
Cost Estimate Assurance: Basis of Estimate, Contingency and Funding Decisions Course

6 – 10 September 2027
Geneva





Cost Estimate Assurance: Basis of Estimate, Contingency and Funding Decisions Course

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Programme Summary

Cost estimate assurance for capital project funding decisions is a five-day training course for senior sponsors and finance leaders at strategic level, culminating in an estimate assurance and funding recommendation for a project in their own portfolio. Major budgets are often approved on estimates whose maturity and risk allowances nobody has tested. The approach links estimate classification, basis of estimate review, risk-based contingency and gate funding. Mars Training Centre UK delivers this programme in cost estimate assurance.

The Business Case

An approved budget commits capital and reputation. When the estimate behind it is immature, poorly documented or carries contingency set by habit, the organisation either locks up money it does not need or faces overruns that force rescoping or refinancing. Leaders who question an estimate before signing it protect the portfolio.

- Budget Accuracy at Completion: Improves as funding is matched to the maturity class and documented basis of each estimate.
- Capital Allocation Efficiency: Rises as contingency is sized from quantified risk rather than flat percentages.
- Portfolio Overrun Exposure: Falls as optimism bias is corrected and escalation is set explicitly before approval.

Principles and Evidence Base

- AACE International Recommended Practice 18R-97: Frames the estimate classes from Class 5 to Class 1 and their expected accuracy ranges used in Session 1.
- AACE International Recommended Practice 34R-05: Sets out the basis of estimate content that participants review and challenge in Session 2.
- Risk-Based Contingency with Monte Carlo Analysis: Converts risk registers and ranging into P50 and P80 confidence levels in Session 3.
- Reference Class Forecasting and Optimism Bias: Tests internal estimates against the outcomes of comparable completed projects in Sessions 3 and 4.



Intended Participants

- Leaders who sponsor capital projects and present their budgets for approval.
- Directors who sit on investment or capital committees and approve funding at stage gates.
- Finance leaders who own capital budgets, contingency reserves and funding plans.
- Heads of project controls and cost engineering who prepare estimates for executive decision.

The programme serves energy and process industries, infrastructure and transport, real estate and public works, and utilities.

Learning Outcomes

1. Participants will be able to classify a cost estimate by maturity and judge its fitness for the decision.
2. Participants will be able to evaluate a basis of estimate for scope, assumptions and pricing sources.
3. Participants will be able to justify contingency and escalation allowances using quantified risk and confidence levels.
4. Participants will be able to diagnose optimism bias by comparing an estimate with a reference class of completed projects.
5. Participants will be able to construct a phased funding profile and reserve structure for stage-gate approval.
6. Participants will be able to prioritise the actions needed before approving an estimate.

Programme Structure

Day 1: Cost Estimate Assurance Foundations

How mature is an estimate, and is it mature enough for the decision being asked?

- Estimate Classes 5 to 1 and Project Definition Maturity
- Expected Accuracy Ranges and Their Meaning for Approvers
- Top-Down, Parametric and Bottom-Up Estimating Methods
- Owner's Costs, Direct and Indirect Costs
- Estimate Purpose and Decision Fitness Review

Day 2: Challenging the Basis of Estimate

What lies behind the numbers, and which assumptions carry the most weight?

- Basis of Estimate Structure and Content
- Scope Definition, Exclusions and Allowances
- Quantity Sources, Unit Rates and Market Pricing
- Benchmarking Against Historical Cost Data
- Independent Estimate Review Questions



Day 3: Contingency, Escalation and Risk Quantification

How much reserve is needed, and with what confidence?

- Contingency Versus Management Reserve
- Parametric and Expected Value Contingency Methods
- Monte Carlo Cost Risk Analysis and P50 and P80 Outcomes
- Escalation and Currency Exposure Allowances
- Reference Class Forecasting for Uplift Decisions

Day 4: From Estimate to Approved Budget

How is an assured estimate converted into a funding decision and a controlled budget?

- Stage-Gate Funding and Decision Criteria
- Phased Funding Profiles and Cash Flow Timing
- Contingency Ownership and Drawdown Rules
- Budget Baseline and Change Thresholds
- Lessons From Major Project Overrun Inquiries

Day 5: Applying the Estimate Assurance Recommendation

How are classification, basis, risk and funding combined into one recommendation?

- Classification of a Participant Project Estimate
- Basis of Estimate Challenge Log
- Contingency and Escalation Position
- Peer Challenge of Funding Cases
- Estimate Assurance and Funding Recommendation Presentation

Methodology

The programme relies on case analysis supported by data exercises. Participants examine estimates and risk registers from energy, infrastructure and building projects, question them as an investment committee would, and rebuild contingency and funding positions.

- Suggested activity: Assigning estimate classes to three project estimates and testing each against the decision requested.
- Suggested activity: Running a simple Monte Carlo model to compare P50 and P80 contingency.
- Suggested activity: Holding a mock capital committee review of a funding request.



Capstone Output

Each participant completes an estimate assurance and funding recommendation for a current or planned project. It records the estimate class, the challenge log, the contingency and escalation position at a stated confidence level and the phased funding request, ready for the next gate review.

Frequently Asked Questions

Is cost estimate assurance suitable for sponsors who are not cost engineers?

Yes. It is written for sponsors, finance directors and committee members who approve budgets. It assumes capital project experience but no estimating background.

Which standards underpin cost estimate assurance in this course?

It draws on AACE International Recommended Practices 18R-97 for estimate classification and 34R-05 for basis of estimate, risk-based contingency with Monte Carlo analysis, and reference class forecasting.

How is the cost estimate assurance and funding recommendation used at work?

You take back a recommendation for a real project, ready to support the funding request at your next gate.

How does cost estimate assurance differ from project cost control programmes?

It concentrates on estimate quality and the funding decision before the budget is set, rather than tracking cost once delivery starts.