COST ESTIMATION

westernpower

AACE INTERNATIONAL

AACE INTERNATIONAL RECOMMENDED ESTIMATE CLASSIFICATION SYSTEM[1]

	PRE EXECUTION			EXECUTION	
	Class 5	**Class 4**	**Class 3**	**Class 2**	**Class 1**
TYPICAL END USAGE	Concept screening, Rough order of magnitude	Feasibility, Options assessment	Business case, Budget authorisation	Detailed control or bid/tender	Part project check or bid/tender[2]
EXPECTED AACE ESTIMATE ACCURACY RANGE Variation in range at 80% confidence interval	**L:** +100% to -50% **H:** +50% to -20%	**L:** +50% to -30% **H:** +20% to -15%	**L:** +30% to -20% **H:** +10% to -10%	**L:** +20% to -15% **H:** +5% to -5%	**L:** +15% to -10% **H:** +3% to -3%
MATURITY OF PROJECT DEFINITION DELIVERABLES Expressed as a % of complete definition	0% to 2%	1% to 15%	10% to 40%	30% to 75%	65% to 100%
HIGH LEVEL ESTIMATE INPUT/S GENERALLY REQUIRED	Design Concept Works Planning Report	Design Intent Document	Preliminary Design Scope of Design Works	Detailed Design Contractor Pricing	Detailed Design Contractor Pricing
ESTIMATING METHODOLOGY	Top down: · Cost / length factors · Parametric model · Judgement or analogous	Top down: · Cost / length factors · Parametric model · Adjust for specific design	Bottom up: · Semi-detailed unit costs · Assembly level line items · Factoring minor areas of project	Bottom up: · Detailed unit cost · Forced detailed take-off instead of factoring for undefined areas	Bottom up: · Usually performed on the most critical areas of the project, based on actual design quantity
ESTIMATE OUTPUT	· Estimate report with total project cost estimate · No hours or cost breakdown	· Estimate report with total project cost estimate · No hours or cost breakdown	· Estimate report with detailed cost and hours breakdown · **Work Breakdown Structure (WBS)**	· Estimate report with detailed cost and hours breakdown · **Work Breakdown Structure (WBS)**	· Estimate report with detailed cost and hours breakdown · **Work Breakdown Structure (WBS)**

[1] AACE International Recommended Practice – 96R-18: Cost Estimate Classification System – As Applied in Engineering, Procurement, and Construction for the Power Transmission Line Infrastructure Industries
[2] Class 1 estimates are normally prepared for a relatively small portion of the project e.g. for a change control