

Gate two query process

Strategic solution(s)	Thames to Affinity Transfer
Query number	TAT004
Date sent to company	14/12/2022
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Query

This query is related to Technical Supporting Documents A2a and A2b.

Could you provide some greater detail as to what are included in the indirect costs in section 3.9.

Have you considered annual operational maintenance costs by considering common assumptions used across the water industry for such infrastructure? E.g. with civil maintenance being calculated as 0.30% of the infra and non-infra civil costs, whilst mechanical and electrical (M&E) maintenance being calculated as 1.5% of infra and non-infra M&E costs. If not could you explain your methodology, including what assumptions you have used and how these were applied

Solution owner response

This response has been written in line with the requirements of the RAPID Gate 2 Guidance and to comply with the regulatory process pursuant to Thames Water's and Affinity Water's statutory duties. The information presented relates to material or data which is still in the course of completion. Should the solution presented in the Gate 2 documents be taken forward, Thames Water will be subject to the statutory duties pursuant to the necessary consenting process, including environmental assessment and consultation as required. This response should be read with those duties in mind.

Indirect costs - coverage: this item would typically include both contractor indirect costs such as preliminaries (design, supervision, site accommodation,

welfare, common plant, security, commercial management, safety management, etc.), overheads & profit, temporary works, standard contractor risks and client indirect costs, typically including aspects such as development, surveys, procurement, overheads, consultation, planning applications, etc.

Specific to Affinity Water, the indirect client costs used for the Gate 2 costing are based upon Affinity Water standard estimating templates. This element covers the costs associated with running the business and ensuring a proportion is allocated to each project within the capital programme, as a core activity undertaken by the business. The model is maintained by Affinity Water finance team, created originally as an AMP5 model by Deloitte, and subject to annual external audit.

Indirect costs - calculation: at this early stage of the project definition process indirect costs are typically estimated as a percentage of the direct construction works costs. The percentages utilised will be based on historic project cost data and will be deemed to allow for all the items identified above. The percentages applied are standard across capital projects within Affinity Water. There is no detailed build-up available at this stage. As the projects proceed through the gateways and sufficient development work and planning has been carried out it will be possible for the projects to prepare a more detailed bottom-up indirect cost estimate.

Annual operational maintenance costs

Within Affinity Water's estimating processes, which have been used to derive the cost estimates for T2AT at Gate 2, the allowances for operational maintenance costs are derived on the basis of a statistical relationship driven by the capacity of the scheme. Unfortunately, no breakdown of M&E and civils operational maintenance costs is available through this approach, as the analysis provides only an overall maintenance cost.


We have compared these maintenance outputs within the Gate 2 estimates and can confirm that they broadly align with the common assumptions used across the water industry for such infrastructure (e.g. as noted in the query wording, with civil maintenance being calculated as 0.30% of the infra and non-infra civil costs, whilst mechanical and electrical (M&E) maintenance being calculated as 1.5% of infra and non-infra M&E costs).

For example, for the T2AT LTR 100 Ml/d option we have compared the operational maintenance costs using the Affinity Water standard approach with those derived using the standard uplifts noted above:

- Using the Affinity Water standard approach produces an overall maintenance cost equal to 0.24% of the civil + MEICA base costs.
- Using 0.3% / 1.5% noted previously, produces an overall operational maintenance cost equal to 0.41% of the civil + MEICA base costs.
- Hence, a difference of only 0.17%.

At the level of design development for the current schemes at Gate 2, and given the high levels of Optimism Bias and Costed Risk inherent within the scheme estimates at Gate 2 (in total, 42% of base capex over the 80 year lifecycle of the NPV analysis), we do not feel this discrepancy represents a material difference between the two approaches.

The use of high-level percentages for operational maintenance aligns with the RAPID and OFWAT guidance document titled "Approaches for estimating and benchmarking costs for large scale water infrastructure projects" published on the 15th August 2022

Date of response to RAPID	16/12/2022
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