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**PMEducation**

CONTRACT TYPES - Examples

**ABOUT these Pages**

In the pages that follow, examples are given to help understand different contract types and categories. The category always modifies the contract type with an addition or a subtraction. Many creative combinations of contract type and category have been used, so we will look at the basic 2 types and 5 categories (10 examples).

Most of the categories (fixed fee, percentage fee, award fee, and economic price adjustment) are easy to calculate. Incentive fee requires pre-determined targets and is a bit more complicated. Here are the possible combinations of types and categories, although some are never used, as explained below.

COMBINATIONS:

Firm Fixed Price. Buying something off the store shelf. There is no incentive and no adjustment. Nothing to calculate. To say “firm fixed price with a fixed fee” is redundant and that terminology is not used.

Fixed Price with Percentage Fee. The percentage fee paid to the seller is always a percentage of the actual amount the seller spends. This is never used because with a fixed price, the buyer really does not care how much the seller spends. So there is no incentive for the seller to save costs; in fact the seller is motivated to increase costs.

Fixed Price with Award fee. The award amount, and whether or not to pay it, is completely at the buyer’s discretion, so there is no calculation required.

Fixed Price with Economic Price Adjustment. This combination is used for long term contracts spanning several years, to address the risk of inflation. The economic price adjustment must relate to a relevant index, which is agreed at the time of contract signing. Many available indices are published such as Consumers Price Index, Cost of Living index, to name two.

Fixed Price with Incentive Fee (see below). The incentive is meant to entice the seller’s performance in areas critical to the project, for example to keep costs to a minimum. At the time of contract signing there needs to be an agreed Target Price, Target Cost, Target Fee, and Buyer/Seller Split. There might also be an agreed Ceiling Price.

Cost Plus with Fixed Fee. The fixed fee (profit) is an agreed amount, usually an agreed percentage of the initial estimate. The seller is paid (reimbursed) his costs, plus the agreed percentage of what the work was estimated to cost (the fixed fee). The estimate is taken at the time of contract signing, and does not change. The seller cannot lose money and is guaranteed a profit. The buyer will not know the final price until the contract is completed.

Cost Plus with Percentage Fee. The percentage fee paid to the seller is always a percentage of the actual amount the seller spends. This is a bad deal for the buyer because the seller is guaranteed to recoup his cost and in addition, the more he spends, the more his fee (profit) will be. So there is no incentive for the seller to save costs; in fact the seller is motivated to increase costs.

Cost Plus with Award Fee. The award amount, and whether or not to pay it, is completely at the buyer’s discretion, so there is no calculation required. This is a bad deal for the seller because beyond recouping his cost, he has no idea what his profit will be. An award fee can be added to other types of contract, if desired.

Cost Plus with Economic Adjustment. This is never used because the Economic Adjustment is meant to allow for inflation but in Cost Plus the seller is already recouping his cost. Also, just to say “Cost Plus Economic Adjustment” does not explain how the seller is to make a profit. However, if desired, an inflation clause can be added to other types of contract.

Cost Plus with Incentive Fee (see below). The incentive is meant to entice the seller’s performance in areas critical to the project, for example to keep costs to a minimum. This combination assures the seller of recouping his cost and benefits the buyer with minimum cost. At the time of contract signing there needs to be a Target Price, a Target Fee, and a Target Cost. As with all Cost Plus (Cost Reimbursable) contacts the buyer will not know the final cost until the contract is completed.

SAMPLE CALCULATIONS – “Incentive Fee” Category:

In these cases there must be an agreement at the time of contract signing about expected (Target) price to the buyer, expected (Target) cost to the seller, and expected (Target) profit for the seller.

In most cases the buyer will want to set a maximum (Ceiling) price, regardless of the seller’s cost. The ceiling does not change regardless of Actual Cost.

Also, there needs to be agreement on how to split the cost saving if it finishes under the Target Cost, and how to split the additional cost if it overruns the Target Cost. This Split is expressed as Buyer/Seller For example a 70/30 split means the Buyer’s share of the cost variance is 70% and the Seller’s share of the cost variance is 30%.

So let’s look at 4 examples, and see how the calculations work with these targets and ceiling. This step-by-step method works EVERYTIME, so is worth memorizing or keeping this page handy for your projects.

Given: Target Price = $9850

Target Cost = $9000

Target fee = $850

Ceiling Price = $10,000

Split: 70/30

Example 1: Fixed Price with Incentive Fee. **Actual Cost $8000**. (The seller actually spent $8000.)

This is an example where there is a cost saving as the Actual Cost of $8000 is under the Target Cost of $9000.

1. Calculate Cost variance: 9000-8000=1000 under
2. Calculate the Split: Buyer saves 70% x 1000 = 700.

Seller saves 30% x 1000 = 300.

1. Calculate what the Buyer pays: The Target Price of…………… 9850

Minus Buyer’s share of cost saving…..….. -700

Amount Buyer pays……….... 9150

1. Check the Ceiling: 9150 is still under the ceiling of 10,000 so is Ok.
2. So Buyer pays: $9150.
3. Seller’s profit is: 9150 – 8000 = $1150.

Example 2: Fixed Price with Incentive Fee. **Actual Cost $9250**. (The seller actually spent $9250.)

This is an example where there is a cost overrun as the Actual Cost of $9250 is over the Target Cost of $9000.

1. Calculate Cost variance: 9250-9000=250 over

2. Calculate the Split: Buyer pays 70% x 250 = 175.

Seller pays 30% x 250 = 75.

3. Calculate what the Buyer pays: The Target Price of…………… 9850

Plus Buyer’s share of cost overrun …..….. +175

Amount Buyer pays……..... 10,025

4. Check the Ceiling: 10,025 is higher than the ceiling of 10,000 so not Ok.

So Buyer pays: $10,000.

Seller’s profit is: 10,000 – 9250 = $750.

NOTE: If there was no ceiling the Buyer would pay $10,025; and the Seller’s profit would be 10,025 – 9250 = $775.

So we see, in a Fixed Price with Incentive Fee contract with a Ceiling, the Buyer will not pay more than the Ceiling. In Example #2, above, the ceiling is reached when the Actual Cost is $9214.28. This is called the Point of Total Assumption. At this point the Seller’s profit is:

(10,000 – 9214.29 =) 785.71. (Try it yourself, and see)

Beyond an Actual Cost of $9214.28, the Sellers profit is reducing further, but the Buyer is not paying more than the Ceiling price. There becomes a point if the Actual Cost is too high, the Seller makes no profit at all. That happens when the Actual Cost equals the Ceiling Price. At that point, the Buyer pays the Ceiling price, the Seller spends it all on Actual Cost, and there is none left over for Seller’s profit.

Example 3: Cost Plus with Incentive Fee. **Actual Cost $8000**. (The seller actually spent $8000.)

This is an example where there is a cost saving as the Actual Cost of $8000 is under the Target Cost of $9000. Remember, with Cost Plus, all Costs are Reimbursable.

1. Calculate Cost variance: 9000-8000=1000 under

2. Calculate the Split: Buyer saves 70% x 1000 = 700.

Seller saves 30% x 1000 = 300.

3. Calculate what the Buyer pays: The Actual Cost of ………… 8000

Plus the Target Fee ……… +850

Plus Seller’s share of cost saving ……….. +300

Amount Buyer pays……... 9150

4. Check the Ceiling: 9150 is lower than the ceiling of 10,000 so Ok.

So Buyer pays: $9150.

Seller’s profit is: 9150 – 8000 = $1150.

Example 4: Cost Plus with Incentive Fee. **Actual Cost $9250**. (The seller actually spent $9250.)

This is an example where there is a cost overrun as the Actual Cost of $9250 is over the Target Cost of $9000.

1. Calculate Cost variance: 9250-9000=250 over

2. Calculate the Split: Buyer pays 70% x 250 = 175.

Seller pays 30% x 250 = 75.

3. Calculate what the Buyer pays: The Actual Cost of ………… 9250

Plus Buyer’s share of cost overrun …….. +175

Amount Buyer pays……... 9425

4. Check the Ceiling: 9425 is lower than the ceiling of 10,000 so Ok.

So Buyer pays: $9425.

Seller’s profit is: 9425 – 9250 = $175.

NOTE: So because there was a cost overrun the Seller does not make his Target Fee (profit) of $850, but only makes a profit of $175.

In a Cost Plus with Incentive Fee contract with a Ceiling, the Buyer will continue to reimburse an increasing cost but will not pay more than the Ceiling. At this point the Seller’s profit is zero. The Seller alone pays all Actual Costs above the Ceiling.

NOTE: Comparing Fixed price with Incentive Fee (FPIF) and Cost Plus with Incentive Fee (CPIF) we can observe:

1. When there is a cost saving (Examples #1 and #3), the results are the same regardless of whether the contact type is Fixed Price or Cost Plus. In both examples the Buyer pays $9150 and the Seller’s profit is $1150.
2. When there is a cost overrun (Examples #2 and #4), FPIF favours the Seller, but CPIF favours the Buyer. This might seem counterintuitive because as Buyers we often think a Fixed Price is best. However, when we add the Incentive Fee category to Fixed Price we get these results, because of the sharing nature of the Split.