Board Staff Interrogatory #167

Interrogatory

Reference:
Exhibit D2 / Tab 2 / Schedule 11 / Attachment 3 / p. 5
Exhibit D2 / Tab 2 / Schedule 10 / Attachment 2q

Preamble:

Bates White concluded that the estimated total cost of the D2O Storage Project, based on perfect knowledge, is $517.7 million.

Bates White's Class 2 estimate is accurate within 15% above and 10% below the expected cost for the D2O Storage Project of $517.7 million. On a P90 basis, Bates White's estimate of the D2O Storage Project is $576.5 million.

Question(s):

a) For clarity, is the $517.7 million Bates White estimate a Class 2 estimate?

b) Does the $576.5 million P90 estimate refer to a P90 of a Class 2 estimate?

c) What class of estimate was OPG's Superseding Full Execution Release?

d) Did the $498.5 million Superseding Full Execution Release reflect a mean estimate? If not, please explain.

e) What is the P90 value of OPG's Superseding Full Execution Release?

Response

Parts a) and b) of the following response were prepared by Bates White.

a) Yes, as discussed by Bates White in Section IV.G of our report, the information available supported the categorization of the cost estimate as a Class 2 cost estimate.

b) Yes, the $576.5 million figure represents the 90% probability bound of the distribution associated with the Bates White Class 2 cost estimate.

c) OPG categorized the 2018 Superseding Release Execution BCS as a Class 1 estimate, meaning that OPG viewed the estimate as having a degree of accuracy from between 3% to 5% below to 3% to 10% above the estimate.

d) – e)

No, the 2018 Superseding Release Execution BCS was not a mean estimate. A mean estimate reflects the maximum likelihood cost outcome within a probability distribution of cost outcomes. The probability distribution is created by running a Monte Carlo simulation where thousands of outcomes are generated based on the inputted variables. The “P90” estimate corresponds to the estimate where there is a 90% probability that the actual cost would fall below the estimated amount in the distribution.

OPG’s 2018 Superseding Full Execution Release estimate of $510M was comprised of four primary cost elements, each with a very low probability of scope change or cost growth to complete the project: (i) OPG project management team costs; (ii) a negotiated guaranteed maximum target price by the EPC vendor to complete remaining work; (iii) the calculated interest costs to carry the project to completion; and (iv) a management reserve fund of $11.5M to address potential residual project risks that may have arisen during project completion. As a result, the project risk profile to cost and schedule was substantially reduced and did not merit a mean estimate calculation nor the requirement to run a Monte Carlo analysis. Accordingly, the “P90” value of OPG’s 2018 Superseding Full Execution Release estimate of $510M is unknown.