct sales and marketing costs; and
- identify indirect sales and marketing costs.

Disclosed information should include the type of sales and marketing activities, the sales and marketing cost breakdown (e.g. compensation costs, travel costs, etc.), and how the costs contribute to the achievement of benefits for the contract.

Achievement of Contract Specific Requirements

There are situations in which advertising, public relations, and bid/proposal development costs can contribute to the achievement of contract specific requirements. Brief examples of when these types of sales and marketing costs may be Attributable are provided below.

Advertising Costs. The client department may require service (i.e. maintenance) support under a contract, where it expects the contractor to be the conduit between potential maintainers and the customer. To fulfil the maintenance component of the contract, the contractor may need to incur advertising costs to solicit services from maintenance sub-contractors.

Public Relations Costs. The client department may require the contractor to communicate with the public or media about specific issues related to the contract in question. Logically, the contractor would incur public relations costs to conduct the required communication activities.

Bid/Proposal Development Costs. Bid/proposal development costs, may be incurred by the contractor during the course of a non-competitive contract when the Government requires the contractor to submit a proposal, with technical and cost information, to extend the length of the existing contract (i.e. through the activation of an option term).

Achievement of Strategic Contract Outcomes

In alignment with the *Treasury Board Secretariat Contracting Policy*[46], contracts may be structured with due consideration of strategic outcomes that:

- support long-term industrial and regional development and other appropriate national objectives, including aboriginal economic development; and
- comply with the government's obligations under the North American Free Trade Agreement, the World Trade Organization – Agreement on Government Procurement and the Agreement on Internal Trade.

In exceptional circumstances, sales and marketing costs may be Attributable when the respective contract includes such outcomes.

As an example, contracts structured under the Industrial and Technological Benefits (ITB) Policy must[47]:

- support the long-term sustainability and growth of Canada's defence sector;

[46] Contracting Policy. Government of Canada, Treasury Board Secretariat of Canada. October 2013. https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494. Accessed 1 March 2018.
[47] ITB Policy: Value Proposition Guide. Government of Canada, Innovation, Science and Economic Development Canada, Office of the Deputy Minister, Industry Sector, 19 December 2014, www.ic.gc.ca/eic/site/086.nsf/eng/00006.html, Accessed 26 October 2017.

- support the growth of prime contractors as well as suppliers in Canada, including small and medium-sized enterprises (SMEs) in all regions of the country;
- enhance innovation through research and technological development in Canada; and
- increase the export potential of Canadian-based firms.

To fulfil the above objectives, specifically the second and fourth objectives, the contractor may need to make certain investments in other suppliers. This could require sales and marketing costs (e.g. promoting goods and services at tradeshows; or advertising to solicit services and goods, investment opportunities, or employment from other defence companies).

It should be noted that the ITB Policy is complex, as it allows for contractors to either incur direct or indirect costs for achieving the above objectives. Furthermore, the policy allows contractors to incur relevant costs before the timelines of an individual procurement as well as pool costs and allocate them to multiple contracts.

Due to the strategic nature and complexity of policies, such as the ITB Policy, the respective Government policy owners (e.g. Innovation, Science and Economic Development Canada) should be consulted when the acceptability of policy related costs are assessed. Special reviews and approvals are also be required here.

In order for these strategic sales and marketing costs to be considered for acceptance, the following conditions should be in place:

- A cost benefit providing details on the expected costs in comparison to details on the expected benefits to be realized within the contract. The strategic benefit should be clear, as should the cost of the strategic benefit, with an explanation as to why it is attributable to the contract. All details should be supportable, verifiable and well documented.
- A timeline for the realization of the strategic benefit to Canada, as well as detailed parameters on when the achievement of these benefits will be verified. This would include established check-points to validate whether or not the benefits are being achieved. In the event the strategic benefits are not occurring, the parameters and contract should outline that the sales and marketing costs will no longer be accepted or will require adjustment.
- The acceptance of the sales and marketing costs, the parameters and the timelines all require documentation in the contract or the Cost Accounting Practices (CAP) Submission.

Achievement of Financial Benefits for the Contracts that the Government has with the Respective Contractor

In exceptional circumstances, sales and marketing activities could allow contractors to expand their customer base and correspondingly increase their production volume. Increased production volume can potentially lead to reduced costs being allocated to each good produced by the contractor. Resultantly, this could create potential cost savings for the Government across the contract(s) it has with the respective contractor.

Consider the following example:

A supplier has been contracted by the Government to produce goods. During the course of the contract, the Government and contractor have determined that sales and marketing costs *may* be Attributable because the successful sales of these goods to other customers *could* provide financial benefits to the contracts that the Government has (or will have) with the respective contractor. Essentially, the contractor would experience increased production volume, and potentially increased production efficiency, thereby reducing its total cost incurred per good.

In order for these costs to be considered for acceptance, the following conditions should be in place:

- The contractor would have to provide a cost benefit analysis to support the claim that the marketing costs were of benefit to Canada. This would include details of the expected costs required to obtain the additional customer with a comparison to the calculation of the expected decrease in production costs to be realized in the contract with Canada. This evidence should be supportable, verifiable and well documented.
- A timeline for the realization of the cost savings benefit to Canada, as well as detailed parameters on when the savings will be verified. This would include established check-points to validate whether or not the cost savings are being achieved. In the event the savings are not occurring, the parameters and contract should outline that the sales and marketing costs will no longer be accepted or will require adjustment.
- The acceptance of the sales and marketing costs, the parameters and the timelines all require documentation in the contract or the Cost Accounting Practices (CAP) Submission .

Assessing the Appropriate Criterion

Sales and marketing costs may be Appropriate for a contract when:

- the respective sales and marketing activities are ethical based on applicable Government policies and regulations;
- the nature of the costs are consistent with comparator information; and
- the reimbursement of the costs, as it pertains to the impact on fairness for other suppliers, is acceptable.

Ethical Considerations based on Applicable Government Policies and Regulations

Sales and marketing costs would not be Appropriate if the incurrence of such costs are unethical based on applicable Government policies and regulations. One important Government policy to consider here is the *Values and Ethics Code for the Public Sector*[48]. Based on this policy, the key factor to consider is whether the nature of the sales and marketing costs maintain the perception of independence, in the

[48] Value and Ethics Code for the Public Sector. Government of Canada, Treasury Board Secretariat of Canada. December 2011. http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=25049. Accessed 1 March 2018.

relationship, between the Government and the contractor, and are not perceived as a conflict of interest. The perception of independence should be assessed from the lens of the Canadian taxpayer.

As an example, entertainment costs, such as costs associated with attending a sporting event, would be perceived as a conflict of interest in the relationship, between the Government and the contractor, and would correspondingly not be considered Appropriate or Acceptable.

Consistency of the Nature of Sales and Marketing Costs with Comparator Information

The nature of sales and marketing costs should be consistent with comparator information, if available. Sources of comparator information include but are not limited to:

- internally available data for other contracts;
- accessible data for contracts from other government procurement organizations;
- accessible documentation, including historical and forward-looking financial reports, for the contractor;
- publically available financial reports for other companies in the contractor's industry; or
- publically available financial reports for other companies in the contractor's geography.

Consider the below scenario for illustrative purposes only.

In the Assessing the Attributable Criterion section of the Analysis, it was assessed that the incurrence of advertising costs, to solicit services from maintenance sub-contractors, may be Attributable.

Also, as per the Different Types of Sales and Marketing Activities section of the Analysis, forms of advertising may include but are not limited to conventions, exhibits, free goods, samples, magazines, newspapers, trade papers, direct mail, dealer cards, window displays, outdoor advertising, radio, television, and the Internet.

Assume it is assessed that radio or television forms of advertising would not typically be used to solicit services from maintenance sub-contractors. Furthermore, assume it is assessed that online advertising is the typical channel for soliciting services from maintenance sub-contractors.

For the above scenario, logically, the sales and marketing costs related to radio or television advertising would not be Appropriate, whereas online advertising costs could be Appropriate.

Impact on Fairness for other Suppliers

Consideration should be provided to whether the inclusion of sales and marketing costs for a contract would improve the competitive position (i.e. through increased customer revenues and decreased production costs) of the respective contractor within its region or industry. This may occur when the intent of the sales and marketing costs is to decrease the production costs of the contracted goods by increasing the customer base and correspondingly production volume of the contractor. For such a circumstance, the contracting officer should, with proper consultation[49], assess the following.

[49] The contracting officer may be required to consult internal or external expertise.

- Is the inclusion of the sales and marketing costs in the contract due to the contract's integration with other Government of Canada mechanisms or programs (i.e. for the purpose of achieving strategic outcomes)?
- Would the inclusion of the sales and marketing costs be viewed as a fair subsidy to the contractor or the contractor's region or industry[50]?

Clear documentation of the cost savings or strategic benefit to Canada, as well as the plan for validation and monitoring of this benefit, in the CAP Submission or the Contract is required to demonstrate the fairness of the decision.

Assessing the Reasonable Criterion

When assessing what constitutes a Reasonable amount for Attributable and Appropriate sales and marketing costs, factors including, but not limited to the below should be considered.

- Does the cost amount justify the expected return on benefits for the Government?
- Is the cost amount consistent with comparator information?
- Is the cost amount net of applicable credits?
- Does the cost amount comply with any limits that may have been pre-authorized in the contract?
- Has the cost amount been allocated fairly between the Government and the contractor with consideration for the benefits associated with the costs?

Comparing the Cost Amount to Expected Return on Benefits

It should be clearly demonstrated that the amount of sales and marketing costs incurred by the contractor justifies the expected return on benefits for the Government. Benefits for the Government can be of either a quantitative nature (e.g. production cost savings) or qualitative nature (e.g. achievement of strategic policy outcomes).

When the primary intent of the sales and marketing costs is to reduce production costs for the contracts that the Government has with the respective contractor, the contractor should demonstrate that the production cost savings for these contracts is at least equivalent to the respective sales and marketing costs that have been incurred. This cost benefit analysis and the agreed parameters of the agreement, including validation and time periods should be documented and noted in the contract or CAP Submission, as detailed above in the Assessing the Attributable Criterion section.

When the incurrence of sales and marketing costs are linked to the achievement of strategic outcomes, a cost-benefit analysis could be or could have been conducted in order to determine the level of costs to the Government that would justify the achievement of the respective benefits.[51] This cost benefit analysis and the agreed parameters of the agreement, including validation and time periods should be documented and noted in the contract or CAP Submission.

[50] The perception of an unfair subsidy could result in a legal challenge and/or harm to Canada's reputation internationally.
[51] This is particularly important when assessing benefits of a qualitative nature.

Consistency of the Amount of Sales and Marketing Costs with Comparator Information

The amount for and sales and marketing costs should be consistent with available comparator information. Potential sources of comparator information are identified in the Assessing the Appropriate Criterion section of the Analysis.

For example, the amount for and sales commissions should be informed by industry sales commission rates.

Adjusting the Cost Amount for Applicable Credits

The amount for Attributable and Appropriate sales and marketing costs should be reported net of applicable credits. Applicable credits may include Government funding, such as grants or subsidies, the contractor is receiving to conduct sales and marketing activities to achieve strategic Government outcomes. The nature and amount of any related funding or credits should be disclosed by contractors and the sales and marketing costs should be adjusted accordingly.

Compliance of Cost Amount with Pre-Authorized Contract Parameters

A contract may contain limits for the amount of sales and marketing costs that can be reimbursed to the respective contractor. The inclusion of limits may be of more relevance when the contractor has multiple active contracts with the Government.

For example, there may be a limit for the percentage of contractor indirect sales and marketing costs that can be allocated to Government contracts in relation to the total cost of the Government contracts (i.e. contractor indirect sales and marketing costs can comprise up to X% of the total cost of the contractor's Government contracts).

These limits should be documented in the contract or CAP Submission.

Fairly Allocating Sales and Marketing Costs

Allocation to Contracts

To enable a reasonable and justifiable share of selling and marketing expenses to be charged against PSPC contracts, the following practice should generally be adopted:

a. Selling and marketing expenses should be clearly identified by a contractor as distinct from other indirect costs to the extent, where warranted, of creating a separate cost pool for these expenses;

b. Where a contractor manufactures more than one particular product or provides more than one particular service, the selling and marketing expenses specifically identifiable with each particular product or service should be allocated directly thereto with any general expenses being prorated equitably across all products or services; and then

c. A pro-rata share of the selling and marketing expenses allocated in accordance with b) above to the particular products or services or family of products or services being acquired under the PSPC contract included in the applicable overhead costs of the contract.

One specific consideration for the fair allocation of sales and marketing costs is that these costs can provide future benefits to both the Government and the contractor. As previously identified, the benefits for the Government can be of either a quantitative or qualitative nature.

When the primary intent of sales and marketing costs is to reduce contractor production costs, the Government will potentially benefit from reduced contract costs and the contractor will potentially benefit from increased sales and reduced costs. As such, the sales and marketing costs could be allocated between the contractor's Government contract(s) and non-Government business activities in proportion to amount of financial benefits that are expected to be realized by the contractor and the Government's contract(s).[52] Furthermore, costs could also be allocated over the period of time that would be expected for the benefits to be realized.

When the incurrence of sales and marketing costs are linked to the achievement of strategic outcomes, the results of a cost-benefit analysis would inform the fair allocation of these costs between the contractor's Government contract(s) and non-Government business activities.

[52] The ratio of the contractor's Government revenues to its total revenues can help inform a fair allocation.

ANNEX 5.3.2 DISCUSSION PAPER - EXECUTIVE COMPENSATION AND BONUS

Executive Compensation and Bonus

Context

This discussion paper provides guidance to contracting officers in the negotiation of non-competitive contracts or contracts where price negotiations with the successful bidder are required following a competitive process.

This discussion paper is intended to help inform contracting officers, to prepare for contract negotiations and manage the contract through its lifecycle. Based on the scale and complexity of the acquisition, this requires considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts. This discussion paper is not intended to be a procedural document.

Why This Matters?

As the types and dollar amounts of executive and employee compensation and bonus vary widely among contractors and if contracts do not explicitly outline which executive compensation and bonus costs are allowable and at what amount, there is a risk that Canada will overpay for the goods and services obtained. Additionally, while some of these costs may be clearly identified as direct, they are typically included as indirect costs and can represent a high proportion of these costs. With a more robust consideration and treatment of executive compensation and bonus costs, resulting contracts will have further clarity of the acceptability of these costs to help ensure value for Canada.

Clear guidance is required to help ensure that executive compensation and bonus costs are only included in the contract cost base if they are Attributable, Appropriate, and Reasonable.

The current approach in Canada, as stated in the Contract Cost Principles is guided by the General Principle 1031-2 01. “The total cost of the Contract must be the sum of the applicable direct and indirect costs which are, or must be reasonably and properly incurred and/or allocated, in the performance of the Contract, less any applicable credits. These costs must be determined in accordance with the Contractor's cost accounting practices as accepted by Canada and applied consistently over time.”

Section 1031-2 07 states “unreasonable compensation for officers and employees” are considered non-applicable costs to the contract. As a result, the current approach requires the contracting officer to determine the reasonability of executive compensation and bonuses.

Recommendation

In alignment with the contract cost Acceptability criteria outlined in the Costing Standard, executive compensation and bonus costs should be accepted for a contract when the costs are Attributable, Appropriate, and Reasonable.

When assessing the criterion of Attributable, some key factors that should be considered include:

- Are the executive compensation or bonus costs supportable and verifiable?
- Are the executive compensation or bonus costs required/beneficial for the performance of the contract?

When assessing the criterion of Appropriate, some key factors that should be considered include:

- Are the costs in accordance with the contractor's internal compensation policy which are applied when establishing contracts in the regular course of business?
- Is the inclusion of the executive compensation or bonus consistent with benchmark and/or industry norms?
- Is the bonus in line with specific guidance *Incentive Remuneration Bonus plans?*

When assessing the criterion of Reasonable, some key factors that should be considered include:

- What proportion does executive compensation or bonus represent? E.g. proportion of: total cost of contract, total executive compensation paid by contractor, total or bonus paid by the contractor. Is this proportion consistent with benchmarks and/or industry norms?

It should be noted that the above factors for assessing the criteria of Attributable, Appropriate, and Reasonable are not exhaustive. The above factors should be consulted alongside the applicable sections of the Costing Standard.

- Has the cost amount been allocated fairly between the Government and the contractor with consideration for the benefits associated with the costs?

The above factors are presented in the logical order that contracting officers will need to follow when assessing the acceptability of executive compensation and bonus costs. It should be noted that the identified factors for assessing the criteria of Attributable, Appropriate, and Reasonable are not exhaustive. As such, the identified factors should be consulted alongside the applicable sections of the Costing Standard.

Analysis

A. Executive Compensation and Bonus

Executive compensation includes monetary benefits which are given to the senior management of a company and form the base pay of the executive, including:

- Salary: reflects the extent of experience and sustained level of performance for a job or position
- Benefit: deals with the provision of time off with pay, employee services, health care services, allowable insurance protection and retirement incentives
- Performance Incentives: rewards the extent of accomplishment agreement targets.
- Perquisites: a special right or privilege enjoyed as a result of one's position, such as housing loans; these are in addition to benefits offered to other employees.

Bonus payments are payments made to reward performance. These payments may be based on the performance of the individual and/or of the company (e.g. amount of profit earned, share price etc.).

An additional consideration when assessing executive compensation, and bonus costs for a contract is talent management. By incorporating executive and employee rewards, such as, bonuses into allowable costs within the terms and conditions of the contract, contractors may be better positioned to further compensate its employees to attract and retain top talent that may also provide value to Canada if the executive compensation were driven by achieving efficiencies and reducing overall costs of delivering the goods or services.

For purposes of this discussion paper, consideration is given to help contracting officers determine the extent to which the following cost types (and related amounts) should be included in a contract:

- executive compensation base pay; and
- bonus payments

Please note profit sharing is a system in which employees and executives receive a direct share of the profits. A redistribution of profit is not a cost and as such is generally not acceptable as a contract cost.

B. Assessment

Overarching Considerations for Assessing the Acceptability of Executive Compensation and Bonus Costs

It should be noted that executive compensation and bonus costs may be an aggregate of other costs (e.g. sales and marketing costs, travel costs, etc.). Therefore, when assessing the acceptability of executive compensation and bonus costs, the criteria of Attributable, Appropriate, and Reasonable should also be assessed for the respective aggregate costs. Applicable discussion papers and cost specific considerations from the Costing Standard should be consulted as required.

The contracting officer needs to exercise professional judgement in assessing the extent to which executive compensation and bonus is Attributable, Appropriate, and Reasonable and may need to engage additional support as needed from price advisors and possibly other subject matter experts

Assessing the Attributable Criterion

Executive compensation and bonus costs may be Attributable when the costs:

- are supportable and verifiable; and
- are required for the performance of the contract.

Supportable and Verifiable

Executive compensation and bonus costs should be readily identifiable based on supported and verifiable evidence that may include contract cost reports or similar information produced by the contractor.

The information from the contractor should:

- describe the nature and purpose of the executive compensation and bonus costs;
- identify direct executive compensation and bonus costs; and
- identify indirect executive compensation and bonus costs.

Disclosed information should include the type of executive input, i.e. direct or indirect, to the contract delivery, the executive compensation cost breakdown (e.g. base pay, bonus pay, etc.).

Required for Performance of the Contract

The question whether executive compensation costs are required for the performance of the contract and if they are direct or indirect cost must be addressed. Direct involvement of executive would result in their compensation being directly attributed to the contract. If executive involvement is not direct, executive compensation may be included in indirect costs or overhead. The extent to which executive compensation is included in indirect costs or overhead and allocated to the contract should be assessed by the contracting officer with support as needed from the contracting team (e.g. price advisor, or other subject matter specialist).

As noted in the supportable and verifiable criteria, disclosed information should demonstrate how the executive compensation and bonus costs contribute to the achievement of the contract either directly or indirectly.

Assessing the Appropriate Criterion

Executive compensation and bonus costs may be Appropriate for a contract when the costs:

- are in accordance with the contractor's internal compensation policy which are applied when establishing contracts in the regular course of business; and
- are consistent with benchmarks or industry norms.
- are in line with specific guidance of *Incentive Remuneration Bonus plans (see below)*

Regular Course of Business

To assess the extent to which contractors include executive compensation and bonus in their regular course of business, the contracting officer should verify the contractor's current policy, as well as the timing of the policy, to ensure it was in place well in advance of contract negotiations to mitigate the risk of contractor policy manipulation.

For example, the company's general salary policy should be reviewed to ascertain the compensation is uniformly paid according to the set criteria.

If the contracting officer can align the needs for the contract with the compensation costs that the contractor typically provides, they could be considered an appropriate cost to Canada. It is expected that all other contracts engaged in by the contractor would also follow similar compensation terms for executives as they have been established through the regular course of business. Additional data may be available to the contracting officer to demonstrate Canada's experience with the contractor that may help determine the extent to which these costs are typically included or not.

Benchmarks and/or Industry Norms

Benchmarks or industry norms can provide useful comparators by which a contracting officer and team can assess the appropriateness of executive compensation and bonus costs. Data can be obtained from a variety of sources including Statistics Canada, third party data providers and current and past contracts negotiated by Canada. Contract officers and team should consider where the best sources of information can be obtained from to assess the appropriateness of the executive compensation and bonus costs proposed by the contractor. It is also important to note that regional norms for compensation may differ even in the same industry which can affect comparability of data (i.e. significant difference in what an executive is paid in Toronto vs. Edmonton in the same industry).

Incentive Remuneration Bonus Plans

Incentive remuneration bonus plans are designed to link the performance of employees to the achievement or organization objective.

See Annex 2, sub-section 2.4 for specific criteria that must be met in order for the costs to be Appropriate.

Assessing the Reasonable Criterion

Proportion

The reasonability of the executive compensation and bonus can be assessed based on the proportion of cost represented compared to the total cost of the contract. In order to refine the determination of reasonable proportions when assigning executive compensation and bonus costs to the contract, it may be beneficial for Canada to apply a specific percentage depending on the type of good or service. For example, for a complex project, based on Canada's experience and supported by data from other PSPC contracts, it may be appropriate that the maximum executive compensation and bonus costs represent x% of the total project costs. Therefore, executive compensation and bonus costs exceeding any established threshold would not be considered reasonable.

The use of percentages allows for adaptability with the size and requirements of the project. The use of comparator data is a key element of Canada's pricing framework and should include information from the contracts negotiated by Canada. This will provide a source of useful benchmarks for the contracting team to use.

Additional considerations for determining the reasonability of executive compensation include:

- compensation paid to executives in similar positions, compared to related executive pay scales surveys;
- the executive's previous experience, experience in other positions within the company and similar appointments in other companies;
- comparison of the compensation paid for the nature and scope of the work, or service, as defined in the contract of service and/or the position description;
- the size and complexity and the corporate management structure;
- the company's general salary policy should be reviewed to ascertain the compensation is uniformly paid, according to set criteria;
- in the case of smaller contractors with a limited number of officers, the amount of compensation paid to executives in the previous year should be reviewed, as a substantial increase over the prior year tends to indicate compensation may be excessive, further investigation should be made to determine whether the executives' salaries are for services rendered, rather than a re-distribution of the business's profits;
- the compensation paid to executives through related party transactions.

ANNEX 5.3.3 DISCUSSION PAPER – ASSET VALUATION

Asset Valuation

Context

Asset valuation is the process of determining the value of a company's assets, such as buildings, equipment, brands, goodwill, etc.

This guidance on asset valuation is intended to provide contracting officers with additional information that may help in understanding the complexities related to asset valuation when working with price advisors or other specialists engaged to support them in preparing for contract negotiations and in managing a contract through its lifecycle. Based on the scale and complexity of the acquisition, this requires considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts.

For contracts where pricing is based on costs, the value attributed to the contractor's assets has a direct impact on the calculation of the contractor's cost (i.e. historical cost or fair market value) and any resulting profit calculation where asset depreciation expense is a component that is considered. There is a risk that Canada may not award an appropriate level of profit if the cost of the asset is not representative of its value, and if the resulting depreciation expense is not accurate.

Recommendation

It is recommended that historical cost be used for establishing the asset cost basis from which to negotiate the price of a contract.

Use of a Cost Accounting Practices (CAP) Submission should be considered by contracting officers and/or price advisors to identify and establish an agreement with the contractor on the accounting methods to be used to recognize costs. A copy of the CAP Submission can be obtained at the following address: https://gcdocs.gc.ca/tpsgc-pwgsc/llisapi.dll?func=ll&objaction=overview&objid=157226238

In the exceptional case, where fair market value might be used as the basis of valuing a contractor's assets, a reliable measurement needs to be established and documented to achieve best value for Canada. For example, in exceptional situations where it may be in Canada's best interest to consider compensating a contractor for a fully depreciated asset (I.e. a contractor may be able to receive a significant amount of revenue from the sale or lease of the asset which is fully depreciated. However this fully depreciated asset is required to fulfill contract requirements, but is not compensated for it's use as a cost in a contract, as it is fully depreciated) using fair market valuation (i.e. replacement cost) to motivate the contractor to retain the asset for ongoing government contracts, may be considered. The fair market value (replacement cost) must be demonstrated through supportable and verifiable evidence, and the related cost of the asset would be

included in the cost base of the contract. The contractor would calculate depreciation based on replacement cost using methods consistent with those required for calculating depreciation using historical cost.

Definitions and Considerations

While many asset valuation methods exist, there are three different asset bases that are commonly used to determine the cost of an asset: historical cost, replacement cost, and opportunity cost. In order to efficiently determine the acceptability of the contractor's method for asset valuation, the contractor should provide Canada access to supporting information for purposes of assessing the contractor's approach. For example, by including access to the appropriate information in the terms and conditions of the bid solicitation. This will permit the parties to have open and honest discussions regarding cost and risk trade-offs and efficiencies before finalizing the contract.

Historical Cost (Recommended)

Historical cost represents the actual cash outlay that was made for a particular good or service net of any rebates and including any costs to delivery, install, etc. This information can generally be found in the financial statements of contractors that follow Generally Accepted Accounting Principles (GAAP – IFRS/ASPE).

Typically historical cost is used as the basis for establishing contract cost due to its inherent reliability. Amounts are based on past transactions that can be verified and are generally viewed as a reasonable indicator of future costs. In addition to its inherent reliability, historical cost also helps ensure that Canada will not pay more for the use of the asset than the contractor originally paid.

Understanding how the historical cost of the asset was established and whether the depreciation is attributable, appropriate and reasonable can be complex and may require the use of expert analysis. Contracting officers may want to consult with price advisors or other experts for this analysis. Examples of issues to consider include foreign exchange and taxes:

- Foreign exchange that has been hedged by the contractor should follow accounting standards IFRS 9[53] for public companies or ASPE 3856[54] for private companies. Gains or losses resulting from foreign exchange hedging that are related to the contract may correspondingly be deducted or added to the cost base. The contracting officer should consult with other members of the procurement team to determine if foreign exchange amounts should be included in the cost base or not.

- Tax implications associated with assets owned by the contractor include provincial tax amounts that may or may not be attributable or appropriate to include in the cost base. The contracting officer should consult with other members of the procurement team to determine if tax amounts should be included in the cost base or not.

[53] IFRS 9 – Financial Instruments, https://www.iasplus.com/en/standards/ifrs/ifrs9
[54] ASPE Section 3856 - Financial instruments, https://www.iasplus.com/en-ca/standards/part-ii-aspe/broad-topics/section-3856-financial-instruments

Replacement cost and opportunity cost should only be considered for asset valuation when a supplier would not be compensated fairly under a historical cost basis. Use of these alternatives should only occur when they can be supported by a strong business case.

Where circumstances appear to support the use of alternatives other than historical cost, Canada should also consider an outright purchase of the asset or direct compensation for opportunity cost exposures, associated with the asset and removing this component from the price negotiations related to the larger contract. This approach is similar to commodity or contract treatment recommended to address market uncertainty and commodity and foreign exchange risks.

Replacement Cost

Replacement cost is a method to determine fair market value and represents the cost required to duplicate a particular good or service under current market conditions. Replacement costs can show the changing market dynamics and better reflect current market cost of goods, labour, overhead, etc. and may, in rare instances, be a reasonable value to be included in the cost basis on which to negotiate the price of a contract. When replacement cost is used as the basis of valuing a contractor's assets, the cost needs to be assessed against the overall value to Canada including: economic, social, security, and other factors.

Measurement is a key risk of using replacement cost. It is less verifiable than historical cost and relies on either comparable, relevant market value transactions of similar assets (i.e. in comparable condition), , or on the expertise of a professional valuator. It is important to consider the basis on which the replacement cost is determined and to ensure that any payments made for Canada's use of contractor assets above the historical cost are appropriate and required to maximize value for Canadians.

Where judgment is involved in determining asset values, care needs to be exercised, including the following considerations:

- If experts are involved, assurances are required that they are independent and no conflict of interests exists in their relationship with the contractor,
- Experts are duly accredited and in good professional standing.
- If benchmarks such as property values are used, they should match the asset and approximate the asset's location. For example:
    - Matching – The asset is valued as though it is newly constructed, when the asset is not new; or
    - Location – Use of out-of-market proxies, while similar facilities are selected, with rents referenced are as found in downtown Toronto, but the asset's location is Pickering.

It is important to consider whether the original cost of the asset was paid for by the government previously as this may impact the contract to be negotiated for subsequent goods or services to Canada.

Opportunity Cost

Opportunity cost occurs when the contractor has alternative uses for the asset for which the market might pay a significant premium. As a result of the significant difference between the current value of the asset and its historical cost, the contractor may be faced with a large opportunity cost if the contractor is to continue using the asset to deliver a contract for the government and forego the sale of it.

Opportunity cost is not generally recommended as a basis for asset valuation because it can be extremely subjective. The process involves identifying appropriate alternative uses for an asset and requires calculations of the expected value of future transactions. Verification for these factors may, in many cases, not be possible because reliable sources of supporting data may not exist.

A contractor taking the position that a business opportunity exists that would generate greater profit than the contract with Canada would not necessarily be considered as relevant given that the contractor has already chosen to forego that opportunity by entering into a contracting process with Canada. Negotiating a cost basis for contract pricing based on assertions by a contractor that they 'could but won't' engage in a more profitable business alternative would likely lead to a less than desirable result for Canada.

Appendix A

Current Asset Valuation Guidance in Comparator Jurisdictions

The United Kingdom Single Source Regulations Office (SSRO) uses a principles based framework and allows practitioners to exercise professional judgment in determining whether a particular cost basis is appropriate. As a result, there is not clear direction provided on what cost basis should be used to determine the price of the goods or services procured. The guidance specifically allows costs to be charged to the public sector procurement authority if they are deemed to be appropriate, attributable, and reasonable by the reviewing practitioner.[55] The costs should also be supported by adequate and sufficient evidence, assigned to contracts only once, and are recorded and reflected in the books of account.[56] Re-evaluations of assets are permissible but have to be agreed by the Secretary of State if they are to be Allowable.[57]

The United States principles are more prescriptive, but do not specifically identify which cost basis is appropriate. Under the Unites States Federal Acquisition Regulation, costs are allowable only when they are reasonable, allocable, in accordance with standards promulgated by the Cost Accounting Standards Board or generally accepted accounting principles, and the terms of the contract.[58] Article 31.202-2 (c) specifically states that when "contractor accounting practices are inconsistent with this subpart 31.2, costs resulting from such inconsistent practices in excess of the amount that would have resulted from using practices consistent with this subpart are unallowable".[59] Most specifically this would include replacement and opportunity costs

[55] Single Source Regulations Office, Single source cost standards-Statutory guidance on Allowable Costs, July 2016, http://www.metasums.co.uk/uploads/asset_file/Allowable%20Costs%20guidance%20for%20qualifying%20contracts%20awarded%20after%201%20July%202016.pdf>, accessed August 14, 2017.
[56] Ibid.
[57] Ibid.
[58] United States General Services Administration Federal Government, Federal Acquisition Regulations, August 17, 2007, https://www.acquisition.gov/sites/default/files/current/far/pdf/FAR.pdf, accessed August 14, 2017.
[59] Ibid.

not being allowable consistent with the United Kingdom. Therefore, historical costs would be deemed to be appropriate cost basis under the United States guidance as well.

Australia's Department of Defence Capability Acquisition and Sustainment Group is very similar to the United Kingdom in that it is principles based and allows for judgment to be exercised. It does not specifically identify what cost basis should be used, but again suggests that the contractor's accounting system for identifying the contract cost should be "based on sound accounting principles, appropriate for the purpose of the contract, and internal control practices, consistently applied".[60] Therefore, similar to the guidance identified above from the United Kingdom and United States, a contractor's use of cost basis depends on what is specifically authorized in Australian Government-Department of Defence-Capability Acquisition and Sustainment Group, Capability Acquisition & Sustainment Group Cost Principles accounting standards. As identified above, the historical basis of cost recognition is supported by the International Financial Reporting Standards (IFRS), and the replacement cost and opportunity cost basis of valuation are not permitted.

[60] Australian Government-Department of Defence-Capability Acquisition and Sustainment Group, Capability Acquisition & Sustainment Group Cost Principles, September 2015, http://www.defence.gov.au/casg/Multimedia/CASG_Cost_Principles_(Sep_2015)-9-4057.pdf>, accessed August 14, 2017. CAGS Revised to v2.0 October 2017 http://www.defence.gov.au/casg/Multimedia/CASG_Cost_Principles-9-8642.pdf. Accessed March 24, 2018

ANNEX 5.3.4 DISCUSSION PAPER – TRANSFER PRICING

Context

In line with guidance provided in the Costing Standard, Sub-Section 4.19, this discussion paper on transfer pricing is intended to help inform contracting officers, to prepare for contract negotiations and manage the contract through its lifecycle. Based on the scale and complexity of the acquisition, this may require considerable support from the contracting team, which could include price advisors, client department representatives and other subject matter experts.

Transfer pricing refers to the prices set for goods or services that are exchanged among related parties (affiliated or entities under common control, joint control or significant influence). The "Transfer Price" is the price at which a supplier sells its goods or services to a related party buyer.

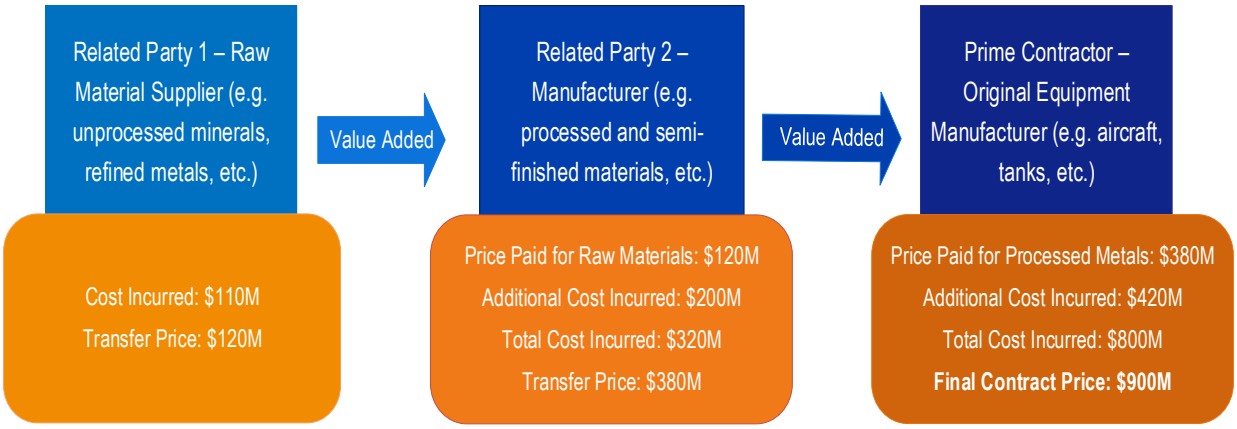
This document provides information to help contracting officers identify whether the final cost of a procured good or service is valued fairly in situations where the goods or services may have been exchanged through several transactions among related parties, and to help mitigate the risk of profit overpayment by Canada.

Transfer pricing policies and practices are typically used to determine the price of a good or service transferred between related parties (entities under common control, joint control or significant influence). The appropriateness of transfer pricing practices should also be extended to consortium or subcontractor arrangements where significant influence over pricing may exist between the parties, even if the entities involved would not otherwise be considered as related.

For government contracts, the final costs of a procured good or service may be a derivative of transfer prices, particularly when the procured good or service has progressed through a supply chain involving multiple related parties.

A simplified example of a transfer pricing arrangement for a contractor selling equipment to the Government is depicted below. The example, including amounts and transfer price and contract price calculations, are for illustrative purposes only.

Exhibit A5.3.4.a. - Example of a Transfer Pricing Arrangement



The following table further illustrates how to calculate the reasonable profit for the above scenario:

Related Party Transactions	**Cost** A	**Additional cost** *(by each related party)* B	**Total cost** A+B	**Profit %** C	**Transfer price** A+B*(1+C)	**Profit on additional cost only** B*C
Related party 1	N/A	110	110	9.09%	120	10
Related party 2	120	200	320	30%	380	60
Prime contractor	380	420	800	23.81 %	900	100
Totals		**730**			**900**	**170**

When costs and profits are considered from the perspective of only the Prime Contractor, it may appear that the total cost and profit incurred for the equipment are $800M and $100M respectively. However, when costs and profits are considered from the perspective of the entire supply chain, the total cumulative cost and profit incurred are in substance actually $730M and $170M, respectively. $70M[61] of profit has already been incurred due to the transfer price amounts established by Related Party 1 and Related Party 2.

In reality, the above supply chain for the purchased equipment could be much more complex and might involve several additional parties (internal divisions or subcontractors). When the supply chain of a procured

[61] $70M = [$120M-$110M]+[$380M-$320M] or $10M+$60M

good or service is complex, there is risk that the final costs, and correspondingly the final price, of the procured good or service could be unreasonable if the transfer price charged at a particular stage of the supply chain does not align with the value added to the procured good or service.

Recommendation

- The transfer prices used to derive the final costs[62] of a purchased good or service should be reasonable.

- To be reasonable, transfer price amounts should align with the value[63] added to the procured good or service by the respective related parties. In alignment with the Organization for Economic Co-operation and Development (OECD) Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations 2017[64], the amount of value added by a related party to the procured good or service, should be assessed based on the related party's functions performed, assets employed, and risks assumed in respect to the good or service.

- Furthermore, contracting officers should assess the total cumulative profit incurred during the supply chain (i.e. between related parties) of a procured good or service to determine if the respective final cost is reasonable.

- The use of a Cost Accounting Practices Submission to identify and establish an agreement with the contractor on accounting methods to be used for transfer pricing should be considered in consultation with the Procurement Support Services Sector.

The proposed recommendation aligns with one of the objectives of the OECD's Base Erosion and Profit Shifting (BEPS) project, and transfer pricing legislation[65] that CRA adopts, which is to develop transfer pricing guidelines that align transfer pricing outcomes with value creation.[66] The intention of these recommendations is to align to objectives and processes already adopted by an organization to meet other financial reporting requirements.

[62] The contracting officer must ensure that these costs first meet the criteria of Attributable and Appropriate.
[63] Value added should be considered from the perspective of value provided to Canada.
[64] Organization for Economic Co-operation and Development, OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations 2017, July 2017, http://www.keepeek.com/Digital-Asset-Management/oecd/taxation/oecd-transfer-pricing-guidelines-for-multinational-enterprises-and-tax-administrations-2017_tpg-2017-en#.WZ2Y8cLfOUk#page36, Accessed 23 August 2017.
[65]Transfer Pricing, Government of Canada, https://www.canada.ca/en/revenue-agency/services/tax/international-non-residents/information-been-moved/transfer-pricing.html
[66] Base Erosion and Profit Shifting. OECD. October 2017. https://www.oecd.org/ctp/transfer-pricing/Compilation-revised-guidance-profit-splits-2017.pdf. Accessed 1 March 2018.

Application

Assessing if Transfer Prices are Reasonable

Importance of the Procured Good/Service Value Chain When Assessing Reasonability

Application of the above Recommendations requires that transactions occur under arm's length terms and conditions. The arm's length principle is designed to prevent income shifting. This differs from the concept of fair market value, which is intended to convey the value of assets and liabilities based on a hypothetical market.

In order to assess if transfer price(s) are reasonable, the procurement team will need to understand the value chain, the set of activities that generate value for the procured good or service, and how each related party contributes to this value. In accordance with OECD guidelines, value can be based on the significance of:

- The functions performed by the related party (e.g. manufacturing, research and development, administration, sales and distribution, etc.);
- The assets employed by the related party (production equipment & machinery, patents, office equipment, etc.); and
- The risks assumed by the related party (credit risk, market risk, product/service liability risk, technology risk, etc.).

Based on the above factors, if it is determined that the related party does not contribute significant value to the procured good or service, it would be expected the transfer price established by the related party is not much higher than the total cost incurred by that related party.

For example, for the purchased equipment, as per Exhibit 1 in the Context section, it is reasonable to assume that the transfer price profit percentage (in relation to total cost incurred) charged by the raw material supplier (i.e. Related Party 1) would be less than the profit percentage charged by the manufacturer (i.e. Related Party 2).

Consideration should be given for including documentary support for transfer pricing as part of the contractual requirements. For example, the documentary support required by the Canada Revenue Agency (CRA)[67] and identified in subsection 247(4) of the *Income Tax Act* includes:

- The terms and conditions of the transaction and their relationship, if any, to the terms and conditions of each other transaction entered into between the participants in the transaction
- The identity of the participants in the transaction and their relationship to each other at the time the transaction was entered into
- The functions performed, the property used or contributed and the risks assumed, in respect of the transaction, by the participants in the transaction

[67] https://www.canada.ca/en/revenue-agency/services/tax/international-non-residents/information-been-moved/transfer-pricing/09.html#ContemporaneousDocumentationUnderSubsection2474

- The data and methods considered and the analysis performed to determine the transfer prices or the allocation of profits or losses or contributions to costs, as the case may be, in respect of the transaction and

- The assumptions, strategies and policies, if any, that influenced the determination of the transfer prices or the allocation of profits or losses or contributions to costs, as the case may be, in respect of the transaction

Monitoring Cumulative Profit to Assess Reasonability

Contracting officers should assess and analyze the total cumulative profit incurred throughout the supply chain (i.e. between all related parties) of a procured good or service using the profit percentage to determine if the respective final cost is reasonable. This profit percentage should be calculated before a contract profit rate is applied to the final cost. For example, as per Exhibit A5.3.4.a. in the Context section, the profit percentage incorporated in the final cost would be equal to 9.6% (Profit [$70M] / Cost [$730M]).

Considerations for assessing whether this profit percentage is reasonable include:

- Monitoring if there are any material variations in the respective profit percentage for the good or service provided during the period of the contract; and/or

- Comparing the profit percentage for the supply chain (i.e. between related parties) of the good or service to available and relevant benchmark information (e.g. industry, similar contracts, etc.)

- Contracting officers should consider this profit percentage when determining the appropriate contract profit rate to apply to the final cost.

To monitor the total cumulative profit incurred during the supply chain of a procured good or service, open access to certain company documentation is required. Examples of documentation to consider for review are described further in the Information to Review when Assessing the Reasonability section.

Risks to Consider when Assessing Reasonability

When assessing if transfer prices are reasonable, the procurement team should be aware of the below risks:

- Intra-company transfer prices may include a profit component by a division to assess divisional performance. There is a risk that transfer prices may be inflated when the performance objectives of a division do not align with the performance objectives of the whole organization (e.g. a division is evaluated based only on its own profits). Ensure that any intra-company profits included do not result in an overstatement of costs beyond what would be reasonable in an arms-length transaction.

- Inter-company transfer prices may be manipulated for tax avoidance purposes or to artificially inflate prices and resulting profits. For example, if a contractor has a subsidiary in a low tax rate country,

there exists the risk that the subsidiary will charge an inflated transfer price to the contractor for tax avoidance purposes. It should be noted that there are tax regulations in place to mitigate this from occurring.

Information to Review when Assessing the Reasonability

In assessing if the final costs of a procured good or service, which are a derivative of transfer prices, are reasonable, the following information should be considered for review.

Information to Review	Considerations
• Contractor's policy and documentation on inter-company and intra-company transactions and transfer prices.	• Consistency of the company's stated policies and financial records used for other purposes (e.g., audited financial statements).
• Contractor, and related party, contracts and invoices for similar goods or services provided to other customers (both government and non-government). • The transfer prices charged in a sample of other contracts (e.g. with value chain activities of a similar nature).	• Consistency in the application of the proposed transfer pricing method with the price charged to other customers, with appropriate consideration of any differences in the requirements or risk associated with the contracts.
• Supporting documentation showing build-up of price and underlying costs.	• Confirmation that the proposed transfer price has been calculated in accordance with the contractor's transfer pricing policy • Confirmation that the related parties' costs are in compliance with Canada's Cost and Profit Policy
• Tax returns filed with the tax administration containing transfer prices	• Conformation that the transfer price for tax purposes are aligned with the Organization for Economic Co-operation and Development (OECD) or Canada Revenue Agency (CRA) Transfer Pricing Guidelines

Note that open access to company documentation is required to determine if transfer prices are reasonable.

Appendix A

Current Transfer Pricing Guidance in Comparator Jurisdictions

Australia: Transfer pricing must comply with applicable tax rules. All documentation held by the contractor for tax regulation purposes must be made available to the Government for review should the documentation be requested.[68]

United States: The transfer price shall be the cost incurred with allowances being made for price when it is an established practice of the transferring organization and the contracting office has not determined the price to be unreasonable.[69]

United Kingdom: The Single Source Regulations Office (SSRO) does not provide explicit guidance on transfer pricing. However, it's *Guidance on the Baseline Profit Rate and its Adjustment* contains a profit on cost once adjustment (POCO) clause.[70] The adjustment ensures that if a party to a qualifying defence contract enters into a single source subcontract with another group member, and this group subcontract is necessary to enable the performance of the qualifying defence contract, then profit arises only once in relation to allowable costs included in the group subcontract price.

[68] Australian Government-Department of Defence-Capability Acquisition and Sustainment Group, Capability Acquisition & Sustainment Group Cost Principles, October 2017, http://www.defence.gov.au/casg/Multimedia/CASG_Cost_Principles-9-8642.pdf , Accessed 1 March 2018.
[69] United States General Services Administration Federal Government, Federal Acquisition Regulations, 17 August 2007, https://www.acquisition.gov/sites/default/files/current/far/pdf/FAR.pdf , Accessed 23 August 2017.
[70] Guidance on the Baseline Profit Rate and its Adjustment. SSRO, 15 March 2017, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/599881/SSRO_Guidance_on_the_baseline_profit_rate_and_its_adjustment_2017-18.pdf . Accessed October 26, 2017.

ANNEX 5.3.5 DISCUSSION PAPER – PRODUCTION CAPACITY AND INDIRECT COSTS ALLOCATION

Context

This guidance is intended to provide contracting officers with additional information that may help in understanding the complexities related to the methods available for the allocation of indirect costs when working with price advisors or other specialists engaged to support them in preparing for contract negotiations and in managing a contract through its lifecycle.

This discussion paper is not intended to be a procedural document. Based on the scale and complexity of the acquisition, considerable support might be required from the contracting team, which may include price advisors, client department representatives and other subject matter experts. Contracting officers are encouraged to consult with the Procurement Support Services Sector (PSSS).

Definitions

Production capacity ("capacity") represents the volume of activity (e.g. labour hours, machine hours) a contractor's resources (e.g. labour, equipment, etc.) can sustain in order to produce goods over a specified time period.

These resources will generally have indirect costs, such as, but not limited to, salaries (i.e. for labour) or depreciation (i.e. for equipment), associated with them. These associated indirect costs can be allocated to a contract, if they meet the prerequisite conditions of being attributable, appropriate, and reasonable[71], using either an estimated indirect cost rate or the actual indirect costs incurred. Estimated indirect cost rates are determined by dividing the estimated total indirect costs associated with the respective resources by the capacity of those resources.

In a production ("manufacturing") setting, there are four main capacity basis types that can be used to allocate indirect costs.[72]

1 **Theoretical capacity**: the maximum volume of activity that can be attained by a contractor's resources (e.g. labour, equipment, etc.), over a specified time period, that does not allow for any normal idle time (e.g. maintenance on equipment, employee vacations, etc.).

2 **Practical capacity**: the maximum volume of activity that can realistically be attained and sustained by a contractor's resources that allows for normal idle time (theoretical capacity minus normal idle time).

3 **Normal capacity**: the forecasted volume of activity expected to be achieved by a contractor's resources, to satisfy average customer demand for contractor goods, over a number of periods (e.g. 3-5 years) under normal circumstances, taking into account seasonal, cyclical, and trend factors.

[71] Further clarification on the prerequisite conditions of the attributable, appropriate, and reasonable criteria is provided in the Allocating Direct and Indirect Costs section of the Costing Standard.
[72] Brierley, John A, et al. Reasons for Adopting Different Capacity Levels in the Denominator of Overhead Rates. 2006, https://www.cmawebline.org/images/stories/JAMAR%202006%20Summer/JAMAR-v4-2-Reasons%20for%20Adopting.pdf . Accessed Sept. 2017.

4 **Budgeted capacity**: the anticipated volume of activity expected to be achieved by a contractor's resources, to satisfy customer demand for contractor goods, for the upcoming period (e.g. upcoming year).

The first two types are measures of supply of capacity, while the last two types are measures of demand for capacity. Refer to Appendix A. Measuring Capacity for details on how to measure the amount of supply and demand for capacity of a contractor.

Excess capacity can be defined as the supply of capacity minus actual capacity utilized by the contractor to fulfil demand.

Recommendation

In establishing overhead rates or burden for the purposes of contract pricing, practical capacity of a contractor's resources should be used as the base for allocating indirect costs because it provides the most accurate representation of the cost of capacity used.

1. For contracts using a cost reimbursable basis of payment, contract pricing can be established using allocable estimated or actual indirect costs;
   - Where contract pricing is based on the allocation of actual indirect costs, the process for establishing any preliminary overhead rates and adjusting these rates for actual indirect costs must be defined in the contract terms.
   - Where contract pricing is based on the allocation of estimated indirect costs, the estimated overhead rates and, if applicable, any process for amending overhead rates on a periodic basis, needs to be included in the contract terms.
2. The use of a Cost Accounting Practices (CAP) Submission to identify and establish an agreement with the contractor on accounting methods to be used for indirect cost allocations should be considered in consultation with the Procurement Support Services Sector.

The use of practical capacity motivates the contractor to manage production capacity so as to avoid or minimize un-allocable indirect costs associated with excess or idle capacity.

Application

Consider the below simplified calculation for clarity on how an indirect cost rate is determined.

A. Capacity of Resources	**1,000 hours**
B. Indirect Costs for Resources	**$10,000**
C. Indirect Cost Rate	**$10/hour (B / A = $10,000 / 1,000)**

The capacity of resources may be measured by the supply of capacity of the resources or the demand for capacity of the resources. Ideally, a contractor's supply of and demand for capacity should be:

- determined using the same measurement basis ("capacity bases" or "capacity basis types");
- equal in order to avoid excess capacity; and
- simple to forecast (i.e. to calculate an accurate estimated indirect cost rate).

Based on the above premises, the indirect cost rates calculated using supply of capacity and demand for capacity would be identical and accurate. However, as explained in this paper:

- different measurement bases are used in practise to determine supply of capacity and demand for capacity;
- achieving equilibrium between supply of and demand for capacity is difficult and sometimes not feasible, resulting in the incurrence of excess capacity costs for the contractor's respective resources; and
- forecasting supply of and demand for capacity is not simple.

Considering this, the amount of indirect costs allocated to a contract can vary depending on:

- the capacity basis type used to calculate the indirect cost rate; and
- whether the estimated indirect costs allocated to the contract are adjusted to reflect updated or actual data points.

Example A5.3.5.a. – Purchase of Produced Goods

Canada has a cost reimbursable contract with a contractor to produce 500 units of armoured vehicle tires over 2 years. Indirect labour costs are to be allocated to the contract based on the practical capacity of direct labour hours. The contractor estimates that it will incur $100,000 of estimated indirect labour costs and that each unit will require 10 direct labour hours to produce. Practical capacity was determined to be 10,000 direct labour hours. After validation exercises, actual indirect costs were determined to be $90,000 and it took 10 direct labour hours to produce each unit.

Number of units produced	500
Direct labour hours/unit	10
Practical capacity (direct labour hours)	10,000
Estimated indirect costs	$100,000
Actual indirect costs	$90,000

Based on data given above:

1. If Canada agreed that contract pricing would be based on the allocation of estimated indirect costs, the overhead rate and allocated indirect costs would be as follows:
    - Estimated overhead rate = Estimated total indirect costs / Practical capacity
    - Estimated overhead rate = 100,000 / 10,000
    - Estimated overhead rate = $10/hour

    - Allocated indirect costs = Units produced * Direct labour hours/Unit * $/Direct labour hour
    - Allocated indirect costs = 500 * 10 * 10
    - Allocated indirect costs = $50,000

    A periodic review and if applicable, an amendment, of overhead rates should be considered.

2. If Canada agreed that contract pricing would be based on the allocation of actual indirect costs, the initial overhead rate would be based on the above estimates and an adjustment could be made for actual indirect costs after year end.

    - Allocated indirect costs would initially be $50,000 as above.

    Actual indirect costs would be allocated as follows:

    - Actual overhead rate = Actual total indirect costs / Practical capacity
    - Actual overhead rate = 90,000 / 10,000
    - Actual overhead rate = $9/direct labour hour

    - Allocated indirect costs = Units produced * Direct labour hours/Unit * $/Direct labour hour
    - Allocated indirect costs = 500 * 10 * 9
    - Allocated indirect costs = $45,000

An adjustment of $5,000 would be made to reflect pricing based on the allocation of actual indirect costs.

Example A5.3.5.b. – Purchase of Produced Goods and Standby Capacity

There are exceptional situations when Canada may specifically create a contract for standby capacity. In these cases, Canada is compensating the contractor for indirect costs such as overhead and maintenance to keep production facilities open and available to exclusively produce goods for Canada. The cost for standby capacity is an additional and separate cost from the cost of goods that Canada would normally purchase from the contractor.

The following example demonstrates the application of allocating indirect costs based on practical capacity and applying the overhead rate to determine costs associated with capacity utilised and standby capacity:

Canada formed a contract with Company X to purchase 500,000 flu vaccines per year for the next 5 years. Each batch of 500 vaccines takes one (1) machine hour to complete. The contractor's practical capacity was determined to be 1,600 machine hours. The allocable indirect costs associated with producing the vaccines at practical capacity is $400,000. Canada has agreed to pay for indirect costs associated with standby capacity to ensure a sovereign supply of vaccines at practical capacity, if and when needed. Company X has a separate contract with a private organization that requires 200,000 flu vaccines per year for the next five years. The following table summarizes data relevant to this example for the first year:

Practical Capacity	1,600 machine hours
Capacity Utilised by Canada (500,000 / 500)	1,000 machine hours
Capacity Used for Private Contract (200,000 / 500)	400 machine hours
Standby Capacity (1,600 – 1,000 – 400)	200 machine hours
Estimated Total Indirect Costs to Produce Vaccines at Practical Capacity	$400,000

Canada has agreed that direct labour and material will be burdened using an overhead rate based on estimated total indirect costs over practical capacity. Therefore, the overhead rate is:

- $400,000 / 1,600 = $250/machine hour

The indirect costs charged to direct labour and materials for producing 500,000 flu vaccines for Canada is $250,000, calculated as:

- $250 * 1,000 = $250,000

Standby capacity represents capacity that is not currently being used for sales to Canada or other customers (200 machine hours). Indirect costs associated with standby capacity is still calculated based practical capacity. Thus, the overhead rate remains the same, which results in a standby capacity cost of $50,000, calculated as:

- $250 * 200 = $50,000

As Canada has agreed to pay for any standby capacity for a sovereign supply of vaccines, the above standby capacity cost of $50,000 could be claimed separately by the contractor under the terms of the contract.

This example demonstrates how indirect costs should be allocated based on practical capacity to determine an overhead rate to apply to capacity utilised and standby capacity. Note that the sum of indirect costs associated with capacity utilised by all customers and standby capacity is the same as when Company X's production facility is producing at practical capacity.

Example A5.3.5.c. – Purchase of Services

The concepts in this discussion paper can be equally applied to contracts for services such as consulting, accounting, and maintenance. The following example illustrates the use of practical capacity to establish an overhead rate for a service contract.

Department of National Defence has availed the use of services by a contractor specializing in repair and overhaul of Light Armored Vehicles (LAVs). The annual number of labour hours required by DND is 580 direct labour hours. The contractor's annual total available practical capacity is 600 direct labour hours. Total annual estimated indirect costs are $75,000. The contracting officer decided to use estimated costs to determine the overhead rates.

The following table summarizes data relevant to this example:

Practical Capacity	600 direct labour hours
Capacity Utilised	580 direct labour hours
Total annual estimated indirect costs to provide repair and overhaul services	$75,000

Using practical capacity as a base, the overhead rate should be:

- 75,000 / 600 = $125/hour

Thus, the indirect costs charged to the contract for providing 580 direct labour hours of repair and overhaul services is calculated as:

- $125 * 580 = $72,500

This example demonstrates how indirect costs should be allocated using practical capacity to determine an overhead rate that is applied to capacity utilized in a service arrangement. The underlying application is the same regardless of nature of contract – i.e. services or goods.

Considerations for Practical Capacity

Forecasting Practical Capacity

A contractor will be required to forecast its practical capacity when the contract in question requires the use of an estimated rate to allocate indirect costs. Contracting officers should be aware that forecasting practical capacity is challenging due to the uncertainty of the below factors[73].

1. **The forecasted demand for the contractor's goods.** There may exist uncertainty surrounding the impact of seasonal, cyclical, and trend factors (e.g. future economic conditions), on forecasted demand for goods. Furthermore, there may exist uncertainty around the scope and the number of goods required by a contractor's existing or prospective customers. Such circumstances will make accurately estimating forecasted demand for capacity, and correspondingly forecasted practical capacity, difficult.
2. **The future requirement for contractor excess capacity as a result of customer needs.** A contractor may incur excess capacity as a result of customer needs. The requirements for excess capacity can be uncertain, making it difficult to accurately estimate forecasted practical capacity.
3. **The contractor's future resource mix.** A contractor's practical capacity will vary with the mix of resource types used by the contractor. For example, a contractor may shift its reliance from primarily labour resource types to automated equipment. Such a change would have an effect on both the amount of demand for capacity and practical capacity of a contractor. Furthermore, the feasibility and sensibility for a contractor to adjust its practical capacity levels, to match demand for capacity, on a short-term basis, will vary with the mix of resources types and the resourcing model used by the contractor.
4. **The future efficiency of the contractor's existing resources**. A contractor's demand for capacity will vary with the efficiency of its resources. Resource efficiency of a contractor's existing resources can increase due to changes such as, but not limited to, labour learning curve effects, production process improvement, and equipment upgrades. For example, a contracted project may take 10% less time to complete than estimated due to learning curve effects realized by the contractor's employees. Conversely, efficiency can decline due to reduced employee morale, outdated production processes and aging equipment. Such resource efficiency changes, and corresponding capacity impacts, can be uncertain, making it difficult to accurately estimate forecasted practical capacity.

Evidently, developing an accurate estimate of a contractor's practical capacity can be challenging due to the uncertainty of the above factors. The above factors can also have a significant impact for the contractor on the amount of indirect costs incurred, the amount of goods produced, and the amount of resource capacity used per good produced.

[73] It should be noted that this list of factors is not necessarily inclusive. Internal contractor policy, external regulatory, and other factors could also impact the forecast of contractor practical capacity. For purposes of this discussion paper, this list encompasses the significant/frequent factors that may the forecast of contractor practical capacity.

Supportability and Verifiability of Practical Capacity

The contractor's reported practical capacity amount should be supported by proper evidence including, but not limited to, documentation, data, assumptions, and supporting calculations. It is important for the contracting officer to verify that the practical capacity amount, used to determine the corresponding indirect cost rate, is traceable to this evidence and is accurate. If the contractor's practical capacity amount is not traceable and accurate, and subsequently misstated, the indirect costs allocated to a contract may not be reasonable.

In order to verify the practical capacity amount, the contracting officer should:

- Review contractor supporting evidence; and
- Assess the contractor's reported practical capacity amount against sources of comparator information including historical data, industry information, equipment information, labor regulations, and others.
- Consider the involvement of an expert (e.g. price advisor or auditor) from the Procurement Support Services Sector (PSSS) to assist in verification of reported practical capacity.

Note that open access to certain company information may be required to verify the practical capacity amount. The contracting authority should ensure that appropriate open book or appropriate audit clauses are included in the final contractual agreement as well as any subsequent changes made to the contract terms.

Appendix

A. Measuring Capacity

The amount of supply of capacity of a contractor, as measured, in resource hours available[74] [75], at a point in time, will vary depending on the types of resources being used by the contractor. Contractor resources types are listed in the order of lowest to highest supply of capacity below.

1 outsourced resource (lowest supply of capacity – i.e. zero hours – since the resource is with another company and is not an in-house resource);[76]
2 labour (skilled or unskilled labour);
3 equipment (that relies on labour to operate); and
4 automated equipment (that relies on no or minimal labour to operate).

The amount of demand for capacity (i.e. normal or budgeted capacity) of a contractor, as measured in resource hours required to satisfy the demand for goods, at a point in time, will vary depending on the types and efficiency of the contractor's resources. For instance, less demand for capacity is required for:

- outsourced resources over in-house resources (i.e. the demand for capacity for an outsourced resource would be zero hours since the resource is with another company);
- skilled labour over unskilled labour; and
- automated equipment (that relies on no or minimal labour to operate) over equipment (that relies on labour to operate).

Ideally, a contractor's amount of supply for capacity should be equal to its amount of demand for capacity. However, achieving equilibrium between supply of and demand for capacity is difficult and sometimes infeasible, resulting in the incurrence of excess capacity costs for the contractor's respective resources.

[74] Considering that practical capacity is used as the measure for supply of capacity in this discussion paper, resource hours available is inclusive of normal idle time (maintenance on equipment, employee vacations, etc.). The resource hours available is usually based on information such as, but not limited to, internal contractor policies (e.g. vacation, equipment maintenance schedule, etc.) and jurisdictional regulations (e.g. employee working hours per week).
[75] For awareness, capacity of resources can also be measured in other metrics such as space (e.g. square feet). For the purpose of this discussion paper, resource hours is used as the metric to measure capacity.
[76] It should be noted that although the supply of capacity for an outsourced resource, as measured for the contractor, is zero hours, the contractor would still incur costs for this outsourced resource. These costs will have to be allocated to the respective contract, considering that the costs are attributable, appropriate, and reasonable.

B. Cost Adjustment Considerations for the Allocation of Indirect Costs

Basis of Payment Applicability for Cost Adjustments

There are four data points which are used to calculate indirect costs[77]:

- the amount of practical capacity for the contracted resources;
- the amount of indirect costs associated with the contracted resources;
- the amount of contractor goods required to be produced for the respective contract; and
- the amount of contractor resource capacity required per good produced.

For a fixed price or fixed unit rate basis of payment, pricing would be based on estimated indirect costs.

For cost reimbursable bases of payment, pricing can be based on estimated or actual indirect costs.

When a cost reimbursable contract uses a basis of payment that relies on cost estimates, the contract may contain cost-adjustment clauses that identify when:

- the estimated indirect costs may have to be recalibrated during the course of the contract to reflect updated data points; and/or
- the estimated indirect costs have to be reconciled and adjusted to reflect actual indirect costs.

The application of either of the above adjustments on the contract may result in alterations to the originally estimated indirect costs – cost of capacity used and/or cost of excess capacity – allocated to the contract. A cost-adjustment clause should be structured such that the clause is only activated when the following three conditions are met.

1. a material discrepancy between estimated indirect costs and actual indirect costs exists or will exist;
2. it would be fair to the contractor and Government; and
3. the benefits (i.e. being fair) of recalibration or reconciliation outweigh the respective costs of tracking and determining updated or actual cost data.

Factors that may trigger a Discrepancy between Indirect Cost Estimates and Actual Costs Incurred

There are four main factors, two external and two internal to the contractor, that may trigger a discrepancy between estimated indirect costs and actual indirect costs incurred.

External factors

1. a change in the forecasted demand (amount and/or scope) for the contractor's goods; and

[77] These four data points can be used to calculate the cost of capacity used and the cost of excess capacity associated with the respective contractor resources.

2 a change in the requirements of contractor excess capacity due to customer needs.

Internal factors

1 a change in the contractor's resource mix; and

2 a change in the efficiency of a contractor's resources.

It should be noted that changes in internal contractor factors are less apparent. To detect changes in internal factors, indicators including, but not limited to, the below could be considered:

- An indicator that the contractor's resource mix may have changed include a shift in the contractor's customer base and/or nature of goods/services provided. For example, if a contractor doubles its customer base, its resources mix will correspondingly change.

- An indicator that the contractor's resources' efficiency may have changed include a shift in the quality or schedule performance of the contracted goods. For example, if the quality of the contracted goods are lower than expected, but being produced quicker than expected, there exists the risk that the contractor's resources may be foregoing quality for the notion of increasing output and saving costs.

Assessing Benefits vs. Costs of Recalibration and/or Reconciliation

The adjustment of estimated indirect costs for a contract should only be considered when the benefits (i.e. being fair) of recalibration or reconciliation outweigh the respective costs (e.g. time and difficulty) of tracking and determining revised cost data.

Recalibrating indirect cost rates would normally be less time-consuming than reconciling and adjusting for actual indirect cost rates because of less administrative burden.

Correspondingly, the contractor and client department should openly communicate about anticipated factors that may have an impact on original indirect cost estimate for the contract so that indirect cost rates can be proactively and fairly recalibrated.

ANNEX 5.3.6 DISCUSSION PAPER - RESEARCH AND DEVELOPMENT COSTS

Context

This document provides guidance to contracting officers and contractors on costs acceptable to Canada, when price or the assessment of contract performance depend on costs.

This guidance on research and development is intended to help inform practitioners in preparation for contract negotiations and the management the contract through its lifecycle. Based on the scale and complexity of the acquisition, this may require considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts.

Research and development (R&D) refers to the part of a company's operations that seeks knowledge to develop, design and enhance that company's products, services, technologies or processes. Along with creating new and innovative products and adding features to old ones, R&D connects various parts of a company's strategy and business plan … such as the possibility for increased productivity or new product lines.[78]

Contract Cost Principles, SACC 1031-2, identifies R&D activities applicable to Canadian Government contracts. These are general research and development activities and product development or improvement activities associated with the product being acquired.

Associated costs are assessed for the reasonableness, as judged by the merit of the investments relative to what is valued by the "customer", including expected net-benefit and impact on the affordability of the underlying government programs. Acceptance is contingent on expected benefits being aligned with what is valued, as defined by the customer in conjunction with PSPC officials.

PSPC analysis should quantify the financial impact on Canadian Government Programs when contractor investments in R&D activities are significant and should be evident in the sourcing and procurement strategy documents.

Recommendation

In alignment with the contract cost acceptability criteria outlined in the Costing Standard, research and development costs should be accepted for a contract when the costs are Attributable, Appropriate, and Reasonable.

Assessing if research and development costs are acceptable for a Government contract is difficult because:

- Research and development activities may not always be successful or result in measurable benefits;

[78] https://www.investopedia.com/ask/answers/043015/what-are-benefits-research-and-development-company.asp

- The amount of time required to conduct research and development activities can be uncertain – thus creating uncertainty around when corresponding potential benefits may be realized; and
- The inclusion of research and development costs in a contract may be viewed as an unfair subsidy or duplicating compensation already available through other government programs or Canada's income tax regime.

Such factors need to be considered when determining the amount of research and development costs for:

- Canada's share of R&D investments to be recovered through the pricing of its contracts with the contractor; or,
- The contractor's investment targets, as defined by the contractor's performance objectives.

The contract should clearly explain:

- the applicability of any research and development costs;
- any limits on amounts to be recovered through Canada's contracts;
- the agreement on acceptable accounting methods to capture financial data and to report on R&D activities; and
- validation requirements to ensure the reliability and integrity of the contractor's accounting of its investments and Canada's share.

The *Cost Accounting Practices (CAP) Submission* is recommended to identify and establish an agreement with the contractor on the acceptable R&D investments, associated limits and accounting methods to be used to capture and report on the contractor's incurred research and development costs.

Application

As detailed in the Costing Standard, research and development (R&D) activities are classified in two distinct categories:

1. **General Research and Development** – "a planned investigation undertaken with the hope of gaining new scientific or technical knowledge and understanding. Such investigation may, or may not be directed towards a specific practical aim or application"

   An example of a general research and development activity could be improving current production functions such as plant layout, production scheduling and control, methods and job analysis, equipment capabilities and capacities, inspection techniques, and tooling analysis.

2. **Product Development and/or Improvement** – "a systematic program of work, going beyond basic and applied research, which is directed towards the creation of a new or improved product, system,

component or material, substantially in a marketable form, but excluding any manufacture beyond completion of the new and improved product's prototype."

An example of product development and improvement could be the design of new or improved materials for a specific good.

Research and development costs may be an aggregate of other costs (e.g. compensation costs, rework costs, etc.). Therefore, when assessing the acceptability of research and development costs, the criteria of Attributable, Appropriate, and Reasonable should also be assessed for the respective aggregate costs.

When assessing the criterion of Attributable, below are some key factors to consider.

- Are the research and development costs supportable and verifiable?

- Do the research and development costs contribute to the achievement of:
  - Contract specific requirements;
  - Strategic contract outcomes; or
  - Financial, schedule, and quality benefits for the contracts that the Government has with the respective contractor?

When assessing the criterion of Appropriate, below are two key factors to consider:

- Are the nature of the research and development costs consistent with available sources of comparator information?
- Is the reimbursement of the research and development costs, as it pertains to the impact on fairness and equity for other suppliers, acceptable?

When assessing the criterion of Reasonable, below are some key factors to consider:

- Is the cost amount consistent with available sources of comparator information?

- Is the cost amount net of applicable credits?

- Does the cost amount justify the expected return on benefits for the Government?

- Does the cost amount comply with any parameters that may have been pre-authorized in the contract?

- Has the cost amount been allocated fairly between the Government and the contractor with consideration for the benefits associated with the costs?

The above factors are presented in the logical order that contracting officers will need to follow when assessing the acceptability of research and development costs. Details for these considerations are included

in Appendix A. It should be noted that the identified factors for assessing the criteria of Attributable, Appropriate, and Reasonable are not exhaustive. As such, the identified factors should be consulted alongside the applicable sections of the Costing Standard.

Appendix A – Factors to consider before accepting R&D Costs

The following contains criteria and examples to assess whether research and development costs are Attributable, Appropriate, and Reasonable.

Is the Cost Attributable?	
Sub-criteria	Example Considerations to Assess Sub-criteria
1. Are the research and development costs supportable and verifiable?	Research and development costs should be readily identifiable based on contract cost reports produced by the contractor. The contract cost reports should: • Disclose the nature and purpose of the research and development costs; • Identify direct research and development costs; and • Identify indirect research and development costs. Disclosed information should include the type of research and development activities, the research and development cost breakdown (e.g. compensation costs, rework costs, etc.), and how the costs contributes to the achievement of benefits for the contract.
2. Do the research and development costs contribute to the achievement of: a. contract specific requirements; b. strategic contract outcomes; or c. financial, schedule, and quality benefits for the contracts that the Government has with the respective contractor?	a. Research and development activities for specific product development/improvement may be required for the achievement of contract specific requirements. This could, for example, occur when the contractor is engaged in a contract with Defence Research and Development Canada (in the context of Defence contracts). The contractor could be required to conduct research and development activities in the following areas: emerging materials; weapon systems; cyber security; military medicine; or other areas of public safety and security science and technology. In this circumstance, research and development costs could constitute 100% of the total contract cost.

Is the Cost Attributable?	
Sub-criteria	Example Considerations to Assess Sub-criteria
3. Other Considerations	Research and development costs can improve the quality of the contractor goods (e.g. through new or improved material) or reduce the contractor's production costs and time for its goods (e.g. through improved production processes). Resultantly, this could create potential cost savings, as well as more timely and quality goods/services, for the Government across the contract(s) it has (or will have) with the respective contractor. The contracting officer should be aware that research and development costs represent an investment risk. This investment risk reflects that: • research and development activities may not always be successful and result in benefits; and/or • the amount of time required to conduct research and development activities can be uncertain – thus creating uncertainty around when corresponding potential benefits may be realized. As such, when assessing whether research and development costs of the above nature are Attributable, the Government could provide consideration to factors including, but not limited to, the following: • Are the proposed research and development activities of a specific or general nature? (It is presumed that general research and development costs are a riskier investment than specific research and development costs.) • What is the purpose and what are the outcomes of the respective contract(s)? • What is the nature of the contractual relationship and its potential duration? • How long is the duration of existing contract(s)? • Is the Government the primary customer of the contractor, and does a potential for a long-term contracting relationship exist? • Do the research and development activities proposed for the contract align with the core capabilities of the contractor, and does the contractor have past experience conducting research and development activities?

Is the Cost Attributable?	
Sub-criteria	Example Considerations to Assess Sub-criteria
	• What would be contractual terms for foreground intellectual property ownership? This is particularly important when the Government will not realize benefits from its research and development investment during the duration of the current contract, but rather in the longer term through the future use of the developed intellectual property. The Government's Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts identifies that either the contractor or the Government can retain intellectual property ownership. • What is the success rate and length of relevant research and development activities in the contractor's industry? • Costs applicable to Product Development projects partially funded by Canada are not acceptable as general research and development costs.

Is the Cost Appropriate?	
Sub-criteria	Example Considerations to Assess Sub-criteria
1. Is the nature of the costs consistent with available comparator information?	The nature of Appropriate research and development costs should be consistent with available comparator information. Sources of comparator information include but are not limited to: • internally available data from other contracts; • accessible data for contracts from other government procurement organizations; • accessible documentation, including historical and forward-looking financial reports, for the contractor; • publically available financial reports for other companies in the contractor's industry; or • publically available financial reports for other companies in the contractor's geography. For example if the contract in question requires research and development activities in the field of military medicine, consideration could be provided on assessing what types of research and development costs typically occur during drug development in the pharmaceutical industry.

Is the Cost Appropriate?	
Sub-criteria	Example Considerations to Assess Sub-criteria
	In alignment with the *Treasury Board Secretariat Contracting Policy*[79], contracts may be structured with due consideration of strategic outcomes that: • support long-term industrial and regional development and other appropriate national objectives, including aboriginal economic development; and • comply with the government's obligations under the various trade agreements such as the World Trade Organization – Agreement on Government Procurement and the Agreement on Internal Trade As an example, contracts structured under the Industrial and Technological Benefits (ITB) Policy must[80]: • support the long-term sustainability and growth of Canada's defence sector; • support the growth of prime contractors as well as suppliers in Canada, including small and medium-sized enterprises (SMEs) in all regions of the country; • enhance innovation through research and technological development in Canada; • increase the export potential of Canadian-based firms; and • promote skills development and training to advance employment opportunities for Canadians. To fulfil the above objectives, particularly the third objective, the respective contractor may need to make certain research and development investments. It should be noted that the ITB Policy is complex, as it allows for contractors to either incur direct or indirect costs for achieving the above objectives. Furthermore, the policy allows contractors to incur relevant costs before the timelines of an individual procurement as well as pool costs and allocate them to multiple contracts.

[79] Value and Ethics Code for the Public Sector. Government of Canada, Treasury Board Secretariat of Canada. December 2011. http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=25049. Accessed 1 March 2018.

[80] ITB Policy: Value Proposition Guide. Government of Canada, Innovation, Science and Economic Development Canada, Office of the Deputy Minister, Industry Sector, 19 December 2014, www.ic.gc.ca/eic/site/086.nsf/eng/00006.html , Accessed 26 October 2017.

Is the Cost Appropriate?	
Sub-criteria	Example Considerations to Assess Sub-criteria
	Due to the strategic nature and complexity of policies, such as the ITB Policy, the respective Government policy owners (e.g. Innovation, Science and Economic Development Canada) should be consulted when the acceptability of policy related costs are assessed. Technical verifications should also be considered in the overall strategy for oversight. Special reviews and approvals may also be required here.
2. Is the reimbursement of the costs, as it pertains to the impact on fairness for other suppliers considered acceptable?	The contracting officer should, with proper consultation, assess the following. • Is the inclusion of the research and development costs in the contract due to the contract's integration with other Government of Canada mechanisms or programs (i.e. for the purpose of achieving strategic outcomes)? • Would the inclusion of the research and development costs be viewed as an unfair subsidy that could result in a legal challenge and/or harm to Canada's reputation internationally.

Is the Cost Reasonable?	
Sub-criteria	Example Considerations to Assess Sub-criteria
1. Is the cost amount consistent with available sources of comparator information?	For example, the amount for Attributable and Appropriate research and development costs could be compared to prior period research and development costs to determine if there any anomalies in costs from one period to the next. If there are anomalies (e.g. a large increase in the amount of research and development costs for the period), justification for the increase should be requested from the contractor.
2. Is the cost amount net of applicable credits?	The amount for Attributable and Appropriate research and development costs should be reported net of applicable credits. Applicable credits may include Government funding, such as grants, subsidies or investment tax credits the contractor is receiving to conduct research and development activities to achieve strategic Government outcomes. The nature and amount of any related funding or credits should be disclosed by contractors and the research and development costs should be adjusted accordingly.

Is the Cost Reasonable?	
Sub-criteria	Example Considerations to Assess Sub-criteria
	Please note: Previously, the Supply Manual guidance states Investment Tax Credits (ITCs) shall not be deducted from related research and development (R&D) expenditures when determining the applicable costs, whereas it is proposed in the discussion paper for research and development (R&D) expenditures to be reported net of applicable credits, which include ITCs. ITCs and its application to related R&D expenditures when determining the applicable costs is under review and consultation for the next iteration of the Guide.
3. Does the cost amount justify the expected return on benefits for the Government?	It should be demonstrated that the amount of research and development costs incurred by the contractor justifies the expected return on benefits for the Government. Benefits for the Government can be of either a quantitative nature (e.g. production cost savings) or qualitative nature (e.g. achievement of strategic policy outcomes). When the primary intent of the research and development activities is to reduce production costs for the contracts that the Government has with the respective contractor, the contractor should demonstrate that the production cost savings for these contracts is at least equivalent to the respective research and development costs that have been incurred. When the incurrence of research and development costs are linked to the achievement of strategic outcomes, a cost-benefit analysis must be conducted in order to determine the level of costs to the Government that would justify the achievement of the respective benefits. This is particularly important when assessing benefits of a qualitative nature
4. Does the cost amount comply with any parameters that may have been pre-authorized in the contract?	A contract may contain limits for the amount of research and development costs that can be reimbursed to the respective contractor. The inclusion of parameters may be of more relevance when the contractor has multiple active contracts with the Government. For example, there may be a limit for the percentage of contractor general research and development costs that can be allocated to Government contracts in relation to the total cost of the Government contracts (i.e. contractor general research and development costs can comprise up to X% of the total cost of the contractor's Government contracts).

Is the Cost Reasonable?	
Sub-criteria	Example Considerations to Assess Sub-criteria
5. Has the cost amount been allocated fairly between the Government and the contractor with consideration for the benefits associated with the costs?	Research and development costs should be fairly allocated between the contractor and the Government based on the benefits expected to be realized by each party. Specific considerations for the fair allocation of research and development costs include, but are not limited to, the following: • Are the research and development costs of a specific or general nature? • What is the level of investment risk for research and development costs – how likely is it that benefits will be realized and if so, is there certainty around the timing of when the benefits will be realized? • Do the research and development costs provide potential commercial value to the contactor beyond the existing contracts it has with the Government? • What is the primary customer base of the contractor – the Government or non-government organizations (e.g. industry)? • Do the research and development costs have no or unconfirmed commercial value to the contractor beyond the existing contracts it has with the Government? • What are the contract terms for intellectual property that is generated during the contract – will the Government or the contractor own the rights to the intellectual property? As an example, if the research and development costs have no or unconfirmed commercial value to the contractor beyond the existing contracts it has with the Government, it would presumably be fair to allocate a greater proportion of the costs to Government contracts. On the contrary, when the research and development costs provide potential commercial value to the contractor and potential qualitative benefits to the Government, the results of a cost-benefit analysis would inform the fair allocation of these costs between the contractor and the Government.

Appendix B - Treatment of General Research & Development (R&D) vs. Specific Product Development and/or Improvement Costs

The following provides additional guidance on the treatment of General R&D vs. Specific Product Development/Improvement Costs.

General Research & Development

Costs acceptable as general R&D must relate to projects classified as *basic research*, or *applied research* (*See definitions on research types in Appendix B* below).

As per SACC 1031-2 and Section 4.15 of the Costing Standard, costs related to general R&D that are considered applicable may be included in overhead and allocated to the contractor's total business activity which would exclude items such as resale activity, warranty, etc., within the current fiscal year.

In those instances where the general R&D expenditures are the majority of the total General & Administrative (G & A) cost pool, this fact must be highlighted in the cost rate negotiation report, or a separate general research and development overhead rate developed.

Significant differences between the negotiated and actual costs incurred must be taken into consideration when reviewing audited costs, or negotiating future years general research and development costs.

Specific Product - Product Development/ Improvement

The costs for product development/improvement should not be included in overhead at the time it is incurred. Proper treatment of these expenditures would be to extract them from overhead pools and segregate these costs for later recovery against product sales.

Practitioners should consider, as an aspect of their negotiations, overhead applications to these product development costs. In the case of G & A overhead, either the costs are applied at the time that the product development costs are incurred, or at the time the product development costs are recovered against product sales. For guidance on the timing of application of G & A overhead costs, negotiators may look at other G & A recovery applications made to product development by the company.

The recovery of the contractor's product development costs should, in the majority cases, be accomplished through the amortization of these product development costs against the sales of the family of products to which the product development pertained.

- Contractors proposing to amortize product development costs of the product developed against future sales to Canada, must submit an annual cost schedule to the responsible Contracting Authority.

The contractor may recover these expenses on the relevant product sales, including government sales, even if the related expenditures have been written off to the profit and loss account in the year originally incurred. In other words, the costs could be recognized for financial statement purposes in the year they were originally incurred, but deferred and recognized later for the purposes of the contract. However, in this case the contractor must maintain sufficient records to demonstrate the costs to be recovered and also to substantiate that these costs had not already been recovered in overhead.

Excluded Activity from General Research and Development and Product Development

The following are examples of activities that typically would be excluded from any general R&D and product development/improvement project:

- engineering follow-through in an early production phase;
- quality control during commercial production, including routine product testing;
- trouble-shooting in connection with breakdowns during production;
- routine, or periodic alterations to existing products, production lines, manufacturing processes, and other ongoing operations, even though such alterations may represent improvement;
- adoption of an existing capability to a particular requirement, or customer's need, as part of a continuing commercial activity;
- routine tools, jigs, mould, and dies design;
- activity, including design and construction engineering, related to the construction, relocation, rearrangement, or facilities start-up, or equipment, whose sole use is for a particular R&D project, unless specifically approved by the technical authority;
- all market research activities, including those directed at market development, verification, identification, demonstration, preference, and customer acceptance development;
- pre-production and proposal costs;
- cost overruns on previous fixed price development contracts.

Appendix C – *Investment Tax Credits* (ITC) for Scientific Research and Experimental Development

Below is a short explanation of investment tax credits (ITC) that relate to Scientific Research and Experimental Development (SR&ED) qualified expenditures and applicable rates.

Scientific Research and Experimental Development (SR&ED) is a tax incentive program aimed at promoting the advancement of technology in Canada. Companies of all sizes and industry sectors making qualified expenditures in connection with SR&ED activities in Canada are entitled to receive an investment tax credit.

To qualify, the work must meet the definition of scientific research and experimental development (SR&ED) in subsection 248(1) of the Income Tax Act. The following is a definition of SR&ED[81]:

"scientific research and experimental development" means systematic investigation or search that is carried out in a field of science or technology by means of experiment or analysis and that is:

(a) basic research, namely work undertaken for the advancement of scientific knowledge without a specific practical application in view;

(b) applied research, namely work undertaken for the advancement of scientific knowledge with a specific practical application in view; or

(c) experimental development, namely, work undertaken for the purpose of achieving technological advancement for the purpose of creating new, or improving existing, materials, devices, products or processes, including incremental improvements thereto;

and, in applying this definition in respect of a taxpayer, includes:

(d) work undertaken by or on behalf of the taxpayer with respect to engineering, design, operations research, mathematical analysis, computer programming, data collection, testing or psychological research, where the work is commensurate with the needs, and directly in support, of work described in paragraph (a), (b), or (c) that is undertaken in Canada by or on behalf of the taxpayer,

but **does not include** work with respect to:

(e) market research or sales promotion;

(f) quality control or routine testing of materials, devices, products or processes;

(g) research in the social sciences or the humanities;

(h) prospecting, exploring or drilling for, or producing, minerals, petroleum or natural gas;

(i) the commercial production of a new or improved material, device or product or the commercial use of a new or improved process;

(j) style changes; or

(k) routine data collection.

ITCs reduce taxes payable and, for certain entities, the amount of credit in excess of taxes payable can be refunded to the entity, providing valuable assistance to emerging businesses and others that are not

[81] https://www.canada.ca/en/revenue-agency/services/scientific-research-experimental-development-tax-incentive-program/claiming-tax-incentives.html

taxable in the year. Below is a summary of the investment tax credits and refund rates that apply to qualified expenditures:

Geographic Region	Entity	Investment tax credit (ITC) rate	Refund rate
Qualified SR&ED in Canada	Qualifying Canadian-controlled private corporations (CCPCs)	35% of annual qualified current expenditures up to threshold ($3 million or less) + 15% of qualified current expenditures not eligible for the 35% rate (i.e. in excess of the expenditure limit)	100% of ITCs computed at the 35% rate + 40% of ITCs computed at the 15% rate
	Other corporations	15%	n/a
	Individuals		40% of ITCs
Qualified property in Atlantic provinces, Gaspe region and prescribed offshore regions	Qualifying CCPCs	10%	40% of ITCs
	Other corporations		n/a
	Individuals		40% of ITCs

Appendix D – Guidance provided by Comparator Jurisdictions

The guidance for assessing the Acceptability of research and development costs provides, to practitioners, enhanced clarity, completeness, and utility for determining appropriate treatment of these amounts. The recommended guidance is consistent with current guidance in comparator jurisdictions (i.e. Australia and United Kingdom)[82] [83] in areas such as the treatment of investment tax credits.

The United Kingdom identifies that investment tax credits should be used to reduce the research and development costs accepted for a contract.

Australia specifically identifies that investment tax credits should be used to reduce any general research and development costs accepted for a contract.

[82] Australian Government-Department of Defence-Capability Acquisition and Sustainment Group, Capability Acquisition & Sustainment Group Cost Principles, October 2017, http://www.defence.gov.au/casg/Multimedia/CASG_Cost_Principles-9-8642.pdf , Accessed 1 March 2018.
[83] Single Source Regulations Office, Single source cost standards-Statutory guidance on Allowable Costs, February 2018, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/678280/Allowable_Costs_guidance_April_2018.pdf , Accessed 1 March 2018.

ANNEX 5.3.7 DISCUSSION PAPER - INDUSTRIAL AND TECHNOLOGICAL BENEFITS – VALUE PROPOSITION COST CONSIDERATIONS

Context

Canada's Defence Procurement Strategy (DPS), announced in February 2014, transformed Canada's Industrial and Regional Benefit (IRB) Policy into the Industrial and Technological Benefit (ITB) Policy. This change helps to ensure that defence and security procurements going forward are better leveraged to create jobs and economic growth in Canada.

A core element of the ITB Policy is a rated and weighted Value Proposition (VP). Bidders are motivated to put forward their best Value Proposition for Canada in their bid proposal, as industrial considerations could directly influence which bidding firm wins a contract. A more complete explanation of the Value Proposition is provided at the following address: Industrial and Technological Benefits Policy: Value Proposition Guide.

This guidance document is intended to enhance contracting officers' understanding of allowable costs where contract price is based on actual or estimated costs. However, considerable support will be required from the extended contracting team, which will likely include price and assurance advisors, Innovation, Science and Economic Development (ISED) officers representing ISED's ITB Branch, client department representatives and possibly other subject matter experts.

For a discussion on the impact of ITB commitments on contract profit see Section 5.2.3 Negotiated Profit Element: Contractual Risk.

Factors to Consider

All defence and major Canadian Coast Guard contracts over $100 million, where the procurement is exempt or excluded from international trade agreements, will include an ITB VP. All eligible defence procurements with contract values between $20–100 million are reviewed for the use of the ITB VP which determines whether the application of a VP is consistent with achieving the appropriate balance between capability, cost and benefit to Canada.

Value Propositions become contractual obligations and are detailed in the ITB Policy annex of the contract.

Recommendation

For defense and major Canadian Coast Guard contracts with a price based on estimated or actual costs or with cost reimbursable components that include an ITB VP, the related activities should be identified and a determination made by the extended contracting team of the extent to which costs related to activities associated with the ITB Policy and its VP will be included for purposes of calculating the final contract price.

This determination should be clearly documented as part of the procurement strategy, tendering documents and the terms of the contract itself to avoid any uncertainty about contract pricing.

In making the above determination, consideration should be given to the Costing Standard and the contract terms would incorporate Contract Cost Principles SACC 1031-2 along with a right to examine the contractor's books and records to verify contract costs and claims for payment.

Consideration should also be given to the use of a Cost Accounting Practices (CAP) Submission to formally document the accounting practices accepted by Canada. If a CAP Submission is used, the method of accounting for costs associated with activities related to the ITB Policy and its Value Proposition should be clearly identified and included as part of the CAP Submission.

The extended contracting team should include professional accounting advisors to assist in evaluating whether proposed accounting practices are appropriate for the intended purpose.

ANNEX 5.4 PRICING DISCUSSION PAPERS

These discussion papers provide additional guidance on pricing related topics to support contracting officers' understanding of pricing in Canada. This includes discussion of pricing methodologies that may be recommended for consideration in Canada in the future.

ANNEX 5.4.1 DISCUSSION PAPER – ALTERNATIVE APPROACHES TO COST-BASED PRICING

Alternative Approaches to Cost-Based Pricing

Context

This discussion paper provides guidance to contracting officers in the negotiation of non-competitive contracts or contracts where price negotiations with the successful bidder are required following a competitive process.

This discussion paper is intended to help inform contracting officers, to prepare for contract negotiations and to manage the contract through its lifecycle. Based on the scale and complexity of the acquisition, this requires considerable support from the contracting team, which may include price advisors, client department representatives and other subject matter experts. This discussion paper is not intended to be a procedural document.

Why This Matters?

In most Government acquisitions, in Canada and internationally, price is established based on the contractor's cost plus a profit margin on top of the cost. Acquisitions that build on cost-based pricing generally deliver value to Canada, and meet Canada's objectives of fairness and transparency.

Past reviews of Canada's acquisition processes have identified an inherent imbalance between a focus on cost and reward for effectively managing risk. Of particular concern, when cost-based pricing is applied in contracts with Cost-Reimbursable, Fixed Time Rate/Unit and Firm Priced basis of payments (see Section 4.1) without consideration of efficiency or effectiveness. This may result in not fully incentivizing (and may disincentivize) the contractor from proactively managing cost escalation; adopting a problem-solving and preventative approach to production, delivery and service problems; or pursuing innovative solutions. It should be noted that in a Fixed Price contract, risks related to cost fluctuations and resulting profits or losses are fully borne by the contractor, providing full incentivization to proactively manage costs, as any gains in efficiencies are retained by the contractor. See Section 4.1.1 for further details.

Potential Alternatives to Cost-Based Pricing in Government Acquisitions

While cost-based pricing meets Canada's objectives of fairness and transparency, there are some situations where alternatives to cost-based pricing might generate better value. Alternatives to cost-based pricing are ways to buy goods and services where the price does not rely on the cost to the contractor of fulfilling the statement of requirements. Two alternatives to cost-based pricing are explored in this paper: outcome-based pricing and value-based pricing.

In outcome-based pricing the price is set based on the achievement of a pre-agreed outcome for the client department. At the time the contract is established the price may be expressed as a formula, for example a percent of operational cost savings achieved or as a rate per unit of improved performance. The contractor's payment is (largely) at risk and the amount to be paid is not known until the work is complete and the client department takes delivery of the produces and/or services.

In value-based pricing the price is set based on the anticipated value of the goods and/or services that are being acquired. While value-based pricing is quite common in consumer and business to business acquisitions, they are not widely seen in Government, and rarely in non-competitive acquisitions. The exception to this is public private partnerships (PPPs) that transfer revenue risk to the contract, which are described below.

PPPs that transfer revenue risk to the contractor (e.g., a toll highway) are one form of value-based pricing. In such PPPs, the price is set based on the anticipated value of the business opportunity. Generally the price determined from the business opportunity would be quantified based on the discounted net present value of anticipated cash flows over the term of the contract. (The net cash flow would be derived by estimating cash inflows less outflows, where inflows would include revenues plus any grants or subsidies and outflows would include capital investment, operating costs, debt repayment and interest charge and taxes.)

Advantage and Challenges of Alternatives to Cost-Based Pricing

In some situations alternatives to cost-based pricing could yield substantial advantages over cost-based pricing, including for example:

- aligning Government and contractor interests, for example by tying payment to efficient, timely and/or enhanced performance of the work or providing the contractor with greater flexibility in how to approach the work and manage risks;
- reducing the use of Government resources to undertake cost analysis, proposal evaluation, audits, cost data collection, and contract management and oversight
- reducing the work and cost to the contractor of collect and report costs information; and
- attracting new suppliers for Government contracts (due in part to lower administrative burden associated with contracting), which could encourage greater competition, and consequently (in the long run) drive efficiencies and innovation.

That said, there are some important challenges that could be associated with the use of alternatives to cost-based pricing in non-competitive acquisitions. These challenges include:

- inadequate information to confirm the contractor's price is reasonable and fair; and

- an increased risk of excessive profits.

Recommendation

While they may generate value in certain circumstances, alternative pricing methods such as outcome-based pricing and value-based pricing should be used selectively and judiciously, particularly in non-competitive acquisitions.

Assessing Potential Use of Alternatives to Cost-Based Pricing

The selection of an alternate to cost-based pricing should be based on a solid understanding of the respective merits of each potential pricing method and an objective assessment of the applicability of the method to the acquisition. At a minimum, the contracting officer should consider:

- the clarity and complexity of the client department's statement of requirements;
- timeframes for delivery of the work;
- the complexity and predictability of risks associated with the acquisition, including for example:
    - the likelihood of changes in the requirements as work progresses;
    - the level of uncertainty regarding the effort and costs to meet the statement of requirements;
    - the maturity, history and experience of the contractor with work of a comparable nature, size, scope and complexity to the statement of requirements;
    - the contractor's technical and financial capabilities;
    - the intricacies of stakeholder issues;
    - the complexity of external threats and opportunities associated with the work; and
- how the contracting officer might assess whether the contractor's price is fair and reasonable

No single factor in the above list of considerations is determinative, although a significant factor in all cases is the overall risk associated with the acquisition. The objective is to select a pricing method (or methods) that accommodates the full range of risks associated with the acquisition and facilitates appropriate risk sharing between the Government and the contractor.

To non-competitively acquire goods and services using one of the alternatives to cost-based pricing discussed in this paper, the contracting officer needs to assess whether the contractor's price is fair and reasonable.

Assessing the Contractor's Price

When alternative pricing methods are being considered, an assessment of the planned/estimated alternative pricing outcomes should be done in comparison to the expected outcome from the application of cost-based pricing principles, to support a risk and benefit analysis of the alternative method. (See Alternative Pricing Principles, Section 5.3 for further details on this process).

Other potential approaches to support the assessment of whether the contractor's price is fair and reasonable may include comparison of the proposed price to one or more of the following:

- the anticipated cost to deliver the statement of requirements using in-house resources (if this is practical);
- benchmark pricing from comparable non-competitive acquisitions made by the client department, another department or another jurisdiction (to the extent that benchmarks can be identified and pricing information obtained); and/or
- benchmark pricing from comparable acquisitions that were competitively bid (to the extent that benchmarks can be identified and pricing information obtained).

Resource Limitations

Alternatives to cost-based pricing require substantial planning to structure and implement, including for example development of the payment mechanism and key contract terms and conditions to support the pricing method. Generally, contracting officers would require additional knowledge, skills and experience in order to implement alternate pricing methods effectively. In many instances, support from internal subject matter experts and external advisors can be a key success factor. Accordingly, in determining which pricing method(s) to use, the contracting officer should weigh the potential merits of each pricing method, including the anticipated investment of resources and time required to establish the price and manage the resulting contract.

Analysis

Two alternatives to cost-based pricing are sometimes used to acquire products and services in certain circumstances: outcome-based pricing and value-based pricing. Additionally, certain pricing methods can be used to supplement a cost-based price.

A. Outcome-Based Pricing

Overview

Outcome-based pricing is when the price paid is linked to the achievement of a prescribed outcome, for example a substantial improvement in the client department's capability. During the initial contracting, a

formula is established that sets out how the contractor will be compensated. The actual payment to the contractor is finalized once the work had been completed and the outcome measured in accordance with the pre-established terms and conditions.

Outcome-based pricing can improve value to Canada in acquisitions when there is a high level of uncertainty regarding the best method to achieve the desired outcome. If cost-based pricing were to be used in such an acquisition it could result in substantial cost to the Government, with no guarantee that the client department's objective(s) would be achieved. In such a situation outcome-based pricing might ultimately establish a better balance between the risks and rewards that the Government and the contractor are taking on. (This is in part achieved because the contractor will not readily accept risks which impact the price it is paid unless it can manage those risks.)

Generating Value in Outcome-Based Pricing Contracts

In outcome-based pricing the contractor's revenue may be well above, or below, the contractor's actual cost. This creates substantial incentive for the contractor to achieve the defined outcomes on which payment is calculated. If it fails to deliver the required outcome(s), the contractor might be out of pocket for the cost incurred (in whole or in part). Alternately if the contractor successfully delivers the required outcome(s), it may earn a profit well beyond the limits currently in place for cost-based contracts.

Administering Outcome-Based Pricing

While outcome-based pricing can improve value to Canada when used appropriately, there are also substantive risks associated with its use. These risks include:

- If the outcomes, and associated measurements upon which the contractor's payment will be calculated are not structured appropriately, there may be unintended consequences. For example, if the measures do not fully align with the client department's requirements, then the capability anticipated from the acquisition may fall short in some areas.
- The contract will inevitably incorporate terms that transfer some risk back to the Government, and failure to meet these provisions may trigger additional compensation to the contractor, and/or excuse the contractor from its obligations. For example, in a transformation engagement where the contractor is being compensated based on a percentage of cost savings, if the client department fails to follow through with the recommended changes to its processes, the contractor might have a right to payment notwithstanding that the savings were not actually realized.
- The contractor may ultimately walk away from the task if it determines that it will be unable to achieve the desired outcomes or the actual costs that it will incur in achieving the outcomes are greater than the payment that it would receive.

Use of Outcome-Based Pricing in Non-Competitive Acquisitions

While outcome-based pricing can, in principle, be used for non-competitive acquisitions, they are not common, in part, because of the challenge of confirming that the contractor's proposed price is fair and reasonable.

When outcome-based pricing is being considered, an assessment of the planned/estimated outcome pricing ranges should be done in comparison to the expected outcome from the application of cost-based pricing principles. (See Alternative Pricing Principles, Section 5.3 for further details on this process).

Another potential method that may be used to support the assessment of whether the contractor's proposed price is fair and reasonable is by comparison of the contractor's price to the anticipated cost to deliver the required outcome using in-house resources (if this is practical).

A second alternate would be to benchmark the contractor's price to comparable acquisitions to the extent that they can be identified and pricing information obtained. For example, if the contractor has provided similar outcomes for another department or another jurisdiction, then its pricing there can inform the appropriate pricing in a non-competitive acquisition.

A third alternative is to benchmark the contractor's price to comparable outcome-based pricing acquisitions that were competitively bid.

Example of Outcome-Based Pricing

One situation where outcome-based pricing is sometimes found is in transformation/operational improvement initiatives. The price paid to the contractor engaged to support the transformation is calculated based on a pre-established percentage share of the cost savings achieved by the department compared to historical operating costs.

B. Value-Based Pricing

Overview

In value-based pricing the contractor's payment is set based on the anticipated value of the goods and/or service that are being acquired.

In consumer and business to business acquisitions, value-based pricing is common. Buyers count on market factors and competition among numerous potential suppliers to ensure that they receive a fair and reasonable price. In contrast, in Government acquisitions, and especially for defence acquisitions, the goods and services which are being acquired are often specialized with just a few potential suppliers. In addition, compared with commercial items, many large scale Government acquisitions (e.g., defence equipment and infrastructure) tend to be much more complex and to entail much greater technological risk to develop. All of these factors, greatly complicate the Government's ability to determine a fair and reasonable price.

Accordingly, while value-based pricing is quite common in consumer and business to business acquisitions, they are not widely seen in Government, and rarely in non-competitive acquisitions. The exception to this is public private partnerships (PPPs) that transfer revenue risk to the contract, which are described below.

Overview of PPPs that Transfer Revenue Risk

PPPs that transfer revenue risk to the contractor are a form of value-based pricing. Effectively the price is linked to a monopoly right to generate revenues. In this form of PPP virtually all the responsibilities and risks of ownership are transferred to the contractor for an extended period, notwithstanding that title to the asset typically remains with the government. The price is established based, in part, on the amount that the contractor is willing to pay (or be paid) for the value of the monopoly to develop an asset and collect 10 for its usage.

Generating Value in PPPs that Transfer Revenue Risk

PPPs are generally based on the premise that private sector efficiencies will generate greatest value when the contractor is given flexibility to carry out the work with minimal input from government once the contract is in place. PPPs involving the transfer of revenue risk are generally based on the synergies of combining the revenue generation with the responsibility to develop and maintain the asset as well as simply generating efficiencies/improvements from the revenue generation (e.g., the ability to effectively market the service). Given the long term of most PPPs (typically between 25 and 35 years but sometimes longer when revenue risks are involved), contracts generally include provisions requiring the contractor to comply with changes in applicable standards and codes, and to deliver the project in line with all applicable leading practices regarding the conduct of the work.

Administering Contracts for PPPs that Transfer Revenue Risk

Key risks associated with administration of this type of contract include:

- Loss of flexibility to change the statement of requirements over the life of the contract.
- The contract requiring non-compete clauses which restrict the flexibility of future governments to extend services through alternate means. For example, in PPPs for toll highways where depending on the circumstances, there may be restrictions on what alternate free or tolled highways might be developed within a set geographic area around the PPP highway and/or within a given timeframe.
- Due to the complex agreements associated with a PPP, the required substantive and consistent administration by the client department to help ensure the contractor continues to perform in accordance with the original intent of the acquisition.
- Difficulty holding the contractor to the operating and maintenance requirements in the latter years of the contract. While the contract generally incorporates specific provisions to address hand back

conditions (e.g., third party inspection requirements in the years leading up to hand back and the requirement to set up maintenance funds if the conditions fails to meet the pre-established condition requirements).

Negotiating Changes in PPPs

Substantive amendments are rarely made once a PPP has been established and in some jurisdictions (such as the European Union where PPPs are highly regulated) they are not allowed. For discrete (relatively minor) changes, the price adjustment is generally negotiated based on the estimated cost of the change together with a profit commensurate with the risk associated with the change in scope.

Use of Value-Based Pricing in Non-Competitive Acquisitions

While value-based pricing can in principle be used for non-competitive acquisitions, they are rare. This is due, in part, to the size and scale of PPP projects (generally in excess of $100 million) and, in part, because of the challenge of confirming that the contractor's proposed price is appropriate. They are sometimes seen as an outcome of an unsolicited proposal provided to the government by a contractor.

In the rare instances where a PPP is pursued on a non-competitive basis, the reasonableness of the contractor's proposed price could be assessed through comparison to the cost the government would incur if it were to advance the work using traditional procurement models (such as a design bid build). This analysis is commonly known as a public sector comparator and is often developed as part of the early planning for the project to confirm the procurement strategy and again following the assessment of PPP proposals to confirm the successful bid generate value.

To develop a public sector comparator, an independent team of subject matter experts would be established to develop an estimate of the net cash flow (including a valuation of risks) that the government would expect to generate over the proposed contract term if it were to take on the project itself. If the public sector estimate is higher than the contractor's proposed price, then the conclusion is that the price provides value to the government.

Example of PPP using Value-Based Pricing

PPPs that transfer revenue risk are often used to develop new transportation facilities, such as new highways. In exchange for the exclusive right to charge a toll for use of the highway, the contractor is responsible for developing, operating and maintaining the road, any associated structures and tolling systems and services. The price would be determined based on the anticipated cash inflow (i.e., toll revenue) less than the anticipated cash outflows (i.e., cost to design, build, finance and operate the highway and collect tolls) over the term of the contract. If the anticipated inflows are less than the anticipated outflows, a subsidy is paid by the government to the contractor. If the anticipated inflows are greater than the anticipated outflows, the contractor makes a payment to the government. Some PPP highway procurements have generated billions

of dollars in payments from the contractor to the government for the right to develop highways in heavily travelled corridors.

C. Supplementary Methods to Cost-Based Pricing

The remainder of this paper describes two supplementary pricing methods that could be used in combination with a cost-based price in non-competitive acquisitions.

- Performance-based pricing, which imposes an adjustment framework whereby the contractor's payment is increased or reduced based on performance.
- Flexible pricing, wherein the contractor receives a higher ongoing amount for improved value (e.g. delivery of improved performance).

Note that a combination of these pricing methods may be used in a contract. For example, a contract where a Fixed Price is paid for fulfilling the base requirements (i.e., meeting the statement of requirements), may incorporate a performance incentive, where the payment amount is tied to added value (i.e., in excess of the base requirement), rather than the contractor's costs.

Performance-Based Pricing

Performance-based pricing compensates the contractor for delivering goods or services in excess of a performance baseline (which is tied to the statement of requirements). Payments are made for the delivery of specific outcomes based upon an agreed formula. Payment formulas and pricing models for performance-based contracting vary by contract. The adjustment may incorporate financial and non-financial rewards and remedies. (For details on these financial and non-financial rewards and remedies, please refer to Annex 5.2.1 Contract Incentives to Encourage and Reward Enhanced Value to Canada and Annex 5.2.2 Measures to Manage Contractor Non-Compliance or Unacceptable Behavior) Performance-based pricing may or may not build upon the underlying cost.

In establishing a performance based payment, a performance baseline, against which the contractor can be measured, should be formulated before contract initiation and agreed between Canada and the contractor.

Key considerations in establishing a performance measurement framework are discussed in Annex 5.2.1, Contract Incentives to Encourage and Reward Enhanced Value to Canada.

Leading practice suggests that a performance framework can encourage innovation in service delivery and promote a culture of continuous improvement. In the United Kingdom, for example, the Harrier and Tornado aircraft fleet availability contracts are successful examples of performance-based contracting. The National Audit Office reported that repair and maintenance costs decreased by a total of £1.4 billion over six years, while meeting availability requirements largely due to the use of performance-based pricing.

Example 1 Performance-Based Price Payment Calculation

G. Contractor's payment for baseline performance	$100,000
H. Variable amount (for every 10 km/hr variance from target speed)	$1,000
I. Target speed as per the statement of requirements	500 km/hr
J. Actual speed for aircraft supplied by contractor	600 km/hr
K. Payment adjustment (= (D-C)/10 x B or (600 – 500)/10 x $1,000)	$10,000
L. Total payment (= A + E or $100,000 + $10,000)	$110,000

In Example 1 the variable payment is consistent throughout the range of potential performance. In practice the payment calculation might be more complex. For example, while the first 10 km/hr in additional speed might be tied to a payment of $1,000 as it may enable the aircraft to go materially faster than other aircraft. In contrast the payment for achieving 610 km/hr rather than 600 km/hr. may be much lower because it does not materially improve the functionality of the aircraft, or may be assigned a value of 0 if it is too fast for supporting equipment (e.g., software outside of the plane used to monitor and track activity).

Additional resources may be required of Canada to maintain regular measurement of the contractor's performance against an agreed baseline, and to validate the underlying data on which the measurements are to be completed.

Flexible Pricing

Flexible pricing is a relatively new pricing method, which recognizes that there may be advantages to adjusting the price of a contractor's goods or services over time. Flexible pricing thus allows a contractor to propose a price increase to realign the payment based on the substantiated value, generally to the client department. The proposed price is tied to substantive evidence of incremental value above the requirements by an independent authority. In establishing a flexible pricing arrangement, the contracting officer needs to ensure sufficient budget is available to accommodate any potential price adjustments.

Flexible pricing does not reduce the price if the contractor's product or service delivers less value for money because flexible pricing is intended to incent innovation. Accordingly, a negative price adjustment is not included—even if value to Canada is found to be lower than originally calculated. Ultimately, this pricing method is intended to encourage innovation in situations when the full value of the product or service will not be clear at the time of contract negotiation or initiation.

In the United Kingdom, for example, flexible pricing has been used for the acquisition of technology-based outcomes[84]—when the full breadth of benefits of a technology are unknown and could be better assessed in the future.

A theoretical example where flexible pricing could be applied in a non-competitive acquisition follows:

- A contractor had two products:
  - Product A meets the statement of requirements and is based on dated technology, and
  - Product B meets the statement of requirements and has the potential to deliver substantive operating cost savings to the client department because it incorporates new technology which will enhance operational performance.
- The contractor has offered to provide product A at a price of $100 or product B at a price of $150.
- While the client department is interested in reducing operating cost, it is unwilling to commit to a higher upfront price because product B's performance, and the resulting potential to generate operational savings, is unproven.
- The contractor is confident product B will deliver substantial savings to the client department and would like to provide product B in order to demonstrate the potential benefits of the product.
- Flexible pricing might be used to find a middle ground that potentially benefits both parties. Payment might be structured using a base payment (tied to the price for product A) and an additional payment based on a percentage of the operational cost saving achieved by the department.

[84] Concerning intellectual property (IP) ownership of a particular technology, the UK Ministry of Defence's policy states that IP will normally belong to the contractor generating the IP, in exchange for which the Ministry of Defence will expect the right to disclose and use the IP for UK government purposes.

Example 2 Flexible Pricing Calculation

A. Price of product A	$100
B. Client department's current operating cost	$5,000
C. Contractor's promised operational savings	20%
D. Negotiated share of actual operational savings to be paid to the contractor	10%
E. Base payment (equal to the price of product A)	$100
F. Client department's actual operating cost savings (measured 1 year after product B is put into use)	15%
G. Actual adjusted fee (= B x F x D or $5,000 x 15% x 10%)	$75
H. Final payment (= E + G or $100 + $75)	$175
I. Maximum adjusted fee (= B x C x D or $5,000 x 20% x 10%)	$100

If Product B fails to deliver cost savings, the client department would be no worse off than if it had selected Product A. On the other hand, if Product B reduces departmental operating costs, the additional payment to the contractor is much less that the cost savings achieved.

When to Apply a Supplementary Pricing Method

In selecting an appropriate pricing method, contracting officers should consider the client department's acquisition objectives, outcomes, and risks associated with the particular goods or services.

The table below provides high-level guidance regarding the applicability of each pricing method described in this discussion paper. Note that the table is not comprehensive and is a starting point only for a more comprehensive consideration of the risks and circumstances inherent in a project.

Exhibit 2 Considerations of Applying Supplemental Pricing

Acquisition Consideration	Performance-Based Pricing	Flexible Pricing
Clarity and complexity of requirements, and the likelihood of scope changes	• Complex requirements with substantial chance of change as work progresses	• Can be appropriate to define requirements as outcomes that can be measured, enforced, and do not change
Anticipated term of contract	• Works well for procuring goods and services with moderate to long contract period because the longer contract period helps amortize the resources used to establish the contract	• Works well for procuring goods and services with moderate to long contract period because the longer contract period allows time for shifts in the underlying benefit of the good and services
Upfront certainty of costs	• Cost estimates are more reliable because payments by Canada are based upon an agreed set of outcomes and formula	• Cost estimates are more reliable because contractors would be less likely to include risk premium in pricing because costs could be adjusted
Complexity and unpredictability of risks	• Can help reduce risk premiums in the acquisition of products and services with complex and unpredictable risks, because the contractor may be motivated by the performance indicators to mitigate certain risk	• Risk profiles vary by the terms of the contract and concerned goods and service
Characteristics of the product or service	• Relevant technology may be mature or proven, or presents substantial opportunity for innovation	• Relevant technology is changing rapidly creating substantial opportunity for innovation
Potential suppliers' technical and financial capabilities	• Works well when suppliers are entrepreneurial and relatively innovative	• Works well when suppliers are entrepreneurial and relatively innovative

ANNEX 5.4.2 DISCUSSION PAPER – BASELINE PROFIT METHODOLOGY FOR CONSIDERATION

Please Note

A Baseline Profit Methodology is recommended for consideration in Canada, but will require further feasibility analysis, consultation, a plan for a transitional approach and a trial period before full adoption is considered.

Feedback from the procurement community, internal and external to the government, is important. Please share your thoughts on this by providing any questions, comments, and feedback to the Pricing Practices and Guidance Group (TPSGC.padgamtp-appbipm.PWGSC@tpsgc-pwgsc.gc.ca).

The purpose of this annex is to explore the recommendation of adopting **Baseline Profit Methodology** as a method for setting profit in negotiated procurements in Canada. This includes defining what this methodology is, analysis of their advantages and disadvantages and recommendation surrounding the consideration of Baseline Profit Methodology.

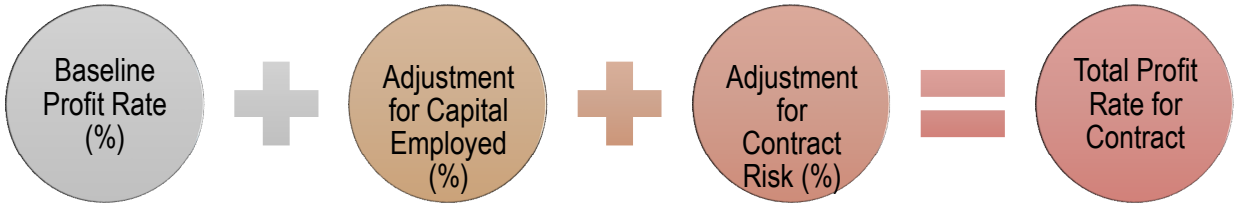
Although this methodology is recommended for consideration, full implementation of it is not feasible at this time. A transitional approach where further data collection, analysis and refinement of the process is required to determine whether or not the benefits of the methodology would bring better value than the current methodology applied.

What is the Baseline Profit Methodology?

A baseline profit methodology relies on average industry profit and earnings data to establish a base for the development of profit in a contract. The methodology under consideration is similar to that used for single source qualifying defence contract in the United Kingdom (UK).

The baseline profit rate methodology would likely consist of baseline profit rates that are informed by the average industry profit and earnings data and adjustments would then be made to this baseline for contract specific risks such as Capital Employed and Contractual Risk.

Baseline Profit Illustration



What are the Benefits of the Baseline Profit Methodology?

- Baseline profit rates would provide profit development base that is representative of Industry earnings;
- The Baseline methodology would likely enhance consistency of application, as the variable factors have a smaller impact; and
- Baseline profit rates are simple, clear and transparent for all stakeholders.

Key Concerns of the Baseline Profit Methodology

- Current methodology is well understood and highly comparable to benchmarked data with other jurisdictions;
- Complexity concerns related to introduction of a new profit determination formula: The baseline profit methodology in the UK, applied on a sample of contracts did not result in a significant difference from the current methodology applied in Canada. Potentially, minimal benefit in modifying the methodology; and
- Timeline and availability concerns related to external data acquisition, consolidation and review.

How is Canada considering implementing Baseline Profit Rates?

PSPC is considering the application of average industry financial earnings data to determine baseline profit levels as either:

- A replacement factor within the current profit determination process; or
- A benchmarking factor available for the procurement community to assess reasonability.

Implementation considerations are contingent on PSPC's ability to acquire relevant earnings data on a regular basis. The ability to acquire relevant earnings data will allow for the availability of benchmarking data for contracting officers to consult for the profit determination process and/or the implementation of the baseline profit methodology itself.

ANNEX 6: TOOLS AND TEMPLATES

ANNEX 6.1 PROFIT DETERMINATION TEMPLATE

The Profit Determination Template below includes instructions and schedules to support the determination of profit in accordance with the guidance as detailed in Section 5.2 (Profit Principles).

Please see the Profit Determination Template on BuyandSell.gc.ca at the following link: Profit Determination Template

ANNEX 6.2 APPLICABLE RATES FOR PROFIT DETERMINATION TABLE

Please see the applicable rates for profit determination table on BuyandSell.gc.ca at the following link: Applicable Rates for Profit Determination

ANNEX 6.3 CONTRACTUAL RISK ASSESSMENT TOOL

The following is the *Contractual Risk Assessment Tool* which provides key questions to support a practitioner in the assessment of the level (likelihood and impact) of contractual risk in a contract.

Please see the Contractual Risk Assessment Tool on BuyandSell.gc.ca at the following link: Contractual Risk Assessment Tool