The content of this document is draft and relates to material [or data] which is still in the course of completion in travel to Gate 2 and should not be relied upon at this early stage of development. We continue to develop our thinking and our approach to the issues raised in the document in preparation for Gate 2.

2 Procurement

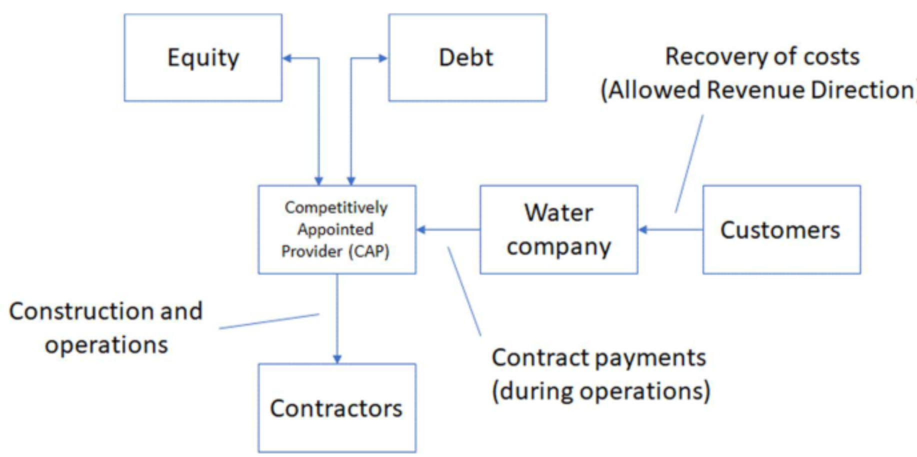
Below we consider the procurement options for the schemes outlined above. We consider their suitability for Direct Procurement for Customers (DPC) based on the information currently available and look at potential alternatives where a scheme may not be suitable for DPC.

2.1 Assessment for DPC

DPC is based around a design, build, finance, operate and maintain (DBFOM) contract with a competitively appointed provider (CAP), supported by a number of changes to a water company Licence.

Modifications to Condition B and the addition of a Condition U allow the water company to recover payments to the CAP from its customers through an Allowed Revenue Direction (ARD), and set out a methodology for bringing the project in-house at the end of the contract term (if there is a residual asset) or on termination (see Figure 5).

Figure 5: High-level DPC structure (illustrative)

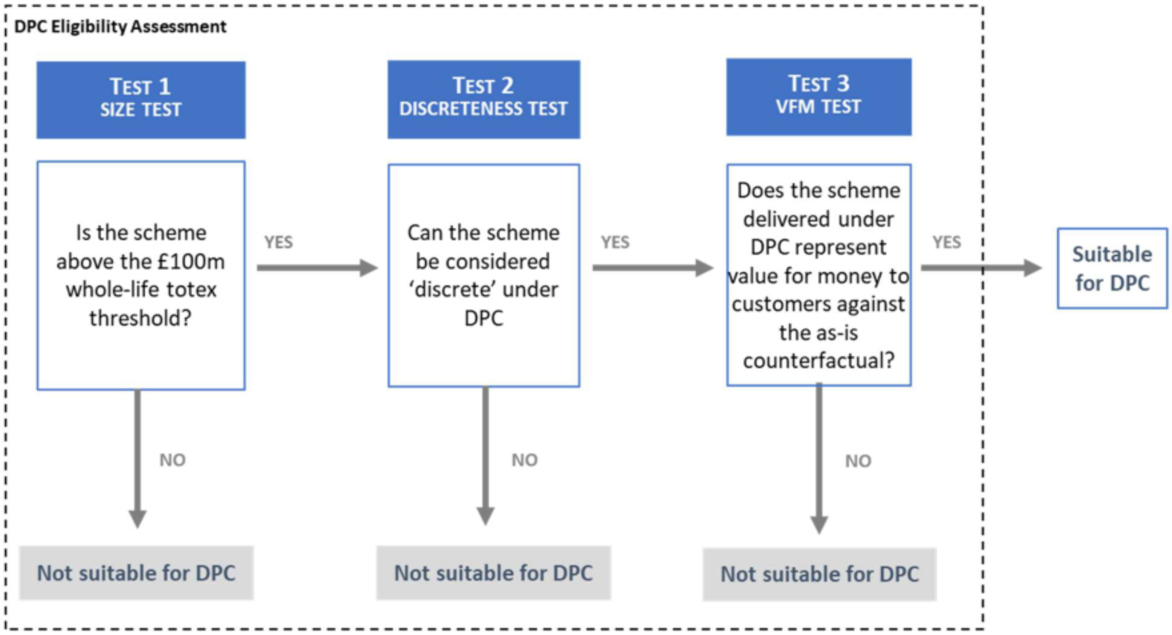


The changes also provide for a DPC governance process, which includes a number of water company submissions to Ofwat: initiating the project (Strategic Outline Case); before starting procurement (Outline Business Case); and before agreeing the contract with the CAP (Final Business Case). There is no fixed timetable to the governance process and the timings will change depending on the point in a project's lifecycle it is put out to tender (see section 2.1.4).

Ofwat set out the criteria for assessing schemes for DPC in their guidance on what constitutes an eligible DPC project.3 The assessment is in three stage, as shown in Figure 6.

[3] Delivering Water 2020: Our methodology for the 2019 price review Appendix 9: Direct procurement for customers

Figure 6: Ofwat methodology for assessing schemes for DPC



Below we set out how we would apply this methodology to the schemes and their options, once they have been developed in sufficient detail. We provide an initial assessment where appropriate.

2.1.1 Assessment for DPC – Test 1: Size

The size test aims to determine which options pass the £100m threshold for whole-life costs (totex). An initial size test (see Table 4) was completed solely based on capex, as at this stage only high-level capex forecasts are available for each proposed scheme and option. The opex is not available as the WRSE has not at this point provided the new case of need, required to establish scheme utilisation. The size test would need to be reviewed at a later stage once totex data is available, though none of the results below based solely on capex appear borderline.

Table 4: GUC, Minworth, and ST Sources initial size test

Scheme	Option	Capex	Size test recommendation
1. Grand Union Canal SRO	1.1 Sub-route 1 – Tring (50)	[redacted]	Above the size threshold
	1.2 Sub-route 1 – Hemel (50)		
	1.3 Sub-route 1 – Grove (50)		
	1.4 Sub-route 3 – Tring (50)		
	1.5 Sub-route 3 – Hemel (50)		
	1.6 Sub-route 3 – Grove (50)		
	1.7 Sub-route 6 – Tring (50)		
	1.8 Sub-route 6 – Hemel (50)		
	1.9 Sub-route 6 – Grove (50)		
	1.10 Sub-route 1 – Tring (100)	[redacted]	Above the size threshold
	1.11 Sub-route 1 – Hemel (100)		
	1.12 Sub-route 1 – Grove (100)		

Scheme	Option	Capex	Size test recommendation
	1.13 Sub-route 3 – Tring (100)		
	1.14 Sub-route 3 – Hemel (100)		
	1.15 Sub-route 3 – Grove (100)		
	1.16 Sub-route 6 – Tring (100)		
	1.17 Sub-route 6 – Hemel (100)		
	1.18 Sub-route 6 – Grove (100)		
2. Minworth Effluent Reuse SRO	2.1 GUC (low)	[redacted]	Below the size threshold
	2.2 GUC (high)	[redacted]	Below the size threshold
	2.3 STT	[redacted]	Above the size threshold
3. STW Sources SRO	3.1 Additional treatment A	[redacted]	Below the size threshold

An initial assessment suggests all the potential options for the GUC scheme, together with the Minworth scheme when connecting to the STT, may pass the £100m totex threshold and could be considered suitable to progress to the next stage of assessment. This include options within close proximity to the threshold and could provide scope for customer value when considered under the discreteness assessment.

2.1.2 **Assessment for DPC – Test 2: Discreteness**

The discreteness test considers the potential implications of a third party (the CAP) interacting with existing assets and operations. In the context of RAPID, we assume that schemes may impact more than one party and have interactions with a number of stakeholders.

The involvement of multiple parties potentially adds complexity to the discreteness assessment, compared to a DPC project where a single water company appoints a CAP to undertake work within its own region for the benefit of its own customers.

For example, a larger number of stakeholders increases the number of potential interfaces, each of which needs to be considered and balanced against the others. Further work to explore the interaction of multiple stakeholders would be required at subsequent Gates.

In order to assess 'discreteness' consistently and fairly, schemes are evaluated against six criteria developed for the PR19 submission which are considered to address key characteristics that Ofwat noted impact discreteness (see Table 5). Each scheme is then assessed against the six evaluation criteria based on their technical characteristics and graded for their discreteness as either "High", "Medium", or "Low".

Table 5: 'Discreteness' criteria

Discreteness criteria	Considerations	Scoring

1. Physical asset location	Is the scheme an extension to an existing asset or a new asset constructed on a separate site? Does the asset have its own function or is it highly integrated with current processes of stakeholders? Does the construction impact the operation of existing assets?	High: stand alone separable asset Medium: minimal integration with existing site Low: highly integrated non-separable
2. Interfaces	Does the asset have interfaces with one or more water companies' wider networks? If so, is it an information or physical interface with one or multiple assets and parties? Are any sensitive information, customer data involved requiring robust security and confidentiality arrangements?	High: limited physical and non physical interfaces Medium: multiple interfaces Low: multiple complex interfaces with one to many relationships
3. Process	For similar type assets are raw material and energy sourced centrally or locally? Is there an automated control over the asset and if so, is it run centrally or locally? Are resources shared with the wider operations? Does the operation require multi-skilled labour? Is the asset an explicit process stage with a clear input and output?	High: operate efficiently on standalone basis with limited need for wider network interaction Medium: operate efficiently on standalone basis/requires co-ordination with wider network Low: inefficient on standalone basis /requires high degree of co-ordination with wider network
4. Impact on service delivery	Does the service delivery impact any water company's statutory and performance obligations (e.g. ODIs)? If so, does it have an impact on quality or reliability metrics? Is the asset part of the water or the wastewater value chain? Does the operation of the asset directly impact customers? Is impact of asset failure well understood?	High: limited indirect impact on incumbent(s) operations and outputs Medium: impacts directly on incumbent(s) end customers and obligations Low: high impact directly on end customer and incumbent's obligations
5. Flexibility	Is the asset's usage likely to change over time? How likely is it that the asset becomes stranded or underutilised over time? Is the asset's operation scalable? Are there alternative usage options for the asset available? Can the operation be easily adapted to changing needs?	High: predictable asset's usage Medium: operation is scalable and adaptable to changing needs Low: no flexibility in operation and no alternative usages of the asset
6. Control	Is the asset needed for the day-to-day operation? Does the asset have a frequent interaction with the wider network? Is the asset required for resilience purposes? Can the contracting arrangements be designed efficiently and effectively? How comfortable water companies are to give responsibilities for resilience to 3rd parties?	High: resilience asset with limited interaction with the wider network Medium: limited interaction needed for the operation of the wider network Low: frequent interaction with the wider network on a day to day basis

Against each of the criteria, schemes are assessed as "High" will receive 3 points, "Medium" 2 points and "Low" 1 point. Only those schemes that receive 10 or more points as part of the discreteness assessment will be recommended for further assessment and projects scoring below 10 will be considered to be insufficiently discrete for the purpose of DPC delivery.

Tables 6a, 6b and 6c below presents our initial discreteness assessment of the GUC, Minworth and ST Sources schemes. Where the potential impact is different between different options, this is noted. For the GUC scheme, the alternative operating strategies (resilience or reactive) impact on the "Flexibility" and "Control" criteria and are scored separately. A full discreteness assessment would need to be run once the technical details of the schemes are more fully developed.

Table 6a: GUC initial discreteness test

Discreteness Criteria	**Scheme:** Grand Union Canal Transfer SRO		
	Assessment		**Rationale**
1. Asset location	**L**		• The Grand Union Canal Transfer scheme proposes the transfer of water from Minworth (STW region) to a delivery point c120km away (AfW region). For much of its route the transfer uses an existing canal, requiring construction work along its length. • The works will be highly integrated with the existing canal and need to allow current day-to-day canal operations to continue e.g. boating, locks, weirs. • There is little seperation of the asset from existing assets for the majority of its length. The asset is not standalone and there is significant sharing of location with existing assets.
2. Interfaces	**L**		• The scheme may include a number of physical interfaces, depending on the prefered route to transfer water from STW's waste water treatment works to the discharge location. • The number of physical interfaces will however, be limited if the water transfer will only occur through the existing canals. • Whilst there is a cost of managing interfaces these are relatively well understood and are expected to be simple in nature. • The CAP and the Trust will need a contractual relationship that is clear in terms of responsibility and liability. • STW and AfW would likely look to transfer risk of asset failure to the CAP. This could be challenging as the asset will be connected with the existing canals and would need be reflected through contractual arrangements, and the CAP may look to price this risk into its contract with all relevant parties.
3. Process	**L**		• There is limited overlap in operations with STW and AfW. • Significant coordination with existing Trust operations and obligations.
4. Impact on service delivery	**M**		• An unplanned outage of the asset may result in direct customer impact and potentially impact AfW's performance commitments. • Impact most likely limited to volume and not water quality or safety.
Variant:	Resilience	Reactive	Alternative operational strategies, see below
5. Flexibility	**M**	**M**	• A number of alternative operational strategies are under consideration or broadly two types: - Resilience (Business as Usual, drought resiliance) - Reactive (operational resiliance, environmental gain) • Under a resilience strategy, the asset will be used only if it becomes needed under certain scenarios. • Under a reactive strategy, the asset will be more likely to be utilised as part of operations but unpredictably.
6. Control	**M**	**L**	• As a reslience asset the frequency of use may change over time but there should be good visibilty when required. • As reactive asset there may be frequent interactions with the wider network and less notice of when required. • High level of interaction with the canal network.
Overall score	**9**	**8**	**The scheme is considered not to meet the discreteness requirements.**

Table 6b: Minworth initial discreteness test

Discreteness Criteria	**Scheme:** Minworth Effluent Reuse SRO		
	Assessment		**Rationale**
1. Asset location	**L**		• Minworth Reuse scheme proposes to expand the existing treatment work owned by STW. It will require a construction of new building facilities, storage, UV channel and chambers as well as value chamber and kiosk. • The scheme may also include construction of a pipeline, if the Minworth scheme were to serve the STT. • Some coordination between the CAP and STW will be required during the construction period, and it's possible that the operation of the existing WwTW would need to be reduced whilst construction is undertaken. • The additional treatment stages in a self contained area at the end of the existing process but is dependent on its output.
2. Interfaces	**M**		• The expansion works on the WwTW are expected to be somewhat integrated with the existing sites. This means that a number of facilities (power, access roads etc) and processes will also need to be shared between the CAP and the existing STW works. This could make it complex to manage the interactions and interdependencies and differentiate between the existing and new interfaces arising from asset upgrade. • Due to the level of integration with existing STW assets, potentially complex contractual arrangements would need to be developed to ensure the appropriate split of responsibilities is maintained. • This is mitigated by a single connection point between the existing assets and the new assets that can be monitored.
3. Process	**L**		• It is likely that the operation of WwTW's expansion will require a dedicated team, responsible for the ongoing operation and maintenance of the assets and will have frequent interactions with existing STW network on daily basis. Coordinating such interaction between the various parties could be operationally complex and also difficult to translate into contractual arrangements.
4. Impact on service delivery	**L**		• An unplanned outage of the asset could result in direct customer impacts. The scheme will be also heavily embedded in the water treatment works and therefore it may be difficult to determine which party should be liable for the unplanned outages. • Were a CAP to deliver this scheme, STW would likely look to transfer risk of asset failure to the DPC provider.
Variant:	Resilience	Reactive	Alternative operational strategies, see below
5. Flexibility	**M**	**M**	• As in Table 6a, the asset may be used on a resilience or reactive operational strategy if connected to the GUC. Similar considerations expected to be relevant if connected to the STT.
6. Control	**H**	**M**	• As in Table 6a, the asset may be used on a resilience or reactive operational strategy if connected to the GUC. Similar considerations expected to be relevant if connected to the STT.
Overall score	**10**	**9**	**The scheme is may or may not meet the discreteness requirements.**

Table 6c: ST Sources initial discreteness test

Discreteness Criteria	**Scheme:** STW Sources SRO		
	Assessment		**Rationale**
1. Asset location	**L**		• The STW Sources scheme proposes diversion of water at the existing Netheridge sewage treatment works to STT. • Since the scheme will be co-located at an STW owned site, a contractual arrangement will need to be agreed with the CAP and STW. • The additional treatment stages in a self contained area at the end of the existing process but dependent on its output.
2. Interfaces	**M**		• The expansion works on the WwTW are expected to be highly integrated with the existing sites. This means that a number of facilities and processes will also need to be shared between the CAP and the existing STW works. This could make it complex to manage the interactions and interdependencies and differentiate between the existing and new interfaces arising from asset upgrade. • This is mitigated by a single connection point between the existing assets and the new assets that can be monitored. • [redacted] that is now owned by STW will need to be split and transferred to the CAP, however it is not envisaged that there will be any costs associated with the licence transfer.
3. Process	**L**		• It is likely that the operation of sewage treatment works exapnsion will require a dedicated team, responsible for the ongoing operation and maintenance of the assets and will have frequent interactions with existing STW network on daily basis. Coordinating such interaction between the various parties could be operationally complex and also difficult to translate into contractual arrangements.
4. Impact on service delivery	**L**		• An unplanned outage of the asset could result in direct customer impacts. The scheme will be also heavily embedded in the water treatment works and therefore it may be difficult to determine which party should be liable for the unplanned outages. • Were a CAP to deliver this scheme, STW would likely look to transfer risk of asset failure to the DPC provider.
Variant:	Resilience	Reactive	Alternative operational strategies, see below
5. Flexibility	**M**	**M**	• As in Table 6b, the consideration of alternative operational strategies is considered relevant for an asset supplying the STT.
6. Control	**H**	**M**	• As in Table 6b, the consideration of alternative operational strategies is considered relevant for an asset supplying the STT.
Overall score	**10**	**9**	**The scheme may or may not meet the discreteness requirements.**

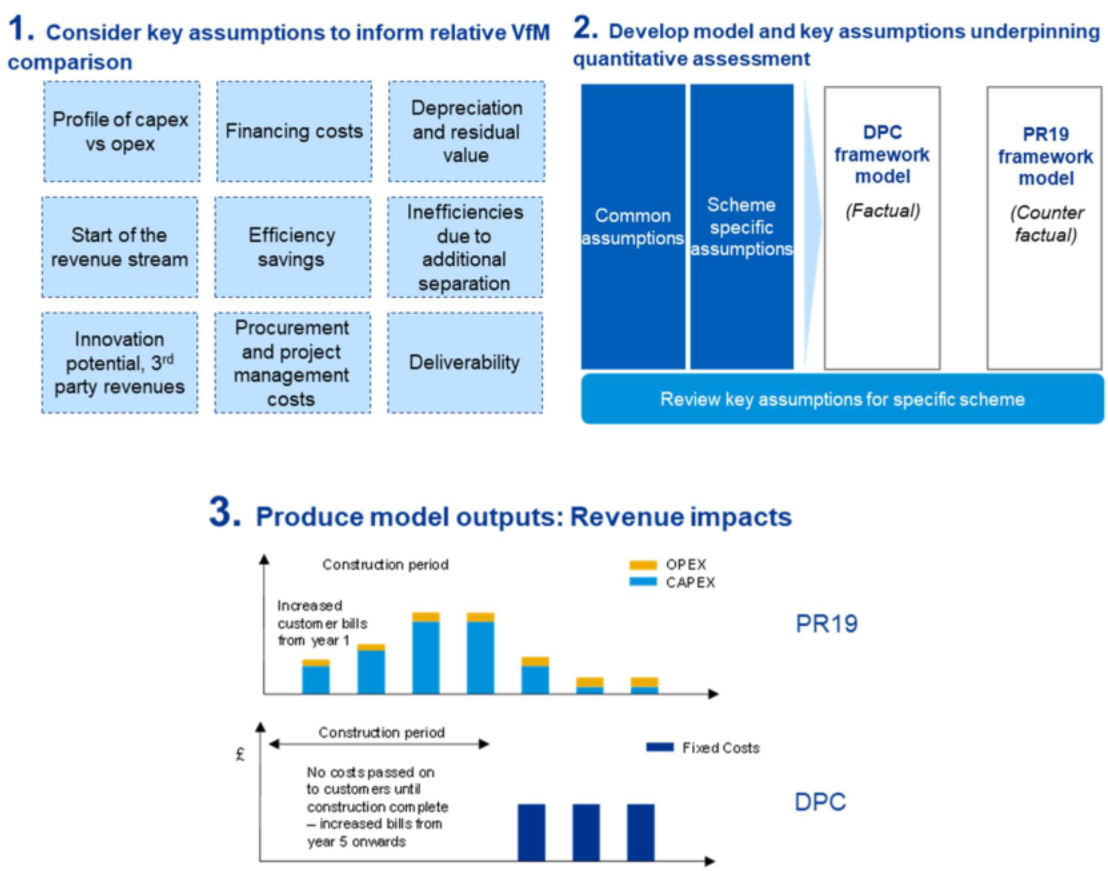
2.1.3 Assessment for DPC – Test 3: Value for Money

The value for money (VfM) test compares the total cost to customers of a scheme delivered through DPC versus a scheme delivered in-house by a water company under PR19 assumptions.

The section below presents our approach to completing the VfM assessment. We are not seeking to complete the VfM analysis at this stage as there is insufficient detail about the costs profile of the options under consideration or for determining other key inputs, such as the appropriate length of the contract.

We envisage that the VfM assessment will be completed as part of the subsequent Gate submission based on the approach set out in Figure 7 below.

Figure 7: VfM methodology

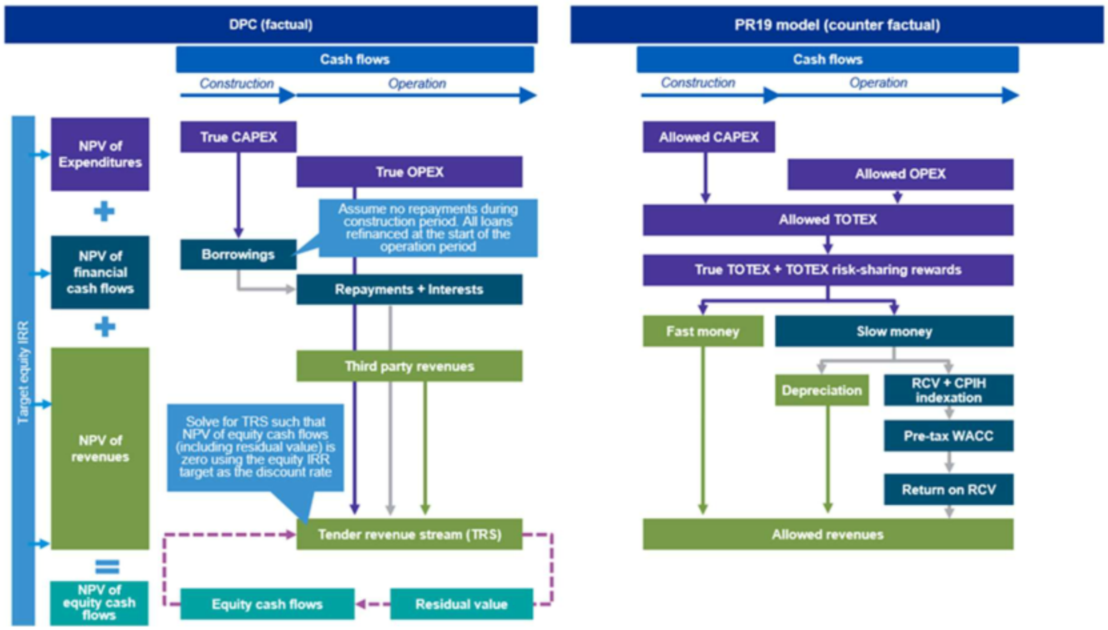


Central to the VfM assessment is a financial model to compare the Net Present Value (NPV) of required revenues under two alternative procurement routes, a factual and a counterfactual:

- **Factual:** a project finance type framework for delivery of the solution via DPC; and
- **Counterfactual:** delivery of the option in-house under a regulatory price control framework.

The mechanics of the financial model is set out in Figure 8 below.

Figure 8: VfM financial model calculations



The counterfactual and factual cases will have different profiles of revenues and costs. The profile of revenues under the factual (DPC) case will be based on a realistic project finance model, which is most likely to be used by potential bidders. At the end of the contract, a lump sum payment to the CAP may be necessary when the asset is taken in-house. The size of the payment will depend on the relative length of the contract compared to the asset life, with the asset assumed to depreciate on a straight-line basis.

We envisage that there will be two types of model inputs required to complete the analysis, common inputs and option specific inputs, as shown in the Table 7 below.

Table 7: VfM financial model main inputs

Common inputs	**Option specific inputs**
▪ Fixed inputs in the model, underpinning DPC and PR19 frameworks and resulting profiles ▪ Depreciation ▪ Indexation ▪ Time horizon ▪ PV discount rate ▪ Cost to customer commencement	▪ Option specific inputs: ○ Opex ○ Capex ○ Construction period ○ Asset life ▪ Option specific inputs are common under both DPC and PR19 frameworks

Cost of capital assumptions under the DPC model are based on Ofwat's standard assumptions for debt margin's and reflects the current market-based rates. The counterfactual (PR19) financing costs will use Ofwat's Final Determination cost of capital for PR19. In general, lower costs of financing benefit customers under the DPC model, unless DPC is subject to limitations on gearing.

Ofwat's standard assumptions are also used for operating and capital efficiencies under DPC as well as additional DPC costs such as contract management, procurement and bidder costs. Any net capex and opex savings translate into greater value to customers in present value terms.

Table 8 below sets out key modelling inputs as per Ofwat's standard assumptions which we would expect to use for the completion of the VfM assessment:

Table 8: VfM financial model key assumptions

Key input assumptions	**Item**	**DPC (Factual)**	**In-house (Counterfactual)**
Customer payments	Value	Determined by CAP contract payments and Appointee costs	Determined by Allowed Revenues from PR framework
	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.
Contract period	Length	Mid-case 25 years, Lower-case 20 years, Upper-case 50 years	n/a
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).	
	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)	
Indexation		CPIH	CPIH
Financing cost	Cost of debt	<u>Construction</u>: forward Libor 6m swap + Margin (220bsp – 240bsp) <u>Operation</u>: forward Gilt / Libor 6m swap + Margin (120bsp – 140bsp) <u>Amortising bond</u>: forward Libor 6m swap + Margin (120-140bps) <u>RCV bullet repayment</u>: forward Gilt / Libor 6m swap + Margin (120bsp –140bsp)	Wholesale allowed return on capital 2.92% (vanilla CPIH real) As per Ofwat's Final Determinations
	Cost of equity	Equity IRR (Real) 8% (Upper case 7%, lower case 10%)	
	Gearing	Mid case 85% (Upper case 90%, lower case 80%) after asset completion	As per Ofwat's notional gearing of 60%
Asset depreciation	Method	Straight line or as per company policy for asset type, the treatment should be consistent between DPC and in-house deliver.	
	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
Cost	Capex efficiency saving	Mid case 10% (upper case +15%, lower case 5%)	
	Opex efficiency saving	Mid case 10% (upper case +15%, lower case 5%)	n/a
	Additional bidder costs	Additional bidder costs of 2% of capital spend (Upper case 1%, lowercase 3%)	n/a
	Procurement	Procurement costs of 1% of capital spend (uppercase 0.5%, lowercase 2%)	n/a
	Management	Contract management costs £150k per annum (lowercase £300k per annum for high operational interaction solutions)	n/a

Overall, the results are largely driven by three effects: the lower costs of debt under the DPC model; dis-benefits of a longer profile of revenues under the PR19 model; and the net effect of the additional costs under the two models.

The VfM analysis is expected to produce the following outputs:

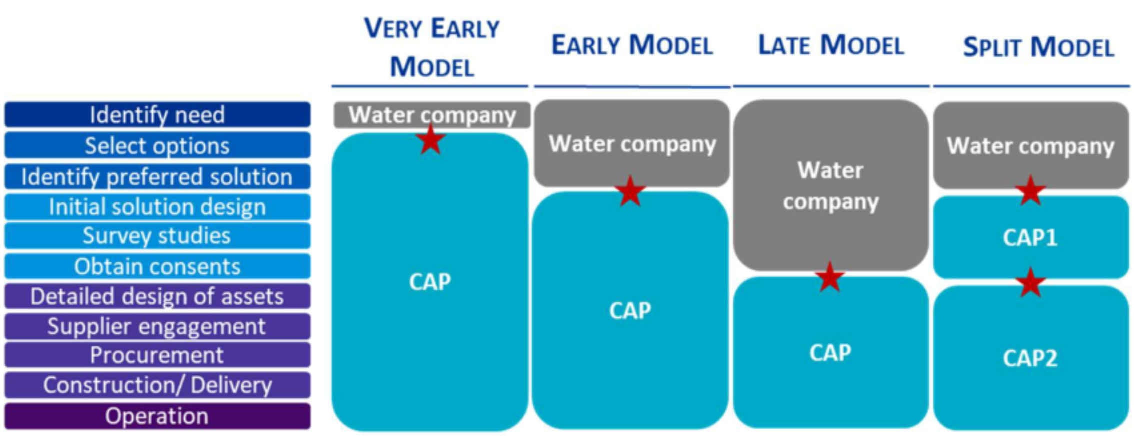
- An illustrative representation of a transfer bridge presenting how each key value driver impacts the NPV costs of delivering the scheme under DPC compared to PR19 framework;
- Quantitative results of the proposed solution under the base case assumptions; and
- Sensitivity analysis of the NPV costs under both models to determine how changes to the equity IRR and DPC costs efficiencies will impact the outcome of the base case model.

2.1.4 Tender point

For DPC, Ofwat expects companies to identify the most suitable point to competitively tender a project, i.e. the point in the project lifecycle when launching the tender provides the greatest benefit to customers. The project lifecycle consists of activities from identifying the need to the start of operations.

As shown in Figure 9 below, Ofwat identified four alternatives for when a project could be tendered – 'very early', 'early', 'late' and 'split' models.[4] Under each option the allocation of the design, planning & consenting and preconstruction works carried out by the water company or a CAP are different.

Figure 9: Four proposed tender model options



The key characteristics of these alternative models are as follows:

- **Very early model** – schemes will be tendered out after the need has been identified by incumbent companies. The tender and handover of assets will be at the 'select options' stage;
- **Early model** – schemes will be tendered out once the preferred solutions have been identified by incumbent companies. The tender and handover of assets will be at the 'initial solution design' stage;

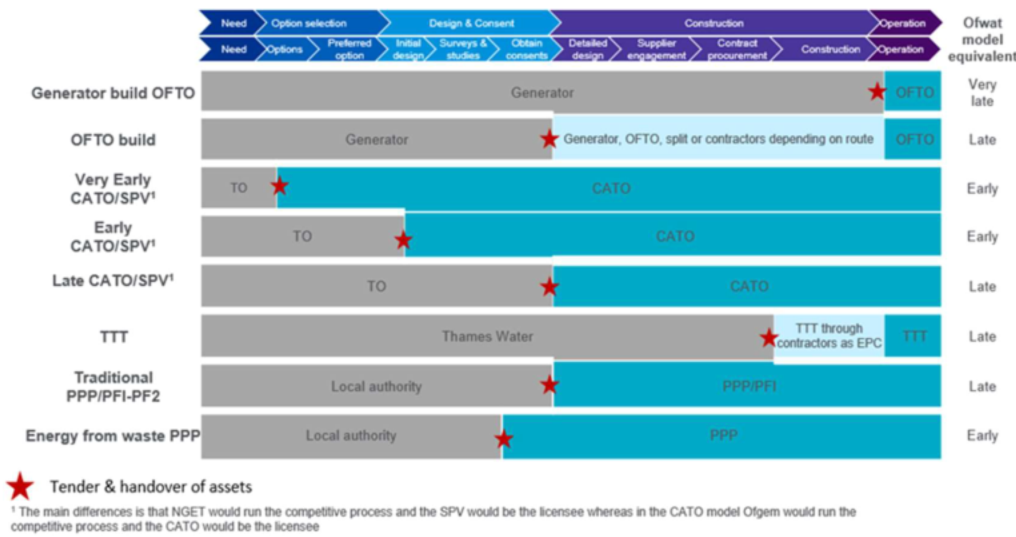
[4] Ofwat, Delivering Water 2020: Our methodology for the 2019 price review, Appendix 9: Direct procurement for customers (December 2017)

- **Late model -** schemes will be tendered out once after incumbent companies will obtain consent and initial design has been completed. The tender and handover of assets will be at the 'detailed design of assets' stage;

- **Split model** – scheme is tendered out in two separate tenders; one for the design and second for the construction and operation of the asset. There may be further variations of this model, where the finance will be split from design and build. Under this model, there will be two handover points, one at the 'initial solution design' stage and second at the 'detailed design of assets' stage.

Ofwat has not provided any further guidance on how the tender model should be selected other than it should reflect project specific considerations. There is also no standardised DPC framework for assessing appropriate tender models beyond the requirement it should drive best value for customers. We have therefore considered the tender models adopted by a range of infrastructure procurements, mapped these against the models identified by Ofwat (see Figure 10), and considered their lessons for DPC.

Figure 10: Tender model precedents



There are a number of key lessons from these precedents applicable to DPC, as set out in Table 9.

Table 9: Key characteristics and lessons learned from the selected tender model precedents

Generator build Offshore Transmission Operator (OFTO)
• The model has a proven track record, with the seventh tender round currently in progress. Competition is primarily focused on financing and bidders' cost of capital. It is a mature market with a wide and increasing variety of funding solutions. • The market is dominated by established investors and consortia. Generator build OFTO is considered a familiar asset class and tender model by investors with homogenous risk profile across the various solutions tendered in the market. **This model could be easily replicated with an existing investor base but is a very late model with no design or construction risk.**
OFTO build
• Ofgem developed several variants of an OFTO build model where the OFTO would take ownership of the design and construction of the asset.

• Offshore windfarm developers have generally resisted this model out of concern about losing control over a critical component of their projects **Consideration needs to be given to the link between asset quality, interfaces and responsibility.**
Very Early/Early/Late Competitively Appointed Transmission Operator (CATO) / SPV
• Ofgem and the Electricity System Operator (ESO) are developing Non-Network Solutions Pathfinder projects as well as alternative approaches pre-CATO legislation. • The CATO/SPV model is still currently under development and no project has been delivered through this regime yet. **There are significant challenges to running the competition at the very early stage in terms of identifying the need and structuring the procurement process.**
Thames Tideway Tunnel (TTT)
• It is a large one-off project which is a discrete part of the network and has its own bespoke regulatory framework. • The construction and finance of the asset was procured as part of different tenders with the aim to achieve the lowest possible financing costs for customers and to meet project timelines. • TTT has its own licence, backed up by various Government support mechanisms to manage risks for the Infrastructure Provider (IP), such as significant cost overrun risk. **A bespoke late model with novation where all works are undertaken prior to procurement can support a very low cost of capital.**
Traditional Public Private Partnership (PPP)/PFI-PF2
• The private sector provider is engaged to design, build, finance, operate and maintain (DBFOM) the asset. • Risk associated with construction delay, cost overrun, and maintenance are transferred to the private sector. • Proven solution, however, the UK Government has announced that it will no longer use Private Finance 2 (PF2), the current model of Private Finance Initiative (PFI). **There is a lot of market experience for DBFOM who could transfer their skills/approaches to DPC.**
Energy from waste PPP
• In energy from waste projects PFIs have been awarded earlier in the asset lifecycle where contractors took planning and project development risk (in some cases with financial compensation to contractors). • However, this is unusual even with the government as the procuring authority and ultimate owner of planning decisions. **Planning risk can be transferred but only under specific circumstances.**

Considering the precedents outlined above, the early and late tender model appear to be the most applicable models:

- The early tender model will allow the CAP to undertake the initial design and consenting work associated with the scheme, which is expected to result in a greater potential scope for innovation in relation to the initial project design. This model, however, will require significant lead time before operations are scheduled to start; and

- In cases where a scheme will not be suitable for the early tender process, the late tender model should be considered, allowing water companies to develop the scheme in parallel to procuring the CAP. The late tender model may be most suited to the current RAPID Gate process.

A key difference between the two approaches is which party takes risk on planning and consenting. Under early competition the bidder would look to secure planning and consents for their proposal. Under late competition, bidders are likely to require evidence that planning and consents are in place (or are in the process of being secured) prior to entering the tender process. A selected list of additional benefits and risks associated with the early and late tender models are highlighted in the table below.

Table 10: Key benefits and risks of the early and late tender models

Tender model	Potential benefits	Potential risks
Early Tender	• Help drive solution innovation • Market based comparison of alternatives • Free up internal resources from design/consenting	• During the detailed design and consenting, cost rises may be passed back to incumbent • Funding cost may not be fixed at the point of tender due to the delay in starting construction
Late Tender	• Investor and contractor familiarity with approach • Bidders should be able to offer fixed costs • Financing could be part of the tender and costs locked in	• Solution put out to tender is not optimal • Internal resources to develop design/consenting/planning

We propose that the early and late tender models should be further considered further as part of the Gate 2 submission once there is clarity around which schemes and options are being taken forward.

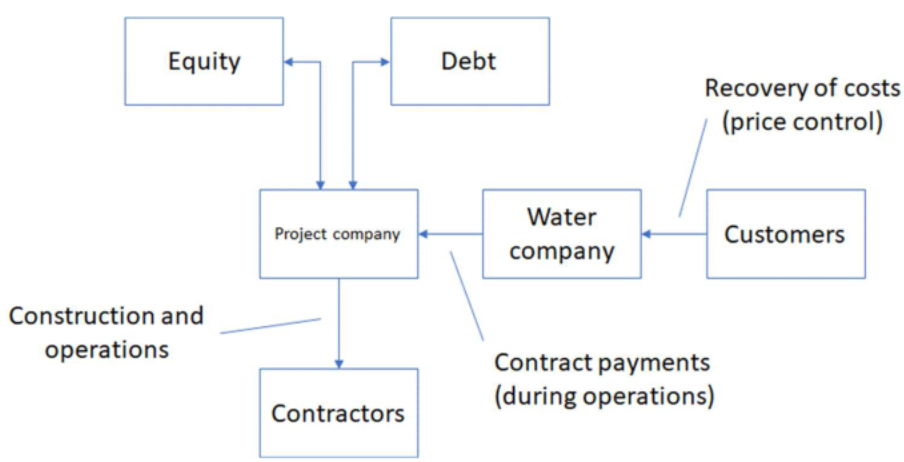
2.2 Alternatives to DPC

If, following its assessment, a scheme is found not to be suitable for DPC there are a number of alternative procurement options to consider. Below we set out three potential options that could be explored further.

2.2.1 Non-DPC DBFOM

One potential option is procurement of the project through a DBFOM contract with a competitively appointed third party, but *outside* the DPC framework (i.e. without Licence changes) (see Figure 11).

Figure 11: High-level non-DPC DBFOM structure (illustrative)



Outside the DPC framework the procurement would not be subject to the DPC approval process. Not requiring Ofwat approvals may potentially simplify the process, but for the water company a non-DPC DBFOM procurement also creates a number of potential risks, in particular:

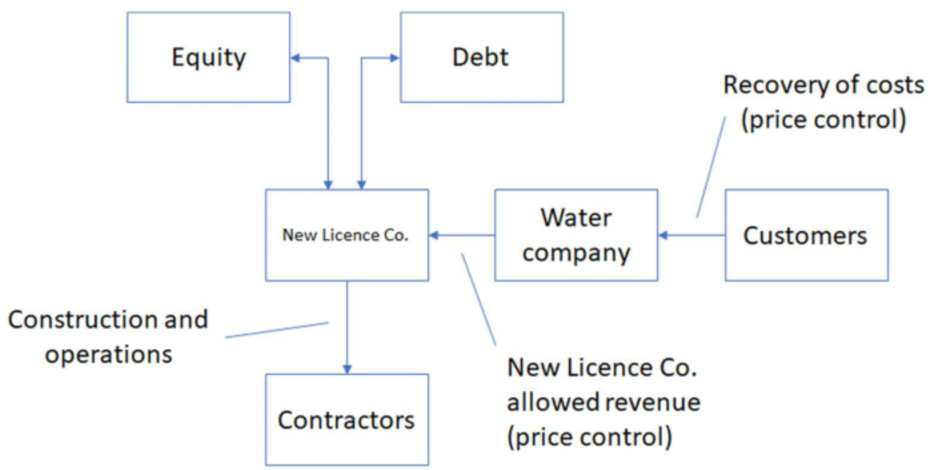
- A potential mismatch between the long-term contractual payment obligation with the project company and the water company's price control revenues revised periodically; and
- Reliance on the standard IDOK mechanism for bringing a project back in-house at the end of the contract or on termination, with the usual timeframe and thresholds.

Further consideration would need to be given to the potential significance of these risk and any steps for mitigating them.

2.2.2 New licensed entity

An alternative to a DBFOM contract (DPC or non-DPC) is the creation of a new licensed entity (New Licence Co.) to finance, construct and operate the asset (see Figure 12).

Figure 12: High-level new licensed entity structure (illustrative)



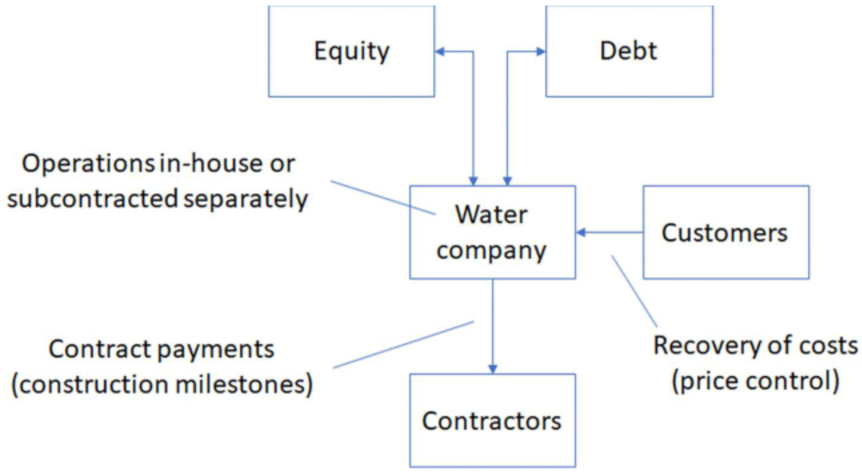
New Licence Co. would have its own regulated asset and be subject to its own price control. To avoid consumers receiving multiple bills, the New Licence Co.'s allowed revenue could be recovered from the water company – with the water company passing on the charges to its customers.

This approach, similar to that used for the Thames Tideway Tunnel, avoids the potential mismatch in revenues under the non-DPC DBFOM option as the costs are a pass through. It may also help mitigate the risk of the water company bringing the asset in-house, as the licence could remain in place until the asset reaches the end of its life.

2.2.3 In-house delivery

The schemes could also be procured in-house by the water company using existing procurement processes and funding arrangements (see Figure 13).

Figure 13: High-level in-house delivery structure (illustrative)



Under this approach, once Ofwat grants a totex allowance for the project, the water company selects a contractor to undertake the construction works and raises additional debt on balance sheet to fund the construction milestone payments.

Once completed, the water company may operate and maintain the asset itself or enter into an O&M contract with a service provider. The cost of servicing the debt, along with the O&M, is recovered through customer bills in line with the allowed revenue – with the water company facing the risk (subject to sharing with the customer) that the outturn cost of the project is more or less than the allowed amount.

In Chapter 3 of the relevant Gate 1 submissions we set out indicative programmes for procuring each scheme in-house. We will continue to review these and the appropriate procurement routes, and programme impacts will be confirmed at Gate 2 once further information is available.