Board Staff Interrogatory #102

Interrogatory

Reference:
Exhibit D2 / Tab 1 / Schedule 1 / Attachment 1 / pp. 2-3

Question(s):

a) As both an absolute total and as a percentage, please identify the number of projects that OPG has completed within the AACE International (AACE) confidence interval applied to each individual project original estimate since the completion of OPG's 2017-2021 Payment Amounts proceeding.

Response

a) Twelve Tier 1 capital projects have been completed since OPG's 2017-2021 Payment Amounts Proceeding (Ex. D2-1-2 Table 1b). For those twelve completed projects compared to the first execution phase estimate:

- Eight projects (66.7%) had their final project cost within the AACE expected accuracy range.
- One project (8.3%) had its final project cost below the lower limit of the expected AACE accuracy range, and,
- Three projects (25%) had their final project cost greater than the higher limit of the expected AACE accuracy range.

Fukushima Phase 1 was considered as a combined program. Fukushima Phase 2 was also considered as a combined program.

Two Tier 1 projects for capital spares (80111 and 36001) were removed from this analysis as they are not construction projects fitting the characteristics of the AACE standard.

Chart 1 below provides the revised AACE cost estimate classification matrix for process industries, dated August 2020; which was updated to reflect the 80% confidence interval of the expected accuracy range for typical variations in low and high ranges.

Chart 1 – AACE Cost Estimate Classification Matrix

	Primary Characteristic	*Secondary Characteristic*		
ESTIMATE CLASS	**MATURITY LEVEL OF PROJECT DEFINITION DELIVERABLES** Expressed as % of complete definition	**END USAGE** Typical purpose of estimate	**METHODOLOGY** Typical estimating method	**EXPECTED ACCURACY RANGE** Typical variation in low and high ranges at an 80% confidence interval
Class 5	0% to 2%	Concept screening	Capacity factored, parametric models, judgment, or analogy	L: -20% to -50% H: +30% to +100%
Class 4	1% to 15%	Study or feasibility	Equipment factored or parametric models	L: -15% to -30% H: +20% to +50%
Class 3	10% to 40%	Budget authorization or control	Semi-detailed unit costs with assembly level line items	L: -10% to -20% H: +10% to +30%
Class 2	30% to 75%	Control or bid/tender	Detailed unit cost with forced detailed take-off	L: -5% to -15% H: +5% to +20%
Class 1	65% to 100%	Check estimate or bid/tender	Detailed unit cost with detailed take-off	L: -3% to -10% H: +3% to +15%