

Risk Adjusted
Budget Formulation and Execution
For Projects

Presented To

EM Project Management Workshop

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by

David M Treacy

Office of Engineering and Construction Management

Overview

- Budget Formulation For Projects
- Budget Execution and Contracting

Budget Formulation For Projects

- Project costs are estimated by analysis
 - Analogy, Parametric, Engineering, Extrapolation from Actuals
- Estimates are applied to each WBS element
 - Includes adjustments for uncertainty
- WBS elements are rolled up to arrive at the total project cost estimate (TPC and TEC)
- Program offices may choose to adjust the estimate for programmatic uncertainty (out of contract scope events impacting the project) to arrive at a new TPC and TEC.

Budget Formulation For Projects

- TPC/TEC estimate delivered to OMB and Congress is risk adjusted with no separate summation of the risk estimates.
- The estimate represents a confidence level of approximately 90% chance of under running the full cost of the project.
- The entire estimate is required to achieve 90% confidence level of under running.
- If a risk adjusted estimate is not used, the probability of over running will increase from 10% to approximately 80% - 90%.

Budget Formulation For Projects

- The under-run/over-run probabilities are affected by the planning maturity
 - Use of actuals vs analogy
 - Uniqueness of the project increases unknowns
 - Maturity level of the concept and engineering

Budget Execution and Contracting

- DOE “contracts” for the capital asset acquisition
 - Legal contracts, work authorizations, and allotments
- The contract establishes the scope and budget for the project negotiated contract cost
- The contract cost is negotiated at a price less than the TPC (Negotiated Contract Cost = NCC)

Budget Execution and Contracting

- The project budget is a working tool for the life of the project
- The project budget is allocated to control accounts within the project
 - Control accounts are defined by the integration of the program organization and the WBS
 - Defined work scope given to a specific organization to accomplish
 - Control accounts with work scope comprise the performance measurement baseline (PMB)

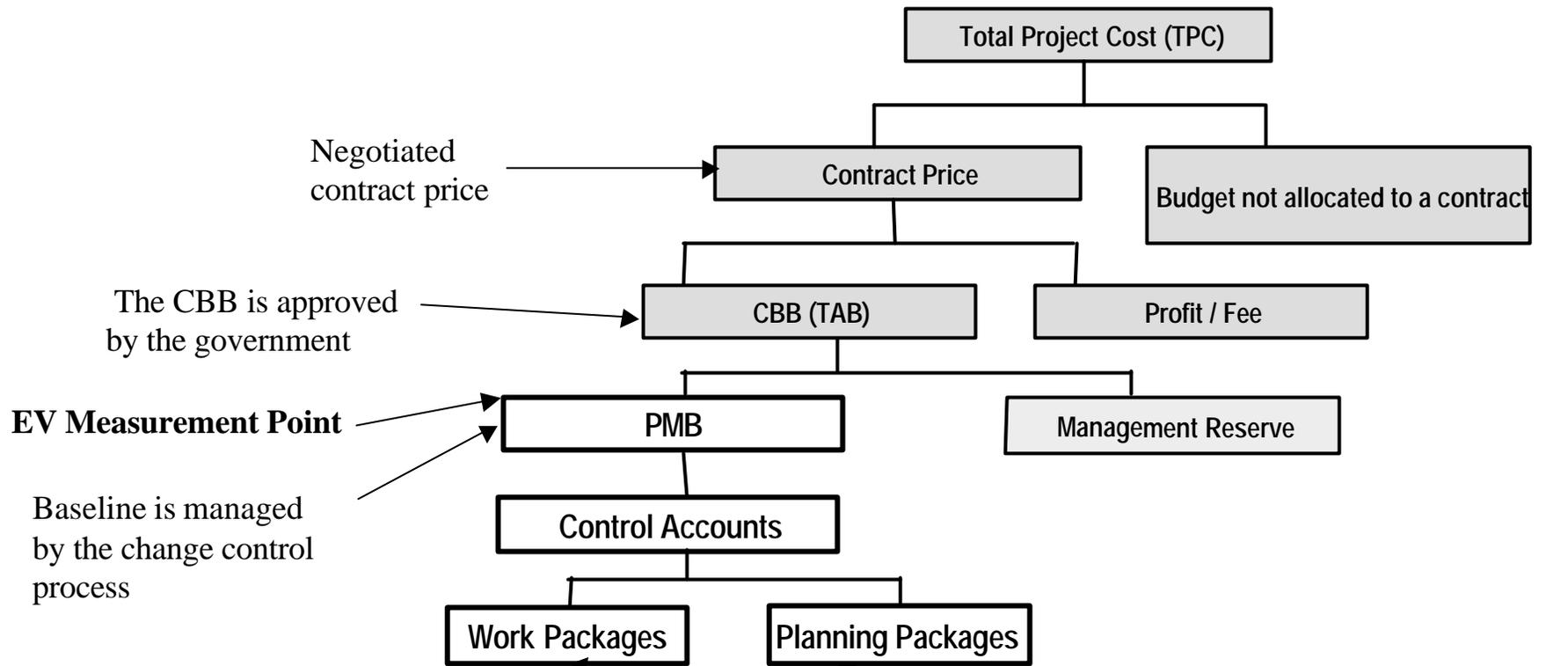
Budget Execution and Project Management

- The contractor may choose to not allocate the entire budget to all control accounts and may hold budget at a project level (Management Reserve)
 - Not all potential risks will occur
 - Budget withheld from the PMB is held in a separate control account for which no work is allocated
- PMB is a tool that provides both the government and the contractor with insight into the project
 - Management Reserve is not part of the PMB until it is allocated against work by assigning to a control account with work to be accomplished
 - Management Reserve accounting is accomplished identical to all other control accounts
- Performance Baseline (PB) established at CD2 differs from the PMB
 - PB is our commitment to OMB and Congress

Budget Execution and Project Management

- A change in the project/baseline/WBS that requires a transfer out of Management Reserve (MR) is allocated through the change control process
- The change control thresholds as defined in DOE O 413.3 and the Project Execution Plan (PEP) for each project establishes the authority for changes

BUDGET AND PERFORMANCE BASELINE RELATIONSHIPS



TERMINOLOGY

- TPC – Total Project Cost
- NCC – Negotiated Contract Cost
- CBB – Contract Budget Base
- TAB – Total Allocated Budget
- PMB – Performance Measurement Baseline
- MR – Management Reserve
- CA – Control Account
- WP – Work Package
- PP – Planning Package

- The sum of all costs for a given project
- Contract Price less profit/fee (can equal CBB)
- Sum of NCC and A UW
- Sum of all contract budgets - (includes MR)
- Contract time-phased, budgeted work plan (excludes MR)
- Contractor PM's Contingency budget
- Contractor key management control point - CWBS element
- Near-term, detail-planned activities within a CA
- Far-term CA activities not yet defined into detail Work Packages

Developed from Work Breakdown Structure (WBS). Levels 1-3 developed by gov't. Level 4-x developed by contractor (CWBS)

What We Intend To Do

- Engage the community in dialogue
- Confer with OMB & the Hill to modify budget request and reporting data requirements
- Modify Project Data Sheets (inconcert with CFO) (FY2003 budget?) to clarify what is the Performance Baseline (with no breakout below TEC, OPC and TPC)
- Modify Budget Formulation Handbook and PPM manual to provide direction for preparation of project data sheets

We Do Not Intend To....

- Eliminate measurement of percent of MR (or any project budget) remaining and allocation rate
 - Monitoring remaining percentage and spend rate are useful indicators
- Eliminate the authority of the program office to allocate budget to the project contract in a manner that meets the mission requirements