

Appendix A – Value for money studies

Executive Summary

This document presents the value for money (VfM) assessment of Price Review 2024 (PR24) Direct Procurement for Customers (DPC) and market-based delivery projects, incorporating both quantitative and qualitative analyses.

This document includes quantitative VfM assessment including a sensitivity analysis of seven key financial input variables, which demonstrate the benefits of DPC and market-based delivery in comparison to the in-house delivery model, adhering to the methodology outlined in the Quantitative VfM methodology section.

The qualitative assessment framework is based on twelve dimensions, used to determine if projects deliver net benefits under DPC and market-based delivery adhering to the methodology outlined in the

Qualitative VfM section.

Projects are categorised based on their score: those unlikely to deliver value, neither likely nor unlikely to deliver value, or likely to deliver value under DPC and market-based delivery. These categories are determined separately for the quantitative and qualitative assessments and a combined view is presented for each project. The table below summarises the VfM analysis for PR24 DPC and market-based delivery projects.

Table 36 - Summary of VfM analysis

Projects	Quantitative VfM	Qualitative VfM	Combined VfM
Aylesford and Ford re-use	Likely to deliver VfM	Likely to deliver VfM	Likely to deliver VfM
Sandown re-use	Unlikely to deliver VfM	Neither likely nor unlikely to deliver VfM	Unlikely to deliver VfM
Sittingbourne re-use	Likely to deliver VfM	Likely to deliver VfM	Likely to deliver VfM
Bioresources: Ham Hill & Ashford	Likely to deliver VfM	Likely to deliver VfM	Likely to deliver VfM
Local Authority Highways SuDS	Not meaningful	Not meaningful	Not meaningful
Whitfield WwTW	Neither likely nor unlikely to deliver VfM	Likely to deliver VfM	Neither likely nor unlikely to deliver VfM
Wetlands	Neither likely nor unlikely to deliver VfM	Likely to deliver VfM	Neither likely nor unlikely to deliver VfM

The local authority SuDS analysis was carried put using an assumption about market delivery that is no longer viable. This is explained in Section 3.1 of the main document.

Quantitative Assessment

The table below provides a summary of the quantitative VfM results for the DPC and market-based delivery projects. It presents a NPV cost comparison between the base case of delivering the project in-house versus using DPC or market-based delivery methods. Additionally, the table includes the aggregate scores from the sensitivity analysis.

Table A-2: Quantitative VfM assessment summary

Projects	Base case in-house NPV	Base Case DPC/ market-based delivery NPV	NPV savings	% NPV savings	Sensitivity outcome (range - 14 to +14)
Aylesford and Ford re-use	£300m	£276m	£23.4m	8.5%	14
Sandown re-use	£166m	£179m	(£13.5m)	(7.6%)	(12)
Sittingbourne industrial re-use	£141m	£137m	£4.3m	3.2%	10
Bioresources: Ham Hill & Ashford	£249m	£237m	£11.8m	5.0%	13
Local Authority Highways SuDS	£235m	£250m	(£14.5m)	(5.8%)	(7)
Whitfield WwTW	£80m	£82m	(£1.4m)	(1.8%)	(8)
Wetlands	£123m	£121m	£2.1m	1.7%	6

Qualitative Assessment

Aylesford & Ford and Sittingbourne

The majority of the qualitative dimensions for [Aylesford & Ford](#) and [Sittingbourne](#) indicate that the DPC model is *'likely have a net benefit'* when compared to the in-house delivery model, with an aggregate score of +7 for both projects. These assessments are on the basis that these projects will be tendered under the late tender model. Under this model, the CAP will be responsible for designing, building, financing, operating, and maintaining (DBFOM) the projects.

The net benefit of delivering these projects under the DPC model, as opposed to an in-house model, stems from several key benefits, including the ability to effectively manage our delivery capacity by transferring delivery responsibilities to the CAP. Additionally, the CAP brings innovation to both the construction and operation phases of the project, leverages a broader supply chain and investor network. DPC enables price discovery, risk identification, and mitigation throughout the project's lifecycle. Furthermore, the DPC model offers the benefit of aligning customer billing with service availability and reducing volatility in customer bills along with an opportunity to exceed our baseline obligations, achieving greater environmental and social impact.

A potential disbenefit of delivering these projects under the DPC model is the reduced flexibility in modifying the project scope. Additionally, managing and coordinating the project with the CAP and its subcontractors may introduce additional complexity.

Sandown

The majority of the qualitative dimensions for the [Sandown](#) project indicate that the DPC model is *'neither likely nor unlikely to have a net benefit'* when compared to the in-house delivery model, with an aggregate score of +1. This assessment is on the basis that Sandown will be tendered under the very late tender model. Under the very late tender model we will assume the responsibility for the design, construction, and initial financing of the project. Once construction is completed, the CAP will be responsible for re-financing, operating, and maintaining the project.

The benefit or disbenefit of the DPC delivery model is predominantly realised during the design and construction phases. Given that we will be undertaking both the design and construction, the net benefit or disbenefit of the DPC model remains comparable to that of in-house delivery. However, undertaking the DPC delivery model for Sandown is likely to alleviate the financing burden post-construction and establish a pricing benchmark for future DPC projects that may require re-tendering.

Bioresources, Whitfield, and Wetlands

The majority of the qualitative dimensions for the [Bioresources](#), [Whitfield](#), and [Wetlands](#), projects indicate that the market-based delivery route is 'likely have a net benefit' when compared to the in-house delivery model, with an aggregate score of +6 for each project. These assessments are on the basis that the projects will be tendered under the late tender model. Under this model, the special purpose vehicle (SPV) will be responsible for DBFOM of the project. Additionally, the Bioresources project presents a unique opportunity to enhance its commercial attractiveness by selling electricity produced by the plants, thereby creating an additional revenue stream.

The net benefit of delivering these projects under the market-based delivery approach, as opposed to an in-house model, stems from several key benefits, including the ability to effectively manage our delivery capacity by transferring delivery responsibilities to the SPV. Additionally, the SPV brings innovation to both construction and operation phases, leverages a broader supply chain and investor network. Market-based delivery enables price discovery, risk identification, and mitigation throughout the project's lifecycle along with an opportunity to exceed our baseline obligations, achieving greater environmental and social impact.

Furthermore, a market-based delivery route is expected to align customer billing with service availability and reduce bill volatility. However, due to the uncertainty surrounding revenue commencement for market-based delivery projects, the net benefit currently remains comparable to that of in-house delivery.

A potential disbenefit of delivering these projects under a market-based delivery approach is the reduced flexibility in modifying the project scope. Additionally, managing and coordinating these projects with the SPV and its subcontractors may introduce additional complexity.

Local Authorities Highway SuDS

The majority of the qualitative dimensions for SuDS indicate that a market-based delivery route is 'neither likely nor unlikely to have a net benefit' when compared to the in-house delivery model, with an aggregate score of +4. For reasons explain in section 3 and 11.4 of the main document, we have identified that this assessment does not provide a true representation and is therefore not meaningful. We believe that delivery of SuDS in collaboration will deliver benefits for customers as described in Sections 11 and 11.1 of the main document.

Quantitative VfM methodology

This section outlines the VfM assessment methodology. The methodology considers the quantitative and qualitative VfM and the combination of both to evaluate the VfM of projects under DPC and market-based delivery.

The Quantitative VfM test can help demonstrate the monetary benefits that DPC and market-based delivery models can bring to customers compared to in-house delivery. The base case Quantitative VfM test generates a Net Present Value (NPV) of the required revenue stream to deliver a project under factual (DPC / market-based delivery) and counterfactual (in-house) cases. The NPV savings under the base case scenario is utilised to assess whether delivering the project through DPC or an market-based delivery model would provide better value to customers. This assessment considers both the absolute amount of savings (i.e., the NPV savings figure) and the relative difference in savings between the factual and counterfactual models (i.e., the percentage difference in NPV savings).

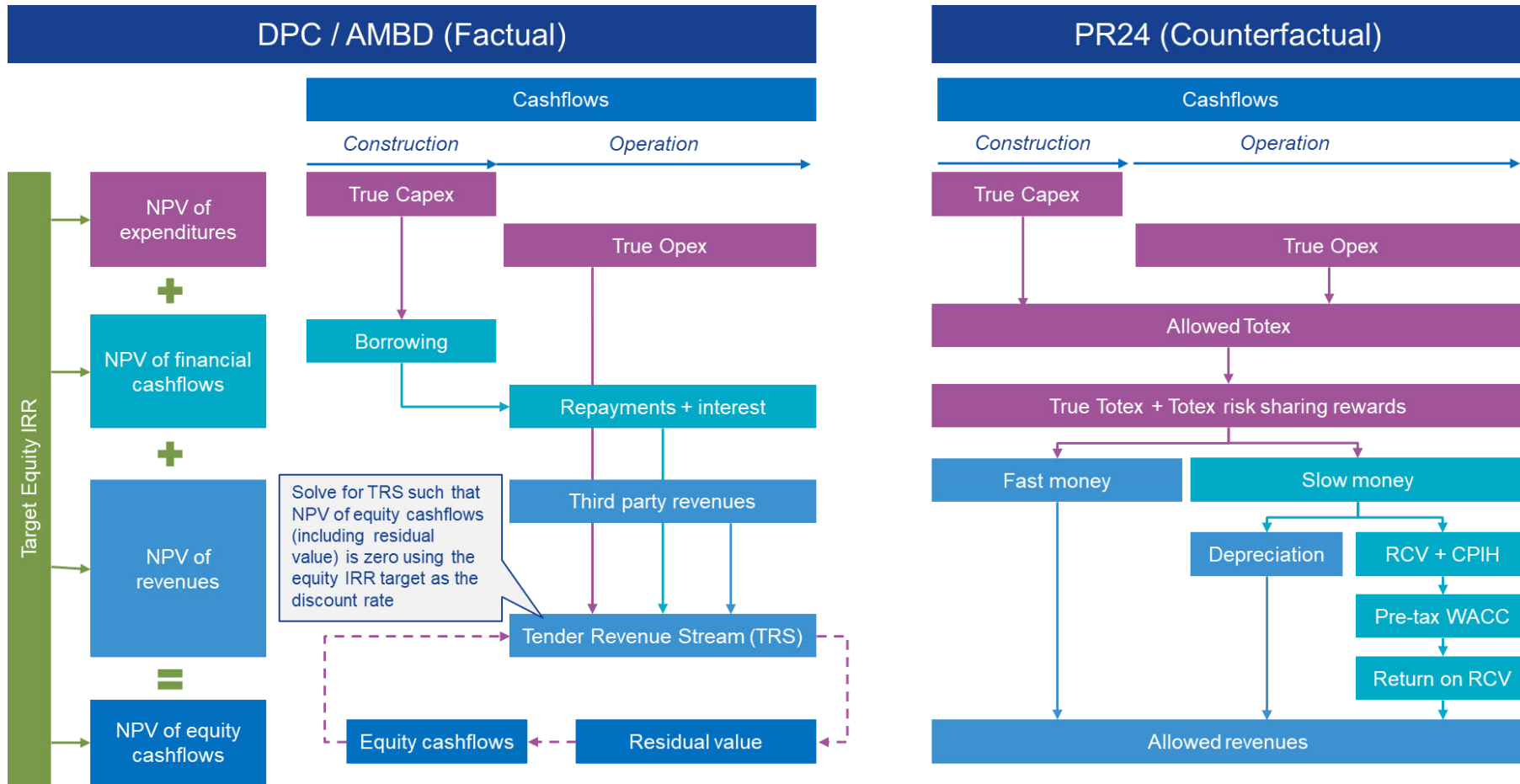
The VfM analysis is based on Ofwat's standard DPC assumptions from PR19 and their updated view on WACC and development cost assumptions for PR24. These standard assumptions considered for VfM analysis will need to be reviewed to assess whether any project specific adjustments are required to better reflect nature of these projects.

Quantitative VfM Assessment

In the Quantitative VfM model revenues are calculated under both delivery models and then discounted at the social time preference rate to produce an NPV. The NPV for the two delivery models and the key value drivers are compared to determine the VfM of each delivery model.

Both delivery models have different revenue and cost profiles. Revenues under the factual (DPC and market-based delivery) begin after the commissioning of the asset post-construction and assume a realistic project finance model, with a set tender revenue stream for the project. If improved contractual terms are identified with earlier payments, then these should be considered for the factual scenario. Revenues under the counterfactual (in-house) reflect the regulatory model and start revenues earlier, with costs to customers peaking at the end of construction. Figure 11: Quantitative VfM calculation **flow** illustrates the NPV calculations for both factual and counter factual scenarios.

Figure 11: Quantitative VfM calculation flow



Quantitative VfM model assumptions

The table below outlines Ofwat’s standard VfM assumptions (considered as ‘base-case’ scenario), as specified for PR19⁶ and updates to these assumptions as per PR24 draft determination, for the purpose of this analysis.

Table 37: Quantitative VfM model assumptions

Area	Item	DPC / market-based delivery (Factual) assumptions	In-house (Counterfactual) assumptions	Updates / changes as per PR24
Customer payments	Value	Determined by CAP/SPV contract payments and Appointee costs	Determined by Allowed Revenues from Price Review framework	N/A
	Timing	From first payment by customers which would usually be expected after asset completion. If improved contractual terms are identified with earlier payments, then these should be considered.	From first payment by customers which would usually be when the appointee starts collecting from customers as per its business plan ‘allowed revenue’ profile	Revenue commences on acceptance of the asset for factual case, except where an approach is demonstrated to deliver better VfM ⁷ .
Contract period	Length	Mid-case 25 years, Lower-case 20 years, Upper-case 50 years	Not needed	Duration of DPC/market-based delivery projects factual case to be in the region of 25 years with flexibility for longer durations e.g., 40 years +7
PV calculation	Period	From the start of the customer payments until the end of the asset life (or until there is no difference in asset value, maintenance, and finance costs).		N/A
	Discount rate	Discount rate of 3.5% real decreasing overtime (Based on HM Treasury Green Book Supplementary Guidance: discounting (3.5% 0-30 years, 3.0% 31-75 years, 2.5% 76-125 years)		N/A
Indexation		CPIH		N/A

⁶ [Ofwat VfM assumptions at PR19](#)

⁷ [DPC guidance publication version 230323 FINAL-1.pdf \(ofwat.gov.uk\)](#)

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Area	Item	DPC / market-based delivery (Factual) assumptions	In-house (Counterfactual) assumptions	Updates / changes as per PR24
Asset depreciation	Method	Straight line or as per companies' policy for asset type, the treatment should be consistent between DPC and in-house delivery.		Ofwat generally expect Appointees to use a straight-line basis for ViM assessment of factual and counterfactual case ⁷ .
	Depreciation rate	Mid-case – As per company policy for this asset type Lowercase +25% faster company policy rate	As per company policy for this asset type	
Financing costs	Cost of debt	Construction: forward Libor 6m swap + 220bps –240bps Operation: forward Gilt / Libor 6m swap + 120bps –140bps RCV bullet repayment: forward Gilt / Libor 6m swap + 120bps –140bps	As per company business plan	Ofwat's draft determination counterfactual WACC of 3.72% ⁸ has been adjusted to exclude embedded debt and applied during AMP8. WACC has been forecasted for period beyond AMP8.
	Cost of equity	Equity IRR (Real) 8% (Upper case 7%, lower case 10%)	As per company business plan	For each project a RCV weighted average WACC over the contract life has been used.
	Gearing	Mid case 85% (Upper case 90%, lower case 80%) after asset completion.	As per company business plan or Ofwat notional of 60%.	55% notional gearing for counterfactual case ⁹
Cost differentials	Capex efficiency saving	Mid case 10% (Uppercase +15%, lowercase 5%)	In-house is base case	N/A
	Opex efficiency saving	Mid case 10% (Uppercase +15%, lowercase 5%)	In-house is base case	N/A
	Additional Bidder Costs	Additional bidder costs of 2% of capital spend, (Upper case 1%, lowercase 3%)	In-house is base case	N/A

⁸ [Overview-of-Southern-Waters-PR24-draft-determinations.pdf \(ofwat.gov.uk\)](#) page 13

⁹ [PR24-draft-determinations-Aligning-Risk-and-Return.pdf \(ofwat.gov.uk\)](#) page 7

SRN-DDR-39 Market-Based Delivery - Appendix 1 Value for Money

Area	Item	DPC / market-based delivery (Factual) assumptions	In-house (Counterfactual) assumptions	Updates / changes as per PR24
	Procurement	Procurement costs of 1% of capital spend, (Uppercase 0.5%, Lowercase 2%)	In-house is base case	Procurement cost has been updated for factual case as per the methodology in PR24 draft determination ¹⁰ . Fixed procurement cost of £9m. Variable procurement cost of 0.55% of Totex.
	Management	Contract management costs £150k per annum. (Lowercase £300k per annum for high operational interaction schemes)	In-house is base case	This component is excluded from the factual case evaluation, as it is covered in the updated procurement cost in the PR24 draft determination.
Terminal value	Assumptions	Please disclose clearly any assumptions about terminal value	N/A	The asset is depreciated over its useful life under factual case. The undepreciated asset value at the end of the contract period is treated as the terminal value.

¹⁰ [PR24-draft-determinations-Major-projects-development-and-delivery-1.pdf \(ofwat.gov.uk\)](#) page 17.

Quantitative VfM sensitivity analysis

In addition to the base case analysis, sensitivity analyses were conducted for each project using Ofwat's standard DPC VfM assumptions established during PR19 as described in the Quantitative VfM model assumptions section. Where relevant, the variables have been updated in accordance with the revised PR24 methodology.

The competitive delivery cost, which refers to the procurement cost incurred by the incumbent water company when delivering the project through competitive delivery, has been revised. Previously set at 1% of capital expenditure (capex), this cost is now divided into two components: 1) a fixed cost of £9 million, which the company will incur regardless of project size, and 2) a variable portion of 0.55% of whole life total expenditure (totex).

The sensitivity analysis considers seven¹¹ selected variables for both low and high case scenarios. These variables are: 1) contract period, 2) equity IRR, 3) gearing, 4) capex efficiency, 5) opex efficiency, 6) competitive delivery costs, and 7) bidder costs. For each project, a total of 14 scenarios are analysed, in addition to the primary base case scenario.

For each variable, both the low and high case scenarios provide an output number that represents the difference in NPV terms. This difference is calculated by subtracting the costs to customers under in-house delivery from the costs under the DPC / market-based delivery model. The output is then interpreted using the following methodology:

- If the variable under high/low case shows a **positive difference** in NPV (indicating that DPC / market-based delivery model may deliver value for money), it will be given a **score of 1**.
- If the variable under high/low case is **not applicable**, it will be given a **score of 0**.
- If the variable under high/low case shows a **negative difference** in NPV (indicating that DPC / market-based delivery model may not deliver value for money), it will be given a **score of -1**.

The scores of all variables are then aggregated for each project, resulting in a single amount from a range of -14 to +14.

The NPV savings from the base case scenario are considered in round with the aggregate score from the sensitivity analysis. The dual-factor analysis strengthens the robustness of the initial VfM derived from the base case.

The overall score from the quantitative analysis is then categorised into the following three categories based on the combined consideration of the NPV savings from the base case and the sensitivity analysis results:

- **Unlikely to deliver value:** when both the base case NPV savings and the aggregated sensitivity score suggest that the project is not expected to deliver VfM for the customers under DPC / market-based delivery.

¹¹ Depreciation sensitivity analysis has been excluded from this report. Ofwat guidance is being followed by using the straight-line depreciation method. As a result, the acceleration of depreciation sensitivity has no effect, which would differ if reducing balance method was being used. Also, the residual value between in-house delivery and delivery are aligned. This decision is commercially motivated, aimed at preventing the manipulation of residual value to bias VfM results in favour of either in-house or market delivery.

- **Neither likely nor unlikely to deliver value:** when the base case NPV savings and the aggregated sensitivity score suggest mixed or inconclusive results in respect of expected VfM for the customers under DPC / market-based delivery.
- **Likely to deliver value:** when both the base case NPV savings and the aggregated sensitivity score suggest that the project is expected to deliver VfM for the customers under DPC / market-based delivery.

Qualitative VfM methodology

The qualitative assessment framework includes dimensions for assessing VfM, which lack a sufficient evidence base to be quantified. To avoid double counting, the qualitative assessment does not include dimensions already considered in the quantitative VfM assessment.

A non-exhaustive list of qualitative dimensions is based on precedents as well as the current understanding of DPC / market-based delivery and in-house delivery models. The methodology for quantifying these dimensions into an overall score is outlined below.

The qualitative assessment is completed for each of our DPC / market-based delivery projects. The dimensions are evaluated based on whether they deliver net benefit under DPC / market-based delivery compared to in-house delivery. Each dimension is considered from both a DPC / market-based delivery and an in-house delivery perspective to arrive at a net position. This method ensures that the unique characteristics of each project are considered.

Each dimension is assigned the following score based on its qualitative assessment:

- If the assessment indicates a likely **net benefit** of DPC / market-based delivery compared to in-house delivery, the dimension will be given a **score of 1**.
- If the assessment indicates **neither a benefit nor a disbenefit** of DPC / market-based delivery compared to in-house delivery, the dimension will be given a **score of 0**.
- If the assessment indicates a likely **net disbenefit** of DPC / market-based delivery compared to in-house delivery, the dimension will be given a **score of -1**.

The dimensions' score is aggregated for each project and allocated to one of the following three categories:

Table 38: qualitative assessment outcome range

Qualitative outcome	Unlikely to deliver VfM	Neutral	Likely to deliver VfM
Aggregate score	-12 to -5	-4 to 4	5 to 12

- If the total score for a project falls within the range of -12 to -5, then the project is **unlikely to deliver value** under DPC / market-based delivery.
- If the total score for a project falls within the range of -4 to 4, then the project is neutral, and it is **neither likely nor unlikely to deliver value** under DPC / market-based delivery.
- If the total score for a project falls within the range of 5 to 12, then the project is **likely to deliver value** under DPC / market-based delivery.

Dimensions

The proposed qualitative dimensions are outlined in Table 39: Qualitative VfM **dimensions**.

Table 39: Qualitative VfM dimensions

Dimension	Description
Deliverability capability	This dimension assesses the extent to which the project is part of our core and business-as-usual (BAU) activities, considering our <i>prior experience</i> in delivering projects of similar nature. It assesses the potential benefits and degree to which a third-party entity could bring benefits to project delivery beyond the in-house experience and expertise.
Deliverability capacity	This dimension assesses our capacity to complete the project on time and with available resources (human resource, capital etc.), considering the scale of our capital programme. It considers whether <i>securing additional resources is necessary to meet all capital delivery needs</i> and timescales while considering other projects, and whether the capacity constraints would require a different operating model or resource reallocation within our business.
Access to supply chain/contractors	This dimension assesses <i>the extent to which DPC / market-based delivery would allow for a wider range of providers</i> to deliver the necessary infrastructure, thereby benefiting the project.
Commercial attractiveness	This dimension assesses <i>the extent to which the project is commercially attractive</i> to us and the third-party entity, considering factors such as the project's risk profile, potential for revenue generation, and availability of financing. There is an implied assumption of an appropriate risk allocation for DPC, market-based delivery and the in-house delivery route.
Price discovery	This dimension assesses the extent to which the DPC / market-based delivery can achieve a more accurate <i>price discovery over the contract duration</i> . It considers factors such as the efficiency of pricing methods employed by water companies, typically through cost data benchmarking, and the potential for competition to reveal the true market price for projects. This process assumes appropriate risk allocation for DPC, market-based delivery and in-house delivery methods. A competitive procurement process, whether for major/minor works contracting, CAP/SPV, is expected to result in accurate price discovery for the associated scope.
Access to capital	This dimension assesses the extent of the delivery model's ability to access new sources of financing. It considers factors such as the potential to spread funding requirements across a <i>broader and more diverse group of investors</i> , and the potential to access <i>new sources of financing</i> that may not be available through traditional funding models.
Flexibility	This dimension assesses the <i>extent to which the delivery model allows for greater or lesser flexibility of management to respond to the needs of the project and other business/customer needs</i> . It considers the ability to adapt to regulatory changes, changing customer needs, and project requirements over time. This should be considered from both ours and third-party perspectives, as the delivery model may impact the flexibility and ability to adapt to core customer needs. Given the difficulty in quantifying additional flexibility, the benefit of this dimension should be considered in qualitative terms.
Risk identification and mitigation	This dimension assesses the extent to which a fair distribution of risks, along with a transparent risk management approach, is crucial for bidders to provide competitive bids. It also <i>considers the extent to which DPC / market-based delivery is likely to manage and transfer risk effectively</i> through commercial mechanisms.
Innovation in technology and delivery	This dimension assesses the extent to which the <i>project may incorporate innovative technologies and best practices in design, construction, and project management along with efficient delivery methods</i> . It considers the role of technology selection during both construction and operation phases, including capex renewal. The contracting approach is vital, involving the arrangement of contractors, methods for monitoring and managing suppliers, and the use of contractual incentive measures to ensure timely delivery. Knowledge sharing is a key factor to consider in assessing the benefit of innovation.

Dimension	Description
Environmental and social	This dimension assesses the <i>extent to which additional measures can be incorporated into the project that would go beyond our BAU objectives</i> , driving further benefits. This could involve implementing innovative solutions or practices that exceed the standard environmental and social objectives.
Management and coordination	This dimension assesses how <i>effectively management can coordinate the project delivery</i> given the interface and integration requirements.
Customer bill impact	This dimension assesses the delivery model's ability to <i>align customer payments with the services they receive</i> and its effectiveness in <i>minimising volatility in customer bills</i> .

Factors for consideration

The table below outlines factors for each dimension, presented as guiding questions to further assist the analysis. However, it is important to note that this list is not exhaustive, and other relevant factors may be considered for each dimension if they align with the definition of the given dimension. The assessment should be based on a comprehensive understanding of the project, considering its design maturity.

Table 40: Factors to consider for qualitative dimensions

Dimension	Factors for consideration
Deliverability capability	Is this type of project typically considered as part of our core capital programme services delivered to date? Do we have the appropriate skills, experience, and knowledge to deliver the project? Can DPC / market-based delivery provide access to the necessary skills and experience that are not readily available to us?
Deliverability capacity	Does the project under DPC / market-based delivery or in-house delivery face challenges related to delivery capacity? Are there sufficient resources to deliver the project on time and in budget? Can the project be delivered without impacting other capital delivery needs and timescales?
Access to supply chain/ contractors	Does the project need a wider range of providers to deliver the necessary infrastructure under the DPC / market-based delivery? Do we have access to a relevant supply chain for each project? Is the CAP/SPV likely to have local knowledge?
Commercial attractiveness	Does the project have a clear revenue generation potential? Are there any financing options available for the project? Are there key risks which third-party providers cannot bear and/or can appropriate mitigations be implemented? Is there evidence of interest from market participants in the project?
Price discovery	What is the potential for competition to determine the true market price for projects under each delivery model? Will the competitive bidding enable further price discovery? Is a reliable methodology used to estimate the costs of the DPC / market-based delivery project?
Access to capital	Are there any potential challenges or barriers to accessing a wider pool of capital under each delivery model? Does the delivery model influence the ability to access a wider and more diverse range of investors and sources of financing? What are the potential benefits of accessing a wider pool of capital?

Dimension	Factors for consideration
Flexibility	Do any project characteristics in combination with the DPC / market-based delivery suggest that we would have increased flexibility to adapt to customer needs?
Risk identification and mitigation	Can the long-term project risks be clearly identified? Is there a transparent risk management approach in place? Are there any mitigation measures planned after the risk is identified for DPC / market-based delivery?
Innovation in project delivery	Are there any foreseeable changes in technology or technical methods that could impact / improve the delivery of the project during the contract period? What is the extent to which the delivery model encourages the use of innovative technologies? Do these innovative technologies consider separate provisions to make projects under DPC / market-based delivery more scalable and adaptable? Does the project promote innovation in procurement and contracting? What is the extent to which the delivery model encourages innovation and knowledge sharing among third parties? Can incentive measures be used to drive timely delivery more widely? Are there any potential long-term benefits or drawbacks to these innovative approaches?
Environmental and social	Does the project allow CAP/SPV to implement additional measures that go beyond our BAU objectives, driving further environmental and/social benefits? How might changes in regulations impact the feasibility or effectiveness of each delivery method in the future?
Management and coordination	Are there additional systems and processes that are put in place for DPC / market-based delivery that are likely to increase the need for communication between multiple parties?
Customer bill impact	Is the profiling of payments for the asset advantageous for customers? Are payments which affect customer bills matched the service delivery? Does the payment profile reduce volatility of customer bills?

Combined assessment

The VfM assessment outcome is determined through a combination of both the quantitative and qualitative assessments. The qualitative assessment outcome is considered to either enhance or lessen the outcome of the quantitative assessment. For instance, if the outcome of both the quantitative and qualitative assessment is aligned, then the qualitative assessment enhances the outcome of the quantitative assessment. However, if the outcomes of the qualitative and quantitative assessment differ, the strength of the qualitative dimensions will need to be considered. This will be assessed on a case-by-case basis.

Aylesford and Ford re-use

Combined assessment

This section consolidates the key findings from both the quantitative and qualitative assessments to determine the overall VfM proposition. The table below summarises the overall outcome of the VfM assessment for the Aylesford and Ford project, combined as per the recommendation from the draft determination.

Table 41: Aylesford and Ford VfM analysis

Assessment	Outcome
Quantitative assessment	Likely to deliver value with a base case NPV savings of £23.4m (i.e., cost of DPC delivery being lower by 8.5%) and sensitivity analysis aggregate score of +14.
Qualitative Assessment	Likely to deliver value with an aggregate score of +7.
Combined VfM outcome	
Based on the robustness of the qualitative and quantitative VfM (including updated procurement cost and adjusted WACC), Aylesford and Ford combined are likely to deliver value.	

Quantitative VfM

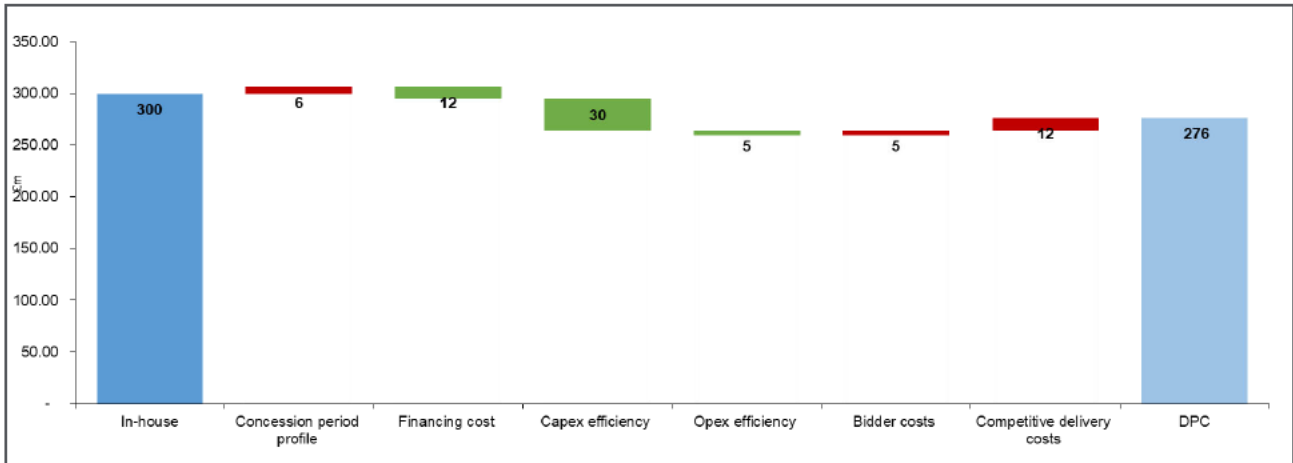
Delivery through DPC may offer savings (i.e., positive VfM) for Aylesford and Ford, with the NPV of DPC delivery cost being 8.5% lower than the NPV of in-house delivery costs for the base-case, as shown in the table below.

Table 42: Aylesford and Ford base case VfM

Base case VfM result	
NPV of cost of delivering the project In-house	£300m
NPV of cost of delivering the project under DPC model	£276m
Difference in NPV	£23.4m
Percentage difference in NPV	8.5%

The graph below illustrates the key value drivers for the VfM analysis of Aylesford and Ford base case. It provides a visual representation of the primary factors that influence the VfM outcome, highlighting how these drivers contribute to the overall value assessment for the project.

Figure 12: Aylesford and Ford value drivers



This value driver analysis considers a 20-year operation period, which is considered as a suitable duration for the contract period due to the requirement of significant repeat capex in the later years of a standard 25-year contract period. By reducing the contract period from the standard 25 years to 20 years and reprofiling the repeat capex, we thereby exclude the repeat capex requirement from the contract period. To fund the repeat capex requirement during the contract period substantial expenditure will be incurred that would necessitate external financing or maintaining a cash reserve throughout the contract period. Both options are likely to lead to inefficiencies within the DPC model, as there would be insufficient time to either repay the loan or adequately fund the cash reserve. Additionally, the low-case contract period sensitivity is updated to 15 years in line with the change in base case assumptions.

The key value drivers under the DPC model are the benefits from cost efficiencies (£30m from capex and £5m from opex efficiencies) and cheaper financing by £12m. However, the 20-year operation period offers limited scope for potential opex savings compared to capex savings.

These benefits are to some extent offset by the increased financing cost as well as additional bidder and competitive delivery costs, which include both fixed and variable procurement cost, that would not arise if we were to deliver the project in-house.

The NPV for the DPC model appears to remain positive in all sensitivity scenarios, providing a positive VfM. The table below summarises the quantitative assessment results for each of the seven variables.

Table 43: Aylesford and Ford sensitivity analysis

Variable name	Assumptions under different cases			In-house NPV – DPC NPV	
	Low	Base	High	Low case	High Case
Contract period	15	20	40	£21.0m	£38.3m
Equity IRR	12%	10%	9%	£9.5m	£30.3m
Gearing	80%	85%	90%	£13.1m	£33.8m
Capex efficiency	5%	10%	15%	£8.1m	£38.9m
Opex efficiency	5%	10%	15%	£20.9m	£26.1m
Competitive delivery cost	1.00%	0.55%	0.25%	£22.6m	£23.8m
	£10,000k	£9,000k	£8,000k		

Variable name	Assumptions under different cases			In-house NPV – DPC NPV	
	Low	Base	High	Low case	High Case
Bidder costs	3%	2%	1%	£20.8m	£26.2m
Aggregate sensitivity score The scores of all variables are aggregated based on the methodology in the Quantitative VfM section. There are fourteen cases indicating a positive VfM (+14) and no cases indicating a negative VfM (0). The Aylesford and Ford project has an aggregate score of +14 from within a range of -14 to +14.					

Overall, the quantitative VfM assessment indicates that the Aylesford and Ford project is likely to deliver value under the DPC model.

Qualitative VfM

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under the DPC compared to in-house delivery. The table below sets out the detailed qualitative assessment of the Aylesford and Ford project combined against each dimension.

Table 44: Aylesford and Ford qualitative VfM assessment

Dimension	Analysis	Score
1. Deliverability capability	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Water re-use projects are considered to be new schemes in the UK sector. - While we lack direct experience delivering the WRP element of the water re-use projects, we possess expertise in delivering certain elements of the overall scheme such as laying pipes, conducting surveys, and obtaining permits. - By leveraging existing capabilities and a strong network of contractors and suppliers, we are equipped to manage the project in-house. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - There is a pool of companies with experience and proven expertise of delivering this type of projects internationally. - Under this model, companies have the option to collaborate and form consortia to bring in all the required expertise, including experts not readily available within our network. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Despite the limited experience with water re-use projects specifically, both delivery models demonstrate comparable capability. We can leverage our existing expertise and network, while DPC offers access to specialised international expertise. - Therefore, the assessment presents no significant benefits or disbenefits between DPC and in-house delivery in terms of overall capability. 	0
2. Deliverability capacity	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - The re-use projects represent a smaller-scale initiative within the overall PR24 capital programme. - We bear the responsibility for the successful delivery of the entire program, demanding a broader focus beyond the bundled re-use projects. - Without mitigation measures, we will face a substantial workload which places pressure on capacity and resource allocation and makes it crucial to ensure the right resources are assigned to each project for timely delivery. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - A CAP entity would focus solely on the re-use projects, ensuring dedicated attention and resources. - Bringing the project to the market necessitates expertise beyond our everyday capacity. The dedicated team with a range of technical, commercial, and legal 	1

Dimension	Analysis	Score
<p>3. Access to supply chain/ contractors</p>	<p>expertise is required to develop the proposals that would allow selection of a right partner to deliver the project.</p> <ul style="list-style-type: none"> - Bidders, on the other hand, possess extensive experience in bidding for and delivering PPP/PFI contracts, enabling them to efficiently assemble the necessary partners and subcontractors for successful project execution. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - DPC offers a strategic solution to mitigate potential resource constraints for us. - Based on the above, the assessment suggests a likely net benefit favouring the DPC over in-house delivery due to the dedicated focus it brings to the project. <p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have an extensive network of existing supply chain and contractor frameworks established over previous AMPs, which could be utilised for the re-use projects. However, the overall increase in capital programmes across our business and other water companies may lead to capacity constraints among existing partners. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The CAP has the potential to introduce a diverse pool of suppliers beyond our current network, expanding options and mitigating potential constraints. Tender evaluation criteria can be tailored to promote supplier diversity. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - DPC can potentially identify a wider supply chain, which could enhance competitive pressure and value for customers. This potential benefit is reflected in the assessment's likely net benefit for DPC. 	<p>1</p>
<p>4. Commercial attractiveness</p>	<p><u>In-house considerations:</u></p> <p>The main consideration for in-house delivery is that the work needs to be attractive to our supply chain while delivering efficient costs and value for money.</p> <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The commercial attractiveness of the project depends on the contract terms. - Success under this model necessitates a clear and reliable payment mechanism, along with arrangements enabling the CAP to secure both equity and competitive debt financing. - Commercial attractiveness has the potential to enhance price discovery and access to capital, further increasing the financial benefits driven by the DPC. - Market engagement has shown a positive sentiment for the project subject to final risk allocations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring DPC due to its potential to attract private investment and optimise financial arrangements, leading to a more commercially attractive proposition for both parties compared to in-house delivery. 	<p>1</p>
<p>5. Price discovery</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have in-depth knowledge of contractor costs for various projects due to our experience and existing supplier frameworks. - Mini competitions within these frameworks can be employed to drive some level of price discovery. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - A competitive tender process ensures that pricing proposals from bidders would be based on reliable methodologies. - The pricing put forward by CAP bidders is expected to drive the price discovery but also reflect their view on the overall scheme delivery risk. - Under the late tender model, the price discovery process will encompass all design, construction, finance, operating and maintaining costs over the contract period. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - In-house delivery is expected to yield limited project price discovery. - Therefore, DPC presents a likely net benefit due to the competitive tender process and its potential to establish benchmark price discovery over the contract duration. 	<p>1</p>

Dimension	Analysis	Score
6. Access to capital	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We would be responsible for raising capital for projects within the PR24 programme, including Aylesford and Ford. - We have established access to capital sources that have historically supported our capital programme delivery and operations. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The bidders can engage with a diverse range of investors in the market, exploring various financing options to supplement project costs. - This approach facilitates the identification of new funding sources with potentially more competitive terms. - Financing would be specifically tailored to the Aylesford and Ford project, allowing efficiencies which includes higher gearing as compared to notional company. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring DPC due to its potential to access a wider pool of capital, secure more competitive financing terms, and leverage a higher proportion of gearing for the project. 	1
7. Flexibility	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We retain complete control and can modify project design, features, and customer outputs at any stage of the project lifecycle. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - While changes to the project are still possible under DPC, a structured mechanism would need to be established to manage such modifications, inherently reducing flexibility compared to in-house delivery. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The scope of potential changes that the contractual terms would allow could be limited and it will need to be structured in a way that does not negatively impact the CAP's ability to access competitive financing. - Therefore, the assessment indicates a likely net disbenefit of DPC in the context of flexibility, as it would restrict our ability to adapt and modify the project compared to the complete control afforded by in-house delivery. 	-1
8. Risk identification and mitigation	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - As the project progresses, we would implement a comprehensive risk management process to identify and address potential challenges. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - DPC necessitates a more rigorous effort to identify, define, and allocate risks effectively, assigning responsibility to the party best equipped to manage them. This additional effort leads to a more comprehensive and proactive risk management approach including appropriate mitigations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both models allow for clear risk identification. However, DPC's emphasis on thorough risk allocation and the involvement of specialised expertise aids to facilitate a more robust risk management framework. - Therefore, the assessment indicates a likely net benefit favouring DPC due to its comprehensive and proactive approach to risk identification and mitigation. 	1
9. Innovation in technology and delivery	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We will be responsible to select and implement technology, identify novel solutions, and establish new processes, leveraging our experience and practices to deliver the project. <p><u>DPC considerations:</u></p>	1

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - The late tender model fosters innovation throughout the contract period, from design and construction to operations and maintenance. - Experienced bidders (those undertaking international re-use projects) can leverage lessons learned and best practices to enhance project delivery efficiency. - Contractual incentives can encourage the CAP to implement novel approaches, while knowledge-sharing provisions allow us to benefit from their expertise and experience. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - DPC offers additional avenues for innovation in delivery compared to the in-house approach. The potential for incorporating international best practices, incentivising innovation through contracts, and facilitating knowledge sharing creates a more dynamic and adaptable delivery environment. - Therefore, the assessment indicates a likely net benefit favouring DPC due to the enhanced opportunities for innovation in project delivery. 	
<p>10. Environmental and social</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We are committed to delivering the project in accordance with high environmental and social standards. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - We can leverage the contract terms to incentivise the CAP to exceed standard environmental and social objectives. This could include targets for energy efficiency, carbon reduction, community engagement, and local employment opportunities. - The CAP, with its diverse network and expertise, can actively promote local employment and knowledge transfer which contribute to the project's positive social impact. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - DPC presents an opportunity to go beyond our baseline obligations and goals, achieving a more significant positive environmental and social impact. <p>Therefore, the assessment indicates a likely net benefit favouring DPC due to potential for enhanced environmental and social outcomes.</p>	<p>1</p>
<p>11. Management and coordination</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have direct control over the design, infrastructure, and systems, ensuring optimal integration of the project within its existing operations. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The CAP is an additional party involved in the project delivery, necessitating careful coordination. To ensure smooth operations throughout the contract's duration, specific processes and procedures need to be established. - Effective collaboration between us and the CAP is essential to manage interface risks. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - While in-house delivery offers a clear advantage in terms of integration due to direct control over all aspects of the project, DPC can achieve similar levels of integration with careful planning and collaboration. - The assessment shows that both approaches share the same physical interfaces. However, involving additional parties in DPC can result in net disbenefit. 	<p>-1</p>
<p>12. Customer bill impact</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Consumers will incur costs related to asset delivery before the asset becomes operational. Additionally, the impact on billing will be volatile throughout the asset's lifecycle, as it will require approval at each AMP. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - Payments to the CAP are to commence upon service delivery, thereby aligning consumer costs with the services received. Additionally, consumer costs will be less volatile as the ARD will be determined at the time of contract award for the whole contract duration. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment shows a net benefit for DPC in terms of customers bill impact. 	<p>1</p>

Dimension	Analysis	Score
<p>Aggregate score</p> <p>With an aggregate score of +7 from within a range of -12 to +12, the Aylesford and Ford project are likely to deliver value under the DPC model.</p>		

Sandown re-use

Combined assessment

This section consolidates the key findings from both the quantitative and qualitative assessments to determine the overall VfM proposition. The table below summarises the overall outcome of the VfM assessment for the Sandown project.

Table 45: Sandown combined VfM analysis

Assessment	Outcome
Quantitative assessment	Unlikely to deliver value with a base case NPV cost of £13.5m (i.e., cost of DPC delivery being higher by 7.6%) and sensitivity analysis aggregate score of -12.
Qualitative Assessment	Neither likely nor unlikely to deliver value with an aggregate score of 1.
Combined VfM outcome Based on the robustness of the qualitative and quantitative VfM (including updated procurement cost and adjusted WACC), the Sandown project is unlikely to deliver value .	

Quantitative VfM

The quantitative VfM analysis evaluates the sensitivity of seven selected variables under both low and high-case sensitivities. This analysis produces an output that reflects the difference in the NPV of the cost to deliver the project via DPC versus in-house.

Delivery through DPC does not offer savings (i.e., negative VfM) for Sandown, with the NPV of DPC delivery costs being 7.6% higher than the NPV of in-house delivery costs for the base case, as shown in the table below.

Table 46: Sandown base case VfM

Base case VfM result	
NPV of cost of delivering the project In-house	£166m
NPV of cost of delivering the project under DPC model	£179m
Difference in NPV	(£13.5m)
Percentage difference in NPV	(7.6%)

The graph below illustrates the key value drivers for the VfM analysis of the Sandown base case. It provides a visual representation of the primary factors that influence the VfM outcome, highlighting how these drivers contribute to the overall value assessment for the project.

Figure 13: Sandown value drivers



This value driver analysis considers a 20-year operation period, which is considered as a suitable duration for the contract period due to the requirement of significant repeat capex in the later years of a standard 25-year contract period. By reducing the contract period from the standard 25 years to 20 years and reprofiling the repeat capex, we thereby exclude the repeat capex requirement from the contract period. To fund the repeat capex requirement during the contract period substantial expenditure will be incurred that would necessitate external financing or maintaining a cash reserve throughout the contract period. Both options are likely to lead to inefficiencies within the DPC model, as there would be insufficient time to either repay the loan or adequately fund the cash reserve. Additionally, the low-case contract period sensitivity is updated to 15 years in line with the change in base case assumptions.

Under the very late tender model we will design and construct the asset; therefore, we are not assuming any capex efficiencies in the factual scenario. Additionally, the increase from £1m to £9m of the fixed portion of the competitive delivery cost as per PR24 draft determinations, negatively impacts the VfM analysis. Therefore, undertaking DPC delivery for Sandown is not considered to result in value for customers.

The Sandown VfM model was stress tested further under the selected seven sensitivity variables. The in-house solution appears to be more favourable over DPC delivery for Sandown. The table below summarises the quantitative assessment results.

Table 47: Sandown quantitative VfM analysis

Variable name	Assumptions under different cases			In-house NPV – DPC NPV	
	Low	Base	High	Low case	High Case
Contract period	15	20	40	(£13.4m)	(£14.5m)
Equity IRR	12%	10%	9%	(£24.6m)	(£8.3m)
Gearing	80%	85%	90%	(£19.9m)	(£3.8m)
Capex efficiency	-	-	-	-	-
Opex efficiency	5%	10%	15%	(£14.5m)	(£12.6m)
Competitive delivery cost	1.00%	0.55%	0.25%	(£15.6m)	(£11.8m)
	£10,000k	£9,000k	£8,000k		
Bidder costs	3%	2%	1%	(£15.5m)	(£11.6m)

Variable name	Assumptions under different cases			In-house NPV – DPC NPV	
	Low	Base	High	Low case	High Case
Aggregate sensitivity score					
The scores of all variables are aggregated based on the methodology in the Quantitative VfM section. There is no case indicating a positive VfM (0) and twelve cases indicating a negative VfM (-12). The Sandown project has an aggregate score of -12 from within a range of -14 to +14.					

Overall, the quantitative VfM assessment indicates that the Sandown project is unlikely to deliver value under the DPC model.

Qualitative VfM

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under the DPC compared to the in-house delivery model. The table below sets out the detailed qualitative assessment of the Sandown project against each dimension.

Table 48: Sandown qualitative VfM analysis

Dimension	Analysis	Score
1. Deliverability capability	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Water re-use projects are considered to be new schemes in the UK sector. - While we lack direct experience delivering the Water Recycling Plant (WRP) element of water re-use projects, we possess expertise in delivering certain elements of the overall scheme such as laying pipes, conducting surveys, and obtaining permits. - By leveraging existing capabilities and a strong network of contractors and suppliers, we are equipped to manage the project in-house. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - There is a pool of companies with experience and proven expertise of delivering this type of projects internationally. - Under this model, companies have the option to collaborate and form consortia to bring in all the required expertise, including experts not readily available within our network. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Despite the limited experience with water re-use projects specifically, both delivery models demonstrate comparable capability under the very late tender model. We can leverage our existing expertise and network, while DPC offers access to specialised international expertise for the operations period. - Therefore, the assessment presents no significant benefits or disbenefits between DPC and in-house delivery in terms of overall capability. 	0
2. Deliverability capacity	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - The Sandown re-use represents a single smaller-scale initiative within the overall PR24 capital programme. - We bear the responsibility for the successful delivery of the entire program, demanding a broader focus beyond the individual Sandown project. - Without mitigation measures, we will face a substantial workload which places pressure on capacity and resource allocation and makes it crucial to ensure the right resources are assigned to each project for timely delivery. 	0

Dimension	Analysis	Score
	<p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - Under the very late tender model, we assume responsibility for the successful construction of the asset, so DPC does not mitigate our capacity constraints. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The capacity demand is assumed to be equivalent for DPC and in-house delivery. Both delivery models rely on us constructing the asset. The assessment presents no significant benefits or disbenefits between DPC and in-house delivery. 	
<p>3. Access to supply chain/ contractors</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have an extensive network of existing supply chain and contractor frameworks established over previous AMPs, which could be utilised for the Sandown re-use project. - However, the overall increase in capital programmes across our business and other water companies may lead to capacity constraints among existing partners. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The CAP has the potential to introduce a diverse pool of suppliers beyond our current network, expanding options and mitigating potential constraints. Tender evaluation criteria can be tailored to promote supplier diversity. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Considering the project’s expected very late tender model, the benefits of DPC model regarding supply chain access would be realised only during the operational phase. - Therefore, the assessment presents no significant benefits or disbenefits between DPC and in-house delivery in the context of supply chain access during the initial project phases. 	<p>0</p>
<p>4. Commercial attractiveness</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Our primary driver is compliance with the requirements set out in our revised draft Water Resource Management Plan (rdWRMP) 2024, prioritising regulatory adherence, and to ensure value for money delivery. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The commercial attractiveness of the project depends on the contract terms. - Success under this model necessitates a clear and reliable payment mechanism, along with arrangements enabling the CAP to secure both equity and competitive debt financing for a more typical transaction. - Commercial attractiveness has the potential to enhance price discovery and access to capital, further increasing the financial benefits driven by the DPC. - Market engagement indicates limited value add potential by the CAP as we are to deliver the asset. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates no significant benefits or disbenefits of either delivery models due to the limited interest and perceived value add in the very late tender model. - Different market players are interested in projects at different stages of their lifecycle. Therefore, appetite for the project will have to be reassessed closer to the time of a transaction. 	<p>0</p>
<p>5. Price discovery</p>	<p><u>In-house considerations:</u></p>	<p>1</p>

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - We have in-depth knowledge of contractor costs for various projects due to our experience and existing supplier frameworks. - Mini competitions within these frameworks can be employed to drive some level of price discovery. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - A competitive tender process ensures that pricing proposals from bidders would be based on reliable methodologies. - The pricing put forward by CAP bidders is expected to drive the price discovery but also reflect their view on the overall scheme delivery risk. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - In-house delivery is expected to yield limited project price discovery. - Therefore, DPC presents a likely net benefit due to the competitive tender process and its potential to establish benchmark price discovery over the contract duration. 	
<p>6. Access to capital</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We would be responsible for raising capital for projects within the PR24 programme, including Sandown. - We have established access to capital sources that have historically supported our capital programme delivery and operations. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The bidder can engage with a diverse range of investors in the market, exploring various financing options to supplement project costs. - This approach facilitates the identification of new funding sources with potentially more competitive terms. - Access to capital during for the construction phase will be equivalent to in-house delivery model. - Financing during operations as provided by the CAP would be specifically tailored to the Sandown project, allowing efficiencies which include higher gearing as compared to a notional company. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring DPC due to its potential to access a wider pool of capital, secure more competitive financing terms, and a higher gearing for the project. 	<p>1</p>
<p>7. Flexibility</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We retain complete control and can modify project design, features, and customer outputs at any stage of the project lifecycle. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - We retain complete control and can modify project design, features, and customer outputs during construction phase. - While changes to the project are still possible under DPC contract, a structured mechanism would need to be established to manage such modifications, inherently reducing flexibility compared to in-house delivery during the operation phase. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The scope of potential changes that the contractual terms would allow could be limited and it will need to be structured in a way that does not negatively impact the CAP's ability to access competitive financing. 	<p>-1</p>

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - Therefore, the assessment indicates a likely net disbenefit of DPC in the context of flexibility, as it would restrict our ability to adapt and modify the project compared to the complete control afforded by in-house delivery during the operation phase. 	
<p>8. Risk identification and mitigation</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - As the project progresses, we would implement a comprehensive risk management process to identify and address potential challenges. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - DPC necessitates a more rigorous effort to identify, define, and allocate risks effectively, assigning responsibility to the party best equipped to manage them. This additional effort leads to a more comprehensive and proactive risk management approach including appropriate mitigations. However, it would only be limited to the operation phase of Sandown. - Under the very late tender model, we would manage risks during construction. Bidders would require us to provide guarantees on the asset performance post commissioning. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both models allow for clear risk identification. DPC emphasis on thorough risk allocation and the involvement of specialised expertise aids to facilitate a more robust risk management framework. However, the scope is limited to operation phase only. - Therefore, the assessment presents no significant benefits or disbenefits between DPC and in-house delivery. 	<p>0</p>
<p>9. Innovation in technology and delivery</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We will be responsible to select and implement technology, identify novel solutions, and establish new processes, leveraging our experience and practices to deliver the project. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The very late tender model limits the scope for innovation that the CAP can introduce to the operations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - In both models, we would be the primary driver of technology implementation, and the very late tender model limits opportunities for post-implementation changes. - Therefore, the assessment indicates no significant benefits or disbenefits are likely to be realised. 	<p>0</p>
<p>10. Environmental and social</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We are committed to delivering the project in accordance with high environmental and social standards. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - Under the very late tender model, the CAP will have limited opportunities to exceed standard environmental and social objectives during operations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates no significant benefits or disbenefits that are likely to be realised due to limited potential for incorporating enhanced environmental and social standards. 	<p>0</p>
<p>11. Management and coordination</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have direct control over the design, infrastructure, and systems, ensuring optimal integration of the project within our existing operations. 	<p>0</p>

Dimension	Analysis	Score
	<p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The very late tender model mitigates management coordination risk associated with the CAP, as we retain control of the design and construction phases. This ensures alignment with existing infrastructure and systems. The scope of operations is set during the project development and construction phases. Limited coordination would be required during operations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both delivery models present minimal risks due to our control over the design and construction phases. - Therefore, the assessment presents no significant benefits or disbenefits between DPC and in-house delivery in terms of integration and interoperability. 	
<p>12. Customer bill impact</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Consumers would bear the costs associated with asset delivery as they are incurred throughout the whole life of the project. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - Consumers would bear the costs associated with asset delivery as they are incurred throughout the whole life of the project. - The cost of acquiring the asset from us would be factored into the CAP's financial structure, ultimately reflected in the pricing passed on to consumers. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both models exhibit similar cost profiles during the construction phase, with consumers bearing the financial burden as assets are delivered. - Therefore, the assessment presents no significant benefits or disbenefits between DPC in terms of short-term affordability for customers. 	<p>0</p>
<p>Aggregate score</p> <p>With an aggregate score of 1 from within a range of -12 to +12, the Sandown project is neither likely nor unlikely to deliver value under the DPC model.</p>		

Sittingbourne re-use

Combined assessment

This section consolidates the key findings from both the quantitative and qualitative assessments to determine the overall VfM proposition.

The table below summarises the overall outcome of the VfM assessment for the Sittingbourne project.

Table 49: Sittingbourne combined VfM analysis

Assessment	Outcome
Quantitative assessment	Likely to deliver value with a base case NPV savings of £4.3m (i.e., cost of DPC delivery being lower by 3.2%) and sensitivity analysis aggregate score of +10.
Qualitative Assessment	Likely to deliver value with an aggregate score of +7.
Combined VfM outcome	
Based on the robustness of the qualitative and quantitative VfM (including updated procurement cost and adjusted WACC), the Sittingbourne project is likely to deliver value.	

Quantitative VfM assessment

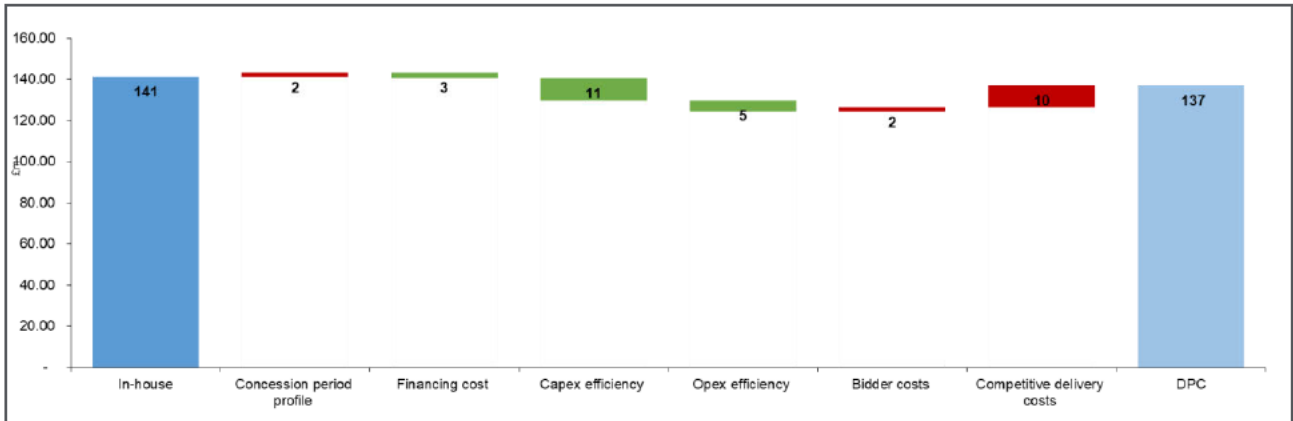
Delivery through DPC may offer savings (i.e., positive VfM) for the project, with the NPV of DPC delivery cost being 3.2% lower than the NPV of in-house delivery costs for the base-case, as shown in the table below.

Table 50: Sittingbourne base case VfM

Base case VfM result	
NPV of cost of delivering the project In-house	£141m
NPV of cost of delivering the project under DPC model	£137m
Difference in NPV	£4.3m
Percentage difference in NPV	3.2%

The graph below illustrates the key value drivers for the VfM analysis of the project's base case scenario. It provides a visual representation of the primary factors that influence the VfM outcome, highlighting how these drivers contribute to the overall value assessment for the project.

Figure 14: Sittingbourne value drivers



This value driver analysis considers a 20-year operation period, which is considered as a suitable duration for the contract period due to the requirement of significant repeat capex in the later years of a standard 25-year contract period. By reducing the contract period from the standard 25 years to 20 years and reprofiling the repeat capex, we thereby exclude the repeat capex requirement from the contract period. To fund the repeat capex requirement during the contract period substantial expenditure will be incurred that would necessitate external financing or maintaining a cash reserve throughout the contract period. Both options are likely to lead to inefficiencies within the DPC model, as there would be insufficient time to either repay the loan or adequately fund the cash reserve. Additionally, the low-case contract period sensitivity is updated to 15 years in line with the change in base case assumptions.

The key value drivers under the DPC model are the benefits from cost efficiencies (£11m from capex and £5m from opex efficiencies) and cheaper financing costs by £3m. However, the 20-year operation period offers limited scope for potential opex savings compared to capex savings.

However, these benefits are to some extent offset by the additional bidder and competitive delivery costs, which include both fixed and variable procurement cost, that would not arise if we were to deliver the project in-house.

The NPV for the DPC model appears to remain positive in all sensitivity scenarios, providing a positive VfM, except in the low-case equity IRR and capex efficiency sensitivities where in-house delivery is more favourable. The table below summarises the quantitative assessment results for each of the seven variables.

Table 51: Sittingbourne quantitative VfM analysis

Variable name	Assumptions under different cases			In-house NPV – DPC NPV	
	Low	Base	High	Low case	High Case
Contract period	15	20	40	£3.1m	£14.4m
Equity IRR	12%	10%	9%	(£0.9m)	£6.9m
Gearing	80%	85%	90%	£0.6m	£8.0m
Capex efficiency	5%	10%	15%	(£1.3m)	£9.9m
Opex efficiency	5%	10%	15%	£1.7m	£6.9m
Competitive delivery cost	1.00%	0.55%	0.25%	£2.3m	£6.0m
	£10,000k	£9,000k	£8,000k		

Variable name	Assumptions under different cases			In-house NPV – DPC NPV	
	Low	Base	High	Low case	High Case
Bidder costs	3%	2%	1%	£3.3m	£5.3m
Aggregate sensitivity score The scores of all variables are aggregated based on the methodology in the Quantitative VfM section. There are twelve cases indicating a positive VfM (+12) and two case indicating a negative VfM (-2). The Sittingbourne project has an aggregate score of +10 from within a range of -14 to +14.					

Overall, the quantitative VfM assessment indicates that the Sittingbourne project is likely to deliver value under the DPC model.

Qualitative VfM

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under the DPC compared to in-house delivery. The table below sets out the detailed qualitative assessment of the Sittingbourne project against each dimension.

Table 52 Sittingbourne qualitative VfM analysis

Dimension	Analysis	Score
1. Deliverability capability	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Water re-use projects are considered to be new schemes in the UK sector. - While we lack direct experience delivering the WRP element of the water re-use projects, we possess expertise in delivering certain elements of the overall scheme such as laying pipes, conducting surveys, and obtaining permits. - By leveraging existing capabilities and a strong network of contractors and suppliers, we are equipped to manage the project in-house. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - There is a pool of companies with experience and proven expertise of delivering this type of projects internationally. - Under this model, companies have the option to collaborate and form consortia to bring in all the required expertise, including experts not readily available within our network. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Despite the limited experience with water re-use projects specifically, both delivery models demonstrate comparable capability. We can leverage our existing expertise and network, while DPC offers access to specialised international expertise. - Therefore, the assessment presents no significant benefits or disbenefits between DPC and in-house delivery in terms of overall capability. 	0
2. Deliverability capacity	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - The re-use project represents a single smaller-scale initiative within the overall PR24 capital programme. 	1

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - We bear the responsibility for the successful delivery of the entire program, demanding a broader focus beyond the individual project. - Without mitigation measures, we will face a substantial workload which places pressure on capacity and resource allocation and makes it crucial to ensure the right resources are assigned to each project for timely delivery. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - A CAP entity would focus solely on the re-use project, ensuring dedicated attention and resources. - Bringing the project to the market necessitates expertise beyond our everyday capacity. The dedicated team with a range of technical, commercial, and legal expertise is required to develop the proposals that would allow selection of a right partner to deliver the project. - Bidders, on the other hand, possess extensive experience in bidding for and delivering PPP/PFI contracts, enabling them to efficiently assemble the necessary partners and subcontractors for successful project execution. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - DPC offers a strategic solution to mitigate potential resource constraints for us. - Based on the above, the assessment suggests a likely net benefit favouring the DPC over in-house delivery due to the dedicated focus it brings to the project. 	
<p>3. Access to supply chain/ contractors</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have an extensive network of existing supply chain and contractor frameworks established over previous AMPs, which could be utilised for the re-use project. <p>However, the overall increase in capital programmes across our company and other water companies may lead to capacity constraints among existing partners.</p> <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The CAP has the potential to introduce a diverse pool of suppliers beyond our current network, expanding options and mitigating potential constraints. Tender evaluation criteria can be tailored to promote supplier diversity. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - DPC can potentially identify a wider supply chain, which could enhance competitive pressure and value for customers. This potential benefit is reflected in the assessment's likely net benefit for DPC. 	<p>1</p>
<p>4. Commercial attractiveness</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Our primary driver is, prioritising regulatory compliance and ensuring value for money delivery via our supply chain. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The commercial attractiveness of the project depends on the contract terms. 	<p>1</p>

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - Success under this model necessitates a clear and reliable payment mechanism, along with arrangements enabling the CAP to secure both equity and competitive debt financing. - Commercial attractiveness has the potential to enhance price discovery and access to capital, further increasing the financial benefits driven by the DPC. - Market engagement has shown a positive sentiment for the project subject to final risk allocations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring DPC due to its potential to attract private investment and optimise financial arrangements, leading to a more commercially attractive proposition for both parties compared to in-house delivery. 	
<p>5. Price discovery</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have in-depth knowledge of contractor costs for various projects due to our experience and existing supplier frameworks. - Mini competitions within these frameworks can be employed to drive some level of price discovery. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - A competitive tender process ensures that pricing proposals from bidders would be based on reliable methodologies. - The pricing put forward by CAP bidders is expected to drive the price discovery but also reflect their view on the overall scheme delivery risk. <p>Under the late tender model, the price discovery process will encompass all design, construction, finance, operating and maintaining costs over the contract duration.</p> <p><u>Net position:</u></p> <ul style="list-style-type: none"> - In-house delivery is expected to yield limited project price discovery. - Therefore, DPC presents a likely net benefit due to the competitive tender process and its potential to establish benchmark price discovery over the contract duration. 	<p>1</p>
<p>6. Access to capital</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We would be responsible for raising capital for projects within the PR24 programme, including Sittingbourne. - We have established access to capital sources that have historically supported our capital programme delivery and operations. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The bidders can engage with a diverse range of investors in the market, exploring various financing options to supplement project costs. - This approach facilitates the identification of new funding sources with potentially more competitive terms. - Financing would be specifically tailored to the Sittingbourne project, allowing efficiencies which include higher gearing as compared to a notional company. <p><u>Net position:</u></p>	<p>1</p>

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring DPC due to its potential to access a wider pool of capital, secure more competitive financing terms, and leverage a higher proportion of gearing for the project. 	
<p>7. Flexibility</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We retain complete control and can modify project design, features, and customer outputs at any stage of the project lifecycle. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - While changes to the project are still possible under DPC, a structured mechanism would need to be established to manage such modifications, inherently reducing flexibility compared to in-house delivery. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The scope of potential changes that the contractual terms would allow could be limited and it will need to be structured in a way that does not negatively impact the CAP's ability to access competitive financing. - Therefore, the assessment indicates a likely net disbenefit of DPC in the context of flexibility, as it would restrict our ability to adapt and modify the project compared to the complete control afforded by in-house delivery. 	<p>-1</p>
<p>8. Risk identification and mitigation</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - As the project progresses, we would implement a comprehensive risk management process to identify and address potential challenges. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - DPC necessitates a more rigorous effort to identify, define, and allocate risks effectively, assigning responsibility to the party best equipped to manage them. This additional effort leads to a more comprehensive and proactive risk management approach including appropriate mitigations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both models allow for clear risk identification. However, DPC's emphasis on thorough risk allocation and the involvement of specialised expertise aids to facilitate a more robust risk management framework. - Therefore, the assessment indicates a likely net benefit favouring DPC due to its comprehensive and proactive approach to risk identification and mitigation. 	<p>1</p>
<p>9. Innovation in technology and delivery</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We will be responsible to select and implement technology, identify novel solutions, and establish new processes, leveraging our experience and practices to deliver the project. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The late tender model fosters innovation throughout the project contract duration, from design and construction to operations and maintenance. 	<p>1</p>

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - Experienced bidders (those undertaking international re-use projects) can leverage lessons learned and best practices to enhance project delivery efficiency. - Contractual incentives can encourage the CAP to implement novel approaches, while knowledge-sharing provisions allow us to benefit from their expertise and experience. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - DPC offers additional avenues for innovation in delivery compared to the in-house approach. The potential for incorporating international best practices, incentivising innovation through contracts, and facilitating knowledge sharing creates a more dynamic and adaptable delivery environment. - Therefore, the assessment indicates a likely net benefit favouring DPC due to the enhanced opportunities for innovation in project delivery. 	
<p>10. Environmental and social</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We are committed to delivering the project in accordance with high environmental and social standards. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - We can leverage the contract terms to incentivise the CAP to exceed standard environmental and social objectives during the operational phase. This could include targets for energy efficiency, carbon reduction, community engagement, and local employment opportunities. - The CAP, with its diverse network and expertise, can actively promote local employment and knowledge transfer which contribute to the project’s positive social impact. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - DPC presents an opportunity to go beyond our baseline obligations and goals, achieving a more significant positive environmental and social impact. - Therefore, the assessment indicates a likely net benefit favouring DPC due to its potential for enhanced environmental and social outcomes. 	<p>1</p>
<p>11. Management and coordination</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have direct control over the design, infrastructure, and systems, ensuring optimal integration of the project within its existing operations. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - The CAP is an additional party involved in the project delivery, necessitating careful coordination. To ensure smooth operations throughout the contract’s duration, specific processes and procedures need to be established. - Effective collaboration between the CAP and our business is essential to manage interface risks. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - While in-house delivery offers a clear advantage in terms of integration due to direct control over all aspects of the project, DPC 	<p>-1</p>

Dimension	Analysis	Score
	<p>can achieve similar levels of integration with careful planning and collaboration.</p> <ul style="list-style-type: none"> - The assessment shows that both approaches share the same physical interfaces. However, involving additional parties in DPC can result in net disbenefit. 	
<p>12. Customer bill impact</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Consumers will incur costs related to asset delivery before the asset becomes operational. Additionally, the impact on billing will be volatile throughout the asset’s lifecycle, as it will require approval at each AMP. <p><u>DPC considerations:</u></p> <ul style="list-style-type: none"> - Payments to the CAP will commence upon service delivery, thereby aligning consumer costs with the services received. Additionally, consumer costs will be less volatile as the ARD will be determined at the time of contract award for the whole contract duration. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment shows a net benefit for DPC in terms of customer bill impact. 	<p>1</p>
<p>Aggregate score</p> <ul style="list-style-type: none"> - With an aggregate score of +7 from within a range of -12 to +12, the Sittingbourne project is likely to deliver value under the DPC model. 		

Bioresources (Ashford and Ham Hill AAD)

Combined assessment

This section consolidates the key findings from both the quantitative and qualitative assessments to determine the overall VfM proposition.

The table below summarises the overall outcome of the VfM assessment for the Bioresources project.

Table 53: Bioresources combined VfM analysis

Assessment	Outcome
Quantitative assessment	Likely to deliver value with a base case NPV savings of £11.8m (i.e., cost of market-based delivery being lower by 5.0%) and sensitivity analysis aggregate score of +13.
Qualitative Assessment	Likely to deliver value with an aggregate score of 6.
Combined VfM outcome Based on the robustness of the qualitative and quantitative VfM (including the updated procurement cost and adjusted WACC), the Bioresources project is likely to deliver value.	

Quantitative VfM

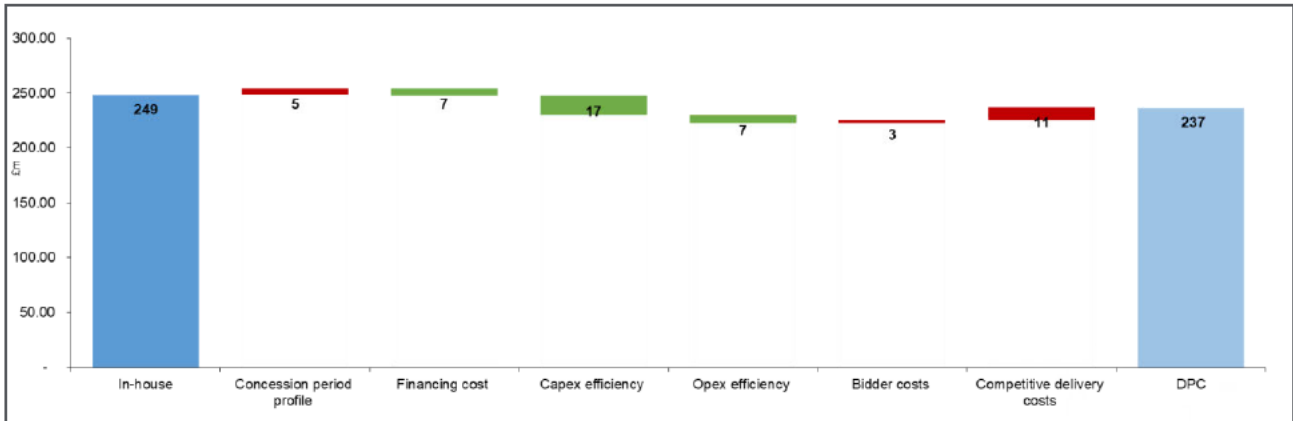
Delivery through market-based delivery may offer savings (positive VfM) for the project, with the NPV of market-based delivery cost being 4.99% lower than the NPV of in-house delivery costs for the base-case, as shown in the table below.

Table 54: Bioresources base case VfM

Base case VfM result	
NPV of cost of delivering the project In-house	£249m
NPV of cost of delivering the project under market-based delivery model	£237m
Difference in NPV	£11.8m
Percentage difference in NPV	5.0%

The graph below illustrates the key value drivers for the VfM analysis of the project's base case scenario. It provides a visual representation of the primary factors that influence the VfM outcome, highlighting how these drivers contribute to the overall value assessment for the project.

Figure 15: Bioresources value drivers



This value driver analysis considers a 20-year operation period to reflect the 20-year useful life of the assets. Key value drivers under the market-based delivery model are the benefits from cost efficiencies (£17m from capex and £7m from opex efficiencies) and cheaper financing costs by £7m. The 20-year operation period results in a smaller scope for potential savings for opex versus capex.

However, these benefits are to some extent offset by the additional bidder costs and the competitive delivery costs, which include both fixed and variable procurement expenses, that would not arise if we were to undertake the project in-house.

The NPV for the market-based delivery model appears to remain positive in all sensitivities, providing a positive VfM. However, the high-case contract period variable was not tested, as it exceeds the asset’s 20-year useful life. The table below summarises the quantitative assessment results for each of the seven variables.

Table 55: Bioresources quantitative VfM analysis

Variable name	Assumptions under different cases			In-house NPV – AMBD NPV	
	Low	Base	High	Low case	High Case
Contract period	15	20	-	£8.0m	
Equity IRR	12%	10%	9%	£1.0m	£18.6m
Gearing	80%	85%	90%	£2.2m	£11.2m
Capex efficiency	5%	10%	15%	£3.0m	£20.7m
Opex efficiency	5%	10%	15%	£8.2m	£15.4m
Competitive delivery cost	1.00%	0.55%	0.25%	£9.4m	£13.8m
	£10,000k	£9,000k	£8,000k		
Bidder costs	3%	2%	1%	£10.3m	£13.4m

Aggregate score

The scores of all variables are aggregated based on the methodology in Quantitative VfM section. There are 13 cases indicating a positive VfM (+13) and no case indicating a negative VfM (0). The Bioresources project has an aggregate score of +13 from within a range of -14 to +14.

Overall, the quantitative VfM assessment indicates that the Bioresources project is likely to deliver value under the market-based delivery model.

Qualitative VfM

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under market-based delivery compared to in-house delivery.

The table below sets out the qualitative assessment of the Bioresources project against each dimension.

Table 56: Bioresources qualitative VfM analysis

Dimension	Analysis	Score
1. Deliverability capacity	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have limited experience with Advanced Digestion projects as our operation has always been very much focused on Conventional Digestion. - By leveraging existing capabilities and a strong network of contractors and suppliers, we are equipped to manage the project in-house. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - There is a pool of companies with experience and proven expertise of delivering this type of projects both in the UK and internationally. - Under this model, companies have the option to collaborate and form consortia to bring in all the required expertise, including experts not readily available within our network. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both delivery models demonstrate comparable capability. We can leverage our existing expertise and network, while market-based delivery offers access to specialised international expertise along with local experts. - Therefore, the assessment presents no significant benefits or disbenefits between market-based delivery and in-house delivery in terms of overall capability. 	0
2. Deliverability capacity	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Bioresources project includes delivery of two Advanced Digestion plants, necessitating the expansion of our internal resources and the procurement of frameworks to undertake the project in two locations. - We bear the responsibility for the successful delivery of the entire PR24 capital programme, demanding a broader focus beyond the two Anaerobic Digestion plants. - Without mitigation measures, we will face a substantial workload which places pressure on both our own and our supply chain capacity. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - A SPV entity would focus solely on the project, ensuring dedicated attention and resources. - Bringing the project to the market necessitates expertise beyond our everyday capacity. The dedicated team with a range of technical, commercial, and legal expertise is required to develop the proposals that would allow selection of a right partner to deliver the project. - Bidders, on the other hand, possess extensive experience in bidding for and delivering PPP/PFI contracts, enabling them to efficiently assemble the necessary partners and subcontractors for successful project execution. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery offers a strategic solution to mitigate potential resource constraints for us. - Based on the above, the assessment suggests a likely net benefit favouring market-based delivery over in-house delivery due to the dedicated focus it brings to the project. 	1
3. Access to supply chain/ contractors	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have an extensive network of existing supply chain and contractor frameworks established over previous AMPs, which could be utilised for the project. - However, the overall increase in capital programmes across our company and other water companies may lead to capacity constraints among existing partners. 	1

Dimension	Analysis	Score
	<p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The SPV has the potential to introduce a diverse pool of suppliers beyond our current network, expanding options and mitigating potential constraints. Tender evaluation criteria can be tailored to promote supplier diversity. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery can potentially identify a wider supply chain, which could enhance competitive pressure and value for customers. This potential benefit is reflected in the assessment's likely net benefit for market-based delivery. 	
<p>4. Commercial attractiveness</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - The need for the project is driven by the application of the EA's Farming Rules for Water (FRfW) which may increase costs of biosolids disposal and by our aging existing assets. The main commercial driver is to install adequate replacements in sufficient time to mitigate these risks while at the same time accessing the enhanced generation capability the new assets will provide. - Bioresources project can earn third party revenue by selling electricity generated from the plant. This is likely to reduce operating cost for us. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The commercial attractiveness of the project depends on the proposed commercial considerations. - Success under this model necessitates a clear and reliable payment mechanism, along with arrangements enabling the SPV to secure both equity and competitive debt financing. - Commercial attractiveness has the potential to enhance price discovery and access to capital, further increasing the financial benefits driven by market-based delivery. - Bioresources project can earn third party revenue by selling electricity generated from the plant. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring market-based delivery due to its potential to attract private investment and optimise financial arrangements, leading to a more commercially attractive proposition for both parties compared to in-house delivery. 	<p>1</p>
<p>5. Price discovery</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have in-depth knowledge of contractor costs for various projects due to our experience and existing supplier frameworks. - Mini competitions within these frameworks can be employed to drive some level of price discovery. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - A competitive tender process ensures that pricing proposals from bidders would be based on reliable methodologies. - The pricing put forward by SPV bidders is expected to drive the price discovery but also reflect their view on the overall scheme delivery risk. - Under the late tender model, the price discovery process will encompass all design, construction, finance, operating and maintaining costs over the contract duration. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - In-house delivery is expected to yield limited project price discovery. - Therefore, market-based delivery presents a likely net benefit due to the competitive tender process and its potential to establish benchmark price discovery over the contract duration. 	<p>1</p>
<p>6. Access to capital</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We would be responsible for raising capital for projects within the PR24 programme, including Bioresources. - We have established access to capital sources that have historically supported our capital programme delivery and operations. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The bidders can engage with a diverse range of investors in the market, exploring various financing options to supplement project costs. - This approach facilitates the identification of new funding sources with potentially more competitive terms. 	<p>1</p>

Dimension	Analysis	Score
7. Flexibility	<ul style="list-style-type: none"> - Financing would be specifically tailored to the project, allowing efficiencies which include higher gearing as compared to notional company. - Appropriate allocation of third party revenue from generation will assist in raising additional capital from providers experienced in building and operating advanced digesters. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring market-based delivery due to its potential to access a wider pool of capital, secure more competitive financing terms, and leverage a higher proportion of gearing for the project. <p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We retain complete control and can modify project design, features, and customer outputs at any stage of the project lifecycle. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - While changes to the project are still possible under market-based delivery, a structured mechanism would need to be established to manage such modifications, inherently reducing flexibility compared to in-house delivery. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The scope of potential changes that the contractual terms would allow could be limited and it will need to be structured in a way that does not negatively impact the SPV's ability to access competitive financing. - Therefore, the assessment indicates a likely net disbenefit of market-based delivery in the context of flexibility, as it would restrict our ability to adapt and modify the project compared to the complete control afforded by in-house delivery. 	-1
8. Risk identification and mitigation	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - As the project progresses, we would implement a comprehensive risk management process to identify and address potential challenges. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - Market-based delivery necessitates a more rigorous effort to identify, define, and allocate risks effectively, assigning responsibility to the party best equipped to manage them. This additional effort leads to a more comprehensive and proactive risk management approach including appropriate mitigations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both models allow for clear risk identification. However, market-based delivery's emphasis on thorough risk allocation and the involvement of specialised expertise aids to facilitate a more robust risk management framework. - Therefore, the assessment indicates a likely net benefit favouring market-based delivery due to its comprehensive and proactive approach to risk identification and mitigation. 	1
9. Innovation in technology and delivery	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We will be responsible to select and implement technology, identify novel solutions, and establish new processes, leveraging our experience and practices to deliver the project <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The late tender model fosters innovation throughout the project contract duration, from design and construction to operations and maintenance. - Experienced bidders can leverage lessons learned and best practices to enhance project delivery efficiency. - Contractual incentives can encourage the SPV to implement novel approaches, while knowledge-sharing provisions allow us to benefit from their expertise and experience. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery offers additional avenues for innovation in delivery compared to the in-house approach. The potential for incorporating international best practices, incentivising innovation through contracts, and facilitating knowledge sharing creates a more dynamic and adaptable delivery environment. - Therefore, the assessment indicates a likely net benefit favouring market-based delivery due to the enhanced opportunities for innovation in project delivery. 	1
10. Environmental and social	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We are committed to delivering the project in accordance with high environmental and social standards. <p><u>Market-based delivery considerations:</u></p>	1

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - We can leverage the contract terms to incentivise the SPV to exceed standard environmental and social objectives during the operational phase. This could include targets for energy efficiency, carbon reduction, community engagement, and local employment opportunities. - The SPV, with its diverse network and expertise, can actively promote local employment and contribute to the project's positive social impact. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery presents an opportunity to go beyond our baseline obligations and goals, achieving a more significant positive environmental and social impact. - Therefore, the assessment indicates a likely net benefit favouring market-based delivery due to its potential for enhanced environmental and social outcomes. 	
<p>11. Management and coordination</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have direct control over the design, infrastructure, and systems, ensuring optimal integration of the project within its existing operations. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The SPV is an additional party involved in the project delivery, necessitating careful coordination. To ensure smooth operations throughout the contract's duration, specific processes, and procedures need to be established. - Effective collaboration between the SPV and our company is essential to manage interface risks. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - While in-house delivery offers a clear advantage in terms of integration due to direct control over all aspects of the project, market-based delivery can achieve similar levels of integration with careful planning and collaboration. - The assessment shows that both approaches share the same physical interfaces. However, involving additional parties in market-based delivery can result in net disbenefit. 	<p>-1</p>
<p>12. Customer bill impact</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Consumers will incur costs related to asset delivery before the asset becomes operational. Additionally, the impact on billing will be volatile throughout the asset's lifecycle, as it will require approval at each AMP. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - Payment to the SPV is intended to commence upon the delivery of the service and is yet to be confirmed, thereby aligning consumer costs with the services received. Additionally, consumer costs will be less volatile as the uncertainty mechanism similar to ARD will be determined at the time of contract award for the whole contract duration. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Based on the uncertain final position the assessment shows no significant benefits or disbenefits that are likely to realise for market-based delivery in terms of customer bill impact. 	<p>0</p>
<p>Aggregate score</p> <ul style="list-style-type: none"> - With an aggregate score of +6 from within the range of -12 to +12, the Bioresources project is likely to deliver value under the market-based delivery model. 		

Local Authorities Highway SuDS

Combined assessment

This section consolidates the key findings from both the quantitative and qualitative assessments to determine the overall VfM proposition. We have explained that the assumption for the base case was delivery via an SPV accountable to both the relevant Local Authority and us. We have discovered that the local authorities cannot operate in this way but are nevertheless keen to participate with us in sustainable urban drainage. The analysis is present for completeness.

The table below summarises the overall outcome of the VfM assessment for the SuDS project.

Table 57: SuDS combined VfM analysis

Assessment	Outcome
Quantitative assessment	Unlikely to deliver value with a base case NPV cost of £14.5m (i.e., cost of market-based delivery being higher by 5.8%) and sensitivity analysis aggregate score of -7.
Qualitative Assessment	Neither likely nor unlikely to deliver value with an aggregate score of 4.
Combined VfM outcome Based on the quantitative and qualitative VfM assessment, the SuDS project is unlikely to deliver value.	

Quantitative VfM

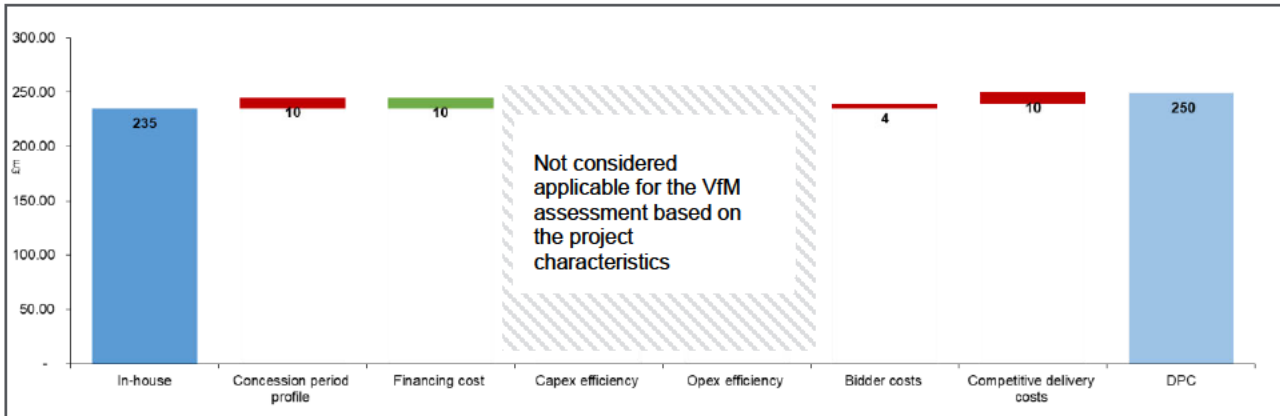
Delivery through the market-based delivery model does not offer savings (i.e., negative VfM) for the SuDS project, with the NPV of the market-based delivery model being 5.8% higher than the NPV of the in-house delivery model under the base-case scenario, as shown in the table below.

Table 58: SuDS base case VfM

Base case VfM result	
NPV of cost of delivering the project In-house	£235m
NPV of cost of delivering the project under market-based delivery model	£250m
Difference in NPV	(£14.5m)
Percentage difference in NPV	(5.8%)

The graph below illustrates the key value drivers for the VfM analysis of the project's base case scenario. It provides a visual representation of the primary factors that influence the VfM outcome, highlighting how these drivers contribute to the overall value assessment for the project.

Figure 16: SuDS value drivers



This value driver analysis considers a standard 25-year operation period. Key value drivers under the market-based delivery model are the benefits from cheaper financing costs of £10m. The cheaper financing is based on the assumption that LAs will have access to cheaper sources of financing (e.g., UKIB financing for Local Authorities). Given that there is no evidence to substantiate whether the LAs will achieve capex and opex efficiencies under the market-based delivery model, these efficiencies have not been considered in this analysis.

The VfM benefits are offset by the additional bidder and competitive delivery costs, which include both fixed and variable procurement costs. These costs would not arise if the project were to be delivered in-house. Although the competitive delivery and bidder costs under the base-case scenario are based on Ofwat’s assumptions (as outlined in the Quantitative VfM model assumptions section), the scale of these costs is uncertain under the market-based delivery model. In this model, it is anticipated that the contractual structure and the associated costs with contract preparation and negotiation for the SuDS project may more closely align with those incurred under the in-house delivery model.

To address this uncertainty, we have refined our sensitivity analysis. We now assume that, under the high-case scenario for market-based delivery, only half of the competitive delivery and bidder costs will be incurred. The low-case scenario for these variables is not assessed, given the already conservative views under the base case, which accounts for the higher than expected costs for these activities.

The high-case sensitivity for the contract period is not assessed, given that Ofwat’s standard high-case variable input exceeds the 30-year expected useful life of the SuDS project.

The concession period variable outlines when payments related to the project are expected to occur. The negative value results from the difference between the project’s internal rate of return (IRR) and the 3.5% discount rate, which is based on the HM Treasury Green Book. As a result, even if the project IRR is the same as the counterfactual WACC, the difference in the payments commencement date affects the NPV, and the scenario with the earlier payments (counterfactual) has a lower NPV.

Table 59: SuDS quantitative VfM analysis

Variable name	Assumptions under different cases			In-house NPV – AMBD NPV	
	Low	Base	High	Low case	High Case
Contract period	20	25	40	(£7.0m)	
Equity IRR	12%	10%	9%	(£34.0m)	(£6.1m)

Variable name	Assumptions under different cases			In-house NPV – AMBD NPV	
	Low	Base	High	Low case	High Case
Gearing	80%	85%	90%	(£29.7m)	(£14.5m)
Capex efficiency	-	-	-		
Opex efficiency	-	-	-		
Competitive delivery cost	-	0.55%	0.25%		(£9.2m)
	-	£9,000k	£4,500k		
Bidder costs	-	2%	1%		(£12.3m)

Aggregate score

The scores of all variables are aggregated based on the methodology in the Quantitative VfM section. There is no case indicating a positive VfM (0) and 7 cases indicating a negative VfM (-7). The SuDS project has an aggregate score of -7 from within a range of -14 to +14.

Overall, the quantitative VfM assessment indicates that the SuDS project is unlikely to deliver value under the market-based delivery model.

Qualitative VfM

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under the market-based delivery compared to in-house delivery. The table below sets out the qualitative assessment of the SuDS project against each dimension.

Table 60: SuDS qualitative VfM analysis

Dimension	Analysis	Score
1. Deliverability capability	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We are currently carrying out a SuDS pilot scheme. - By leveraging existing capabilities and a strong network of contractors and suppliers, we are equipped to manage the project in-house. In house delivery would require collaboration with the Local Authorities (LAs). <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - There is a pool of companies with experience and skills in delivering this type of projects. - Under this model, companies have the option to collaborate and bring in all the necessary expertise to manage a large-scale distributed asset delivery programme. - LAs maintain a large network of highway assets. With existing arrangements with contractors to construct, renew and maintain roads, LAs are well placed to deliver this project. <p><u>Net position:</u></p>	0

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - Both delivery models demonstrate comparable capability. We can leverage our existing expertise and network. - Therefore, the assessment presents no significant benefits or disbenefits between market-based delivery and in-house delivery in terms of overall capability. 	
<p>2. Deliverability capacity</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - SuDS is a distributed asset project, necessitating the expansion of our internal resources and the procurement of multiple short-term frameworks to undertake the project in multiple locations. - We bear the responsibility for the successful delivery of the entire PR24 capital programme, demanding a broader focus beyond the individual SuDs projects. - Without mitigation measures, we will face a substantial workload. This places pressure on capacity and resource allocation and makes it crucial to ensure the right resources are assigned to each project for timely delivery. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - A dedicated SPV entity and LA would focus solely on the project, ensuring concentrated attention and resources. - Bringing the project to the market necessitates expertise beyond our everyday capacity. The dedicated team with a range of technical, commercial, and legal expertise is required to develop the proposals that would allow selection of a right partner to deliver the project. - Bidders, on the other hand, possess extensive experience in bidding for and delivering PPP/PFI contracts, enabling them to efficiently assemble the necessary partners and subcontractors for successful project execution. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery offers a strategic solution to mitigate potential resource constraints for us. - Based on the above, the assessment suggests a likely net benefit favouring market-based delivery over in-house delivery due to the dedicated focus it brings to the project. 	<p>1</p>
<p>3. Access to supply chain/ contractors</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have an extensive network of existing supply chain and contractor frameworks established over previous AMPs, which could be utilised for the project. - However, the overall increase in capital programmes across our business and other water companies may lead to capacity constraints among existing partners. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The SPV has the potential to introduce a diverse pool of suppliers beyond our current network, expanding options and mitigating potential constraints. Tender evaluation criteria can be tailored to promote supplier diversity. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery can potentially identify a wider supply chain, which could enhance competitive pressure and value for customers. 	<p>1</p>

Dimension	Analysis	Score
	<p>This potential benefit is reflected in the assessment’s likely net benefit for market-based delivery.</p>	
<p>4. Commercial attractiveness</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - The need and scope for the SuDs programme is heavily influenced by the development of the proposed WINEP improvement programme for storm overflow reduction. We will be required to deliver the asset in collaboration with the LAs. As much as we are driven by the underlying need for the asset the commercial attractiveness of the project depends on the contract terms agreed with the LAs’. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The commercial attractiveness of the project depends on the proposed terms and conditions agreed between the LAs’. - Success under this model necessitates a clear and reliable payment mechanism, along with arrangements enabling the SPV to secure both equity and competitive debt financing. - Market engagement with the various Local Authorities has shown a positive sentiment for the project subject to final risk allocations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both market-based delivery and in-house delivery are reliant on the interest and participation of the LAs’. LAs’ have shown an interest in delivery of asset subject to final risk allocation. The assessment therefore presents no significant benefits or disbenefits between market-based delivery and in-house delivery. 	<p>0</p>
<p>5. Price discovery</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have in-depth knowledge of contractor costs for various projects due to our experience and existing supplier frameworks. - Mini competitions within these frameworks can be employed to drive some level of price discovery. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - A competitive process ensures that pricing proposals would be based on reliable methodologies. - We may also get access to LAs’ supply chain cost information pending finalisation of procurement routes and commercial models. - The pricing put forward is expected to drive the price discovery but also reflect their view on the overall scheme delivery risk. - Under the late tender model, the price discovery process will encompass all design, construction, finance, operating and maintaining costs. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - In-house delivery is expected to yield a similar project price discovery to market-based delivery. Asset supply contracts will likely be procured from within existing frameworks with either the LAs’ or us. - The assessment therefore presents no significant benefits or disbenefits between market-based delivery and in-house delivery. 	<p>0</p>
<p>6. Access to capital</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We would be responsible for raising capital for projects within the PR24 programme, including SuDs. 	<p>1</p>

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - We have established access to capital sources that have historically supported our capital programme delivery and operations. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The LAs' can engage with a diverse range of investors in the market, exploring various financing options (such as UKIB) to supplement project costs. - This approach facilitates the identification of new funding sources with potentially more competitive terms. - Financing would be specifically tailored to the project or the LA, which may include efficiencies. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring market-based delivery due to its potential to access a wider pool of capital, secure more competitive financing terms, and leverage a higher proportion of debt for the project. 	
<p>7. Flexibility</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - The project LAs' will have significant influence and control (given land ownership and likely access) and any modifications in project design, features, and customer outputs at any stage of the project lifecycle would need to be approved by LAs'. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - LAs' remain in control (given land ownership and likely access) and any modifications in project design, features, and customer outputs at any stage of the project lifecycle would need to be approved by LAs' with our input. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Based on the above, the assessment presents no significant benefits or disbenefits between market-based delivery and in-house delivery as LAs have significant influence and control under both delivery models. 	<p>0</p>
<p>8. Risk identification and mitigation</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - As the project progresses, we would implement a comprehensive risk management process to identify and address potential challenges. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - Market-based delivery necessitates a more rigorous effort to identify, define, and allocate risks effectively, assigning responsibility to the party best equipped to manage them. This additional effort leads to a more comprehensive and proactive risk management approach including appropriate mitigations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both models allow for clear risk identification. However, market-based delivery's emphasis on thorough risk allocation and the involvement of specialised expertise aids to facilitate a more robust risk management framework. - Therefore, the assessment indicates a likely net benefit favouring market-based delivery due to its comprehensive and proactive approach to risk identification and mitigation. 	<p>1</p>

Dimension	Analysis	Score
<p>9. Innovation in technology and delivery</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Technology and innovation will be developed collaboratively between us and the LAs. The assets are passive in nature, limiting the scope for implementing innovative techniques. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - Technology and innovation will be developed collaboratively between us and the LAs. The assets are passive in nature, limiting the scope for implementing innovation. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment presents no significant benefits or disbenefits between market-based delivery and in-house delivery. This is because we rely on the LAs' for technical solutions, and the assets are passive, limiting innovation. It is assumed that similar and comparable commercial incentives would be relevant to each delivery model. 	<p>0</p>
<p>10. Environmental and social</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We are committed to delivering the project in accordance with high environmental and social standards. <p><u>AMBD considerations:</u></p> <ul style="list-style-type: none"> - The LAs are committed to delivering the project in accordance with high environmental and social standards. We are unlikely to leverage the contract terms to incentivise the LAs to exceed standard environmental and social objectives. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both us and the LAs are expected to meet baseline environmental and social obligations and goals. - Therefore, the assessment presents no significant benefits or disbenefits between market-based delivery and in-house delivery. 	<p>0</p>
<p>11. Management and coordination</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We are responsible for delivery and will interact with LAs and coordinate with them throughout the project delivery cycle. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - We will interact with LAs responsible for the delivery and coordinate with them throughout the project delivery cycle. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Based on the above, under both models, coordination and management would involve multiple parties, therefore, the assessment presents no significant benefits or disbenefits between market-based delivery and in-house delivery. 	<p>0</p>
<p>12. Customer bill impact</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Consumers will incur costs related to asset delivery before the asset becomes operational. Additionally, the impact on billing will be volatile throughout the asset's lifecycle, as it will require approval at each AMP. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - Payment to the SPV is intended to commence upon the delivery of the service and is yet to be confirmed, thereby aligning consumer costs with the services received. Additionally, consumer costs will be less volatile as the uncertainty mechanism similar to ARD will be 	<p>0</p>

Dimension	Analysis	Score
	<p>determined at the time of contract award for the whole contract duration.</p> <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Based on the uncertain final position the assessment shows no significant benefits or disbenefits that are likely to realise for market-based delivery in terms of customer bill impact. 	
<p>Aggregate score</p> <p>With an aggregate score of +4 from within a range of -12 to +12, the SuDS project is neither likely nor unlikely to deliver value under the market-based delivery model.</p>		

Whitfield WwTW

Combined assessment

This section consolidates the key findings from both the quantitative and qualitative assessments to determine the overall VfM proposition.

The table below summarises the overall outcome of the VfM assessment for the Whitfield project.

Table 61: Whitfield combined VfM analysis

Assessment	Outcome
Quantitative assessment	Unlikely to deliver value with a base case NPV cost of £1.4m (i.e., cost of market-based delivery being higher by 1.8%) and sensitivity analysis aggregate score of -8.
Qualitative Assessment	Likely to deliver value with an aggregate score of +6.
Combined VfM outcome Based on the robustness of the qualitative and quantitative VfM (including updated procurement cost and adjusted WACC), the Whitfield project is neither likely nor unlikely to deliver value.	

Quantitative VfM

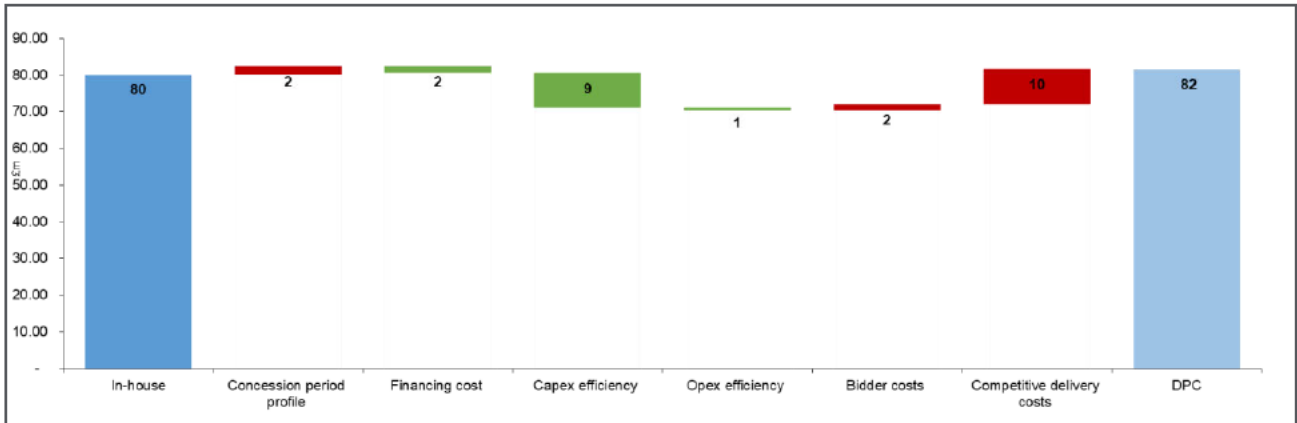
Delivery through market-based delivery model does not offer savings (i.e., negative VfM) for the project, with the NPV of market-based delivery model delivery cost being 1.8% higher than the NPV of in-house delivery costs for the base-case, as shown in the table below.

Table 62: Whitfield base case VfM

Base case VfM result	
NPV of cost of delivering the project In-house	£80m
NPV of cost of delivering the project under market-based delivery model	£82m
Difference in NPV	(£1.4m)
Percentage difference in NPV	(1.8%)

The graph below illustrates the key value drivers for the VfM analysis of the project's base case scenario. It provides a visual representation of the primary factors that influence the VfM outcome, highlighting how these drivers contribute to the overall value assessment for the project.

Figure 17: Whitfield value drivers



This value driver analysis considers a 20-year operation period, which is considered as a suitable duration for the contract period due to the requirement of significant repeat capex in the later years of a standard 25-year contract period. By reducing the contract period from the standard 25 years to 20 years and reprofiling the repeat capex, we thereby exclude the repeat capex requirement from the contract period. To fund the repeat capex requirement during the contract period substantial expenditure will be incurred that would necessitate external financing or maintaining a cash reserve throughout the contract period. Both options are likely to lead to inefficiencies within the market-based delivery model, as there would be insufficient time to either repay the loan or adequately fund the cash reserve. Additionally, the low-case contract period sensitivity is updated to 15 years in line with the change in base case assumptions.

The key value drivers under the market-based delivery model are the benefits from cost efficiencies (£9m from capex and £1m from opex efficiencies) and cheaper financing by £2m. However, the 20-year operation period offers limited scope for potential opex savings compared to capex savings.

However, these benefits are offset by the additional bidder and competitive delivery costs, which include both fixed and variable procurement costs, that would not arise if we were to deliver the project in-house. The lower capex of Whitfield results in the fixed procurement costs having a significant impact on the project's VfM.

The in-house solution is more favourable under most sensitivities, except for the high-case equity IRR, gearing and capex efficiency sensitivities. The table below summarises the quantitative assessment results for each of the seven variables.

Table 63: Whitfield quantitative VfM analysis

Variable name	Assumptions under different cases			In-house NPV – AMBD NPV	
	Low	Base	High	Low case	High Case
Contract period	15	20	40	(£2.2m)	(£2.1m)
Equity IRR	12%	10%	9%	(£6.0m)	£0.8m
Gearing	80%	85%	90%	(£4.7m)	£1.8m
Capex efficiency	5%	10%	15%	(£6.1m)	£3.1m
Opex efficiency	5%	10%	15%	(£1.8m)	(£1.1m)

Variable name	Assumptions under different cases			In-house NPV – AMBD NPV	
	Low	Base	High	Low case	High Case
Competitive delivery cost	1.00%	0.55%	0.25%	(£0.9m)	(£2.1m)
	£10,000k	£9,000k	£8,000k		
Bidder costs	3%	2%	1%	(£2.2m)	(£0.6m)
Aggregate sensitivity score					
The scores of all variables are aggregated based on the methodology in the Quantitative VfM section. There are three cases indicating a positive VfM (+3) and eleven cases indicating a negative VfM (-11). The Whitfield project has an aggregate score of -8 from within a range of -14 to +14.					

Overall, the quantitative VfM assessment indicates that the Whitfield project is neither likely nor unlikely to deliver value under the market-based delivery model.

Qualitative VfM

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under the market-based delivery compared to in-house delivery. The table below sets out the qualitative assessment of the Whitfield project against each dimension.

Table 64: Whitfield qualitative VfM analysis

Dimension	Analysis	Score
1. Deliverability capability	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have experience in delivering WwTW projects. - By leveraging existing capabilities and a strong network of contractors and suppliers, we are equipped to manage the project in-house. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - There is a pool of companies with experience and proven expertise of delivering this type of projects both in the UK and internationally. Under this model, companies have the option to collaborate and form consortia to bring in all the required expertise, including experts not readily available within our network. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both delivery models demonstrate comparable capability. We can leverage our existing expertise and network, while market-based delivery offers access to specialised international expertise along with local experts. - Therefore, the assessment presents no significant benefits or disbenefits between market-based delivery and in-house delivery in terms of overall capability. 	0
2. Deliverability capacity	<p><u>In-house considerations:</u></p>	1

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - The project represents a single smaller-scale project within the overall PR24 capital programme. - We bear the responsibility for the successful delivery of the entire program, demanding a broader focus beyond the individual project. - Without mitigation measures, we will face a substantial workload which places pressure on capacity and resource allocation and makes it crucial to ensure the right resources are assigned to each project for timely delivery. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - A SPV entity would focus solely on the project, ensuring dedicated attention and resources. - Bringing the project to the market necessitates expertise beyond our everyday capacity. The dedicated team with a range of technical, commercial, and legal expertise is required to develop the proposals that would allow selection of a right partner to deliver the project. - Bidders, on the other hand, possess extensive experience in bidding for and delivering PPP/PFI contracts, enabling them to efficiently assemble the necessary partners and subcontractors for successful project execution. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery offers a strategic solution to mitigate potential resource constraints for us. - Based on the above, the assessment suggests a likely net benefit favouring the market-based delivery over in-house delivery due to the dedicated focus and it brings to the project. 	
<p>3. Access to supply chain/ contractors</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have an extensive network of existing supply chain and contractor frameworks established over previous AMPs, which could be utilised for the project. - However, the overall increase in capital programmes across our company and other water companies may lead to capacity constraints among existing partners. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The SPV has the potential to introduce a diverse pool of suppliers beyond our current network, expanding options and mitigating potential constraints. Tender evaluation criteria can be tailored to promote supplier diversity. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery can potentially identify a wider supply chain, which could enhance competitive pressure and value for customers. This potential benefit is reflected in the assessment’s likely net benefit for market-based delivery. 	<p>1</p>
<p>4. Commercial attractiveness</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Our primary driver of the growth scheme is the need to service development of a new town with an estimated population of 15-20,000 located North of Dover And to ensure value for money delivery. <u>Market-based delivery considerations:</u> 	<p>1</p>

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - The commercial attractiveness of the project depends on the proposed terms and conditions. - Success under this model necessitates a clear and reliable payment mechanism, along with arrangements enabling the SPV to secure both equity and competitive debt financing. - Commercial attractiveness has the potential to enhance price discovery and access to capital, further increasing the financial benefits driven by the market-based delivery. <p>Market engagement has shown a positive sentiment for the project subject to final risk allocations.</p> <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring market-based delivery due to its potential to attract private investment and optimise financial arrangements, leading to a more commercially attractive proposition for both parties compared to in-house delivery. 	
<p>5. Price discovery</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have in-depth knowledge of contractor costs for various projects due to our experience and existing supplier frameworks. - Mini competitions within these frameworks can be employed to drive some level of price discovery. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - A competitive tender process ensures that pricing proposals from bidders would be based on reliable methodologies. - The pricing put forward by SPV bidders is expected to drive the price discovery but also reflect their view on the overall scheme delivery risk. - Under the late tender model, the price discovery process will encompass all design, construction, finance, operating and maintaining costs over the contract duration. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - In-house delivery is expected to yield limited project price discovery. Therefore, market-based delivery presents a likely net benefit due to the competitive tender process and its potential to establish benchmark price discovery over the contract duration. 	<p>1</p>
<p>6. Access to capital</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have established access to capital sources that have historically supported our capital programme delivery and operations. The size of our AMP9 programme is likely to require additional injections of capital. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The bidders can engage with a diverse range of investors in the market, exploring various financing options to supplement project costs. - This approach facilitates the identification of new funding sources with potentially more competitive terms. 	<p>1</p>

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - Financing would be specifically tailored to the Whitfield project, allowing efficiencies which include higher gearing as compared to a notional company. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring market-based delivery due to its potential to access a wider pool of capital, secure more competitive financing terms, and leverage a higher proportion of gearing for the project. 	
<p>7. Flexibility</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We retain complete control and can modify project design, features, and customer outputs at any stage of the project lifecycle. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - While changes to the project are still possible under market-based delivery, a structured mechanism would need to be established to manage such modifications, inherently reducing flexibility compared to in-house delivery. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The scope of potential changes that the contractual terms would allow could be limited and will need to be structured in a way that does not negatively impact the SPV's ability to access competitive financing. - Therefore, the assessment indicates a likely net disbenefit of market-based delivery in the context of flexibility, as it would restrict our ability to adapt and modify the project compared to the complete control afforded by in-house delivery. 	<p>-1</p>
<p>8. Risk identification and mitigation</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - As the project progresses, we would implement a comprehensive risk management process to identify and address potential challenges. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - Market-based delivery necessitates a more rigorous effort to identify, define, and allocate risks effectively, assigning responsibility to the party best equipped to manage them. This additional effort leads to a more comprehensive and proactive risk management approach including appropriate mitigations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both models allow for clear risk identification. However, market-based delivery's emphasis on thorough risk allocation and the involvement of specialised expertise aids to facilitate a more robust risk management framework. - Therefore, the assessment indicates a likely net benefit favouring market-based delivery due to its comprehensive and proactive approach to risk identification and mitigation. 	<p>1</p>
<p>9. Innovation in technology and delivery</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We will be responsible to select and implement technology, identify novel solutions, and establish new processes, leveraging our experience and practices to deliver the project. <p><u>Market-based delivery considerations:</u></p>	<p>1</p>

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - The late tender model fosters innovation throughout the project contract duration, from design and construction to operations and maintenance. - Experienced bidders can leverage lessons learned and best practices to enhance project delivery efficiency. - Contractual incentives can encourage the SPV to implement novel approaches, while knowledge-sharing provisions allow us to benefit from their expertise and experience. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery offers additional avenues for innovation in delivery compared to the in-house approach. The potential for incorporating international best practices, incentivising innovation through contracts, and facilitating knowledge sharing creates a more dynamic and adaptable delivery environment. - Therefore, the assessment indicates a likely net benefit favouring market-based delivery due to the enhanced opportunities for innovation in project delivery. 	
<p>10. Environmental and social</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We are committed to delivering the project in accordance with high environmental and social standards. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - We can leverage the contract terms to incentivise the SPV to exceed standard environmental and social objectives. This could include targets for energy efficiency, carbon reduction, community engagement, and local employment opportunities. - The SPV, with its diverse network and expertise, can actively promote local employment and contribute to the project’s positive social impact. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery presents an opportunity to go beyond our baseline obligations and goals, achieving a more significant positive environmental and social impact. - Therefore, the assessment indicates a likely net benefit favouring market-based delivery due to its potential for enhanced environmental and social outcomes. 	<p>1</p>
<p>11. Management and coordination</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have direct control over the design, infrastructure, and systems, ensuring optimal integration of the project within its existing operations. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The SPV is an additional party involved in the project delivery, necessitating careful coordination. To ensure smooth operations throughout the contract’s duration, specific processes and procedures need to be established. - Effective collaboration between the SPV and our company is essential to manage interface risks. 	<p>-1</p>

Dimension	Analysis	Score
	<p><u>Net position:</u></p> <ul style="list-style-type: none"> - While in-house delivery offers a clear advantage in terms of integration due to direct control over all aspects of the project, market-based delivery can achieve similar levels of integration with careful planning and collaboration. - The assessment shows that both approaches share the same physical interfaces. However, involving additional parties in market-based delivery can result in net disbenefit. 	
<p>12. Customer bill impact</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Consumers will incur costs related to asset delivery before the asset becomes operational. Additionally, the impact on billing will be volatile throughout the asset's lifecycle, as it will require approval at each AMP. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - Payment to the SPV is intended to commence upon the delivery of the service and is yet to be confirmed, thereby aligning consumer costs with the services received. Additionally, consumer costs will be less volatile as the uncertainty mechanism similar to ARD will be determined at the time of contract award for the whole contract duration. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Based on the uncertain final position the assessment shows no significant benefits or disbenefits that are likely to realise for market-based delivery in terms of customer bill impact. 	<p>0</p>
<p>Aggregate score</p> <p>With an aggregate score of +6 from within a range of -12 to +12, Whitfield is likely to deliver value under the market-based delivery model.</p>		

Wetlands

Combined assessment

This section consolidates the key findings from both the quantitative and qualitative assessments to determine the overall VfM proposition.

The table below summarises the overall outcome of the VfM assessment for the Wetlands project.

Table 65: Wetlands combined VfM analysis

Assessment	Outcome
Quantitative assessment	Likely to deliver value with a base case NPV savings of £2.1m (i.e., cost of market-based delivery being lower by 1.7%) and sensitivity analysis aggregate score of +6.
Qualitative Assessment	Likely to deliver value with an aggregate score of +6.
Combined VfM outcome Based on the robustness of the qualitative and quantitative VfM (including updated procurement cost and adjusted WACC), the Wetlands project is likely to deliver value.	

Quantitative VfM

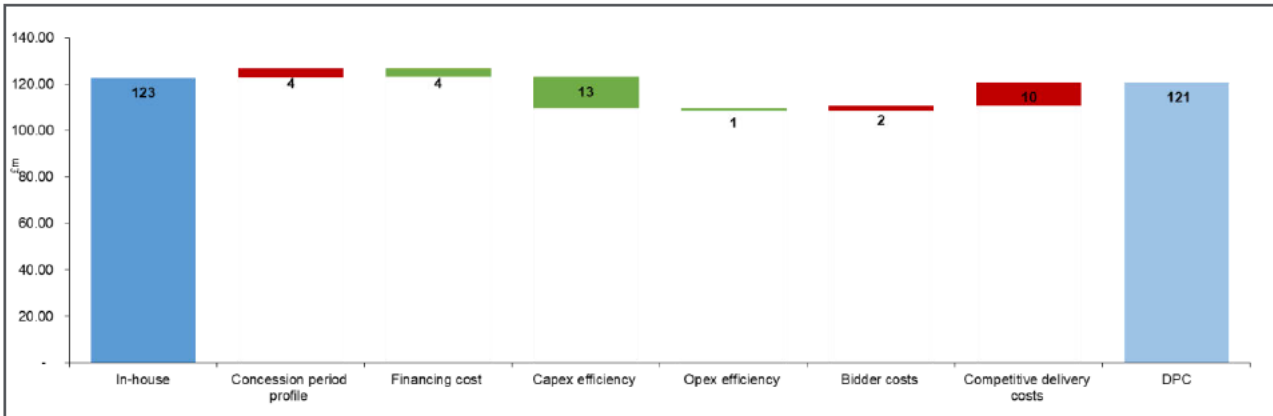
Delivery through market-based delivery may offer savings (i.e., positive VfM) for the project, with the NPV of market-based delivery cost being 1.7% lower than the NPV of in-house delivery costs for the base-case, as shown in the table below.

Table 66: Wetlands base case VfM

Base case VfM result	
NPV of cost of delivering the project In-house	£123m
NPV of cost of delivering the project under market-based delivery model	£121m
Difference in NPV	£2.1m
Percentage difference in NPV	1.7%

The graph below illustrates the key value drivers for the VfM analysis of the project’s base case scenario. It provides a visual representation of the primary factors that influence the VfM outcome, highlighting how these drivers contribute to the overall value assessment for the project.

Figure 18: Wetlands value drivers



This value driver analysis considers a standard 25-year operation period. Key value drivers under the market-based delivery model are the benefits from cost efficiencies (£13m from capex and £1m from opex efficiencies) and cheaper financing costs by £4m. However, the 25-year operation period offers limited scope for potential opex savings compared to capex savings.

These benefits are to some extent offset by the additional bidder costs and the competitive delivery costs, which include both fixed and variable procurement cost, that would not arise if we were to deliver the project in-house.

The NPV for the market-based delivery model appears to remain positive in majority of the sensitivities, providing a positive VfM, except in the high-case contract period, and the low-case equity IRR, gearing, and capex efficiency sensitivities where in-house delivery is more favourable. The table below summarises the quantitative assessment results for each of the seven variables.

Table 67: Wetlands quantitative VfM analysis

Variable name	Assumptions under different cases			In-house NPV – AMBD NPV	
	Low	Base	High	Low case	High Case
Contract period	20	25	40	£1.8m	(£0.4m)
Equity IRR	12%	10%	9%	(£5.7m)	£5.8m
Gearing	80%	85%	90%	(£2.7m)	£7.4m
Capex efficiency	5%	10%	15%	(£4.8m)	£8.6m
Opex efficiency	5%	10%	15%	£1.4m	£2.7m
Competitive delivery cost	1.00%	0.55%	0.25%	£0.4m	£3.6m
	£10,000k	£9,000k	£8,000k		
Bidder costs	3%	2%	1%	£0.9m	£3.3m

Aggregate sensitivity score
 The scores of all variables are aggregated based on the methodology in the Quantitative VfM section. There are ten cases indicating a positive VfM (+10) and four cases indicating a negative VfM (-4). The Wetlands project has an aggregate score of +6 from within a range of -14 to +14.

Overall, the quantitative VfM assessment indicates that the Wetlands project is neither likely nor unlikely to deliver value under the market-based delivery model.

Qualitative VfM

The qualitative VfM considers the underlying factors for 12 selected dimensions to indicate whether there is a net benefit under the market-based delivery compared to in-house delivery. The table below sets out the qualitative assessment of the Wetlands project against each dimension.

Table 68: Wetlands qualitative VfM analysis

Dimension	Analysis	Score
1. Deliverability capability	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We are delivering Wetlands on a smaller scale. Therefore, we possess limited expertise in delivering the overall scheme. - By leveraging existing capabilities and a strong network of contractors and suppliers, we are equipped to manage the project in-house. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - There is a pool of companies with experience and proven expertise of delivering this type of projects both in the UK and internationally. - Under this model, companies have the option to collaborate and form consortia to bring in all the required expertise, including experts not readily available within our network. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both delivery models demonstrate comparable capability. We can leverage our existing expertise and network, while market-based delivery offers access to specialised international expertise along with local experts. - Therefore, the assessment presents no significant benefits or disbenefits between market-based delivery and in-house delivery in terms of overall capability. 	0
2. Deliverability capacity	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - The Wetlands project spans AMP8 and AMP9, necessitating the expansion of our internal resources and the procurement of short-term frameworks to undertake the project. - Wetlands project involves construction of multiple sites. - We bear the responsibility for the successful delivery of the entire PR24 capital programme, demanding a broader focus beyond the individual Wetlands projects. - Without mitigation measures, we will face a substantial workload which places pressure on capacity and resource allocation and makes it crucial to ensure the right resources are assigned to each project for timely delivery. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - A SPV entity would focus solely on the project, ensuring dedicated attention and resources. - Bringing the project to the market necessitates expertise beyond our everyday capacity. The dedicated team with a range of technical, commercial, and legal expertise is required to develop the proposals that would allow selection of a right partner to deliver the project. - Bidders, on the other hand, likely possess extensive experience in bidding for and delivering PPP/PFI contracts, enabling them to efficiently assemble the necessary partners and subcontractors for successful project execution. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery offers a strategic solution to mitigate potential resource constraints for us. - Based on the above, the assessment suggests a likely net benefit favouring the market-based delivery over in-house delivery due to the dedicated focus it brings to the project. 	1

Dimension	Analysis	Score
<p>3. Access to supply chain/ contractors</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have an extensive network of existing supply chain and contractor frameworks established over previous AMPs, which could be utilised for the project. - However, the overall increase in capital programmes across our company and other water companies may lead to capacity constraints among existing partners. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The SPV has the potential to introduce a diverse pool of suppliers beyond our current network, expanding options and mitigating potential constraints. Tender evaluation criteria can be tailored to promote supplier diversity. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery can potentially identify a wider supply chain, which could enhance competitive pressure and value for customers. This potential benefit is reflected in the assessment's likely net benefit for market-based delivery. 	<p>1</p>
<p>4. Commercial attractiveness</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - The scope for the Wetlands programme is heavily influenced by the development of scope and activities proposed across the WINEP improvement programme for storm overflow reduction. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The commercial attractiveness of the project depends on the contract terms. - Success under this model necessitates a clear and reliable payment mechanism, along with arrangements enabling the SPV to secure both equity and competitive debt financing. - Commercial attractiveness has the potential to enhance price discovery and access to capital, further increasing the financial benefits driven by market-based delivery. <p>Market engagement has shown a positive sentiment for the project subject to final risk allocations.</p> <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring market-based delivery due to its potential to attract private investment and optimise financial arrangements, leading to a more commercially attractive proposition for both parties compared to in-house delivery. 	<p>1</p>
<p>5. Price discovery</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have in-depth knowledge of contractor costs for various projects due to our experience and existing supplier frameworks. - Mini competitions within these frameworks can be employed to drive some level of price discovery. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - A competitive tender process ensures that pricing proposals from bidders would be based on reliable methodologies. - The pricing put forward by SPV bidders is expected to drive the price discovery but also reflect their view on the overall scheme delivery risk. - Under the late tender model, the price discovery process will encompass all design, construction, finance, operating and maintaining costs over the contract duration. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - In-house delivery is expected to yield limited project price discovery. - Therefore, market-based delivery presents a likely net benefit due to the competitive tender process and its potential to establish benchmark price discovery over the contract duration. 	<p>1</p>
<p>6. Access to capital</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We would be responsible for raising capital for projects within the PR24 programme, including Wetlands. - We have established access to capital sources that have historically supported our capital programme delivery and operations. <p><u>Alternative market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The bidders can engage with a diverse range of investors in the market, exploring various financing options to supplement project costs. 	<p>1</p>

Dimension	Analysis	Score
	<ul style="list-style-type: none"> - This approach facilitates the identification of new funding sources with potentially more competitive terms. - Financing would be specifically tailored to the project, allowing efficiencies which include higher gearing as compared to notional company. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The assessment indicates a likely net benefit favouring market-based delivery due to its potential to access a wider pool of capital, secure more competitive financing terms, and leverage a higher proportion of debt for the project. 	
7. Flexibility	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We retain complete control and can modify project design, features, and customer outputs at any stage of the project lifecycle. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - While changes to the project are still possible under market-based delivery, a structured mechanism would need to be established to manage such modifications, inherently reducing flexibility compared to in-house delivery. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - The scope of potential changes that the contractual terms would allow could be limited and it will need to be structured in a way that does not negatively impact the SPV's ability to access competitive financing. - Therefore, the assessment indicates a likely net disbenefit of market-based delivery in the context of flexibility, as it would restrict our ability to adapt and modify the project compared to the complete control afforded by in-house delivery. 	-1
8. Risk identification and mitigation	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - As the project progresses, we would implement a comprehensive risk management process to identify and address potential challenges. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - Market-based delivery necessitates a more rigorous effort to identify, define, and allocate risks effectively, assigning responsibility to the party best equipped to manage them. This additional effort leads to a more comprehensive and proactive risk management approach including appropriate mitigations. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Both models allow for clear risk identification. However, market-based delivery's emphasis on thorough risk allocation and the involvement of specialised expertise aids to facilitate a more robust risk management framework. - Therefore, the assessment indicates a likely net benefit favouring market-based delivery due to its comprehensive and proactive approach to risk identification and mitigation. 	1
9. Innovation in technology and delivery	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We will be responsible to select and implement technology, identify novel solutions, and establish new processes, leveraging our experience and practices to deliver the project. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The late tender model fosters innovation throughout the project contract duration, from design and construction to operations and maintenance. - Experienced bidders can leverage lessons learned and best practices to enhance project delivery efficiency. - Contractual incentives can encourage the SPV to implement novel approaches, while knowledge-sharing provisions allow us to benefit from their expertise and experience. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery offers additional avenues for innovation in delivery compared to the in-house approach. The potential for incorporating international best practices, incentivising innovation through contracts, and facilitating knowledge sharing creates a more dynamic and adaptable delivery environment. - Therefore, the assessment indicates a likely net benefit favouring market-based delivery due to the enhanced opportunities for innovation in project delivery. 	1
10. Environmental and social	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We are committed to delivering the project in accordance with high environmental and social standards. 	1

Dimension	Analysis	Score
	<p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - We can leverage the contract terms to incentivise the SPV to exceed standard environmental and social objectives during the operational phase. This could include targets for energy efficiency, carbon reduction, community engagement, and local employment opportunities. - The SPV, with its diverse network and expertise, can actively promote local employment and contribute to the project's positive social impact. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Market-based delivery presents an opportunity to go beyond our baseline obligations and goals, achieving a more significant positive environmental and social impact. - Therefore, the assessment indicates a likely net benefit favouring market-based delivery due to its potential for enhanced environmental and social outcomes. 	
<p>11. Management and communication</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - We have direct control over the design, infrastructure, and systems, ensuring optimal integration of the project within our existing operations. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - The SPV is an additional party involved in the project delivery, necessitating careful coordination. To ensure smooth operations throughout the contract's duration, specific processes, and procedures need to be established. - Effective collaboration between the SPV and our company is essential to manage interface risks. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - While in-house delivery offers a clear advantage in terms of integration due to direct control over all aspects of the project, market-based delivery can achieve similar levels of integration with careful planning and collaboration. - The assessment shows that both approaches share the same physical interfaces. However, involving additional parties in market-based delivery can result in net disbenefit. 	<p>-1</p>
<p>12. Customer bill impact</p>	<p><u>In-house considerations:</u></p> <ul style="list-style-type: none"> - Consumers will incur costs related to asset delivery before the asset becomes operational. Additionally, the impact on billing will be volatile throughout the asset's lifecycle, as it will require approval at each AMP. <p><u>Market-based delivery considerations:</u></p> <ul style="list-style-type: none"> - Payment to the SPV is intended to commence upon the delivery of the service and is yet to be confirmed, thereby aligning consumer costs with the services received. Additionally, consumer costs will be less volatile as the uncertainty mechanism similar to ARD will be determined at the time of contract award for the whole contract duration. <p><u>Net position:</u></p> <ul style="list-style-type: none"> - Based on the uncertain final position the assessment shows no significant benefits or disbenefits that are likely to realise for market-based delivery in terms of customer bill impact. 	<p>0</p>
<p>Aggregate score</p> <ul style="list-style-type: none"> - With an aggregate score of +6 from within a range of -12 to +12, the Wetlands project is likely to deliver value under the market-based delivery model. 		

Appendix B – Alternative Metering Service – VfM

Executive summary

This paper presents our analysis to ensure our consumers get Value for Money (VfM) for smart metering services which we intend to start offering in AMP8. VfM is a fundamental principle of economic regulation, enabling consumers to benefit from fair pricing and high quality of service.

After a study we conducted and presented in our Smart Metering Enhancement Business Case paper¹², we determined that of a range of options, proactively replacing the water meters we installed across our water stressed region in AMP5, would represent the lowest marginal cost and greatest benefit to cost ratio for our customers.

The approach to replace our meter portfolio and upgrade them to Smart AMI Meters was allowed by Ofwat at PR24 Draft Determination published in July 2024, enabled by the sector wide Meter Replacement Base Cost Adjustment (Ofwat file name. 1. Base Adj_PR24-DD-Meter-replacements-adjustment.xlsx), and Meter Upgrade enhancement (Ofwat file name PR24CA32_W_Metering). This document considers the allowed base and enhancement costs in AMP8, with ongoing OPEX costs for the remaining 15 year service term remaining in-line with our assumed costs communicated in the Smart Metering Enhancement Business Case. This paper does not consider the deliverability of the Smart Metering programme within the allowed unit rates, or the impact of Price Control Deliverables to the proposed delivery approaches.

Two alternative approaches

In this paper, we assess two alternative approaches to funding and financing our proposed proactive smart meter rollout programme:

- In-house delivery – this is a traditional approach where we will install and operate our own smart meters;
- Alternative Metering Service – this involves procuring smart meter data as a service from a third-party provider or a consortium of service providers acting through a special purpose vehicle (SPV), i.e., a company set up for the purpose of delivering smart meter services.

Delivering the service ourselves in-house will require us to finance the upfront and ongoing investment in terms of capital expenditure and operating expenditure. Ofwat, through the price review mechanism will approve a level of our spending through the PR24 base and enhancement cost allowances and allow us to collect a revenue stream from our customers to recover these costs and make a return on the capital we have tied up in the water meter assets.

Under an Alternative Metering Service approach (for this scheme, if pursued, would become “Alternative Metering Services”), a third party would provide smart water meter services to Southern Water. It would own and operate the smart meters and finance both the capital and operating expenditures. We would then pay the third party a service fee as an ongoing operating expenditure for the duration of the service contract which we have assumed to be 20 years. This allows for all smart meter assets to complete their expected

¹² [Smart Metering Enhancement Business Case, 2 October 2023](#)

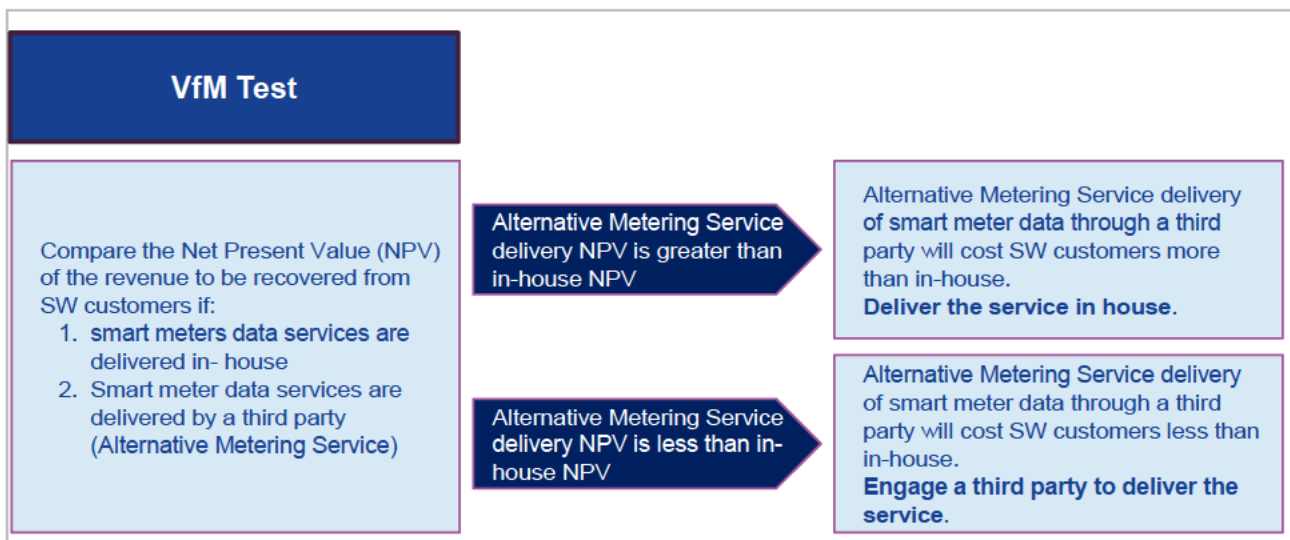
useful economic lives. We would need to agree the level of these costs with Ofwat and recover them through customer bills with an Allowed Revenue Direction (ARD), or an equivalent mechanism.

Ofwat traditionally provides funding on a five-year basis for expenditure through its price review approach. Traditionally capital expenditure accumulates to the Regulatory Capital Value, with consumers paying a fair return and the depreciation of that investment over the asset life. The rate of return is reviewed every five years. Under the Alternative Metering Service approach, the upfront investment would be financed by a third party for the duration of the contract. Given this extends beyond the price review period it would only make commercial sense where there is confidence that an allowed revenue direction or equivalent would continue for the duration of the contract.

The Value for Money test

We have undertaken analysis to compare the costs and revenue streams of the two approaches over a 20 year contract. Discounting the revenues (generated through customer bills to cover costs and provide a return) back to a net present value (NPV) and comparing the NPV of the two approaches, determines the VfM for our customers of adopting one approach over another.

Figure 19: VfM test



The input capex and opex costs of both the In-house and Alternative Metering Service approaches is £253.7m in 2023/24 prices.

To these costs we apply inflation (CPIH at 2% p.a.) and for the Alternative Metering Service approach, cost efficiencies and some additional third-party costs.

The revenue stream (customer bill profile) under in the In-house approach is determined by the Allowed Revenue formula that will be applied in PR24. Under the Alternative Metering Service approach, it is based on full cost recovery plus a return for equity investors. Payment to the third party is linked to the successful transmission of smart meter readings to us. The customer bill profile is therefore linked to the number of meter readings expected in any given year of the contract.

Results

The findings suggest the following base case result:

- In-house delivery NPV of 20 year service: £207.1m.
- Alternative Metering Service NPV of 20 year service: £191.3m.

Our findings suggest an Alternative Metering Service approach is cheaper for our customers. The difference is a NPV customer saving over 20 years of £15.9m.

Key drivers

We found that the cost advantages of the Alternative Metering Service approach are driven largely by:

- The cost efficiencies the third-party can achieve compared to in-house delivery; and
- The financing costs of the third party.

We expect third party providers to be specialists who can bring efficiencies at scale, by leveraging operational, financial, manufacturing, & supply chain economies of scale and rigour, resulting in overall cost savings.

For financing costs, a third party may be able to secure financing which is competitive with the cost of debt in the regulated Weighted Average Cost of Capital (WACC). This will depend on lenders and investors having clarity as to the risks of the programme and a known future revenue stream over the life of the contract, linked to inflation.

We have assumed initial financing costs, after Draft Determination, that are slightly higher than the WACC, given the volatility of debt markets in late 2022 when Ofwat set its early view of the WACC for PR24.

Scenarios

In addition to the base case scenario, we have created a low and high case varying the cost efficiencies and financing costs to project in the low scenario, a set of circumstances unfavourable to an Alternative Metering Service approach and in the high scenario, circumstances favourable to an Alternative Metering Service.

The results show that when cost efficiencies are halved and simultaneously, senior debt (bank) financing costs increased by 0.4% vis-à-vis the level of the regulated WACC, an Alternative Metering Service approach remains marginally cheaper than in-house delivery for SW customers. Conversely, an increase in efficiencies and/or a reduction in the financing costs versus the WACC reduce the costs of an Alternative Metering Service for SW's customers.

Table 1: Alternative Metering Service scenarios- 20-year NPV versus In-house delivery

Parameter	Assumption for smart meters	Assumption / variable	Parameter values		
			Low case	Base case	High case
Contract period	20 years to allow for complete depreciation of assets in both in-house and Alternative Metering Service scenarios.	Contract length (years)	20	20	20
Cost of senior debt	A rate of 4.16% on amount drawn down years 1-5 then 3.13% thereafter. 0.805% on borrowing facility. Principle of debt on assets paid down as cash is available after annual interest payments. Interest paid each year on opening debt balance plus additional drawdown.	Financing cost variation	+0.4% (change from base)	0% (change from base)	-0.4% (change from base)
Equity - Subordinate debt	c. 14% sub-ordinated debt from investors.	Sub debt cost	5%	5%	5%

Capital expenditure and operating expenditure efficiencies	10% Capex and opex cost efficiencies	Efficiencies - capex & opex (%)	5.00%	10.00%	15.00%
Additional bidder costs	Bidder costs: 0.4% of capex	Bidder costs	0.40%	0.40%	0.40%
20-year NPV vs in-house			£4.36m	£15.9m	£27.0m

Conclusion

The Alternative Metering Service Approach provides a better VfM proposition for our customers. Whilst it involves a variation on the in-house delivery approach with cost recovery through regulated allowed revenues under the price review framework, the result of this analysis suggests that Alternative Metering Service should be the preferred delivery route for the smart metering programme in our region.

Table 2: Summary of smart metering value for money case (base scenario)

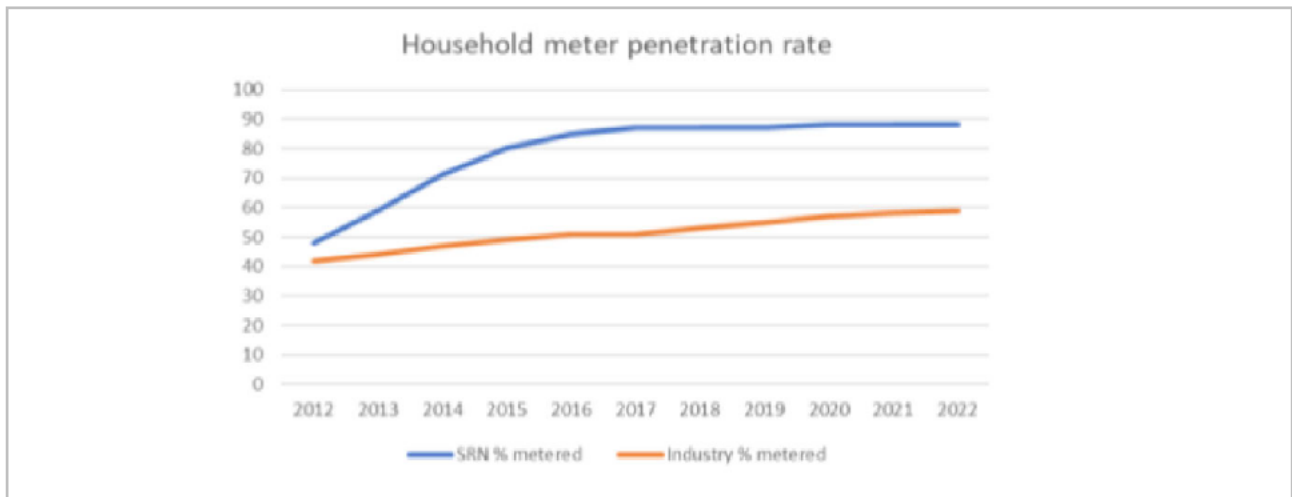
Summary of our assessment (compare NPV of both options)	
Name of Programme	Smart Metering
Summary of Case	This case evaluates two delivery routes to proactively replacing and installing AMI meters during AMP8: a) PR24 traditional route where totex is paid via the price control. b) Alternative Metering Service where the programme is Designed, Built, Financed, Operated, and Maintained (DBFOM) by a third party and Southern Water pays a service fee for the smart meter reads.
Expected Benefits	The provision of the service to provide smart meter readings enables Southern Water to deliver its Water Resource Management Plan objectives. <ul style="list-style-type: none"> • Reduction in per capita consumption (PCC) • Reduction in business demand • Reduction in customer-side leakage (CSL) • It will also indirectly enable other benefits such as a reduction in meter read costs, better network management, and customer tariff innovation.
Associated Price Control	Wholesale Water: Treated Water Distribution
NPV PR24 traditional route	£207.1m
NPV Alternative Metering Service	£191.3m

Introduction

Context

Southern Water was designated by the Secretary of State as an area of serious water stress in 2013 and hence we were required to consider the case for universal metering. In our WRMP 2010-35 we consulted on and adopted a universal metering approach to encourage water consumption reduction. We delivered this universal metering programme in AMP5 (2010-15) to ensure a resilient water supply to our customers.

Figure 20: Southern Water and industry average meter penetration 2021-2022



Source: Southern Water analysis of industry data collected through the Annual Performance Report data tables for 2020-21 and 2021-22.

The rollout of water meters was a key component of achieving our Water Resources Management Plan (WRMP). It resulted in a significant improvement to our supply / demand balance with customers reducing their water consumption by 16.5%. This equated to nearly 70 litres water usage reduction per consumer two years after the meter had been installed¹⁴.

In our latest WRMP115, we set out our plans to further reduce water consumption in line with the directives of the Government and Ofwat. Smart meters using Advance Metering Infrastructure (AMI) technology will play a crucial role in achieving these targets. They enable us to take readings every hour and to provide this data to our customers. With this level of granular usage data, we will be able to identify customer side leakage (CSL) and inform customers to act (or take action ourselves). We will also be able to nudge and assist customers to take steps to change their water usage habits and reduce Per Capita Consumption (PCC) in ways that the original water meters, typically read twice per year, do not enable.

Our relatively early rollout of meters means that nearly 96% of our household (HH) meters and nearly 79% of our non-household (NHH) meters will be at least 15 years old at the end of AMP8. As they reach the end of

¹³ [Environment Agency, Water stressed areas – final classification 2021, July 2021](#)

¹⁴ [University of Southampton, 2015](#)

¹⁵ [Draft Water Resources Management Plan 2024 Technical Report October 2022](#)

their economic lives, they will need to be replaced. It makes sense now to replace them with smart (AMI) meters, and in-line with the regulatory position that Smart Meters in AMP8 should be the default type of meter.

Table 3: Percentage of meters reaching their end of life

Category	AMP8	AMP9	AMP10
Household meters	96%	3%	1%
Non-household meters	79%	13%	8%
Total	95%	4%	1%

Source: Southern Water internal data

We addressed the question of whether to replace the meters as they fail or to undertake a proactive full meter replacement programme in AMP8 in our Cost Adjustment Claim paper¹⁶ submitted to Ofwat in October 2023 and found that a proactive meter replacement approach gave the highest programme Net Present Value (NPV) and Benefit Cost Ratio (BCR). More details are given in section 0.

Purpose and approach

Given the allowed approach to proactively replace all our meters and upgrade them to AMI smart meters, we have considered the most cost effective approach to do this. In this document we evaluate the different options for delivering smart meters to identify the most cost effective, emphasising our commitment to maximising VfM for our customers. It builds on insights from our PR24 business plans, and the allowed expenditure confirmed in the PR24 Draft Determination including:

- Enhancement business case¹⁷: An enhancement business model follows the traditional PR24 route, involving a thorough cost-benefit analysis to evaluate various options. We proposed proactively replacing existing meters with advanced metering infrastructure (AMI) technology during AMP8.
- Cost Adjustment Claim¹⁸: We complemented this submission with our Cost Adjustment Claim to present our case for additional funding required to replace end of life meters. The claim highlights our industry-leading penetration rates and the maturity of our existing smart meter infrastructure.
- Alternative Metering Service¹⁹: a business case outlining Southern Water's proposed schemes for Direct Procurement for Customers (DPC), or what we called Alternative Delivery. In-line with Ofwat guidance, Smart Meters were confirmed as excluded from DPC, but using Ofwat's DPC test it was identified as a project with the parameters to be delivered via an alternative delivery mechanism, offering innovation and efficiency to the benefit of customers and Southern Water.
- PR24 Draft Determination²⁰: The allowed base expenditure to replace our meters (sector-wide base adjustment) of £108.55m, and £75.68m enhancement allowance to upgrade them to Smart AMI

¹⁶ SRN24 Meter Replacement, Cost Adjustment Claim, Version 1.0, 2nd October 2023

¹⁷ [Smart Metering Enhancement Business Case, 2nd October 2023](#)

¹⁸ [Meter Replacement Cost Adjustment Claim, 9th June 2023](#)

¹⁹ [SRN17 Direct Procurement for Customers and Alternative Delivery Model, Technical Annex, 2nd October 2023](#)

²⁰ Ofwat PR24 Draft Determination [Expenditure Allowances](#), released in July 2024

Meters. This paper does not consider the impact of scope and incentives (either Price Control Deliverables or Outcome Delivery Incentives).

We now focus on the proactive replacement of our existing water meter asset base with smart meters during AMP8 and consider two different approaches to achieving this.

- 1) **Delivering smart meter reading data services in-house (In-house approach)** – we will procure, and install smart meter hardware, and buy data communications network services to collect and transmit data readings from the installed smart meters. Our costs will be subject to the PR24 regulatory process, and we will recover the costs through bills to our customers in accordance with the Allowed Revenue method of cost recovery and investment return. This is the counterfactual scenario for this paper.
- 2) **Procuring smart meter reading data as a service provided to us by a third party (Alternative Metering Service approach)** – a third party will create an operating entity (or company, possibly a special purpose vehicle - SPV) to provide a full smart meter data reading service to Southern Water. The third party service provider will likely work with partners to procure, install, and own smart meters, and collect and transmit data readings on a data communications network. The assets will be owned by the third party service provider (or the special purpose vehicle set-up specifically to provide this service). Southern Water will pay a fee to the third party service provider for the service based on meter readings received. We will then recover these service costs through customers' bills based on an Allowed Revenue Directive (ARD) agreed with Ofwat. This is our factual scenario for this paper.

We have developed a financial model to compare the two options described above and determine the costs to our customers of each approach over the lifetime of the smart meters. The comparison of the costs to customers forms the basis of our Value for Money (VfM) analysis. In this document, we set out how the model works, the inputs and assumptions as well as the results of the analysis conducted with the model.

Structure of the paper

The rest of the document is structured as follows:

- In section 3 we set out the Regulatory environment and WRMP targets which smart meters will contribute to achieving as well as the expected benefits that competition from an Alternative Metering Service approach could bring.
- Section 4 outlines the options we have evaluated.
- Section 5 delineates the inputs, parameters, and assumptions, as well as the framework used in our financial models.
- Section 6 presents the outcomes of our financial model and substantiates the Alternative Metering Service option as a strong VfM option for our customers.
- Section 7 discusses the measures we will implement to protect our customers under this approach, including commercial arrangements and set of procurement principles.
- Section 8 sets out our conclusions.

Regulatory environment and WRMP targets

Smart meters – a key enabler to increase water resilience

The English government set out strategic priorities for Ofwat in March 2022. The four strategic priority areas are shown in section 3.2 below.

The Environment Agency has recently updated its report on the WRMPs for England²¹, endorsing the rollout of smart meters that will capture daily and sub-daily usage data and help households understand and modify their water usage. The EA are asking water companies to stop installing “dumb” meters that require a physical reading, normally once or twice per year and to rollout smart meters instead.

The National Infrastructure Commission has also referred to the installation and use of smart meters to enable better demand management of water in its second national infrastructure assessment²². It sets out the need for an increase in investment in water infrastructure on both the supply and demand side. It notes the requirement for increased (enhancement) spending on water infrastructure in PR24 and beyond and that *“The public should be supported through a mix of ... smart technology such as increased use of smart water meters, and public information such as education campaigns to help consumers understand their water consumption.”* It continues, *“The majority of the investment needed will come from private capital.There is private finance available but, to secure it, ...predictable regulatory models that allow rates of return commensurate with the level of risk, better strategic policy direction from government, increased use of competition and good infrastructure design [are required]”*.

Hence, smart meters are a key enabler for increasing the resilience of the water industry in England and Wales through helping customers become more aware of their water usage and play an active role in managing their consumption of it.

An example of possible future demand-based water pricing was illustrated by the recent vote by elected officials in the French city of Toulouse. On 4 April following the vote, the mayor announced demand-based pricing with higher prices for water during summer months (June to October) and lower prices in winter months (November to May)²³. Should variable pricing for water be introduced in England, smart meters will be invaluable to enable customers to monitor and modify their water consumption accordingly.

Delivering smart meters via an Alternative Metering Service route will introduce competition into this service within the water sector. This has been done successfully in the energy sector for the benefit of customers.

WRMP requirements and linkages to business plans

With reference to Ofwat’s duty of furthering the long-term resilience of undertakers’ water supply and wastewater systems, and noting that smart metering is a critical enabler to meet WRMP requirements, the diagram below illustrates these priorities and indicates the placement of smart metering within them.²⁴

²¹ [A summary of England’s revised draft regional and water resources management plans, 21st March 2024, Environment Agency](#)

²² [The Second National Infrastructure Assessment, National Infrastructure Commission, October 2023](#)

²³ [Tap water fees for homes to be seasonal in Toulouse \(connexionfrance.com\)](#)

²⁴ [February 2022: The government’s strategic priorities for Ofwat - GOV.UK \(www.gov.uk\)](#)

Figure 2: Government's strategic priorities for Ofwat



A resilient water sector

The Government’s strategic priorities challenges water companies to reduce water demand to alleviate the pressure on water resources and enhancing resilience against severe droughts and unforeseen climate events. The Government expects Ofwat to challenge water companies to reduce leakage by 50% from 2017/18 levels by 2050 and to reduce per capita consumption (PCC) to 110 litres by the same year.

We noted in the introduction that Southern Water’s area was designated by the Secretary of State as an area of serious water stress in 2007. To secure a continuous provision of high-quality drinking water to our customers and to deliver the targets set by Ofwat, our water resources management plans (WRMPs) outline the essential interventions required for the medium to long term to achieve these goals.

In accordance with our fundamental values, governmental mandates, and Ofwat's regulatory guidelines, the integration of smart metering is a fundamental aspect of our WRMPs and consequently, our PR24 business strategy. It is a key enabler for reductions in household consumption and customer-side leakage. Our programme is projected to save 20.6MI/d by the end of AMP8. Achieving these objectives contribute significantly to alleviating the water scarcity challenges prevalent in our region.

In addition, the current metering estate has an expected mechanical life of 15 years²⁵, the accepted standard in the industry. Beyond this, the accuracy of the meter degrades. This leads to challenges when measuring and accounting for water usage and makes it harder to reflect this accurately in customers’ bills. The volume of meters needing replacement in AMP8 is higher than most in the sector. By 2030, 94% of our meter estate will be more than 15 years old.

Further details of the need for investment in Smart Metering can be found in our PR24 Smart Metering Enhancement Business Case.

²⁵ Environment Agency: The costs & benefits of moving to full water metering, Published 2008

Using markets and promoting competition

If we take an Alternative Metering Service approach to smart meter (data) services, the competitive tendering process that would be required would introduce competition into this part of the water sector. By involving the market, this would determine if competition can deliver the same service for customers at a lower cost. We believe this approach is in line with the fourth strategic priority of the government for Ofwat: using markets to deliver for customers. We believe it is also in line with Ofwat's aims and thinking for using competition to deliver water infrastructure more cost-effectively for customers²⁶.

In a similar vein, the returns made by any third party and its investors will be market led, with competition ensuring a good deal for customers and the market determining the rate of return.

In the next section we describe the options we have assessed for our smart metering rollout programme.

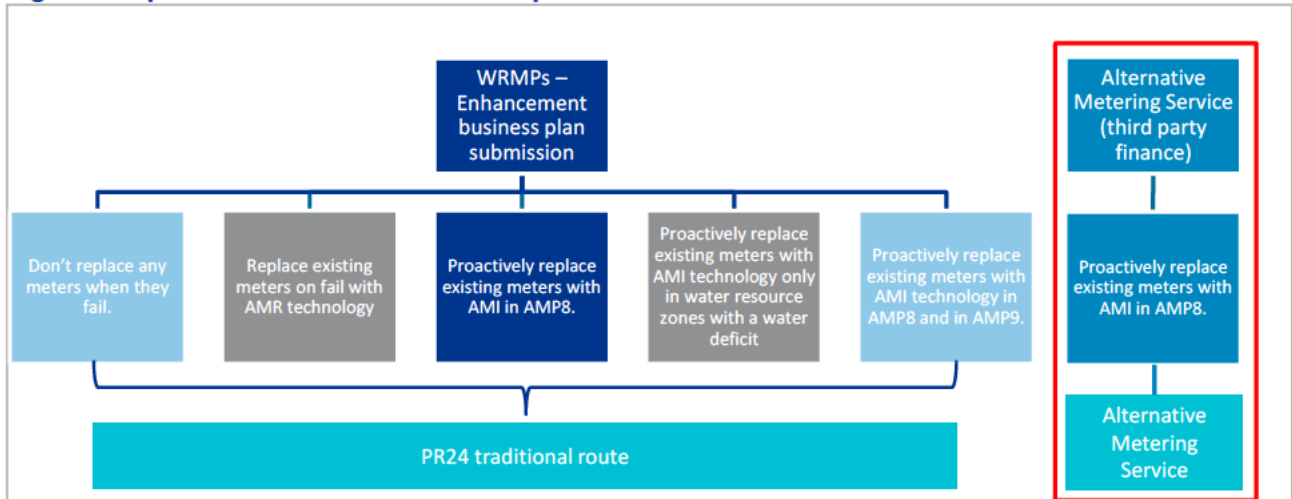
²⁶ [Competition stocktake report final \(ofwat.gov.uk\)](https://www.ofwat.gov.uk/competition/competition-stocktake-report-final/), July 2022

Description of options

How we arrived at the two options we consider in this VfM business case

We defined our options based on our Enhancement Business Case and alternative delivery PR24 business plans submissions. We began by considering a range of options. These are presented in the diagram below:

Figure 3: Options considered for meter replacement



We assumed that the options would be delivered in-house with cost recovery via customer bills through the PR24 traditional route of an Allowed Revenue.

Full details of the five options considered can be found in our Enhancement Business Case.

In summary, we conducted a cost/benefit analysis to identify the best option for consumers. Our evaluation of these options was based on the following criteria:

- **Proactive versus reactive:** our proactive rollout proposal aims to capitalise on economies of scale and cost efficiencies, ultimately lowering the total cost of replacing the meters coming to their end-of-life and serving the best interests of our consumers.
- **Technology choice:** we concluded that advanced metering infrastructure (AMI) technology is superior to automated meter reading (AMR). This preference arises from AMI's capability to transmit data directly to our central systems without the need for manual intervention by technicians, operating on a predetermined frequency. Direct data transmission can enable usage and leakage benefits.

In assessing costs, we considered various categories specified in Ofwat's business plan data requests. These include expenses associated with the meter, installation, communication and network devices, infrastructure, resource allocation, and IT integration.

We compared the costs against the benefits including reductions in PCC, leakage, business demand, avoided meter reads, carbon saving and other non-monetised benefits such as better understanding of customers on their usage, more accurate billing, and improving the management of our network. A summary of the benefit/cost ratio analysis is presented in the table below.

Table 4: Cost submission – Enhancement Business Case

Option	Description	AMP8 cost	Total net PV cost	Total PV benefit*	NPV*	Marginal benefit to cost ratio (BCR)
1b	Household meters (baseline)	£124.4	£119.2			
1c	Non-household meters	£189.1	£220.6	£90.5	-£10.9	0.89
1e	Proactively replace existing meters with AMI technology in AMP8 (preferred)	£175.0	£194.4	£88.7	£13.4	1.18
1f	Proactively replace existing meters with AMI technology only in water resources zones with a water deficit	£172.2	£190.6	£81.6	£10.1	1.14
1g	Proactively replacing existing meters with AMI technology in AMP8 and in AMP9	£164.0	£196.1	£87.6	£10.7	1.14

Source: PR24 - Smart Meter Enhancement Business Plan Submission, page 14. Present Value (PV) base year set to 2023-24. Costs in baseline subtracted from cost of each option in the calculation of the NPV and BCR.

After conducting the BCR analysis, we determined that **proactive replacement of current meters with AMI technology during AMP8 presents the most favourable option for consumers** (option 1e in the table above).

Under this option, the service will be delivered in-house, and revenues will be recovered under the traditional PR24 route with no Alternative Metering Service partner or finance.

Given that this was the most favourable option for our customers, we then asked if delivering this service In-house or through a third party (Alternative Metering Service) route, would be most cost effective for customers.

This led to our definition of the two options being considered in this paper:

- 1) Proactive replacement of current meters with AMI technology during AMP8 in-house (In-house approach); and
- 2) Proactive replacement of current meters with AMI technology during AMP8 by a third party which would then deliver smart meter reading data as a service to us (Alternative Metering Service approach).

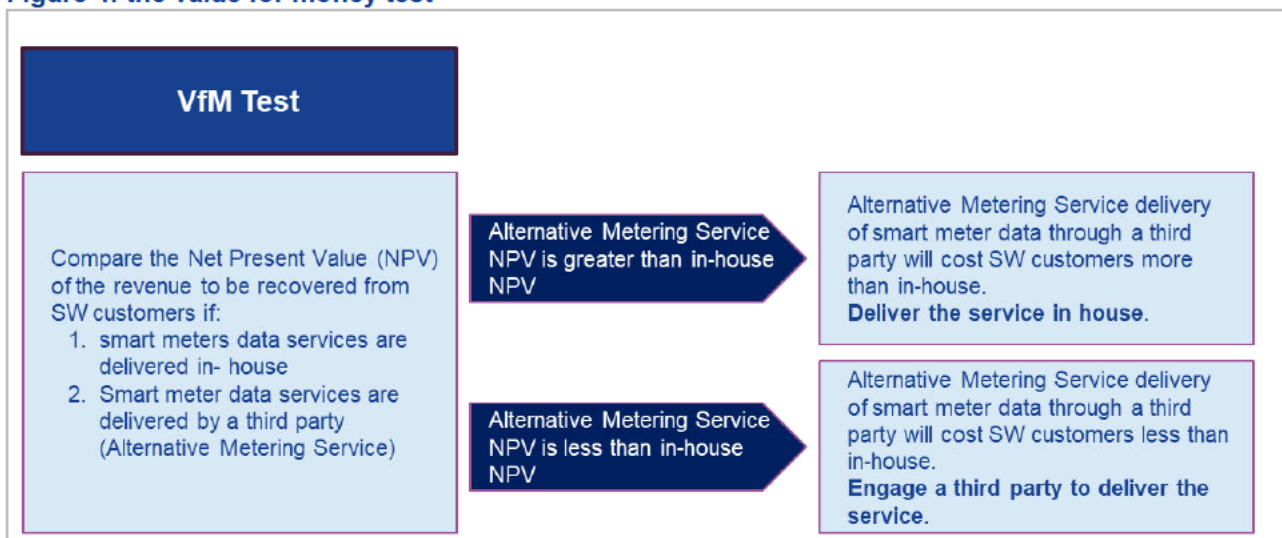
Description of the VfM model, assumptions, and commercial parameters

In this section, we provide a comprehensive breakdown of the inputs and assumptions that underpin our financial model for assessing the costs of the selected options outlined in the preceding section.

Definition of Value for Money

The figure below shows how we have assessed the VfM case.

Figure 4: the value for money test



We have built a cashflow model to calculate the revenue cashflows that would be recovered from SW customers under the scenarios where either:

- Smart meter data services are delivered in-house; or
- Smart meter data services are delivered via a third-party.

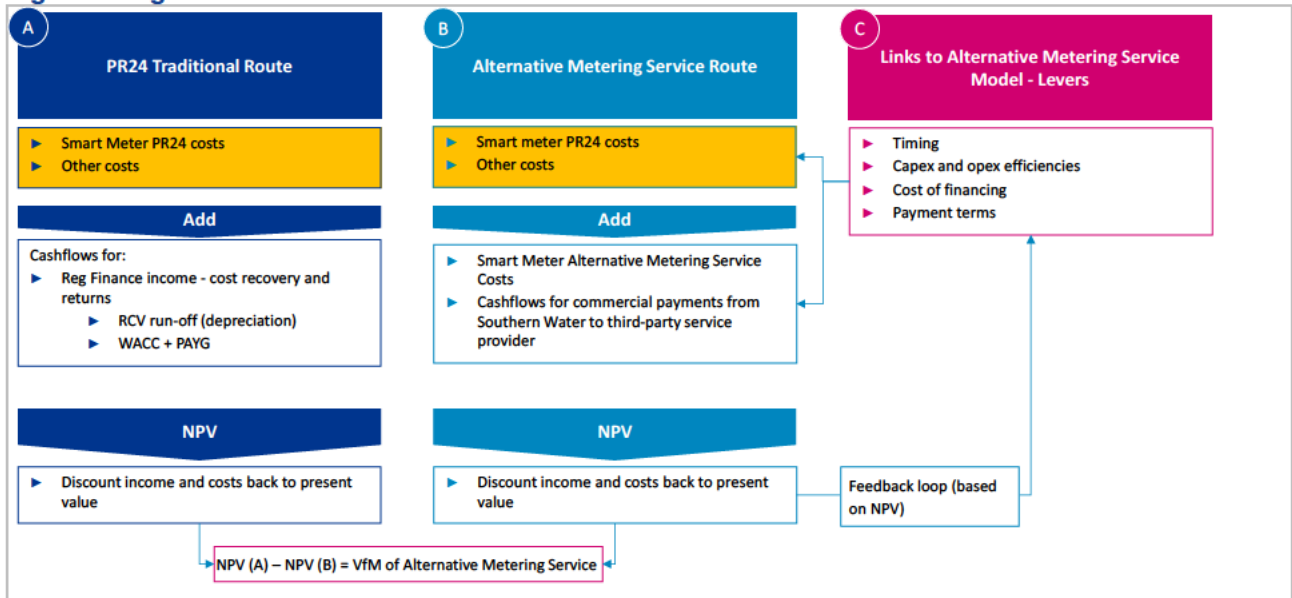
Comparing the NPV of the cashflows of revenues that can be recovered in each scenario informs us of the best delivery mechanism in terms of costs to our customers.

Structure of the financial model underpinning the VfM analysis

Our financial model compares the costs and returns allowed via the PR24 Allowed Revenue as they would feature in customer bills each year over a 20 year contract period with the costs and returns of a third party provider also turned into a revenue stream via bills to our customers each year based on meter reading data provided. A 20 year contract aligns with the installation period of 5 years and then allows full depreciation of all assets over their expected 15 year lifespan. The 20 years of bills to customers in each delivery scenario are discounted back to a present value and compared as per figure 4 above.

A simple diagrammatic representation of the financial model is shown below.

Figure 5: high level structure of our VfM financial model



Smart meter costs – capital expenditure and operating expenditure

The financial model we have developed is based on cashflows. The smart meter input costs are the same for both delivery options.

- Capital expenditure = £169.3m (in 23/24 prices); and
- Operating expenditure = £84.4m (in 23/24 prices)
- Total expenditure = £253.7m

These costs are spread through the programme with £191.1m incurred in AMP8.

Financing costs

Aside from the expected expenditure to deploy the programme, there will be programme financing costs.

The costs of financing for In-house delivery are assumed to be the same as the Appointee WACC set for PR24 (3.72% as per Ofwat’s draft determination published in July 2024²⁷). We have assumed that the WACC will remain the same for the duration of the period of our model, 20 years (5 years installation and 15 years full operation).

The financing costs for the Alternative Metering Service route is determined by the mix of debt and equity and the cost of these available to the selected third-party service provider during the contract.

Senior debt

We have taken at this interim draft determination stage a rate of 4.16% during AMP8 and 3.13% for the remaining operational period of the contract beyond AMP8.

There is also a bank commitment charge for the undrawn portion of the senior debt facility during AMP8.

²⁷ [PR24 draft determinations – Aligning risk and return](#)

Table 6: cost of senior debt for Alternative Metering Service approach

Debt product	Cost of debt
Installation (AMP8)	4.16%
Installation (AMP8) – bank commitment charges for undrawn portion of snr debt facility	0.81%
Operation (beyond AMP8)	3.13%

Subordinated debt

Investors in the programme are likely to invest in a mix of fixed debt (for example through a bond) and shareholder equity. According to our engagement with suppliers, we believe the investors will seek an internal rate of return (IRR) of 8%-10%. The yield on the subordinated debt will form part of this and we have set it at 5% annually in our VfM financial model. Further returns will be made based on the payment of dividends at the end of the programme following all interest payments and repayment of all debt to lenders. The table below compares the financing costs used for In-house and Alternative Metering Service options.

Table 7: smart meter programme financing costs

Financing cost input	Assumed value In-house	Assumed value Alternative Metering Service	Description
Cost of debt	Ofwat DD allowed return on debt: 2.84% (weighted average of new and embedded debt costs). This contributes towards the draft determination Appointee WACC of 3.72% that we have used as the overall appointee return on RCV in the In-house delivery scenario.	Senior debt Installation costs: 4.16% Operational costs: 3.13% Subordinated debt 5% throughout the programme	In the AMS approach, we differentiate between installation and operation phase to reflect less risk once asset has been built out. Debt rates estimated at July 2024 for comparability to data used by Ofwat for PR24 DD WACC. Debt is repaid when cash is available. Senior debt is serviced interest and principal before sub-debt.
Cost of equity	Ofwat early view allowed Return on Equity point estimate: 4.80%. This contributes towards the early view Appointee WACC of 3.72% that we have used as the overall appointee return on RCV in the In-house delivery scenario.	c.10% blended Equity Internal Rate of Return for investors. This is a combination of yield on subordinated debt and dividends on equity.	Evidence from Meter Asset Providers in the energy sector is that returns sought by suppliers / investors is in the range of 8% - 10%.
Gearing	85%	85%	85% of funding provided by senior debt, 15% by investors in the form of subordinated debt or share capital.
Margin for return on investor equity	None – return included in the WACC.	None – returns generated from cashflows and sub-debt payments to investors	n/a
Inflation	CPIH BoE long term target (2% p.a.)	CPIH BoE long term target (2% p.a.)	Over the long term, inflation has been close to the BoE target of 2% p.a.

Revenues

Revenues for the in-house service delivery approach are determined by the Allowed Revenue cost recovery mechanism of the price review.

Revenues for the Alternative Metering Service approach are split into two streams:

- 1) Revenues for the Third party and
- 2) Revenues for Southern Water: to cover internal costs that will remain with us even if an Alternative Metering Service approach is adopted.

The internal costs that will remain with us are for the creation and operation of a smart meter operations centre, IT integration with the smart meters, programme resource to cover costs associated with the setting up of the smart meter programme and operational resource to cover business as usual roles in the operations centre over the duration of the contract.

Revenues for the third party will be based on service availability and the successful transmission of data readings from the installed smart meter asset base.

We envisage the meters will take hourly readings. Once per day, 24 reads will be bundled into a data packet and transmitted to us. From our market engagement to date, 1 packet with 24 readings is the emerging standard given the balance we need to strike between granularity of data and lifespan of the smart meters which have a finite battery life.

The pricing mechanism in our financial model is a per data packet one to allow the third party service provider to recover its costs and make a return for investors. All the costs envisaged for successful delivery of the service by a third-party provider are added. These are divided by the total number of data packets expected to be provided during the lifetime of the contract. The costs of the service if delivered by a third party would all be converted into an operating expenditure stream for us. These operating expenditure payments allow the third-party to recover its costs and make a return. This mechanism allows for payment based on data provision and therefore has a built in performance incentive. If data is not provided, no payment is made. We note that the commercial negotiations will determine the details of the Service Level Agreement that a third-party would operate to.

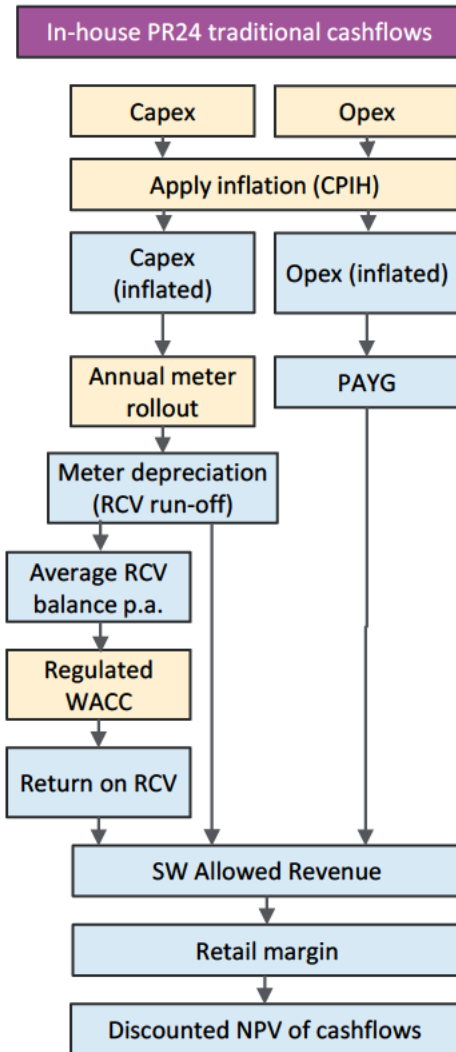
The Alternative Metering Service model approach would mean no capital expenditure on our part for the smart meters or their installation. The smart meter assets would sit on the balance sheet of the third party.

The structure of the In-house Allowed Revenue cashflows are shown in section 5.2.4 and Alternative Metering Service cash flows in section 5.2.5 below.

Model calculation flow for In-house PR24 traditional cost recovery route

The diagram below displays how cash flows are modelled under the traditional in-house service delivery route.

Figure 6: PR24 In-house smart meter service delivery cashflows



We are mindful that our spending plans for smart meters, as set out in our Enhancement Business Case and cost adjustment claim submission, are subject to approval by Ofwat. For the purpose of this VfM case, and in the absence of any other information, we assume that our spending plans remain the same in either case.

Figure 6 above illustrates the estimated cash flows if we deliver smart meters In-house and recover our costs and make our return on capital via pay as you go (PAYG) and regulatory capital value (RCV) run-off and allowed returns.

The allocation between PAYG and RCV is based on the ratio of operating to total expenditure as set out in our smart meter business plans (referenced above) to Ofwat.

We will recover the operating expense allowance through PAYG within the AMP period. We will recuperate the remaining capital allowance through the Regulatory Capital Value (RCV) run-off and the return on RCV, which is determined by the Weighted Average Cost of Capital (WACC) to be set by Ofwat for the price control period. The total allowed revenue comprises the PAYG, RCV run-off, and return on RCV all with a retail margin of 1% added.

The price control also sets incentives for water companies to achieve additional benefits beyond allowances. These include:

- Cost sharing mechanism: if Southern Water spends less than the allowed amount, it can retain some of these savings and allocate the remaining benefit to customers through reduced bills.
- Outcome delivery incentives: Southern Water can receive financial rewards if they outperform Ofwat set targets for reducing PCC, leakage, and business demand.

Our modelling assumes that we will meet targets but neither over, nor underperform.

Yearly cash flows of allowed revenue are discounted to estimate a net present value (NPV) using the social value discount rate set out in the HM Treasury Green Book (3.5% in real terms).

For the purpose of our VfM financial model, we assume that the Allowed Revenue cost recovery mechanism and return on capital (WACC) remains constant over the life of the contract, even though it spans four price review periods.

Model calculation flow for the third-party Alternative Metering Service Route

If we take an Alternative Metering Service Route, cashflows split into:

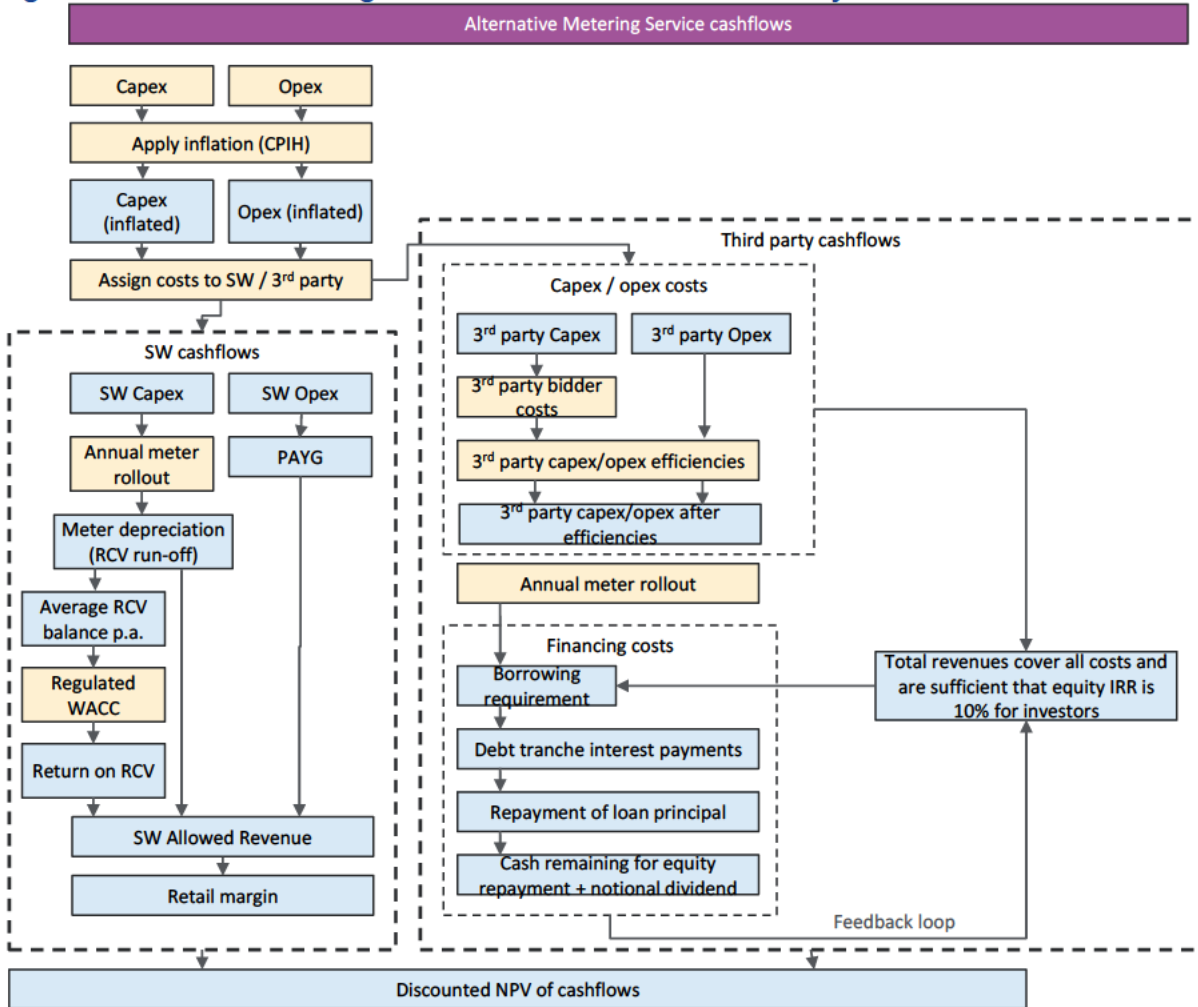
- 1) recovery of costs incurred in-house (£41.7m), plus a return, via the same Allowed Revenue mechanism described above;
- 2) recovery of costs incurred by the third-party service provider (£198.8m before inflation and cost efficiencies) plus a return; and
- 3) recovery of financing costs.

For the recovery of costs incurred by a third-party, our starting assumption is that the capex and opex are the same as the costs we envisage incurring if we deliver smart meter services in-house. We aggregate the capex and opex costs, subtract any costs because of efficiencies that we expect a third-party to achieve (and would negotiate into a contract), add any reasonable additional costs the third party might incur, Apply inflation to these costs. We then determine the level of financing required for the programme and with assumed cost of finance, we add the financing costs to the capex and opex costs.

We aggregate the capex, opex and financing costs and divide these by the expected number of packets of data to get a cost per data packet. We would pay the third-party for the successful delivery of data packets. These payments would be an operating expenditure for us. We would recover these opex payments from our customers through an allowed revenue directive (which we would need to agree with Ofwat).

For our model, we assume that the payment stream (or the price per packet) will be agreed for the duration of the contract (subject to inflation price increases) despite the contract running over four price control periods.

Figure 7: Alternative Metering Service smart meter service delivery cashflows



The diagram above illustrates how cash flows are estimated within the price control Alternative Metering Service route. The 20 year cashflow represents the:

- third party opex;
- third party capex;
- third party financing costs;
- plus, a return on the share capital likely to be invested by shareholders.

It also represents:

- Allowed Revenue for the costs that would remain with us such as costs of IT integration, a smart meter operations centre and resources as well as smart meter programme staff costs.

The Allowed Revenue for costs that would remain internal to us and those of the third party to be turned into a per packet operating cost for us are discounted back to a net present value (in 2023/24 prices) using the same social value discount rate (3.5% in real terms).

The third-party provider may earn a performance bonus or incur a penalty for exceeding or falling below certain performance parameters. However, the payment mechanism, based on payment for data packets

transmitted and received ensure that a third-party is incentivised to deliver data packets and we have not therefore modelled any incentive mechanism for this VfM assessment.

To ensure comparability with the PR24 approach and associated risk and return, non-financing costs are inflated in line with the CPIH index (set at 2% in line with the Bank of England long term inflation target).

After calculating the cashflows and NPVs of the counterfactual In-house PR24 approach and the factual Alternative Metering Service, we compare them. If the NPV of the Alternative Metering Service is lower than that of In-house delivery, it represents lower costs to our customers and should be followed. The opposite will be true if the In-house option results in a lower NPV.

Benefits

We expect significant benefits from investment in smart meters covering:

- PCC reduction;
- CSL reduction; and
- Manual meter read cost reduction.

The size and value of these benefits is set out in more detail in Appendix B.

We have assumed that the benefits of smart meters will be the same irrespective of the approach adopted assuming the rollout follows the same installation plan in both approaches. Our VfM analysis therefore does not take additional benefits into account (over and above the impact on our customers' water bills). It focusses purely on comparing the costs of delivering a smart meter service to our customers via the Alternative Metering Service and the counterfactual In-house approaches.

Evaluation Assumptions

Timing Inputs

The table below displays the timing variables that we have used in our financial models for both options.

Table 8: smart meter programme timings

Timing input	Assumed value In-house	Assumed value Alternative Metering Service	Description
NPV – period	20 years (5-year construction plus 15-year operation)	20 years (5-year construction plus 15-year operation)	The NPV is the value of all future cashflows (income and expenditure) over the life of the meter. We estimate customers' payment from the start until the end of the asset life. Total contract set at 20 years based on 5 year installation plan plus 15 years meter asset lives.
Present value discount rate	3.5% per annum, real (5.57% nominal, including inflation)	3.5% per annum, real (5.57% nominal, including inflation)	The OBR defines the discount rate as the rate used to convert future cash flows into an equivalent one-off upfront sum or present value.
Asset depreciation	15 years (industry standard expectations)	15 years (industry standard expectations)	We assume a straight line over the asset life of 15 years. We assume the same value in traditional PR24 and Alternative Metering Service route.
Terminal value	None – assets are fully depreciated after 20 years	None – assets are fully depreciated after 20 years	If any assets have a positive net book value at the end of the contract, we assume this value will be paid to the third party.

Costs differentials

We believe there will be cost differentials in the Alternative Metering Service delivery compared to the traditional In-House delivery route.

Table 9: smart meter programme cost differentials

Cost differentials	Assumed value In-house	Assumed value Alternative Metering Service	Description
Capital expenditure and operating expenditure efficiencies	0% (this is our own operating baseline)	10% capex and opex efficiencies.	The third party will achieve economies of scale resulting taking a whole system approach to delivery that can lead to more innovative approaches than more traditional, narrow scoping. We expect specialist entities who have delivered large scale metering programmes in the Energy Sector, can leverage operational, financial, manufacturing, & supply chain to enable better value, alongside improving quality assurance and volume protection. We also expect to be able to operate more efficient internal processes because of this model which can lead to further opex efficiency.
Additional bidder costs	0%	0.4% of capex	The third-party service will incur some costs of preparing bids and winning the contract. Such costs will be recoverable from Southern Water (although they will be embedded in overhead costs in practice).
Procurement costs	None included	None included	Costs of procuring hardware and data communications services will be incurred irrespective of the delivery approach, therefore they have been excluded in both approaches.

Commercial levers in the Alternative Metering Service model

In the Alternative Metering Service model, we have evaluated various commercial strategies or decisions that will influence the costs and revenues for both Southern Water and the third-party service provider, thereby affecting the overall value for money (VfM) proposition.

These are designed to ensure that the VfM financial model most closely resembles a credible commercial contract to be signed with a third-party provider. However, as the procurement process has not yet been undertaken, the final agreement is likely to differ in some respects to our baseline assumptions.

We have, therefore, undertaken a range of sensitivity tests to allow us to determine the areas where the financial model is most sensitive to variation.

We used these sensitivity tests to inform the creation of a set of scenarios which we believe reflect more or less favourable contractual conditions. The analysis is presented in section 6.2.

The table below provides a summary of the levers that we have incorporated in the Alternative Metering Service model.

Table 10: Commercial contractual questions and model levers

Timings			
Assumptions	Description	Variation considered	Impact on VfM if changed
Payment terms from third party	We assume 30-day payment terms.	It may increase to 60 or 90 days	Delays in payments to third parties have negligible impact on NPV.
Basis of the payment schedule	Payments begin when meters are installed and are transmitting data with sufficient accuracy to generate a customer bill. We assume in our base case that meters are operational once installed.		Delays in meter activation after installation lead to reduced data packet transmission and lower revenues for the 3 rd party making it appear cheaper for SW customers.

			However, with no data, no benefits are received either.
Length of contract	Installation will span five years, followed by a 15-year period of full operation, allowing for the complete depreciation of all assets covered by the contract.	It may shorten to 15 years.	There would be a slight improvement to the NPV. The terminal value of NBV of assets made to third party and outstanding debt paid would decrease the early repayment total interest payable.
Cost exposure			
Assumptions	Description	Variation considered	Impact on VfM if changed
Costs for assets typically owned by the water company	For assets owned by SW, costs must be recovered through the price control "allowed revenue" approach. These assets will necessarily go onto SW's balance sheet.	None	Not applicable
Early asset failure	Three classifications: 1. Hardware failure 2. Fault of third party 3. Fault of SW	For 1) and 2), assets are to be reinstated by third party under warranty / insurance. The value of the asset is set as at failure of original. For 3), SW bears the cost of replacement asset.	No impact on VfM. In scenarios 1) and 2), risk is passed to the 3 rd party / hardware manufacturer. In scenario 3) extra costs incurred by SW, but would also be incurred if assets were owned by SW.
Additional charges from third party	The bidder costs and procurement expenses will be borne by the third party, offsetting efficiency savings.	The overall level of additional third-party costs.	The VfM is sensitive to third party costs. See next section 6.2 for further details.
Payments and revenues			
Assumptions	Description	Variation considered	Impact on VfM if changed
Payments to a third party would be fixed for the duration of the contract (beyond AMP8)	An Allowed Revenue Directive (ARD) from Ofwat would be sought to allow recovery of data packet payments to third party from customers through life of contract.	None	Not applicable
Indexation / inflation	To adjust for inflation, we use the long-term CPIH Bank of England target of 2% p.a.	None	Not applicable

Results of VfM Modelling and scenario testing

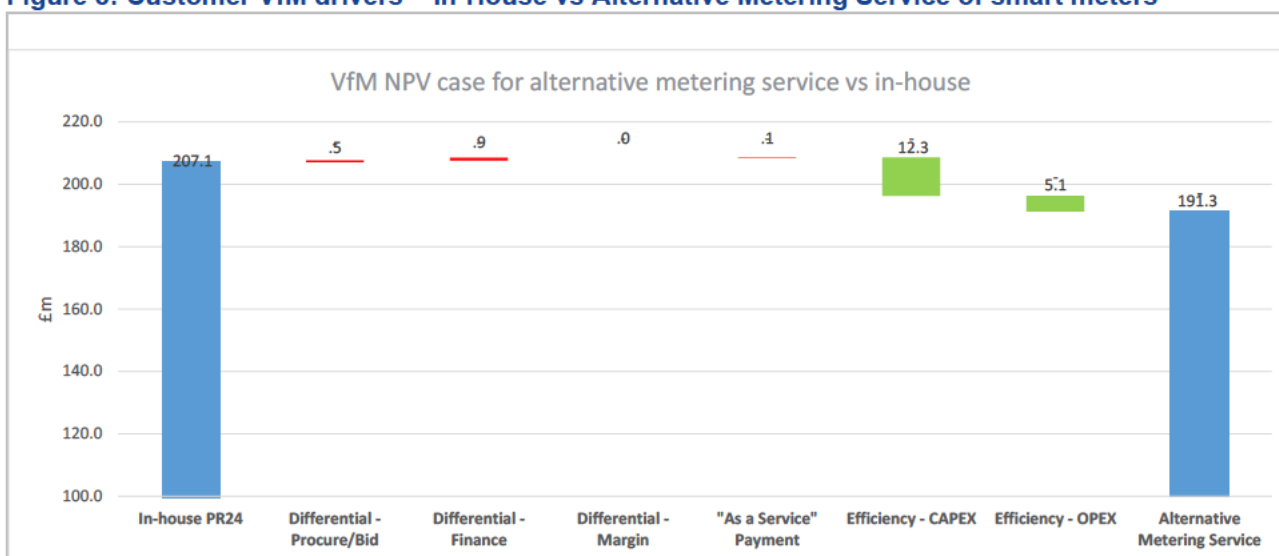
In this section, we evaluate our shortlisted options and the commercial drivers that will shape the final commercial contract.

Comparison of NPV between the shortlisted options

The cashflow modelling analysis we have undertaken to compare expenditure and revenue cashflows of the two smart meter delivery options, In-House and Alternative Metering Service, produce an NPV of these future cashflows which is £15.9m lower if an Alternative Metering Service route is taken versus In-house delivery of a smart meter service.

The bridge chart below shows the main drivers of the cost variations between the two delivery approaches.

Figure 8: Customer VfM drivers – In-House vs Alternative Metering Service of smart meters



A diagram showing the model flow and how the NPV of each option is reached is presented in appendix 3.

A select number of drivers determine the outcome of the cost differences between the two methods of delivering smart meter services. Key factors influencing the efficiency of the model are:

- **Third-party costs:** it is likely that an Alternative Metering Service will incur some additional bidding for and managing the relationship with SW over the course of the contract;
- **Financing cost:** differential of the third party versus the WACC for the industry set by Ofwat – a third party may experience slightly higher financing costs. However, several factors could help reduce financing costs, for example, the credit rating of a 3rd party service provider, the raising of finance for this specific programme with known risks, regulatory certainty of revenues over the lifetime of a long-term contract. We have assumed marginally higher financing costs for the smart meter programme vs the PR24 WACC;

The drivers making an Alternative Metering Service approach more cost effective are:

- Capex and opex efficiencies:
 - We used Ofwat's DPC benchmark (10% cost efficiency) as our baseline input assumption. A whole project approach can lead to innovative delivery approaches not achieved by more narrow scoping. Vendors have told us that leaving the delivery solution choice to them could have significantly increased their rollout volumes in AMP7;

- we expect specialist entities who have delivered large scale metering programmes can leverage operational, financial, manufacturing, and supply chain partnerships to achieve better value. Delivery risk can be reduced through supply chain resilience - 3rd parties can provide quality assurance and volume protection, while fixing foreign exchange rates (for hardware sourcing for example) over the lifetime of assets;
- a competitive tendering process can push vendors toward most efficient cost benchmarks (e.g., lowest PR24 submission and RFI respondents are 10-15% more cost efficient), while an “outcome based” model incentivises vendors to assure performance over time by utilising the optimal technologies;
- this is “first of its kind” in Water Metering. Bidders will see an opportunity to invest to prove the model with Southern Water and develop their service offering to other water companies to gain market share (via the ownership of meter assets).

We have run sensitivities on these drivers to test the robustness of the VfM business case. The sensitivity analysis is presented in section 0 below.

Sensitivity Analysis

Table 11: Sensitivity Analysis

Parameter	Assumption for smart meters	Assumption / variable	Parameter values			Changes resulting from the base NPV (£11.0m)		Outcome
			Low	Base	High	New NPV value - Low	New NPV value - High	
Cost of senior debt	<p>A rate of 4.16% on amount drawn down yrs 1-5 then 3.13% thereafter.</p> <p>0.805% on borrowing facility.</p> <p>Principle of debt on assets paid down as cash is available after annual interest payments.</p> <p>Interest paid each year on opening debt balance plus additional drawdown.</p>	Financing cost variation	-0.4% (change from base)	0.0%	+0.4% (change from base)	£18.4m	£13.3m	High sensitivity to cost of financing. Final PR24 WACC unknown until December 2024. However, desk research into senior debt cost of potential suppliers (with BBB credit rating) indicates risk free rate (SONIA) + risk margin of 1.2% to 1.7%. In line with funding assumptions made.
Capital expenditure and operating expenditure efficiencies	10% capex and opex cost efficiencies	Efficiencies - capex & opex (%)	5.0%	10.0%	15%	£7.1m	£24.6m	Falls within range suggested by benchmarks, but no firm market costs expected until procurement.
Additional bidder costs and procurement costs	<p>Bidder costs: 0.4% of capex</p> <p>Procurement costs: 0% of capex</p>	Bidder and procurement costs	0.2%	0.4%	0.6%	£16.1m	£14.4m	These costs offset some of the efficiency savings.

Table 11 shows that the VfM case is sensitive to:

- efficiency savings in capital expenditure and operational expenditure; and
- the financing costs for a third-party compared to the weighted average cost of capital (WACC) for PR24.

We have conducted some research and analysis to benchmark these key cost drivers. Our benchmark findings are presented in appendix 4 and indicate that the assumptions we have made are reasonable.

Scenarios

Building on the sensitivity analysis, we have constructed two scenarios (in addition to the base scenario) a low and a high scenario. These are variations on the base case we have presented thus far.

In our scenarios, we have varied the two major drivers of VfM for customers: cost efficiencies and financing costs.

The table below sets out the key assumptions in each scenario and the resulting Net Present Value of the cashflows over the 20-year contract.

Table 12: Alternative Metering Service scenarios- 20 year NPV versus In-house delivery

Parameter	Assumption for smart meters	Assumption / variable	Parameter values		
			Low case	Base case	High case
Contract period	20 years to allow for complete depreciation of assets in both in-house and Alternative Metering Service scenarios.	Contract length (years)	20	20	20
Cost of senior debt	A rate of 4.16% on amount drawn down yrs 1-5 then 3.13% thereafter. 0.805% on borrowing facility. Principle of debt on assets paid down as cash is available after annual interest payments. Interest paid each year on opening debt balance plus additional drawdown.	Financing cost variation	+0.4% (change from base)	0% (change from base)	-0.4% (change from base)
Equity - Subordinate debt	c.14% sub-ordinated debt from investors.	Sub debt cost	5%	5%	5%
Capital expenditure and operating expenditure efficiencies	10% Capex and Opex cost efficiencies	Efficiencies - capex & opex (%)	5.00%	10.00%	15.00%
Additional bidder costs	Bidder costs: 0.4% of capex	Bidder costs	0.40%	0.40%	0.40%
20-year NPV vs in-house			£4.4m	£15.9m	£27.0m

The scenarios tell us that, in a Low Case scenario where a third-party achieves only 5% cost efficiencies versus In-house service delivery and incurs an additional 0.4% financing costs on senior debt over the duration of the contract versus the regulated WACC, all else remaining equal, the Alternative Meter approach will still offer value for money for our customers worth nearly £4.4m in present value terms. This is subject to firming up the cost of debt that third-party suppliers can secure and the WACC in the final determination.

In a High Case scenario, if a third party manages to achieve cost savings of 15% and senior debt financing costs are 0.4% lower on average versus the WACC over the duration of the contract than in the base

scenario, our customers could see costs for smart meter services over 20 years nearly £27m lower than if we delivered them in-house.

This suggests that there are risks, mainly tied to the costs of financing. In the base case and high case, Alternative Metering Service is considerably cheaper for our customers over the 20 year programme life saving them up to £27m.

Risks and mitigations to protect consumers

Risk management

There are a range of risks to the smart metering programme that could result in a delay to the rollout and the realisation of benefits or an increase in costs. The table below provides a summary of the most significant risks and the steps we are taking to manage them. The risks affect both delivery routes, in-house and Alternative Metering Service and will increase costs or result in delays in both scenarios.

Table 13: Main risks to the smart metering programme

Risk	Probability	Impact	Mitigations
Deliverability Limited meter manufacturing and installer capacity in supply chain results in a delay to rollout and the realisation of benefits or cost escalation	M	H	<ul style="list-style-type: none"> We are engaging with Ofwat to determine the appropriate AMS model for smart metering. Subject to approval, market engagement and proceeding with ITT (in May 2024). Responses to RFI in July 2023 - replacing all meters with smart AMI meters in AMP8 is ambitious but achievable (within context of the plans across the industry for the rollout of smart AMI meters and existing supply chain capacity).
Financeability Limited interest amongst investors for an Alternative Metering Service model results in high financing costs for the smart meter rollout	M	H	<ul style="list-style-type: none"> We are currently undertaking market engagement to gauge interest amongst investors for financing the smart meter rollout under an AMS route. Initial responses to the RFI issued in July 2023 suggests there is interest in funding the rollout. We are engaging with interested parties to better understand how the balance of risks influences the cost of finance and will seek a commercial agreement that balances low risk financing with sufficient incentives to ensure timely delivery of smart meters for benefits of customers and SW.
Affordability Site conditions result in more complex and expensive installations required than expected	M	M	<ul style="list-style-type: none"> We are conducting boundary box surveys which have provided further evidence of the type of installation required. We propose including a rate card for each type of installation (standard, non-standard, and complex) within the contract we issue for the replacement of meters to ensure the installer can plan and price more complex installations. These costs are equivalent under in-house delivery. Third party may be able to achieve lower costs e.g., by combining boundary box upgrade and meter installation into one visit.
Deliverability Challenges securing customer appointments for meters inside the properties result in delays to rollout and the realisation of benefits or cost escalation	M	M	<ul style="list-style-type: none"> We are currently developing our strategy for managing customer appointments. Our proposed strategy is likely to involve a combination of general awareness raising of the rollout of smart meters, targeted communications for areas we are soon to target for the rollout, appointment booking communications and follow-up communications to collect feedback that can be used to refine the appointment booking process.

Conclusion

In AMP5, following the designation of our region as a highly water stressed area by the Secretary of State, we rolled out water meters to the majority of our customers. These water meters helped customers reduce their per capita water consumption and in so doing, helped us to fulfil our WRMPs at the time.

An aging water meter estate needing replacement in AMP8

The majority of our water meters will come to the end of their expected economic lives by the end of AMP8. Our area remains highly water stressed, and new government targets are pushing us to achieve greater water savings in our WRMP through a reduction in per capita consumption and customer side leakage. For

these reasons we considered what our strategy vis-à-vis water meters should be in AMP8. The study in our Smart metering Enhancement Business Case in October 2023 showed the most cost effective (in terms of marginal additional costs) and beneficial (in terms of the benefit to cost ratio) meter replacement strategy was one of proactive replacement of all the water meters of our customers, both HH and NHH, with smart water meters using AMI technology in AMP8. This technology would allow measurement and recording of granular (hourly) water consumption by each household or business, and this will allow us and our customers to track water consumption and identify excessive or unusual consumption patterns and take action to reduce total consumption.

Meter replacements and upgrade to Smart AMI Meters was allowed in PR24 Draft Determination

Owat has allowed £108.55 adjustment to base expenditure for the replacement of meters, and £75.68m enhancement expenditure to upgrade those meters to Smart AMI. This position has been used as the input to our Value for Money modelling.

Value for money for our customers - two meter replacement approaches considered

In this paper we have considered two approaches to delivering smart meters and their services to our customers in AMP8: In-house delivery (the counterfactual) and Alternative Metering Service (the factual) via a third party service provider. We have asked the question as to which delivery approach would be most cost effective for our customers.

To answer this question, we built a simple financial model to compare the implementation and lifetime operating costs for smart meters when delivered in-house compared to an Alternative Metering Service approach and the conversion of these costs into revenue streams (customer bills). Such an Alternative Metering Service approach involves selecting a third party to install and operate the smart water meters and provide meter readings to SW as a service. Ownership of the smart meters remains with the third party.

The third party recovers its capital investment in the smart meters, its operating and financing costs through the charges it makes to SW. These would be based on a price paid per packet of data. One packet of data would be transmitted per active meter each day for its expected lifetime (15 years). These payments would be an operating expenditure for us, and we would recover them from our customers on a PAYG like basis.

An Alternative Metering Service approach offers better value for money

We found that taking an Alternative Metering Service approach using a third-party provider can reduce costs for SW customers. We expect the present value of savings to be in the order of £15.9m over a 20 year contract. The total present value of costs billed to SW customers if we follow an Alternative Metering Service approach are £207.1m versus £191.3m if we deliver smart meters in house and recover costs through the regulated Allowed Revenue process. These savings will be achieved through efficiencies in both capital expenditure during the five-year installation phase as well as operating costs during the operating life of the smart meter assets.

Scenario testing

We have run scenarios to test the robustness of the assumptions in our financial modelling. We found that value for money for SW customers is impacted mainly by the efficiencies achieved by the third-party service provider and by the difference in actual cost of financing (through an Alternative Metering Service mechanism) and the WACC that will be set by Owat for PR24.

A halving of the efficiencies from 10% to 5% reduces the NPV of cost savings to customers from £15.9m to £7.1m. Likewise, an increase in the senior debt financing cost differential for a third party service provider by 0.4% versus the regulated WACC would reduce the NPV of the VfM to SW customers from £15.9m to £13.3m.

Less favourable assumptions still suggest better VfM with an Alternative Metering Service approach

We prepared two alternative scenarios for our Alternative Metering Service approach, a low case and a high case;

- Low case: we halved the capex and opex efficiencies that we expect the third party to achieve from 10% to 5% and increased the risk premium of the senior debt borrowing costs (thereby increasing senior debt borrowing costs by 0.40%).
- High case: we increased the expected cost efficiencies from 10% to 15% and reduced the borrowing costs by 0.40% to reflect a lower senior debt risk premium.

The Low case scenario reduced the NPV of the case for an Alternative Metering Service approach from £15.9m to £4.4m.

The High scenario increased the NPV of the case for an Alternative Metering Service approach from £15.9m to £27m.

This suggests that the case for an Alternative Metering Service approach to delivering smart meter services to our customers is a strong one, especially provided Alternative Metering Service providers can access debt financing at good rates that are competitive with the final determination WACC to be published by Ofwat in December 2024. SW customers are likely to benefit through lower bills.

Based on our analysis, described in this paper, using a third-party service provider selected through a competitive tendering process to deliver smart meter data services will result in value for money for our customers through lower bills over the lifetime of the contract versus delivery of the same services via an In-House approach. This is largely achieved through the introduction of competition for the provision of smart meter data services.

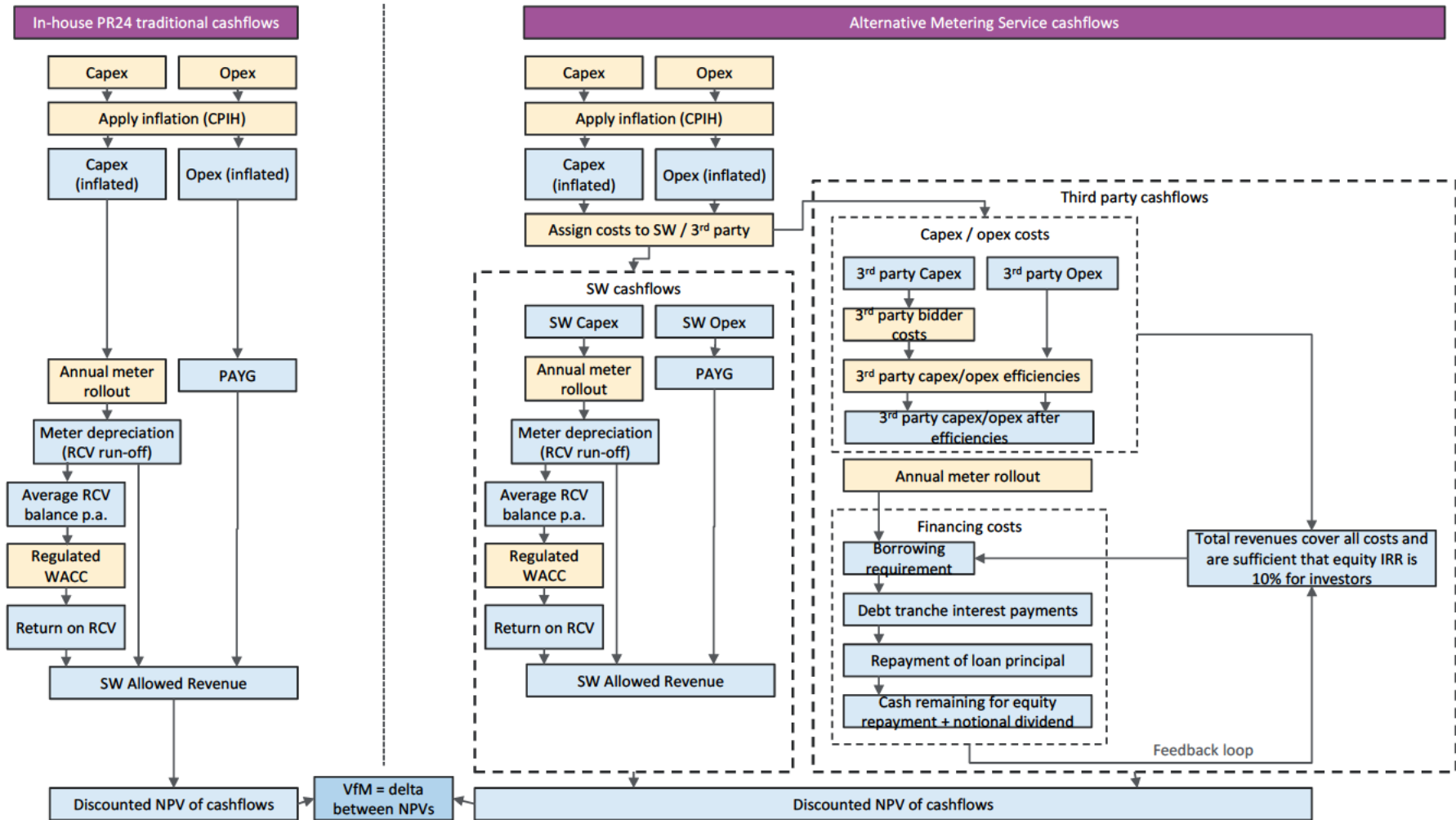
As smart meters are an enabler to meet environmental targets, we believe there is an appetite from investors to invest in programmes that offer steady, known returns and meet ESG investment goals. This along with the supply chain connections and purchasing power of an established infrastructure provider can, we believe, exercise a high degree of commercial power in the supply chain. These two factors, and the analysis we have conducted, lead us to believe that an Alternative Metering Service approach will be cheaper for our customers.

Appendix B-1 to Smart Meter – VfM conceptual model structure and assumptions summary

The flow diagram provided below delineates the calculation for each NPV. In our traditional route business plan submission for enhancement PR24, we proposed an investment of £189.2m for AMP8. In this evaluation, we also factor in the expected incurred costs for AMP9, AMP10, and AMP11, considering the lifespan of smart meters (15 years). The inclusion of AMP11 is necessary as some meters installed towards the end of AMP8 will still be functional during the AMP11 period. In this VfM case, we have also included costs for installing AMI smart meters at 33,000 unmetered sites. We had excluded the capex costs of these in the enhancement business plan submission as these installations had been carried over from AMP7

The figure below shows the logic flow of the VfM financial model which suggests a cost saving of £15.9 million if smart meters are delivered and financed through a third party via an Alternative Metering Service route compared to delivering smart meters in-house and recouping costs through a traditional PR allowed revenue mechanism.

Figure 9: Flow diagram - Comparison of NPV between the shortlisted options



The table below recaps the key assumptions used in our VfM financial analysis and the rationale for doing so.

Table 14: key assumptions and model levers

Lever	Assumption	Source	Rationale
Contract period	20 years to complete depreciation	Commercial decision reflecting full use of all assets for expected economic life.	Completes depreciation of assets
Timing of SW payments (post install)	Commence in Year 1	Industry standard	Industry standard
Present value discount rate	3.5% (real, pre-inflation)	HMT Greenbook discount rate: Social Time Preference Rate	HMT Greenbook guidance
Asset depreciation	15 years (accepted asset life)	Guidance from manufacturers (sourced via Market RFIs), and accepted industry position	Industry standard asset life
Cost of debt	Senior debt 0.8% on borrowing facility, 4.16% on amount drawn down yrs 1-5. 3.13% yrs 6-20. Subordinated debt 5% during the contract	Rates derived from financing costs at end December 2022 (first view of Ofwat determined WACC for PR24) analysis to determine rates at which VfM approaches £9m at which point the risk of not achieving VfM in a low case scenario would reduce financial benefits to customers to zero.	Final PR24 WACC not confirmed until Dec-24 However, benchmarking with cost of senior debt for possible suppliers suggests risk spread over risk free rate is reasonable for company with Baa/BBB credit rating.
Cost of equity / Third Party Margin	Equity IRR c.10% achieved through combination of private debt and share capital.	Third party private subordinated debt yield of 5% plus capital and surplus cash returned at end of year 20.	Achieves equity internal rate of return corresponding with a rate likely to be sought by investors (c. 10%).
Gearing	85% senior debt c.14% (private) subordinated debt and c. 1% equity	Target capital structure norm for a generic PE funded programme.	Norm for a generic PE funded programme.
Alternative Metering Service Efficiency	10% CAPEX 10% OPEX	Based on comparison of SW smart meter costs with other PR24 submissions and RFI data from interested third parties (Aug 2023)	Use of alt delivery standard assumption. Benchmark indicates likely, but no firm market costs received.
Bidder & Procurement Costs	Bidder costs: 0.4% of capex	Bottom-up modelling of bidding costs.	Third party will incur costs to bid and win contract.
Indexation	CPIH 2% assumed (Bank of England target rate)	Bank of England target rate	Long term inflation since 2000 is in line with BoE target.

Appendix B-2 to Smart Meter – efficiency and financing cost benchmarks

Efficiencies in capital expenditure and operating expenditure

To assure ourselves as to the validity of the assumptions used in our financial modelling, we have sought to understand the most cost efficient position in the marketplace to ascertain if the stated cost efficiencies are reasonable based on current market intelligence. We have used two methods:

1. PR24 Benchmarking: by comparing to the upper quartile of efficient companies as supplied in the CW7 PR24 Data Table
2. Market Request for Information (RFI): Based on cost information provided by market participants through an RFI in September 2023.

PR24 Benchmarks

We compared our costs for smart meters to those reported by other water companies in the PR24 business plans submissions (notably worksheet CW7). We find that our costs fall in a middle range. The costs of converting from basic to smart meters and AMR to smart meters are in some instances approx. 17% lower than costs suggested by SW.

Table 14: PR24 Benchmarks

Households – Cost per meter basic to AMI		
Company	Unit cost	Unit cost difference with SW
Southern Water	£138.00	0%
Anglian Water	£152.25	10%
Yorkshire Water	£114.62	-17%
Northumbrian Water	£237.85	72%
Households – Cost per meter AMR to AMI		
Company	Unit cost	Unit cost difference with SW
Southern Water	£138.00	0%
Anglian Water	£152.47	10%
Yorkshire Water	£113.42	-18%
Northumbrian Water	£245.47	78%

Source: PR24 business plans, table CW7

For non-household meter conversions, the cost difference was greater, although NHH meter replacements make up only 5% of SWs planned meter replacement programme. Likewise, infrastructure costs from some water companies are substantially lower than ours.

Table 15: Infrastructure costs per metre

Infrastructure costs per meter (normalised)		
Company	Unit cost	Unit cost difference with SW
Southern Water	£31	0%
Anglian Water	£21	-32%
Thames Water	£57	84%
Severn Trent Water	£26	-16%
Yorkshire Water	£38	23%

Source: PR24 business plans, table CW3

We recognise that the two water companies with the highest penetration of Smart AMI Enabled Meters are Thames Water and Anglian Water who demonstrate costs that are efficient to, or greater than, Southern Water's assumed costs. Therefore, achieving an upper quartile cost efficiency, at scale, would represent a significant efficiency gain on the proven models.

Market Request for Information (RFI)

We specified the same volume of meter installations and upgrades, across the same time horizon, using the same commercial model, to the market in August 2023. Many provided cost estimates that spanned Meter Assets, Installations/Replacements, Communications Network, and Data Provision.

We sought to understand if the CAPEX and OPEX efficiency of the model would be achieved, if we assumed that through competitive procurement, participants could reach the most cost efficient position currently being offered in the marketplace.

The most cost efficient position in the market is 14% lower than submission, which supports the hypothesis that a more cost efficient position can be achieved.

Cost of financing

The cost of financing and, in particular, the cost spread between the WACC set by Ofwat for PR24 and the cost of financing used for the programme has a large impact on the final cost to our customers and hence, the VfM case when compared against allowed revenue.

The cost of financing used in our VfM financial model comprises a risk-free rate (based on a Libor 6-month swap priced in December 2022, to give comparability to the 3.29% early view of WACC for PR24 communicated by Ofwat in the same month). To this, we added a risk premium set at 230 basis points (2.3%) for the five-year period covering the rollout of new smart meters to replace the old visual read meters or AMR meters (giving a rate of 4.16%) and 130 basis points for the Business As Usual (BAU) operational period following rollout giving a rate of 3.13%.

To satisfy ourselves of the validity of these risk-free spreads, we have undertaken desk-based research to understand the senior debt rates of several potential third-party suppliers. This research is summarised in the table below.

Table 16: Funding costs in 2022 of potential third-party suppliers

Organisation	Instrument type and currency	Issue date	Maturity	Rate	fixed or floating	If floating, indexed to what?	Risk premium
█	Bank loans (senior debt & equity bridge loans)	Unknown, but in force in 2022	Dec-34	2.635%	Fixed		
	Bank loans (senior debt & equity bridge loans)	Unknown, but in force in 2022	Jun-24	2.706%	Fixed		
	Bank loans (senior debt & equity bridge loans)	Unknown, but in force in 2022	Dec-34	Variable	Floating	SONIA	1.2% - 1.7%
█	Euro 750m	May-22	May-27	1.875%	Fixed		
	Euro 850m	May-22	May-30	2.375%	Fixed		
	Euro 1,000m	May-22	May-34	2.875%	Fixed		
	Euro 800m	Oct-22	Oct-28	4.625%	Fixed		
	Euro 900m	Oct-22	Oct-32	5.000%	Fixed		
	Weighted average of all █ green				3.372%	Fixed	

Organisation	Instrument type and currency	Issue date	Maturity	Rate	fixed or floating	If floating, indexed to what?	Risk premium
	bond issues in 2022						
██████████		Unknown, but in force in 2022		2.70% - 3.50%	Unknown		
██████████	Euro 1000m	25/05/2022	May-31	2.592%	Fixed		

Source: Company reports from 2022 and company debt issuance prospectuses

The table above shows that compared to the financing cost assumptions in our VfM financial model of 3.13% - 4.16% (priced in December 2022), key third party providers we are engaged with had borrowing costs or issued bonds in 2022 with rates that fall within the same range, or in some instances, slightly below it. Bonds issued by ██████████ in 2022 were labelled as “green” bonds. These may meet certain ESG investing requirements and be particularly attractive to specific investment portfolios. We are therefore confident that the assumptions for the cost of financing are realistic.

We have compared the publicly available credit ratings of the possible third party service providers and found that, where a rating is given, they have the same or a better rating than SW, suggesting comparable or more favourable costs of financing.

Table 17: Credit ratings of potential third party service providers

Overall rating	Southern Water	██████████	██████████	██████████	██████████
S&P	-	-	-	A+ stable	BBB- stable
Fitch	BBB	-	-	A	BBB stable
Moody's	Baa3	-	Baa2, stable	A2 stable	Baa3 stable

Source: Standard & Poor's, Fitch and Moody's

Appendix C – Market engagement report

Executive summary

An informal market engagement was undertaken for projects identified within the market-based delivery programme (“market-based delivery”) as part of the Price Review 2024 (“PR24”) business plan submission. The primary objective of this market engagement was to gather market feedback and assess the potential market interest in delivering these projects based on the current commercial, technical, and tender developments. The engagement process involved a series of 60-minute bilateral meetings with potential stakeholders, including equity investors, equity investors with contractor business arms, and contractors.

The feedback from the market showed a positive sentiment towards the overall programme. There was a notable interest from all categories of stakeholders, i.e., equity investors, contractors, and equity investors with contracting arm. This was across the projects proposed under both the Direct Procurement for Customers (“DPC”) and our proposed alternative market-based delivery model (“alternative market-based delivery”, formerly referred as DPC-Lite).

Participants were keen to understand the differences between the DPC and alternative market-based delivery model, particularly concerning the security of Competitively Appointed Provider (“CAP”) / Special Purpose Vehicle (“SPV”) payments under the Allowed Revenue Direction (“ARD”) and ARD-type arrangements in case of the contract counterparty’s insolvency. Investors noted the importance of Ofwat’s buy-in and confidence in alternative market-based delivery model, stating that such support would provide them with greater confidence to participate in alternative market-based delivery projects.

Most participants demonstrated flexibility and mentioned a history of investing in smaller projects with capex as low as £50 million, indicating a willingness to consider the smaller scale projects within the programme. However, a minimum capex of around £100 million was identified as a comfortable scale for project participation by the majority.

Feedback also highlighted the desire for a simplified bidding process and increased transparency regarding project details to reduce and mitigate uncertainties. Three stakeholders (two equity investors and one equity investor with a contracting arm) proposed adoption of standardised contractual terms and project bundling to lower bidding costs and increase the overall capital value. Most participants preferred a contract duration of 20-30 years, in line with typical Public- Private Partnership (“PPP”) / Private Finance Initiative (“PFI”) projects, citing increased financing costs and challenge in delivering value for money for contract lengths below 20 years. Participants expressed a preference for a late tender model, aligning with their long-term interests and their ability to add value to project delivery. Sandown therefore attracted less interest on account of the proposed very-late-stage tender model (finance, operate and maintain (“FOM“)).

The market sentiment towards individual projects proposed within the programme was mostly positive.

The table below provides a summary of the potential interest of participants on a project-by-project basis. It considers key topics detailed in section 3 of this report, which stakeholders indicated would influence their decision to participate in a specific project. Common overarching preferences applicable to all projects, such as contractual arrangements and contract tenure have not been captured in the table below.

Table 69: Summary of informal market engagement

Project	Sentiment	Interest in key areas			
		Type of project	Size of project	Delivery model	Tender model
1. Sandown	<p>Negative sentiment</p> <p>Negative sentiment primarily due limited opportunity to bring value to the project in the very late tender model (finance operate maintain (FOM) only). Appropriate risk allocation, defining clear project boundaries, providing guarantees on the quality of the constructed asset were suggested by some to facilitate participation.</p>	<p>11 of 12 stakeholders</p> <p>All but one participant showed interest in re-use projects. One contractor expressed limited interest due to their lack of previous experience in delivering this type of project.</p>	<p>12 of 12 stakeholders</p> <p>None of the participants expressed a lack of interest for the project due to its size.</p>	<p>12 of 12 stakeholders</p> <p>Proposed as delivery via DPC. Most participants had familiarity with and general interest in DPC schemes.</p>	<p>7 of 12 stakeholders</p> <p>5 stakeholders (an equity investor, two equity investors with a contractor arm and two contractors) expressed a lack of interest in a very late tender model (FOM).</p>
2. Aylesford and Ford ²⁸	<p>Positive sentiment</p> <p>Participants found the projects attractive when bundled together.</p> <p>The overall scope of the projects aligns with the areas of interest and expertise of the participants.</p>	<p>11 of 12 stakeholders</p> <p>All but one participant showed interest in re-use projects. One contractor expressed limited interest due to their lack of previous experience in delivering this type of projects.</p>	<p>12 of 12 stakeholders</p> <p>All participants expressed interest in the projects when Ford and Aylesford were proposed to be bundled together, or if bundled with other projects of suitable nature.</p>	<p>12 of 12 stakeholders</p> <p>Proposed as delivery via DPC. Most participants had familiarity with and general interest in DPC schemes.</p>	<p>12 of 12 stakeholders</p> <p>The late tender model (DBFOM) is attractive for all participants.</p>
3. Sittingbourne	<p>Positive sentiment</p>	<p>11 of 12 stakeholders</p>	<p>10 of 12 stakeholders</p>	<p>12 of 12 stakeholders</p>	<p>12 of 12 stakeholders</p>

²⁸ The outcome of Ofwat’s draft determination update suggests bundling the Ford and Aylesford projects.

Project	Sentiment	Interest in key areas			
		Type of project	Size of project	Delivery model	Tender model
	The overall scope of the project aligns with the areas of interest and expertise of the participants, with two contractors specifically highlighting their experience with similar projects.	All but one participant showed interest in re-use projects. One contractor expressed limited interest due to their lack of previous experience in delivering re-use projects.	Most participants deemed the project size suitable. However, two equity investors showed interest only in projects with a capital expenditure of approximately £150 million and above.	Proposed as delivery via DPC. Most participants had familiarity with and general interest in DPC schemes.	The late tender model (DBFOM) is attractive for all participants.
4. Whitfield	Positive sentiment The overall scope of the project aligns with the areas of interest and expertise of the participants. Most participants indicated significant interest in case of an increase in project value or a bundled delivery approach.	12 of 12 stakeholders All participants expressed an interest in delivering this project.	5 of 12 stakeholders With a stated estimated £50m construction cost, a few contractors and equity investors with a contracting arm expressed comfort with the project size. These participants evaluated aspects beyond the project value, considering each project on a case-by-case basis. For many the project size was considered too small, but of interested if the project size was of around £100m.	12 of 12 stakeholders Proposed as delivery via alternative market-based delivery (DPC-Lite). Most participants were interested given the intent to align with DPC principles, with an approach and framework to be agreed with Ofwat.	12 of 12 stakeholders The late tender model (DBFOM) is attractive for all participants.
5. Wetlands	Positive sentiment	10 of 12 stakeholders One contractor and one equity investor with a	7 of 12 stakeholders Most participants found the project size to be	12 of 12 stakeholders Proposed as delivery via alternative market-	12 of 12 stakeholders The late tender model

Project	Sentiment	Interest in key areas			
		Type of project	Size of project	Delivery model	Tender model
	<p>The overall scope of the projects aligns with the areas of interest and expertise of the participants.</p> <p>Participants expressing interest included those with experience in wetland projects, carbon offsetting schemes and asset agnostic investors.</p> <p>Factors mentioned to facilitate participation included appropriate phasing of sites, definite timelines, and scope of work to allow timely debt repayments.</p>	<p>contractor business arm expressed lack of interest in delivering projects of this nature.</p>	<p>suitable. However, two other investors and one contractor mentioned £100m capex as a minimum threshold for participation. Two other equity investors showed interest only in projects with a capital expenditure of c. £150 million and above.</p>	<p>based delivery (DPC-Lite). Most participants were interested given the intent to align with DPC principles, with an approach and framework to be agreed with Ofwat.</p>	<p>(DBFOM) is attractive for all participants.</p>
6. Bioresources	<p>Positive sentiment</p> <p>The overall scope of the project aligns with the areas of interest and expertise of the participants.</p> <p>Participants expressed strong interest on account of the discrete nature of the scheme and future pipeline of similar projects.</p>	<p>11 of 12 stakeholders</p> <p>All but one participant showed interest in delivering projects of this nature. One equity investor with contracting arm expressed less interest due to bioresources involving more process work rather than civil work. However, the participant had been evaluating other similar bioresources projects.</p>	<p>12 of 12 stakeholders</p> <p>All participants were interested in the project size, particularly as Ham Hill and Ashford sites are bundled.</p>	<p>12 of 12 stakeholders</p> <p>Proposed as delivery via alternative market-based delivery (DPC-Lite). Most participants were interested given the intent to align with DPC principles, with an approach and framework to be agreed with Ofwat.</p>	<p>12 of 12 stakeholders</p> <p>The late tender model (DBFOM) is attractive for all participants.</p>

Introduction

Context and Objective

This document summarises the informal market engagement undertaken for our Market-Based Delivery (“market-based delivery”) projects, identified for competitive delivery in our Price Review 2024 (“PR24”) business plan submission. Market-based delivery includes Ofwat’s Direct Procurement for Customers (“DPC”) model as well as our proposed alternative approach– alternative market-based delivery (“alternative market-based delivery” – formerly referred as DPC-Lite) model.

Table 70: Objectives of informal market engagement

Gather feedback	Generate interest and appetite	Ensure fair and transparent process
<i>to inform the risk allocation, reflect on the general market interest in the projects to further develop the projects.</i>	<i>for different stakeholder groups and support creating of a bidding market.</i>	<i>for all stakeholders, fostering a competitive environment that encourages diverse participation.</i>

This document provides details about our approach, stakeholders involved, and the key observations and learnings from this engagement process.

Approach

Given that each project within the programme is at a different level of design maturity, an informal engagement method was chosen for its time and resource efficiency and flexibility to test general and project-specific considerations with the market.

A series of 60-minute virtual bilateral meetings were run with participants. The discussions were facilitated by an information pack which provided crucial information, including details about our PR24 programme, the DPC and alternative market-based delivery models and their key features, and an overview of the projects. The information in the pack was based on project details provided in our PR24 Business Plan submission. As an exception, a potential increase in capex for Whitfield to around £100 million was communicated verbally during the bilateral discussions. Similarly, updates to the cost for bioresources were also communicated during the bilateral meetings.

The information pack included a set of key questions – gauging aspects around general interests, value creation, commercial structuring, and risk allocation – intended for discussion with the participants and addressing broader programme-level interests and targeted project-level questions. The questions were based on information and tables presented for each project.

The discussions with stakeholders were conducted in an informal, conversational manner, specifically tailored to the points and interests raised by each stakeholder during the discussion. As a result, not all discussion topics were covered in the conversations held with each participant.

Written feedback was sought from each participant on the key questions discussed. In total, we received five written responses: two from equity investors, two from equity investors with contractor business arms, and one from a contractor. Extracts from the written responses received from the participants have been included in this report. These serve as supporting evidence for the points summarised and provide a more detailed understanding of the participants' perspectives and insights. In instances where a quote is provided within this report, it is important to note that the quote has been selected due to its

representation of the consensus or view expressed by the stakeholders, rather than just the viewpoint of one individual.

The content of the market engagement information pack was derived from the PR24 Business Plan submission. Even though Smart Metering is proposed as an alternative market-based delivery project, the discussions excluded smart metering as it was subject to a formal procurement process at the time. Similarly, the LA Highways SuDS project was originally proposed as an alternative market-based delivery project; the current strategy is to deliver the project in cooperation with the Local Authorities ("LAs") only. We are not currently seeking to deliver the SuDS programme as part of our market-based delivery programme, and thus is excluded from the summary.

Stakeholders involved for the informal market engagement

For this market engagement, we targeted equity investors, equity investors with contractor arms, and contractors, all of which could potentially bid for the projects.

Table 71: Stakeholder types

<i>Equity investors</i>	<i>Equity investors with contractor business arm</i>	<i>Contractors</i>
<i>Stakeholders that have an embedded interest through their equity investment in the project.</i>	<i>Companies with technical expertise and with interest and capacity to invest equity into projects.</i>	<i>Stakeholders with technical delivery expertise, specialising in large scale infrastructure construction works.</i>
<i>The shortlist included companies with infrastructure investment in the UK and international projects. Some participants were direct investors in utilities companies and Thames Tideway Tunnel ("TTT") project.</i>	<i>The shortlist included companies engaging in greenfield infrastructure investments with direct experience in constructing water sector infrastructure projects.</i>	<i>The shortlist included companies with direct experience in delivering water infrastructure assets in the UK. Some participants have direct experience in constructing TTT and participating in the ongoing DPC bidding process.</i>

We developed a comprehensive long-list of companies through an exercise that considered three key stakeholder groups, based on their involvement in other related market engagement activities for DPC projects or projects in the water sector. From this extensive list, we identified fifteen companies based on their demonstrated interest in our Water for Life Hampshire project or their involvement in similar competitive delivery projects for other water companies across the UK. Of the fifteen shortlisted companies, fourteen companies agreed to participate in the bilateral engagement for projects proposed for market-based delivery. One company declined participation in market engagement. Lack of interest in DPC projects was indicated as one of the reasons for non-participation.

Of the fourteen companies that initially agreed to participate, only thirteen were able to accommodate the suggested schedules. Furthermore, two companies, due to their existing joint venture agreement, participated together in a single bilateral discussion. Ultimately, twelve bilateral discussions were concluded.

Key topics discussed at informal market engagement

The informal bilateral meetings were conducted in May and June 2024. The insights gathered from these discussions are summarised in the sections below. During our engagement with market participants, we explored many topics, including their investment appetite, any minimum financial thresholds, and the types of projects they are interested in.

An equity investor shared their perspective on the set of projects and the opportunities it presents.

“SWS’s Market Based Delivery programme is a model which will be familiar to the market in the UK and globally. The water sector investment pipeline in the UK is a strong opportunity in the current infrastructure market and we expect plenty of interest.”

Equity investor

The market responded positively to the proposed market-based delivery projects, showing overall interest in the expanding opportunities within the water industry. Several participants highlighted their familiarity with the DPC model, given their close involvement in its development process. A majority expressed a strong appetite for projects proposed under both DPC and alternative market-based delivery models. The long-term pipeline of projects, further expanded by alternative market-based delivery, was highlighted as a significant advantage by multiple participants.

Differences between delivery via DPC and alternative market-based delivery

Participants raised queries to gain better understanding of the distinctions between the DPC and alternative market-based delivery model from the perspectives of investors and lenders. The below quotation reflects the feedback from some of the participants.

Stakeholders expressed interest in both models. One of the investors stated:

“Fundamentally, as project finance structures for greenfield critical infrastructure projects, with a strong counterparty, both mechanisms will be of interest to us as an investor and developer.”

Equity investor with contractor business arm

DPC

All the participants we engaged with were familiar with the DPC framework through their involvement in projects with other water companies and interactions with Ofwat. These included their experiences, and ongoing engagements with projects such as TTT, Haweswater Aqueduct Resilience Programme (“HARP”), and our Water for Life Hampshire (“WfLH”) scheme. They also expressed a general interest in the DPC project schemes.

Alternative market-based delivery model

Alternative market-based delivery is currently a proposed delivery model, with a framework, including understanding around the payments and risk sharing, yet to be agreed upon. Given the proposed stage of the model, participants raised queries around various aspects. Most of these queries revolved around an

ARD, payment certainty and Ofwat's involvement in the development of an alternative market-based delivery model. Some companies expressed particular interest in the alternative market-based delivery projects due to the pipeline of projects.

Payment certainty and an ARD

Several participants, though interested, wanted to understand more about the payment certainty considered in the alternative market-based delivery model, to provide comfort to investors and lenders, due to their potential impact on VfM and cost of financing. Questions raised regarding the provision of certainty of payment included:

- Are customer payments still the source of payback in the alternative market-based delivery model?
- What are the key differences in the Allowed Revenue Direction ("ARD") arrangements for DPC and what is proposed for the alternative market-based delivery projects?
- Does the proposal span the project term or is subject to a periodic price control?

Participants also sought to understand the potential counterparty risk associated with the ARD. Some of these queries were on:

- The implications of utility insolvency.
- The seniority of CAP payments relative to general corporate debt.
- Whether lenders would treat the financing as corporate debt or as higher-rated project finance debt.

Views on the necessity of an ARD for participants in the alternative market-based delivery model projects were mixed. Some investors indicated that the ARD was not a decisive factor in their participation, though it will influence the costs of raising financing. One participant highlighted the reassurance gained in interfacing with regulated entities on account of the Special Administration regimes and similar safeguards (e.g., supply of last resort provisions), thus demonstrating willingness to participate without an ARD.

Other investors pointed out that while the ARD helps to ring-fence revenue, it does not address customer non-payment. While the ARD is seen as providing greater comfort to lenders and investors regarding payment certainty, the key factor for investors is securing payments and conditions which could give greater comfort to the lenders in case of a default from the utility's side.

An investor highlighted the importance of the ARD in the risk allocation in DPC projects. They note:

"If there was no ARD for the project, we understand that this would leave lenders to the project with a weaker security position than with an ARD. We would need to do further due diligence to understand the implications of this and the interactions with the utility special administration regime.

Without the ARD, there is no direct mechanism (other than potential eventual changes in SW's RAB), for project risks to be passed to customers. This is likely to result in SW needing to get comfortable with certain risks that on DPC projects might be allocated to customers (e.g., change in law or change in finance costs between tender and financial close)."

Equity investor with contractor business arm

Ofwat involvement

Concerning the alternative market-based delivery model, participants were interested in discussing the involvement by Ofwat in these projects. It was proposed that Ofwat's involvement and engagement was limited to the start of the tender process and only at the end of the tender process would a decision be made on the amount allowable to be passed through to customers.

A few investors underscored the importance of oversight that Ofwat provides, suggesting that the absence of this type of oversight might render the scheme less appealing to certain investors and lenders, potentially resulting in a less optimal cost of capital due to a reduced security position. Several investors noted the importance of Ofwat's buy-in and confidence in the model, stating that such support would provide them with greater confidence to participate in the alternative market-based delivery projects.

An investor underscored the significance of understanding the role and stance of Ofwat. They state:

"Understanding the extent of buy-in from Ofwat is important to us. If they have a role (direct or indirect) in the decision to select a preferred bidder and award the contract, then we will need to understand that they are supportive of the process."

Equity investor with contractor business arm

Investment value minimum requirements

There was a difference in approach by participants looking to potentially invest equity, compared to contractors only. Whereas potential investors were seeking minimum return on their investment, including their time and costs in tendering, contractors consider their ability to add value to a project.

A few participants demonstrated flexibility or past experiences with investing in smaller projects with capex as low as £50 million. Three participants either indicated a preference for minimum project capital costs in the range of £50-100 million or did not mention a minimum level for investment. These participants indicated factors such as the ability to bring value to a single project, or a pipeline of similar projects, would attract their interest. This suggests a willingness to consider the smaller scale projects from a financial standpoint, subject to a thorough understanding of each project's specific details.

Most participants were comfortable with construction capex of around £100m, expressing a preference for these larger projects. Some explained that their preference is driven by factors such as funding terms being feasible at the capex level, ability to bring design optimisation and value for money. The quotation below is representative of the feedback from most participants.

An investor provided insight into their investment preference:

"Whilst we do have smaller examples in our portfolio, our typical target project would be £50-100m capex as a minimum. Smaller projects can be less appealing once bid costs and VFM are factored in."

Equity investor

As an outlier, two equity investors indicated preference for only projects with capex of approximately £150 million and above. This was driven by the fact that projects they invest in tend to be highly leveraged, and the preferred equity investment size is only achievable with higher capex projects.

Project bundling

As some of our market-based delivery projects are below the size requirements sought by most of the participants, they proposed and expressed appetite for bundling of projects, consolidating two or more discrete projects into a single procurement or contract to increase market appetite. This could leverage synergies in procurement, management, financing, and delivery. This was particularly suggested to facilitate participation in smaller value projects such as Whitfield.

This aligns with our observations in the case of bioresources, that are two sites bundled for delivery through a single competitive process. Ford and Aylesford projects are similarly bundled in the draft determination.

Equity investors, equity investors with contracting arms and contractors advocated for bundling projects of similar nature into a single procurement, as it allows for reduced time and bidding costs.

An investor highlighted the impact of extended bid timescales on resources and bid appetite:

“We would be keen to understand the approach to procurement which is proposed. Extended bid timescales are expensive and tie up resources for long periods. This will affect bid appetite.”

Equity investor

One contractor mentioned that bundling of projects enables efficiencies in construction, operation, and maintenance if the same teams can be used across multiple projects, and therefore driving more value for money.

A few participants highlighted the complications which may occur in bundling projects of different nature and the mix of technologies required across projects. Other factors highlighted which might add to the complications included difference in timelines for planning, consenting, and execution for each project.

Risk allocation

Participants underscored the importance of clear risk allocation. Specifically, participants highlighted the need for clear risk allocation during construction, operation phases, and interface management. They also stressed the importance of eliminating risks from early development stages, including design, land acquisition, and other relevant areas.

The ability to accurately price risks emerged as a concern for multiple participants. They expressed a desire to understand the level of risk they would be expected to carry to assess their willingness and ability to manage and mitigate those risks. Participants expressed concerns about managing risks outside their control and highlighted their reluctance to bid on projects where they perceived the risk profile as excessively high. Other participants were open to considering bidding but warned that it could come at a significant cost to us and our customers.

Market engagement clearly demonstrated that risk allocation is of paramount concern. Addressing this concern effectively will be crucial for attracting bids.

Standardised contracts and bidding process for lower value projects

Stakeholders emphasised the importance of a simple bidding process and availability of project details early in the procurement process. The uncertainties and costs associated with bidding for projects were identified as potential deterrents, particularly for projects with smaller capital costs.

Clarity in aspects such as project details, scope of work, project's stage of development, risk allocation, delivery timelines, consent status, land acquisition, and revenue structure were emphasised as aspects that promote participation interest and were considered crucial for assessing the attractiveness of projects.

Contractual arrangements and procurement process considerations

Some stakeholders proposed the adoption of standardised contractual terms and bid processes. The participants highlighted advantages of using standardised template documents for all projects, as it helps to reduce bidding costs, where legal and design costs can be significant for smaller scale projects.

An investor emphasised the need for a streamlined bid process and a reliable pipeline of projects for long-term resource commitment:

“To be viable at that level, the bid process would need to be fairly streamlined (for example, with template documents to minimise legal costs, and with short timelines to bid and for any negotiations), and market participants would need to be confident that there was a pipeline of projects that they could commit resources to in the long run.”

Equity investor with a contractor business arm

Additionally, drafting and negotiating a new CAP agreement for each project was deemed impractical for smaller scale projects. Some participants expressed a preference for utilising the negotiated terms of PF2 as a baseline for the projects.

Ability to add value

Participants highlighted the potential for third-party providers to deliver greater value for money compared to in-house delivery. As the sector falls under core infrastructure, it was highlighted that this presents a strong opportunity to source and develop highly competitive funding solutions.

The participants highlighted various points where third-party providers could deliver greater value for money than in-house delivery. These included:

- **Innovation:** The use of privately financed DBFOM structures allows for design innovations that bring long-term benefits to the project. Consideration can be given to trade-offs between future operating costs and upfront capital expenditure.
- **Delivery capacity:** Competitive procurement establishes a dedicated and accountable project delivery structure and team, ensuring efficient project delivery.
- **Competition:** By competitively procuring design, construction, operations, maintenance, and finance, the project can ensure the delivery of best value for customers. This includes exploring highly competitive financing solutions.

An investor discussed the potential value for money comparison between in-house delivery and the two models under consideration:

“Given the risk transfer and competitive lending which will be achieved through the 2 models, we would expect a strong value for money comparison against in-house delivery.”

Equity investor

Contractors

Contractors emphasised the importance of evaluating projects on a case-by-case basis. Their focus lies on the complexity of the schemes and their potential to add value through design optimisation, risk management and innovation.

Tender model

Most participants expressed a preference for a late tender model, aligning with their long-term interests and ability to add value to project delivery. An early tender model, in their view, introduces significant development risks and costs related to planning, consenting, and land acquisition, potentially deterring partners.

Very late tender model was also considered, with stakeholders emphasising the importance of clear risk allocation, guarantees provided for the constructed assets, and transparency in project details and risks.

An investor expressed their view on the effectiveness of the DBFOM model over other models:

“We believe that the DBFO(M) model is optimal as it allows the market to develop solutions which consider each element of delivery holistically. We can develop designs which are ideal for maintenance; low risk technology which is best suited for the funding market; a project specific lifecycle approach and so on. By restricting the model to FOM only this creates a hard interface which inevitably leads to gaps and disputes between the parties.”

Equity investor

Contract length

A contract tenure of 20-30 years was preferred by most participants, as it aligns with the typical length for PPP/PFI projects and offers the potential for equity sales in the secondary market. Reducing the contract length below 20 years was seen as potentially increasing financing costs and lowering value for money, as it is atypical for lenders to lend for such periods. Further, some equity investors mentioned that they are backed by pension funds and long-duration investors, who seek steady income streams with less demand risk, which also reduces interest for a shorter duration project.

Conversely, one investor noted a growing interest in shorter duration assets, particularly among UK defined benefit pension schemes. However, they also pointed out that shorter-term projects could be less affordable for investors. These projects might necessitate a buy-and-hold strategy to achieve the target return, potentially narrowing the pool of interested investors. In contrast, a project tenure of at least 25 years could appeal to secondary market purchasers.

Feedback for individual projects

We have summarised and categorised the views on the specific projects into positive sentiment and negative sentiment. Sentiment, as defined below, directly influences interest by shaping how favourably

or unfavourably a company views a project, where positive sentiment enhances interest and engagement, while negative sentiment diminishes it.

- **Positive sentiment:** This term represents our collective assessment of the sentiment towards the project, based on the information provided by all participants. A positive sentiment is either explicitly positive or conditional upon specific risk allocation. It highlights risks or concerns and reflects enthusiasm, agreement, or a favourable outlook towards the project.
- **Negative sentiment:** This term represents our collective assessment of the sentiment towards the project, based on the information provided by all participants. A negative sentiment is characterised by scepticism, disagreement, or an unfavourable outlook towards the project. It highlights multiple risks or concerns and reflects doubt, reluctance, or critical feedback.

Thus, participants may be more likely to bid for a project with a positive sentiment than for a project with a negative sentiment.

Table 8 below summarises the market sentiment for projects proposed for market-based delivery. Smart Meters project is not discussed as they were part of a formal procurement process, and Local Authority Highways SuDS project is not discussed as our main engagement was with the Local Authorities themselves.

Table 72: Summary of market sentiment for projects proposed for market-based delivery²⁹

Project	Market sentiment	Comment
Sandown re-use	Negative sentiment	Limited scope to bring value under the very late tender model. Some parties could be interested in this project if we allocate risks appropriately, set out clear project boundaries, provide guarantees on the quality of the constructed asset
Aylesford re-use	Positive sentiment	Project size and nature of work suitable. Suitability was further enhanced if bundled with Ford project and other similar projects for delivery as a package
Ford re-use	Positive sentiment	Small project size, but attractive if bundled with other projects for delivery as a package
Sittingbourne re-use	Positive sentiment	Parties with previous experience of delivering project with a similar interface interested
Whitfield	Positive sentiment	Small project size, but attractive if bundled with other projects for delivery as a package
Wetlands	Positive sentiment	Interested if the sites are phased appropriately, and timelines and scope of work are definite to allow timely debt repayments
Bioresources	Positive sentiment	Interested due to the discrete nature of the scheme, and a potential pipeline of similar projects in the future

²⁹ Except for the Smart Meters and SuDS projects

Sandown re-use

The market sentiment leans negative for this project. Most participants highlighted that the FOM contract type, driven by the very late tender model, as the crucial factor influencing the project’s appeal.

Most participants mentioned that there is limited value that the CAP can bring to the project under this contract type, due to the absence of design and build components in the scope of work.

A participant stated:

“We would likely not participate in the FOM structure for Sandown (in our view, the collaboration with private finance works best when all parties are involved through design and construction).”

Equity investor with a contractor business arm

Additionally, two equity investors particularly emphasised the need for clear project boundaries and guarantees for the quality of constructed assets to attract investment at procurement for an FOM contract. They raised concerns around the consequences of the quality of infrastructure built by another party not being up to the required standards, or not performing as expected. Since we are responsible for the construction of the asset, there could be significant disagreements over who is responsible for any problems that arise during operations. For example, if a design or construction fault is the cause, the CAP may be at risk in the absence of appropriate guarantees. However, if the problem is due to lack of maintenance or improper operation, the CAP will be responsible.

A participant stated:

“The interface risk is material. How do the parties deal with defects, poor operational performance and so on.”

“We would be keen to understand how the transfer of risk is to be undertaken when the construction delivery has been carried out by SWS.”

Equity investor

The sentiment expressed in the quotation above directly relate with the level of interest captured in the table below.

Table 73: Summary of informal market engagement for Sandown

Sentiment
<p>Negative sentiment</p> <p>There was a negative interest primarily due to a lack of interest in very late tender model (FOM). Participants stated that the absence of design and build scope limits opportunity to add value to the project. Other reasons for less interest included risk in inheriting infrastructure developed by another contractor.</p> <p>A few participants were potentially interested due to their experience in delivering OFTO projects and other projects based on a very late tender model, however had significant reservations.</p> <p>The need for clear guarantees regarding the asset's condition at sale and detailed risk allocation, including the risks associated with project interfaces were highlighted as essential to potentially facilitate participation.</p>
Interest in key areas

Type of project	11 of 12 stakeholders All but one participant showed interest in re-use projects. One contractor expressed limited interest due to their lack of previous experience in delivering this type of project.
Size of project	12 of 12 stakeholders None of the participants expressed a lack of interest for the project due to its size.
Delivery model	12 of 12 stakeholders Proposed as delivery via DPC. Most participants had familiarity with and general interest in DPC schemes.
Tender model	7 of 12 stakeholders 5 stakeholders (an equity investor, two equity investors with a contractor arm and two contractors) expressed a lack of interest in a very late tender model (FOM). Others highlighted significant risks and potentially a reduced interest in participation, depending on interface risks involved, overall risk allocation, warranties available.

Two equity investors indicated an interest on account of their knowledge in the UK's Offshore Transmission projects ("OFTOs").

Another investor shared their perspective on the benefits of the FOM model:

"FOM projects have a stronger alignment for financial investors seeking immediately yielding investments. In turn, FOM projects can benefit from attracting the most cost-effective cost of capital. We have significant experience of this type of model through the offshore transmission (OFTO) regime and find this approach works well for sponsors (such as SWS) whilst tapping the deep pool of infrastructure investors."

Equity investor

Our assessment of the market engagement for interest in the Sandown reuse project is that five of the twelve participants would not bid. The other seven participants highlighted significant risks and issues that are of key concerns. With other investment opportunities in the infrastructure space available at the same time, the project was likely to be of less interest to many of the remaining participants.

Aylesford re-use and Ford re-use

There is a positive sentiment from the market for the Aylesford and Ford projects as a bundle. The nature of projects was of interest to most of the participants. With Aylesford and Ford being of a similar nature, a bundled project would allow reduced bidding costs and offer better value for money. This was especially as the Ford project is considered small. Bundling could therefore increase the overall attractiveness, increase investment size and efficiencies realised by the CAP. Further, since the planned pipeline is to be constructed through a national park, there was a demand for a clear understanding of the risk involved and an appropriate risk allocation and approach risk management.

A participant stated:

“We note your suggestion of bundling the Ford and Aylesford re-use projects. We would support this, to create scale that would appeal to potential contracting parties, and to create efficiencies in the commercial documentation and financing process.”

Equity investor with a contractor business arm

Table 74: Summary of informal market engagement for Aylesford project

Sentiment	
Positive sentiment Participants found the projects significantly attractive when bundled together, as well as with other projects of suitable nature. Most participants show interest based on the four key areas. The overall scope of the projects aligns with the areas of interest and expertise of the participants.	
Interest in key areas	
Type of project	11 of 12 stakeholders All but one participant showed interest in re-use projects. One contractor expressed limited interest due to their lack of previous experience in delivering this type of projects.
Size of project	12 of 12 stakeholders All participants expressed interest in the projects when Ford and Aylesford were proposed to be bundled together, or if bundled with other projects as well for delivery as a package.
Delivery model	12 of 12 stakeholders Proposed as delivery via DPC. Most participants had familiarity with and general interest in DPC schemes.
Tender model	12 of 12 stakeholders The late tender model (DBFOM) is attractive for all participants.

Table 75: Summary of informal market engagement for Ford project

Sentiment	
Positive sentiment Participants found the projects significantly attractive when bundled together, as well as with other projects of suitable nature. Most participants show interest based on the four key areas. The overall scope of the projects aligns with the areas of interest and expertise of the participants. There were reservations regarding the low capex for the individual projects.	
Interest in key areas	
Type of project	11 of 12 stakeholders All but one participant showed interest in re-use projects. One contractor expressed limited interest due to their lack of previous experience in delivering this type of projects.
Size of project	12 of 12 stakeholders All participants expressed interest in the projects when Ford and Aylesford were proposed to be bundled together, or if bundled with other projects as well for delivery as a package. At an individual level, most participants had concerns regarding the scale of the project.
Delivery model	12 of 12 stakeholders Proposed as delivery via DPC. Most participants had familiarity with and general interest in DPC schemes.
Tender model	12 of 12 stakeholders The late tender model (DBFOM) is attractive for all participants.

Our assessment of the market engagement for interest in the Aylesford and Ford reuse project is that the overwhelming majority considered the bundled project attractive and may be interested to bid.

Sittingbourne re-use

The market sentiment for this project is positive. The scope of the project in general aligns well with participants' areas of interest and expertise, with two contractors specifically highlighting their experience with similar projects. The discussions underscored the importance of leveraging past experiences and expertise, along with key contractual terms allocating risks appropriately, in managing complex stakeholder relationships for the project's successful delivery.

Despite the unique interfaces presented by the involvement of a paper mill as an additional stakeholder in the project, most participants expressed no concerns at this stage.

For a few stakeholders any interfaces or exposure to payment risk from the single commercial entity directly between them and the paper mill would be a key risk and a deterrent to the investment decision. There is a clear preference for us as contract counterparty to insulate them from DS Smith.

A participant stated:

"We would expect not to have to look to DS Smith for any element of our payment stream and that we were fully isolated by SWS. If this is not the case, then we would not be interested in this scheme. Otherwise, the scheme is attractive to us."

Equity investor with a contractor business arm

Table 76: Summary of informal market engagement for Sittingbourne project

Sentiment	
<p>Positive sentiment</p> <p>The project aligns with the general area of interest identified by participants. There was market preference for us to act as the sole contract counterparty to DS Smith.</p> <p>Two contractors highlighted their expertise and prior experience in delivering similar projects.</p> <p>However, two participants (one equity investor and one equity investor with a contractor arm raised potential concerns due to the involvement of a third-party).</p>	
Interest in key areas	
Type of project	<p>11 of 12 stakeholders</p> <p>All but one participant showed interest in re-use projects. One contractor expressed limited interest due to their lack of previous experience in delivering re-use projects.</p>
Size of project	<p>10 of 12 stakeholders</p> <p>Most participants deemed the project size suitable. However, two equity investors showed interest only in projects with a capital expenditure of approximately £150 million.</p>
Delivery model	<p>12 of 12 stakeholders</p> <p>Proposed as delivery via DPC. Most participants had familiarity with and general interest in DPC schemes.</p>
Tender model	<p>12 of 12 stakeholders</p> <p>The late tender model (DBFOM) is attractive for all participants.</p>

Our assessment of the market engagement for interest in the Sittingbourne reuse project is that the overwhelming majority considered the project attractive depending on key contract terms.

Whitfield

The market sentiment for this project tends towards positive. The overall scope of the project aligns well with the area of interest and expertise of the participants. At the stated construction cost of £50m, it was considered too small by many. A few contractors and equity investors with a contracting arm expressed comfort with the project size, with past instances of delivering projects of such scale as well. However, if the costs were to increase to around £100m, the project may be considered of interest to at least eight participants. Alternatively, participants in general suggested bundling as a viable option.

Table 77: Summary of informal market engagement for Whitfield project

Sentiment	
<p>Positive sentiment</p> <p>The project aligns with the general area of interest identified by participants. However, low capex as stated at PR24 of £50m was highlighted as a concern by most participants.</p> <p>All but one participant showed a broad interest in the project, particularly if the project's capex would increase to over £100m range. An equity investor with a contracting arm was uninterested in the project due to the smaller scale of civil works within the scope.</p>	
Interest in key areas	
Type of project	<p>12 of 12 stakeholders</p> <p>All participants expressed an interest in delivering this project.</p>
Size of project	<p>5 of 12 stakeholders</p> <p>With a stated estimated £50m construction costs, a few contractors and equity investors with a contracting arm expressed comfort with the project size. These participants evaluated aspects beyond the project value, considering each project on a case-by-case basis.</p> <p>For many the project size was considered too small, but of interested if the project size was of around £100m.</p>
Delivery model	<p>12 of 12 stakeholders</p> <p>Proposed as delivery via alternative market-based delivery (DPC-Lite). Most participants were interested given the intent to align with DPC principles, with an approach and framework to be agreed with Ofwat.</p>
Tender model	<p>12 of 12 stakeholders</p> <p>The late tender model (DBFOM) is attractive for all participants.</p>

Our assessment of the market engagement for interest in the Whitfield WwTW is that most participants considered the project attractive if the overall construction costs was to increase due to the complexities in delivering the project.

Wetlands

The market sentiment for this project is positive. A contractor highlighted their expertise and resources in delivering wetlands at smaller sites, while an equity investor with experience in carbon offsetting schemes expressed interest in projects of such nature. A few participants with an asset-agnostic investment strategy also expressed interest, given the capital cost being in their investment range.

One of the participants (an equity investor with a contracting arm) highlighted the importance of a well-defined phased execution plan of the 32 proposed wetland sites and the need for a defined approach for

payments to an SPV to make the project attractive to the market. Further interest was shown by a participant particularly if the project was packaged effectively (e.g., using a Mutual Investment Model (“MIM”)) and planning risks were addressed.

A participant stated:

“Single SPV issues would relate to:

- *Revenue phasing, e.g. It would not be competitive if revenue stream only turns on once all 32 available - so would need to be phased.*
- *Cross-default/partial termination concerns (e.g., can issues with one site bring down whole project?). The incentive for timely delivery comes through the fact that the Client don't pay us until we deliver, and our funder repayment obligations will be fixed based upon our proposed programme.*
- *All sites would need full planning permission before contract close – which may not be practical.*

With the above in mind, perhaps a model like the Mutual Investment Model (MIM) would suit this type of project, if bundles into 10-15 sites for each bundle, which has been used in Wales and variants used in Belgium and The Netherlands.”

Equity investor with a contractor business arm

The MIM is an innovative model developed by the Welsh Government for the procurement of public infrastructure in Wales. This model was designed in response to a scarcity of capital funding, with the aim of financing major capital projects. The participant highlighted a key benefit of the MIM model in relation to the wetlands project, noting the ability to allow for separate contractual closes for different sites. This means that planning consideration and construction can run concurrently for different sites. In their view, this alleviates the need to have planning and consenting completed before contract close. An MIM model could therefore potentially address some of the concerns raised about the project's phased execution.

Two other participants, a contractor, and an equity investor with a contracting arm, indicated their lack of interest in delivering wetlands as an asset class.

A few other aspects highlighted by other participants include: their inability to add value on account of the widespread geographic site locations, concerns due to public perception and negative media coverage on account of wastewater disposal into the natural wetlands, necessitating further stakeholder engagement.

Table 78: Summary of informal market engagement for Wetlands project

Sentiment	
<p>Positive sentiment</p> <p>The overall scope of the projects aligns with the areas of interest and expertise of the participants.</p> <p>There were questions raised about the commercial terms and completion timelines. Concerns were also voiced over certainty of deliverability and about the potential delay in commencement of payments for asset operation, due to non-completion of work at all 32 required sites for delivery.</p> <p>To facilitate increased market interest, it was suggested to phase the sites appropriately, define timelines and scope of work, to get more certainty on payments upon partial delivery to allow timely debt repayments. Other suggestions included effective packaging using Mutual Investment Model (MIM) and addressing planning risks efficiently.</p>	
Interest in key areas	
Type of project	<p>12 of 12 stakeholders</p> <p>All participants expressed an interest in delivering this project.</p>
Size of project	<p>5 of 12 stakeholders</p> <p>With a stated estimated £50m construction costs, a few contractors and equity investors with a contracting arm expressed comfort with the project size. These participants evaluated aspects beyond the project value, considering each project on a case-by-case basis.</p> <p>For many the project size was considered too small, but of interested if the project size was of around £100m.</p>
Delivery model	<p>12 of 12 stakeholders</p> <p>Proposed as delivery via alternative market-based delivery (DPC-Lite). Most participants were interested given the intent to align with DPC principles, with an approach and framework to be agreed with Ofwat.</p>
Tender model	<p>12 of 12 stakeholders</p> <p>The late tender model (DBFOM) is attractive for all participants.</p>

Our assessment of the market engagement for interest in the wetlands project is that most participants considered the project attractive. Interest is dependent on the contract terms, especially regarding certainty of delivery at 32 separate sites.

Bioresources

The market sentiment for this project is notably positive. This was on account of the discrete nature and overall size of this scheme. Strong interest was noted, particularly from participants with experience in sustainable energy generation from wastewater.

During the bilateral engagement, one equity investor with a contractor business arm expressed keen interest in the bioresources assets. The participant highlighted the appeal of separate ring-fenced sites and a pipeline of upcoming projects that allow for participation in such projects in the long-term. Another equity investor with a contractor business arm mentioned their ongoing evaluation of other similar bioresources projects, indicating potential interest in upcoming projects.

However, one equity investor with a contractor arm expressed a greater preference for projects with a scope containing a higher degree of civil works rather than a process plant. The participant also mentioned evaluating other similar bioresources projects proposed across the UK water sector.

Table 79: Summary of informal market engagement for Bioresources project

Sentiment	
Positive sentiment The overall scope of the project aligns with the areas of interest and expertise of the participants. Participants expressed strong interest on account of the discrete nature of the scheme and future pipeline of similar projects.	
Interest in key areas	
Type of project	11 of 12 stakeholders All but one participant showed interest in delivering projects of this nature. One equity investor with contracting arm expressed less interest due to bioresources involving more process work rather than civil work. However, the participant had been evaluating other similar bioresources projects.
Size of project	12 of 12 stakeholders All participants were interested in the project size, particularly when Ham Hill and Ashford sites were to be bundled.
Delivery model	12 of 12 stakeholders Proposed as delivery via alternative market-based delivery (DPC-Lite). Most participants were interested given the intent to align with DPC principles, with an approach and framework to be agreed with Ofwat.
Tender model	12 of 12 stakeholders The late tender model (DBFOM) is attractive for all participants.

Our assessment of this market engagement is that the bioresources project is of interest to all but one participant.

Appendix D – Letter from Kent County Council



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23 July 2024

Dear Lawrence

RE: Surface water flooding and storm overflows

Further to our meeting of 11 April 2024, Kent County Council (KCC) is writing to support the proposal from Southern Water to work together to deliver a programme of work that will reduce storm overflows on your network through the management of surface water from the highway.

KCC is keen to support you to meet your objectives for reducing storm overflows and the detrimental impact these have on the environment in the county. Our residents are rightly concerned about these discharges and the harm they cause. Working together on this issue has the potential to unlock cost effective solutions and we are keen to demonstrate that we can deliver on these in partnership.

We have been encouraged by the improved working relationship we have already developed through the pathfinder projects to create standard designs that we can incorporate into the highway. We are excited by the potential of these schemes to deliver green streets and improved open spaces that will enhance local places, provide investment in our communities and support local SMEs. We are keen to work with you to realise these ambitions.

Our finance teams have been discussing the commercial opportunities to deliver this at a larger scale. There is more work to be done here, however we are encouraged by your understanding of our financial position and the need to manage our exposure to financial risks. We are keen to continue these conversations and develop a delivery model that suits us both, whilst ensuring value for money and beneficial outcomes for Kent residents and your customers.

We look forward to working with you to deliver this programme and hope that it will be the start of a new era of cooperation between our organisations and an example of what can be achieved by water companies and local government working together.

Yours sincerely

Roger Gough
Leader of Kent County Council

kent.gov.uk

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