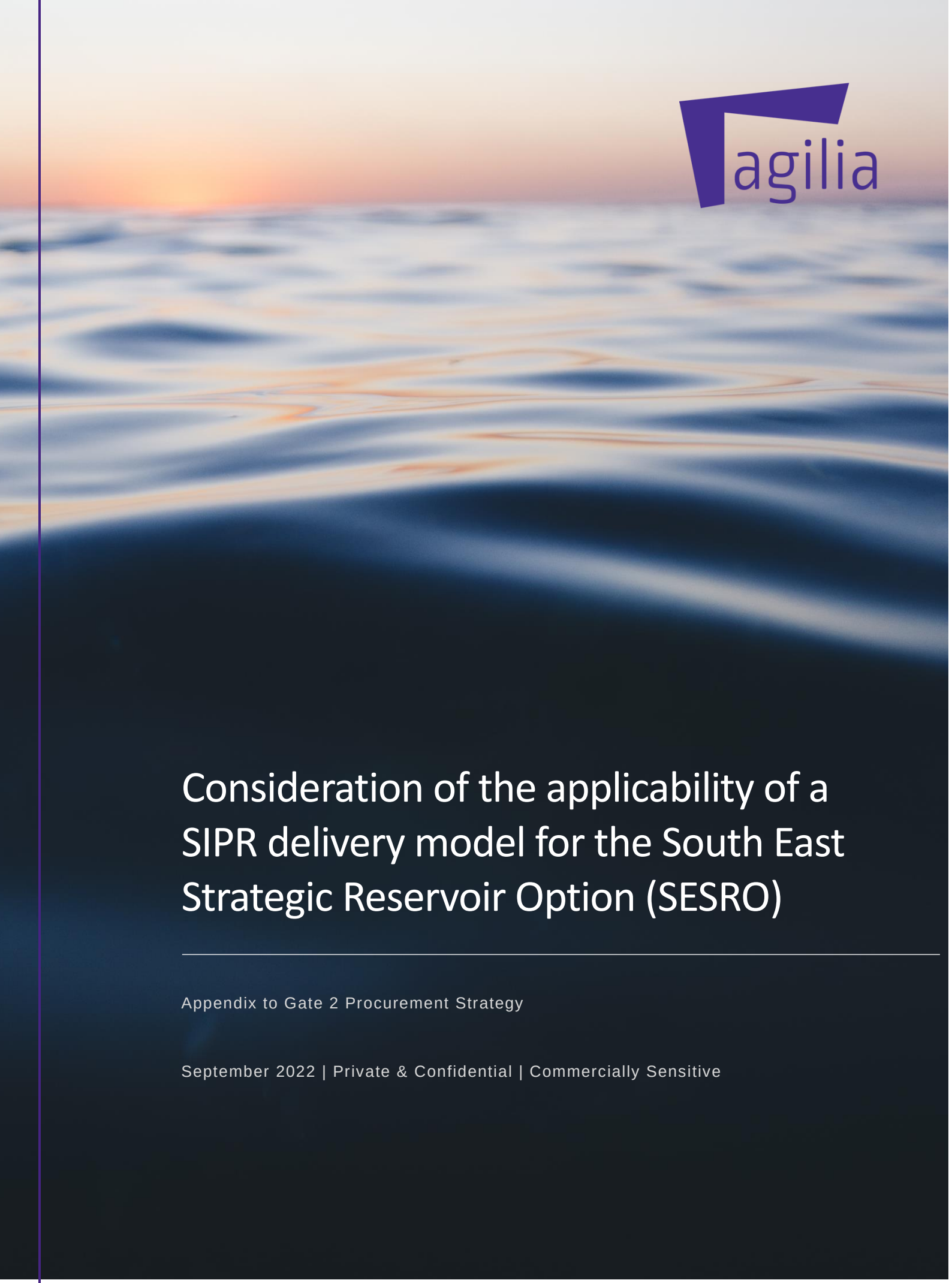

Consideration of the applicability of a SIPR delivery model for the South East Strategic Reservoir Option (SESRO)

Appendix to Gate 2 Procurement Strategy

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delivering infrastructure together

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Author:	Helen Orton / Afzal Ginwalla
Owner:	Amar Qureshi
Client:	TWUL

CONTENTS

Glossary

CAP	Competitively Appointed Provider (under a DPC arrangement).
Capex	Capital Expenditure – expenditure on fixed assets
DPC	Direct Procurement for Customers
HARP	Haweswater Aqueduct Resilience Project
IP	Infrastructure Provider (under a SIPR arrangement)
ODI	Outcome Delivery Incentive – Ofwat incentive mechanisms
Opex	Operating Expenditure – expenditure on operating costs
PCRE	Project Cost and risk Envelope
RAB	Regulatory Asset Base
RAPID	Regulators Alliance for the Progression of Infrastructure Development
RCV	Regulatory Capital Value
SESRO	South East Strategic Reservoir Option
SIPR	Specified Infrastructure Projects Regime
SRO	Strategic Resource Options
Totex	Total Expenditure (the sum of Operating and Capital expenditure)
TTT	Thames Tideway Tunnel
TWUL	Thames Water Utilities Limited
VfM	Value for money
WACC	Weighted Average Cost of Capital
WBS	Whole Business Securitisation
WIA	Water Industry Act
WRMP	Water Resources Management Plan

1 EXECUTIVE SUMMARY

In response to a request from the Secretary of State, Ofwat has carried out a high-level competition stocktake[1] (the 'Stocktake Report') which has identified potential benefits of competition in the delivery of high value infrastructure projects. These benefits include lower costs for customers, increased speed and effectiveness in delivery and the potential for achieving wider benefits, such as environmental improvements and innovation. The two forms of competition identified by Ofwat are Direct Procurement for Customers (DPC) and the Specified Infrastructure Projects Regulation (SIPR).

The primary purpose of this report is to form part of the joint Gate 2 submission to RAPID from Thames Water Utilities Limited (TWUL) and Affinity Water, in respect of the proposed South East Strategic Reservoir Option (SESRO). This report supports the Stocktake Report's overall conclusions. It concludes that there are features of the SIPR model that may help secure lower financing costs relative to a DPC model, and as such will support the optimisation of value for money (VfM) for customers. However, it is also acknowledged that the likely higher set up costs of a licensed and regulated SIPR entity will need to be offset through savings in other areas to achieve overall VfM. Therefore a SIPR model may not be suitable for *all* infrastructure projects.

This report identifies the potential for SIPR to offer greater VfM compared to DPC in relation to SESRO and concludes that further work (including market testing) needs to be carried out, prior to Gate 3, to test these initial conclusions.

The most significant factor which drives the opportunity for improved VfM from SIPR over DPC, is the potential to secure a lower cost of capital under SIPR. The weighted average cost of capital (WACC) of the project is a significant factor in the overall cost of the project to consumers. For example, the bill impact of the Thames Tideway Tunnel (TTT) project following the financing competition fell from an estimated £70-80 per household customer, to a maximum of £25[1].

The crux of the difference between the two models is that a SIPR model is a license-based approach whereas a DPC model is a contractual based approach. There are of course elements of contracting in the SIPR model (for example the supply chain arrangements). There are also elements of regulation within the DPC model, for example the change in licence conditions allowing for allowed revenue to be passed through by the developing undertaker. Overall, however, the foundation of a SIPR model is the licence provided to the new Infrastructure Provider (IP), whereas in a DPC model it is the contract between the DPC provider (the Competitively Appointed Provider (CAP)) and the water undertaker (assumed to be Thames Water Utilities in respect of SESRO).

The following key features of SIPR (and the choices that those key features facilitate) which promote the optimisation of VfM include:

- Licensed and regulated

  Benefits from well established, stable and predictable regulatory principles relating to entitlement to revenue and financial consequences of out- or under-performance

- Project Cost and Risk Envelope (PCRE)

  The establishment and control, by the SIPR provider, of a PCRE (which forms the initial regulatory allowance for the SIPR entity) that embraces a range of cost outcomes and provides confidence to financiers that the regulator acknowledges the inherent uncertainty in cost and schedule estimating for mega projects. This allows the IP to focus on accepting and managing these risks as effectively as possible (rather than

[1] Ofwat Competition Stocktake Report, July 2022 Competition stocktake report final (ofwat.gov.uk)

attempting to pass risks on to the supply chain, which may lead to inefficient pricing of the risks to mitigate any downside). This approach facilitates the focus of financiers away from landing the costs of a project to a particular budget or at a particular time, i.e., 'on budget – on time' to 'within budget-within time'.

- Funding stream

  Source:

  Both SIPR and DPC based projects will receive funding from customers through payments from the water company. However, the SIPR entity may in certain scenarios (for example non-receipt of revenues from the water company or under Special Administration) resort to direct charging of customers. This ability to directly charge customers is unavailable to the CAP in a DPC model

  Timing:

  Given the regulatory protection afforded to customers by the licence, including capex incentives, SIPR-based projects do not have the same constraints on the timing of revenue streams when compared to DPC-based projects. Under SIPR, revenues commence following licence award and allowable expenditure is incurred as per forecast expenditure, followed by a reconciliation. DPC-based projects have limited options in this regard as the model currently requires the benefit to customers to be tangibly realised prior to the associated customer revenue being available.

The consequences of the above are that there is a potential for a lower WACC for a SIPR model than under DPC, given that:

- Financiers and debt providers can approach their investment considerations in a SIPR model from the perspective of an investment into a utility company rather than a specific project. This is significant given that strong investment grade ratings for stand-alone projects are difficult to achieve (if not unachievable) without credit enhancing provisions[2].

- This may increase the pool of potential investors (debt and equity). The lower perceived risk profile of the SIPR model, due to investors viewing an investment in a SIPR entity as like an investment in a utility company, leads to expectation of an equity return similar to that of the water sector, and lower debt premiums.

- Ratings agencies (based on the TTT experience) emphasise the significance of the regulatory projections in the SIPR structure and this supports potentially stronger investment grade rating than compared to a structure which relies largely on contractual protections alone such as DPC. This supports the lower WACC discussed above.

- There is potential for the procurement of the project to be seen as the procurement of a single focused utility company, thereby facilitating a competition based on only financing costs rather than on combined finance and delivery costs, as would be the case in a project finance model such as DPC. This is possible under a SIPR model because the overall package being put to the market includes the award of the project licence and the associated access to the regulator endorsed PCRE, which does not occur under DPC.

- The proposition to the market under a SIPR model may be made more attractive by the availability of an existing management team with a track record of the delivery and operation of projects of a similar scale which can oversee and direct the project, along with the key supply chain contracts required to construct the project. This approach to

[2] See for example Colchester Garrison PFI which was signed in 2004 and was the largest PFI project at that time (£2billion). It was financed by bonds, but rating was only possible given the support of Ambac (a monoline, who are now defunct).

'selling' the project was taken on TTT and is currently being taken on Sizewell C - the proposed £20billion new nuclear power station to be located in Suffolk. The consequences and potential benefits of this approach are twofold:

- The competition for financing is focused on the cost of capital and the ability to deliver the required financing; and

- The supply chain contracts are structured in a manner that an experienced and best-in-class infrastructure developer/employer would structure them, taking into account the requirements of the project. This means that the financiers are not required to determine the precise nature of the supply chain contracts and can be content with playing a 'shaping' role through engagement during the procurement process. Under a DPC model, the supply chain contracts would be structured to meet the exacting requirements of financiers. The requirements of financiers may soften where the required financing is provided on a corporate basis, although by reference to the experience of the UK PFI/PPP market, the scope for projects to be purely corporately financed is likely to be limited.

However, as noted, the set up and ongoing cost of regulation for a licenced and regulated SIPR entity is likely to be higher than for DPC. Accordingly, the scale of potential savings driven by the lower WACC must entirely offset these costs to drive overall VfM for customers. This means that SIPR is likely to be most relevant for infrastructure projects of an appropriate scale, and with other relevant characteristics as described below.

In conclusion, considering the differentiating features of SIPR, the SESRO project may offer the potential to generate greater VfM through a SIPR delivery model. We understand that this conclusion is shared by PA Consulting in their Gate 2 Procurement Strategy Report for SESRO, which contains an initial quantitative assessment. This is driven by:

1 Scale & profile of project costs

Under a SIPR model VfM will be driven by both a competitive works procurement process (as with DPC) and by lower overall financing costs. These savings will need to offset the incremental set up and operating costs for a licensed entity. SESRO has both the scale and a very high Capex levels and relatively lengthy commissioning period that, together with lower financing costs, could drive better VfM.

2 Ability to benchmark costs robustly

The determination, and regulatory approval, of the PCRE, is critical in driving VfM. The construction approach for SESRO, a bunded reservoir, is well understood, with good benchmarking data available which means that SESRO costs can be robustly estimated and assured. Therefore, it should be possible to develop a robust PCRE.

It is therefore recommended that SIPR continues to be assessed as the option potentially able to deliver optimum VfM, in the period between the Gate 2 and Gate 3 submission, as next steps following Ofwat's Stocktake Report (including any legislative proposals) are developed. The next steps are explored more fully in Section 7.

2 CONTEXT OF THIS REPORT

This report has been prepared for Thames Water Utilities Limited (TWUL) as part of the joint RAPID Gate 2 submission by TWUL and Affinity water for the South East Strategic Reservoir Option (SESRO) which is to be sited in Abingdon, Oxfordshire. RAPID's Gate 2 guidance requires consideration of a SIPR approach where appropriate, and ministers have identified[3] SESRO as a key scheme with potential to deliver additional customer benefit from SIPR.

The purpose of this report is to complement the work that has been undertaken by PA Consulting on Procurement Strategy, in support of the Gate 2 Submission[4]. The PA report concludes that SESRO meets size and discreteness criteria for DPC. PA's initial modelling also highlighted that a SIPR approach could also offer benefits to customers potentially beyond those offered by DPC.

This report looks in more depth at the key differentiating factors between SIPR and DPC, and how these factors could offer potential to provide additional VfM benefits to customers, particularly in relation to the potential for a lower WACC. It then considers whether SESRO's characteristics offer potential to benefit from these factors and sets out a proposed approach for market testing following Gate 2.

[3] https://hansard.parliament.uk/lords/2020-06-08/debates/79346177-EBA4-4291-BDC4-DB14196C60EB/WaterIndustry(SpecifiedInfrastructureProjects)(EnglishUndertakers)(Amendment)Regulations2020

[4] Gate 2 Procurement Strategy Report for South East Strategic Reservoir Option (SESRO), September 2022

3 SPECIFIED INFRASTRUCTURE PROJECTS REGULATIONS (SIPR): BACKGROUND AND KEY FEATURES

3.1 Background

SIPR, the model under which the Thames Tideway Tunnel (TTT) is being delivered, originates from The Water Industry (Specified Infrastructure Projects) (English Undertakers) Regulations 2013. These regulations allow the Secretary of State (SoS) to "specify" an infrastructure project, which would normally be undertaken by a regulated water company, to be undertaken by a separate licensed entity.

The regulations set out two tests ('size and complexity' (including the potential for conventional procurement to impact on the core functions of the undertaker) and 'VfM') that are required to be satisfied prior to the Secretary of State designating a project under the SIPR regulations. Without exploring the matter in detail at this stage, the question of whether the SESRO project meets these tests is not currently clear. For the purposes of this report, we will assume that either SESRO meets the current tests, or that the necessary changes are made to the regulations so that SESRO meets any amended tests as set out in Ofwat's Stocktake Report.

SIPR contains many of the regulatory protections that investors in UK regulated water companies are familiar with, such as:

- a Regulatory Asset Base (RAB) model, with clearly set out 'revenue building blocks' to determine the Infrastructure Provider's revenue entitlement;
- penalties/incentives for capex under/overperformance;
- regulatory features such as a pre-agreed regulatory cost allowance (which is referred to in this report as the project cost and risk envelope (PCRE)), and
- an allowance for debt under/overperformance outside certain dead-bands.

Due to these regulatory protections, and their similarity to existing water company arrangements, a SIPR-based project can be characterised by investors as an investment into a ***utility-like*** structure (as was the case on TTT), as opposed to a project finance-based investment. This has two consequences:

1. It affords the developer of a SIPR-based project greater flexibility in structuring both the supply chain arrangements and the competition for financing.

2. Investors may approach the investment as being in a company with a lower risk profile than compared to a stand-alone project financed/PPP-type infrastructure project. This in turn attracts a wide pool of investors and the potential for a lower cost of capital.

These factors are considered to offer the potential to drive VfM compared to DPC. However, it should also be recognised that the establishment and ongoing regulatory compliance requirements of a licensed entity will also result in higher set up costs and incremental ongoing costs of SIPR compared to DPC, which could adversely impact VfM. Consequently there will be a balance to achieving overall VfM through a SIPR model whereby the scale and duration of a project is such that VfM savings will exceed the incremental costs associated with a licensed and regulated entity.

3.2 Key differentiating features of SIPR

The utility-like features of the SIPR model differentiate it from the DPC model. These features are explained below, followed by an explanation of how these features can drive greater VfM for customers.

The key differentiating features are:

Licence and regulation
Project cost and risk envelope
Supply chain structuring
Funding stream
Financing and credit analysis

3.2.1 Licence and regulation

Holding a licence and being subject to an established regulatory framework is a defining feature of a utility company in UK. The SIPR model involves the creation of a new, separate, licensed entity (the Infrastructure Provider or 'IP') which is established through a competitive process, managed by the promoting Water Company. The IP is awarded a licence by Ofwat and is subject to Ofwat's full regulatory control and oversight. This will include aspects such as;

- The regulator's enforcement rights
- Transparency, governance and reporting requirements
- Funding mechanisms – the ability to recover funding, from customers, via a directed revenue stream from the promoting water company. The IP may also allow be permitted to recover revenue *directly* from customers in certain circumstances (e.g., the related Water Company entering Special Administration)
- Financeability constraints – such as the requirement to maintain an investment grade credit rating, gearing requirements, demonstration of financial viability and the application of the Special Administration rules in the event of financial distress
- Regulatory mechanisms (and protections) such as the establishment of a Regulatory Capital Value (RCV), Totex sharing mechanisms, regulatory price reviews (including the establishment of a regulatory cost allowance) and established reward and penalty frameworks
- Defined (and narrow) instances, where expenditure relating to the project is not eligible to be placed on the IP's RCV

The holding of a licence is a critical differentiating factor of SIPR, compared to DPC, given that it enables a number of the other key differentiating features between the two models. These differentiating features cannot be fully replicated if at all without the associated licensing and regulatory framework in place, as further described below.

3.2.2 Project Cost and Risk Envelope

Under SIPR, the licensed IP will be the custodian of the PCRE, which includes the project contingency (with regulatory incentives around outturn costs – see below) and allows greater sharing of cost and risk with customers than can be achieved under DPC. This is a key feature of the regulatory framework and cannot readily be achieved without a licensing framework.

The establishment and control of a PCRE (which forms the initial regulatory allowance for the IP) that embraces a range of cost outcomes (from a P50 - P95[5]) is a defining feature.

[5] A 'P' value indicates the probability of a costs outturn below a certain value. i.e., P95 indicated a 95% probability of a cost outturn below that value and a P50 indicated a

The PCRE is developed through a robust cost benchmarking and assurance exercise, undertaken by the promoter water company. It is important to recognise that the process of setting the PCRE does not circumvent a competitive process for procuring the supply chain for construction and operation. There will still be a full competitive procurement process and, indeed, the SIPR structure will allow the procurement to be structured in the most efficient way to drive competition - see 'Supply Chain Structuring' below.

Once established and approved by the regulator, the PCRE baseline allowance is used to measure IP performance with strong incentive mechanisms around the outturn cost (driven by pain-share/gain-share mechanisms).

It also allows the whole project risk contingency to be managed more efficiently. As the IP controls the PCRE (including contingencies) it allows risks to be allocated both to the most appropriate party and, crucially, at the most appropriate time in the project lifecycle. For example, risks such as ground conditions may not be fully established until later in the project timeline – therefore if this risk is allocated at the appropriate time i.e., following ground condition surveys, it will be priced most efficiently. This is in contrast to DPC where risks may be sought to be priced into the contract as part of the overall procurement of the delivery entity (the CAP). This could mean that risks are priced early in the development of the project, possibly before all relevant information is available. This is likely to result in the pricing in of a risk premium for some risks where the DPC us utilised.

The project risk contingency is held by the IP and used to incentivise contractors to deliver on schedule and optimally below base case forecast and if not within the outer limits of the PCRE. This central control of the PCRE by the IP also allows more of a project risk portfolio approach to be taken such that the benefit of any retired risks may be used to offset any new or crystalising risks. This will not be the case under DPC if the risk has already been fixed into the supply chain.

This approach of allowing control of funding up to the P95 (or beyond) limit to the IP facilitates the focus of financiers away from ensuring the outturn costs of a project are consistent with a budget determined at a particular time i.e. *'on budget – on time'* to being confident that the outturn costs of a project will be *'within budget- within time'*. This shift in approach recognises the inherent uncertainty of cost and time outcomes relating to mega projects in particular, and also serves to de-risks the project from the financiers' perspective, whilst also ensuring robust incentives on the IP and the supply chain to ensure efficient delivery.

In determining a PCRE it is also important to consider how a backstop for investors is provided against certain very low-probability, high-impact events. These would be risks that lie beyond a P95 (or beyond) probability, but which could have a material adverse impact on the project. This could include features such as 'top-up' insurance, certain liquidity risks, and providing a potential exit route for investors should costs rise beyond a defined cap.

The first SIPR project, TTT, received a Government Support Package (GSP) to address such events. How the consequence of such events may be managed, with or without a GSP, will need to be considered further, given that by their nature they will require the deployment of large amounts of capital in relatively short order. This will be a relevant issue in the context of DPC projects too, so is not considered to be a differentiator between the two models. It may be more difficult in a DPC model to deal with very low-probability, high-impact events as it may require changes in the CAP agreement.

50% (or equal) probability of the cost outturn being above or below the P50 figure. For further information please see IPA Cost Estimating Guidance, : https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/970022/IPA_Cost_Estimating_Guidance.pdf

3.2.3 Supply Chain Structuring

SIPR allows a high level of flexibility in terms of how the supply chain for the main works may be structured and procured. A SIPR procurement allows the supply chain contracts to be developed as an infrastructure developer or employer, who is experienced in the sector and in developing major projects, would structure and develop contracts, to suit the characteristics of the project. For example, in a project where there are multiple construction interfaces and which requires a number of different contractors, an alliancing contract strategy may be considered optimal. A true alliance contracting structure such as the models deployed in Australia, with collective responsibility, performance incentives but protection against downside, is unlikely to be feasible under the risk allocation approach that the DPC model encourages.

This ability to structure supply chain contracts is driven primarily by the control of the PCRE by the SIPR entity (described above). This is underpinned by regulatory incentives applied to the SIPR entity (and its shareholders), akin to a target price contract. This ability is also afforded given that SIPR enables separate competitions for financing and the supply chain to be undertaken, meaning that the financiers will be less concerned with the full 'back-to-back' risk allocation that is required in project finance type structures. As financiers would have control of the PCRE and confidence in the regulatory regime then they will be less concerned about risks materialising that are outside their control.

3.2.4 Funding stream – Source and Timing

3.2.4.1 Source

SIPR and DPC projects are both funded *indirectly* from customers. This means in practice that the promoting water company bills and recovers funding from customers and passes this through to the IP or CAP. However, as noted above, under its licence, the IP may have the ability to charge customers *directly* in certain limited circumstances – e.g., financial distress of the promoting water company such as Special Administration. This ability for direct charging is not available to unlicensed entities therefore cannot be achieved under DPC.

3.2.4.2 Timing

An established feature of regulated sectors is that customers may 'pay as the project goes' in that revenue entitlement for the project commences from licence award. This reflects the protections within the licence that relate to customer money, for example, approval by the regulator of what constitutes eligible project expenditure and the established enforcement regime (comprising of sanctions from warnings to fines, to ultimately licence revocation) should the licence terms be breached. The benefits of revenue commencing earlier than compared to a DPC model is that it will reduce the financing requirement, support cover ratios, and facilitate returns during the construction phase. This is turn may support a wider pool of investors willing to participate in any financing competition for the project (since only the largest investors are often able to accommodate a long period before their initial investment generates a return).

3.2.5 Financing and Credit Analysis

3.2.5.1 Weighted Average Cost of Capital (WACC)

For a project of significant scale and longer construction and operating durations, the financing cost (WACC) is likely to be the key driver of customer VfM due to its large impact on ultimate costs of the project to the consumer. Therefore, for infrastructure projects with the appropriate characteristics, the most significant value driver of SIPR is the potential ability to drive the lowest, most efficient WACC compared with DPC. In turn, this efficient WACC directly drives lower bills for customers. For example, the bill impact of the Thames Tideway Tunnel (TTT) project following the financing competition fell from an estimated

£70-80 per household customer, to a maximum of £25[6] . For large nuclear projects such as Sizewell C, HMG have estimated that '*Over the 60-year lifetime of a generic new large-scale nuclear power station, our funding model could reduce the project cost by more than £30 billion*'[7].

3.2.5.2 Separation of competition for main works and financing

Under SIPR, the promoter (water company) has the option to separate the competitions for the financing and that for the supply chain. This is because what may be offered to the investors, as per TTT, is a ready to run company that has all that is needed to effectively deliver an infrastructure project. In essence the prospective investors under a SIPR model will carry out due diligence on the IP to ensure that they have the tools (access to revenue, contracts and as well as a management team and project delivery organisation) to effectively manage the costs of the project within the PCRE provided. This approach is not possible under a DPC arrangement given that role of the investors (and perhaps less so for debt providers) is one of 'risk assumers' rather than under the SIPR model where the primary function is one of 'incentivised risk managers'. As risk assumers, bidders in the context of a DPC project will want to choose and assure their own technical partners, rather than potentially have that choice (in-part) made for them.

The ability to separate the competitions for the financing and that for the supply chain also avoids the dilution effect resulting from the selection and weighting of evaluation criteria. It is well established across major infrastructure projects that technical criteria should be more heavily weighed when compared to price. This is particularly relevant for target price contracts, where given the indicative nature of the price at tender stage, technical competence will be a key feature of keeping the costs of the project down. Technical competence however is not relevant to the provision of capital (other considerations, such as provenance, may be addressed through appropriate tests, such as fit and proper persons tests). Avoiding this dilutive effect provides for a much sharper focus on costs of capital in the financing competition.

3.2.5.3 Financing

As the IP is a regulated entity, the financing of the IP will be subject to relevant regulatory requirements, including gearing targets, financeability thresholds and the requirement for the IP to maintain a minimum investment grade credit rating. This essentially strengthens the credit standing of the IP and supports credit analysis as a 'utility-like' company (as explained under credit analysis below).

3.2.5.4 Credit analysis

This is the process and methodology by which both potential investors (debt & equity) and rating agencies assess the credit standing of the IP. The regulated water sector has a well understood, stable, predictable regulatory regime. Associated with this regulatory regime, investors and rating agencies have an established 'utility' credit assessment methodology.

This is a critical differentiator, in that in undertaking credit analysis of a SIPR-based project, a utility assessment approach of the licenced entity will either form a key ingredient in the relevant ratings methodology (as was the case during the development of TTT where the ratings agencies took a range of approaches but with their utility methodologies featuring heavily) or will be taken into account though the application of a specific methodology.

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[6] Ofwat Competition Stocktake Report, July 2022 Competition stocktake report final (ofwat.gov.uk)

[7] Department for Business, Energy & Industrial Strategy and the Rt Hin Kwasi Kwarteng MP: 'Kwarteng advances plans for funding new nuclear projects, including Sizewell C', 14/06/2022, https://www.gov.uk/government/news/kwarteng-advances-plans-for-funding-new-nuclear-projects-including-sizewell-c

This means that the credit analysis will recognise the credit benefits that the regulatory framework affords – including aspects such as financeability requirements, an RCV based return, cost sharing mechanisms and the protections of special administration.

Alternately under DPC, credit analysis, is likely to commence from a position of project finance/infrastructure assessment. Given the importance in a traditional project finance approach of ensuring that the asset is effectively commissioned, thereby facilitating full revenue entitlement, any credit assessment of a DPC project will focus on the credit standing and replaceability of key supply chain parties. While this may still be an area of focus for a SIPR-based project, the consequences of such an event arising may be more manageable through the various other mitigations available in that context (for example access to funding via the PCRE).

3.2.6 Summary

The features of SIPR which allow a new infrastructure project to be treated as utility like are key to driving VfM.

However, the implementation of a SIPR model and the establishment of a new IP is a complex and resource intensive process and, as a licensed entity, the IP will also have higher ongoing operating costs than an unregulated CAP. The regulator will also incur additional costs to regulate the new IP. This increased complexity and resultant cost may constrain the use of SIPR to projects of a sufficient scale for the benefits to offset these incremental costs.

These incremental costs include elements such as:

- Regulatory Obligations. There will a higher regulatory burden under the SIPR, both ongoing and in set-up. The IP will require internal regulatory resource and licence fees (including additional licence fees to cover Ofwat's support of the set up) will be levied.
- Corporate and Organisational Structure. Under SIPR an independent dedicated corporate entity will be established to deliver the project which in effect will be sold to investors. It needs to be highly credible in terms of its management team and attractive for investors in terms of its delivery and overarching corporate capabilities.
- Procurement. The costs of procurement will be different under the SIPR and DPC route. Under SIPR separate procurement activities will be undertaken for the main works (and other relevant contractors) and financing competition. Different teams, skillsets and procurement strategies will be required to deliver each of these.

Having considered the features of SIPR that can drive VfM for infrastructure projects with the appropriate characteristics, the next section explains further the reasons why DPC may not always provide optimum VfM compared to SIPR.

4 OPTIONS TO IMPROVE VFM FROM DIRECT PROCUREMENT FOR CUSTOMERS

It is recognised that DPC is a nascent approach within the water industry, with ongoing industry and regulatory dialogue, consultation and working groups. Accordingly, there is likely to be further development in the DPC approach over time and as ongoing workstreams are completed and further market feedback is received from 'pathfinder' projects. Therefore, we also consider the effect of potential commercial/contractual changes to DPC which could enhance VfM outcomes. This is characterised as 'DPC+'.

We note that in their 2021 consultation, RAPID has indicated consideration of licensing a CAP[8] (under the SIPR legislation). We consider this to effectively be a SIPR delivery model and therefore in assessing potential DPC enhancements we have restricted our considerations only to other commercial/contractual enhancements and not to a fully licensed delivery model.

4.1 DPC comparison to SIPR value drivers

DPC is a commercial delivery model which has the potential to generate VfM in the delivery of separable water infrastructure projects above a size threshold. Ofwat's draft PR24 methodology moves the industry to a model of 'DPC by default' for separable schemes over £200m totex. The following are considered to be the key features of DPC:

- Not licenced & regulated
- Project based approach
- Competition of financing and construction together
- Contractual relationship with the procuring water company
- Risk allocation approach
- Absence of construction funding flows

The CAP under a DPC model is not a licenced entity. As explained in Section 3 the existence of the licence and regulatory framework both directly and indirectly allows certain features of SIPR which are not possible to replicate for DPC.

For example, in investment appraisal terms, a DPC project will primarily be assessed consistent with project finance principles. It is likely that the credit assessment of a DPC project will be anchored around a project assessment, which means the driving factors will be the credit standing of the contractors and their ability to perform and manage their risk exposure under the contract. This may constrain the credit standing rating, particularly for very large projects, resulting in a higher perceived risk and therefore greater margin on cost of debt.

Similarly, without the licence, a PCRE and associated revenue allowance cannot be established in the DPC model. Without the PCRE aspects such as risk management and competition of finance costs separately cannot be achieved in DPC. These are discussed further below.

The supply chain structure under DPC also has less flexibility and is different from a SIPR approach. This is because in a DPC model the CAP is required to bid both financing and construction costs as part of the procurement (including the substantial risk transfer that is typically sought under a DPC contract). Consequently, the role of the financiers in the

[8] Pg 20 "We are also considering whether it may be appropriate that the CAP delivering some projects might benefit from being licensed (and therefore be directly subject to regulation by Ofwat and DWI) using the Water Industry Specified Infrastructure Projects regulations (SIPR)" https://www.ofwat.gov.uk/wp-content/uploads/2021/06/RAPID-regulatory-and-commercial-framework-discussion-document.pdf

structuring of the supply chain contracts will be much greater than under a SIPR based model.

In essence under DPC, the supply chain needs to fit the criteria of *both* contractors and financiers (*project needs* and *finance needs*). This resultant compromise is unlikely to optimise the supply chain procurement structure. This is related directly to the inability to set an allowed revenue stream (based on the PCRE) prior to the competition of debt in DPC. Without this, financiers cannot effectively assess, and accept, the project delivery risk against a range of cost outcomes but rather will be required to deliver largely to a self-determined cost envelope. This in turn will drive contingencies to be priced into the bid. It can be assumed that competition will force those contingencies down, however, as a consequence, there is an increased risk that the bid funding allowance will not be sufficient. This tension is likely to result in increased risk premiums in the financing costs.

There is also a different wider approach to risk management compared to that outlined in Section 3.1.2 for SIPR. Risks will be sought to be priced into the contract as part of the overall procurement of the CAP. This can result in inefficient pricing of risk, for example if risk is transferred to the wrong party, or more importantly, not at the most efficient time in the project lifecycle. It will also tend to drive risks being pushed down into the supply chain.

It is noted that Ofwat are seeking to ensure greater flexibility on costs within DPC. However, even where a target price model is used, for example, it is still probable that a 'Tier 1' contractor will seek to push fixed pricing into their 'Tier 2' contracts.

Unlike SIPR, where a funding flow commences with the start of construction, the current DPC guidance does not provide for a directed revenue stream during construction. This both increases financing costs and has an adverse impact on bill profile as there is a resultant sudden jump in customer bills once the asset is commissioned.

We understand that for the HARP DPC programme, some revenue during construction has been allowed. However, this provision appears to hinge on a judgement relating to when customer benefits begin to accrue. This judgement has been driven by the sectional nature of the HARP programme whereby the aqueduct is split into several discrete sections and as works is completed on each section a customer benefit arises – and therefore a directed revenue stream from customers is permitted. For projects such as reservoirs and pipelines, where there is no customer benefit until the asset is fully constructed and commissioned, this approach is unlikely to be effective in creating a revenue stream during construction.

In conclusion the differentiating value drivers that we have identified for SIPR are very unlikely to be achievable under a DPC structure. There are some enhancements that can be made to address certain aspects, and these are discussed below under DPC+. However, without the benefit of a licence and associated regulatory features the full range of SIPR value enhancing features cannot be achieved under DPC.

4.2 DPC+

The previous section sets out that there are certain structural features of SIPR that are not replicated in the *current* DPC models. This means that, whilst DPC may still offer VfM for large, technically discrete schemes compared to direct delivery, for infrastructure projects with certain characteristics, DPC may not result in the optimum VfM.

However, we have considered that certain changes could be made to the DPC model which may overcome *some* of the value differentiators identified:

4.2.1 Funding stream during construction.

Permitting a directed revenue stream during construction (this could be subject to milestone arrangements) would allow a cashflow for the CAP to service debt during the construction phase and is therefore likely to reduce the cost of capital.

4.2.2 Price adjustment mechanisms.

If cost adjustment mechanisms to the CAP's unitary charge, were permitted by Ofwat, in certain limited circumstances, this could allow more flexibility in terms of the point at which some project risks are sought to be fixed and therefore priced. For example, this could allow for cost adjustment should certain ground conditions arise – which could drive a more efficient approach to pricing this risk.

4.2.3 Target price contracting mechanisms.

With the addition of price adjustment mechanisms to DPC contracting arrangements such as target price models could be used effectively to improve flexibility to optimise the supply chain structure.

4.2.4 Summary

Although these enhancements to DPC could be effective at driving greater VfM in some aspects, without a licence, we conclude that it is not possible to overcome the fundamental difference between the *project based* DPC approach and the *utilities based* SIPR approach.

5 PROJECT ATTRIBUTES SUITABLE FOR SIPR; APPLICATION TO SESRO

5.1 Project features likely to drive VfM

Considering the differentiating features of SIPR it is possible to take a view on the types of project features most likely to drive VfM under a SIPR approach, and therefore to identify the type of infrastructure projects with the potential to drive the greatest VfM through a SIPR delivery model.

5.1.1 Scale & profile of project costs

Given the greater complexity of operating model which drives additional set up and management costs, it is essential that scale and profile of project costs are such that the potential benefit of SIPR – particularly in driving a low cost of capital – sufficiently offsets this incremental operating cost.

This is likely to limit the model to projects over the £1bn range and will favour projects with a high proportion of Capex (versus operating) costs and, potentially, with a longer construction duration. These features will drive the ability to make the greatest savings on finance costs.

Projects with a lengthy construction duration would also benefit from the ability to receive funding prior to the benefit of the scheme being realised as per Section 3.1.4.2.

5.1.2 Ability to benchmark costs robustly

A critical part of the SIPR process is the determination, and regulatory approval, of the PCRE, which drive the incentives on the new IP. In order to achieve this efficiently the project must be capable of developing a robust cost and risk estimate using benchmarking data. This will be most achievable in projects where the construction process is well understood and constrained (e.g., by planning consent or legislation). Projects for which costs are difficult to benchmark may be unsuited to SIPR. This could be due to a lack of data due to no recent benchmarking data being available or projects with a particularly untested/innovative technology.

5.1.3 Portfolio approach

There may be an argument that a group of projects, with similar risk profile and characteristics, could be efficiently grouped together under a SIPR IP. This point is discussed in Section 7 below.

5.2 Effectiveness of SIPR for SESRO

Having considered the features of SIPR and how, for projects with the appropriate mix of characteristics, these can effectively drive best VfM for customers, this section considers the specific characteristics of the SESRO project and the effectiveness of a SIPR approach in driving VfM.

Background information for SESRO is summarised in the table below. This will be drawn upon to support the analysis of the effectiveness of SIPR versus DPC for this project. In the first instance the delivery models which could be applied are considered, we will then go on to consider how VfM could be optimised by SIPR.

The features of the SESRO programme, which make it most appropriate for a SIPR approach are as follows:

5.2.1 Scale & profile of SESRO costs

As discussed, under a SIPR model VfM will be driven by both a competitive works procurement process (as with DPC) and by lower overall financing costs. These savings, however, will need to offset the incremental set up and operating costs needed to establish and run a licenced entity.

SESRO has both the scale (c£2.2bn) and a very high Capex gearing level which mean that lower financing costs (WACC) will drive VfM.

The relatively lengthy duration of the construction and commissioning period for SESRO of 10 years also lends itself to a SESRO approach.

5.2.2 Ability to benchmark costs robustly

The determination, and regulatory approval, of the PCRE, is critical in driving VfM – both directly and indirectly. The construction approach for a bunded reservoir is well understood, with good benchmarking data available. It is also likely to be constrained by planning consents. This means that SESRO costs will be capable of being robustly estimated and assured.

Prima facie it appears that SESRO has both the scale and the wider project features which would allow a SIPR delivery model to drive the best VfM. It is therefore recommended that SIPR continues to be assessed, along-side DPC, in the period between the Gate 2 and Gate 3 submission. The next steps are explored more fully in Section 7.

6 PROGRAMME VIEW OF SIPR

Given the set-up costs of establishing a new licensed entity under SIPR there may be compelling arguments to establish a number of projects into a single SIPR vehicle (licensed IP). Such a programme approach could be taken provided a SIPR entity is established, at the outset, with sufficient flexibility to accommodate multiple projects.

Practically this may only be truly effective where the projects are complimentary in some way. Therefore, it would be critical to consider this point at the outset and ensure that there was sufficient flexibility built into the SIPR licence, related commercial arrangements (e.g., via variation mechanisms) and through the specification order itself.

Potential benefits of a portfolio approach are:

- Increased VfM through more efficient costs
- More interest from investors seeking larger projects
- Potential streamlining of tender processes and costs
- Sharing of relevant information across a portfolio to enable more efficient delivery and better cost estimates for subsequent projects.

Factors which need to be considered when assessing the suitability of combining projects into a portfolio are:

- **Timing**: when are the projects required? Ideally the projects would be in sequence to allow for best application of learning. A large gap in time between projects may not be suitable.

- **Type of project**: having similar projects in a portfolio will lead to the greatest efficiencies, as skills, learning and buying power can be shared across a portfolio.

- **Risk profile**: having a widely varied risk profile (high and low risk) may reduce the appetite from certain investors. Conversely some investors may see benefits of offsetting risk profiles.

7 CONCLUSION & MARKET TESTING NEXT STEPS

This report supplements the Gate 2 Procurement Strategy report for SESRO. We have set out in this report:

- The differentiating features of SIPR
- How those features can drive VfM
- Whether DPC could be enhanced to deliver some of these benefits
- The characteristics of infrastructure projects, that are most likely to drive VfM in the SIPR model
- Why SIPR could drive better VfM for the SESRO infrastructure project

We therefore recommended that, prior to Gate 3, further work is undertaken to test the suitability of SESRO for the SIPR delivery model, and particularly undertake market testing in key areas. Further market testing should consider the following aspects.

7.1 Approach

- Initial broad and rapid engagement with multiple potential investors, e.g., through a survey of a diverse group.
- Substantive detailed, one to one, engagement to further develop initial investor views

7.2 Areas for market testing

7.2.1 Investors

- Investigate investors' understanding of DPC and SIPR and the differentiating features
- Consider investor appetite for DPC and SIPR
- Better understand views on the significance of the regulatory regime and the extent to which this is credit enhancing or otherwise
- Initial views on the approach to understanding project risk and dependencies and difference in approach to risk/risk management between DPC and SIPR
- Understand the approach to credit analysis and differentiation between DPC and SIPR
- Views on possible deal structure, financing arrangements and cost of capital between DPC and SIPR

7.2.2 Rating agencies

- Gain an understanding of rating agencies' understanding of possible differentiators between DPC and SIPR
- Further engagement to understand similarities and differences in approach to ratings under DPC and SIPR

APPENDIX 1: SIPR BACKGROUND

SIPR Legislative background

This Appendix sets out the legislative background to SIPR and provides greater context for assessing the likelihood for change to the current SIPR regulations being effected to make SIPR more accessible.

SIPR was introduced through Sections 36A-F and Section 213(2) of the Water Industry Act 1991 (WIA). As such the WIA defines the scope of SIPR and in particular allows for a project to be "specified" by the Secretary of State (SoS) requiring that the SoS;

- must specify the activities to which it applies (i.e., designing, constructing, owning and operating infrastructure) and must define infrastructure;
- may make provision in respect of projects or works that in the Minister's opinion are of a size or complexity that threatens the undertaker's ability "to provide services for its customers".

Although the SIPR legislation is drafted to encompass both water and sewerage infrastructure The SIPR legislation was specifically drafted to facilitate TTT. As such the specific drafting has not yet been tested in relation to a water supply infrastructure project.

An infrastructure project can only be "specified" to be put out to tender under SIPR by the Secretary of State or Ofwat if the Secretary of State or Ofwat is of the opinion that:

a. the infrastructure project is of a **size or complexity that threatens the incumbent undertaker's ability to provide services for its customers**; and

b. specifying the infrastructure project is likely to result in **better VfM** than would be the case if the infrastructure project were not specified.

The TTT reasons notice and Ofwat Guidance shows this is a high bar. Therefore, while there is no legal fetter to use of SIPR, this has been recognised as a key point that requires further stakeholder engagement, from Ofwat in particular. A process of discussion with Ofwat has been initiated, including the provision of informal feedback on differentiating features of SIPR (versus DPC).

Initially SIPR legislation was the subject of a "sunset" clause – this means it's effectiveness as law would expire after a certain time period. However, this provision was revoked and the SoS passed regulations in 2020 to ensure SIPR continued. This is consistent with the wider application of SIPR in other government infrastructure projects – most notably nuclear energy (see Section 3.3 below).

SIPR defines "infrastructure" as "*the provision of a system, or part of a system, of water supply, or the securing of supplies of water, or the provision of a system, or part of a system, of sewers, or the provision of means for emptying, or dealing effectually with the contents of, sewers*". Accordingly, although applied to a sewerage project for TTT, it does encompass both water and sewerage activities.

The SoS must consult before specifying an infrastructure project and publish a "reasons notice" for consultation. TWUL's reasons notice for TTT provides helpful context as to what might be taken into account in reaching a decision to specify[9].

[9] Reasons Notice: Specification of the Thames Tideway Tunnel Project https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/317558/TTTP-reason-notice-ldmsig.pdf

Ofwat has also published Guidance about when a project should be specified. This guidance (amongst other things) includes:

- Ofwat's general duties with respect to the water sector (as set out in Section 2 of the WIA) apply to the exercise of Ofwat's power to specify a project.
- Ofwat states that it would specify "*Where a company's ability to provide its other core services may be threatened if it had to carry out a large or complex project itself*." As noted, this is a high bar, but Ofwat goes on to note that SIPR requires that even if that test is met, it will only specify where it is also better VfM for customers.
- Ofwat notes that mere lack of capacity may not be enough. It states – "Where undertakers do not have adequate resources or capacity, they are able to buy in additional capacity or resources or to outsource certain functions (but not outsource responsibility under the Act or their licence)."
- Ofwat lists detailed factors it will consider including value, size and complexity of the infrastructure project.

The "specification" of a project means:

- the incumbent water or sewerage undertaker will be prohibited from carrying out the project itself, other than certain preparatory work;
- the incumbent water undertaker will have to put the project out to tender; and
- the successful company that is awarded the tender may be designated by the Secretary of State or Ofwat as an 'infrastructure provider' for the purposes of SIPR and the WIA and will be directly regulated by Ofwat under the terms of a newly established 'project licence'.

Whilst the extension of the SIPR legislation opens the way for SIPR to be applied to further water infrastructure projects (e.g., projects under the RAPID programme), the most significant challenge remains the relatively high bar for specification. Given the scale of TWUL RAPID projects, relative to TTT, it is unlikely that any single project will be of a *"size or complexity that threatens the incumbent undertaker's ability to provide services for its customers*" (although this may be the case if a number of projects are considered together). Therefore, practically, if it can be demonstrated for certain projects, that SIPR can provide greater VfM that DPC it is likely that further legislative change will be needed to revise the SIPR specification requirements.

Evolution of SIPR since TTT

The SIPR legislation was specifically drafted to support the delivery of TTT. As noted, this legislation was the subject of a "sunset" clause – this means it's effectiveness as law would expire after a certain time period. However, in 2020 the House debated the motion to extend SIPR and allow it to continue for the delivery of other infrastructure projects. The sunset provision was revoked and the SoS passed regulations to ensure SIPR continued. At this time the debate referenced a number of potential "multi undertaker" projects, identified by Ofwat, which could use SIPR in the future;

"Currently the only project regulated under the 2013 regulations is the Thames tideway tunnel. However, Ofwat has identified four large or complex water infrastructure projects currently in development that may benefit from being specified in accordance with the 2013 regulations over the next 10 years. These are ***the south-east strategic reservoir at Abingdon, a joint project proposed by Thames Water and Affinity Water; the London effluent reuse project, a project proposed by Thames Water****; south Lincolnshire reservoir, a joint project proposed by Anglian Water and Affinity Water; and* ***the River Severn to River Thames transfer****, a joint project proposed by Thames Water, Severn Trent Water and United Utilities. A decision would be made on a case-by-case basis at an appropriate time when projects are brought forward as to whether the infrastructure projects could come within scope of the 2013 regulations."*

Clearly this debate is not definitive of itself, however, it does show a position that there can be a continuing role for SIPR for the appropriate infrastructure projects.

We have also seen the enactment of the Nuclear Energy (Financing) Act 2022. This is a RAB style approach which largely mirrors the provisions of TTT. It allows RAB based financing for single asset infrastructure projects in the Energy sector. This is further evidence for ongoing Government support for this approach and a further move towards RAB based financing as a more “mainstream” approach to financing critical infrastructure.